



**NOTICE TO CONTRACTORS,  
PROPOSAL,  
AGREEMENT, &  
SPECIAL PROVISIONS**

FOR CONSTRUCTION ON  
**Project No: 23-030**  
**RWQCF In-Plant Waste Line Repair**

IN STANISLAUS COUNTY,  
TURLOCK, CALIFORNIA.

---

Public Works Department/ Engineering Division  
Phone: (209) 668-6035  
Contact Person: Janine Lee

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**William D. Morris, P.E.**  
City Engineer

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Proposals shall be delivered to Turlock, California  
at or before 10:00 AM on Tuesday, October 17, 2023  
at the office of the City Engineer,  
Public Works: Engineering Division  
156 S. Broadway, Suite 150  
Turlock, CA 95380

## LICENSEES RESPONSIBLE FOR SPECIFICATIONS

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Contract documents prepared by or under the direction of the following registered persons:

City Engineer (Front End Specifications)

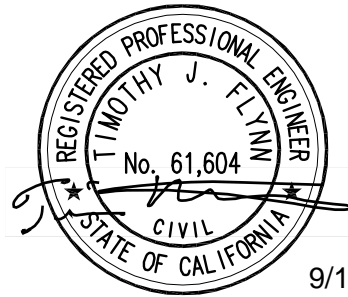
William D. Morris  
Public Works Department  
Engineering Division  
156 S. Broadway, Suite 150  
Turlock, CA 95380  
(209) 668-5520



9/18/23

Civil (Technical Specifications)

Timothy J. Flynn  
Blair, Church & Flynn  
451 Clovis Avenue, Suite 200  
Clovis, CA 93612  
(559) 326-1400



9/18/23

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020100.91	RESTORATION OF SURFACES
314133.01	WORKER PROTECTION FROM THE HAZARD OF CAVING GROUND
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330561	POLYMER CONCRETE MANHOLES

# CITY OF TURLOCK, CALIFORNIA

## NOTICE TO CONTRACTORS

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Sealed proposals will be received by the City Engineer of the City of Turlock, Public Works/Engineering Division, 156 S. Broadway, Suite 150, Turlock, California 95380, until 10:00 AM on Tuesday, October 17th, 2023, for:

### **City Project No. 23-030** **RWQCF In-Plant Waste Line Repair**

In accordance with and as described and provided in the plans, specifications and the proposed form of contract therefore, all of which are on file in the office of the City Engineer, and to which special reference is hereby made.

No verbal, telegraphic, electronic mail, facsimile, or telephone Proposals shall be considered.

A mandatory Pre-Bid meeting will be held on Wednesday, October 4th, 2023 at 3:00 PM at Turlock Regional Water Control Facility, 901 S Walnut Rd, Turlock, CA 95380. Only prime contractors who intend to bid on the project are recommended to attend. Sub-contractors and suppliers may attend but are not required to do so. The purpose of the pre-bid meeting is to give contractor an opportunity to visit the project site.

Proposals are required to be complete and for the entire work, materials and improvements unless the contrary is indicated in the specifications.

In accordance with the provisions of California Business and professions Code, Section 7028, Contractor shall possess one of the following Contractor license(s) at the time of bid and for the duration of the contract:

1. A-General Engineering Contractor

Failure to possess a specified license shall render the Bid as non-responsive, shall act as a bar to award of the contract to any Bidder not possessing said license(s) at the time of Bid opening and shall result in the forfeiture of the security of said Bidder. Furthermore, any Bidder or Contractor not so licensed shall be subject to all legal penalties imposed by law, including, but not limited to, any appropriate disciplinary action by the Contractor's License Board.

Each proposal must be accompanied by cash, cashier's check, or check certified by a responsible bank, or by a bid bond, the proposed form of which is on file in the office of the City Engineer of said City and to which special reference is hereby made in a sum not less than ten percent (10%) of the total amount bid, payable to the City of Turlock as liquidated damages in the case the bidder is awarded the contract and fails within ten (10) days after the date of mailing to him by the City Engineer of a notice of award of the contract and that the contract is ready for signature to execute the above-mentioned written contract and file with the City Engineer satisfactory insurance certificates as required by the terms of

said contract and satisfactory bonds as required by law for the faithful performance of said contract and for the protection of material, men and laborers. Special reference is hereby made to Sections 5100, et. seq., of the Public Contracts Code of the State of California and to the proposed forms for said bonds now on file in the office of the said City Engineer for further particulars regarding bonds.

Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates in the county Stanislaus in which the work is to be done have been determined by the Director of the California Department of Industrial Relations. These wages are set forth in the General Prevailing Wage Rates for this project, available at 156 S. Broadway St, Turlock, CA 95380 and available from the California Department of Industrial Relations' Internet web site at <http://www.dir.ca.gov/DLSR/PWD>.

Bidders' attention is directed to the insurance requirements in the contract. It is highly recommended that bidders confer with their respective insurance carriers or brokers to determine in advance of bid submission the availability of insurance certificates and endorsements prescribed and provided herein. If an apparent low bidder fails to comply strictly with the insurance requirements, that bidder may be disqualified from award of the contract.

No proposal will be considered unless made on forms furnished by the City Engineer of said City at his office of said City. Each proposal must be sealed, and the envelope containing the same must be addressed to the City Engineer of the City of Turlock and must be plainly marked. Each proposal shall clearly identify the bidders name and address on the sealed envelope.

Each bid shall separately state in figures the price offered for the approximate quantity of each item set forth and shall also state in words and figures the total contract price. Quantities set forth in the proposal form and in the specifications are approximate only, being given as a basis for comparison of bids, and the City of Turlock does not expressly or implied agree that the actual amount of work or materials will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work or materials as may be deemed necessary by the City Engineer.

Proposals may not be withdrawn for a period of sixty (60) days after the time fixed for opening of proposals. The City Council of the City of Turlock reserves the right to reject any and all proposals or any part thereof and to waive any errors or informalities in any proposals and to set and act as sole judge of the merit and qualifications of the equipment, supplies or services offered.

At the request and expense of Contractor, pursuant to Division 2, Part 5, Section 22300, et. seq., of the Public Contracts Code, securities equivalent to any funds withheld as retention from progress payments made under this contract may be deposited with the City of Turlock or with a State or Federally chartered bank as escrow agent, who shall pay such moneys to Contractor upon completion of the contract.

Copies of the Contract Documents, including Instructions to Bidders, Bid Proposal forms, Plans and Specifications, may be downloaded from the engineering division's web site or purchased for a non-refundable fee of **Thirty dollars (\$30)** at the Office of the City Engineer, 156 S. Broadway, Ste. 150, Turlock, CA 95380, Phone (209) 668-5520. For additional information, go to <http://www.cityofturlock.org/capitalprojects>

The U.S. Department of Transportation (DOT) provides a toll-free “hotline” service to report bid rigging activities. Bid rigging activities can be reported Mondays through Fridays, between 8:00 a.m. and 5:00 p.m., Eastern Time, Telephone No. 1-800-424-9071. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the “hotline” to report these activities. The “hotline” is part of the DOT’s continuing effort to identify and investigate highway construction contract fraud and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

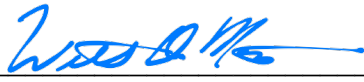
No contractor or subcontractor may be listed on a bid proposal for a public works unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. No contractor or subcontractor may be awarded a contract for public work on a public works unless registered with the 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. The contractors and subcontractors must furnish electronic certified payroll records to the Labor Commissioner.

The contractor shall post job site notices prescribed by regulation. (*See* 8 Calif. Code Reg. §16451(d) for the notice that previously was required for projects monitored by the CMU.)

DATED: 9/18/23

CITY OF TURLOCK

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

William D. Morris, PE  
City Engineer



# PROPOSAL

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Project No. 23-030

## RWQCF In-Plant Waste Line Repair

City of Turlock, California

DATED: \_\_\_\_\_

To: The Honorable City Council of the City of Turlock, California:

NAME OF BIDDER: \_\_\_\_\_

BUSINESS ADDRESS: \_\_\_\_\_

PLACE OF RESIDENCE: \_\_\_\_\_

Bids are to be submitted for the entire work. The amount of the bid for comparison purposes will be the total of all items. The bidder shall set forth for each unit basis item of work a unit price and a total for the item, and for each lump sum item a total for the item, all in clearly legible figures in the respective spaces provided for that purpose.

In the case of unit basis items, the amount set forth under the "Item Total" column shall be the product of the unit price bid and the estimated quantity for the item. In case of discrepancy between the unit price and the total set forth for a unit basis item, the unit price shall prevail except as provided in (a) or (b), as follows:

(a) If the amount set forth as unit price is unreadable or otherwise unclear, or is omitted, or is the same as the amount as the entry in the item total column, then the amount set forth in the item total column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price;

(b) (Decimal Errors) If the product of the entered unit price and the estimated quantity is exactly off by a factor of ten, one hundred, etc., or one-tenth, or one-hundredth, etc. from the entered total, the discrepancy will be resolved by using the entered unit price or item total, whichever most closely approximates percentage wise the unit price or item total in the Department's Final Estimate of cost.

## PROPOSAL SUBMITTAL CHECKLIST

The bidder shall provide a complete proposal in a sealed envelope before 10:00 AM on Tuesday, October 17, 2023 at the address shown on the cover sheet of these specifications.

FAILURE TO PROVIDE ALL THE REQUIRED DOCUMENTS LISTED IN THE TABLE BELOW MAY CAUSE THE PROPOSAL TO BE CONSIDERED NON-RESPONSIVE.

<b>Complete Proposal</b>	<b>Page No.</b>
<input type="checkbox"/> PROPOSAL AND BIDDING FORM.....	5-9
<input type="checkbox"/> AFFIDAVIT .....	10
<input type="checkbox"/> INFORMATION REQUIRED OF BIDDER .....	11-12
<input type="checkbox"/> BIDDER'S BOND .....	13-14
<input type="checkbox"/> LIST OF SUBCONTRACTORS.....	15

In accordance with the annexed Notice to Contractors, the undersigned, as bidder, declares that he has carefully examined the location of the proposed work, the plans, specifications and technical requirements therefore, and the proposed forms of contract and bonds mentioned or referred to in said Notice and on file in the office of the City Engineer of the City of Turlock, together with the prevailing rate of per diem wages for each craft or type of workmen needed to execute said contract; and he proposes and agrees that if this proposal is accepted, he will furnish all labor, materials, equipment, plant transportation, service, sales taxes, permit fees and other costs necessary to complete the construction in strict conformity to the plans and specifications and he will enter into a written contract with the City of Turlock in the form of contract on file in the Office of the City Engineer for such purposes, and that he will execute and/or provide all bonds and insurance certificates required by law and/or by said contract and/or mentioned in said Notice to Contractors all in accordance with and subject to all applicable laws, and that he will take in full payment therefore the following unit prices, to wit:

## BIDDER'S FORM

**PROJECT TITLE:** RWQCF In-Plant Waste Line Repair

**PROJECT NUMBER:** 23-030

**OPENING DATE:** October 17, 2023

**OPENING TIME:** 10:00 AM

Item No.	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Total
1	Mobilization	LS	1		
2	Erosion Control	LS	1		
3	Temporary Traffic Control	LS	1		
4	Temporary Handling of Wastewater Flows	LS	1		
5	Remove Existing Improvements	LS	1		
6	Pothole Existing Utilities	LS	1		
7	Earthwork	LS	1		
8	Manhole Cleaning and Disposal of Material Removed from Manholes to Allow Measurements for Manhole Procurement	LS	1		
9	Sewer Cleaning and Disposal of Material Removed from Sewers	LS	1		
10	24-inch Cured-in-Place Pipe Liner	LF	925		
11	42-inch Cured-in-Place Pipe Liner	LF	62		
12	Remove Existing Manhole and Replace with 48-inch Diameter Polymer Concrete Manhole	EA	4		
13	Remove Existing Manhole and Replace with 60-inch Diameter Polymer Concrete Manhole	EA	1		
14	Remove Existing Manhole and Replace with 72-inch Diameter Polymer Concrete Manhole	EA	2		
15	Construct 48-in Diameter Polymer Concrete Manhole	EA	1		
16	Allowance for Point Repairs in Advance of Sewer Rehabilitation	ALLOW	1	\$ 100,000.00	\$ 100,000.00
17	Allowance for Unknown Utilities	ALLOW	1	\$ 5,000.00	\$ 5,000.00

Item No.	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Total
18	All Other Work Not Covered by Bid Items	LS	1		

Bidder has examined and carefully studied the Bidding documents and other related data identified in the Bidding Documents and the following Addenda, receipt of which is hereby acknowledged

**ADDENDA**

No. \_\_\_\_\_ Date \_\_\_\_\_ Signed \_\_\_\_\_  
 No. \_\_\_\_\_ Date \_\_\_\_\_ Signed \_\_\_\_\_  
 No. \_\_\_\_\_ Date \_\_\_\_\_ Signed \_\_\_\_\_  
 No. \_\_\_\_\_ Date \_\_\_\_\_ Signed \_\_\_\_\_  
 No. \_\_\_\_\_ Date \_\_\_\_\_ Signed \_\_\_\_\_

TOTAL BID WRITTEN IN FIGURES: \$ \_\_, \_\_ \_\_ \_\_, \_\_ \_\_ \_\_ \_\_ . \_\_ \_\_ \_\_

TOTAL BID WRITTEN IN WORDS: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

COMPANY'S NAME: \_\_\_\_\_

BY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

(Number)

(Street)

(City)

(State)

(ZIP)

CONTRACTOR'S PHONE #: \_\_\_\_\_

**NOTE: CONTRACTOR WILL BE REQUIRED TO LIST THEIR LICENSE NUMBER, EXPIRATION DATE, AND APPROPRIATE STATEMENT REGARDING PERJURY AND SIGNED BY INDIVIDUAL AUTHORIZED TO DO SO. FAILURE TO INCLUDE THE ABOVE ITEMS MAY CAUSE SAID CONTRACTOR'S BID TO BE REJECTED.**

\_\_\_\_\_, Contractor's License # \_\_\_\_\_, Class \_\_\_\_  
(Company's Name)

Expires \_\_\_\_\_ . DIR #: \_\_\_\_\_

This information is true, is provided as per Section 7028.15 of the Business and Professions Code, and is made herein under penalty of perjury.

X \_\_\_\_\_  
(Bidder's Signature) (Date)

If the proposal is accepted and the undersigned shall fail to contract as aforesaid and fail to file with the City insurance certificates as required by said contract, within fourteen (14) days after the bidder has received notice from the City Engineer or his representative of the City of Turlock that the contract has been awarded to bidder and is ready for signature, the City of Turlock may, at its option, determine that the bidder has abandoned his contract, and thereupon this proposal and the acceptance thereof shall be null and void.

*Also accompanying this proposal is an affidavit of non collusion and questionnaire to general contractors, a statement of proposed sub contractors, if any, the address of mill, shop or office of any sub contractor, and a statement of work to be performed by sub contractors.*

The names and addresses of persons interested in the foregoing proposal as principals are as follows:

**(IMPORTANT NOTICE:** If bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary, treasurer, and manager thereof; if a partnership, state true name of firm, also names of all individual co partners composing firm; if bidder or other interested person is an individual, state first and last name in full.)

Licensed in accordance with an act providing for the registration of Contractors,  
License No. \_\_\_\_\_ Expiration Date \_\_\_\_\_.

DATED: \_\_\_\_\_, 20 \_\_\_\_\_

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

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

Email: \_\_\_\_\_

X \_\_\_\_\_  
(Bidder's Signature) (Date)

NOTE: If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of the officers authorized to sign contracts on behalf of the corporation; if bidder is a co partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts in behalf of the co partnership; and, if bidder is an individual, his signature shall be placed above. If a signature is by an agent other than an officer of a corporation or a member of the partnership, a Power of Attorney must be on file with the City Clerk prior to opening or submitted with the bid; otherwise, the bid will be disregarded as irregular and unauthorized.

**AFFIDAVIT**

The undersigned bidder, being first duly sworn, deposes and says that he/she are the party making the foregoing proposal or bid, that this bid is genuine and not collusive or sham, that said bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any other person or bidder, to put in a sham bid, or that said other person shall refrain from bidding, and has not in any manner sought by collusion to secure any advantage against the said City or any person interested in said improvement, for him/herself or any other person.

X \_\_\_\_\_  
Signature of Bidder

Jurat (Government Code Section 8202)

State of California

County of \_\_\_\_\_

Subscribed and sworn to (or affirmed) before me on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

by \_\_\_\_\_ proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

(AFFIX SEAL)

\_\_\_\_\_  
NOTARY PUBLIC SIGNATURE

\_\_\_\_\_  
NOTARY PUBLIC PRINTED NAME

## INFORMATION REQUIRED OF BIDDER

The bidder is required to provide the following information. Additional sheets may be attached if necessary.

Contractor's mailing address: \_\_\_\_\_

Contractor's telephone number: \_\_\_\_\_

Number of years experience as a contractor in construction work or installation work similar to that required in these specifications:

\_\_\_\_\_

Name of person who inspected the site of the proposed work for your firm:

\_\_\_\_\_

Date of Inspection: \_\_\_\_\_

List at least four projects completed as of recent date:

Project No. and Title:	_____
Class and Type of Work:	_____
Owner Name:	_____
Owner Address:	_____
	_____
Owner Email Address:	_____
Owner Phone Number:	_____
Registered Engineer in Charge of Project:	_____
Total Contract amount:	_____
Contract amount you performed:	_____
Name of Prime Contractor if you were Sub:	_____
Date Completed:	_____
Liquidated Damages Assessed:	_____



Project No. and Title: \_\_\_\_\_  
Class and Type of Work: \_\_\_\_\_  
Owner Name: \_\_\_\_\_  
Owner Address: \_\_\_\_\_  
Owner Email Address: \_\_\_\_\_  
Owner Phone Number: \_\_\_\_\_  
Registered Engineer in Charge of Project: \_\_\_\_\_  
Total Contract amount: \_\_\_\_\_  
Contract amount you performed: \_\_\_\_\_  
Name of Prime Contractor if you were Sub: \_\_\_\_\_  
Date Completed: \_\_\_\_\_  
Liquidated Damages Assessed: \_\_\_\_\_

Project No. and Title: \_\_\_\_\_  
Class and Type of Work: \_\_\_\_\_  
Owner Name: \_\_\_\_\_  
Owner Address: \_\_\_\_\_

Owner Email Address: \_\_\_\_\_  
Owner Phone Number: \_\_\_\_\_  
Registered Engineer in Charge of Project: \_\_\_\_\_  
Total Contract amount: \_\_\_\_\_  
Contract amount you performed: \_\_\_\_\_  
Name of Prime Contractor if you were Sub: \_\_\_\_\_  
Date Completed: \_\_\_\_\_  
Liquidated Damages Assessed: \_\_\_\_\_

Project No. and Title: \_\_\_\_\_  
Class and Type of Work: \_\_\_\_\_  
Owner Name: \_\_\_\_\_  
Owner Address: \_\_\_\_\_

Owner Email Address: \_\_\_\_\_  
Owner Phone Number: \_\_\_\_\_  
Registered Engineer in Charge of Project: \_\_\_\_\_  
Total Contract amount: \_\_\_\_\_  
Contract amount you performed: \_\_\_\_\_  
Name of Prime Contractor if you were Sub: \_\_\_\_\_  
Date Completed: \_\_\_\_\_  
Liquidated Damages Assessed: \_\_\_\_\_

**BIDDER’S BOND**

KNOW ALL MEN BY THESE PRESENTS:

That we \_\_\_\_\_ as  
BIDDER, and \_\_\_\_\_ as  
SURETY a corporation duly organized under the laws of the State of \_\_\_\_\_  
and duly licensed to become sole Surety on bonds required and authorized by the State of California, as  
SURETY, are held and firmly bound unto the City of Turlock, hereinafter called the City, in the penal  
sum of TEN PERCENT (10%) OF THE TOTAL AMOUNT OF THE BID of the Bidder above named,  
submitted by said Bidder to the City, for the work described below, for the payment of which sum in  
lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors,  
administrators and successors, jointly and severally, firmly by these presents. In no case shall the liability  
of the Surety hereunder exceed the sum \_\_\_\_\_  
\_\_\_\_\_  
Dollars ( \$ \_\_\_\_\_ ).

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, whereas the bidder has submitted the  
above-mentioned bid to the City for certain construction specifically described as follows for which bids  
are to be opened at Engineering Division, Public Works Department, City Hall, 156 S. Broadway Suite  
150, Turlock, California, on

\_\_\_\_\_, \_\_\_\_\_, 20\_\_\_\_, at\_\_\_\_\_  
(day) (date) (time)

for **Project No. 23-030, “RWQCF In-Plant Waste Line Repair .”**

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

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

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

BIDDER

\_\_\_\_\_  
(Bidder's Name and Corporate Seal)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name and Title)

**(ATTACH ACKNOWLEDGMENT OF BIDDER)**

SURETY

\_\_\_\_\_  
(Surety's Name and Corporate Seal)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name and Title)

**(ATTACH ACKNOWLEDGMENT OF SURETY'S  
ATTORNEY-IN-FACT)**

**NOTE: ATTACH CERTIFIED COPY OF POWER OF ATTORNEY**

**LIST OF SUB-CONTRACTORS**  
**City Project No. 23-030**  
**RWQCF In-Plant Waste Line Repair**

Prime Contractor: \_\_\_\_\_ DIR NUMBER: \_\_\_\_\_

Pursuant to California Public Contract Code §4100, the Bidder shall list each subcontractor who will perform Work or labor or who will render service to the prime Contractor in or about the construction of the Work or improvement, or a subcontractor duly licensed 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 Contract Documents, in an amount in excess of 1/2 of 1 percent of the prime Contractor's total Bid or, in the case of Bids or offers for the construction of streets or highways, including bridges, in excess of 1/2 of 1 percent of the prime Contractor's total Bid or \$10,000, whichever is greater. After the opening of Bids, no changes or substitutions will be allowed except as otherwise provided by law. The listing of more than one subcontractor for each item of Work to be performed with the words "and/or" will not be permitted.

IF NO SUBCONTRACTORS WILL FURNISH WORK, THEN WRITE "NONE" BELOW IN THE SPACE PROVIDED.

NAME	LICENSE NUMBER	DIR NUMBER	ADDRESS	WORK ITEMS TO BE PERFORMED AND % OF ITEM



## AGREEMENT

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### FOR PUBLIC IMPROVEMENT

#### RWQCF In-Plant Waste Line Repair

**THIS PUBLIC IMPROVEMENT AGREEMENT** (the “Agreement”) is entered into by and between the CITY OF TURLOCK, a California municipal corporation (“City”), and \_\_\_\_\_, a \_\_\_\_\_ (“Contractor”), on this \_\_\_\_ day of \_\_\_\_\_ 20\_\_ (the “Effective Date”). City and Contractor may be collectively referred to herein as the “Parties” or individually as “Party.” There are no other parties to this Agreement.

#### RECITALS

- A. City seeks a duly qualified and licensed firm experienced in the construction of RWQCF In-Plant Waste Line Repair (the “Project”).
- B. The Project involves the expenditure of funds in excess of \$5,000 and constitutes a “public project” pursuant to Public Contract Code section 20161.
- C. Contractor has made a proposal to City to provide construction services, a copy of which is attached and incorporated hereto as **Exhibit A** (the “Services”).
- D. City has determined it is necessary and desirable to employ the services of Contractor to perform construction work on the Project.
- E. City has taken appropriate proceedings to authorize construction of the Project and execution of this contract pursuant to Public Contract Code section 20160 et seq.; specifically, on \_\_\_\_\_, 20 \_\_, at a duly noticed meeting of the City Council of the City of Turlock, this contract for the construction of the improvements hereinafter described was awarded to Contractor as the lowest responsive and responsible bidder for said improvements.

**NOW, THEREFORE**, in consideration of the promises and covenants set forth below, the Parties agree as follows:

## AGREEMENT

**1. Contract Documents:** This Agreement, together with the following documents, are collectively referred to herein as the “Contract Documents”:

- i. Notice to Bidders;
- ii. Contractor’s Bid or Proposal accepted by City;
- iii. General Conditions, Supplementary Conditions, and Special Provisions of the City of Turlock for RWQCF In-Plant Waste Line Repair;
- iv. Plans and detailed drawings prepared for this Project and approved by City (“Project Plans”);
- v. All bonds and insurance required by the Contract Documents;
- vi. Any and all supplemental agreements amending, decreasing, or extending the work contemplated or which may be required to complete the work in a substantial and acceptable manner; and
- vii. The current edition of the City of Turlock Standard Specifications and Drawings.

All of the Contract Documents are intended to incorporate the terms of the others so that any work called for in one and not mentioned in the other, or vice versa, is to be executed the same as if mentioned in all said documents. The documents comprising the complete contract will hereinafter be referred to as the “Contract.” In case of any dispute regarding the terms of the Contract, the decision of the City Engineer shall be final.

**2. Term.** The Contract shall be effective as of the Effective Date first stated above. Contractor shall not commence work on the Project until it has been given notice by City (“Notice to Proceed”). The Contract shall terminate one (1) year(s) after City accepts Contractor’s performance of the Services by recording a Notice of Completion with the County of Stanislaus Clerk Recorder (the “Term”), unless the Parties mutually agree in writing to terminate the Contract earlier or extend the Term in an agreed writing executed by both Parties.

**3. Scope of Work.**

(a) *Services.* Contractor shall perform the Services described in Exhibit A, subject to all terms and conditions in the Contract. Contractor shall not receive additional compensation for the performance of any Services not described therein.

(b) *Modification.* City, at any time, by written order, may make changes within the general scope of the work under this Agreement or issue additional instructions, require additional work or direct deletion of work. Contractor shall not proceed with any change involving an increase or decrease in the Contract Price, as defined in Section 4 of this Agreement, without prior written authorization from City. Contractor shall not be entitled to compensation for the performance of any such unauthorized work. Contractor further waives any and all right or remedy by way of restitution or quantum meruit for any and all extra or changed work performed without express and prior written authorization of City. Notwithstanding the foregoing, Contractor shall promptly commence and diligently complete any change to the work subject to City's written authorization issued pursuant to this Section ; Contractor shall not be relieved or excused from its prompt commencement of diligent completion of any change subject to City's written authorization by virtue of the absence or inability of Contractor and City to agree upon the extent of any adjustment to the completion schedule or Contract Price on account of such change. The issuance of a change order pursuant to this Section 3 in connection with any change authorized by City shall not be deemed a condition precedent to Contractor's obligation

to promptly commence and diligently complete any such change authorized by City hereunder. City's right to make changes shall not invalidate the Contract nor relieve Contractor of any liability or other obligations under the Contract. Any requirement of notice of changes in the scope of work to Contractor's surety shall be the responsibility of Contractor.

