

WATER DEPARTMENT ENGINEERING DIVISION

BID DOCUMENTS

FOR

WMCIP FY18-19 No. WT8050

CITY COUNCIL

Bob Sampayan, Mayor Pippin Dew-Costa Katy Meissner Rozanna Verder-Aliga Robert H. McConnell, Vice Mayor Jesus Malgapo Hermie Sunga

Michael Malone Water Director Fleming Hill Water Treatment Plant 202 Fleming Hill Rd. Vallejo, CA 94589 (707) 648-4307

> Bid Opening: 2:00 p.m. October 25, 2018 at City Council's Chamber on the 2nd Floor, City Hall

Prepared under the direction of: Michael Malone, Water Director

Pre-bid Conference: 2:00 p.m. October 18, 2018 Fleming Hill WTP 202 Fleming Hill Rd. Vallejo, CA 94589

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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 25, 2018,** at which time they will be publicly opened and read aloud in the Public Works Department's Conference Room, fourth (4th) floor of said City Hall for

WMCIP FY18-19 No. WT8050, City of Vallejo, County of Solano, California, according to the drawings and specifications prepared by City of Vallejo - Water.

The work to be done includes: Furnishing and Installation of the following: approximately four thousand seven hundred fifty-four (4,754) lineal feet of 8-inch PVC; thirteen (13) 8-inch gate valves; seven (7) fire hydrant assemblies; two (2) zone valve assemblies; one hundred twenty-two (122) 1-inch new water service lateral installations; including tie-ins, sixty (60) lineal feet of house supply line, water main tie-ins, miscellaneous fittings, paving, and all other work and facilities necessary or incidental to construct the completed improvement as directed by the plans and specifications and as directed by the Water Superintendent. 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 pre-bid conference will be held October 18, 2018 at 2:00 p.m., at:

Fleming Hill WTP 202 Fleming Hill Rd. Vallejo, CA 94589.

This meeting is to inform bidders of project requirements and subcontractors of subcontracting and material supply opportunities.

Time of completion of the work is <u>120 calendar days</u> 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 Rd., 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_	Solano-Napa Builders Exchange
3055 Alvarado St.,	135 Camino Dorado
San Leandro, CA 94577	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	North Coast Builders Exchange
850 So. Van Ness Avenue #13	1030 Apollo Way
San Francisco, CA 94110	Santa Rosa, CA 95407
Marin Builders Association	Small Business Exchange
660 Las Gallinas Avenue	703 Market Street, Suite 1000
San Rafael, CA 94903	San Francisco, CA 94103
Peninsula Builders Exchange	Placer County Builders Exchange
735 Industrial Road #100	231 Cherry Avenue, Suite 101
San Carlos, CA 94070	Auburn, CA 95603-4840
Builders Exchange of Santa Clara	Nor-Cal Bidders Exchange
400 Reed Street	4740 East Second Street #29
Santa Clara, CA 95050	Benicia, CA 94510
Construction Bidboard	McGraw Hill-Dodge Plan Room
4420 Hotel Circle Court #215	4020 Lennane Dr Bldg 2 Suite 104
San Diego, CA 92108	Sacramento, CA 95834-1987

The Plans, Specifications, Contract Documents and proposal forms may be obtained at the office of the Water Director, City of Vallejo, Water Department, 202 Fleming Hill Rd., Vallejo, CA 94589, with a charge of FIFTY DOLLARS (\$50), which is not refundable.

Documents are also available online at 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 Cle	rk
Dated:	

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 Rd., 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 victor.gonzalez@cityofvallejo.net
 - c) By Letter addressed to:
 Victor Gonzalez, Associate Engineer
 WMCIP FY18-19 No. WT8050
 Water Dept Engineering Division
 202 Fleming Hill Rd.
 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 Friday, October 11, 2018. Any questions received after this time will not be responded to.
- 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.
- 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 Director, Water Department, City of Vallejo, 202 Fleming Hill Rd., Vallejo, CA 94589 re: WMCIP FY18-19 No. WT8050, 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 ONE THOUSAND DOLLARS (\$1,000.00) for each calendar day delay.

PROPOSAL FORM

FOR THE

WMCIP FY18-19 No. WT8050

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 the capacity of a contractor shall be licens provisions of Division 3, Chapter 9 of the Ca	ed as a contractor in accordance with the
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:	
E-mail:	
Place of Residence:	
Pł	none:

The work to be done consists of:

Furnishing and Installation of the following: approximately four thousand seven hundred fifty-four (4,754) lineal feet of 8-inch PVC; thirteen (13) 8-inch gate valves; seven (7) fire hydrant assemblies; two (2) zone valve assemblies; one hundred twenty-two (122) 1-inch new water service lateral installations; including tie-ins, sixty (60) lineal feet of house supply line, water main tie-ins, miscellaneous fittings, paving, and all other work and facilities necessary or incidental to construct the completed improvement as directed by the plans and specifications and as directed by the Water Superintendent.

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.

BID SHEET

FOR THE

WMCIP FY18-19 No. WT8050

ITEM No.	DESCRIPTION OF ITEM	ESTIMATED QUANTITY	<u>UNIT</u>	UNIT PRICE	TOTAL AMOUNT
1	Mobilization	1	LS	\$	\$
2	Traffic Control	1	LS	\$	\$
3	Verification of Existing Utilities and Facilities	1	LS	\$	\$
4	Furnish and Install 8" C900 Class 200 PVC Waterline	4,754	LF	\$	\$
5	Furnish and Install 6" Fire Hydrant Assembly	7	EA	\$	\$
6	Furnish and Install 1" Water Service Laterals	122	EA	\$	\$

ITEM No.	DESCRIPTION OF ITEM	ESTIMATED QUANTITY	<u>UNIT</u>	UNIT PRICE	TOTAL AMOUNT
7	Furnish and Install 8" Gate Valves	12	EA	\$	\$
8	Furnish and Install Zone Valve Assembly	2	EA	\$	\$
9	Furnish and Install Combination Air Valve	2	EA	\$	\$
10	Furnish and Install House Supply Line	60	LF	\$	\$

TOTAL BID SUMMARY

Total Bid	\$		
		(IN FIGURES)	
Total Bid			DOLLARS
		(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's Engineer 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.

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, hereithe penal sum of TEN PERCENT (10%) OF THE TOTAL AMOUN Principal above named, submitted by said Principal to the City of described below, for the payment of which sum in lawful money of the land truly to be made, we bind ourselves, our heirs, administrators successors, jointly and severally, firmly by these presents; in the sufficiency.	T OF THE BID of the Vallejo, for the work ne United States, well s, and executors and

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 25, 2018, for the:

Furnishing and Installation of the following: approximately four thousand seven hundred fifty-four (4,754) lineal feet of 8-inch PVC; thirteen (13) 8-inch gate valves; seven (7) fire hydrant assemblies; two (2) zone valve assemblies; one hundred twenty-two (122) 1-inch new water service lateral installations; including tie-ins, sixty (60) lineal feet of house supply line, water main tie-ins, miscellaneous fittings, paving, and all other work and facilities necessary or incidental to construct the completed improvement as directed by the plans and specifications and as directed by the Water Superintendent.

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

of	, 20	
	- -	
	-	Principal
	_	ι πιομαί
	-	
	<u>-</u>	
		Surety
	Address	
	-	
NOTES:		
1.	Signature of those ex	ecuting for the Surety must be properly acknowledged.

Surety shall pay all costs incurred by the Obligee in such suit including a reasonable attorney's fee to be fixed by the court.

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 the State of California, each with an original contract price of no less than \$500,000 within the past five years prior to the date of bid opening.
- 4. 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.

I, being thedeclare that bidder meets all o	(insert title) of bidder the minimum criteria set forth above.	herein,
	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 OF BUSINESS	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

STAT	E OF CALIFORNIA	· ·
COUN	NTY OF) ss)
		declares and says:
1.	of	(owner, partner, representative, or agent)
	(hereinafter referre	ed to as (contractor) or (subcontractor))
2.		lly informed regarding the preparation and contents of this n work in the City of Vallejo, State of California.
3.	That his/her propos	sal is genuine and is not collusive or a sham proposal.
4.	interest, including tagreed, directly or collusive or sham submitting a propodirectly or indirectly bidder, firm, or pethrough collusion,	cers, owners, agents, representatives, employees, or parties in this affiant, has not in any way colluded, conspired, connived or indirectly, with any other bidder, firm, or person to submit a proposal in connection with such contract or to refrain to osal in connection with such contract, or has in any manner, y, sought by unlawful agreement or connivance with any other erson to fix the price or prices in said proposal, or to secure conspiracy, connivance, or unlawful agreement any advantage Vallejo or any person interested in the proposed contract; and,
5.	tainted by any coll part of the bidder	orices quoted in the proposal are fair and proper and are not lusion, conspiracy, connivance, or unlawful agreement on the or any of its agents, owners, representatives, employees, or including this affiant.
I certif	fy (or declare) unde	r 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 pade thite hills

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 provisions contained in the Vallejo Municipal	
BIDDER'S SIGNATURE	DATE
WMCIP FY18-19 No. WT8050	

CONTRACT FOR

WMCIP FY18-19 No. WT8050

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 called City, and	, acting by and through its City Council , hereinafter called CONTRA	•
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

Furnishing and Installation of the following: approximately four thousand seven hundred fifty-four (4,754) lineal feet of 8-inch PVC; thirteen (13) 8-inch gate valves; seven (7) fire hydrant assemblies; two (2) zone valve assemblies; one hundred twenty-two (122) 1-inch new water service lateral installations; including tie-ins, sixty (60) lineal feet of house supply line, water main tie-ins, miscellaneous fittings, paving, and all other work and facilities necessary or incidental to construct the completed improvement as directed

by the plans and specifications and as directed by the Water Superintendent. 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.

[company name], a California corporation	CITY OF VALLEJO, a municipal corporation
BY: name President	BY: GREG NYHOFF City Manager
DATE:	DATE:
(Corporate Seal)	ATTEST:DAWN ABRAHAMSON City Clerk
	APPROVED AS TO CONTENT:
(City Seal)	MIKE MALONE Water Director APPROVED AS TO FORM:
	CLAUDIA QUINTANA City Attorney APPROVED AS TO INSURANCE:
	HERBERT LESTER Risk Manager

Bond Number	:
Premium:	

FAITHFUL PERFORMANCE BOND

KNOW ALL MEN/WOMEN BY THESE PRESENTS, that we,				
		, as Principal, and		
, a	s Surety, are held and firmly bo	ound unto the City of Vallejo		
a municipal corporation of the	State of California, hereinafter	r called the City, in the pena		
sum of	DOLLARS (\$), and no more, for		
the work described below, for	the payments of which sum ir	n lawful money of the United		
States of America well and tru	uly to be made to the City of Va ors, and successors, jointly ar	allejo, we bind ourselves, ou		
TUAT MUEDEAS the Drine	oinal has antarad into a con-	tract with said City for the		

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

WMCIP FY18-19 No. WT8050

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.

Faithful Performance Bond Page 2

under their name and	severa corpora	l seals this te seal of each	corporate pa	ded parties have day of arty being hereto pursuant to auth	affixed and t	, 20 The hese presents
PRINCIPAL				SURETY		
			_			
			_			
SURETY II	NFORM	IATION:				
Contact Pe	erson:					
Name of C	ompany	/:				
Address:						
Telephone	: ()		Fax no. : ()	
NOTE:	(1)	Signatures of acknowledge		ecuting for the	Surety mus	t be properly
	(2)	This Bond m	ust be in an	amount equal to	100% of the	amount bid.
APPROVE	D AS T	O FORM:				
Claudia Qu City Attorn						

Bond Number	:
Premium:	

CITY OF VALLEJO WATER DEPARTMENT

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:

WMCIP FY18-19 No. WT8050

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 hereinafter called City, in the penal sum of		on,
DC	DLLARS (\$), and	no
more, for the payment of which sum well a		our
heirs, executors, administrators and succe	essors, jointly and severally, firmly by the	se
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.

Payment (Labor and Materials) Bond Page 2

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.

under sever name and C	ral seal Corpora	HEREOF, the above bounden parties have executed this als thisday of, 20ate Seal of each corporate party being hereto affixed and these undersigned representatives, pursuant to authority of its	The se presents
PRINCIPAL	.:	SURETY:	
SURETY IN	IFORM	MATION:	
Contact Per	rson:		
Name of Co	ompany	y:	
Address:			
Telephone:	(
NOTE:	(1)	Signatures of those executing for the Surety must be acknowledged.	e properly
	(2)	This Bond must be in an amount equal to 100% of the am	nount bid.
APPROVEI	D AS T	O FORM:	
Claudia Qui			

CITY OF VALLEJO WATER DEPARTMENT

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 bidder ever failed to complete a construction contract?
- 11. Has bidder's control over a work of improvement, ever been terminated?
- 12. For each Furnishing and Installation of the following: approximately four thousand seven hundred fifty-four (4,754) lineal feet of 8-inch PVC; thirteen (13) 8-inch gate valves; seven (7) fire hydrant assemblies; two (2) zone valve assemblies; one hundred twenty-two (122) 1-inch new water service lateral installations; including tie-ins, sixty (60) lineal feet of house supply line, water main tie-ins, miscellaneous fittings, paving, and all other work and facilities necessary or incidental to construct the completed improvement as directed by the plans and specifications and as directed by the Water Superintendent. 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 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.
- 15. 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.
- 16. 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.
- 17. 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.?
- 18. 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.
- 19. Has any public agency ever issued a letter, ruling or determination debarring 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.)

- 20. Has bidder ever entered into an agreement with any public agency, to not bid work for that public agency?
- 21. 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.
- 22. Has any surety ever paid or satisfied any claim on behalf of bidder?
- 23. Has any surety ever undertaken or been called upon to complete any project of bidder?
- 24. 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.
- 25. State bidder's annual gross sales for each of the last five fiscal years.
- 26. 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]

27. 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 AND SAID CONTRACTOR CONTENTS, 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 pade this leady.