(c) *Specific Materials & Performance of Work.* Contractor shall furnish all tools, equipment, facilities, labor, and materials necessary to perform and complete, in good workmanlike manner, the work of general construction as called for and in the manner designated in, and in strict conformity with, the plans and specifications for said work entitled, "**General Conditions and Special Provisions for RWQCF In-Plant Waste Line Repair .**" The equipment, apparatus, facilities, labor, and material shall be furnished, and said work performed and completed as required by the Contract under the direction and supervision, and subject to the approval, of the City Engineer or City Engineer's designated agent.

(d) *Exhibits.* All "Exhibits" referred to below or attached hereto are, by this reference, incorporated into the Contract.

	<u>Exhibit Designation</u>	<u>Exhibit Title</u>
1.	Exhibit A	Scope of Services
2.	Exhibit B	Payment by Force Account
3.	Exhibit C	Workers' Compensation Insurance Certification
4.	Exhibit D	Performance Bond
5.	Exhibit E	Payment Bond

**4. Contract Price.** City shall pay, and Contractor shall accept in full payment for the work set forth above in Section 3, Scope of Work, an amount not to exceed \_\_\_\_\_ **Dollars** (**\$\_\_\_\_\_ .00**) (the "Contract Price"). Said amount shall be paid pursuant to Section 8 of this Agreement. The Contract Price may only be changed by a contract change order. The value of any work covered by a contract change order for an adjustment in the Contract Price will be determined in the sole discretion of City as follows:

(a) If the work performed is on the basis of unit prices contained in the Contract Documents, the change order will be determined in accordance with the provisions in Section 4-1.05, "Changes and Extra Work", of the Caltrans Standard Specifications, as applicable; or

(b) If the work performed is not included on the engineer's estimate associated with a unit price, the change order will be by a mutually agreed lump sum; or

(c) If the change order is not determined as described above in either subdivision (a) or (b), the change order will be determined on the basis of force account in accordance with the provisions set forth in **Exhibit B**, "Payment by Force Account," attached hereto and incorporated herein by reference.

**5. Time for Performance.** The time fixed for the commencement of work under the Contract is within ten (10) working days after the Notice to Proceed has been issued. The work on this project, including all punch list items, shall be completed on or before the expiration of seventy (70) working days (the "Completion Date") beginning on the first day of work or no later than the tenth day after the Notice to Proceed has been issued.

(a) *Right of City to Increase Working Days:* If Contractor fails to complete the Services by the Completion Date, the City Engineer shall have the right to increase the number of working days in the amount the City Engineer may determine will best serve the interests of City, and if the City Engineer desires to increase said number of working days, the City Engineer shall have the further right to charge Contractor and deduct from the final payment for the work the actual cost of engineering, inspection, superintendence, and other overhead expenses which are directly chargeable to Contractor, and which accrue during the period of such extension, except that the cost of the final service and preparation of the final estimates shall not be included in such charges. No extension of time for completion of Services under the Contract shall be considered unless requested by Contractor at least twenty (20) calendar days prior to the Completion Date, in writing, to the City Engineer.

The Completion Date may only be changed by a contract change order. The value of any work covered by a contract change order for an adjustment in the Completion Date will be determined as follows:

- i. Additional working days will be awarded where the amount of time is mutually agreed upon by Contractor and the City Engineer; or
- ii. Additional working days will be awarded where Contractor is prevented from completing any part of the work identified on the critical path and:
  1. where the delay is caused by acts of public enemy, fire, floods, tsunamis, earthquakes, epidemics, quarantine restrictions, strikes, labor disputes, shortage of materials and freight embargos, provided that Contractor shall notify Engineer in writing of the causes of delay within fifteen (15) days from the beginning of that delay; or
  2. where the delay is caused by actions beyond the control of Contractor; or
  3. where the delay is caused by actions or failure to act by the City Engineer.

Contractor shall not be entitled to an adjustment in the Completion Date for delays within the control of Contractor. Delays resulting from and within the control of a subcontractor or supplier of Contractor shall be deemed to be delays within the control of Contractor.

(b) *Excusable Delays.* Contractor shall not be in breach of the Contract in the event that performance of Services is temporarily interrupted or discontinued due to a “Force Majeure” event which is defined as: riots, wars, sabotage, civil disturbances, insurrections, or explosions; natural disasters, such as floods, earthquakes, landslides, and fires; strikes, lockouts, and other labor disturbances; or other catastrophic events, which are beyond the reasonable control of Contractor. Force Majeure does not include Contractor’s financial inability to perform, Contractor’s failure to obtain any necessary permits or licenses from other governmental agencies, or Contractor’s failure to obtain the right to use the facilities of any public utility where such failure is due solely to the acts or omissions of Contractor. If Contractor’s performance of the Services is delayed by an excusable delay, the Completion Date shall be extended for such reasonable time as determined by the City Engineer. Extensions in time must be requested by Contractor within fifteen (15) calendar days of the excusable delay in order to receive consideration.



(c) *Emergency - Additional Time for Performance - Procurement of Materials.* If, because of war or other declared national emergency, the federal or state government restricts, regulates, or controls the procurement and allocation of labor or materials, or both, and if solely because of said restrictions, regulations or controls, Contractor is, through no fault of Contractor, unable to perform the Services, or the work is thereby suspended or delayed, any of the following steps may be taken:

- i. City may, pursuant to resolution of the City Council, grant Contractor additional time for the performance of the Contract, sufficient to compensate in time, for delay or suspension.

To qualify for such extension in time, Contractor within ten (10) days of Contractor's discovering such inability to perform, shall notify the City Engineer in writing thereof, and give specific reasons therefore; the City Engineer shall thereupon have sixty (60) days within which to procure such needed materials or labor as is specified in this agreement, or permit substitution, or provide for changes in the work in accordance with subdivision (b) of this Section.

Substituted materials, or changes in the work, or both, shall be ordered in writing by the City Engineer, and the concurrence of the City Council shall not be necessary. All reasonable expenses of such procurement incurred by the City Engineer shall be defrayed by the Contractor; or

- ii. If such materials or labor cannot be procured through legitimate channels within sixty (60) days after the filing of the aforesaid notice, either Party may, upon thirty (30) days' written notice to the other, terminate this agreement. In such event, Contractor shall be compensated for all work executed upon a unit basis in proportion to the amount of the work completed, or upon a cost-plus-ten-percent (10%) basis, whichever is the lesser. Materials on the ground, in process of fabrication or in route upon the date of notice of termination specially ordered for the Project and which cannot be utilized by Contractor, shall be compensated for by City at cost, including freight, provided Contractor shall take all steps possible to minimize this obligation; or
- iii. The City Council, by resolution, may suspend the Contract until the cause of inability to perform is removed for a period of not to exceed sixty (60) days.

If the Contract is not canceled, and the inability of Contractor to perform continues without fault on Contractor's part, beyond the time during which the Contract may have been suspended, as herein above provided, the City Council may further suspend the Contract, or either Party hereto may, without incurring any liability, elect to declare the Contract terminated upon the ground of impossibility of performance. In the event City declares this agreement terminated, such declaration shall be authorized by the City Council by resolution, and Contractor shall be notified in writing thereof within five (5) days after the adoption of such resolution. Upon such termination, Contractor shall be entitled to proportionate compensation at the Contract Price for such portion of the Contract as may have been performed; or

- iv. City may terminate the Contract, in which case Contractor shall be entitled to proportionate compensation at the agreed rate for such portion of the Contract as

may have been performed. Such termination shall be authorized by resolution of the City Council. Notice thereof shall be forthwith given in writing to Contractor, and the Contract shall be terminated upon receipt by Contractor of such notice.

In the event of the termination provided in this sub-paragraph (iv), none of the covenants, conditions or provisions hereof shall apply to the Services not performed, and City shall be liable to Contractor for the proportionate compensation last herein mentioned.

(d) *Delay Damages.* In the event Contractor, for any reason, fails to perform the Services to the satisfaction of the City Engineer by the Completion Date, City may, in accordance with Section 7203 of the Public Contract Code, in lieu of any other of its rights authorized by Section 6 of this agreement, deduct from payments or credits due Contractor after such breach a sum equal to **One Thousand Eight Hundred and Thirty** and no/100ths Dollars (**\$1830.00**) for each calendar day beyond the Completion Date. This deduction shall not be considered a penalty but shall be considered as delay damages. The aforementioned rate of deduction is an amount agreed to by the Parties as reasonably representing additional construction engineering costs incurred by City if Contractor fails to complete the Services by the Completion Date. However, any deduction assessed as delay damages shall not relieve Contractor from liability for any damages or costs resulting from delays to other contractors on the project or other projects caused by a failure of the assessed Contractor to complete the Services by the Completion Date. Due account shall be taken of any time extensions granted to Contractor by City. Permitting Contractor to continue work beyond the Completion Date shall not operate as a waiver on the part of City of any of its rights under the Contract nor shall it relieve Contractor from liability for any damages or costs resulting from delays to other contractors on the project or other projects caused by a failure of the assessed Contractor to complete the Services by the Completion Date.

## 6. Termination.

(a) *Option of City to Terminate Contract for Failure to Complete Services.* If a Party should fail to perform any of its obligations hereunder within the time and in the manner herein provided, or otherwise violates any of the terms of the Contract (the "Defaulting Party"), the other Party shall give notice to the Defaulting Party and allow the Defaulting Party ten (10) days to correct such deficiency. If the Defaulting Party does not correct such deficiency, the other Party may immediately terminate the Contract by giving written notice of such termination, stating the reason for such termination. In such event, Contractor shall be entitled to receive payment for all Services satisfactorily rendered until such termination, provided, however, there shall be deducted from such amount the amount of damage, if any, sustained by virtue of any breach of the Contract by Contractor, including Delay Damages. If payment under the Contract is based upon a lump sum in total or by individual task, payment for Services satisfactorily rendered shall be an amount which bears the same ratio to the total fees specified in this Agreement as the Services satisfactorily rendered hereunder by Contractor to the total services otherwise required to be performed for such total fee, provided, however, that there shall be deducted from such amount the amount of damage, if any sustained by City by virtue of any breach of the Contract by Contractor. Upon termination, Contractor shall deliver copies of all Work Product, as defined in Section 19 of this Agreement, to City. If District terminates the Contract before Contractor commences any Services hereunder, City shall not be obligated to make any payment to Contractor.

(b) If Contractor should be adjudged bankrupt or if it should make a general assignment for the benefit of its creditors, or if a receiver should be appointed on account of its insolvency, or if it or

any of its subcontractors should violate any of the provisions of the Contract, City may serve written notice upon it and its surety of its intention to terminate the Contract. Such notice shall contain the reasons for City's intention to terminate the Contract, and unless such violations shall cease within five (5) calendar days after serving of such notice, the Contract shall cease and terminate upon the expiration of said five (5) calendar days. In the event of any such termination, City shall immediately serve written notice thereof upon the surety and Contractor, and the surety shall have the right to take over and perform the Contract; provided however, that, if the surety does not give City written notice of its intention to take over and perform the Contract or does not commence performance thereof within thirty (30) calendar days from the date of the service of such notice, City may take over the work and prosecute the same to completion by contract or any other method it may deem advisable, for the account and at the expense of Contractor, and Contractor and its surety shall be jointly liable to City for any excess cost occasioned City thereby, and in such event City may, without liability for so doing, take possession of and utilize in completing the work, such materials, appliances, and other property belonging to Contractor as may be on the Project site and necessary thereof.

**7. Liability for Breach:** Neither Party waives the right to recover direct damages against the other for breach of the Contract, including any amount necessary to compensate City for all detriment proximately caused by Contractor's failure to perform its obligations hereunder or which in the ordinary course of things would be likely to result therefrom. City reserves the right to offset such damages against any payments owed to Contractor. City shall not, in any manner, be liable for special or consequential damages, including but not limited to Contractor's actual or projected lost profits had Contractor completed the Services required by the Contract. In the event of termination by either Party, copies of all finished or unfinished Work Product, as defined in Section 19 of this Agreement, shall become the property of City. Notwithstanding the foregoing, in no event shall City be liable, regardless of whether any claim is based on contract or tort, for any special, consequential, indirect or incidental damages, including, but not limited to, lost profits or revenue, arising out of or in connection with the Contract or the Services performed in connection with the Contract.

**8. Compensation:** City shall make payments to Contractor in accordance with the provisions of Section 9 of the General Conditions in legally executed and regularly issued warrants of City, drawn on the appropriate fund or funds as required by law and order of the City Council thereof. Contractor shall be administered a progress payment approximately every thirty (30) calendar days from the time work begins according to the payment schedule furnished by the City Engineer at the time work begins. Contractor shall provide access at all reasonable times to all reports, contract records, contract documents, contract files, and personnel necessary to audit and verify Contractor's charges to City under this Contract.

Monthly progress payments in the amount of 95 percent (95%) of the value of the work will be made to Contractor based on the Contractor's estimate and the schedule of prices contained in the accepted bid. The remaining 5 percent (5%) will be retained by City as partial security for the fulfillment of the Contract except that at any time after 50 percent (50%) of the work has been completed, if the City Engineer finds that satisfactory progress is being made and the Project's critical path of work are on schedule, City may discontinue any further retention. Such discontinuance will only be made upon the written request of Contractor. City may, at any time the City Engineer finds that satisfactory progress is not being made, again institute retention of 5 percent (5%) as specified above. Payment will be made as soon as possible after the preparation of the Contractor's estimate. City shall pay the remaining 5 percent (5%) of the value of the Services completed under this Contract, if unencumbered by retentions for claims, not sooner than the expiration of thirty-five (35) calendar days from the date of recordation of the Notice of Completion, pursuant to Section 2 of this agreement, and not later than sixty (60) days from the "completion" of the Services as said term is defined in Public Contract Code section 7107(c).

No estimate or payment shall be made if, in the judgment of the City Engineer, the work is not proceeding in accordance with the provisions of the Contract, or when, in his judgment, the total value of the work done since the last estimate amounts to less than \$1,000. No progress payments will be made if the time allotted for the job is thirty (30) working days or less. Payment of any progress payment, or the acceptance thereof by Contractor, shall not constitute acceptance of the work performed under this Contractor, or any portion thereof, and shall in no way reduce the liability of Contractor to replace unsatisfactory work or materials, though the unsatisfactory character of such work or materials may not have been apparent or detected at the time such payment was made.

Additionally, as a precondition to City's progress payments hereunder, Contractor shall provide to City, prior to payment, unconditional waivers and releases of stop notices pursuant to Civil Code section 8128 et seq. from each subcontractor and materials supplier. The form of said waivers and releases shall be as set forth in Civil Code section 3262(d)(2).

Pursuant to Public Contract Code section 22300 et seq., Contractor may request the right to substitute securities for any moneys withheld by City to ensure the performance required of Contractor under the Contract, or that City make payment of retentions earned directly into an escrow account established at the expense of Contractor.

**9. Disputes Pertaining to Payment for Work:** Should any dispute arise respecting the true value of any work performed, of any work omitted, or of any extra work which Contractor may be required to do, or respecting the size of any payment to Contractor during the performance of the Contract, such dispute shall be decided by the City Engineer, and the decision of the latter shall be final and conclusive. The Parties agree to comply with the claims resolution procedures set forth in Public Contract Code section 9204 when applicable.

(a) *Claims Processing.* Any submission of a claim by Contractor must comply with the requirements of Public Contract Code section 9204. Upon receipt of a claim pursuant to this section, City shall conduct a reasonable review of the claim and, within a period not to exceed forty-five (45) days, shall provide Contractor a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, the Parties may, by mutual agreement, extend the time period provided in this subdivision. Contractor shall furnish reasonable documentation to support the claim. Any payment due on an undisputed portion of the claim shall be processed and made within sixty (60) days after City issues its written statement. If Contractor disputes City's written response, or if City fails to respond to a claim issued pursuant to this section within the time prescribed, Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute.

(b) *Meet-and-Confer Conference.* Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, City shall schedule a meet-and-confer conference within thirty (30) days for settlement of the dispute. Within ten (10) business days following the conclusion of the meet-and-confer conference, if the claim or any portion of the claim remains in dispute, City shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within sixty (60) days after the City issues its written statement.

(c) *Nonbinding Mediation.* Any disputed portion of the claim, as identified by Contractor in writing, shall be submitted to nonbinding mediation, with the Parties sharing the associated costs equally. The Parties shall mutually agree to a mediator within ten (10) business days after the disputed

portion of the claim has been identified in writing. If the Parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each Party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject judicial review pursuant to Section 23 of this Agreement.

Notwithstanding any claim, dispute, or other disagreement between the Parties regarding performance under the Contract, the scope of work hereunder, or any other matter arising out of or related to, in any manner, the Contract, Contractor shall proceed diligently with performance of the Services in accordance with City's written direction, pending any final determination or decision regarding any such claim, dispute, or disagreement.

**10. Permits and Care of Work:** Contractor shall, at Contractor's expense, obtain all necessary permits and licenses for the construction of each improvement, give all necessary notices and pay all fees and taxes required by law, except those City fees set forth in Section 1 of the Special Provisions. Contractor has examined the Project site and is familiar with its topography and condition, location of property lines, easements, building lines, and other physical factors and limitations affecting the performance of the Contract. Contractor, at Contractor's expense, shall obtain any permission necessary for any operations conducted off the property owned or controlled by City. Contractor shall be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance.

**11. Public Works and Payment of Prevailing Wage:**

(a) *Monitoring and Enforcement.* In accordance with the provisions of Sections 1725.5, 1771.1, 1771.3, and 1771.4 of the Labor Code, all work performed under the Contract is subject to compliance monitoring and enforcement by the Department of Industrial Relations (“DIR”). All work performed by Contractor or its subcontractors under the Contract is subject to the requirements of Labor Code section 1720 et seq. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 of the Labor Code at the time the contract is awarded. Contractor and its subcontractors shall furnish the records specified in Section 1776 of the Labor Code directly to the Labor Commissioner, at least monthly, in the format prescribed by the Labor Commissioner.

In accordance with the provisions of Section 1773.3 of the Labor Code, City shall provide notice to DIR of the award of this Contract within thirty (30) working days of the award. The notice shall be transmitted electronically in a format specified by DIR and shall include the name of Contractor, any subcontractor listed on the successful bid, the bid and contract award dates, the contract amount, the estimated start and completion dates, Project location, and any additional information DIR specifies that aids in the administration and enforcement of Section 1720 et seq. of the Labor Code.

(b) *Wages & Hours of Employment:* In the performance of the Services under the Contract, eight (8) hours shall be the maximum hours of labor on any calendar day, and the minimum wages of compensation of persons performing labor in the execution of this agreement shall be the current prevailing scale of wages determined by DIR for the community. Contractor shall forfeit as penalty Twenty-five and no/100ths Dollars (\$25.00) to be paid to City for each workman employed in the execution of the Contract by Contractor or its subcontractor(s), for each calendar day during which any workman is required or permitted to labor more than eight (8) hours, in violation of provisions of Labor

Code section 1810 et seq. Contractor shall post prevailing wage rates at the Project no later than the first day Contractor commences performance of the Services under the Contract.

**12. Superintendence by Contractor:** Contractor shall give personal superintendence to the work on the Project or have a competent foreman or superintendent satisfactory to the City Engineer on the Project at all times during construction and performance of work under the Contract, with authority to act for Contractor.

**13. Inspection and Testing by City:** Contractor shall at all times maintain proper facilities and provide safe access for inspection by City to all parts of the work performed on the Project and to the shops wherein the work is in preparation. Contractor shall notify City with sufficient time in advance of the manufacture of production materials to be supplied by Contractor under the Contract in order for City to arrange for mill or factory inspection and testing of same. Any materials shipped by Contractor from factory prior to having satisfactorily passed such testing and inspection by City's representative or prior to the receipt of notice from such representative that such testing and inspection will not be required shall not be incorporated on the Project. Contractor shall also furnish to City, in triplicate, certified copies of all factory and mill test reports upon request.

**14. Conformity with Law and Safety:** Contractor shall observe and comply with all applicable laws, ordinances, codes, and regulations of governmental agencies, including federal, state, municipal, and local governing bodies having jurisdiction over any or all of the scope of Services, including all provisions of the Occupational Safety and Health Act of 1979 as amended, all California Occupational Safety and Health Regulations, the California Building Code, the American with Disabilities Act, any copyright, patent, or trademark law, and all other applicable federal, state, municipal, and local safety regulations, appropriate trade association safety standards, and appropriate equipment manufacturer instructions. All Services performed by Contractor or its subcontractors must be in accordance with these laws, ordinances, codes, and regulations. Contractor's failure to comply with any laws, ordinances, codes, or regulations applicable to the performance of the Services hereunder shall constitute a breach of contract. In cases where standards conflict, the standard providing the highest degree of protection shall prevail.

If a death, serious personal injury or substantial property damage occurs in connection with the performance of the Contract, Contractor shall immediately notify City's risk manager by telephone. If any accident occurs in connection with the Contract, Contractor shall promptly submit a written report to City, in such form as City may require. This report shall include the following information: (a) name and address of the injured or deceased person(s); (b) name and address of Contractor's subcontractor, if any; (c) name and address of Contractor's liability insurance carrier; and (d) a detailed description of the accident, including whether any of City's equipment, tools, or materials were involved.

If a release of a hazardous material, substance, or waste occurs in connection with the performance of the Contract, Contractor shall immediately notify City. Contractor shall not store hazardous materials or hazardous waste within City limits without a proper permit from City.

**15. Other Contracts:** City may award other contracts for additional work on the Project, and Contractor shall fully cooperate with such other contractors and carefully fit Contractor's own work to that provided under other contracts as may be directed by the City Engineer. Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor.

**16. Bonds:** Concurrently with the execution hereof, Contractor shall furnish, on the forms provided herein as Exhibits D and E, respectively, corporate surety bonds to the benefit of City, issued by a

surety company acceptable to City and authorized and admitted to do business in the state of California, as follows:

(a) *Faithful Performance Bond.* In an amount equal to at least one hundred percent (100%) of the Contract Price as security for the faithful performance 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.

(b) *Payment Bond.* In an amount equal to at least one hundred percent (100%) of the Contract Price as security for the payment of all persons performing labor and furnishing materials in connection with the Contract. The bond shall be in accordance with the provisions of Sections 3225, 3226, and 3247 through 3252, inclusive, of the Civil Code and Section 13020 of the Unemployment Insurance Code 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.

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 modification or alterations, omissions or reductions, extra or additional work, extensions of time, or any other act or acts by City or its authorized agents under the terms of this Contract and failure to so notify the surety or sureties of such changes shall in no way relieve the surety or sureties of their obligations under the Contract.

#### **17. Indemnification:**

(a) *Indemnity for Professional Liability.* When the law establishes a professional standard of care for Contractor's Services, to the fullest extent permitted by law, Contractor shall indemnify, protect, defend, and hold harmless City and any and all of its elective and appointive boards, officers, officials, agents, employees or volunteers ("City's Agents") from and against any and all losses, liabilities, damages, costs, and expenses, including legal counsel's fees and costs but only to the extent Contractor or its subcontractors are responsible for such damages, liabilities and costs on a comparative basis of fault between Contractor or its subcontractors and City in the performance of professional services under the Contract. Contractor shall not be obligated to defend or indemnify City for City's own negligence or for the negligence of others.

(b) *Indemnity for other than Professional Liability.* Other than in the performance of professional services and to the full extent permitted by law, Contractor shall indemnify, defend, and hold harmless City and any and City's Agents from and against any liability, including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including legal counsel's fees and costs, court costs, interest, defense costs, and expert witness fees, where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, the performance of the Contract by Contractor or by any individual or agency for which Contractor is legally liable, including, but not limited to, officers, agents, employees, or subcontractors of Contractor.

**18. Contractor's Insurance:** Concurrently with the execution hereof, Contractor shall furnish City with satisfactory proof of carriage of the insurance required under this section, and that Contractor shall give City at least sixty (60) days prior notice of the cancellation of any policy during the Term of this contract. Contractor shall not commence work under this Agreement until Contractor has obtained City's approval regarding all insurance requirements, forms, endorsements, amounts, and carrier ratings, nor shall Contractor allow any subcontractor to commence work on a subcontract until all

similar insurance required of the subcontractor shall have been so obtained and approved. 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 Services hereunder by Contractor, its agents, representatives, employees or subcontractors. Failure to maintain or renew coverage or to provide evidence of renewal may constitute a material breach of the Contract. Any available insurance proceeds in excess of the specified minimum limits and coverage shall be available to City.

(a) *General Liability Insurance.* Contractor shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than Two Million Dollars (\$2,000,000.00) per occurrence, Four Million Dollars (\$4,000,000.00) general aggregate, for bodily injury, personal injury, and property damage, including, without limitation, blanket contractual liability and coverage for explosion, collapse, and underground property damage hazards. Contractor's general liability policies shall be primary and not seek contribution from City's coverages and be endorsed using Insurance Services Office form CG 20 10 to provide that City and its officers, officials, employees, and agents shall be additional insureds under such policies. For construction contracts, an endorsement providing completed operations to the additional insured, ISO form CG 20 37, is also required. The policy shall contain, or be endorsed to contain, the following provisions:

- (1) City, its elective and appointive boards, officers, agents, employees, and volunteers are to be covered as additional insureds with respect to liability arising out of work or operations performed by or on behalf of Contractor, including materials, parts or equipment furnished in connection with such work or operations, which coverage shall be maintained in effect for at least three (3) years following the completion of the work specified in the Contract. General liability coverage can be provided in the form of an endorsement to Contractor's insurance (at least as broad as CG 20 10 for ongoing operations and CG 20 37 for products/completed operations), or as a separate Owners and Contractors Protective Liability policy providing both ongoing operations and completed operations coverage.
- (2) For any claims related to the Project, Contractor's insurance coverage shall be primary insurance as respects City and any insurance or self-insurance maintained by City shall be excess of Contractor's insurance and shall not contribute with it.
- (3) In the event of cancellation, non-renewal, or material change that reduces or restricts the insurance coverage afforded to City under the Contract, the insurer, broker/producer, or Contractor shall provide City with thirty (30) days' prior written notice of such cancellation, non-renewal, or material change.
- (4) Coverage shall not extend to any indemnity coverage for the active negligence of the additional insured in any case where an agreement to indemnify the additional insured would be invalid under Subdivision (b) of Section 2782 of the Civil Code.

(b) *Workers' Compensation Insurance.* Contractor shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance with limits of at least One Million Dollars (\$1,000,000.00). Contractor shall submit to City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of City, its officers, agents, employees, and volunteers.



(c) *Auto Insurance.* Contractor shall provide auto liability coverage for owned, non-owned, and hired autos using ISO Business Auto Coverage form CA 00 01, or the exact equivalent, with a limit of no less than Two Million Dollars (\$2,000,000.00) per accident. If Contractor owns no vehicles, this requirement may be met through a non-owned auto endorsement to the CGL policy.

(d) *Builder's Risk Insurance.* Upon commencement of construction and with approval of City, Contractor shall obtain and maintain Builder's Risk/Course of Construction insurance. The policy shall be provided for replacement value on an "all-risk" basis. City shall be named as Loss Payee on the policy and there shall be no coinsurance penalty provision in any such policy. The policy must include: (1) coverage for removal of debris and insuring the buildings, structures, machinery, equipment, materials, facilities, fixtures, and all other properties constituting a part of the project; (2) coverage with limits sufficient to insure the full replacement value of any property or equipment stored either on or off the project site, whether provided from within a Builder's Risk policy or through the addition of an Installation Floater. Such insurance shall be on a form acceptable to City to ensure adequacy of terms and limits. Contractor shall not be required to maintain property insurance for any portion of the Project following transfer of control thereof to City.

(e) *Contractors Pollution Insurance.* Pollution Coverage shall be provided on a Contractors Pollution Liability form, or other form acceptable to City, providing coverage for liability arising out of sudden, accidental, and gradual pollution and remediation. The policy limit shall be no less than Two Million Dollars (\$2,000,000.00) per claim. All activities contemplated in the Contract shall be specifically scheduled on the policy as "covered operations." The policy shall provide coverage for the hauling of waste from the Project site to the final disposal location, including non-owned disposal sites.

(f) *Professional Liability Insurance.* Contractor shall maintain professional liability insurance that insures against professional errors and omissions that may be made in performing the Services to be rendered in connection with the Contract, in the minimum amount of Two Million Dollars (\$2,000,000.00) per claim and in the aggregate. Any policy inception date, continuity date, or retroactive date must be before the effective date of this Agreement, and Contractor agrees to maintain continuous coverage through a period no less than three (3) years after completion of the services required by the Contract.

(g) *Umbrella or Excess Policy.* Contractor may use Umbrella or Excess Policies to provide the liability limits as required in this agreement. This form of insurance will be acceptable provided that all of the Primary and Umbrella or Excess Policies shall provide all of the insurance coverages herein required. The Umbrella or Excess policies shall be provided on a true "following form" or broader coverage basis, with coverage at least as broad as provided on the underlying Commercial General Liability and automobile Liability insurance. No insurance policies maintained by the Additional Insureds, whether primary or excess, and which also apply to a loss covered hereunder, shall be called upon to contribute to a loss until the Contractor's primary and excess liability policies are exhausted.

(h) *Deductibles and Self-Insured Retentions.* Upon request of City, any deductibles or self-insured retentions must be declared to and approved by City. At the option of City, either: (1) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects City and City's Agents; or (2) Contractor shall provide a financial guarantee satisfactory to City guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

(i) *Acceptability of Insurers.* Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A-:VII or with an insurer to which City has provided prior approval.

(j) *Verification of Coverage.* Contractor shall furnish City with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this Section 18. All certificates and endorsements are to be received and approved by City before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive Contractor's obligation to provide them. City reserves the right, at any time, to require complete, certified copies of all required insurance policies and endorsements.

(k) *Waiver of Subrogation.* With the exception of professional liability, Contractor hereby agrees to waive subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. The commercial general liability policy and workers' compensation policy shall be endorsed to contain a waiver of subrogation in favor of City for all work performed by Contractor, its agents, employees, independent contractors and subcontractors. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation.

(l) *Subcontractors.* Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

**19. Ownership of Work Product:** Any and all work, artwork, copy, posters, billboards, photographs, videotapes, audiotapes, systems designs, software, reports, designs, specifications, drawings, diagrams, surveys, source codes, professional or technical information or data, photographs, notes, letters, emails, or any original works of authorship created by contractor or its subcontractors or subcontractors in connection with Services performed under the Contract ("Work Product") shall be works for hire as defined under Title 17 of the United States Code, and all copyrights in such works are the property of City. In the event that it is ever determined that any Work Product created by Contractor or its subcontractors or subcontractors under the Contract are not works for hire under U.S. law, Contractor hereby assigns all copyrights to such Work Product to City. With the prior written approval of the City Engineer, Contractor may retain and use copies of such Work Product for reference and as documentation of its experience and capabilities.

All Work Product shall become the property of City irrespective of where located or stored and Contractor agrees to deliver all such documents and information to City, without charge and in whatever form it exists, upon the Completion Date, as may be extended. Contractor shall have no ownership interest in such Work Product.

All Work Product of Contractor under the Contract, including written information which City will cause to be distributed for either internal or public circulation, including both preliminary and final drafts, shall be delivered to City in both printed and electronic form, or as may be specific in Exhibit A.

When the Contract is terminated, Contractor agrees to return to City all documents, drawings, photographs, and other written or graphic material, however produced, that it received from City or City's Agents, in connection with the performance of its Services under the Contract. All materials shall be returned in the same condition as received.

**20. Taxes:** Payment of any taxes, including California sales and use taxes, levied upon the Contract, the transaction, or the Services or goods delivered pursuant hereto, shall be the obligation of Contractor. Contractor shall cooperate with City to the full extent possible to maximize the local allocation of California sales and use tax to City. Such cooperation shall include, but not be limited to:

(a) *Use Tax Direct Payment Permits.* Contractor shall apply for, obtain, and utilize, to the maximum extent reasonable, a California Use Tax Direct Payment Permit.

(b) *Purchases of \$500,000 or More.* Contractor shall require vendors and suppliers located outside California from whom Contractor makes purchases of \$500,000 or more to allocate the use tax to City.

**21. Independent Contractor:** At all times during the Term of the Contract, Contractor shall be deemed to be an independent contractor and shall be wholly responsible for the manner in which Contractor performs the Services required under the Contract. Contractor shall be liable for its acts and omissions, and those of its employees, contractors, subcontractors, representatives, volunteers, and its agents. Nothing contained herein shall be construed as creating an employment, agency, or partnership relationship between City and Contractor. City shall have the right to control Contractor only insofar as the result of Contractor's Services rendered pursuant to the Contract; however, City shall not have the right to control the means by which Contractor accomplishes Services rendered pursuant to the Contract.

**22. Contractor Not Agent:** Except as City may specify in writing, Contractor shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent. Contractor shall have no authority, express or implied, pursuant to the Contract to bind City to any obligation whatsoever.

**23. Arbitration of Disputes:** All claims, disputes, and other matters in question between City and Contractor arising out of, or relating to, this Contract or the breach thereof, including claims of Contractor for extra compensation of Services related to the project, shall be decided by arbitration before a single arbitrator in accordance with the provisions of Sections 1281 through 1284.2 of the Code of Civil Procedure (the "Arbitration Laws") unless the Parties mutually agree otherwise. The provisions of Section 1283.05 of the Arbitration Laws apply to any arbitration proceeding except as otherwise provided in the Contract. The arbitrator shall have authority to decide all issues between the Parties including, but not limited to, claims for extras, delay, and liquidated damages, if any, provided for the Contract, matters involving defects in the Services performed by Contractor or its subcontractors, rights to payment, and whether the necessary procedures for arbitration have been followed. The award rendered by the arbitrator shall be final and judgment may be entered upon it in accordance with applicable law in any court having competent jurisdiction thereof.

Notice of the demand for arbitration shall be filed in writing with the other Party. The demand for arbitration shall be made within a reasonable time after the claim, dispute, or other matter in question has arisen, and in no event shall it be made after the date when institution of legal or equitable proceedings based on such claim, dispute, or other matter in question would be barred by the applicable statute of limitations.

The parties shall jointly appoint an arbitrator within fifteen (15) calendar days of the date of giving the notice of the demand for arbitration. If the Parties are unable to jointly agree upon the appointment of an arbitrator within said fifteen (15) calendar day period, and do not agree in writing to extend said period for a fixed period, then either Party may seek to have the arbitrator appointed by the Superior Court of Stanislaus County in accordance with the Arbitration Laws.

If any proceeding is brought to contest the right to arbitrate and it is determined that such right exists, the losing Party shall pay all costs and attorney's fees incurred by the prevailing Party.

In addition to the other rules of law which may be applicable to any arbitration hereunder, the following shall apply:

(a) Promptly upon the filing of the arbitration, each Party shall be required to set forth in writing and to serve upon each other Party a detailed statement of its contentions of fact and law.

(b) All Parties to the arbitration shall be entitled to the discovery procedures provided under Section 1283.05 of the California Code of Civil Procedure.

(c) The arbitration shall be commenced and conducted as expeditiously as possible consistent with affording reasonable discovery as provided herein.

(d) These additional rules shall be implemented and applied by the arbitrator.

The costs of arbitration shall be borne by the Parties as determined by the arbitrator, but each Party shall bear its own attorney’s fees associated with the dispute with the other Party and to the arbitration.

All administrative remedies required under Section 9 of this Agreement or pursuant to Public Contract Code section 9204, or required by any other law, shall be exhausted prior to commencement of any arbitration under this Section 23.

**24. Provisions Cumulative:** The provisions of the Contract are cumulative, and in addition to and not in limitation of, any other rights or remedies available to City.

**25. Notices:** All notices shall be in writing and delivered in person or transmitted by certified mail, postage prepaid. Any Party hereto may at any time, by giving ten (10) days’ written notice to the other Party hereto, designate any other address in substitution of the address to which such notice or communication shall be given. Such notices or communications shall be given to the Parties at their addresses set forth below.

If to City: **City of Turlock  
Attn: City Engineer  
156 S. Broadway, Suite 150  
Turlock, CA 95380-5461**

With courtesy copies to: **Petrulakis Law & Advocacy, APC  
Attn: George A. Petrulakis, City Attorney  
P.O. Box 92  
Modesto, CA 95353**

If to Contractor: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If to Contractor’s Sureties: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**26. City Contract Administrator:** The City’s contract administrator and contact person for this Agreement is:

Janine Lee  
City of Turlock Engineering Division  
156 S. Broadway, Suite 150  
Turlock, California 95380-5461  
Telephone: (209) 668-6035  
E-mail: jlee@turlock.ca.us

**27. Interpretation:** As used herein, any gender includes each other gender, the singular includes the plural and vice versa.

**28. Antitrust Claims:** Contractor or its subcontractors offer and agree to assign to City all rights, title, and interest to any causes of action under Section Four of the Clayton Act and the Cartwright Act concerning antitrust claims.

**29. Use of City Project Number:** Contractor or its subcontractors agree to use the aforementioned City project number on all maps, drawings, submittals, billing, and written correspondence that involve City staff or contracted consultants. Nothing in this section shall preclude Contractor or its subcontractors from using their own project numbers for their own internal use.

**30. No Conflict of Interest:** Contractor represents that no conflict of interest will be created under state or federal law by entering into or in carrying out the Contract.

**31. Confidentiality:** Contractor understands and agrees that, in the performance of Services under the Contract, or in the contemplation thereof, Contractor may have access to private or confidential information that may be owned or controlled by City and that such information may contain proprietary or confidential details, the disclosure of which to third parties may be damaging to City (“Confidential Information”). Contractor shall not, either during or after the Term, disclose to any third party any Confidential Information without the prior written consent of City. If City gives Contractor written authorization to make any such disclosure, Contractor shall do so only within the limits and to the extent of that authorization. Contractor may be directed or advised by the City Attorney on various matters relating to the performance of Services on the Project or on other matters pertaining to the Project, and in such event, Contractor agrees that it will treat all communications between itself, its employees, and its subcontracts as being communications which are within the attorney-client privilege.

**32. Modification.** No alteration, amendment, modification, or termination of the Contract shall be valid unless made in writing and executed by all Parties to the Contract.

**33. Waiver:** No covenant, term, or condition or the breach thereof shall be deemed waived, except by written consent of the Party against whom the waiver is claimed, and any waiver of the breach of any covenant, term, or condition shall not be deemed to be a waiver of any preceding or succeeding breach of the same or any other covenant, term, or condition.

**34. Assignment:** No Party to the Contract shall assign, transfer, or otherwise dispose of this Agreement in whole or in party to any individual, firm, or corporation without the prior written consent

of the other Party. Subject to the foregoing provisions, the Contract shall be binding upon, and inure to the benefit of, the respective successors and assigns of the Parties hereto.

**35. Authority:** All Parties to this Agreement warrant and represent that they have the power and authority to enter into this Agreement and the names, titles, and capacities herein stated on behalf of any entities, persons, states, or firms represented or purported to be represented by such entities, person, states, or firms and that all former requirements necessary or required by state or federal law in order to enter into the Contract have been fully complied with. Further, by entering into this Agreement, neither Party hereto shall have breached the terms or conditions of any other contract or agreement to which such Party is obligated, which such breach would have a material effect hereon.

**36. Governing Law:** The Contract shall be governed and construed in accordance with the laws of the state of California.

**37. Severability:** If the Contract in its entirety is determined by an arbitrator or a court of competent jurisdiction to be invalid or unenforceable, the Contract shall automatically terminate as of the date of final entry of judgment. If any provision of the Contract shall be determined to be invalid and unenforceable, or if any provision of the Contract is rendered invalid or unenforceable according the terms of any federal or state statute, which becomes effective after the Effective Date of this Agreement, the remaining provisions shall continue in full force and effect and shall be construed to give effect to the intent of this Agreement.

**38. Counterparts:** This Agreement may be executed simultaneously and in several counterparts, each of which shall be deemed an original but together shall constitute one and the same instrument.

**39. Mandatory and Permissive:** “Shall” and “will” and “agrees” are mandatory. “May” and “can” are permissive.

**40. Headings:** Headings used in this Agreement are for reference purposes only and shall not be considered in construing this Agreement.

**41. Attorney’s Fees and Costs:** Except as expressly provided for in Section 23 of this Agreement, if any action at law or in equity, including action for declaratory relief, is brought to enforce or interpret the provisions of the Contract, the prevailing Party shall be entitled to reasonable attorney’s fees and costs, which may be set by the court in the same action or in a separate action brought for that purpose, in addition to any other relief to which such Party may be entitled.

**42. Necessary Acts and Further Assurances:** The Parties shall, at their own cost and expense, execute and deliver such further documents and instruments and shall take such other actions as may be reasonably required or appropriate to evidence or carry out the intent and purposes of the Contract.

**43. Recitals:** The recitals set forth above (“Recitals”) are true and correct and are hereby incorporated into and made part of this Agreement by this reference. In the event of any inconsistency between the Recitals and Section 1 through 43 of this Agreement, Sections 1 through 43 shall prevail.

*[Signatures on Following Page]*

**IN WITNESS WHEREOF**, two identical counterparts of this agreement, consisting of a total of \_\_\_ pages, each of which counterparts shall for all purposes be deemed an original of said agreement, have been duly executed by the parties hereinabove named, on the day and year first herein above written.

**CONTRACTOR**

**CITY OF TURLOCK, a municipal corporation**

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

By: \_\_\_\_\_  
Reagan M. Wilson, City Manager

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

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

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

APPROVED AS TO SUFFICIENCY:

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

By: \_\_\_\_\_  
William D. Morris, RCE, PLS,  
City Engineer

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

By: \_\_\_\_\_  
Erik Schulze, Public Works Director

Federal Tax ID or Social Security No:

APPROVED AS TO FORM:

\_\_\_\_\_

By: \_\_\_\_\_  
George A. Petrulakis, City Attorney

DIR Registration Number:

ATTEST:

\_\_\_\_\_

By: \_\_\_\_\_  
Julie Christel, City Clerk

Attach Contractor's Seal Here

**EXHIBIT A**  
**CONTRACTOR'S PROPOSAL FOR SERVICES**



**EXHIBIT B**  
**PAYMENT BY FORCE ACCOUNT**

For work paid by force account, the City Engineer compares City's records to Contractor's daily force account work report. When the City Engineer and Contractor agree on the contents of the daily force account work reports, the City Engineer accepts the report and City pays for the work. If the records differ, City pays for the work based only on the information shown on City's records. If a subcontractor performs work at force account, work paid at force account will be accepted at an additional 2 percent (2%) markup to the total cost of that work, including markups, as reimbursement for additional administrative costs. The markups specified in labor, materials, and equipment includes compensation for all delay costs, overhead costs, and profit. If an item's unit price is adjusted for work-character changes, City excludes Contractor's cost of determining the adjustment. Payment for owner-operated labor and equipment is made at the market-priced invoice submitted.

**1. Labor.** Labor payment is full compensation for the cost of labor used in the direct performance of the work plus a fifteen percent (15%) markup, as set forth below, and consistent with California Labor Code section 1770 et seq. Force account labor payment consists of:

1. Employer payment to the worker for:
  - 1.1 Basic hourly wage
  - 1.2 Health and welfare
  - 1.3 Pension
  - 1.4 Vacation
  - 1.5 Training
  - 1.6 Other State and federal recognized fringe benefit payments
  
2. Labor surcharge percentage in *Labor Surcharge and Equipment Rental Rates* current during the work paid at force account for:
  - 2.1 Workers' compensation insurance
  - 2.2 Social security
  - 2.3 Medicare
  - 2.4 Federal unemployment insurance
  - 2.5 State unemployment insurance
  - 2.6 State training taxes
  
3. Subsistence and travel allowances paid to the workers
  
4. Employer payment to supervisors, if authorized

The fifteen percent (15%) markup consists of payment for all overhead costs related to labor but not designated as costs of labor used in the direct performance of the work including:

- (a) Home office overhead
- (b) Field office overhead
- (c) Bond costs
- (d) Profit
- (e) Labor liability insurance

- (f) Other fixed or administrative costs that are not costs of labor used in the direct performance of the work

**2. Materials.** Material payment is full compensation for materials the Contractor furnishes and uses in the work. The City Engineer determines the cost based on the material purchase price, including delivery charges, except:

- 1. A fifteen percent (15%) markup is added;
- 2. Supplier discounts are subtracted whether the Contractor takes them or not;
- 3. If the City Engineer believes the material purchase prices are excessive, City pays the lowest current wholesale price for a similar material quantity;
- 4. If Contractor procured the materials from a source Contractor wholly or partially own, the determined cost is based on the lower of the:
  - 4.1 Price paid by the purchaser for similar materials from that source on Contract items; and
  - 4.2 Current wholesale price for those materials;
- 5. If Contractor does not submit a material cost record within thirty (30) days of billing, the determined cost is based on the lowest wholesale price:
  - 5.1 During that period
  - 5.2 In the quantities used

**3. Equipment Rental.** Equipment rental payment is full compensation for:

- 1. Rental equipment costs, including moving rental equipment to and from the change order work site using its own power.
- 2. Transport equipment costs for rental equipment that cannot be transported economically using its own power. No payment is made during transport for the transported equipment.
- 3. Fifteen percent (15%) percent markup.

If Contractor wants to return the equipment to a location other than its original location, the payment to move the equipment must not exceed the cost of returning the equipment to its original location. If Contractor uses the equipment for work other than work paid by force account, the transportation cost is included in the other work.

Before moving or loading the equipment, Contractor must obtain authorization for the equipment rental's original location.

The City Engineer determines rental costs:

- 1. Using rates in *Labor Surcharge and Equipment Rental Rates*:

- 1.1. By classifying equipment using manufacturer's ratings and manufacturer-approved changes.
- 1.2. Current during the work paid by force account.
- 1.3. Regardless of equipment ownership but City uses the rental document rates or minimum rental cost terms if:
  - 1.3.1. Rented from equipment business Contractor does not own.
  - 1.3.2. The Labor Surcharge and Equipment Rental Rates hourly rate is \$10.00 per hour or less.
  
2. Using rates established by the City Engineer for equipment not listed in *Labor Surcharge and Equipment Rental Rates*. Contractor may submit cost information that helps the City Engineer establish the rental rate but City uses the rental document rates or minimum rental cost terms if:
  - 2.1. Rented from equipment business Contractor does not own.
  - 2.2. The City Engineer establishes a rate of \$10.00 per hour or less.
  
3. Using rates for transport equipment not exceeding the hourly rates charged by established haulers.

Equipment rental rates include the cost of:

- |   |                            |
|---|----------------------------|
| 1. Fuel                                     | 7. Repairs and maintenance |
| 2. Oil                                      | 8. Depreciation            |
| 3. Lubrication                              | 9. Storage                 |
| 4. Supplies                                 | 10. Insurance              |
| 5. Small tools that are not consumed by use | 11. Incidentals            |
| 6. Necessary attachments                    |                            |

City pays for small tools consumed by use. The City Engineer determines payment for small tools consumed by use based on Contractor-submitted invoices.

The City Engineer may authorize rates in excess of those in the *Labor Surcharge and Equipment Rental Rates* if:

1. Contractor submits a request to use rented equipment
2. Equipment is not available from Contractor's normal sources or from one of Contractor's subcontractors
3. Rented equipment is from an independent rental company
4. Proposed equipment rental rate is reasonable
5. The City Engineer authorizes the equipment source and the rental rate before Contractor uses the equipment

**4. Equipment on the Job Site.** For equipment on the job site at the time required to perform work paid by force account, the time paid is the time:

1. To move the equipment to the location of work paid by force account plus an equal amount of time to move the equipment to another location on the job site when the work paid by force account is completed

2. To load and unload equipment
3. Equipment is operated to perform work paid by force account and:
  - 3.1. Hourly rates are paid in 1/2-hour increments
  - 3.2. Daily rates are paid in 1/2-day increments

**5. Equipment Not on the Job Site Required for Original-Contract Work.** For equipment not on the job site at the time required to perform work paid by force account and required for original-Contract work, the time paid is the time the equipment is operated to perform work paid by force account and the time to move the equipment to a location on the job site when the work paid by force account is completed.

The minimum total time paid is:

1. 1 day if daily rates are paid
2. 8 hours if hourly rates are paid

If daily rates are recorded, equipment:

1. Idled is paid as 1/2 day
2. Operated four (4) hours or less is paid as 1/2 day
3. Operated four (4) hours or more is paid as one (1) day

If the minimum total time exceeds eight (8) hours and if hourly rates are listed, City rounds up hours operated to the nearest 1/2-hour increment and pays based on the hours shown in the following table. The table does not apply when equipment is not operated due to breakdowns, in which case rental hours are the hours the equipment was operated.

**Equipment Rental Hours**

Hours operated	Hours paid
0.0	4.00
0.5	4.25
1.0	4.50
1.5	4.75
2.0	5.00
2.5	5.25
3.0	5.50
3.5	5.75
4.0	6.00
4.5	6.25
5.0	6.50
5.5	6.75
6.0	7.00
6.5	7.25
7.0	7.5
7.5	7.75
≥8.0	hours used

**6. Equipment Not on the Job Site Not Required for Original-Contract Work.** For equipment not on the job site at the time required to perform work paid by force account and not required for original-Contract work, the time paid is the time:

1. To move the equipment to the location of work paid by force account plus an equal amount of time to return the equipment to its source when the work paid by force account is completed
2. To load and unload equipment
3. Equipment is operated to perform work paid by force account

**7. Non-Owner-Operated Dump Truck Rental.** Contractor shall submit the rental rate for non-owner-operated dump truck rental to City. The City Engineer shall determine the payment rate. Payment for non-owner-operated dump truck rental is for the cost of renting a dump truck, including its driver. For the purpose of markup payment only, the non-owner-operated dump truck is rental equipment and the owner is a subcontractor.

The above markups shall constitute full compensation for all home office overhead, field office overhead, bond costs, profit, labor liability insurance, and other fixed or administrative costs that are not costs specifically designated as cost or equipment rental as stated above. 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, an additional markup of 2 percent (2%) will be added to the total cost of that extra work including all markups specified in this Section. The additional 2 percent (2%) markup shall reimburse Contractor for additional administrative costs, and no other additional payment will be made by reason of performance of the extra work by a subcontractor.

**WORKERS' COMPENSATION INSURANCE CERTIFICATION**

Pursuant to Section 18(b) of the Agreement, Contractor certifies as follows:

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.

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

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

\_\_\_\_\_  
(Typed or Printed Name)

Business Address (Street Address, City, State & Zip Code):

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

Business Phone: (    ) \_\_\_\_\_

**PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the **City of Turlock**, State of California, has awarded to \_\_\_\_\_, hereinafter designated as the “Principal,” a contract for **City Project No. 23-030, “RWQCF In-Plant Waste Line Repair ”**; and,

WHEREAS, said Principal is required under the terms of said contract to furnish a bond for the faithful performance of said contract.

NOW, THEREFORE, we the Principal, and \_\_\_\_\_ as Surety, are held and firmly bound unto the City of Turlock in the penal sum of \_\_\_\_\_ (\$ \_\_\_\_\_), lawful money of the United States for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns jointly and severally, firmly by these presents.

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

And the Surety, for value received hereby stipulates and agrees that, in accordance with the Plans, Standard Specifications, Special Provisions, and other contract documents, no change, extension of time, alteration, or addition to the terms of the contract, or to the work to be performed hereunder, or to the specifications accompanying the same shall in anywise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration of additions to the terms of the Contract to the work, or to the specifications.

The City of Turlock reserves the right to refuse use of any Contractor assigned by any surety to complete the work.

*[Signatures on Following Page]*

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their seals this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, the name and corporate seals of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Corporate Seal)

**Principal** \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

(Attach Notarial Acknowledgment)

(Corporate Seal)

**Surety** \_\_\_\_\_

Address \_\_\_\_\_

Phone No.: ( ) \_\_\_\_\_ Fax No.: ( ) \_\_\_\_\_

\_\_\_\_\_

By \_\_\_\_\_  
Attorneys-in-Fact

Title \_\_\_\_\_

(Attach Notarial Acknowledgment)

**NOTE TO SURETY COMPANY: There must be submitted a certified copy of unrevoked resolution of authority for the attorneys-in-fact.**

(Seal)

**Witness** \_\_\_\_\_

Approved as to form:

\_\_\_\_\_  
Risk Manager



**PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the **City of Turlock**, a municipal corporation, has awarded to \_\_\_\_\_, hereinafter designated as the “Principal”, a contract for **City Project No. 23-030, “RWQCF In-Plant Waste Line Repair ”**; and

WHEREAS, said Principal is required to furnish a bond in connection with said contract, to secure payment of claims of laborers, mechanics, or materialmen employed on work under said contract, as provided by law.