CITY OF VALLEJO WATER DEPARTMENT

CONTRACT CHANGE ORDER NO.: DATE:	
TO:	
PROJECT: WMCIP FY18-19 No. WT8050	
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 underabsorbed 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 COMP	LETION:
AGREED PRICE:	
FORCE ACCOUNT	
BASE CONTRACT PRICE:	
PREVIOUS CONTRACT CHANGE ORDER:	
NEW ADJUSTED CONTRACT PRICE:	
EXCEPT AS SET FORTH ABOVE, ALL TE CONTRACT AND ALL PRIOR CHANGE ORDE EFFECT.	
RECOMMENDED:NAME	TITLE
Execution of this Change Order by both parties of document constitutes the entire agreement betwe Change Order for Contractor hereby represen authorized to sign this Agreement on behalf of Co	en the parties. The person signing thints and warrants that he/she is full
ACCEPTED AND AGREED	
Contractor:NAME	DATE
City:	DATE
ENGINEERING MANAGER	

SECTION A - SPECIAL PROVISIONS

- Location of Work Edgemont St., Maurer Way, Mountainview Ave., Bayview Ave., Vallejo, CA
- 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. <u>Pre-Construction Conference</u> The Contractor, Assistant Public Works Director-Water 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 Water Department Director by the date of the pre-construction conference:

- A. Detailed CPM Construction Schedule for review and approval.
- B. Detailed Traffic Control Plan for review and approval.
- C. Detail Stage Construction and Traffic Handling Plan for review
- D. A plan and documentation for legal disposal of trench spoils and materials for review and approval.
- E. Construction safety plan, material shop drawings, any and all other material or required submittals for review and approval. All submittals shall be in writing.
- F. "Notice" to homeowners, residents, commuters and/or affected parties for review and approval.
- 4. <u>Underground Utilities</u> 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. <u>Materials and Tests</u> -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. <u>City Furnished Materials</u> The City will furnish to the Contractor free of charge for use under these Specifications the following materials: **(NOT APPLICABLE)**
- 7. Water To be drawn from a Water Department designated fire hydrant after the Contractor has applied to the Water Department for a temporary water meter. Contractor may transfer/relocate the temporary meter to approved hydrant locations as needed only after the Contractor notifies the City or its representative and upon approval. The Contractor shall be responsible for the temporary meter until it is duly returned and accepted by the City or its representative upon the project's completion.
- 8 <u>Sequence of Construction to Maintain Traffic</u> -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. <u>Construction Upon Private Property</u> 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 Water Department Director.

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. <u>Watermain Tie-Ins</u> 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 Water Distribution 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. <u>As-Built Drawings</u> 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.

The Contractor shall provide an Excel spreadsheet that contains the same data that shall be handwritten in the As-built Data Blocks on Plan Sheets PP-1, PP-2, PP-3, etc.

12. <u>Hazardous Waste in Excavation</u> – 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.

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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	Symbols as used in the	Definitions
Specifications	Engineer's Estimate	
Α		amperes
_	EA	each
g	G	gram
kg	KG	kilogram
ha	HA	hectare (10 000 m ²)
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
m2	M2	square meter
m3	M3	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
Α	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, 2015 edition, Sections 10 through 96 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.

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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 Water Superintendent, 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.

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 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.

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2-1.108	(BLANK)
2-1.11	(BLANK)
2-1.12	(BLANK)

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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.

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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 guality 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. Allate pade that believed the plant of the pade that the pade

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/dprewagedetermination.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:
 - 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.
 - 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, <u>Permits</u> and Section 1540 et seq., <u>Excavation</u>.

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) <u>GENERAL</u>

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:

- 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 directly 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:

- 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 dwg.pdf
- California Stormwater Quality Association (CASQA) Stormwater Best Management Practice Handbook. Available at: the following website: 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
- 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

5. CalTrans Stormwater Quality Handbooks. Available at: the following website: www.dot.ca.gov/hq/construc/stormwater/CSBMPM 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 VSFCD 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 VSFCD 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 VSFCD 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 Water Director.

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 VSFCD 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 Code12.41 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, defoliants, 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	Maximum Axle Loading (in kilograms
center in meters (feet))	{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 preconstruction 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 nowise 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 Water Director.

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 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.

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 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 FIVE HUNDRED DOLLARS (\$500.00) 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. <u>General</u>. 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 hundred fifty dollars (\$250.00), 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 affirmance 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. <u>Delays</u>. 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:

- 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 Valleio's maximum daily liability as a result of City of Valleio 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. <u>Claim Procedures</u>. 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. <u>Claim Format</u>. 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;
 - Analysis of Claim merit;
 - 6. Analysis of Claim costs;
 - 7. Attached supporting documents referenced in Item 3.) above.
- F. Exclusive Remedy. The Contractors 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. <u>Mediation</u>. 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:

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) 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.

SECTION C -WAGE AND EQUIPMENT RATES

1. <u>Prevailing Wage Rates</u>

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 Water Director'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 202 Fleming Hill Rd. Vallejo, CA 94589

833690000

A contract to perform public works under	Labor Code §1777.	5 has been awarded	to:		
Name of General Contractor:		Contractor 's License N	Number:		
Mailing Address:		City:			
		Zip code:	Telephone Number:		
Address or Location of Work Site (include City a	and/or County):				
Contract or Project Number:		Dollar Amount of Contract Award:			
Starting Date (Estimated or Actual) Month Day Year / /	- ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '		Number of Working Days:		
Type of Construction (Highway, school, hospital, etc):		G NEW CONSTRUCTION G ALTERATIONS			
Classification or Type of Workman (Carpenter, Plumber, etc.):					
Is language included in the Contract Award to e as required by the Labor Code?	ffectuate the provisions o		YES GNO		
Is Language included in the Contract Award to eas required by the Labor Code?	effectuate the provisions		YES GNO	T	
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 Christine Baker, Director CALIFORNIA DIVISION OF APPRENTICESHIP STANDARDS

Diane Ravnik, Chief Deputy Director 455 Golden Gate Avenue, 9th Floor San Francisco, California 94102 Telephone (415) 703-4920

DISTRICT OFFICES	ADDRESS	TELEPHONE
Fresno 93721	2550 Mariposa St., Room 3080	559/445-5431
Los Angeles 90013	320 West 4 th Street, Suite 950	213/897-1385
San Francisco 94102	455 Golden Gate Ave., 9 th Flr	415/703-1128
Sacramento 95834	160 Promenade Circle, Suite 320	916/920-6111
San Jose 95113	100 Paseo De San Antonio, Room 125	408/277-1273
San Diego 92108	7575 Metropolitan Dr, Suite 209	619/767-2045

SECTION D TECHNICAL SPECIFICATIONS

DIVISION D1

REQUIREMENTS

D1.01 GENERAL

The Contractor shall furnish, in accordance with the Specifications and Drawings, all labor, equipment, and materials required for construction of the **WATERMAINS CAPITAL IMPROVEMENTS PROJECT (WT8050)** including miscellaneous valves, fittings and appurtenances.

D1.02 SPECIFICATIONS AND STANDARDS

All work within this project shall comply with the City of Vallejo Standard Specifications and Standard Details unless specifically noted otherwise.

D1.03 PRE-CONSTRUCTION CONFERENCE

Following award of contract but prior to commencement of work at the site, the Contractor shall meet with the Water Director and all concerned at the Water Department conference room to discuss the scope of the project, its impact/s on the affected areas, construction debris disposal, dust, mud, and noise abatement, impacted utilities and public and private facilities, and other items of concern.

D1.04 SEQUENCE OF CONSTRUCTION

Work under the contract shall be scheduled and performed in such a manner as to result in the least possible disruption to the operation of the existing facilities. All water main tie-ins shall be completed within eight (8) hours of initial system shutdown. The Contractor shall submit to the Water Director a construction schedule covering the entire work before any work is commenced.

The first items of work shall include the verification of conditions and locations of existing pipe at points of connection, and verification of location of existing utilities. The findings of these items shall be incorporated in the drawings submitted by the contractor.

Work will be scheduled in accordance with all permits as described in Section D1.13, "Work Within State, County and City Rights of Way"

D1.05 CONTRACTORS ACCESS ROUTES

Access to and from the project site shall be along haul routes to be approved in advance in writing by the property owner and the City. Contractor shall be responsible for restoring haul routes, temporary material stockpile areas, and other contractor storage areas. Temporarily graded areas used as access must be restored to original contours with compacted fill and hydroseeded per Section titled, "Erosion Control Planting". All costs associated with creating and removing haul roads, stockpile areas and storage areas

including hydroseeding, shall be included in the lump sum items and unit costs for the project.

D1.06 START-UP AND OPERATION TESTING

Upon completion of work and when it has been determined that all facilities are ready for operational testing, the Contractor shall schedule all manufacturers representatives (as applicable) to field verify that their respective items of equipment are installed and functioning properly. It shall be the responsibility of the Contractor to develop and submit a schedule of this work in addition to a schedule for phasing the start-up of all equipment and facilities for full-time operations. Any changes, adjustments or replacements required to make the equipment and facilities operate as specified shall be carried out by the Contractor as part of the work at no additional cost to the Owner.

D1.07 EQUIPMENT SUBSTITUTIONS

Due to practical conditions involved in the preparation of contract drawings, only the types of equipment specified herein or named on the drawings have been considered in the design. Requests for approval of substitute equipment shall conform to the requirements of this Section. Where the Contractor installs equipment which differs from that shown or considered, he shall be responsible for any changes necessitated thereby, including structural revisions, equipment settings, and piping, and shall bear all costs involved in such changes. Furthermore, if such change or modifications proposed by the Contractor causes a redesign or a complete review of a part, portion, element, or unit of this project, the Contractor shall, at his expense, reimburse the Engineer according to the Engineer's current hourly rate schedule for all time incurred on such redesign and/or review.

Where references to proprietary products appear in the Specifications of Drawings, whether or not followed by the words "or equal," it is for the purpose of establishing an acceptable standard of quality or design. Unless a substitute is expressly prohibited, the Contractor may request approval of a substitute for any such proprietary product. Such approval will normally not be given by the Engineer prior to award of a Contract. A request for substitution must be in writing and must include descriptive literature, specifications, test reports or samples, as appropriate, to enable the Engineer to determine the acceptability of the product proposed for substitution. If substitution is requested by the Contractor as part of a shop drawing submittal, the item(s) proposed for substitution shall be clearly indicated, No substitute product shall be used on the work until written approval has been received from the Water Director.

Where a particular type or model number for an item of equipment is specified in addition to a work description of the item, it shall be understood that the call out of type or model number is made solely for the convenience of the Contractor and no guarantee is made or should be assumed as to its accuracy. In the event an item of equipment as represented by a model number differs in any respect from the word description contained in the specification, the word description shall govern and the Contractor will be held to furnishing the item of equipment to meet the worded description of the specification.

D1.08 CONNECTIONS TO EXISTING FACILITIES

- (a) The Contractor shall make all connection to existing facilities as shown and at times which will cause the least inconvenience to any customers served by the facilities being shut down. The duration of required shutdown shall be kept to a minimum and in no case shall the shutdown be more than 8 hours.
- (b) ALL water main tie-ins shall be completed within eight (8) hours of initial system shutdown.
- (c) No additional compensation will be paid to the Contractor for overtime or after-hours work necessary to make the connections or tie-ins.
- (d) The Contractor shall notify the Water Director and/or his representative at least seven (7) days in advance of the date on which he proposes to make connections to existing facilities, as per Section D1.09 of these Specifications.
- (e) Connections to existing facilities shall be tested according to the provisions of Division D16.

D1.09 SCHEDULE OF SHUTDOWNS

The Contractor shall notify the Water Director seven (7) working days in advance of a scheduled shutdown. Schedule of shutdowns shall be as follows:

The Contractor shall submit a written plan fourteen (14) days prior to a shutdown describing equipment, labor, and material required to accomplish the work within the permitted time frame. The Water Director's signed approval is required prior to shutdown.

D1.10 NIGHT WORK

Work after dark will not be permitted except under extreme emergency or under special circumstances described herein. The placing of concrete shall be started early enough in the daylight hours to ensure completion of the section under construction before dark. If night work is permitted by the Water Director, the Contractor shall provide all lighting required for the proper and expeditious completion of the work. No additional compensation will be paid to the Contractor for providing lighting equipment. Contractor shall also be required to pay overtime charges associated with night inspections by City personnel and expenses incurred due to night use of City Vehicles.

D1.11 WEATHER CONDITIONS

No work shall be done when the weather is unsuitable. The Contractor shall take necessary precautions to protect all work, materials, or equipment from damage. The Water Director may order that additional protective measures over and beyond those proposed by the Contractor be taken to safeguard all components of the project. The

Contractor shall not claim any compensation for such precautionary measures so ordered or claim any compensation from the Owner for damage to the work caused by the weather.

D1.12 CONSTRUCTION INTERFERENCES

- (a) As used in this Section, the work "utility" shall be understood to include tracks, overhead or underground wires, cables, pipelines, conduits, ducts, sewers or storm drains. As used in this Section, the term "service connection" shall be understood to mean all or any portion of a pipeline (including sewer house laterals), conduit, wire, cable or duct, including meter, between a utility distribution line and an individual customer, or customers when served by a single service connection. As used in this Section, the term "construction interference" shall be understood to include any utility or service connection within the limits of excavation or overexcavation required for the work under the contract as shown as ordered by the Water Director, or any utility or service connection located in the space which will be required by any of the work under the contract.
- (b) In the event any utility or service connection is required to be disturbed or removed to permit construction of a pipeline or other structure under the contract, such disturbance or removal shall be done only with the approval of the Water Director and following notification to the owner of the interfering utility or service connection. Any such utility or service connection removed or otherwise disturbed shall be reconstructed as promptly as possible in its original or other authorized location in a condition at least as good as prior to such removal or disturbance, subject to the inspection of the owner of same. The Contractor's responsibility under this Section to remove or replace shall apply even in the event such damage or destruction occurs after backfilling or is not discovered until after completion of backfilling. The owner of the utility or service connection shall be notified immediately after damage or destruction occurs or is discovered.
- (c) During the performance of the work under this contract, the owner of any utility affected by the work shall have the right to enter when necessary upon any portion of the work for the purpose of maintaining service and of making changes and/or repairs to said utility
- (d) The drawings show the approximate positions of known utilities in the immediate vicinity of the work, but the City does not guarantee that all existing utilities are shown. Service connections, where known, are shown on the Drawings. The Contractor, before commencing any excavation, shall ascertain from records or otherwise, the existence, horizontal and vertical position, and ownership of all existing utilities and service connections. If the Contractor discovers any utility in the line of the work that is not shown on the Drawings, he shall immediately notify the Water Director of the existence of same. The City will not be liable for any consequences arising as a result of a service connection being incorrectly located in the field by the agency having jurisdiction over said service connection.
- (e) All costs involved in relocating, protecting, supporting, repairing, maintaining or replacing underground main or trunk line utility facility which actually constitutes a

construction interference, when said utility is not shown with reasonable accuracy as an interference, or is omitted from the Drawings, will be paid for by the City as extra work. In such case, the City will also compensate the Contractor for equipment on the project necessarily idled during and by reason of such work. The City's obligation to repair damage to such a facility and to compensate the Contractor for idled equipment shall not extend to damage resulting from the failure of the contractor to use reasonable care.