NOW, THEREFORE, we the undersigned Principal and Surety are held and firmly bound unto the City of Turlock in the sum of \_\_\_\_\_ (**\$ \_\_\_\_\_**), said sum being equal to the estimated amount payable by said City of Turlock under the terms of the contract, for which payment well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that if said Principal, or Principal’s heirs, executors, administrators, successors, or assigns, or subcontractors shall fail to pay for any material, provisions, provender, or other supplies, implements, or machinery 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, or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from these wages of employees of the Contractor and Contractor’s subcontractors pursuant to the Revenue and Taxation Code, with respect to such work and labor, the Surety or Sureties hereon will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, said Surety will pay a reasonable attorney’s fee to be fixed by the court.

This bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under Section 3138 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.

Said Surety, for value received, hereby stipulates and agrees that, in accordance with the Plans, Standard Specifications, Special Provisions, and other Contract Documents, no change, extension of time, alteration or addition to the terms of the contract, or to the work to be performed there under, or to the specifications accompanying the same, shall in anywise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or to the work, or to the specifications.

*[Signatures on Following Page]*

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their seals this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, the name and corporate seals of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Corporate Seal)

**Principal** \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

(Attach Notarial Acknowledgment)

(Corporate Seal)

**Surety** \_\_\_\_\_

Address \_\_\_\_\_

Phone No.: ( ) \_\_\_\_\_ Fax No.: ( ) \_\_\_\_\_

\_\_\_\_\_

By \_\_\_\_\_

Attorneys-in-Fact

Title \_\_\_\_\_

(Attach Notarial Acknowledgment)

**NOTE TO SURETY COMPANY: There must be submitted a certified copy of unrevoked resolution of authority for the attorneys-in-fact.**

(Seal)

**Witness** \_\_\_\_\_

Approved as to form:

\_\_\_\_\_  
Risk Manager

# SPECIAL PROVISIONS

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City Project No: 23-030

## RWQCF In-Plant Waste Line Repair

### SECTION 1 SPECIFICATIONS AND PLANS

#### SPECIAL NOTES:

1. Official bid documents including plans and specifications are available online at <http://www.cityofturlock.org/capitalprojects>. All bids submitted for this project must conform to the requirements of the official bid documents, including plans and specifications.
2. A mandatory pre-bid meeting will be held on Wednesday, October 4th, 2023 at 3:00 PM at the Regional Water Quality Control Facility at 901 S Walnut Rd, Turlock, CA 95380.

#### 1.01 CONTRACT DOCUMENTS:

The work described herein shall be done in accordance with the current City of Turlock Standard Specifications and the current edition of the State of California, Department of Transportation Standard Specifications and Standard Plans and in accordance with the following Special Provisions.

The Contract Documents are complementary; what is required by one is as binding as if required by all.

It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to City.

Clarifications and interpretations of the Contract Documents shall be issued by Engineer.

In case of conflict or discrepancy between any of the Contract Documents, the order of documents listed below shall be the order of precedence, with the first item listed having the highest precedence.

1. Contract Change Order (Modifications or changes last in time are first in precedence).
2. Addenda to Contract Agreement
3. Contract Agreement
4. Permits
5. Special Provisions
6. Notice Inviting Bids and Instructions to Bidders
7. Project Drawings
8. City of Turlock Standard Specifications
9. City of Turlock Standard Drawings
10. Caltrans Standard Specifications
11. Caltrans Standard Plans

With regards to discrepancies or conflicts between written dimensions given on drawings and the scaled measurements, the written dimensions shall govern.

With regards to discrepancies or conflicts between large-scale drawings and small-scale drawings, the larger scale shall govern.

With regards to discrepancies or conflicts between detailed drawings and referenced standard drawings or plans, the detailed drawings shall govern.

In the event where provisions of codes, safety orders, contract documents, referenced manufacturer's specifications or industry standards are in conflict, the more restrictive and higher quality shall govern.

Should it appear that the work to be done or any of the matters relative thereto are not sufficiently detailed or explained in these specifications, the special provisions, or the plans, the Contractor shall apply to the Engineer in writing for such further explanations as may be necessary and shall conform to them as part of the contract. All responses from the Engineer shall also be in writing. In the event of any doubt or question arising respecting the true meaning of these specifications, the special provisions or the plans, reference shall be made to the Engineer, whose decision thereon shall be final.

#### **1.02 CONTRACTOR'S RESPONSIBILITY:**

The Contractor shall examine carefully the site of the work and the plans and specifications therefore. The Contractor shall investigate to their satisfaction as to conditions to be encountered, the character, quality and quantity of surface, subsurface materials or obstacles to be encountered, the work to be performed, materials to be furnished, and as to the requirements of the bid, plans and specifications of the contract.

#### **1.03 COMPLETENESS AND ACCURACY OF PLANS AND SPECIFICATIONS:**

Pursuant to the California Public Contract Code, the bidder is required to review architectural or engineering plans and specifications prior to submission of a bid, and report any errors and omissions noted by Contractor to the architect, engineer or owner five days prior to the bid opening date.

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

#### **2.01 GENERAL:**

The Contractor's attention is directed to the "Notice to Contractor" for the date, time and location of the mandatory Pre-Bid meeting, if applicable.

The bidder's attention is directed to the provisions in Proposal for this bid for the requirements and conditions which the bidder must observe in the preparation of and the submission of the bid.

The bidder's bond shall conform to the bond form in the Bid book for the project and shall be properly filled out and executed. The bidder's bond form included in that book must be used.

In conformance with Public Contract Code Section 7106, a Noncollusion Affidavit is included in the Bid book. Signing the Bid book shall also constitute signature of the Noncollusion Affidavit.

The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of Title 49 CFR (Code of Federal Regulations) part 26 in the award and administration of US DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the recipient deems appropriate. Each subcontract signed by the bidder must include this assurance.

Failure of the bidder to fulfill the requirements of the Special Provisions for submittals required to be furnished after bid opening, including but not limited to escrowed bid documents, where applicable, may subject the bidder to a determination of the bidder's responsibility in the event it is the apparent low bidder on a future public works contracts.

## **2.02 EXISTING UTILITIES, FACILITIES, AND SITE CONDITIONS:**

The actual sizes, locations and materials of existing utilities and facilities shown on the plans may vary from what is shown on the plans. Attention is directed to the possible existence of underground facilities not indicated on the plans or in the special provisions. Contractor shall be responsible for verifying the locations and nature of the existing utilities, protecting them from damage and notifying Engineer of their location and nature.

Contractor shall examine carefully the site of the work. It is assumed that Contractor has investigated and is satisfied as to the conditions to be encountered as to the character, quality and quantities of work to be performed.

Unless otherwise noted in a geotechnical report made available to the Contractor for the project, Contractor shall assume for bidding purposes that near surface native soil material is generally homogenous and that soil meets the uniform soil classification of a silty sand (SM) without cementation.

If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

1. is of such a nature as to establish that any technical data on which Contractor is entitled to rely is materially inaccurate; or
2. is of such a nature as to require a change in the Contract Documents; or
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith, notify Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith until instructed in writing to do so. After receipt of written notice, Engineer will promptly review the pertinent condition and advise in writing (with a copy to Contractor) of Engineer's findings and conclusions.

The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; provided that such condition meets any one or more of the categories described in the paragraphs above.

Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:

1. Contractor knew of the existence of such conditions prior to the submission of a Bid; or
2. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's submittal of a bid; or
3. Contractor failed to give the written notice as required above.

Full compensation for furnishing all labor, materials, tools, equipment (including dewatering devices), and incidentals, and for doing all the work involved with and/or in verifying existing utilities, facilities, site and subsurface conditions as specified above, shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefore

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

#### **3.01 GENERAL:**

The Contractor's attention is directed to the provisions in the Contract for the requirements and conditions concerning award and execution of contract.

The contract shall be executed by the successful bidder and shall be returned, together with the contract bonds and insurance, to the City so that it is received within 10 working days after the bidder has received the contract for execution. Failure to do so shall be just cause for forfeiture of the proposal guaranty. The executed contract documents shall be delivered to the following address:

Attention: Gloria Aguilar  
City of Turlock, Engineering Division  
156 S Broadway, Suite 150  
Turlock, CA 95380

Bid protests are due in writing by the fifth calendar day after the bid opening and are to be delivered to the following address:

Attention: William Morris, RCE, PLS  
City of Turlock, Engineering Division  
156 S Broadway Suite 150  
Turlock, CA 95380

The award of the contract, if it be awarded, will be to the lowest responsible bidder whose bid complies with all the requirements prescribed.

## **SECTION 4 BEGINNING OF WORK, TIME OF COMPLETION AND DELAY DAMAGES**

### **4.01 NOTICE TO PROCEED:**

The Notice to Proceed is defined as a letter issued by the City to the Contractor indicating that the Work may begin at the designated site and outlines the anticipated construction start and end dates. The Notice to Proceed is issued after award of the Contract by the City Council and after the Contractor has provided all bonds, insurance documentation, and any other information required by the project specifications prior to beginning the Work. At no time shall construction begin prior to the issuance of the Notice to Proceed. Any work performed prior to issuance of the Notice to Proceed shall be done at the Contractor's own risk.

Attention is directed to Section 5 "Time For Performance" of the Contract.

The Contractor shall follow the sequence of construction and progress of work as specified in the Section, "Order of Work," of these Special Provisions.

Attention is directed to Section 5(d) "Delay Damages" of the Contract.

### **4.02 PRE-CONSTRUCTION MEETING:**

A pre-construction meeting will be held between Contractor and City prior to the beginning of construction. The exact time and place of this conference will be determined by City after award of the construction contract. Contractor's superintendent, Contractor's project manager(s), City's project manager, City's public works inspector, major subcontractors and others involved in performance of the Work, are required to be present.

The purpose of the meeting is to establish a working understanding between parties and to discuss the construction schedule, review the process for the review of submittals, RFIs, Change Order Requests, applications for payment, and other subjects pertinent to execution of the Work.

### **4.03 COPIES OF CONTRACT DOCUMENTS:**

At the request of the Contractor, City shall furnish up to five (5) hard copies of the project plans and specifications. Contractor may produce additional copies as needed at Contractor's expense.

### **4.04 STAGING OF MATERIALS AND EQUIPMENT:**

Contractor shall coordinate, arrange, and pay for leasing of area(s) for the staging materials and equipment, as necessary. Any areas utilized for staging shall be included in the Contractor's Erosion and Sediment Control Plan or Storm Water Pollution Prevention Plan (SWPPP). Contractor shall take photos of staging area(s) to use of the area and shall restore the areas to pre-construction conditions prior to completion.

Contractor may contact City personnel to request if there is City-owned land in the vicinity of the project available for staging. The City may grant access to City-owned land for staging, but shall not be obligated to do so.

## SECTION 5 GENERAL

### 5.01 INTERNET BASED CONSTRUCTION MANAGEMENT SYSTEM:

The Engineer and Contractor shall utilize Virtual Project Manager (VPM; [www.new.virtual-pm.com](http://www.new.virtual-pm.com)), for submission of all construction documents for the duration of the construction contract and shall utilize VPM for project correspondence to the maximum extent possible. VPM is an online electronic project management system used to create, share, and review construction management documentation. The joint use of this system is to facilitate electronic exchange of information, automation of key processes, electronic notification of project activity, and overall management of contract documentation between City and Contractor. VPM shall be the primary means of project document submission and management.

VPM access is provided to the Contractor at no cost to the Contractor. The Contractor shall use computer hardware and software that meets the requirements of the VPM system. Upgrading of the Contractor's computer systems will not be justification for a cost or time modification to the Contract. The Contractor shall ensure its own connectivity to VPM by providing their own internet service and provide staff knowledgeable in the use of computers.

The Engineer will establish the Contractor's access to VPM by enabling access and assigning user profiles to Contractor's personnel. Contractor may request that access be granted to subcontractors, suppliers, or consultants, though access to these groups will be limited to read-only permissions. All communication to the Engineer shall be made directly through the Contractor. All authorized personnel shall have an individual user profile; no joint-use or shared user profiles will be allowed. Each user profile shall be assigned to a user group and have specific permission settings and privileges based on the user's need within VPM. The Contractor shall be responsible for the validity of the information entered by the Contractor into VPM.

Contractor will submit attachments within VPM in formats acceptable to the Engineer, such as PDF files, Microsoft Office files, and picture files (JPG, TIFF, BMP, JPEG, etc.). PDF documents shall be created through electronic conversion prior to uploading, rather than optically scanned, whenever possible.

Contractor shall upload relevant documents for review and approval under the corresponding module within VPM (submittal, RFI, etc.). Each document submittal shall have a unique title and description that references the item and the section number from the specifications.

Engineer shall provide training to the Contractor in the basic use of the VPM system, as requested by the Contractor.

The Contractor shall create a RFI upon recognition of any event or question of fact arising from the contract work. The Engineer will respond to a RFI submitted by the Contractor within seven (7) calendar days, not including legal holidays.

Inspector's daily logs shall be used by the City to document the activities of the work, any correspondence or direction given in the field, safety concerns and general comments about the project. The weekly statement of working days report (WSWD) will be generated by VPM and approved by the City. The WSWD shows the working days and non-working days charged for the reporting week, any time adjustments, a work completion date with the remaining working days left in the contract and the



controlling activities for the week. The Contractor will be allowed 15 days to protest in writing the correctness of the statement.

#### **5.02 BUSINESS LICENSE:**

Contractor shall obtain a City of Turlock business license prior to issuance of the Notice to Proceed. The cost of the business license is a up-front fee of eighty four dollars (\$84) plus fifty cents per thousand dollars in revenue received for work performed on the project, made payable on a semi-annual basis. Business Licenses are obtained through the Finance Division at Turlock City Hall, 156 S. Broadway, Suite 114. Additional information can be found on the City's website at <http://ci.turlock.ca.us/doingbusinessinturlock/businesslicenses/newbusinesslicense.asp>.

Full compensation for obtaining a business license as specified above shall be considered as included in the prices paid for the various contract bid items and no additional compensation will be allowed therefore.

#### **5.03 PROGRESS SCHEDULE:**

Contractor shall furnish City with a Critical Path Method progress schedule. The progress schedule shall show the construction activities extending for the duration of the working days. Any deviation from the outline must be approved by Engineer. Contractor shall not be allowed to start construction activities until the progress schedule is accepted by Engineer.

#### **5.04 PUBLIC COMMUNICATIONS:**

The Contractor shall notify adjacent property owners, residents, and/or tenants when the execution of work may affect their everyday activities.

Any time the Contractor is acting on behalf of the City to perform work, the communication material between the Contractor and the public shall adhere to these Special Provisions and is subject to review and approval by the City. All communication materials shall be in English and Spanish.

#### **Work Notice**

Provide notice to affected property owners in advance of work. Notice is required for any work within an easement, within the City's right-of-way, outside of street, etc. Contractor shall notify the resident by door knocking and leaving a flier. Notices shall be received by the affected properties no less than two (2) and no more than seven (7) calendar days prior to starting the work.

#### **Denial of Access**

Provide notice for when it is necessary to temporarily deny access to public parking, residential property, or commercial property. Notify residents, businesses, and local agencies at least 24 hours before starting activities. The type of notification shall be a written communication prepared and distributed by the Contractor. The written communication shall contain, at a minimum, the following information:

- Describe the work to be performed
- Detail streets and limits of activities
- Indicate dates and work hours
- Be authorized by the City

Attention is directed to Section 12.02, "Traffic Management Plan," of these Special Provisions.

### **Utility Service Interruption**

Provide notice for when any City’s utility service connection must be interrupted. The type of notification shall be a written communication prepared and distributed by the Contractor. The written communication shall contain, at a minimum, the following information:

- The type of service (e.g. water or sewer) that will be interrupted
- The date and length of time service will be interrupted
- Contractor’s Name and Contact Information

Notices shall be received by the affected properties no less than two (2) and no more than seven (7) calendar days prior to the work.

### **5.05 PERMITS:**

Contractor is required to obtain the following permits. Secure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work under this contract. Undertake all efforts necessary to develop complete self-satisfaction as to the provisions in the various permits and the submission of a bid on this project will be deemed conclusive evidence that you have done so.

<b>Permit:</b>	<b>Agency / Division:</b>	<b>Required for:</b>	<b>Fee</b>	<b>Notes</b>
Erosion and Sediment Control Plan	City of Turlock	Any ground disturbing work	\$0	See Special Provisions section “EROSION CONTROL”
Monthly Hydrant Use Permit	City of Turlock Municipal Services Department	Use of construction water from hydrants	\$0, though a deposit is required for meter	See Special Provisions section “USE OF HYDRANTS FOR CONSTRUCTION PURPOSES”

### **5.06 SUBMITTALS:**

#### **General**

Before making submittals, Contractor shall ensure that products and materials will be available in the quantities and in the time required by the Contract and the approved outline of construction activity. Each submittal shall clearly identify, by highlighting, arrows or other defined and permanent mark, the products and materials proposed for use.

All Submittals shall be made to Engineer by Contractor, including those generated by subcontractors and suppliers. Contractor shall carefully review all subcontractor and supplier submittals before submitting to Engineer for review. Submittals received from sources other than Contractor’s office shall be returned without action. If a submittal contains extraneous information, unmarked options or is incomplete, it will be returned to Contractor for correction

and require re-submittal.

## **Submission**

Submittals shall be made electronically in accordance with the Section “Internet Based Construction Management System,” of these special provisions.

Each submittal shall contain, at a minimum, the following information:

1. Title page including the following information:

Name of Contractor

Name of subcontractor (if applicable)

Description of item

Item Number on Bid Schedule

Contractor’s initials and date indicating approval of item for submittal to Engineer

2. The brochure, product data sheet or catalog cut sheet. For all Product Data and Manufacturer’s Instructions, excise or cross out non-applicable information and clearly mark applicable information with citations to and terminology consistent with Contract Documents.

3. Submittals that involve engineering computations or original design work shall show the name, the California State registration number, seal, and signature of the Professional Engineer certifying that such computations or design work are correct and in conformance with applicable standards, codes and accepted engineering practices.

4. For product samples, Contractor shall submit two (2) representative samples, one of which may be retained for the duration of the project or indefinitely at the discretion of Engineer. Although a reasonable attempt will be made to maintain the samples in good condition, neither City nor its representative will be responsible for the condition of the samples if returned to Contractor.

5. For material samples, unless a specific quantity is called for in the contract documents, Contractor shall submit a representative sample of the material, which may be retained for the duration of the project or indefinitely at the discretion of Engineer.

6. Certificates of compliance shall be submitted by Contractor to Engineer for those materials and products for which no sample and test results are specified. Certificates of compliance shall include the following information:

- Statement that the product complies with the respective contract specifications.
- Producer’s name and address, product trade name and catalog number (if applicable), place of product origin, quantity of product to be furnished, and related contract plans and specification section numbers.

- A certified copy of test results pertaining to the product from a certified independent testing laboratory. At the option of Engineer certified test results shall be signed and sealed by a Professional Engineer licensed to practice in the state of California.
- Material Safety Data Sheets (MSDS) for all materials used or stored on the site that possess a MSDS, including materials used by Contractor for maintenance of equipment.

## **Review**

Submittals will be processed by Engineer within fourteen (14) calendar days after receipt, not including legal holidays. When a submittal cannot be returned within that period, the Engineer will, within a reasonable time after receipt of the submittal, give notice of the date by which that submittal will be returned. Submittal shall receive one of four review actions:

1. No Exceptions Taken – The submittal is approved without comments.
2. Supply as Noted / Make Corrections Noted – The submittal is approved, provided that the Contractor addresses the included comments.
3. Resubmit – The information provided with the submittal does not meet project requirements, however, Engineer has commented on some missing items that, if provided, may meet project requirements. Contractor shall resubmit the same product and provide additional information per the Engineer’s comments.
4. Rejected – The submitted product cannot meet project requirements and is rejected. Contractor shall provide a separate product that meets project requirements as a resubmittal.

Engineer will review submittals for general conformance with the Contract Documents. The work shall be in accordance with approved submittals except that the Contractor shall not be relieved of the responsibility for deviations from requirements of the Contract Documents by the Engineer’s approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Engineer in writing of such deviation at the time of submittal as part of a cover letter to the submittal itself, and as a written communication separate from the submittal cover letter, and (1) the Engineer has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Engineer's approval thereof. The Engineer’s review does not extend to accuracy of dimensions, quantities, or performance of equipment and systems designed by the Contractor, or means, methods, techniques, sequences, or procedures. Unless specifically authorized to do so by Engineer, Contractor shall not procure, manufacture, or fabricate any part of the contract work until submittals related to said contract work have been favorably reviewed by Engineer.

## **“Or Equal” Items**

Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to for review under the circumstances described below.

1. "Or Equal" Items: If in the Engineer's discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may be accomplished. A proposed item of material or equipment will be considered functionally equal to a named item if:

- a. In the exercise of reasonable judgment Engineer determines that: (i) it is at least equal in quality, durability, appearance, strength, and design characteristics; (ii) it will reliably perform at least equally well the function of the named item, and;
- b. Contractor certifies that: (i) there is no increase in cost to the City; and (ii) it will conform substantially, even with deviations, to the detailed requirements of the item named in the Contract Documents.

#### **5.07 CHANGE ORDER PROCEDURES:**

The contract price and contract time may only be changed by an executed Contract Change Order. A Contract Change Order is a written instrument prepared by the Owner, authorized by the City, stating agreement of the following:

1. The change in the Work;
2. The amount of the adjustment, if any, in the Contract Price; and
3. The extent of the adjustment, if any, in the Contract Time.

When a change in the work is contemplated by the Engineer, a Construction Change Directive may be issued by the Engineer. A Construction Change Directive is a written order prepared by the Engineer directing a change in the Work prior to agreement on adjustment in the Contract Price or Contract Time, or both, in a Contract Change Order. The Engineer may, by Construction Change Directive and without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Price and Contract Time being adjusted accordingly thereafter according to the terms of the Agreement.

A Change Order Request is a document created by the Contractor which notifies the Engineer of changes in scope, changed conditions, errors, omissions, or inconsistencies in the contract documents which may or may not require an adjustment in the Contract Price and/or Contract Time.

Upon issuance of either a Construction Change Directive by the Engineer or a Change Order Request by the Contractor, the Contractor shall promptly prepare documentation proposing a contract cost and/or time adjustment for review by the Engineer for the purposes of arriving at a mutually agreeable lump sum.

Contractor shall submit backup information for costs of labor, equipment, material, and agreeable markups. Backup information shall contain sufficient detail to allow a thorough review. The Engineer will review backup documentation and issue a response to the Contractor as to agreement or disagreement with proposed adjustments to contract price and/or time. Contractor shall not proceed with the change in the Work involved until the proposed cost and time adjustment is acceptable to the Engineer. If attempts to arrive at a mutually agreeable lump sum amount fail, the Engineer may direct that the work proceeds on the basis of force account in accordance with the terms of the Agreement.

**5.08 NOTICE OF POTENTIAL CLAIM:**

Attention is directed to Section 5-1.43 "Potential Claims and Dispute Resolution," of the Caltrans Standard Specifications.

**5.09 LABOR NONDISCRIMINATION:**

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

**NOTICE OF REQUIREMENT FOR NONDISCRIMINATION PROGRAM**

(GOV. CODE, SECTION 12990)

Your attention is called to the "Nondiscrimination Clause", set forth in Section 7 1.01A(4), "Labor Nondiscrimination," of the Caltrans Standard Specifications, which is applicable to all nonexempt state contracts and subcontracts, and to the "Standard California Nondiscrimination Construction Contract Specifications" set forth therein. The Specifications are applicable to all nonexempt state construction contracts and subcontracts of \$5,000 or more.

**5.10 PREVAILING WAGE:**

Attention is directed to Section 7-1.02K "Labor Code," of the Caltrans Standard Specifications, however certified payroll is not submitted to Caltrans for this project. Contractor shall submit certified payroll records both to the DIR and to the Engineer on a weekly basis. Contractor may submit certified payroll records to the Engineer via mail, email, or uploaded to VPM.

State Prevailing Wage Rates

Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates in the county Stanislaus in which the work is to be done have been determined by the Director of the California Department of Industrial Relations. These wages are set forth in the General Prevailing Wage Rates for this project, available at 156 S. Broadway St, Turlock, CA 95380 and available from the California Department of Industrial Relations' Internet web site at <http://www.dir.ca.gov/DLSR/PWD>. Changes, if any, to the general prevailing wage rates, will be available at the same location. Future effective general prevailing wage rates, that have been predetermined and are on file with the California Department of Industrial Relations are referenced but not printed in the general prevailing wage rates.

**5.11 SUBCONTRACTING:**

No subcontract releases the Contractor from the contract or relieves the Contractor of their responsibility for a subcontractor's work.

If the Contractor violates Pub Cont Code § 4100 et seq., the City may exercise the remedies provided under Pub Cont Code § 4110. The City may refer the violation to the Contractors State License Board as provided under Pub Cont Code § 4111.

Each subcontract must comply with the contract.

Each subcontractor must have an active and valid State contractor's license with a classification appropriate for the work to be performed (Bus & Prof Code, § 7000 et seq.).

At the pre-construction meeting, prior to starting work, Contractor shall submit a complete listing of subcontractors and the value of the work each subcontractor will perform. This list shall contain all information identified on Exhibit 12-G of the Local Assistance Procedures Manual.

Before subcontracted work starts, submit a Subcontracting Request form.

Do not use a debarred contractor; a current list of debarred contractors is available at the Department of Industrial Relations' Web site.

Upon request by the Engineer, immediately remove and not again use a subcontractor who fails to prosecute the work satisfactorily.

#### **5.12 PAYMENTS:**

Attention is directed to Section 8, "Compensation," of the Contract.

At the end of each month the Contractor shall submit a proposed progress invoice. The invoice shall delineate each bid item, the amount of work performed for the invoice period (previous month) and the total amount of work performed to date. A sample invoice with all of the required items will be given to the Contractor at the pre-construction meeting.

The Engineer will review the progress invoice and after any changes the Engineer makes, will issue an official invoice for the Contractor to sign. The Contractor shall sign the official invoice and return to the Engineer. After the Engineer receives the signed, official invoice, the progress payment will be processed.

Retention in the amount of 5% of the progress payment amount shall be held from all progress payments. Retention will be released 35 days after the Notice of Completion has been filed, insofar as no stop notices were filed.

#### **5.13 GUARANTY:**

Attention is directed to Section 9-4, "Guaranty," of the City of Turlock Standard Specifications.

#### **5.14 PROMPT PROGRESS PAYMENT TO SUBCONTRACTORS:**

A prime contractor or subcontractor shall pay any subcontractor not later than 10 days of receipt of each progress payment in accordance with the provision in Section 7108.5 of the California Business and Professions Code concerning prompt payment to subcontractors. The 10 days is applicable unless a longer period is agreed to in writing. Any delay or postponement of payment over 30 days may take place only for good cause and with the agency's prior written approval. Any violation of Section 7108.5 shall subject

the violating contractor or subcontractor to the penalties, sanction and other remedies of that section. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subcontract performance, or noncompliance by a subcontractor.

**5.15 PROMPT PAYMENT OF FUNDS WITHHELD TO SUBCONTRACTORS:**

The agency shall hold retainage from the prime contractor and shall make prompt and regular incremental acceptances of portions, as determined by the agency of the contract work and pay retainage to the prime contractor based on these acceptances. The prime contractor or subcontractor shall return all monies withheld in retention from all subcontractors within seven (7) days for construction contracts and fifteen (15) days for consultant contracts after receiving payment for work satisfactorily completed and accepted including incremental acceptances of portions of the contract work by the agency. Any delay or postponement of payment may take place only for good cause and with the agency's prior written approval. Any violation of these provisions shall subject the violating prime contractor or subcontractor to the penalties, sanctions, and other remedies specified in Section 7108.5 of the California Business and Professions Code and Section 10262 of the California Public Contract Code for construction contracts, and Section 3321 of the California Civil Code for consultant contracts. This requirement shall not be construed to limit or impair any contractual, administrative or judicial remedies otherwise available to the contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the contractor; deficient subcontractor performance and/or noncompliance by a subcontractor. This clause applies to both DBE and non-DBE subcontractors.

**5.16 ORDER OF WORK:**

Order or work shall be in accordance with the provisions in Section 5-1.05, "Order of Work," of the Caltrans Standard Specifications and these Special Provisions.

**5.17 PUBLIC SAFETY:**

In addition to any other measures taken by Contractor pursuant to the provisions of the Standard Specifications and the General Conditions, Contractor shall install temporary precast concrete barrier rail between any lane carrying public traffic and any excavation, obstacle or storage area when the following conditions exist:

Excavations: Any excavation, the near edge of which is 12 feet or less from the edge of the lane, except;

- (a) Excavations covered with sheet steel or concrete covers of adequate thickness to prevent accidental entry by traffic or the public.
- (b) Excavations less than one foot deep.
- (c) Trenches less than one foot wide for irrigation pipe or electrical conduit or excavations less than one foot in diameter.
- (d) Excavations parallel to the lane for the purpose of pavement widening or reconstruction.
- (e) Excavations in side slopes where the slope is steeper than 4:1.
- (f) Excavations protected by existing barrier or railing.

At the end of each working day, if a difference of 0.50 feet exists between the elevation of the existing pavement and the elevation of any excavation within 2 feet of the traveled way, material shall be placed



and compacted against the vertical cuts adjacent to the traveled way. During excavation operations, native material may be used for this purpose, however, once the placing of the structural section commences, structural material shall be used. The material shall be placed to the level of the elevation of the top of the existing pavement and tapered at a slope of 4:1 or flatter to the bottom of the excavation. Treated base shall not be used for the taper. Full compensation for placing the material on a 4:1 slope, regardless of the number of times it is required, and subsequent removing or reshaping of the material to the lines and grades shown on the plans shall be considered as included in the cost for other contract items of work and no additional compensation will be allowed therefore.

Personal vehicles of Contractor's employees shall not be parked on the traveled way or shoulders, including any section closed to public traffic. Whenever vehicles or equipment are parked on the shoulder within 6 feet of a traffic lane, the shoulder area shall be closed with traffic cones or portable delineators placed on a taper in advance of the parked vehicles or equipment and along the edge of the pavement at 25-foot intervals to a point not less than 25 feet past the last vehicle or piece of equipment.

A minimum of one paved traffic lane, not less than 12 feet wide, shall be open for use by public traffic in each direction of travel. The full width of the traveled way shall be open for use by public traffic on Saturdays, Sundays and designated legal holidays, after 4:00 p.m. on Fridays and the day preceding designated legal holidays and when construction operations are not actively in progress.

#### **5.18 REMOVAL OF ASBESTOS AND HAZARDOUS SUBSTANCES:**

The contractor shall promptly, and before the following conditions are disturbed, notify the local public entity, in writing, of any:

1. Material that the contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.
2. Subsurface or latent physical conditions at the site differing from those indicated by information about the site made available to bidders prior to the deadline for submitting bids.
3. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract.

Upon notification of any of the above, the City shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the contractor's cost of, or the time required for, performance of any part of the work, a change order shall be issued to modify the contract scope.

In the event that a dispute arises between the City and Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the contractor's cost of, or time required for, performance of any part of the work, the contractor shall not be excused from any scheduled completion date provided for by the contract, but shall proceed with all work to be performed under the contract. The contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between the contracting parties.

When the presence of asbestos or hazardous substances are not shown on the plans or indicated in the specifications and the Contractor encounters materials which the Contractor reasonably believes to be asbestos or a hazardous substance as defined in Section 25914.1 of the Health and Safety Code, and the asbestos or hazardous substance has not been rendered harmless, the Contractor may continue work in unaffected areas reasonably believed to be safe. The Contractor shall immediately cease work in the affected area and report the condition to the Engineer in writing.

In conformance with Section 25914.1 of the Health and Safety Code, removal of asbestos or hazardous substances including exploratory work to identify and determine the extent of the asbestos or hazardous substance will be performed by separate contract.

If delay of work in the area delays the current controlling operation, the delay will be considered a right of way delay and the Contractor will be compensated for the delay in conformance with the provisions in Section 8 1.07, "Delays," of the Caltrans Standard Specifications.

#### **5.19 WORKING HOURS:**

Contractor's working hours shall be between 7:00 a.m. and 5:00 p.m., Monday through Friday, excluding legal holidays.

Contractor shall notify Engineer 48 hours prior to beginning work.

Contractor shall not work outside the above-mentioned working hours without prior written consent of Engineer.

Designated legal holidays are: January 1st, the third Monday in January, the third Monday in February, the last Monday in May, June 19<sup>th</sup>, July 4<sup>th</sup>, the first Monday in September, November 11<sup>th</sup>, Thanksgiving Day, the day after Thanksgiving, and December 25<sup>th</sup>. When a designated legal holiday falls on a Sunday, the following Monday shall be a designated legal holiday. When a designated legal holiday falls on a Saturday, the preceding Friday shall be a designated legal holiday.

Should the Contractor desire to work on a Saturday, Sunday or Legal Holiday, the Contractor shall request approval of the Engineer. The Engineer may reject the request with or without cause. Should approval be granted, the Contractor shall reimburse the City of Turlock the premium portion of cost of engineering, inspection, testing, superintendent, and/or other overhead expenses due to overtime which are directly chargeable to the contract. Should such work be undertaken at the request of the City, reimbursement will not be required.

#### **5.20 SOUND CONTROL REQUIREMENTS:**

Sound control shall be in accordance with Section 7 1.01I, "Sound Control Requirements," of the Caltrans Standard Specifications and these special provisions.

The noise level from Contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dba at a distance of 50 feet. This requirement in no way relieves Contractor from responsibility for complying with local ordinances regulating noise level.

Said noise level requirements 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 Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety law 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.

#### **5.21 UNDERGROUND SERVICE ALERT REQUIREMENTS:**

Contractor shall contact Underground Service Alert of Northern California at least 48 hours in advance of any construction activity, will or could damage or affect any underground utility or subsurface improvement, and obtain an inquiry identification number. Contractor shall notify Underground Service Alert in the event of change in the project limits or change in original work previously shown on the plans or indicated in the specifications. Contractor shall not commence construction prior to City Inspector receiving City's notice from USA North regarding this construction activity.

#### **5.22 SURVEYING:**

Construction survey staking shall be provided by City. Contractor shall provide the initial staking request no less than 1 week prior to Contractor starting work. Contractor shall submit subsequent staking requests no less than 48 hours before the staking is required to continue construction. Contractor shall post all staking requests to Virtual Project Manager (VPM) under the Request for Information (RFI) tab. The Contractor shall provide unimpeded access to the site and allow the survey crew to perform their work.

Contractor shall protect all survey stakes and markers during construction. If survey stakes and/or markers are damaged or destroyed during the course of construction, by vandalism or by any other means, Contractor may submit a request to have the survey re-staked. If re-staking is required, Contractor may be back charged at the fully burdened hourly rate for the survey crew and shall fully reimburse City for all necessary materials and equipment as a deductive change order.

Prior to installation of formwork for concrete building structures, Contractor shall be required to notify the City a minimum of 48 hours in advance of scheduled formwork activities so that the City may complete a survey for the purposes of verifying horizontal and vertical placement. The Engineer shall review the survey results and determine if the preparation of the building pad area is in conformance with the project plans and specifications. Contractor shall not proceed with installing formwork until after it is determined that the building pad area is in conformance with the project plans and specifications. After formwork is in place and prior to pouring any concrete, Contractor shall notify the City a minimum of 48 hours in advance for a survey of formwork. Upon completion of the survey, the Engineer may either approve or reject the formwork. Contractor shall not proceed with pouring concrete until after the Engineer has certified that the area is in compliance with the project plans and specifications. Contractor shall be required to correct this work in a manner acceptable to the Engineer if found to not be in conformance with the project plans and specifications at its own expense.

### **5.23 PRESERVATION OF PROPERTY:**

The work performed in connection with various existing facilities shall be in accordance with Section 7-8, "Preservation of Property," of the Standard Specifications and these special provisions.

Due care shall be exercised to avoid injury or damage to existing improvements or facilities, utility facilities, adjacent property, and roadside trees, shrubs and other plants that are to remain in place.

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, sprinkler systems above or below ground, all roadway facilities, and any other improvements or facilities within or adjacent to the right-of-way shall be protected from injury or damage, and if ordered by Engineer, Contractor shall provide and install suitable safeguards, approved by Engineer, to protect such objects from injury or damage. If such objects are injured or damaged by reason of Contractor's operations they shall be replaced or restored at Contractor's expense. The facilities shall be replaced or restored to a condition as good or better as when Contractor entered upon the work, or as good as required by the specifications accompanying the contract, if any such objects are a part of the work being performed under the contract. Engineer may make or cause to be made such temporary repairs as necessary to restore to service any damaged facility. The cost of such repairs shall be borne by Contractor and may be deducted from any moneys due or to become due to Contractor under the contract.

The fact that any underground facility is not shown upon the plans shall not relieve Contractor of his responsibility under the Section "Existing Utilities and Facilities", of these provisions. It shall be Contractor's responsibility, pursuant thereto, to ascertain the location of such underground improvements or facilities that may be subject to damage by reason of construction operations.

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 above, shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefore.

### **5.24 PRESERVATION OF EXISTING MONUMENTS:**

Contractor shall be responsible for protecting all survey monuments identified on the plans. Any monuments identified on the plans that are damaged or destroyed by Contractor that have not been tied off by City's surveyor shall be replaced at the Contractor's cost and deducted from the Contract Price by Change Order. Contractor shall notify City of all monuments that may or will be disturbed by necessary construction operations. City's surveyor will tie off said monuments and provide Contractor a notice to proceed prior to demolition of existing monuments.

Once Contractor is finished with its construction operations, the City's surveyor shall be responsible to set new survey monuments. New monument wells that conform to the City of Turlock Standard Specifications and Drawings will be required to be installed by the Contractor prior to setting new monuments. Contractor shall include the cost of new monument well(s) if shown on the project plans in its contract price. If no new monument wells are shown to be installed by Contractor on the project plans, installation of monument well(s) will be added to the project scope by Contract Change Order. Contractor shall confirm location of each monument well with City's surveyor prior to installation of the

monument well. Once Contractor has installed monument well(s), City's surveyor will reset the monument(s).

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved with protecting existing monuments as specified above, shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefore.

#### **5.25 DUST CONTROL:**

Dust Control shall conform to the provisions in Section 10, "Dust Control", of the Standard Specifications and these special provisions.

Full compensation for Dust Control will be considered as included in the various contract items of work requiring Dust Control, as determined by Engineer, and no separate payment will be made therefor.

#### **5.26 WATERING:**

Watering shall be in accordance with Section 17, "Watering," of the Caltrans Standard Specifications.

Make all necessary arrangements for and provide a satisfactory water supply for the work done under the Contract. Pay for all water so used.

Should Contractor anticipate obtaining construction water from other sources, make all necessary arrangements therefor, obtain all necessary permits, and pay all fees and charges.

Full compensation for Watering will be considered as included in the various contract items of work requiring Watering, as determined by Engineer, and no separate payment will be made therefor.

#### **5.27 USE OF HYDRANTS FOR CONSTRUCTION PURPOSES:**

City will permit the use of a hydrant for construction purposes provided that the following are abided by:

1. A spanner wrench shall be the only type of wrench used on fire hydrants.
2. Contractor shall be liable for the damages to or loss of all hydrants and associated water lines and equipment which result from the use of this equipment.
3. Water shall only be used within City limits.
4. The vehicle must be approved by Engineer for approved backflow device.
5. Contractor shall pay a deposit on a water meter provided by the City. After the project ended the Contractor shall return the meter to the City for the release of the deposit.

Contractor shall obtain a no-fee monthly hydrant use permit for use of construction water for this project from the City of Turlock Municipal Services Department located at 156 S. Broadway Suite 270, Turlock, California 95380, ph:209-668-5590.

Use of city hydrants does not exempt Contractor from providing a water truck where hydrants cannot be utilized due to unsafe working conditions as deemed by Engineer.

**5.28 TEMPORARY CONSTRUCTION POWER:**

If temporary construction power is determined to be needed by the Contractor to perform the work, Contractor shall arrange and pay for all temporary electric power. The cost of temporary power shall be considered as included in the various contract bid items and no additional compensation will be allowed therefore.

**5.29 SALVAGE MATERIALS:**

If Contractor is directed to salvage materials in the Contract Documents, Contractor shall arrange for delivery of said item(s) to the City of Turlock Corporation Yard located at 701 S. Walnut Road, unless noted otherwise. Contractor shall coordinate delivery of salvaged materials through the City Inspector.

**5.30 TESTING:**

Unless otherwise noted, City of Turlock will supply all acceptance testing. Coordination of said testing is the responsibility of Contractor through the project's inspector. The Contractor shall provide at least 24 hours' notice to the Engineer in advance of needing acceptance testing. If the Contractor request testing and the Contractor is not ready for the testing to occur, the Contractor shall be back charged the cover the cost of the testing firm.

At sites chosen by the project inspector, City's testing laboratory will conduct all tests. Contractor shall supply any necessary equipment and or labor required to obtain all samples for the completion of the testing process.

City of Turlock shall compensate the testing laboratory for all initial tests. Secondary and all other follow-up tests required due to failure of initial testing shall be reimbursed to City of Turlock based on the following schedule:

Water sample test: \$300.00 Per Test

Compaction test: \$100.00 Per Test

**5.31 AS-BUILTS:**

When the job is complete, Contractor shall provide City with as-built drawings. These as-built drawings shall show any and all differences (revisions, additions, etc.) between the signed improvement plans and the installed improvements. The Contractor shall identify all utilities that are located in the field. The as-builts will consist of redlined signed improvement plans. The NOC will not be issued until acceptable as-builts have been received by the Engineer.

## **SECTION 6 WORK RESTRICTIONS**

Unless otherwise directed or approved by the Engineer in writing, arrange and order the work as specified in this section.

- Manhole removal and replacement for a sewer reach shall be performed prior to CIPP liner construction for that reach.
- CIPP liner construction shall progress on a single construction heading beginning at the upstream or downstream end of the existing sewer and progressing to the opposite end of the project, unless otherwise directed or approved by the Engineer.
- Full compensation for arranging and ordering work as specified in this section shall be considered as included in the contract prices paid for the various items of work, and no additional compensation will be allowed therefor.

## **SECTION 7 (BLANK)**

## **SECTION 8 (BLANK)**

## **SECTION 9 DESCRIPTION OF WORK**

The work consists, in general of: the removal and replacement of sewer manholes, rehabilitation of sewer manholes, and the installation of cured-in-place pipe (CIPP) liners in existing sewer mains, including all associated facilities, appurtenances, and incidentals, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

Furnish all necessary materials, labor, equipment, tools and incidentals, and do all work necessary to construct all of the improvements shown or specified on the Plans or in the Specifications, except those improvements that are specifically shown as "Future" or as "By Others," and except those improvements that are existing.

## SECTION 10 CONSTRUCTION DETAILS

### 10.01 MOBILIZATION & DEMOBILIZATION:

Mobilization is intended to compensate the Contractor for operations including, but not limited to, those necessary for the movement of personal, equipment, supplies and incidentals to / from the project site; for the payment of premium cost and insurance for the project; for any necessary costs of acquisition of equipment, including purchase and mobilization expense; and for any other work and operations which must be performed or costs that must be incurred incident to the initiation of meaningful work at the site and for which payment is not otherwise provided in the contract.

- (1) When 5 percent of the original contract amount is earned, 50 percent of the amount bid for mobilization, or 5 percent of the original contract amount, whichever is less, may be paid.
- (2) When 10 percent of the original contract amount is earned, 75 percent of the amount bid for mobilization or 7.5 percent of the original contract amount, whichever is less, may be paid.
- (3) When 20 percent of the original contract amount is earned, 95 percent of the amount bid for mobilization, or 9.5 percent of the original contract amount, whichever is less, may be paid.
- (4) When 50 percent of the original contract amount is earned, 100 percent of the amount bid for mobilization, or 10 percent of the original contract amount, whichever is less, may be paid.
- (5) Upon completion of all work on the project, payment of any amount bid for mobilization in excess of 10 percent of the original contract amount will be paid.

### 10.02 EROSION CONTROL:

Contractor is required to provide an Erosion and Sediment Control Plan (ESCP) for review and approval by the City of Turlock Engineering Division. A blank ESCP worksheet is available to download from the City's website at <https://ci.turlock.ca.us/buildinginturlock/landdevelopment/improvementplan.asp>. The plan must be approved prior to beginning of work on-site. Contractor shall implement Best Management Practices (BMPs) before construction occurs both in the area of work, as well as staging areas. Contractor shall maintain BMPs in good working condition at all times. Contractor shall provide drain inlet protection, at a minimum. The completed ESCP and required BMPs must be in place prior to soil disturbing construction activities.

The cost to create and implement an ESCP shall be considered as included in the various contract items, and no additional compensation shall be made.

### 10.03 REMOVE EXISTING IMPROVEMENTS

Concrete, asphalt concrete and all other items designated on the plans to be removed or must be removed in order to install the improvements as shown on the plans, shall be removed and disposed of outside the highway right of way in accordance with the provisions in Section 7-10 of the Standard Specifications. Saw-cut all concrete and asphalt materials surfaces prior to removal.

The lump sum price paid for removing existing improvements shall include full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in



removing the existing improvements as shown on the plans, specified in the standard specifications and these special provisions, and as required to install proposed improvements, and as directed by Engineer.

#### **10.04 UTILITY COORDINATION:**

All coordination with the utility companies shall be the Contractors responsibility. All fees and permits associated with the City of Turlock shall be waived. Reference is made to Section 7-14 of the Standard Specifications. Diligently coordinate construction operations with, and cooperate with, utility companies and agencies and other contractors conducting operations adjacent to or within the work area to prevent delays or hindrances to the work.

It is possible that utility work conducted by utility agencies or companies, or by contractors performing work under contract to them, may result in delays in the operations, and may require non-continuous operations in the vicinity of utility work when continuous operations would otherwise have been possible. If, in the opinion of the Engineer, a delay is unavoidable and directly attributable to such utility work, a time extension will be granted to account for the delay. However, if the delay is due to the Contractor's failure to diligently coordinate construction operations with the utility work, in the opinion of the Engineer, no time extension will be granted.

The Engineer has made a diligent attempt to show on the Plans all the utilities that may affect the work. However, exercise extreme caution in excavating for this project, inasmuch as exact utility locations are unknown until they are marked by USA and exposed by excavation. Protect existing utilities from damage.

All existing utility mains and service lines shall be kept in constant service during the construction of this project, except as may be shown on the Plans, specified in these Technical Specifications, or directed by the Engineer. Existing water and sewer facilities providing sole source service to areas that will be served by the improvements constructed for this project shall remain in continuous service during construction. For sewer mains, continuous service may be provided by bypass pumping or other methods approved by the Engineer. No existing facilities, whether or not shown on the Plans as to be removed or abandoned, may be taken out of service until such time as the project improvements that will provide replacement service are completed and placed into service. If it is not completely clear to the Contractor which existing facilities currently provide sole source service, and must therefore remain in service until project improvements are completed and placed in service, request a determination or clarification from the Engineer. Prior to the removal or abandonment of an existing facility, obtain the written approval of the Engineer.

#### **10.05 POTHOLE EXISTING UTILITIES:**

Prior to the beginning or continuation of any trenching for the installation of utilities, the Contractor shall:

1. Pothole all utility crossings shown on the plans and identified by Underground Service Alert (USA) utility markings. Contractor shall exercise due diligence to utilize techniques and practices which will limit damage to located utilities, including vacuum truck and hand digging, or other means as required by the buried utility owner. Damage to buried utilities as a result of Contractor's failure to perform potholing work per these Special Provisions shall be repaired at the Contractor's expense.

2. Measure depth from top of pavement to top of all utilities and mark depths on the project plans and provide a copy to the Engineer (electronic PDF or hard copy is acceptable)
3. Notify the Engineer of potential conflicts with the proposed location of new utilities. See Section 2.02, "EXISTING UTILITIES, FACILITIES, AND SITE CONDITIONS,"
4. Backfill, compact, and patch or plate potholes prior to opening the paved surface up to traffic.

The project plans depict sizes, horizontal locations, and materials of existing utilities based on surface evidence and facility maps from utility companies. Attention is directed to the possibility of utility locators marking utilities in locations other than what is shown on the plans or the possible existence of underground facilities not indicated on the plans or in the special provisions. Should additional pothole effort be needed to locate underground facilities beyond that which could be reasonably estimated at the time of bid, the change in contract price will be determined as per Section 4 "Contract Price" of the Agreement.

The contract lump sum price paid for utility potholing shall include full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in utility potholing as shown on the project plans, specified in the City of Turlock Standard Specifications, these Special Provisions, and as directed by Engineer.

#### **10.06 DEWATERING:**

Contractor shall examine carefully the site of the work. It is assumed that Contractor has investigated and is satisfied as to the conditions to be encountered, the character, quality and quantities of work to be performed, including the degree of presence or absence of groundwater.

The Contractor shall furnish, install, operate and maintain all machinery, appliances, and equipment to maintain all excavations free from water during construction. The Contractor 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 or violate the law. The dewatering system shall be installed and operated so that the ground water level outside the excavation is not reduced to the extent which would cause damage or endanger adjacent structures or property. The static water level shall be drawn down a minimum of one foot below the bottom of excavations to maintain the undisturbed state of natural soils and allow the placement of any fill to the specified density. The Contractor shall have on hand, pumping equipment and machinery in good working condition for emergencies and shall have workmen available for its operation. Dewatering systems shall operate continuously until backfill has been completed to one foot above the normal static groundwater level.

The contractor shall control surface water to prevent entry into excavations. At each excavation, a sufficient number of temporary observation wells to continuously check the groundwater level shall be provided.

The control of groundwater shall be such that softening of the bottom of excavations, or formation of "quick" conditions or "boils", does not occur. Dewatering systems shall be designed and operated so as to prevent removal of the natural soils. The release of groundwater at its static level shall be performed in such a manner as to maintain the undisturbed state of the natural foundations soils, prevent disturbance of compacted backfill, and prevent flotation or movement of structures, pipelines and sewers. If an NPDES (National Pollutant Discharge Elimination system) permit is required for disposal of water from

construction dewatering activities, it shall be obtained by the Contractor prior to any dewatering activities.

Full compensation for furnishing all labor, materials, tools, equipment (including dewatering devices), and incidentals, and for doing all the work involved with and/or in verifying existing utilities, facilities, site and subsurface conditions as specified above, shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefore

**10.07 EARTHWORK:**

Earthwork shall conform to the provisions in Section 19, “Earthwork”, of the Caltrans Standard Specifications and these special provisions.

Surplus excavated material shall become the property of Contractor and shall be disposed of outside the right-of-way and shall conform to the provisions in Section 7-10, “Disposal of Materials Outside the Right of Way”, of the Standard Specifications.

All import borrow shall meet the requirements of Structure Backfill as defined in Section 19 of the Caltrans Standard Specifications. All backfill material shall be compacted at 95% relative compaction for the entire depth of imported material. The maximum thickness of each layer of material before compaction shall be one foot and shall be composed of import borrow, existing material, or a combination of both.

The contract lump sum price paid for earthwork shall include full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in importing, excavating, hauling, compacting, and removing the earthwork as shown on the plans, specified in the standard specifications and these special provisions, and as directed by Engineer.

**10.08 FINAL CLEANUP:**

Upon completion of the work, the Contractor shall remove all equipment, debris, and shall leave the site in a neat clean condition to the satisfaction of the Engineer. The Contractor shall clean the area of all construction related materials and sweep the entire project area including sidewalk and gutter thoroughly. All construction signs, cones, barricades, and conflicting markings shall be removed. At the request of the Contractor, a final punchlist will be provided. After all items of the punchlist have been completed to the satisfaction of the Engineer, the Engineer will issue substantial completion. The accrual of working days will cease after substantial completion has been issued.