- (f) All costs involved in removing, relocating, protecting, supporting, repairing, maintaining, or replacing any utility or service connection other than those described in Subsection (e) herein shall be borne by the Contractor.
- (g) The Contractor shall not be assessed liquidated damages for failure to complete the work on time to the extent that such delay was caused by failure of the City or of the agency having jurisdiction over the utility or service connection to authorize or otherwise provide for its removal, relocation, protection, support, repair, maintenance, or replacement.
- (h) The City reserves the right, upon determination of the actual position of existing utilities and service connections, to make changes in alignment or grade of the City's pipelines when, by so doing, the necessity for relocation of existing utilities or service connections will be avoided. Such changes will be ordered in writing by the Water Director. Where applicable, adjustment in the contract price will be on the basis of the unit prices stated in the Bidding Schedule.

D1.13 WORK WITHIN STATE, COUNTY, AND CITY RIGHTS OF WAY

- (a) Attention is directed to Section B 7-1.04 Permits and Licenses of the General Provisions. Immediately upon award of the Contract, the Contractor must apply for and obtain any permits necessary to complete this project.
- (b) The cost of obtaining and/or complying with the various Encroachment Permits, including but not limited to Solano County, and CALTRANS, shall be included in the various items of work, and no additional compensation will be made therefor.

D1.14 PROJECT SAFETY REQUIREMENTS

- (A) GENERAL
 - 1. DESCRIPTION
 - (a) Work Included:
 - I. 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).

- II. 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.
- III. 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.
- IV. Provide for public safety when working in public areas.

(b) Site Activities

- I. 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.
- II. Physically delineate and assign work areas and restrict access by unauthorized persons during the course of Work.
- III. 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.
- IV. 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.
- V. 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.
- VI. Contractor personnel are specifically prohibited from bringing firearms, explosive devices, or other dangerous weapons on City property or while engaged in contract Work.

VII. Contractor shall provide safe access for construction inspectors and other authorized City employees in order to inspect or review Work in progress.

2. DEFINITIONS

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.

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.

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.

Excavation: Any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.

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.

Exposure Assessment: An assessment of potential chemical and physical hazards encountered on the project site.

LOTO: Lock-Out Tag-Out as defined by Title 8, California Code of Regulations, § 3314.

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.

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.

SUBMITTAL OF PLANS AND PROCEDURES

(a) General:

- i. Prepare and submit plans and procedures.
- ii. Allow 20 work days minimum for the Engineer's review plus transit time to and from the City offices.
- iii. 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 1 day of being identified.
- iv. Work described under the plan shall not begin until the submitted plan has been returned as "Reviewed and Approved".
- (b) Project Safety and Health Plan:
 - I. 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.
 - II. Submit prior to start of Work the name of individual(s) who has been designated as:

Contractor's Project Safety and Health Representative

Submit principal and alternate Competent/Qualified Persons for: 1) scaffolding; 2) fall protection systems and equipment; and 3) employee protective systems for trenches and excavations.

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.

III. 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) Excavation Safety Plan

i. Submit detailed plan for worker protection and control of ground movement for the Engineer's review prior to any excavation work at

jobsite. Include drawings and details of system or systems to be used, area in which each type of system will be used, de-watering, means of access and egress, storage of materials, and equipment restrictions. If plan is modified or changed, submit revised plan.

- ii. All surface encumbrances that are located and determined to create a hazard to employees shall be removed or supported, as necessary, to safeguard employees.
- iii. Tunnel work shall comply with the Tunnel Safety Orders.

(d) Confined Space Operating Procedures:

- I. 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.
- II. 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.

(e) Fall Protection Procedures

- i. Submit fall protection procedures to the Engineer for review prior to any work at heights at the jobsite.
- ii. The fall protection plan shall address control of fall hazards for any work occurring at heights greater than 7½ feet.
- iii. Procedures shall conform to applicable provisions of Sections 1669 through 1671.2, Title 8, California Code of Regulations.
- iv. The plan shall address scaffolds when used on site.
- v. The plan shall address manlift equipment when used on site.
- vi. The plan shall address rescue of workers who may fall.

(f) USA Marking Record

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.

(g) Accident Reports

Upon request of the Engineer, complete and submit an accident investigation report.

(h) Electrical Safety Plan

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.

The safety plan shall include the following details at minimum:

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).

Procedures to avoid placing equipment and materials near any PG&E lattice towers or tubular steel poles.

Details of protective equipment and clothing to be used when worker contact with the pipeline is unavoidable.

Temporary pipeline grounding and bonding details to be used during construction.

Procedures for the installation of temporary pipeline grounding and bonding by qualified personnel (e.g., electrician).

Procedures to notify all persons on the job site of the electrical hazard.

Procedures to limit access to the pipeline to the public and unqualified personnel.

(4) TRAINING REQUIREMENTS

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.

(5) FIRE PREVENTION AND PROTECTION

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.

- (B) NOT USED
- (C) EXECUTION
 - (1) PROJECT SAFETY AND HEALTH PLAN
 - (a) General:
 - 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
 - II. 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.
 - III. 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.
 - IV. Provide the Engineer a minimum 48-hour 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.
 - V. 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.
 - VI. 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.
 - (b) Sampling and Testing of Samples Collected for Exposure Analysis:
 - I. 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.

- II. 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.
- III. Each sample shall have an identifying sample number assigned by the Contractor when the sample is taken with the prefix **WT8050**.

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.

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.

(2) HAZARDOUS CONDITIONS

- (a) Confined Spaces:
 - I. 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.
 - II. 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).
 - III. 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.
 - IV. 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.
 - V. 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.
- VI. Sources of ignition shall be prohibited in any confined space until after the atmosphere within the confined space has been tested and found safe.
- VII. 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.
- VIII. Coordinate entry operations with the Engineer when both Contractor personnel and City personnel require permit space entry.

(b) Excavation Safety:

i. Section 6705 of the Labor Code requires that the excavation of any trench 5 feet or more in depth shall not begin until the Contractor has received from the Engineer notification of the Engineer's acceptance of the Contractor's detailed plan for worker protection from the hazards of caving ground during the excavation of such trench.

Such plan shall show the details of the design of shoring, bracing, sloping or other provisions to be made for worker protection during such excavation.

No such plan shall allow the use of shoring, sloping or a protective system less effective than that required by the Construction Safety Orders, Title 8, California Code of Regulations, and if such 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 or Structural Engineer in the State of California. Cal/OSHA Permit: Title 8, CCR §341(a)(1) requires excavators to obtain a permit prior to digging trenches or excavations which are 5 feet or deeper and into which a person is required to descend.

- ii. California Government Code: Various sections of § 4216 describe the requirements and procedures for excavation notifications and utility excavation.
- iii. Requirements of Protective Systems:

All excavations 5 ft. in depth or greater and not in stable rock shall have a protective system to prevent earth movement.

For excavations greater than 20 ft. in depth, the detailed plan for worker protection and control of ground movement shall be

prepared, and signed and dated, by a California registered Civil or Structural Engineer. The registered engineer shall:

Have at least five years' responsible experience in work of this nature.

Inspect the installation of the system prior to entry of any persons into the excavation and certify in writing to the City that the system is installed as designed.

Perform any necessary additional work that may be required because of unanticipated movements, deflections, or settlements of the protective system or the ground.

No changes or deviations from a protective system designed by a registered engineer shall be made without prior approval of the designing engineer.

In the event of any violation of Article 6 of the Construction Safety Orders or this paragraph, or deviation from the submitted plan for worker protection and control of ground movement, the Engineer may suspend Work or notify Cal/OSHA or both.

(c) Fall Protection:

- I. 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.
- II. On site activities shall conform to the requirements set forth in Sections 1669 through 1671.2, Title 8, California Code of Regulations.
- III. 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.

(d) Electrical:

For Work in which the Contractor must install temporary electrical circuits:

An electrical safety assessment (that includes ARCFLASH) shall be performed and provided to the Engineer.

The assessment shall be based on the NFPA 70 E (2012) Standard

Appropriate hazard labeling shall be provided.

For Work in which the Contractor installs electrical circuits required by the specification:

An electrical shock and ARCFLASH assessment shall be performed in accordance to the NFPA 70E (2012) Standard on installed equipment.

Appropriate labels shall be made and installed on equipment rated in excess of 480V (for example MCC, switchboards, panelboards, industrial control panels, etc.).

Prior to labeling, the label shall be reviewed by the Engineer for acceptance.

(e) 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.
- ii. 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 lockedout.
- iii. The distinction between LOTO and operational shut-down shall be made
- iv. Share and implement the following components of the LOTO plan:

LOTO locations,

Lock-out and tag-out methods and equipment,

De-energization verification,

Log of locked and tagged locations,

Stated emergency types and breach policy,

Return-to-service practice and removal of lock and tags.

(3) ACCIDENT REPORTS

I. 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.
- II. 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.
- III. 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

DIVISION D2

CONSTRUCTION STAKING/MARKING

D2.01 CONSTRUCTION STAKING/MARKING

In addition to the following, the Contractor's attention is directed to the paragraphs of the General Construction Details related to "Line and Grade Stakes".

The City Surveyor will provide one set of stakes and/or pavement markings for the work as follows: Contractor shall request the particular scheduling of staking operations he desires at least three working days in advance of the time he wants the stakes ready. Where stakes or markings are lost during construction, the Surveyor will replace at the Contractor's expense. One set of construction stakes will be set for each of the following items:

a. One set of construction stakes/markings, offset line, and/or grade for the waterline as required.

Contractor shall be responsible for preserving all benchmarks, reference points, and construction stakes in the area. He will be billed for any cost the Surveyor might incur in replacing any such benchmarks, reference points, or construction stakes that are destroyed. Any additional staking desired by the Contractor will be provided by the Surveyor at the Contractor's expense.

D2.02 CONSTRUCTION STAKING

No separate payment will be made for any other construction staking, payment for same shall be considered as included in the payment for the item of work to which the construction staking is associated.

END OF SECTION

DIVISION D3

DUST & MUD CONTROL

D3.01 GENERAL

This work consists of applying either water or dust palliative, or both, for the alleviation or prevention of dust nuisance originating within the project. This work also consists of sweeping, brooming and/or washing, or street cleaning as required, of all affected areas for the alleviation or prevention of mud nuisance originating from the project.

The Contractor shall provide dust and mud control means at all times on the project. Dust and mud nuisance originating from any of the Contractor's operations shall be controlled by the Contractor in accordance with local ordinances and regulations at the sole expense of the Contractor. Any specific application of either water or dust palliative required by the Water Director shall be done under the direction of the Water Director.

Dust and mud nuisance originating from any plant operations either inside or outside the project shall be controlled by the Contractor in accordance with local ordinances and regulations at the sole expense of the Contractor.

D3.02 PAYMENT

Payment for dust and mud control shall be included in the various items of work, and no additional compensation will be made therefor.

END OF SECTION

DIVISION D4

TRAFFIC CONTROL

D4.01 GENERAL

This work shall include installation of temporary signs, flagging, traffic-handling equipment, devices and other related items to provide for safety and convenience to the public and public traffic during all phases of construction.

Attention is directed to Sections 7–1.08, "Public Convenience," 7–1.09, "Public Safety," and 12, "Construction Area Traffic Control Devices," of the Standard Specifications and to the Section B.7.C, "Public Convenience and Safety" elsewhere in these special provisions, and to these special provisions.

Nothing in these special provisions shall be construed as relieving the Contractor from his responsibility to provide such additional devices or take such measures as may be necessary to comply with the provisions in Section 7–1.09, "Public Safety," of the Standard Specifications.

The Contractor shall notify local authority emergency communications, of his intent to close a roadway, or lane of traffic at least 2 days before work is begun. The Contractor shall cooperate with local authorities relative to handling traffic through the area.

D4.02 MATERIALS

All traffic control devices shall conform to Section 12 of the Caltrans Standard Specifications.

D4.03 EXECUTION

(a) SCHEDULE OF OPERATIONS AND TRAFFIC CONTROL PLAN

The contractor must submit a detailed schedule of operations and a traffic control plan to the City by the date of the pre-construction meeting for its review, comment and approval. No work will begin until the construction schedule and traffic control plan have been approved in writing by the Engineer.

(b) TRAFFIC CONTROL PLAN REQUIREMENTS

Traffic Controls Plans must be prepared by a California licensed traffic engineer or professional civil engineer with specialty in traffic engineering or by a company specializing in the preparation of traffic control plans.

All Traffic Control Plans (TCPs) shall:

- 1. be submitted on 11"x17" or 24"x36" paper;
- 2. be computer generated in black and white and clearly visible when reproduced ("Google" aerials, 3D symbols, and photocopies direct from the California MUTCD or other traffic control handbooks will not be accepted) or hand drawn in black and white (hand drawn TCPs shall use a straight edge for line work and shall be legible);
- 3. use a scale no larger than 1"=80' (TCPs requiring more than one sheet shall use match lines);
- 4. show north arrow in correct alignment;
- 5. include Contractor's name, address, telephone number, and telephone number of the 24-hour contact person representing the Contractor;
- 6. note the type of work that the submitted TCP will be used for and the duration of work:
- 7. note the posted speed limit;
- 8. use California MUTCD sign code designations;
- 9. use the symbols shown on Table 6H-2 of the California MUTCD 2012 Edition to identify cones/delineators, barricades, signs, flaggers, etc. (note, all symbols to be in black and white);
- 10. be site specific (show existing lane geometry, medians, driveways, sidewalks, bus stops, etc.);
- 11. show all streets in the work zone vicinity to ensure proper orientation;
- 12. show all parking restriction zones and signs, as appropriate;
- 13. show all existing traffic signals and traffic control signs;
- 14. show staging area and materials storage area, as appropriate;
- 15. show signs and barricades that will be required to direct pedestrians through or around the construction work zone:
- 16. provide a line map showing detour route and signage for all half road or full road closures:
- 17. label all taper lengths and widths, delineator spacing and sign spacing (all dimensions to be shown on the plan and not in table form).