**10.09 ALLOWANCE FOR UNKNOWN UTILITIES:**

An allowance is included on the bidding form, and shall be used to compensate the Contractor for any encounter with unknown utilities that may impact the proposed pipeline installations. The cost of work for encountering unknown utilities shall be determined either by a mutually agreeable lump sum price or per Exhibit B of the Agreement, “Payment by Force Account.” If the actual cost of work is above or below the allowance amount listed on the bidder’s form, a change order will be issued.

**SECTION 11 (BLANK)**

## SECTION 12 WORK ZONE MOBILITY

### 12.01 TRAFFIC MANAGEMENT PLAN:

Contractor shall comply with the City of Turlock Standard Specifications Section 11 “Traffic Safety.” Contractor shall submit a completed Temporary Traffic Control Plan Checklist with submittal of the Temporary Traffic Control Plan. The checklist may be found online at the City’s website at [https://ci.turlock.ca.us/\\_pdf/trafficengineeringdoc.asp?id=4](https://ci.turlock.ca.us/_pdf/trafficengineeringdoc.asp?id=4)

“Temporary Traffic Control” shall consist of establishing, maintaining and discontinuing temporary alternate route detours; providing and maintaining traffic control; providing access to portions of the RWQCF as required; and providing for the convenience and safety of the RWQCF staff, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

If construction activities affect access to public parking, residential property, or commercial property, contractor shall post signs at 100-foot intervals on the affected streets at least 48 hours prior to starting construction. Signs must display No Parking – Tow Away. Signs must state the dates and hours parking or access will be restricted. Notify residents, businesses, and local agencies at least 24 hours before starting activities. The notice must:

1. Describe the work to be performed
2. Detail streets and limits of activities
3. Indicate dates and work hours
4. Be authorized

Compensation shall be made at the respective lump sum bid price included on the Bidder’s Form. If no separate bid item is included, the cost shall be included in the various other bid items and no additional compensation will be made therefor.

## SECTION 13 EXPLANATION OF BID ITEMS

### **General**

All work shall be done as shown on the Plans, in conformance with the provisions in the Specifications, in conformance with the requirements in all permits related to or required for the work, and as directed by the Engineer.

The contract price paid per measure of work, or the contract lump sum price paid for an item of work, shall include full compensation for furnishing all labor, materials (unless specified as to be furnished by the City), tools, equipment, and incidentals and for doing all the work involved, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

This Explanation of Bid Items is intended to provide for each bid item, or a range of bid items, only a brief description of the work involved, a reference to the applicable section or condition in the Specifications, a brief description of any notable related work that is included or excluded, any

limitation on the contract amount, and the basis of payment. Refer to the referenced section or condition in the Specifications for additional references and complete specifications for the work.

### **Mobilization**

Reference is made to Section 10.01, “Mobilization and Demobilization,” of the Special Provisions.

### **Erosion Control**

Reference is made to Section 10.02, “Erosion Control,” of the Special Provisions.

### **Temporary Traffic Control**

Reference is made to Section 12.01, “Traffic Management Plan,” of the Special Provisions.

### **Remove Existing Improvements**

Reference is made to Section 10.03, “Remove Existing Improvements,” of the Special Provisions.

### **Pothole Existing Utilities**

Reference is made to Section 10.05, “Pothole Existing Utilities,” of the Special Provisions.

### **Earthwork**

Reference is made to Section 10.07, “Earthwork,” of the Special Provisions.

### **Temporary Handling of Wastewater Flows**

This is a lump sum bid item for “Temporary Handling of Wastewater Flows.” Reference is made to Section 015139, “Temporary Handling of Wastewater Flows,” of these Technical Specifications.

“Temporary Handling of Wastewater Flows” shall consist of providing temporary wastewater bypass pumping systems, wastewater flow diversions as may be approved by the Engineer and restoring wastewater flows to normal service conditions, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer. This work shall be performed as required during manhole cleaning and measurements, sewer cleaning, manhole removal and replacement, and CIPP liner insertion. This work may be stopped during manhole procurement if desired by the Contractor.

The contract lump sum price paid for “Temporary Handling of Wastewater Flows” shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in “Temporary Handling of Wastewater Flows,” complete in place, including setup, operation, maintenance and removal of wastewater bypass pumping and diversion systems; permits; preparation of detailed temporary wastewater handling plans and calculations; preparation of an emergency spill response plan; sewer service interruptions and notifications thereof; and related facilities or improvements constructed at the Contractor’s option; as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

### **Manhole Cleaning and Disposal of Material Removed from Manholes to Allow Measurements for Manhole Procurement**

This is a lump sum bid item for “Manhole Cleaning and Disposal of Material Removed from Manholes to Allow Measurements for Manhole Procurement.” Reference is made to Section 330130.41, “Sewer Cleaning and Disposal of Material Removed from Sewers,” of these Technical Specifications.

“Manhole Cleaning and Disposal of Material Removed from Manholes to Allow Measurements for Manhole Procurement” shall consist of adequately cleaning the manholes so that the inverts of all connecting pipes can be measured, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

The contract lump sum price paid for “Manhole Cleaning and Disposal of Material Removed from Manholes to Allow Measurements for Manhole Procurement” shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in “Manhole Cleaning and Disposal of Material Removed from Manholes to Allow Measurements for Manhole Procurement,” complete in place, including manhole cleaning and disposal of material removed from sewers at the specified location at the RWQCF, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

### **Sewer Cleaning and Disposal of Material Removed from Sewers**

This is a lump sum bid item for “Sewer Cleaning and Disposal of Material Removed from Sewers.” Reference is made to Section 330130.41, “Sewer Cleaning and Disposal of Material Removed from Sewers,” of these Technical Specifications.

“Sewer Cleaning and Disposal of Material Removed from Sewers” shall consist of cleaning sewers to be lined with CIPP or to perform point repairs and disposal of material removed from sewers at the specified location at the RWQCF, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

The contract lump sum price paid for “Sewer Cleaning and Disposal of Material Removed from Sewers” shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in “Sewer Cleaning and Disposal of Material Removed from Sewers,” complete in place, including sewer cleaning, root removal, and disposal of material removed from sewers at the specified location at the RWQCF, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer. This work will be performed subsequent to the work specified in Manhole Cleaning and Disposal of Material Removed from Manholes to Allow Measurements for Manhole Procurement.

### **Cured-in-Place Pipe Liners**

These are unit price bid items, per linear foot, for sewer rehabilitation by installation of a cured-in-place pipe (CIPP) liner of the sizes specified in the Bidder’s Form. Reference is made to Section 330130.72, “Cured-in-Place Pipe (CIPP) Liner,” of these Technical Specifications.

CIPP liners under these bid items shall consist of furnishing and installing CIPP liners with epoxy or vinyl ester resin of the various sizes and specified thicknesses, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer. This work also includes initial and final CCTV inspections as specified. The initial CCTV inspection may reveal additional required work that will be paid under separate bid items as directed by the Engineer.

The quantities shown on the Bidder's Form are calculated by taking the distance from the edge of the manhole at the beginning of the liner to the edge of the manhole at the end of the liner for each continuous sewer run. However, payment will only be made for actual liner installed. Reference Subsection 330130.72 3.12 "Measurement" of these Technical Specifications.

The contract unit prices paid per linear foot for cured-in-place pipe liners of the various sizes shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved, complete in place, including initial and final video inspection, installing cured-in-place pipe liners on both tangent and curved alignments, curing, testing by the Contractor's Approved Testing Laboratory, and applying epoxy coating, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

### **Remove Manhole and Replace with Polymer Concrete Manhole**

These are unit price bid items, per each, for removal of existing concrete manhole and replacement with a polymer concrete manhole of the diameter specified in the Bidder's Form. Reference is made to Section 16, "Clearing and Grubbing," of the Caltrans Specifications and Section 330561, "Polymer Concrete Manholes," of these Technical Specifications.

Remove and replace manholes under these bid items shall consist of making the necessary measurements and procuring the manholes, removing and disposing of the existing manholes, removing and replacing four (4) feet of all pipes entering and exiting the manhole, and furnishing all materials and constructing a polymer concrete manholes of the specified diameter, and restoring the surfaces of any areas impacted by the work, as shown on the Plans and Standard Drawings, in conformance with the provisions in the Specifications, and as directed by the Engineer.

The contract unit prices paid per each for removing and replacing manholes shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved, complete in place, including excavation, removal and disposal of the existing manhole, removal and replacement of 4 feet of all connecting pipes and furnishing and installing a shielded coupler, measurements prior to ordering manhole materials, bedding, backfill, compaction, adjustment rings, frames, covers, and connecting existing sewer mains as shown on the Plans, and surface restoration, in conformance with the provisions in the Specifications, and as directed by the Engineer.

### **Bid Item 12 – Construct 48-inch Polymer Concrete Manhole**

This is a unit price bid item, per each, for "Construct 48-inch Polymer Concrete Manhole." Reference is made to Section 330561, "Polymer Concrete Manholes," of these Technical Specifications.

"Construct 48-inch Polymer Concrete Manhole" shall consist of furnishing all materials and removal and replacement of 4 feet of all connecting pipes and furnishing and installing a shielded coupler, constructing a 48-inch polymer concrete manhole, and restoring the surface of any areas impacted by the work, as shown on the Plans and Standard Drawings, in conformance with the provisions in the Specifications, and as directed by the Engineer.

The contract unit price paid per each for "Construct 48-inch Polymer Concrete Manhole" shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in "Construct 48-inch Polymer Concrete Manhole," complete in place, including

excavation, bedding, backfill, compaction, adjustment rings, frames, covers, removal and replacement of 4 feet of all connecting pipes and furnishing and installing a shielded coupler and connecting existing sewer mains as shown on the Plans, and surface restoration, in conformance with the provisions in the Specifications, and as directed by the Engineer.

### **Allowance for Point Repairs in Advance of Sewer Rehabilitation**

This is an allowance for point repairs in advance of sewer rehabilitation not identified elsewhere in the Contract Documents. Reference is made to Section 330130.69, "Point Repairs in Advance of Sewer Rehabilitation," of these Technical Specifications.

Point repairs in advance of sewer rehabilitation shall consist of furnishing all materials and doing all work necessary for the repair of localized sewer defects discovered during construction in advance of the placement of CIPP liner, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

The contract unit price paid per each for point repairs in advance of sewer rehabilitation shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved, complete in place, including excavation, pipe removal, sawcutting, concrete collars, couplings, backfill, compaction, restoration of surfaces, and CCTV inspection as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

### **Allowance for Unknown Utilities**

Reference is made to Section 10.09, "Allowance for Unknown Utilities," of the Special Provisions.

### **All Other Work Not Covered by Bid Items**

This is a lump sum bid item for "All Other Work Not Covered by Bid Items" Reference is made to Section 012113.03, "Miscellaneous Facilities and Operations," of these Technical Specifications.

"All Other Work Not Covered by Bid Items" shall consist of providing all miscellaneous facilities and operations required for work shown on the Plans or specified in the Specifications, or patently necessary for the completion of work so shown or specified, and not specifically included in the work under any other bid item, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

The contract lump sum price paid for "All Other Work Not Covered by Bid Items" shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in "All Other Work Not Covered by Bid Items," complete in place, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.



# TECHNICAL SPECIFICATIONS

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City Project No: 23-030

**RWQCF In-Plant Waste Line Repair**

**SECTION 007300  
SUPPLEMENTARY CONDITIONS**

**PART 1 GENERAL**

**1.01 SPECIFICATIONS**

- A. A complete set of Specifications consists of the following (together with all documents referenced therein):  
Special Provisions and Technical Specifications

**1.02 DESIGN ENGINEER**

- A. The words "Design Engineer" shall mean and refer to Blair, Church & Flynn Consulting Engineers, a California corporation, 451 Clovis Avenue, Suite 200, Clovis, California, 93612.

**1.03 ARCHEOLOGICAL ARTIFACTS**

- A. Should the construction activities uncover items which may qualify as archeological artifacts, cease construction at that location and immediately notify the Engineer.

**1.04 CONTAINMENT AND TRANSPORTATION OF AGGREGATE MATERIAL**

- A. Refer to the provisions in Sections 23113, 23114, 23115 and 40,000.16 of the California Vehicle Code regarding containment and transportation of any aggregate material upon public roadways, which provisions are hereby incorporated into these Technical Specifications.

**1.05 REPRESENTATION ON PLANS AND AVAILABILITY OF VIDEO INSPECTIONS**

- A. The basic topographic ground feature information shown on the Plans was obtained by field surveys conducted in May 2023 for the City by the Design Engineer, supplemented by aerial photography dated 2022.
- B. As set forth in the Instructions to Bidders, carefully examine the site of work as necessary to develop complete self-satisfaction as to the conditions to be encountered, any changes thereto which have occurred, and any condition or feature which needs additional investigation. Overhead utility lines are not shown on the Plans.
- C. Video inspections are not available for the project sewers.

**1.07 PERMITS, LICENSES AND FEES**

- A. Secure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work under this contract. Undertake all efforts necessary to develop complete self-satisfaction as to the provisions in the various permits and the submission of a bid on this project will be deemed conclusive evidence that you have done so.
- B. Satisfactory evidence of obtaining the required permits shall be submitted to the Engineer prior to, and as a condition of, issuance of the "Notice to Proceed." Abide by the conditions of said permits and perform all work

governed by said permits in conformance therewith and as directed by the Engineer.

- C. Full compensation for all work necessary to obtain and comply with all required permits and licenses, including any and all related fees and expenses, shall be considered as included in the contract prices for the items of work for which the permits and licenses are required, and no additional compensation will be allowed therefor.

1. SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

- A. Obtain a San Joaquin Valley Unified Air Pollution Control District Permit to Operate (PTO), and shall register portable equipment, as may be required by the District.
- B. Contact Information: San Joaquin Valley Unified Air Pollution Control District, Central Region Office, 1990 E. Gettysburg Avenue, Fresno, CA 93726-0244, Tel: (559) 230-6000, Fax: (559) 230-6061.

2. OTHER PERMITS

- A. Obtain any and all other permits that may be required for the work, and pay any and all related fees and expenses.
- B. Should you desire to make preliminary soil investigations in public street rights-of-way, secure the required permits from the appropriate agencies and conform to the requirements thereof.

**1.08 COMPLIANCE WITH SAFETY CODE**

- A. In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours.
- B. The duty of the Engineer to conduct construction review of your performance is not intended to include review of the adequacy of your safety measures in, on or near the construction site. This review does not relieve you of any duties, obligations and responsibilities for compliance with the safety codes nor does it place any responsibility upon the Engineer for your compliance with all appropriate safety requirements. Comply with all applicable codes, including the regulations and safety orders of the California Department of Industrial Relations, 2550 Mariposa Street, Fresno, California 93721, (559) 445-5302.

**1.09 JOB SAFETY AND SPECIAL WORKER PROTECTION FROM TOXIC OR EXPLOSIVE GASES**

- A. Comply with the provisions in the Construction Safety Orders, Tunnel Safety Orders and General Safety Orders issued by the California Department of Industrial Relations, as well as all other applicable laws, ordinances and regulations.
- B. In conformance with said Safety Orders, protect workers from toxic or explosive gases by providing whatever testing equipment and other special equipment that may be needed to detect the presence of and to remove such

toxic or explosive gases found to exist in any underground facilities involved in the work, whether these facilities are newly constructed or existing.

- C. The above-named requirements of the California Department of Industrial Relations are minimum requirements. In addition, provide for the life of the contract similar protection for any person, including the Engineer or any authorized representatives thereof, subcontractors, or any other person authorized or required to enter such underground facilities for inspection, repairs, or any other reason.

#### **1.10 MINIMIZING NOISE IMPACTS OF CONSTRUCTION**

- A. The following measures shall be implemented to minimize noise impacts during construction:

Conduct all operations in conformance with the Noise Regulations in the Municipal Code of the City of Turlock, as well as applicable Stanislaus County codes and ordinances.

To minimize potential annoyance related to construction noise, advance notice of the proposed construction times shall be given to all residents and other occupants of structures along the route of the project. At least 5 working days' notice shall be given to all residents, except that at least 2 weeks' notice shall be given to noise-sensitive facilities, such as schools, churches, etc.

Noise generating activity shall be limited to the hours of 7:00 am to 7:00 pm, Monday through Friday. Construction activities shall occur only during daylight hours, unless special permission in writing is obtained from the Engineer. If nighttime construction is allowed at a location, advance scheduling information shall be provided nearby residents. Unnecessary noise, such as idling vehicles, shall not be allowed during nighttime construction.

Construction activities, except of an emergency or maintenance nature, shall not occur on Saturdays or Sundays.

All construction equipment shall be equipped with proper mufflers and other noise suppression devices, insofar as practicable.

- B. None of the above shall be interpreted to allow construction at any time not in conformance with jurisdictional agencies' laws, rules or ordinances regulating allowable hours of work and allowable noise levels.

#### **1.11 CONTENDING WITH LIMITED WORKING ROOM**

- A. Reference is made to Section 8-10 of the Standard Specifications.
- B. The extent of existing street rights-of-way and easements along the construction routes are shown on the Plans. Conduct construction operations only within these areas, and in conformance with the provisions of the Specifications.
- C. Be advised that working room available for constructing this project is highly restricted in some areas. Construct the project within the areas lawfully available for the construction, and structure construction operations so as to be

able to confine them to said lawful areas. This may require specialized equipment suitable for the confined areas, or other special or extraordinary means and methods.

- D. Should you make arrangements with any property owner to utilize additional work area for construction of the work other than that provided within the public street right-of-way, sewer easements or temporary construction easements, provide to the Engineer adequate written authorization in advance from that property owner.

#### **1.12 EXISTING IMPROVEMENTS AND OTHER PROPERTY**

- A. Reference is made to Section 7-8 of the Standard Specifications.
- B. Protect and preserve all improvements and other property encountered along the work, except for existing agricultural plant material (orchard trees, alfalfa, cotton, and others) located completely within project easements. Such plant material shall be protected where it is located outside of, or partially within, such easements. Fully restore, repair or replace in kind existing improvements and other property damaged as a result of your operations. Following construction, the surface of the ground shall be restored to its preexisting condition and grade.

#### **1.13 CONSTRUCTION WATER**

- A. Make all necessary arrangements for and provide a satisfactory water supply for the work done under the Contract. Pay for all water so used.
- B. Should you anticipate obtaining construction water from other sources, make all necessary arrangements therefor, obtain all necessary permits, and pay all fees and charges.

#### **1.14 MAINTAINING DRAINAGE**

- A. Provide and maintain drainage for the existing street sections or other areas of work. Make temporary provisions for drainage of any area during construction where existing drainage facilities have been damaged or altered as a result of your operations, as directed by the Engineer.
- B. You are responsible for all damages to public or private property incurred due to failure to provide adequate drainage within and through the construction area or due to blockage of existing drainage facilities at or upstream from the area of work.

#### **1.15 EXISTING UTILITIES**

- A. Reference is made to Section 7-14 of the Standard Specifications.
- B. Notify Underground Service Alert (USA) by telephone, calling "811" at least 48 hours prior to the beginning of any excavation work, and request field marking of existing utility facilities in the work area.
- C. The Engineer has made a diligent attempt to show on the Plans all the utilities that may affect the work. However, exercise extreme caution in excavating for this project, inasmuch as exact utility locations are unknown until they are

marked by USA and exposed by excavation. Protect existing utilities from damage.

- D. Prior to beginning any excavation, expose and verify the locations and depths of all existing utilities in the area of work. Where necessary, or when directed by the Engineer, employ hand excavation methods so as to prevent damage to utility facilities and injury to personnel. Special attention shall be given to determining the location and depth of existing underground facilities, where the work involves excavation for construction in the vicinity of the facilities. All existing utility mains and service lines shall be kept in constant service during the construction of this project, except as may be shown on the Plans, specified in these Technical Specifications, or directed by the Engineer.
- E. Existing water and sewer facilities providing sole source service to areas that will be served by the improvements constructed for this project shall remain in continuous service during construction. For sewer mains, continuous service may be provided by bypass pumping or other methods approved by the Engineer. No existing facilities, whether or not shown on the Plans as to be removed or abandoned, may be taken out of service until such time as the project improvements that will provide replacement service are completed and placed into service. If it is not completely clear to you which existing facilities currently provide sole source service, and must therefore remain in service until project improvements are completed and placed in service, request a determination or clarification from the Engineer. Prior to the removal or abandonment of an existing facility, obtain the written approval of the Engineer.

#### **1.16 COORDINATION WITH UTILITIES AND OTHER CONTRACTORS**

- A. Diligently coordinate construction operations with, and cooperate with, utility companies and agencies and other contractors conducting operations adjacent to or within the work area to prevent delays or hindrances to the work.
- B. It is possible that utility work conducted by utility agencies or companies, or by contractors performing work under contract to them, may result in delays in the operations, and may require non-continuous operations in the vicinity of utility work when continuous operations would otherwise have been possible. If, in the opinion of the Engineer, a delay is unavoidable and directly attributable to such utility work, a time extension will be granted to account for the delay. However, if the delay is due to your failure to diligently coordinate construction operations with the utility work, in the opinion of the Engineer, no time extension will be granted.

#### **1.17 COMPACTION TEST METHODS**

- A. Maximum dry density determinations shall conform to the provisions in ASTM D1557. Field density and moisture content determinations shall conform to the provisions in ASTM D1556, D2922, and/or D3017.

#### **1.18 CONSTRUCTION INVOLVING ACTIVE (LIVE) SEWERS**

- A. Much of this project will involve active (live) sewers and sewer services conveying continuous or intermittent wastewater flows. The Plans and Specifications do not necessarily indicate whether sewers and sewer services

are active or inactive. Determine whether sewers and sewer services are active or inactive based on the Plans and field investigations, as necessary to provide complete self-satisfaction as to the conditions that must be contended with in construction operations involving both active and inactive sewer facilities. Furnish all labor, materials, tools and equipment and do all work necessary to contend with continuous or intermittent wastewater flows in sewer facilities affected by this project. Reference is made to Section 015139, "Temporary Handling of Wastewater Flows," of these Technical Specifications.

#### **1.19 VERIFICATION OF DEPTH OF EXISTING SEWER FACILITIES**

- A. Prior to commencing any sewer construction activities, locate and expose existing sewers and sewer services at locations where connections to the proposed improvements will be made. For sewer services, expose the facility at a location that will enable the Engineer to make elevation measurements at or upstream of the "riser" portion of the sewer service, as shown on Standard Drawing No. S-7.
- B. Prior to ordering manhole materials, elevations of all inverts shall be verified. It is expected that some of the inverts have accumulated debris and aggregate from the corroding pipes. The Contractor shall clean the sewer mains to the satisfaction of the Engineer prior to verifying the elevations.
- C. Provide to the Engineer a schedule describing when such facilities will be exposed, and make the exposed facilities accessible and available to the Engineer for elevation verification measurements by field survey crews. Based on the elevation measurements, the Engineer will verify the applicability of the sewer designs shown on the Plans. If the Engineer determines that design revisions are required, revised plans will be prepared and provided to you.

#### **1.20 GREENBOOK SPECIFICATIONS**

- A. The word "Greenbook" shall mean and refer to the "Greenbook" Standard Specifications for Public Works Construction, 2021 Edition and current supplements thereto, published by BNi Publications, Inc., 990 Park Center Drive, Suite E, Vista, California, 92081. Greenbook specifications are referred to in these Technical Specifications, and by such reference are incorporated herein as though set forth in full.

#### **1.21 COSTS RELATED TO COMPLIANCE WITH ADDITIONAL CONDITIONS**

- A. Full compensation for all work and expenses involved in compliance with the additional conditions contained in this section, including work attributable to delays, non-continuous operations and multiple move-ins required as a result of coordination with utilities and other contractors, and contending with wastewater flows, but not including temporary handling of wastewater flows, shall be considered as included in the contract prices paid for the various items of work, and no additional compensation will be allowed therefor.

### **PART 2 PRODUCTS, MATERIALS AND EQUIPMENT (NOT USED)**

### **PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

**SECTION 012113.03  
MISCELLANEOUS FACILITIES AND OPERATIONS**

**PART 1 GENERAL**

**1.01 MISCELLANEOUS FACILITIES AND OPERATIONS**

- A. This work shall consist of providing all miscellaneous facilities and operations required for work shown on the Plans or specified in the Specifications, or patently necessary for the completion of work so shown or specified, and not specifically included in the work under any other bid item, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

**PART 2 PRODUCTS, MATERIALS AND EQUIPMENT (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**



## SECTION 015139

### TEMPORARY HANDLING OF WASTEWATER FLOWS

#### PART 1 GENERAL

##### 1.01 DESCRIPTION

- A. The work under this section shall consist of providing temporary handling of wastewater flows, by methods that may include bypass pumping systems, wastewater flow diversions as may be approved by the Engineer, advance notification of and implementation of sewer service interruptions, and restoring wastewater flows to normal service conditions, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.
- B. Continuously operate and maintain failsafe temporary wastewater handling systems on a 24 hour per day basis, 7 days per week, including nights, weekends and holidays, whenever your operations will otherwise result in the disruption of continuous wastewater conveyance. Provide continuous sanitary sewer service for all sewer mains and sewer services tributary to project sewers, and cooperate and coordinate temporary wastewater handling operations with the City of Turlock Regional Water Quality Control Facility (RWQCF) staff as directed by the Engineer. Known tributary sewer mains are shown on the Plans.
- C. Temporary wastewater handling system operation shall not result in surcharge flow conditions in sewers either upstream or downstream of the system. If a wastewater flow diversion results in surcharge conditions at any time, whether upstream or downstream of the diversion, immediately provide additional temporary wastewater handling systems as necessary to supplement or replace the original system and relieve the surcharge conditions.
- D. Designate a person or persons responsible for monitoring temporary wastewater handling systems and operations, who shall be authorized to act on your behalf under both normal and emergency conditions. Their duties shall be continuous whenever temporary wastewater handling systems are in operation, including non-working hours, holidays and weekend periods when other work may not be in progress. Provide to the Engineer the names, addresses and telephone numbers of such persons, at which they may be contacted during working and non-working hours.
- E. During temporary wastewater handling operations, and during performance of the work for which temporary wastewater handling is necessary, provide all necessary safety provisions for the protection of personnel from the hazards of hydrogen sulfide gas in the work environment. Reference is made to Subsection 007300 1.09 "Job Safety and Special Worker Protection from Toxic or Explosive Gases" of these Technical Specifications.
- F. Temporary wastewater handling systems shall include standby or backup provisions for use in case of equipment failure or other emergency condition.

## **1.02 SUBMITTALS**

- A. Detailed temporary wastewater handling system plans and calculations, for systems of any nature, including emergency response and backup provisions.
- B. Emergency spill response plan. Secure the Engineer's approval of the plan. After approval of the plan, submit a copy to the RWQCF staff prior to the start of any bypass operations.
- C. Proposed method of bypass pumping for sewer services.

## **1.03 PERMITS AND REGULATIONS**

- A. Obtain and pay for any and all permits required for temporary wastewater handling operations, and shall conduct related operations in conformance with permit requirements. As for all contract work, comply with all applicable laws, ordinances, rules and regulations in the conduct of wastewater bypass operations.

## **1.04 WASTEWATER FLOWS**

- A. Temporary wastewater handling systems shall be of sufficient capacity to convey all wastewater delivered to it by upstream sewers or sewer services, at the same rate the wastewater is delivered, during wet weather and dry weather, regardless of the time of day, unless otherwise approved or directed by the Engineer. Make such field measurements and inquiries as are necessary to develop complete self-satisfaction as to the wastewater flow conditions that must be contended with during construction. Absent other support information provided by you and acceptable to the Engineer, the Engineer will accept a temporary wastewater handling system designed for a peak wastewater flow rates not less than three times (300% of) the average wastewater flow, or designed for the full-pipe capacity of the sewer, whichever is greater. The Engineer's acceptance thereof, however, shall not relieve you of the obligation to provide temporary wastewater handling systems conforming to the capacity provisions in these Technical Specifications.
- B. Where flow rates are provided on the plans, the temporary wastewater handling system shall be capable of conveying the specified flow.

## **1.05 TEMPORARY WASTEWATER HANDLING SYSTEM PLANS**

- A. Prepare and submit to the Engineer detailed temporary wastewater handling system plans and calculations, for systems of any nature, including emergency response and backup provisions. The plans shall be sealed and signed by a Civil Engineer registered to practice in the State of California. Secure the Engineer's approval of the plans prior to doing any work that will disrupt sewer service or wastewater conveyance. Temporary wastewater handling system plans and calculations that do not contain the seal and signature of a Civil Engineer registered to practice in the State of California will be returned and will not be reviewed until they contain an appropriate seal and signature. The plans shall be approved by the Engineer and the RWQCF staff.
- B. The plans, which shall include drawings, shall show the type and proposed location of temporary wastewater handling system facilities bypass routes,

suction and discharge location, how the systems will function, a description of liquid level monitoring provisions, and a description of alarm system provisions to alert you of malfunctions. The plans shall include complete calculations and specifications demonstrating the ability of temporary wastewater handling systems to accommodate wastewater flows as specified.

- C. If bypass routes are shown on the Plans, the temporary wastewater handling system plans shall include the routes, unless approved otherwise by the Engineer.

#### **1.06 EMERGENCY SPILL RESPONSE PLAN**

- A. Prepare and submit to the Engineer an emergency spill response plan. Secure the Engineer's approval of the plan prior to commencing any work that will disrupt the normal flow of wastewater. After approval of the plan, provide a copy to the RWQCF staff prior to the start of any bypass operations.
- B. The plan shall include the procedures to be performed if any spills, including backups, that occur relative to customer house branches or sewer access structures as a result of work performed. Any spills or backups in customer house branches or sewer access structures shall be immediately reported to the RWQCF staff. Do all work and pay for all costs and expenses associated with related cleanup and repair, and pay for all costs and expenses associated with any and all related property damage claims.

### **PART 2 PRODUCTS, MATERIALS AND EQUIPMENT**

#### **2.01 PUMPING EQUIPMENT**

- A. Engine-driven bypass pumps and generators shall conform to the requirements of the following regulations and agencies relative to noise and exhaust emissions:
  - 1. Municipal Code of the City of Turlock, Noise Regulations
  - 2. Stanislaus County
  - 3. San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD)

### **PART 3 EXECUTION**

#### **3.01 USE OF EXISTING AND PROPOSED IMPROVEMENTS**

- A. You may make use of existing sewer facilities as part of temporary wastewater handling systems, as shown on your temporary wastewater handling plans approved by the Engineer.
- B. You may exercise the option to construct sewer and sewer service improvements not shown on the Plans for use in temporary wastewater handling operations, as shown on your temporary wastewater handling plans approved by the Engineer. The Engineer may require that such improvements be removed upon completion of temporary wastewater handling operations. If manholes are constructed that will not be removed at the completion of temporary wastewater handling operations, they shall conform to the provisions in Section 330561 "Concrete Manholes" of these Technical Specifications and to the relevant City standard drawings.

- C. Full compensation for construction of such improvements at your option, including the subsequent removal of such improvements if required by the Engineer, shall be considered as included in the contract lump sum price paid for temporary handling of wastewater flows, and no additional compensation will be allowed therefor.

### **3.02 RESPONSIBILITY FOR DAMAGE**

- A. It is possible or likely that existing sewers that may be affected by your operations are aging, deteriorated facilities that could be damaged by conditions that would not affect new sewer facilities. Repair or replace in kind, as determined necessary by the Engineer, bearing all expense associated therewith, any and all public or private facilities damaged as a result of your operations, including damage caused or precipitated by surcharge flow conditions, and including subsequent collateral damage to other facilities as may be precipitated by the effects of the initial damage. A surcharge flow condition shall be defined as any condition in which a sewer pipe that otherwise operates partly full under normal service conditions is completely filled with wastewater, whether flowing or not, or any condition in which a sewer pipe that operates full under normal service conditions is subjected to increased hydraulic head (pressure).
- B. Should operation of your temporary wastewater handling system result in surcharge conditions in sewers or sewer services either upstream or downstream, to the extent and of the duration that resultant accumulations of wastewater solids adversely affect the facilities, in the opinion of the Engineer, clean the affected facilities using methods approved by the Engineer to remove such accumulations and restore the facilities to a condition as good as or better than the condition that existed prior to the surcharge.

### **3.03 BYPASS PUMPING**

- A. Bypass pumping shall consist of providing temporary wastewater bypass pumping during construction, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer. Furnish, install and operate temporary pumps, pipes, plugs and other equipment to divert the flow of wastewater around pipeline reaches in which work is being performed, along with all manpower necessary to setup, operate, maintain and remove continuous and failsafe wastewater bypass pumping systems.
- B. Provide sufficient backup pumps that may be placed into immediate service in the event of a pump failure to ensure continuous and failsafe bypass pumping operations. For bypass pumping systems employing a single pumping unit, a minimum of one backup pump that may be placed into immediate service shall be on site at all times. For bypass pumping systems employing two or more pumping units, a minimum of two backup pumps that may be placed into immediate service shall be on site at all times. In addition to the specified number of backup pumps, replacement backup pumps shall be available on or off site, such that a replacement backup pump may be delivered to the site and ready for service within 30 minutes of the time any backup pump is placed into service.

- C. Pumped wastewater shall be conveyed in an enclosed pipe or pipes, and shall be conveyed to an in-service manhole in the sanitary sewer system. Pipes shall be rated for a working pressure no less than two times the maximum bypass pumping system pressure. Flow velocity of pumped wastewater in bypass system pipes shall not exceed 10 feet per second, unless otherwise approved by the Engineer. At no time shall wastewater be conveyed or discharged in facilities other than the approved bypass pumping system or the sanitary sewer system.
- D. Whenever existing pavement is cut to accommodate bypass pumping pipes and steel trench plates are used, the trench plates shall be recessed into the pavement so that the trench plates are flush with the surface of the pavement. The bypass line shall be trenched every 0.25 miles, at a minimum, to allow for vehicle turning movements.
- E. Use a wet/dry vacuum or other method approved by the Engineer to clean up all sawcut slurry.

### **3.04 WASTEWATER FLOW DIVERSIONS**

- A. Wastewater flow diversions shall consist of diverting wastewater flows into other sewers, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer. Furnish, install and operate temporary plugs, weirs and other equipment to divert the flow of wastewater in sewers around or away from pipeline reaches in which work is being performed, along with all manpower necessary to setup, operate, maintain and remove continuous and failsafe wastewater flow diversion systems.
- B. Wastewater flow diversions may be employed only to the extent of available flow capacity in receiving sewers, over and above the normal service flows of the receiving sewers, without resulting in surcharge flow conditions. For the purpose of wastewater flow diversions, flow capacity shall be defined as the open channel rate of flow at a depth of 82% of the pipe diameter, for uniform gravity flow conditions, calculated using the Manning equation. Wastewater flow diversions shall not result in surcharge flow conditions in sewers upstream of the point of diversion.
- C. The City of Turlock makes no guarantee, express or implied, as to the existence of, and available flow capacity in, suitable receiving sewers for wastewater flow diversions, or as to the suitability of wastewater flow diversions for the project. Furthermore, the City of Turlock represents that it is ordinarily considered unlikely that suitable receiving sewers exist with sufficient available flow capacity to support wastewater flow diversions. You must make your own determination as to the existence of suitable receiving sewers, the availability of flow capacity in receiving sewers, and the suitability of wastewater flow diversions for the project, subject to the approval of the Engineer. If, in the opinion of the Engineer, suitable receiving sewers with sufficient available flow capacity to support wastewater flow diversions do not exist, provide bypass pumping systems for temporary handling of wastewater flows.

- D. Proposed wastewater flow diversions shall be clearly identified and described on the temporary wastewater handling system plans and calculations. No wastewater flow diversion shall be implemented that is not shown on the temporary wastewater handling system plans and calculations as approved by the Engineer.

### **3.05 SEWER SERVICE INTERRUPTION**

- A. Wherever sewer services must be temporarily disconnected or plugged, or sewer service must be otherwise temporarily interrupted on account of the work, provide written notice to all affected businesses, residents and tenants not less than two (2) calendar days nor more than five (5) calendar days prior to such interruption. The notice shall be in addition to any other notices required by the Specifications. Conduct construction operations in a manner which minimizes sewer service interruption, and instruct workers and subcontractors to minimize such interruption.
- B. For residences, sewer service shall not be interrupted overnight, during the hours from 5:00 PM one day to 9:00 AM the following day. Likewise, sewer service may only be interrupted during the hours from 9:00 AM to 5:00 PM on the same day.
- C. For businesses, sewer service shall not be interrupted during the typical workday, during the hours from 9:00 AM to 5:00 PM the same day. Likewise, sewer service may only be interrupted during the hours from 5:00 PM one day to 9:00 AM the following day.
- D. Furthermore, under no circumstances shall sewer service be interrupted for hospitals, schools, hospices, nursing homes, convalescent homes, or similar facilities. Neither shall sewer service be interrupted for airport facilities, unless otherwise approved in writing by the Engineer.
- E. If your operations require that any sewer service be interrupted during hours when it is not allowed, or require that sewer service be interrupted for a facility for which it is not allowed, provide bypass pumping of flow from the affected sewer service to an in-service sanitary sewer main. The proposed method of bypass pumping for sewer services shall be submitted to the Engineer for review and approval, and no such bypass pumping shall be done until the proposed method has been approved by the Engineer.
- F. If you fail to provide sewer service interruption notices as hereinbefore specified, or allow sewer service interruption to continue beyond specified hours without required bypass pumping, or interrupt sewer service to a facility for which it is not allowed, and wastewater backs up in affected sewer services and spills or overflows, whether indoors or outdoors, you must do all work and pay for all costs and expenses associated with related cleanup and repair, and pay for all costs and expenses associated with any and all related property damage claims. Notify the RWQCF staff immediately of any spills, backups, or cleanups. Refer to Subsection 015139 1.06 "Emergency Spill Response Plan."

**END OF SECTION**

**SECTION 020100.91**  
**RESTORATION OF SURFACES**

**PART 1 GENERAL**

**1.01 SCOPE OF WORK**

- A. Restoration of surfaces shall consist of restoring the surfaces of all trenches, surfaces at or around structure sites, or any other surfaces damaged or disturbed by the work, to the condition existing prior to commencement of the work, or to such condition specified by the agency issuing the permit for the work, as shown on the plans, in conformance with the provisions in the specifications, and as directed by the engineer. Surfaces shall include, but not be limited to, pavement of any kind, grass, shrubbery or other landscaping, gravel, treated or untreated soil.

**1.02 EARTHWORK**

- A. Earthwork for restoration of surfaces shall conform to the provisions in Section 12-3, "Earthwork," of the Standard Specifications.

**PART 2 PRODUCTS, MATERIALS AND EQUIPMENT (NOT USED)**

**PART 3 EXECUTION**

**3.01 TEMPORARY RESURFACING**

- A. Furnish, place, maintain and finally remove cold-mix asphalt concrete having a minimum thickness of 2 inches, or a greater thickness if required by a permitting agency, as shown on the Plans, in conformance with the provisions in the Specifications, as required by permitting agencies, and as directed by the Engineer. Temporary resurfacing may be required by the Engineer wherever existing pavement is removed for trenches and other project excavations, and at certain street crossings, traffic crossings and access points.
- B. Cold-mix asphalt concrete shall be mixed in a central plant and shall be approved by the Engineer.
- C. Where temporary trench resurfacing is required, it shall extend across the full width of the existing pavement removed for trenches and other project excavations, unless otherwise directed by the Engineer. Temporary resurfacing shall be faithfully maintained during and after normal working hours and on weekends and holidays. Inspect the condition of the temporary surfacing at frequent intervals and make repairs as necessary. Remove temporary surfacing prior to final resurfacing.
- D. If you do not provide or adequately maintain temporary resurfacing in a timely manner, the Engineer may do so utilizing City personnel and resources. If so, the cost thereof will be deducted from monies due, or to become due, to you.

**3.02 FINAL RESURFACING**

- A. Construct final resurfacing consisting of pavement structural sections of asphalt concrete, or aggregate base and asphalt concrete, or Portland cement concrete, as shown on the Plans, in conformance with the provisions in the

Specifications, as required by permitting agencies, and as directed by the Engineer.

- B. Unless specified otherwise, final resurfacing shall match the existing surfacing that was removed.
- C. Aggregate base shall conform to the provisions in Section 12-5, "Aggregate Subbase and Base Material," of the Standard Specifications, hot mix asphalt shall conform to the provisions in Section 12-6, "Hot Mix Asphalt," of the Standard Specifications, and Portland cement concrete shall conform to the provisions in Section 13, "Concrete Construction," of the Standard Specifications, unless otherwise required by permitting agencies. Pavement structural thicknesses shall be as shown on the Plans and Standard Drawings, or greater thicknesses if required by permitting agencies. The requirements of permitting agencies are incorporated herein by reference only; undertake all efforts necessary to become completely informed as to such requirements.
- D. Pavement replacement shall be accomplished as soon as possible and practicable, and within the time limits specified in these Technical Specifications. Pavement replacement shall be performed in a manner consistent with good construction practices and methods, shall be approved by the Engineer, and when completed, shall leave all areas requiring replacement of pavement with as neat an appearance as possible.
- E. Areas to receive pavement replacement shall be completely cleaned of all debris, rubbish, dirt, temporary paving, or any other deleterious material which might affect the quality of the work in any way. Cleaning shall be accomplished to a minimum of 6 feet outside the edges of trenches or other areas to receive pavement replacement. This distance may be increased by the Engineer as necessary to prevent contamination of the new work. Street pavement or existing road surfacing shall be removed within the limits of all construction excavation prior to proceeding with excavation operations.
- F. In preparation for final trench resurfacing in areas where a portion of the existing pavement is to remain, and where the entire street is not to be resurfaced or overlaid as part of the work, the pavement shall be sawcut outside the original removal area. The limits of sawcutting shall be as directed by the Engineer. All pavement cuts shall be neat and straight along both sides of the trench and parallel to the alignment of the pipe. Where large irregular surfaces are to be removed, all cutting or trimming shall be parallel or at right angles to the roadway centerline. All cut and trimmed edges shall have clean, solid, vertical faces and shall be free of all loose material.
- G. All material between the edges of the original pavement removal and the pavement cuts made for the final resurfacing shall be trimmed from the existing surface at the edges of the proposed trench resurfacing, and shall be removed and disposed of. All edges of existing pavement, whether trimmed or sawcut, shall be protected from damage. Any edges damaged from any cause prior to or during paving operations, shall be re-cut or re-trimmed as directed by the Engineer, at your expense.



- H. When replacing pavement adjacent to existing pavement, the new pavement material shall not overlap the existing pavement edge. When compacted, the new pavement edge shall be flush with the existing pavement, and the surface shall be smooth, without humps or depressions.

### **3.03 REPLACING TRAFFIC STRIPING AND PAVEMENT MARKERS**

- A. All traffic stripes, traffic marking and pavement markers obliterated or removed due to trenching or pavement resurfacing shall be restriped or replaced in accordance with the requirements of the permitting agency. Also included is all striping and marking adjacent to the work or on haul roads where the existing striping and marking is adversely affected by the construction, as determined by the City Inspector. Reference is made to Sections 59, 84 and 85 of the State Standard Specifications.
- B. Traffic striping shall match the existing striping that is being replaced, and shall be either paint or thermoplastic as required to match. Provide all striping and marking material and pavement markers. Where required by the permitting agency, utilize standard marking stencils of the permitting agency.
- C. Provide necessary layout for all other pavement striping and marking.

### **3.04 ADJUSTING EXISTING SURFACE FEATURES TO FINISHED GRADE**

- A. This work shall consist of adjusting all existing facilities including but not limited to manhole frames and covers, water valve boxes and covers, and other similar existing facilities which must fit or match final grade, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer. Determine the number and type of facilities to be adjusted to finished grade.
- B. Sewer and storm drain manhole frames and covers, and water valve boxes and covers shall be temporarily lowered below the grading plane and marked until paving has been accomplished. The manhole frames and covers, and valve boxes and covers shall then be raised to finished grade, concrete collars poured and asphalt concrete patch placed, in accordance with the construction details and as directed by the Engineer.
- C. Other existing facilities shall be adjusted to finished grade in accordance with the utility or facility authority involved, and as directed by the Engineer. You are responsible for identifying the locations of existing facilities with a physical marker and for notifying and coordinating with the respective utility companies. All adjustments shall be done after paving operations. Where the utility or facility authority involved desires to do the work with their own forces and/or materials, pay all costs associated therewith.

### **3.05 RESTORATION OF MISCELLANEOUS SURFACE FEATURES**

- A. Restoration of miscellaneous surfaces shall consist of replacing or restoring in kind any surface damaged or disturbed by the work, including but not limited to, grass, landscaping of any kind, gravel, concrete, oiled earth not in street right-of-way, or soil.

- B. Concrete pavement, including valley gutters, curbs and gutters, sidewalks, driveways, and any other concrete surfaces of whatever nature, disturbed by the work, shall be saw cut to a minimum depth of 1½" prior to removal. Said saw cut shall be made at a point approximately one foot beyond the edge of the trench and/or excavation. With the written permission of the Engineer, pneumatic tools or other approved equipment may be used to cut concrete pavement at the limits of the excavation prior to removal. In such an event, the saw cut, as provided in this section, shall be made after backfilling, and the additional concrete pavement shall be removed and disposed of prior to resurfacing. Replace such concrete in kind as directed by the Engineer.
- C. In unincorporated areas, where paved driveways or other bituminous surfaced driveways exist outside the paved roadway, and such driveways are disturbed or damaged by your operations, they shall be restored to original condition or replaced in kind, or as required by the permitting authority, whichever requirements are stricter. In all other areas, such driveways shall be saw cut, removed and replaced in kind with asphalt concrete at least 4 inches thick.
- D. Replace existing survey monuments located within the pavement area which you cannot protect as specified in Subsection 007300 1.11.A of the Technical Specifications.
- E. The surfaces of all trenches, excavations or other areas damaged or disturbed by the work, upon completion of surface restoration, shall conform to the elevations and character of the areas which existed before work commenced, unless otherwise shown on the Plans, required by the Specifications, or directed by the Engineer. Excess trench or excavation material shall not be spread over any part of the project site, unless authorized by the Engineer. Remove and dispose of such excess material.

**END OF SECTION**

## **SECTION 314133.01**

### **WORKER PROTECTION FROM THE HAZARD OF CAVING GROUND**

#### **PART 1 GENERAL**

##### **1.01 SCOPE OF WORK**

- A. This work shall consist of providing protective measures as necessary for workers, testing personnel and other inspectors during the excavation, pipe bedding, pipe installation, backfill and compaction processes. This shall include providing additional shielding, shoring, sloping, or other facilities and procedures as necessary to adequately protect said personnel and provide adequate working room during testing and inspection

#### **PART 2 PRODUCTS, MATERIALS AND EQUIPMENT (NOT USED)**

#### **PART 3 EXECUTION**

##### **3.01 GENERAL REQUIREMENTS**

- A. Comply with the provisions in the Construction Safety Orders, Tunnel Safety Orders, and General Safety Orders issued by the California Department of Industrial Relations, and comply with the provisions in the Federal Occupational Safety and Health Administration's regulations, as well as all other applicable laws, ordinances and regulations, as they pertain to the protection of workers from the hazard of caving ground.
- B. In compliance with the provisions in Section 6705 of the Labor Code of the State of California, obtain the approval and acceptance of the Engineer in advance of the excavation of any trench or trenches, jacking or receiving pits, or other pits, 5 feet or more in depth, of detailed plans showing the design of shoring, bracing, sloping, or other provisions to be made by you for worker protection from the hazard of caving ground during the excavation of trenches and pits, and during any other period that workers may be exposed to such hazard. Where such plan varies from the shoring system standards established by the California Department of Industrial Relations, or, if other qualifying conditions exist as set forth in the Federal or State regulations (such as depth of excavation in excess of 20 feet), the plan shall be prepared by a Registered Civil or Structural Engineer.
- C. The requirements of the California Department of Industrial Relations, and the Federal regulations for the provision of worker protection from the hazard of caving ground, and all other applicable laws, ordinances and regulations, are minimum requirements. In addition, provide for the life of the Contract the same protection for any person, including the Engineer or any of his authorized representatives, subcontractors, or any other person required to be exposed to such hazard in the performance of the work, inspection of the work, or for any other reason.
- D. Provide at your expense protective measures as necessary for testing personnel and other inspectors during the excavation, pipe bedding, pipe installation, backfill and compaction processes. This shall include providing additional shielding, shoring, sloping, or other procedures as necessary to

adequately protect said personnel and provide adequate working room during testing and inspection.

**END OF SECTION**

**SECTION 330130.11**  
**TELEVISION INSPECTION OF SEWERS**

**PART 1 GENERAL**

**1.01 SCOPE OF WORK**

- A. This work shall consist of closed-circuit television (CCTV) sewer inspection, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

**1.02 SUBMITTALS**

- A. Labeling proposed for CCTV sewer inspections, submitted prior to the commencement of CCTV sewer inspection operations.
- B. Original CCTV inspection reports and MPEG-1 files on a USB drive, immediately following successful completion of CCTV sewer inspection.

**PART 2 PRODUCTS, MATERIALS AND EQUIPMENT (NOT USED)**

**PART 3 EXECUTION**

**3.01 GENERAL**

- A. Conduct CCTV sewer inspections in accordance with the applicable provisions of Greenbook 500-1.1.5. The CCTV camera system shall employ a pan-and-tilt camera. All CCTV inspections shall be recorded in MPEG-1 format on a USB drive. Audio and video content shall be of good quality, adequate in the opinion of the Engineer to evaluate sewer condition, determine the location of service and lateral connections, verify the successful completion of sewer cleaning operations, verify the successful completion of sewer rehabilitation operations, and verify that point repairs were made properly, as applicable.
- B. Use video inspection software that is certified by the National Association of Sewer Service Companies (NASSCO). Video inspections are to be Pipeline Assessment Certification Program (PACP) compliant and be performed by a PACP certified operator. Certification must be valid at the time of inspection. Include a complete PACP export along with the MPEG-1 video files, including the .mdb file, to allow for import through the NASSCO exchange.
- C. Unless otherwise directed or approved by the Engineer, CCTV sewer inspection shall be performed during the hours of 7:00 AM through 3:30 PM on normal City of Turlock workdays. Notify the Engineer at least one full working day in advance of the date and time scheduled for commencement of CCTV sewer inspection. Begin CCTV sewer inspection at the scheduled date and time. If you are not prepared to begin, or do not begin, CCTV sewer inspection at the scheduled date and time, the Engineer may order that CCTV sewer inspection be rescheduled, in which case you shall reschedule CCTV inspection accordingly.

**3.02 INITIAL CCTV SEWER INSPECTION IN ADVANCE OF SEWER REHABILITATION AND INCLUDING POINT REPAIRS**

- A. Notify the RWQCF staff prior to conducting initial CCTV sewer inspection in advance of sewer rehabilitation or point repairs. Prior to the date and time

scheduled for initial CCTV sewer inspection for sewer rehabilitation, complete implementation of temporary wastewater bypass pumping or diversion systems, sewer cleaning, necessary point repairs, trimming of protruding laterals, and any other prerehabilitation work, and perform inspections as necessary to verify the successful completion of pre-rehabilitation work. For point repairs, complete implementation of temporary wastewater bypass pumping or diversion systems and sewer cleaning as necessary to determine the limits of the point repairs, as approved by the Engineer. Submit original initial CCTV sewer inspections to the Engineer.

- B. If during the course of initial CCTV sewer inspection, or during subsequent viewing of inspection records, it is observed that pre-rehabilitation work or work required in advance of point repairs is not complete, in the opinion of the Engineer, the Engineer may immediately reject initial CCTV sewer inspection. In that event, forthwith complete prerehabilitation work or work required in advance of point repairs, and reschedule initial CCTV sewer inspection for a subsequent date and time.

### **3.03 CCTV SEWER INSPECTION FOLLOWING POINT REPAIR**

- A. Conduct CCTV sewer inspection following point repairs, with City staff on-site during the inspection. The on-site City staff shall be present to verify the quality of the CCTV inspection, and may, at the discretion of the Engineer, approve the point repair. Do not de-implement temporary wastewater bypass pumping or diversion systems before the CCTV inspection. The complete length and the entire circumference of the point repair shall be visible without obstruction. Submit original point repair CCTV inspections to the Engineer.
- B. If during the course of point repair CCTV sewer inspection, or during subsequent viewing of inspection records, it is observed that the point repair is unsatisfactory in the opinion of the Engineer, the Engineer may immediately reject the point repair CCTV sewer inspection. In that event, forthwith remediate the point repair to the satisfaction of the Engineer, and reschedule the point repair CCTV sewer inspection for a subsequent date and time.