Additional requirements could be needed dependent upon each situation.

The following General Notes shall be added to the Traffic Control Plan:

- 1. The City, through its designated employees, reserves the right to initiate field changes to assure public safety.
- 2. Road closures will require minimum (5) working day notice and shall be approved by the Department of Public Works Traffic Engineering Division prior to closure.
- 3. All traffic control devices shall be removed from public right-of-way when not in use.
- 4. Work hours shall be restricted to between 8:00 a.m. to 4:00 p.m. unless approved otherwise.
- 5. Trenches shall be back filled or plated during non-working hours.
- 6. All sidewalks and pedestrian pathways shall be clear of debris and ADA

- accessible after work hours unless pedestrian detours are approved.
- 7. Pedestrian controls shall be provided as shown on the plans.
- 8. Temporary "NO PARKING" signs shall be posted 72 hours prior to commencing work.
- 9. Access to driveways will be maintained at all times unless other arrangements are made.
- 10. The Contractor shall replace, within 72 hours, all traffic signal loops damaged during construction.
- 11. The Contractor shall make immediate temporary repairs to any street light/traffic signal conduit damaged during construction. Permanent repairs shall be made within five (5) working days.
- 12. All striping removed or damaged, will be replaced by the Contractor with like material within 24 hours (or replaced with temporary tape, though the Contractor is still responsible for the full replacement as noted above).
- 13. All flaggers shall be equipped with a hard hat, two-way radios, and "Stop/Slow" paddle. In addition, all flaggers shall be trained in the proper fundamentals of flagging traffic.
- 14. Any work that disturbs normal traffic signal operations shall be coordinated with the City of Vallejo's Traffic Supervisor, 72 hours prior to beginning construction (if work will be done on a Monday, notice shall be given by the end of business day the Thursday before) at (707) 648-4518.
- 15. The Contractor shall maintain all traffic control devices 24 hours per day and 7 days per week.
- 16. A minimum of twelve (12) foot travel lanes shall be maintained, (14) foot travel lanes when Class II bike lanes are closed or when closing a lane on a signed Bike Route.

(C)TRAFFIC CONTROL DEVICES

Traffic Control Devices. Installation of all traffic control devices shall conform to Section 12 of the Caltrans Standard Specifications.

If any component in the traffic control system is displaced, or ceases to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair said component to its original condition or replace said component and shall restore the component to its original location.

When lane closures are made for work periods only, at the end of each work period, all components of the traffic control system, except portable delineators placed along open trenches or excavation adjacent to the traveled way shall be removed from the traveled way and shoulder.

(D) PARKING RESTRICTIONS

Attention is directed to Section 7 of the Caltrans Standard Specifications. Restriction of parking on the adjacent streets will be permitted only when authorized by the Engineer.

A minimum of 72 hours (3 days) posted notification of the closure of Chase Street or of other restricted parking is required for all areas authorized for no parking. 72 hours prior notification is required to legally tow vehicles parked in construction zones.

Length of parking restriction shall be as approved by the Engineer.

(E) FLAGGING

The contractor must provide all flag persons necessary for the direction of public traffic either through or around the work, including but not limited to providing a flag person at all times during the unloading of concrete or asphalt trucks.

(F) BARRICADES

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.

(G) TRAFFIC CONTROL SYSTEMS FOR LANE CLOSURE AND DETOUR

A traffic control system shall consist of closing traffic lanes and providing all traffic control including flag persons in accordance with the provisions of Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications, and Caltrans Manual of Traffic Controls for Construction and Maintenance Work Zones, and these special provisions.

All streets shall have detour or a combination of lane closure and detour type traffic control per Caltrans Manual of Traffic Controls for Construction and Maintenance Work Zones, Typical Application 5-19, "Detour for One Travel Direction," and Typical Application 5-20, "Detour for Closed Street," unless specifically authorized in writing by the Engineer.

Contractor shall be responsible for all aspects of detouring traffic around the construction site during dig out and paving operations, including 72-hour (3 days) advance warning signs with date of detour noted.

Traffic control for edge, surface smoothing and conform grinding shall be lane closure only unless otherwise approved by the Engineer.

(H) LANE CLOSURE AND DETOUR TRAFFIC CONTROL SYSTEMS

A traffic control system shall consist of closing traffic lanes and setting up detours, signs and providing all traffic control including flag persons in accordance with the provisions of Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications, and Caltrans' Manual of Traffic Controls for Construction and Maintenance Work Zones, and these special provisions.

Contractor shall be responsible for all aspects of detouring traffic around the

construction zones during cold milling and paving operations, including 72 hour advance warning signs with date of detour noted.

Detour plans shall be submitted for City review and approval prior to initiation of construction activities that would continuously obstruct traffic within a work day.

Lane closures or detours may be required as traffic control for cold milling and paving operations.

(I) ACCESS

Emergency vehicles shall be allowed unrestricted access into and through the working area at all times.

Personal vehicles of the Contractor's employees shall not be parked on the traveled way or shoulder of roadways open to the public. At no times shall the Contractor's employees park personal vehicles within privately owned or development properties.

Continuous uninterrupted access to garbage, mail and package delivery, utility meter readers shall be maintained at all times during the course of construction.

(J) CONSTRUCTION PERIOD ROADWAY LIGHTING

Roadway lighting shall be in place at all times to provide a minimum lighting level. The minimum level of lighting required shall be minimum average 0.6 foot-candle. The lighting system required to provide this level of illumination may be either existing street lights, permanent new lights, temporary lights or any combination thereof.

The contractor shall provide a plan, details, and calculations necessary to achieve the minimum required light level to the Engineer for approval prior to opening the street or portion of the street to public traffic. Included shall be any protection necessary for public safety.

If gas powered generators are to be used, they are to be placed as far as practical from any existing buildings, especially residences. The sound control requirement in Section B, General Provisions, 7-1.01I, Sound Control Requirements.

The contractor is responsible to maintain the lighting system in working order and is to ensure that generators and other sources of power are operational for all periods the lighting is in effect.

D4.04 MEASUREMENT AND PAYMENT

(A) MEASUREMENT

"Traffic Control" shall not be measured.

(B) PAYMENT

A. Payment for "Traffic Control" shall be by the lump sum contract price per Bid Item "Traffic Control". The contract lump sum price shall include full compensation for all work involved in providing the traffic control system during each phase of the project, including but not limited to preparation of traffic control plans including subsequent revisions, all barricades, all flag persons necessary for the direction of public traffic either through or around the work, all traffic control devices, installation and maintenance of the construction period roadway lighting as well as all labor, tools, equipment and incidentals, and for doing all work involved complete in place, as shown on the plans, as specified in the specifications and special provisions, and as directed by the Engineer.

END OF SECTION

DIVISION D5

POTHOLING & VERIFICATION OF EXISTING FACILITIES

D5.01 GENERAL

This section deals with potholing requirements for purposes of verification of existing facilities for tie-in purposes and potential conflicts on crossings of other utilities and facilities. Potholing shall meet the applicable requirements of DIVISION D6 "Earthwork and Trenching".

D5.02 REQUIREMENTS

Prior verification is required at each location where the proposed water mains cross existing utilities. The Contractor shall verify, by potholing and/or including the use of professional subcontractors in locating underground utilities/facilities that includes among others, sewer laterals and other utilities using the latest technologies and by other proven methods, even those existing utilities shown as previously potholed. Prior to start of potholing work, the Contractor shall notify the corresponding utility agency as described in D5.03 below. Verification shall be performed in the presence of a representative of the utility agency. Should conflicts become apparent between the existing utility's facility and the proposed work, or should existing water mains at tie-ins be substantially different in elevation or alignment from information shown in the plans, the Contractor shall notify the Water Director in writing for plan revisions and clarification.

D5.03 NOTIFICATIONS

The Contractor shall notify the Water Director and each corresponding utility agency/ies seven (7) working days in advance of the time scheduled for potholing through **U**nderground **S**ervice **A**lert (**811** / **800-227-2600** / **www.usanorth.org**) The City's representative shall mark in the field the location of each potential conflict or proposed tie-ins/point of connection. Prior to potholing, the Contractor shall meet with in the field with a representative of the corresponding utility to determine the horizontal location of the existing utility. Upon completion of each pothole, the Water Director shall be notified of the results in writing of the verification.

D5.04 PAYMENT

The cost of potholing and verification includes labor, materials, and equipment to locate all existing sewer laterals, utilities, & other facilities by all necessary means including the use of professional subcontractors in locating underground utilities/facilities using the latest technologies and confirmed by potholing to identify the utilities' vertical and horizontal alignment. Also includes the location of tie-ins and connections to existing pipe and facilities, excavation, backfill, compaction, repaving, removal and disposal of spoils shall be included in the contract lump sum

price paid for Verification of Existing Utilities & Facilities as shown in the bid form and no additional compensation will be made therefor.

END OF SECTION

DIVISION D6

EARTHWORK AND TRENCHING

D6.01 GENERAL

- (a) The Contractor shall perform all earthwork required for construction of the work as specified and shown. Such work includes, but is not limited to trenching, backfilling, and clearing and grubbing.
- (b) Earthwork shall be in accordance with the City of Vallejo Standard Specifications.

D6.02 EXCAVATION

- (a) Trenching shall not start until pipes and materials needed are on site.

 Prevailing site condition shall govern the length of trench and the Contractor shall excavate only that length of trench that can be backfilled the same day.
- (b) Without special compensation, the Contractor shall give 48 hours advance notice of his intent to begin work, coordinate with the Water Superintendent for surveying/layout and provide all necessary assistance and means for staking out the pipeline. The Contractor shall preserve survey staking and all line and level marks established for the Contractor's use in accordance with Division D2. It shall be the Contractor's responsibility to furnish all necessary line and grade to his crews/subcontractors and to use the correct line and bench mark/s. Should any line and grade shown in the drawings not be in conformance with actual site conditions, the Contractor shall immediately notify the Water Superintendent / Inspector.
- (c) Where soft or yielding material or other detrimental condition is encountered at the bottom of the trench or excavation which, in the opinion of the Water Superintendent, will not provide a satisfactory or firm bearing for the pipe, such material shall be removed for the full width of the trench until firm material is reached. The space so excavated shall then be refilled with select granular material or approved aggregate base material thoroughly compacted with mechanical tampers in layers no more than six (6) inches thick so as to provide uniform bearing between bell holes.
- (d) Where ledge rock or large stones are encountered at the bottom of the trench, such material shall be removed to provide a clearance of at least six (6) inches below on each side of all pipe, valves, and fittings, and the resulting space below the bottom of said pipe, valves, and fittings refilled with select material thoroughly compacted with mechanical tampers so as to provide uniform bearing between bell holes.

- (e) Bell holes shall be excavated in the sides and bottom of the trench at pipe joint locations of such size that the process of making joints inspection can be carried out safely and satisfactorily and so that the pipe barrel will bear evenly on the bottom of the trench. Bell holes shall be so excavated that the bell of the pipe shall not support the weight of the pipe. The use of blocks to support the pipe shall not be permitted except when expressly agreed to in writing by the Water Superintendent.
- (f) The Contractor shall excavate the trench to the lines and grades shown on the plans. The work shall include the excavation and removal of earth, pavement, road subgrade materials, rocks, miscellaneous concrete and debris as may be encountered. Excavated material which is needed and suitable for backfilling use may be placed next to the trench provided the stockpile of material is kept trimmed and at a safe distance to the trench and shall not inhibit or interfere with the road traffic.

Excavated material unsuitable for backfilling and materials surplus to the quantity required for backfilling shall be removed for disposal to appropriate acceptable disposal sites. The Contractor shall be responsible for locating an approved suitable disposal site, transporting materials for dumping, and payment of disposal fees.

(g) Control of Water and Sediment - The Contractor shall furnish, install, and operate all necessary machinery, appliance, and equipment to keep excavations reasonably free from water during construction and shall dispose of the water so as not to cause damage to public or private property, or to cause a nuisance or menace to the public. The Contractor shall at all times have on hand sufficient pumping equipment and machinery in good working condition for all emergencies and shall have at all times competent mechanics for the operation of all pumping equipment. During concrete pours and until concrete has set hard, excavations shall be kept dry.

All storm drain inlets within the vicinity of the construction site shall be protected from sediment intrusion by providing silt/sediment traps around the inlets. This may be accomplished with the use of fabric, sand bags, and hay bales. The silt/sediment traps shall be routinely maintained and relieved of sediment as necessary.

- (h) The Contractor shall adequately shore the sides of all trenches in accordance with Cal-OSHA requirements. If a Cal-OSHA permit becomes necessary for any part of the excavation, it shall become the Contractor's responsibility to obtain the permit and to comply with all the provisions of that permit.
- (i) Should the Contractor appear to be negligent in furnishing safety measures as specified, the Inspector may direct attention to the existence of a hazardous condition. The necessary safety protective measures shall immediately be furnished and installed by the Contractor per Safety Orders.

Such action, or lack of such action on the part of the Inspector, shall neither relieve the Contractor of his responsibility nor abrogate his obligation to furnish and pay for the protective measures required.

The intent of Safety Orders is to avoid danger to life, property, or existing improvements and to protect adjacent structures from damage due to ground movement.

Authority is reserved the work wholly or in part for such time as the Water Superintendent may deem necessary due to failure of the Contractor or his agent or his subcontractor, to maintain adequate safety precautions and/or to satisfy the requirements of this specifications. The Contractor shall designate at least one representative to be available at all times 24 hours a day, seven (7) days a week, to coordinate safety aspects of the job. A special telephone shall be provided for this purpose. All necessary expenses involved under these safety requirements shall be include in the Contractor's bid.

(j) Hazardous Waste in Excavation. If the Contractor encounters material in excavation which he has reason to believe may be hazardous waste as defined by Section 25117 of the Health and Safety Code, the Contractor shall immediately so notify the Water Superintendent in writing. Excavation in the immediate area of the suspected hazardous material shall be suspended until the Water Superintendent authorizes work to be resumed. If such suspension delays the current controlling operation, the Contractor will be granted an extension of time as provided in Section 8-1.07, "Liquidated Damages" of the Standard Specifications.

If such suspension delays the current controlling operation more than two (2) working days, the delay will be considered a right of way delay and the Contractor will be compensated for such delay as provided in Section 8-1.09 "Right of Way Delays" of the Standard Specifications.

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

D6.03 TRENCH BACKFILL

- (a) Trench Backfill shall consist of the following materials as applicable:
 - (1) Backfill for Polyethylene Encased Ductile Iron Pipe shall be:
 - Sand within the Pipe Zone.
 - Class 2 Aggregate Base above the Pipe Zone in Paved Areas.
 - (2) Backfill for C900 & C905 PVC Pipe shall be:
 - Class 2 Aggregate Base within the Pipe Zone.

- Class 2 Aggregate Base above the Pipe Zone in Paved Areas.
- (3) In case of discrepancies between the plans and specifications as to the type and placement of backfill, the plans shall govern.
- (b) The Class 2 Aggregate Base Backfill shall conform to Section 26 of the Caltrans Standard Specifications except that these materials cannot include reprocessed or recycled materials like asphalt, portland cement concrete, lean concrete base, cement treated base or a combination thereof.
- (c) Sand Bedding and backfill shall be free from clay or organic material and shall be of such gradation that 90 to 100 percent shall pass through a No. 40 Sieve and not more than 5 percent shall pass a through a No. 200 Sieve.
- (d) Native Material shall be free of vegetation, debris, and rock greater than 6" on maximum dimension.

(e) Placement

- (1) The Contractor shall place the trench backfill for the pipe cradle, as shown in the drawings, prior to placing the pipe in the trench. The pipe cradle shall be compacted per the Standard Specifications to 90% relative compaction, and shall be shaped to receive the outside diameter of the pipe.
- (2) The Contractor shall place trench backfill in the pipe zone as shown on the drawings, evenly on both sides of the pipe in uniform, approximately horizontal layers, not to exceed 1 foot in loose thickness. The trench backfill shall be compacted by mechanical means only to 90% relative compaction.
- (3) The top 30" of trench backfill under pavement shall be compacted to a minimum 95% relative compaction.
- (4) Backfill at Creek Crossings shall be placed be method consistent with the terms and conditions of the permits issued by the State of California, Department of Fish and Game.

D6.04 PIPELINE WORK OVER-EXCAVATION

Pipeline work over-excavation is defined where pipeline installations deviate from contract plans, due to unknown conditions in the field, exceed five (5) feet of cover (where actual trench excavation depth is 5 feet plus pipe OD (outside diameter) plus 6 inches of bedding). Pipeline installations with up to five (5) feet of cover shall be considered payable at the unit prices bid. Over-excavation work shall be measured from the bottom of the standard installation as defined above and shall be paid on time and material basis.

D6.05 COMPACTION TESTS

Trench backfill and native backfill are required to be compacted to specified densities. Tests for compliance may be made by the City at City's expense. The Contractor's attention is directed to additional provisions related to testing contained in Section 6.3 of the Standard Specifications and Section 4 of the City of Vallejo Standard Specifications.

Compaction test per ASTM D-1556 compaction test shall be performed at every 200 feet, or as specified by the Water Superintendent. If the compaction is less than what is required, the Contractor shall excavate and recompact at Contractor's expense. The retesting costs for compaction shall likewise be at Contractor's expense.

D6.06 RESTORATION OF PUBLIC/PRIVATE IMPROVEMENTS

- (a) At various locations within the project, it may be unavoidable for the Contractor to damage or remove existing public and/or private improvements. These improvements include, but are not limited to, survey monuments, drainage, sewer laterals, swales, culverts, paved driveways, signs, etc.
- (b) The contractor shall restore all damaged survey monuments, drains, sewer laterals, utility services, swale flow lines etc. during the backfilling operation. Re-established monuments shall be set by a licensed surveyor and a record of survey filed with the Solano County Recorder for each.
- (c) Upon completion of the backfill within a trench, including compaction tests, the Contractor shall restore, as applicable, all such public or private improvements as were existing prior to construction. Signs and drainage culverts, if removed in a salvageable condition may be re-used with the Water Superintendent's approval.

D6.07 PAYMENT

The cost of excavation, removal and disposal of spoils, providing suitable subgrade, trench backfill, restoration of existing public or private improvements, compaction, and repaving shall be included in the contract unit price paid per lineal foot of each water main shown on the bid form, and no additional compensation will be made therefor.

END OF SECTION

PAVING

D7.01 GENERAL

Paving materials and methods of construction shall be in accordance with referenced sections of the Standard Specifications. Thickness and extent of base courses, paving courses and other construction details shall be as follows:

General - To match existing street section.

Over Trench - To match existing section with an AC thickness, equal to

existing AC thickness plus one inch, but not less than

three inches.

All provisions contained in the referenced Standard Specifications involving "measurement" and "payment" are not applicable to work performed under this contract.

D7.02 TEMPORARY PAVING

Prior to final paving, all work areas which are to be repaved with A.C. shall be topped with a minimum of 2" thick temporary asphaltic plant mix cut back and shall be feathered with a gradual transition of 5% to the existing pavement. Contractor shall repatch as often as required to provide this temporary surfacing at all times during the course of the work. The temporary paving material shall be removed just prior to placement of the permanent Asphalt Concrete Pavement.

D7.02 CUTTING AND RESTORING EXISTING PAVEMENT

- (a) Street surfacing destroyed in connection with performing the work required under the contract shall be replaced with the same kind or better by the Contractor in accordance with the latest specifications, rules, and regulations, and subject to the inspection of the agency having jurisdiction. If a strip of existing pavement less than 4 feet is left between the trench and a gutter, or between adjacent trenches, it shall be removed and new pavement placed in its stead. In cutting or breaking up street surfacing, the Contractor shall not use equipment, which will damage the adjacent pavement. All concrete pavement surfaces shall be scored with concrete sawing equipment; provided, that any portland cement concrete base under an asphaltic mix surface will not be required to be scored by sawing. Asphaltic-concrete pavement shall be removed to clean straight lines.
- (b) Concrete sidewalks, curbs and gutters required to be removed in connection with performing the work under the contract shall be cut to the nearest score marks and shall be replaced with the same kind or better by the Contractor in

- accordance with the latest specifications, rules and regulations, and subject to inspection of the agency having jurisdiction.
- (c) Immediately after completing the backfilling of any section of pipeline in a paved area, temporary resurfacing at least 1-1/2 inches in thickness, shall be placed over the backfilled trench and maintained by the Contractor at his own expense. Upon completion of substantial parts of the project, but not before the pipeline is tested, the temporary resurfacing shall be replaced with permanent resurfacing.

D7.03 SUBGRADE PREPARATION

The subgrade shall be brought to the proper elevation and then sprinkled and rolled with a steel roller until the subgrade is unyielding. Two-inch by four-inch redwood headers shall be firmly staked in the proper positions along all edges other than those where the pavement is to be placed against existing paved surfaces.

D7.04 AGGREGATE BASE

Aggregate base, where required, shall be Class 2 Aggregate Base as specified in Section 26-1.02 of the referenced Standard Specifications except that **only virgin Class 2 AB is acceptable for the whole project. Class 2 AB from recycled materials is specifically unacceptable for use in the project.** Construction of aggregate base shall be as specified in Sections 26-1.03 through 26-1.05.

D7.05 PRIME COAT

A prime coat of liquid asphalt type SC-70 shall be applied to the aggregate base. Application of prime coat shall be in accordance with Section 39-4.02 of the referenced Standard Specifications.

D7.06 ASPHALTIC CONCRETE

Asphaltic concrete shall be Type B as specified in Section 39-1 of the referenced Standard Specifications. Paving shall be as specified in Section 39-3 through 39-7. A fog seal coat shall be provided as specified in Section 39-7.02.

D7.07 PAVEMENT TRAFFIC MARKINGS

If shown on the drawings, or where existing paving is replaced, pavement shall be striped or marked in accordance with Section 84-1 of the referenced Standard Specifications. The material shall consist of thermoplastic white and thermoplastic yellow, as required, in accordance with Section 84-2 of the referenced Standard Specifications. Striping of replacement paving shall conform to striping of pavement prior to removal.

D7.08 PAYMENT

The cost for Asphalt Concrete including all labor, tools, materials and equipment to place pavement in accordance with these specifications, including removal and disposal of existing pavement, subgrade preparation, prime coat, tack coat, AB, AC, seal coat, and restoration of traffic loops and markings shall be included in the contract unit price paid per lineal foot of each water main shown on the bid form, and no additional compensation will be made therefor.

END OF SECTION

MOBILIZATION

D8.01 GENERAL

(a) Mobilization shall consist of preparatory work and operations, including but not limited to those necessary for the movement of personnel, equipment, supplies, bonds, insurance and incidentals to the project 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 contract items on the project site. It shall also include de-mobilization of equipment and personnel upon completion of construction.

D8.02 MATERIALS

Not Applicable

D8.03 MEASUREMENT AND PAYMENT

(a) Measurement

Mobilization and demobilization shall be paid for by the contract lump sum price paid for "Mobilization". The contract lump sum price paid shall include full compensation for all work involved for furnishing all labor, tools, equipment and incidentals, complete in place, as shown on the plans, as specified in the specifications, and as directed by the Engineer.

(b) Payment

When the monthly partial payment estimate of the amount earned, excluding the amount earned for mobilization, is 5% or more of the original contract, 50% of the contract item price for mobilization will be included in the estimate for payment.

When the monthly partial payment estimate of the amount earned, excluding the amount earned for mobilization, is 10% or more of the original contract, 75% of the contract item price for mobilization will be included in the estimate for payment.

When the monthly partial payment estimate of the amount earned, excluding the amount earned for mobilization, is 20% or more of the original contract, 95% of the contract item price for mobilization will be included in the estimate for payment.

When the monthly partial payment estimate of the amount earned, excluding the amount earned for mobilization, is 50% or more of the original contract, 100% of the contract item price for mobilization will be included in the estimate for payment.

END OF SECTION

CONCRETE

D9.01 GENERAL

Concrete shall conform to the requirements of the "Standard Specifications for Ready-Mixed Concrete" (ASTM C94) subject to the modifications and supplemental requirements contained in these specifications.

D9.02 COMPRESSIVE STRENGTH

Thrust block and encasement concrete shall have a minimum 28-day compressive strength of 3,000 psi; all other concrete shall have a minimum 28-day compressive strength of 3,500 psi.

D9.03 CEMENT

Except as may be otherwise provided in these specifications, cement shall conform to the "Standards Specification for Portland Cement" (ASTM C150) and shall be either Type II or Type V.)

D9.04 AGGREGATES

Aggregates shall conform to the "Standard Specifications for Concrete Aggregates" (ASTM C33). Coarse aggregate shall be of 1 1/2-inch maximum size.

D9.04 SLUMP

The maximum slump for concrete to be used in footings and slabs shall be 3 inches; the maximum slump for all other concrete shall be 4 inches.

D9.06 FORMS

Forms for exposed concrete structures shall be of new Plyform at least 5/8 of an inch thick. All other forms shall be of smooth tongue and groove boards, shiplap, or plywood. Exposed vertical corners of all concrete structures shall be given a 1/2-inch chamfer. Forms shall not be removed until permission to do so have been received from the Water Superintendent.

D9.08 CONVEYING CONCRETE

Concrete shall be conveyed by chute, or pump. The Contractor shall submit his entire plan of operation from time of discharge of concrete from the mixer to final placement in the trench and the steps to be taken to prevent the formation of cold joints in case the transporting of concrete by chute or pump is disrupted. Aluminum chutes and pipelines shall not be used for placing concrete.

D9.09 PLACEMENT OF CONCRETE

As concrete is placed in forms or in excavations, it shall be thoroughly settled and compacted throughout the entire depth of the layer that is being consolidated, into a dense homogeneous mass. Except in special cases where their use is deemed impracticable by the Water Director, the Contractor shall use high-speed internal vibrators of an approved immersion type.

D9.10 FINISH OF CONCRETE SURFACES

- (a) All finished or formed surfaces shall conform accurately to the shape alignment, grades and sections as shown or ordered. Surfaces shall be free of fins, bulges, ridges, offsets, honeycombing, or roughness of any kind, and shall present a finished, smooth, continuous, hard surface.
- (b) Exposed unformed surfaces of concrete shall be given a steel trowel finish. Excessive floating of surfaces while the concrete is plastic will not be permitted. Dusting on of dry cement or sand to absorb excess moisture will not be permitted. Unless otherwise shown, the edges of al exposed horizontal surfaces shall be finished with an edging tool to a radius of ½ of an inch.

D9.11 CURING

All structural concrete shall be cured by being kept moist for 14 days after placing, or at the option of the Contractor, may be cured by use of curing compound approved by the Water Director. Encasement concrete and thrust blocks may be covered with earth 24 hours after placing.

D9.12 PAYMENT

Payment for concrete work shall be included in the various items of work, and no additional compensation will be made therefor.

END OF SECTION

RECYCLABLE/SALVAGEABLE MATERIALS

D10.1 GENERAL

- A. The City of Vallejo is making an effort to recycle or to salvage the materials for this project. A Waste Management Plan (WMP) is required for this project. Many of the materials of this project, such as asphalt concrete and Portland cement concrete can be recycled or reused.
- B. The Contractor is required to list in the WMP the materials that will be recycled, reused or disposed, resulting from the project. The Contractor is required to recycle or reuse a minimum of **50**% for construction and demolition debris and a minimum of **75**% for concrete and asphalt generated by this project. Hazardous materials shall be discounted in the calculation of recycle or reuse requirement.
- C. The Waste Management Plan (WMP) shall indicate:
 - i. The total weight of project debris, by materials type, generated.
 - ii. The maximum volume or weight of such materials that can feasibly be diverted via reuse or recycling.
 - iii. The vendor or facility that the Contractor proposes to use to collect or receive that material.
 - iv. The weight of demolition materials that will be land filled.
 - v. Project square footage.
- D. If the Contractor shall experience unique circumstances that the Contractor believes make it infeasible to comply with the City's diversion requirement, the Contractor may apply for an exemption at the time that he or she submits the WMP.

D10.2 MATERIALS

NOT APPLICABLE

D10.3 EXECUTION

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 reused or recycled, as well as separate container for refuse.
- B. After segregation and prior to transport, Engineer shall inspect containers or stockpile for each type of material to be reused or recycled.
- C. Contractor shall assume ownership of the demolished building 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.

D10.4 MEASUREMENT AND PAYMENT

- A. Full compensation for all costs involved in sorting, separating and final removal of materials as specified in this section, including all costs of securing a dump site, stockpiling, removing, hauling, and disposing of all materials, complete in place necessary to complete the sorting as specified in these specifications and as directed by the Engineer shall be considered to be included in the various items of work and no additional compensation will be allowed therefore.
- B. Documentation, including receipts showing actual weights of all material recycled, salvaged 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 and 75% for concrete & asphalt project waste.

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:	Water Mains Capital Improvements Project WT8050			
Location:	Various sites within 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 re	ecycling: Call Derek Crutchfield, Recycling Coordinator at (707) 648-5346.			
Submit this form and	the attached Waste Management plan to the Water Director prior to invoice			

Sheet 1 of 2

CITY OF VALLEJO WASTE MANAGEMENT PLAN FOR **CONSTRUCTION & DEMOLITION PROJECT**

Project Name: Water Mains Capital Improvements Project WT8050

Materials	Total Percentage of Materials	Percentage Reused/ 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					
	This column should total 100%	This column should total at least 50%			
		o recycle Water N			
Other commen	ts:				
I CERTIFY TOF MY KNO		OVE INFORMA	ATION IS TRI	JE & CORREC	CT TO THE BEST
Prepared by:			Dar	te:	
Signature:					

Sheet 2 of 2

STRUCTURAL STEEL & MISCELLANEOUS METALWORK

D11.01 GENERAL

The Contractor shall furnish, fabricate and install all structural steel and miscellaneous metalwork where specified and shown in the drawings. All structural steel shapes, plates, bars, and their products shall conform to the "Specifications for Structural Steel" (ASTM A36). Unless otherwise shown, all miscellaneous metal work of fabricated steel shall be galvanized after fabrication in accordance with Section D10.04. Shop drawings of all structural steel and miscellaneous metalwork shall be submitted to the Water Director for review in accordance with Section D7. This Section shall not be applicable to fabrication or installation of pipe and pipe fittings.

D11.02 FABRICATION AND ERECTION

Except as otherwise shown, the design, fabrication, and erection of structural steel shall conform to the requirements of the American Institute of Steel Construction "Manual of Steel Construction".

D11.03 WELDING

All welding shall be by the metal-arc method or gas-shielded arc method as described in the American Welding Society's "Welding Handbook" as supplemented by other pertinent standards of the AWS. Qualification of welders shall be in accordance with the AWS Standards governing same.

D11.04 GALVANIZING

All steel plates, shapes, bars and fabricated assemblies required to be galvanized shall, after the steel has been thoroughly cleaned of rust and scale, be galvanized in accordance with the "Specification for Zinc (Hot-Galvanized) Coating on Products Fabricated from Rolled, Pressed and Forged Steel Shapes, Plates, Bars and Strip" (ASTM A123). Any galvanized part that becomes warped during the galvanizing operation shall be straightened. Bolts, anchor bolts, nuts and similar threaded fasteners, after being properly cleaned, shall be galvanized in accordance with the "Specifications for Zinc Coating (Hot-Dip) on Iron and Steel Hardware" (ASTM A153). Field repairs to galvanizing shall be made using "Galvinox", "Galvo-Weld," or equal.

D11.05 BOLTS

(a) The Contractor shall furnish and set all bolts and anchor bolts. Except where otherwise shown or specified, all bolts, anchor bolts, and nuts shall be low alloy. Threads on galvanized bolts and nuts shall be formed with suitable taps and dies such that they retain their normal clearance after hot-dip galvanizing.

- (b) Except as otherwise provided herein, steel for bolts, anchor bolts and cap screws shall be in accordance with "Specifications for Carbon Steel Externally and Internally Threaded Standard Fasteners," Grade B (ASTM A307) or threaded parts of ASTM A36 and shall meet the following additional requirements: (1) The nut material shall be free-cutting steel, and (2) The nuts shall be capable of developing the full strength of the bolts. Threads shall be Coarse Thread Series conforming to the requirements of the American Standard for Screw Threads. All bolts and cap screws shall have hexagon heads and nuts shall be Heavy Hexagon Series.
- (c) Unless otherwise shown, expanding-type anchors shall be steel expansion type Phillips Drill company "Red Head" anchors, McCulloch Industries "Kwick-Bolt," or equal. Lead caulking anchors will not be permitted. Size shall be as shown. Expansion type anchors which are to be embedded in grout may be steel. Non-embedded buried or submerged anchors shall be stainless steel in accordance with Subsection (c) herein.

D11.06 PAYMENT

Payment for Structural Steel and Miscellaneous Metalwork shall be included in the various items of work, and no additional compensation will be made therefor.

END OF SECTION

UTILITY VALVE AND METER BOXES

D12.01 GENERAL

- (a) The Contractor shall furnish and install all valve boxes, valve risers, meter boxes and utility boxes as shown and specified.
- (b) Utility boxes are for blow-off valves and combination air valves.

D12.02 MATERIALS

- (a) <u>Valve Boxes</u> Valve boxes shall be reinforced concrete adjustable traffic type, Model #G5 with a machined cast iron lid and ring seat rattle proof lid without danger of lid pop off in heavy traffic, as manufactured by Christy Concrete Products, Inc., Fremont, CA or approved equal. Each cover shall be cast with recessed lettering "Water" across the upper face.
- (b) <u>Water Meter and Utility Box</u> All water meter boxes and utility boxes shall be of high density reinforced concrete with non-settling shoulders positioned to maintain grade and facilitate backfill. Lids shall be reinforced concrete.
 - 1. Boxes and lids shall be manufactured by Christy Concrete Products, Inc., Fremont, CA or BTS Concrete Products, Tracy, CA.
 - 2. Lids for water meter and utility boxes shall be marked with recessed lettering as follows:

METER BOXES - "WATER METER"
UTILITY BOXES - "WATER"

Meter Size	Water Meter Box
3/4"	B-16
1"	B-16
1 1/2"	B-36
2"	B-36
4"	"Christy R33" pit with R33-52H lid

(c) <u>Valve Riser</u> - Material may either be 8" diameter PVC (minimum thickness 0.24 inches) or G-5 concrete extensions.

D12.03 INSTALLATION

- (a) Valve Riser and Boxes -
 - 1. A valve box and 8" diameter riser shall be installed plumb and directly over the center of the valves operating nut. Risers and boxes shall be

- set so that no shock or stress can be transmitted to the valve by construction equipment or street traffic.
- 2. Boxing of valves and installation of pipeline appurtenances shall begin immediately after pipe sections containing or adjacent to such appurtenance have been installed. All valve boxes, concrete collars, paving rings, and lids shall be brought to grade after pavement has been constructed.
- 3. Before a new main is tied in to the existing water system, all valve boxes shall be exposed and all risers shall be cleaned.
- (b) <u>Water Meter and Utility Boxes</u> Meter boxes and utility boxes shall be set on compacted subgrade and base and to the elevations shown in the plans and in the City of Vallejo Regulations and Standard Specifications.

D12.03 PAYMENT

Payment for valve boxes, meter boxes, utility boxes, risers, and all labor and materials required for the installation shall be included in the various items of work, and no additional compensation will be made therefore.

END OF SECTION

WATER PIPING, VALVES & APPURTENANCES

D13.01 GENERAL:

The work shall include the furnishing of all materials, tools, implements, labor and equipment necessary to construct, and the construction of, the water piping, valves, and appurtenances including fittings, closure pieces, supports, bolts, nuts, gaskets and jointing materials in accordance with the City Specifications and the following. In case of conflict between these Technical Specifications and the City Specifications, these Technical Specifications shall take precedence. See Section D16 for connection to existing water mains.

All materials shall be new and shall be furnished and installed by the Contractor to complete the work and improvements as herein specified and any deviation therefrom must be approved, in writing, by the Water Director prior to such material being ordered, installed or otherwise used in the work.

All exposed piping shall be adequately supported and restrained with approved devices of appropriate design. Where details are shown, the supports shall conform thereto and shall be placed as indicated; provided that support for all piping shall be complete and adequate regardless of whether or not supporting devices are specifically shown.

The pipe-laying lengths may be 20 feet or 18 feet for pipe lines 24 inches or less in diameter as determined by the Contractor to assure proper alignment of the pipe as shown on the Drawings. For pipe diameters above 24 inch, lay lengths shall be 20' minimum and 40' maximum. Shorter sections may be used for field closures and field adjustments.

The Contractor shall furnish five (5) copies of shop drawings covering the details of the pipe, fittings, or special sections, and miscellaneous items to be furnished and fabricated for the pipe lines. The shop drawings shall include a description of the welding procedure to be used including weld size, location, type and diameter of welding rod, number of passes and type of end preparation required. These shall be submitted for review prior to fabrication in accordance with Specifications. No layout drawings are required for pipelines 24 inches or less in diameter.

The pipe design shall be based on one of two assumptions, either the use of a near vertical trench width with H-20 traffic loading or the use of an unlimited trench width with HS-20 traffic loading. The shop drawings required of the Contractor must incorporate the effects of the actual trench excavation dimensions and methods of excavation selected by the Contractor.

Pressure thrust at bends, tees, bulkheads, etc. shall be restrained by approved devices and appropriate thrust blocking.

Pipe materials and nominal sizes shall be as specified on the drawings. The inside diameter after lining shall not be less than the nominal diameter.

All pipe, specials, and fittings are subject to inspection by the Water Director at the plants where the pipe, specials, and fittings are fabricated and again in the field.

All metal in each fabricated section of pipe shall be bonded for electrical continuity. All steel plate, reinforcing rod, and all other steel components, shall be bonded as shown on the Drawings or as directed by the Water Director. A system for providing electrical continuity between pipe sections shall be shown in the shop drawings, and supplied with the pipe.

Coatings on all portions of the pipeline and its appurtenances that are electrically interconnected must be compatible throughout.

The Contractor shall supply an affidavit of compliance stating that all pipe and specials furnished comply with the applicable requirements of the AWWA and ANSI/ASTM Standards.

Earthwork related to pipeline installation including bedding and backfill shall be as specified in section titled "Earthwork".

D13.02 STANDARDS

The work shall conform to applicable provisions of Uniform Plumbing Code and Standards of American Water Works Association.

The materials for pipe, pipe fittings, nuts and bolts shall conform to all applicable ANSI/AWWA Standards. Threads for pipe smaller than 4" shall conform to ANSI Standard B16.1.

D13.03 SUBMITTALS, SPECIAL PIPE MARKINGS, AND LAYING DIAGRAMS:

Contractor shall submit drawings or other data verifying that the materials to be supplied meet specifications. Submittals will be required for all pipe, fittings, special sections, pipe appurtenances, valves and miscellaneous items.

All special pipe fittings shall be match marked at the place of manufacture to meet laying tolerances and laying requirements. All pipe, specials, and fittings shall be clearly marked on the interior and top exterior surfaces as follows:

- o Pipe with beveled ends shall be marked to show the degree of bevel and the location of the field top.
- o All special sections will be marked to show the location of the field top.
- o The sequence or intended location of the pipe unit.

The Contractor shall submit a tabulated schedule, with reference to the stationing and profile grade line shown on the Drawings. The schedule shall show pressure class and the

depth of cover zones, and the point of change from one class to the next shall be clearly indicated by station number. The diameter of the pipe, the design pressure, the depth of cover, and the thickness of pipe wall and cross sectional area of steel (per linear foot of pipe) in the reinforcing wire and steel cylinder shall be listed for each fabricated section of pipe. The layout schedule shall be prepared with sufficient clarity and detail to facilitate ease of construction staking.

D13.04 <u>DESIGN PRESSURES</u>

"Design Pressure" for pipeline design shall be as specified in the pipe thickness classification or Dimension Ratio but in no case less than 175 psi.

D13.05 EXTERNAL LOADS

Unless noted otherwise on the drawings, design for external loads shall be based on depth of cover indicated on the drawings for dead loads and H20 loading for live loads. H20 loading shall be considered in both paved and unpaved areas.

D13.06 TRANSPORTATION AND DELIVERY OF PIPE:

Transportation and delivery of pipe shall comply with the manufacturer's recommendations.

Steel plate specials and pipe (where applicable) shall be strutted, loaded and transported to prevent damage of the lining and coating. Said struts shall be installed prior to the removal of the pipe from the fabricating yard. To limit deflection, vertical struts shall remain in the pipe until after the backfill has been placed to full height and compaction completed.

During loading, transportation and unloading, every precaution shall be taken to prevent damage to the pipe or its coating or lining. Pipe shall be handled only by means of approved hooks on the ends or by means of approved slings. Trucks or trailers used for transporting the pipe shall be provided with padded bolsters curved to fit the outside of the pipe. Padding sufficiently thick and stiff to prevent scoring of coating shall be used under chains. When stored at trench side or elsewhere, pipe shall be supported at quarter points by two substantial timber cradles or by two sand ribbons. Any pipe section that becomes damaged shall be repaired at the expense of the contractor as directed by the Water Director if, in his opinion, a satisfactory repair can be made; otherwise, it shall be replaced with an undamaged section of pipe at the expense of the Contractor.

All dirt and other foreign matter shall be removed from the pipe barrel, and the pipe ends shall be thoroughly cleaned prior to the laying operation. The lifting and lowering of the pipe into the trench shall be accomplished by the use of devices of proper width and design to prevent damage to the pipe, its lining and coating. The pipe shall not be dragged, pushed or otherwise slid into position.

D13.07 THRUST RESTRAINT

Thrust restraint shall be provided at all horizontal and vertical bends, tees, dead ends and on both sides of line valves. In lieu of concrete thrust blocks in the City Specifications, thrust restraint for the water transmission main shall be accomplished by mechanically restrained joints except where concrete thrust blocks are specifically called for on the drawings. All valves within restrained pipe areas shall be flanged. All fire hydrant assemblies shall be restrained from the main to hydrant.

On all tie-ins and connections, the contractor shall provide a minimum of ten (10) feet continuously restrained pipe in each direction. Any unrestrained joint closer than 10 feet to the connection or tie-in shall be mechanically restrained.

D13.08 <u>DUCTILE IRON PIPE</u>

- A. General Ductile iron pipe shall conform to American Standards Association (A.S.A.) Specifications and/or as called for in the special provisions of the Specifications.
- B. Lining and Coating All ductile iron pipes shall be coated on the exterior with a protective coating of standard tar varnish and lined on the interior with a bituminous seal coated cement mortar conforming to A.S.A. Specifications. In addition, the entire section of ductile iron pipeline including valves, fittings, and appurtenant structures shall be encased in 8-mil polyethylene. The polyethylene shall be installed in accordance with AWWA Specification C-105.
- C. Joints All pipe shall be manufactured with one bell end and one spigot end for "Push-On" joint assembly (Tyton Type joint or approved equal) employing a single continuous rubber gasket to effect the joint seal conforming to A.S.A. Specifications A21.11-1965, unless other type jointing is approved or directed to be used by the Water Director. Not less than one (1) rubber gasket shall be furnished with each length of pipe delivered to the jobsite.
 - Whenever approved or directed for use by the Water Director, rubber gasketed mechanical joint conforming to A.S.A. Specifications A21.10-1964 shall be used to assemble lengths of distribution pipeline. However, wherever a mechanical joint is used, the same shall be encased with a loose tube or sleeve of polyethylene (minimum 8 mils thickness) securely taped in place and extending along the axis of the pipe for not less than one foot each direction from the center of the joint.
- D. Pipe All ductile iron pipe shall be manufactured in nominal 18 foot laying lengths and conform to A.S.A. Specifications A21.51-1976 and, unless otherwise called for by the approved plan or in the special provisions of the specifications, be of the thickness class 50 or greater.

- E. Couplings Compression Cast Couplings Compression cast couplings for ductile iron pipe shall be furnished with compound rubber gaskets, 5/8" steel bolts with no less than six (6) hex head bolts and nuts for each coupling. The overall length of each coupling shall be not less than six (6) inches. All couplings shall be AWWA approved.
- F. Fittings All main pipeline fittings shall be cast iron or ductile iron and shall conform to A.S.A. Specification A21-10.64.
- G. Lining and Coating All fittings shall be coated with standard tar varnish and lined on the interior with a bituminous seal coated cement mortar lining conforming to A.S.A. Specification A21.4-61.
- H. Material Pressure and Design All main pipeline fittings shall have a pressure rating of not less than 250 psi.
- I. Handling Handling shall conform to Subsection 204.13.
- J. Installation Ductile iron pipe shall be installed in accordance with the "American National Standard for Installation of Gray and Ductile Cast-Iron Water Mains and Appurtenances" (ANSI/AWWA C600). Buried pipe shall be polyethylene-encased in accordance with the American National Standard for Polyethylene Encasement for Gray and Ductile Cast-Iron Piping for Water and Other Liquids" (ANSI A21.5/AWWA C105).

At all time when the pipe laying is not in progress, the open end of the pipe already laid shall be closed by a water-tight plug.

After placing a length of pipe in the trench, the spigot end shall be centered in the bell after placing the rubber ring by forcing the spigot home against the bell shoulder. No "bumping home" of the pipe will be allowed.

The cutting of pipe for inserting valves, fittings, etc. shall be done in a neat workmanlike manner without damage to the pipe or cement lining so as to leave a smooth end at right angles to the pipe.

Pipe shall be laid with bell ends facing the direction of laying unless otherwise directed by the Water Director. Backfilling around the pipe zone shown in City Standard Dwg. 3-19 shall be of sand backfill.

D13.09 POLYVINYL CHLORIDE (PVC) PIPE

A. All PVC pipe for treated water mains shall comply with AWWA Standard C900 Pressure Class 200 psi DR-14 for pipes 12 inches and smaller in diameter. PVC pipes 14" and bigger in diameter shall conform with AWWA Standard C905 Pressure Class 235 psi.

- B. Pipe All PVC pipe shall be manufactured in nominal 20 foot laying lengths with push-on joint assembly employing a single continuous rubber gasket to effect a joint seal. The wall thickness of the bell in the gasket groove and bell entry section shall not be less than that of the pipe barrel. The outside diameter of the pipe barrel shall be consistent with that of ductile pipe of the same nominal diameter.
- C. Fittings All main pipeline fittings shall be cast iron or ductile iron and shall conform to A.S.A. Specification A21-10.64. Ductile iron fittings used in PVC pipe shall be polyethylene encased. Cutting of regular bell and spigot pipe to shorter lengths in order to make curved pipeline installations will not be allowed.
- D. Lining and Coating All fittings shall be coated with standard tar varnish and lined on the interior with a bituminous seal coated cement mortar lining conforming to A.S.A. Specification A21.4-61.
- E. Material Pressure and Design All main pipeline fittings shall have a pressure rating of not less than 250 psi.
- F. Installation PVC pipe shall be installed in accordance with the "Uni-Bell Handbook of PVC Pipe Design and Construction, third edition".

At all time when the pipe laying is not in progress, the open end of the pipe already laid shall be closed by a water-tight plug.

After placing a length of pipe in the trench, the spigot end shall be centered in the bell after placing the rubber ring by forcing the spigot home against the bell shoulder. No "bumping home" of the pipe will be allowed.

The cutting of pipe for inserting valves, fittings, etc. shall be done in a neat workmanlike manner without damage to the pipe so as to leave a smooth end at right angles to the pipe. Pipe shall be laid with bell ends facing the direction of laying unless otherwise directed by the Water Director.

PVC pipes shall not be installed directly against butterfly valves. Flanged by Mechanical Joint ductile iron pipe spool pieces shall be installed between the butterfly valve and PVC pipe in either side of the valve in order to insure enough clearance for the valve disc to clear the inner walls of the pipe during the valve's closing and opening operation.

Backfill around the pipe zone for PVC pipe shall be Class II AB and compacted to at least 95% of maximum dry density. See Standard Trench Backfill Detail (City Dwg. No. 3-19) for trench backfill compaction requirements.

D13.10 High Density Polyethylene (HDPE) Water Service Tubing

All HDPE water service tubing shall be blue copper tubing size (CTS) SDR9 tubing, and shall conform to both AWWA C901 and ASTM D2737, and shall be either PE3608 - 200psi tubing or PE4710 - 250psi tubing. Tubing shall be continuously marked at a minimum with; manufacturer, size, specification information and manufacturing codes. If soil contaminations is suspected during construction the Contractor shall notify the Engineer prior to the installation of HDPE material. Use of HDPE material within or adjacent to areas of known contaminated soils is strictly prohibited.

D13.11 House Supply Piping

Water pipes and fitting outside of the building shall be Copper (type L). Underground water lines shall be buried a minimum of 12 inches below grade (CPC 609), with a clear horizontal, and vertical crossing, distance of not less than 12 inches from the sewer or drain line. Provide dielectric unions where applicable. Restore any electrical grounding wire and connections. Install at least one (1) magnesium anode (17lbs. min.) per City Detail. Replace landscaping that was removed or damaged in the course of installing house supply pipping to with new sod; restore all other vegetation and landscape features with original or replace if damaged.

D13.12 <u>PIPE APPURTENANCES</u>

A. COUPLINGS AND ADAPTERS. MAINLINE

Mechanical Joint solid-sleeve type couplings shall be used for all spigot to spigot pipe connections in all new main installations. Mechanical Joint (M.J.) sleeves shall comply with AWWA C110 Table 10.10 or C153 Table 53.5. The pressure class shall be 350 psi. In cases of differing pipe O.D's, an M.J. transition sleeve shall be used. For transition couplings larger than 12" diameter, submit manufacturers specification data for approval.

B. GASKETS AND BOLTS:

Except as otherwise provided, gaskets for flanged joints shall be 1/16 inch thick rubber fabric. Asbestos gaskets shall not be permitted.

Wherever blind flanges are shown, the gaskets shall consist of 1/8 inch thick cloth-inserted rubber sheet which shall cover the entire inside surface of the blind flanges and shall be cemented to the surface of the blind flange.

Except as otherwise provided all bolts, nuts, and washers shall be low alloy steel.

D13.13 FITTINGS

- A. Threaded Outlet: Grinnell Fig. 1812; 3000# Threaded Trans-O-Con, Phoenix Forging Co.; Bonney Forge Thredolet 3000#; or approved equal.
- B. Welding Outlet: Grinnell, Fig. 1811, Bonney Forge Weldolet, or approved equal, standard weight.
- C. Welding Ells, Tees, and Reducers: Taylor Forge, Grinnell, or approved equal, standard weight.
- D. Insulating Flanged Coupling Adapter: Rockwell 932, Dresser 127 I, or approved equal.
- E. Corporation Stops: See Vallejo Standard
- F. Brass Fittings: All brass fittings for installation of service connections (laterals) and 2" air valves (laterals) shall be as manufactured by Mueller Company of Decatur, Illinois, or approved equal, complying with AWWA Specification C800.

D13.14 <u>VALVES AND GATES</u>

A. GENERAL:

The Contractor shall furnish and install all valves and gates as shown and specified. In addition, valve-operating units, stem extensions and other accessories shall be furnished and installed by the Contractor where shown, or where required in the opinion of the Water Director, to provide for convenience in operation. Where buried valves are indicated, the Contractor shall furnish and install valve boxes to grade. All valves shall be new and of current manufacture. Flanged valves shall be provided in areas where thrust restraint is accomplished by the method of restrained joints.

The flanges of valves shall be plain faced. Flanges of valves for a design pressure of 150 psi or less shall be faced and drilled to Class 125 ANSI B16.1. Flanges of valves for design pressures greater than 150 psi shall be faced and drilled to Class 250 ANSI B16.1.

Unless otherwise specified, each valve body shall be tested under a test pressure equal to twice its design pressure.

Except where otherwise provided, ferrous surfaces, exclusive of stainless steel surfaces, in the water passages of all valves 4-inch and larger, as well as the exterior surfaces of all buried or submerged valves, shall be epoxy coated as specified herein.

Shop drawings of all valves and operators including wiring diagrams and electrical data, where needed, shall be submitted.

Except when such requirements are waived by the Water Director in writing, a label shall be provided on all shut-off valves exclusive of hose bibs. Labels shall be 1/16-inch Type 304 stainless steel plate engraved with valve information. The Contractor shall submit a schedule of valves to be labeled indicating in each case the valve location and the proposed wording for the label.

B. BUTTERFLY VALVES:

Valves 12" and larger shall be butterfly valves conforming to AWWA C504 Class 150b.

- (a) Cast iron or ductile iron body with flange or MJ type joints.
- (b) All interior and exterior ferrous surfaces shall be lined and coated with factory applied epoxy in accordance with AWWA C550. Minimum thickness shall be 8 mils.
- (c) Valves 24" diameter and larger shall have mechanically retained seats that are field adjustable and replaceable. Adjusting segments and retainer screws shall be 316 stainless steel. Seat mating surface shall be 316 stainless steel or monel.
- (d) Valve shafts for 24" diameter and larger valves shall be 316 stainless steel. Stub shafts or through shafts are acceptable. The valve shaft/disc connection shall be made through the use of on-center taper pins and locknuts. The taper pins and locknuts shall be of the same materials as the valve shaft. The material shall be 316 stainless steel
- (e) Valve shall have a 2" sq. operating nut and shall open counter clockwise.

Acceptable manufacturer: Pratt "Groundhog", Dezurik Fig 670 or approved equal.

C. GATE VALVES

All valves 10" diameter and smaller shall be resilient seat gate valves conforming to AWWA C-509 and C-550. Valve I.D. shall be nominal or larger.

A. Cast iron or ductile iron body with "push-on" Tyton type joints or flanged as indicated in project plans, suitable for buried insulation. Fire hydrant valves shall be flanged x MJ.

- B. All interior and exterior ferrous surfaces shall be lined and coated with factory applied epoxy in accordance with AWWA C550. Minimum thickness shall be 8 mils.
- C. Bronze or stainless steel mounted resilient rubber encapsulated disc or seat.
- D. Stationary stem with O-ring type seal 2 inch square operator non-rising stem.
- E. Valve shall open left (counter-clockwise) acceptable manufacturers: American Darling, Clow, U.S. Pipe, M & H, Mueller, or approved equal.

D. COMBINATION AIR VALVES (CAV)

Combination Air Valves (CAV) valves shall be of the size shown and shall have flanged or screwed ends to match piping. Bodies shall be of high-strength cast iron. The float, seat, and all moving parts shall be constructed of Type 18-8 stainless steel. Seat washers and gaskets shall be of a material insuring water tightness with a minimum of maintenance. Valves shall be lined and coated with a minimum of 8 mils of factory applied epoxy. Valves shall be designed for minimum 150 psi water-working pressure, unless otherwise shown. Valves shall be the type that purges air from the system at start up, and vent small pockets of air while the system is pressurized and prevent critical vacuum conditions during draining of the system, and shall be "Standard Combination Air Valves, Bulletin #623" as manufactured by APCO Valve and Primer Corporation; or Crispin; or G.A. Industries, Inc.; or approved equal.

E. BLOW-OFF ASSEMBLIES

The Blow-off Assembly shall be of the size and type shown on the plans. The gate valve, valve box, and riser box assemblies shall be as shown on the plans and per these specifications. Blow-off assemblies shall be designed for pressures equivalent to that of the adjacent pipe.

F. BALL VALVES:

- 1) Bronze body.
- 2) Threaded ends.
- 3) Teflon seats.
- 4) Rated 400 psi at 100° F.
- 5) Acceptable products:

- a) Watts B-6000
- b) Jamesbury Series 1000
- c) or equal.

D13.15 DI - ELECTRIC FITTINGS AND COATINGS

A. GENERAL

Brass, copper and stainless steel shall be kept electrically isolated form ductile iron and low alloy steel. Eliminate points of direct metallic contact through the use of insulating bushings, PVC sch. 80 nipples, insulating couplings, or other approved insulating system. Also isolate nonferrous pipe from steel supports and pipe straps by means of insulating sleeves or dielectric tape.

B. INSULATING FLANGED JOINTS

Insulating flanged joints shall be provided where shown. Insulating flanged sets shall have laminated phenolic gaskets and shall be provided with laminated phenolic sleeves and washers. Plain phenolic flange kits shall have 1/16" back-up gaskets on each side of the phenolic gasket to aid in sealing. Acceptable manufactures are "CALPICO" of South San Francisco and P.S.I., Pipeline Seal & Insulator Inc., of Houston, Texas.

C. TAPE & MASTIC

- (1) Tape Materials and method of application shall comply with AWWA C209. Tape shall be 10 mil (minimum) polyvinyl tape, half lapped to provide 20 mils of coating. All miscellaneous metals shall be protected form direct contact with soil or concrete. Acceptable manufacturers: Polyken Technologies, Pacific Pipeline Products, Emeryville, CA; CALPICO Inc. of San Francisco, CA; Scotchwrap, 3M Company, St. Paul MN; or equal.
- (2) Mastic Coating All buried metallic appurtenances (bolts, nuts, tierods, clamps, brackets, etc.) shall be coated with cold applied, self priming, "Bitumastic," minimum dry thickness shall be 16 mils mastic shall comply with V.O.C. requirements as established by Bay Area Air Quality Management Standards except for buttstraps and handholes which shall be mortar coated.

Where metal is partially embedded in concrete (fence posts, risers, brackets, etc.) wrap pipe with tape, or coat with "Bitumastic," for a minimum distance of 3" into concrete and 3" exposed. Acceptable

manufacturers: Protector Wrap CA1200; GACO NA-62 with GACO NA-62 Prime Coat; Tapecoat TC Mastic; Royston A-51; Koppers Bitumastic No. 50; Polyguard CA14; or equal.

D13.16 BACKFILL

A. GENERAL

Subsequent backfill material, above the pipe zone shall comply with the <u>Trench Details in the Plans</u> and Section D6.03 of these specifications.

B. SAND

Sand backfill is required in the pipe zone of polyethylene encased Ductile Iron Pipe. Sand quality and gradation shall comply with Section D6.03 (e) of these specifications.

C. CLASS II AB, 3/4"

The pipe zone of all PVC pipe, copper or CPVC services, valve risers, meter boxes and other pipeline appurtenances shall be backfilled with 3/4" Class II aggregate Base as specified in Section 26-1.02B in the Standard Specifications.

D13.17 EPOXY COATING

A. GENERAL

Where specified or shown, a fusion-bonded epoxy coating shall be applied as specified in the following: All butterfly and gate valves, combination air/vacuum release valves.

B. MATERIAL

Except as otherwise provided herein, the material used shall be 100 percent solids, fusion bonded, thermo setting resin powder and shall be Three-M Company "Scotchkote No. 203", Michigan Chrome and Chemical Company "Micron 650", or equal.

Where, in the Water Director's opinion, because of the nature of the item being coated, it would be impossible to use the powder epoxy method without causing damage to the item, the use of a liquid epoxy will be permitted. Liquid epoxy shall be Three-M Company No. 302, SOC-CO Plastic Coating Co. Keysite 740, or equal.

C. SURFACE PREPARATION

The surface shall be blast-cleaned in accordance with SSPC-SP-5 (White Metal Blast Cleaning). The grit size used shall be as recommended by the epoxy manufacturer.

D. APPLICATION

The fusion-bonded epoxy coating shall be applied by the fluidized bed process in accordance with AWWA C213-85 and the manufacturer's instructions. If liquid epoxy is permitted, it shall be applied in accordance with AWWA C210-84 and in not less than three spray coats to give the required total thickness.

E. THICKNESS OF COATING

The minimum dry coating thickness shall be 8 mils unless noted otherwise on the drawings, except that the thickness of coating in the grooves for valves or fittings designed to receive a rubber gasket shall be approximately 5 mils.

F. INSPECTION

Coating thickness shall be checked with a non-destructive magnetic type thickness gage. Coating integrity shall be tested with a sponge testing unit operating at approximately 60 volts. All pinholes shall be marked, repaired and retested. No pinholes or other irregularities will be permitted in the final coating.

G. FIELD REPAIRS

If small local repairs are necessary, they shall be made using a liquid epoxy recommended by the manufacturer of the epoxy with which the item was initially coated. The surface shall first be hand-tool cleaned in accordance with SSPC-SP-2 (Hand-Tool Cleaning). The repair epoxy material shall be applied in accordance with the manufacturer's instructions. Minimum dry thickness shall be as specified in above paragraph titled "Thickness of Coating".

D13.18 <u>CASING</u> (NOT USED)

Where shown in the drawings, casings for use as carrier/conduit pipe for water mains crossing California Department of Transportation controlled highways and thoroughfares shall be installed to the size and thickness called for in the drawings. The casing shall be made from PE3408 Extra High Molecular Weight HDPE with a minimum (thickness) dimension ratio of DR11.

D13.19 WATER PIPING, VALVES AND APPURTENCES BID ITEM DESCIRIPTION

(a) Furnish and Install 8" C900 Class 200 PVC Waterline

Includes among others, saw cutting, all excavation, removal and disposal of trench spoils, bedding, dewatering, backfill and installation of pipe, pipe fittings, connections to new and existing pipe systems, removal of any existing pipe around tie ins and any other pipe installation location to allow workability, Megalug mechanical restraints where required, testing, disinfection, backfill, temporary paving, pavement markings, concrete curb, gutter, traffic loops, tracer wire installation, survey monument and sidewalk repair and/or restoration.

(b) Furnish and Install 6" Fire Hydrant Assembly

Includes among others, saw cutting, all excavation, disposal of existing pavement, installation of tee, 6" gate valve, 6" hydrant run, bury, fire hydrant installation, valve risers, valve boxes, valve covers, backfilling, tracer wire installation, compaction, and temporary paving per City Standard Drawing. No. 4-05. It includes removal of old hydrant assembly, salvage of old fire hydrant, capping of abandoned pipe, pavement markings, concrete curb, gutter, traffic loops, tracer wire installation, survey monument and sidewalk repair and/or restoration. The fire hydrant shall have a riser break-off spool (no break-off check valve).

(c) Furnish and Install 1" Water Service Laterals

Includes among others, all excavation, removal & disposal of existing pavement, installation of service saddle, corporation stop and <u>HDPE pipe service lateral</u>, backfilling, compaction, sidewalk repair or reconstruction & repaving in accordance with City Standards and Standard Drawings 4-03.B, 4-22 and 4-23.

Water service laterals shall be installed using trenchless methods such as piercing tools, extracting or splitting existing service line

(d) Furnish and Install 8" Gate Valve

Includes among others, gate valve and hardware installation, valve box, valve cover, valve key extension, excavation, tracer wire installation, thrust restraint, backfilling, and paving per City Standards and Standard Drawings 4-13 and 4-14.

(e) Furnish and Install Zone Valve Assembly

Includes among others, gate valves and hardware installation, valve boxes, valve covers, valve key extension, excavation, tracer wire installation, thrust restraint, backfilling, and paving per City Standards and Standard Drawings 4-12.

D13.20 MEASUREMENT AND PAYMENT

Water mains and casing installations (where required) will be measured in a horizontal plane by the linear foot of main installed and in place. The measurement will be made along the horizontal centerline of the pipe including the specials and

from center-to-center of valves. No reduction in length will be made for valves. Bends and other specials shall be included in the length measured.

All Valve, Fire Hydrant, Air Valve, Blow Off, Zone Valve, and Extra Paving installations shall be measured by the number of units or assemblies provided. All new water service connections shall be measured by the actual number of installations completed.

The contract unit prices paid shall include all labor, tools, materials and equipment and be full compensation to provide the contract item complete in place including, but not limited to, the elements listed in the subsection D13.18 descriptions for the contract items.

END OF SECTION

TESTING AND DISINFECTION

D14.01 GENERAL

- (a) Except as otherwise provided herein, the Contractor shall furnish all equipment, labor, and materials required for testing all hydraulic pipelines as specified. Water for testing will be furnished by the Owner at a location and maximum flow rate determined by the City Water Director; however, the Contractor shall make all necessary provisions for conveying the water from the Owner designated source to the points of use. Contractor responsibility included providing tapping materials, isolation valves, backflow devices, temporary water meters, isolation valves, pumps, hoses, adapters, caps and any other provisions necessary to convey the water from a designated mainline, blow-off, fire hydrant or other source to the point of use.
- (b) Release of water from structures and pipelines, after testing has been completed shall be as directed by the Water Director.

D14.02 PRELIMINARY CLEANING AND FLUSHING

Prior to testing, all hydraulic structures shall be cleaned by thoroughly hosing down all surfaces with a high pressure hose and nozzle of sufficient size to deliver a minimum flow of 50 gpm; all pipelines shall be thoroughly flushed or blown out, as appropriate.

D14.03 TESTING PIPING

Prior to testing, all piping shall be flushed or blown out as appropriate. The Contractor shall test all piping either in sections or as a unit. Mortar-lined piping shall not be tested before the mortar lining has attained an age of fourteen (14) days. The line to be tested shall be physically isolated form the existing distribution system. No testing against a valve will be permitted. Temporary blow-offs or bulkheads shall be used. The line shall be filled slowly with water. Care shall be taken to see that all air vents are open during filling. Where air vents or other connections are required for testing purposes but no permanent vents or connections are required, the Contractor shall provide a 2-inch heavy tap coupling welded to the pipe as directed by the Water Director. For concrete cylinder pipe, such connections shall be plugged and coated inside and out with cement mortar when testing is completed. For tape wrapped steel pipe, such connections shall be plugged, coated inside with mortar and coated outside with hand applied tape in accordance with manufacturer's requirements, when testing is completed.

After the piping or section thereof has been filled, it shall be allowed to stand under a slight pressure for a sufficient length of time to allow the mortar lining to absorb what water it will and to allow the escape of air from any air pockets. During this

period, bulkheads, valves, and connections shall be examined for leaks. If any are found, corrective measures satisfactory to the Water Director shall be taken. This test shall consist of holding test pressure on the piping for a period of four (4) hours. Test pressure shall be 175 psi or 125% of working pressure, whichever is greater. Measured leakage during the test period shall not exceed the following:

For rubber gasket joints, five (5) gallons per inch diameter per twenty-four (24) hours per mile of pipe.

For welded or flanged joints, one and one-half $(1\frac{1}{2})$ gallons per inch diameter per twenty-four (24) hours per mile of pipe.

D14.04 DISINFECTION

The Contractor shall provide a notice to the city 72 hours prior to disinfection.

The Contractor shall comply with AWWA Standard, C651-14 Disinfection of Water Mains Section 4.3 Tablet Method

The Contractor shall do all labor, materials, and equipment necessary to perform the disinfection of the completed work. The Contractor shall furnish and place H.T.H. disinfection tablets in each length of pipe as it is placed in the trench. The tablets must be secured to the upper inside surface of each length of pipe by using Permatex No. 2 compound or equal.

The city will comply with AWWA 651-14 Section 5.1 - Bacteriological testing. The contractor shall note that the bacteriological testing takes a minimum of 48 hours to complete.

The City of Vallejo will take samples and blow off water mains prior to making final tie-in to existing system.

In the event that the samples taken by the City result in positive bacteria presence in the sampled main, the main shall be re-disinfected by the Contractor using a chlorine injection method with a dosage 50 mg/l chlorine solution and supervised by City personnel. The water main shall again be blown off and resampled by the City. Any re-disinfection and resampling in addition to the initial disinfection and sampling will be paid for by the Contractor.

D14.05 PAYMENT

The cost of testing and disinfection of the pipelines shall be included in the various items of work, and no additional compensation will be made therefore.

CONNECTION TO EXISTING WATERMAINS

D15.01 GENERAL

- (a) The work included in this section is the removal of the portions of the existing water mains, hot taps on existing water mains, and the connection of the new water mains.
- (b) The Contractor, as one of the first items of work, shall expose the existing water mains at the points of connection, and shall verify the dimensions and locations shown on the plans. The contractor shall provide and install the tapping sleeves and tapping valves called for in the drawings. The City forces shall perform the actual hot tap.
- (c) Schedule of critical shut-downs, tie ins and penalties:

No tie-ins and shutdowns shall be scheduled on Mondays and Fridays. Maximum shut down time shall be eight (8) hours. Tie-ins for single stretch waterlines shall be completed at both ends within the same day.

Delays due to failure of the contractor to make these tie-ins within the eight (8) hour time frame shall result in significant expense and risk to the City. The Contractor shall be penalized in the amount of one thousand dollars (\$1,000.00) per hour per tie-in location, as identified by sequence number, for failure to complete the tie-in within the allotted shut down time. The Contractor's attention is directed to Section B "Hours of Work" and "Liquidated Damages". The above penalties for failure to complete the tie-ins are in addition to any and all liquidated damages as may be assessed.

The contractor shall give the City at least seventy two (72) hours advanced notification for request for shut down and tie-ins. The City Crews shall notify all affected services and schedule crew/s to dewater the existing waterline/s. Time required to dewater the pipeline shall not be included in the shutdown time limit set above.

D15.02 MATERIALS

The water mains, valves, and all appurtenances shall conform to Division D13 of these Specifications. The excavation, backfill and resurfacing of the work areas shall conform to Division D6 and D7 of these Specifications.

D15.03 CONSTRUCTION

(a) As set forth in D16.01 (b) above, the Contractor shall verify all dimensions at the points of connection. The shop drawings (where required) prepared by

the supplier shall reflect the actual field dimensions as discovered by the Contractor.

- (b) Tie-ins require the removal of a section of existing pipe/s. The Contractor shall remove existing pipe as needed to effect the tie-ins and connections shown in the drawings
- (c) The Contractor shall coordinate with the City regarding the shutdown of the existing water mains.
- (d) Abandoned mains shall be filled with a minimum 12" long concrete plugs at each end.

D15.04 THRUST RESTRAINT

The contractor shall provide the required thrust restraint by mechanical means (Megalugs) and by providing concrete thrust blocks and/or a combination of both. See minimum thrust block dimensions required by the detail "Thrust Block and Anchor Blocks For 4" to 12" Fittings" shown on City Standard Dwg. No. 4-06. Thrust restraint for larger mains shall be provided based on a static pressure of 175 psi. Calculations for required concrete thrust blocks shall be submitted by the Contractor. Thrust calculations shall be prepared and signed by a Registered Civil Engineer licensed to practice in the State of California.

D15.05 TESTING

(a) The testing of the connecting piece at each location shall conform to Divisions D14 of these Specifications. The Contractor shall install all of the connecting pieces, at each location, and shall test the remainder of the water main separately. Upon acceptance of the testing, the Contractor shall open the valves as directed by the Water Director and complete the connections.

D15.06 ABANDONMENT OF MAINS & VALVES

(a) Existing water mains that are for scheduled for abandonment shall be capped and plugged with at least 1 foot of concrete at each end. Old water valves shall be abandoned turning the valve in to the closed position and by removing the riser pipe and backfilling with Class II AB and paving with AC as directed by the Engineer and/or Inspector.

D15.07 PAYMENT

(a) The unit price paid for water mains installation shall include the costs of connections to the existing water mains and shall include all labor, tools, materials, and equipment to effect a complete working connection, including excavation, removals and disposal of spoils, valves and fittings, capping and

plugging abandoned mains, bedding and backfill, and resurfacing, and no additional compensation will be made for tie-ins.

END OF SECTION