### **3.04 FINAL CCTV SEWER INSPECTION FOLLOWING SEWER REHABILITATION**

- A. Conduct final CCTV sewer inspection following sewer rehabilitation, with City staff on-site during the inspection. The on-site City staff shall be present to verify the quality of the CCTV inspection, but not to approve the sewer rehabilitation. Prior to the date and time scheduled for final CCTV sewer inspection following sewer rehabilitation operations, complete sewer rehabilitation and service connection reinstatement, but do not de-implement temporary wastewater bypass pumping or diversion systems. The entire circumference of the sewer shall be visible without obstruction. Submit original final CCTV sewer inspections to the Engineer.
- B. A target shall be mounted in front of the camera at all times to help with determining wrinkle heights. The target shall ride along the pipe invert, and its height shall be the maximum allowable wrinkle height as specified in Item 4 of Subsection 330130.72 3.07G of these Technical Specifications.

- C. If during the course of final CCTV sewer inspection, or during subsequent viewing of inspection records, it is observed that sewer rehabilitation and service connection reinstatement work is not complete, in the opinion of the Engineer, the Engineer may immediately reject final CCTV sewer inspection. In that event, forthwith complete sewer rehabilitation and service connection reinstatement work, and reschedule final CCTV sewer inspection for a subsequent date and time.

**END OF SECTION**

## **SECTION 330130.41**

### **SEWER CLEANING AND DISPOSAL OF MATERIAL REMOVED FROM SEWERS**

#### **PART 1 GENERAL**

##### **1.01 SCOPE OF WORK**

- A. This work shall consist of cleaning sewers prior to rehabilitation and disposal of material removed from sewers, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer. This work shall also include the deposition of the removed material at the RWQCF in the area shown on the Site Map on Sheet 1 of the Plans, and dewatering and air drying of the material removed from sewers, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

#### **PART 2 PRODUCTS, MATERIALS AND EQUIPMENT**

##### **2.01 EQUIPMENT**

- A. Sewer cleaning equipment and methods shall be approved by the Engineer prior to use.

#### **PART 3 EXECUTION**

##### **3.01 SEWER CLEANING**

- A. All internal debris, loose material and roots shall be removed from the existing sewer mains. The sewers shall be cleaned with high-velocity hydraulic (hydro-cleaning) equipment supplemented with root cutters if necessary for root removal, in accordance with the applicable provisions of Greenbook 500-1.1.4 or another method approved by the Engineer.
- B. All material resulting from cleaning operations shall be removed from the sewer at the downstream manhole of each reach cleaned. No such material shall be moved from sewer reach to sewer reach past a manhole, unless otherwise approved or directed by the Engineer.
- C. The host pipe shall be cleaned immediately prior to CIPP liner installation for each continuous installation operation. No more than 24 hours may elapse between the completion of sewer cleaning operations and commencement of rehabilitation liner installation, unless otherwise approved or directed by the Engineer.

##### **3.02 DISPOSAL OF MATERIAL REMOVED FROM SEWERS**

- A. All material resulting from sewer cleaning operations on a particular workday shall be removed from the site and disposed of on that same work day. Do not allow such material to accumulate at the site of the work beyond a single workday, except in totally enclosed, leakproof containers, as may under special circumstances be approved in writing by the Engineer.
- B. Transport material removed from sewers in vehicles or equipment which completely contain the material, to minimize objectionable odor and prevent dripping, spilling, scattering, leaking, blowing or any other loss of transported material. Should loss of transported material occur due to any cause, retrieve



the material and clean up any areas contaminated by it to the satisfaction of the Engineer or other authorities having jurisdiction. Transport vehicles shall not exceed maximum allowable load limits.

- C. Thoroughly coordinate operations conducted on RWQCF grounds with RWQCF staff.
- D. Transport all material removed from sewers to the temporary containment, dewatering and air-drying location, and uniformly spread the material to drain and air dry.
- E. Contractor shall ensure that disposed material is contained fully within the disposal area, and in an orderly fashion.

**END OF SECTION**

## **SECTION 330130.69**

### **POINT REPAIRS IN ADVANCE OF SEWER REHABILITATION**

#### **PART 1 GENERAL**

##### **1.01 SCOPE OF WORK**

- A. This work shall consist of furnishing all materials and doing all work necessary for the repair of localized defects in sewer pipes, in advance of the placement of CIPP liner or other sewer rehabilitation materials or products. Unless otherwise directed or approved by the Engineer, or shown otherwise on the Plans, point repair shall consist of the removal and replacement in kind of the sewer pipe by open cut excavation and backfill methods.

#### **PART 2 PRODUCTS, MATERIALS AND EQUIPMENT (NOT USED)**

#### **PART 3 EXECUTION**

##### **3.01 GENERAL**

- A. Defects to be repaired shall include any sewer pipe defect which, in the opinion of the Engineer, or in the opinion of the manufacturer of the proposed sewer rehabilitation material or product, renders the sewer pipe unsuitable for the installation and serviceability of the proposed sewer rehabilitation material or product. Defects to be repaired shall also include any sewer main defect or irregularity which, in the opinion of the Engineer, does or may result in a localized deficiency in the hydraulic capacity of the sewer main, or in extraordinary sewer maintenance requirements.
- B. Where point repair is required for a localized sewer pipe defect known prior to the preparation of the Plans, the approximate location and extent of the point repair is shown on the Plans. Whether or not point repairs are shown on the Plans, point repairs may also be required to remedy formerly unknown defects discovered during initial CCTV inspection conducted in advance of sewer rehabilitation efforts.
- C. Should you determine during initial CCTV inspection that point repairs, in addition to those that may be shown on the Plans, are necessary or advisable, prepare and submit written recommendations for point repair work to the Engineer as part of the submittal of initial CCTV inspection videos. Recommendations shall include the location and extent of the recommended additional point repair, and a detailed description of the means and methods you propose to employ for point repair efforts. The Engineer will review the recommendations and provide written direction as to the point repair work to be done, which may include some or all of the additional point repair work recommended by you, along with such other point repair work as the Engineer may deem necessary or advisable.

**END OF SECTION**

**SECTION 330130.72**  
**CURED-IN-PLACE PIPE (CIPP) LINER**

**PART 1 GENERAL**

**1.01 SCOPE OF WORK**

- A. Cured-in-place pipe (CIPP) liner sewer rehabilitation shall consist of the rehabilitation of existing sanitary sewer pipes by the installation of a resin-impregnated flexible tube which is inverted into the host conduit by hydrostatic head or air pressure, after which the resin is cured in place by hot water or steam circulated within the tube. When cured, the finished pipe shall be continuous, watertight, and tightly and closely formed to the host pipe.
- B. The calculated full-pipe capacity of the rehabilitated pipe shall be equal to or greater than that of the host pipe, based on a Manning's "n" roughness coefficient of 0.013 for the host pipe and not less than 0.010 for the rehabilitated pipe. The roughness coefficient for the rehabilitated pipe shall be documented by hydraulic test data acceptable to the Engineer.
- C. Provide all materials, labor, equipment, and services necessary for bypass pumping and/or diversion of sewage flows, CIPP liner installation, service connection reinstatement, initial and final cleaning, initial and final CCTV inspection, and final testing. Install the CIPP liner properly and accurately.

**1.02 REFERENCED DOCUMENTS**

- A. The latest editions of the following documents are hereby incorporated by reference as part of these Technical Specifications. Where differences exist between the requirements of referenced documents, the strictest provisions, in the opinion of the Engineer, shall apply.

ASTM D543	Standard Practices for Evaluating the Resistance of Plastics to Chemical Reagents
ASTM D732	Standard Test Method for Shear Strength of Plastics by Punch Tool
ASTM D790	Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
ASTM F1216	Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of Resin-Impregnated Tube
ASTM F2561	Standard Practice for Rehabilitation of a Sewer Service Lateral and Its Connection to the Main Using a One Piece Main and Lateral Cured-in-Place Liner
ASTM D2990	Standard Test Methods for Tensile, Compressive, and Flexural Creep and Creep-Rupture of Plastics
ASTM D5813	Standard Specification for Cured-in-Place Thermosetting Resin Sewer Pipe

"Greenbook" Standard Specifications for Public Works Construction, latest edition and current supplements thereto, BNi Publications, Inc. (hereinafter referred to as "Greenbook").

### **1.03 MANUFACTURER'S QUALIFICATIONS**

- A. The tube and resin manufacturers for the proposed CIPP shall have previous successful manufacturing experience for CIPP installed in sanitary sewers owned by public agencies or municipalities. Upon request, submit information satisfactory to the Engineer demonstrating manufacturer experience and qualifications, including project reference contacts. Unless otherwise approved by the Engineer, in writing, manufacturer experience and qualifications, as of the date of the bid opening, shall include the following items, as a minimum.
1. The tube and resin manufacturers shall be experienced in commercial manufacturing for CIPP, and shall have manufactured the tube and resin materials that were used for a minimum of 50,000 linear feet of CIPP successfully installed in sanitary sewers owned by public agencies or municipalities in the United States, without restriction as to the type of resin employed.
  2. The tube and resin manufacturers shall have manufactured the tube and resin materials that were used for a minimum of 20,000 linear feet of CIPP successfully installed in sanitary sewers, owned by public agencies or municipalities in the state of California, where the CIPP has been in successful service for a minimum of 3 years, without restriction as to the type of resin employed.

### **1.04 CONTRACTOR QUALIFICATIONS**

- A. The Contractor, or the CIPP Subcontractor, shall have previous successful experience in the installation of CIPP in sanitary sewers owned by public agencies or municipalities. The experience shall include that of the Contractor or Subcontractor itself, and shall not include the experience of individual employees gained during projects done in the employ of other contracting firms. Unless otherwise approved by the Engineer, in writing, the Contractor's experience and qualifications, as of the date of the bid opening, shall include the following items, as a minimum.
1. The Contractor shall be certified, authorized, or licensed by the manufacturer or licensor of the CIPP process that the Contractor will use or employ. The Contractor shall be experienced with and knowledgeable about the maintenance, operation and repair of the equipment used for CIPP when used for the rehabilitation of sanitary sewers. The Contractor shall defend, indemnify and hold harmless the City from and against any and all liability, loss, damage, claims, suits, judgments, or costs arising, in whole or in part, from any allegation of patent infringement by the City or the Contractor, or both, on account of the use or employment of the proposed CIPP process on this project by the Contractor. In the event that the CIPP process used or employed on this project is determined to infringe upon the patent rights of another, then the Contractor either shall

secure for the City approval of the CIPP process, as modified, so that the alleged patent infringement ceases, or pay any and all liability, loss, damage, claims, suits, judgments, or costs attributable to the use or employment of the infringing CIPP process plus costs incurred by the City in connection therewith.

2. The Contractor shall have a minimum of 3 years of active experience in the commercial installation of CIPP for sewer rehabilitation, and shall have successfully completed the installation of 20,000 linear feet of CIPP in sanitary sewers owned by public agencies or municipalities in the United States. At least one of the CIPP projects included in that length shall be similar in size and scope to this project.
3. The Contractor's foreman and personnel who will perform CIPP installation shall have a minimum of two years of training and experience in the installation of CIPP for sewer rehabilitation.
4. The Contractor shall be knowledgeable of, and able to comply with, all applicable requirements and regulations for confined space entry and the transportation, handling, storage and use of materials and chemicals related to the work.

#### **1.05 SUBMITTALS**

- A. Submit the following items to the Engineer for review and acceptance prior to the commencement of any CIPP installation operations.
  1. Shop drawings, catalog data and manufacturer's technical data showing complete information on material composition, physical properties, and dimensions of CIPP materials, including manufacturer's recommendation for handling, storage, and repair if damaged.
  2. Material and installation data for the brim style lateral seals, including curing method.
  3. Infrared spectrography chemical fingerprint of the CIPP resin.
  4. CIPP installation plan, including description of equipment and processes, service connection reinstatement, and end treatment at manholes and structures.
  5. Total quality management or quality assurance procedures for product manufacturing and installation, including inspection programs, testing procedures, and standards.
  6. Certificates of compliance, including third party test results for physical properties and chemical resistance properties.
  7. Material Safety Data Sheets.
  8. Manufacturer's recommendations for the CIPP process, including material storage, resin application, installation, curing, lateral reinstatement, end treatment, trimming and finishing.
  9. Manufacturer's certification that the Contractor is licensed for use of the CIPP process.

10. Product information and installation procedures for mainline to lateral sealing system.
11. Wastewater bypass pumping plan, including emergency response and backup provisions, sealed and signed by a Professional Civil Engineer registered in the State of California. Refer to Section 015139, "Temporary Handling of Wastewater Flows," of these Technical Specifications.
12. A detailed, dimensioned plan showing layout of the areas the Contractor intends to occupy for CIPP installation, including equipment setup and access point locations.
13. Labeling proposed for CCTV inspection videos.
14. Television inspection reports made during CCTV inspection prior to and after CIPP installation.
15. Volume of resin required per unit length for each diameter and thickness of CIPP used.
16. Following wet-out of each tube, submit the volume of resin actually used for each tube to the Engineer.

**PART 2 PRODUCTS, MATERIALS AND EQUIPMENT**

**2.01 CIPP LINER TUBE AND RESIN**

- A. The proposed CIPP liner tube and resin shall conform to the requirements of ASTM F1216 and ASTM D5813 for Type III, and the provisions in these Technical Specifications. CIPP resin shall be epoxy or vinyl ester resin approved by the Engineer. Installed and cured CIPP shall conform to the minimum structural properties requirements in the following table.

<b>CIPP MINIMUM STRUCTURAL PROPERTIES</b>		
<b>Structural Property</b>	<b>Test Method(s)</b>	<b>Minimum Value</b>
Flexural Strength (Initial)	ASTM D790	4,500 psi
Flexural Modulus (Initial)	ASTM D790	250,000 psi
Flexural Modulus (Long Term - 50 Year)	ASTM D790 ASTM D2990	125,000 psi
Wall Thickness	ASTM D2122	As Shown on Plans

- B. The installed CIPP liner shall be designed in accordance with ASTM F1216-22 Appendix X1 to accommodate internal and external pressures corresponding to uniform earth loading and traffic loading for the depths of cover shown on the Plans, using the structural design parameters in the following table.

<b>CIPP STRUCTURAL DESIGN PARAMETERS</b>		
<b>Variable</b>	<b>Description</b>	<b>Design Value</b>
w	Unit Weight of Original Backfill	120 lbs/ft <sup>3</sup>
N	Factor of Safety	2.00
E <sub>L</sub>	CIPP Modulus of Elasticity, Long Term	125,000 psi
q	Ovality of Existing Pipe	5%
H <sub>w</sub>	Height of Groundwater Above Top of Pipe	0.00 ft
E' <sub>s</sub>	Modulus of Soil Reaction	1,000 psi

- C. Traffic loading shall be AASHTO HS20 loading, except under railroads where the loading shall be Cooper E-80 loading. The CIPP design life shall be 50 years, and the existing host pipe shall be considered to be fully deteriorated for the entire design life. The maximum value that may be used for the long-term (50-year) modulus of elasticity in structural design calculations for CIPP shall be the tabulated value. The maximum allowable calculated deflection shall be 3.75% of the mean installed CIPP liner diameter. Complete design calculations, sealed by a Civil Engineer registered to practice in the State of California, verifying that the CIPP liner you propose to install is of adequate long-term structural capacity for the specified loads and conditions, shall be prepared and submitted to the Engineer for approval prior to the commencement of work. Structural design calculations shall demonstrate that the proposed CIPP liner will accommodate design loading under specified conditions for the duration of its design life, without excessive deflection, overstress condition, or buckling failure. Design calculations that do not contain the seal and signature of a Civil Engineer registered to practice in the State of California will be returned and will not be reviewed until they contain an appropriate seal and signature.
- D. Minimum CIPP wall thicknesses shall be as shown on the Plans.
- E. Cured and finished CIPP material shall meet the chemical resistance requirements of Greenbook 210-2.3.
- F. The outside layer of the CIPP liner tube (before inversion) shall consist of a transparent flexible plastic material compatible with the resin used, and shall not be subject to delamination after cure. The resin shall be tinted with a compatible blue dye that contrasts with the liner tube material to allow visual confirmation of complete resin saturation of the tube material.
- G. The bond between CIPP layers shall be strong and uniform. All layers, after cure, shall form one homogeneous structural pipe wall, with all parts of the tube having complete resin saturation. The liner tube shall contain no intermediate or encapsulated elastomeric layers, and no other materials that are subject to delamination after cure.
- H. The volume of resin used for tube impregnation shall be sufficient to fill all the volume of air voids in the tube with additional allowance for polymerization shrinkage and the loss of resin through cracks and irregularities in the host

pipe wall. A roller system shall be used to uniformly distribute the resin throughout the tube. Specify the roller system gap dimension that will pass the required volume of resin per unit length within the confines of the plastic coating perimeter. The Engineer will make random gap dimension checks and may provide a suitable inelastic compliant material to have it passed through the roller system for gap verification.

## **2.02 SERVICE CONNECTION REINSTATEMENT EQUIPMENT**

- A. When service connection reinstatement is done by remote methods, the equipment shall be a remote-controlled cutting device (cutter) specifically designed for such work and approved for such work by the CIPP manufacturer. The remote-controlled cutting device shall be monitored by a CCTV camera. Have a minimum of 2 complete working cutters and spare replacement parts for key components available at the job site prior to the commencement of each CIPP installation operation.
- B. Lateral seals shall be brim style lateral seals ("Top Hat" or approved equal), and shall be made of a fiberglass insert impregnated with polyester resin. The lateral seals shall extend a minimum of 8 inches into the lateral and create a 3-inch brim in the sewer main.

## **2.03 PACKAGING AND TRANSPORTATION**

- A. CIPP materials shall be packaged and transported as recommended by the manufacturer, and in a manner designed to ensure delivery to the project neatly, intact, and without physical damage. The transportation carrier shall use appropriate methods and intermittent checks to ensure materials are properly supported, stacked, and restrained during transport. CIPP materials damaged before or during installation shall be repaired as recommended by the manufacturer, or replaced at your expense, as directed by the Engineer.

## **2.04 WATER HEATING EQUIPMENT**

- A. Boilers or water heating equipment for the CIPP curing process shall be equipped with integral safety systems and feature manage burner operation. Such safety systems and features shall include, but not necessarily be limited to, the following:
  - 1. Flame safeguard system to control the burner during start, run and shutdown periods.
  - 2. Flame detector system that will:
    - a. Shut off fuel valves when absence of flame is identified by the monitoring system, and
    - b. Prohibit fuel valves from opening until pilot flame is established.
  - 3. Burner management control system with lockout ability at ignition and during operation.
  - 4. Control system with lockout ability to monitor and control temperature, pressure and water level, with a low water cutoff control.



5. Fuel source conforming to burner manufacturer's specifications, with a safeguard system which will shut off fuel when a boiler system imbalance is detected.
- B. The Contractor shall submit to the Engineer a boiler inspection certification for the equipment that will be used for this project, current within 90 days prior to the date of submittal and prepared by a certified independent boiler inspection firm. No such equipment shall be transported to or operated at the job site prior to the Engineer's written approval of the certification.
- C. Boiler or water heating equipment shall be operated by a certified technician. Weekly routine boiler inspections shall be conducted by the operator, and a written log containing inspection results shall be kept at the job site and made available to the Engineer upon request.

## **2.05 EPOXY COATING**

- A. Epoxy coating shall be an ultra-high-build, 100% solids epoxy coating specifically formulated and intended for such use and approved by the Engineer. Epoxy coating shall be Raven 400 or Raven 405, products of RLS Solutions, Inc., [www.rlssolutions.com](http://www.rlssolutions.com); Neopoxy 5300 Series, products of Neopoxy International, [www.neopoxy.com](http://www.neopoxy.com); or Quadex Structure Guard, a product of Quadex, Inc., [www.quadexonline.com](http://www.quadexonline.com); or approved equal. Cured and finished epoxy coating shall meet the chemical resistance requirements of Greenbook 211-2. Prior to application of the epoxy coating, a water-borne, low viscosity penetrating primer/sealer compatible with the approved epoxy coating shall be applied, if recommended by the epoxy manufacturer.

## **PART 3 EXECUTION**

### **3.01 GENERAL**

- A. Conduct CIPP installation operations in the most feasible, efficient and safe manner, installing the specified materials to the lines and grades shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

### **3.02 HANDLING AND STORAGE**

- A. CIPP handling and storage shall conform to the manufacturer's recommendations.

### **3.03 TEMPORARY HANDLING OF WASTEWATER FLOWS**

- A. Temporary handling of wastewater flows shall conform to the provisions in Section 015139, "Temporary Handling of Wastewater Flows," of these Technical Specifications.

### **3.04 SEWER CLEANING**

- A. The host pipe shall be cleaned immediately prior to CIPP liner installation for each continuous installation operation, in conformance with the provisions in Section 330130.41, "Sewer Cleaning and Disposal of Material Removed from Sewers," of these Technical Specifications. No more than 24 hours may elapse between the completion of sewer cleaning operations and commencement of CIPP liner installation, unless otherwise approved or directed by the Engineer.

### **3.05 PROTRUDING LATERALS**

- A. For service or lateral sewer connections where the connecting pipe protrudes into the host pipe more than 1" beyond the inside surface of the host pipe or where specified on the plans, trim the protruding pipe to be flush with the inside surface of the host pipe prior to CIPP installation. Trimming shall be done without excavation, by remote-controlled or manual-controlled cutting or grinding equipment operated within the host pipe. Such equipment shall be specifically intended for such use, and shall be approved by the Engineer and CIPP manufacturer for such use. Remote-controlled equipment shall include a CCTV camera to allow visual location and observation of trimming operations.

### **3.06 INITIAL CCTV INSPECTION**

- A. Conduct initial CCTV sewer inspection in conformance with the provisions in Section 330130.11 "Television Inspection of Sewers" of these Technical Specifications.

### **3.07 CIPP INSTALLATION**

- A. CIPP installation shall conform to the requirements of ASTM F1216, the provisions in these Technical Specifications, and the manufacturer's recommendations. In the case of conflicting requirements, provisions, or recommendations, the strictest in the opinion of the Engineer shall apply, unless otherwise directed or approved by the Engineer.
- B. Submit to the Engineer a detailed CIPP installation plan showing the proposed installation procedures, types of equipment, equipment set-up, limits of individual inversions, and sewer access points. No CIPP installation operations shall commence until the Engineer has approved the CIPP installation plan in writing. Reference is made to Subsection 330130.72 1.05 "Submittals" of these Technical Specifications.
- C. CIPP liner shall extend continuously from the beginning of sewer rehabilitation to the end of sewer rehabilitation for each sewer designated for rehabilitation, which may comprise numerous contiguous manhole-to-manhole sewer reaches and numerous individual CIPP inversions. At terminal manholes, those situated at the beginning of sewer rehabilitation and the end of sewer rehabilitation, the CIPP liner shall be neatly cut flush to terminate at the nearest edge of the access opening in the top of the pipe, or at the interior surface of the manhole wall, or at the end of the host pipe entering the manhole, as best suits field conditions in the opinion of the Engineer.
- D. CIPP liner ending at the end of a pipe or at a wall penetration shall be neatly cut flush with the end of the pipe or the wall surface. CIPP liner ending at a location within the pipe or within a manhole flow channel shall be neatly cut around its circumference in a plane normal to the longitudinal axis of the pipe. At all CIPP liner end points, and at all other exposed edges of the cured and finished liner, the liner shall be permanently sealed to the host pipe or surface using a suitable sealant material compatible with the CIPP liner and approved by the Engineer. Cured and finished sealant material shall meet the chemical resistance requirements of Greenbook 210-2.3.

- E. Where CIPP liner is to be installed in a host pipe extending through any intermediate manhole, the cured and finished CIPP liner shall be continuous through the manhole, such that the interior surface of the host pipe through the manhole is completely covered with the CIPP liner material, except as hereinafter specified. Where the intermediate manhole serves as the endpoint for separate CIPP inversions, the end of the subsequent inversion shall overlap the end of the preceding inversion during curing. The cured overlapping CIPP liner shall be neatly cut to match the end of the overlapped liner, leaving a space of no more than 1 inch between the two ends, and the overlapping portion of the CIPP liner shall be removed. The space between the two ends shall be filled and sealed with the sealant material specified above for the sealing of liner end points and exposed edges, forming a continuous smooth surface through the manhole.
- F. Where CIPP liner is to be installed in a host pipe that does not extend through an intermediate manhole, but the manhole base includes a shaped flow channel between the ends of the host pipe on either side of the manhole, the CIPP liner shall also cover that portion of the flow channel that is shaped to match the interior surface of the host pipe.
- G. Cured and finished CIPP liner shall fit tightly and neatly against the surface of the host pipe, and shall be homogeneous throughout. Cured and finished CIPP liner shall be free of:
  - 1. Abrasions, cuts or gouges deeper than 10% of the liner thickness
  - 2. Kinks, flat spots, cracks, holes or blisters
  - 3. Foreign inclusions or other injurious defects
  - 4. Any wrinkles below the centerline of the pipe that are larger than the following:

<b>Maximum Allowable Wrinkle Height</b>	
<b>Pipe Size</b>	<b>Height of Wrinkle</b>
≤ 15"	3% of pipe diameter
> 15"	1/2"

- 5. Wrinkles above pipe centerline that protrude more than 1 inch from the surrounding surface

**3.08 SERVICE CONNECTION REINSTATEMENT**

- A. Reinstatement of service connections shall be done without excavation, within the installed CIPP liner, by remote-controlled equipment, or by worker-entry methods using manually operated equipment. Reinstatement equipment shall be specifically intended for such use, and shall be approved by the CIPP manufacturer for such use. Remote-controlled equipment shall include a CCTV camera to allow visual location of the service connection and observation of reinstatement work. For reinstatement of service connections by worker-entry methods, comply with all applicable requirements and regulations for confined

space entry, including but not limited to preparation of an emergency rescue plan, provision of emergency rescue equipment, and provision of adequate ventilation.

- B. After reinstatement, the invert of the service connection shall match the bottom of the reinstated service opening. The area of the reinstated service connection opening shall be a minimum of 95 percent to a maximum of 100 percent of the area of the original service connection opening. The new edge shall be smooth and crack free with no loose or abraded material.
- C. The reinstated lateral connection shall be sealed with a brim style lateral seal ("Top Hat"). Installation shall conform to the manufacturer's requirements. The installation of the connection seal shall not in any way damage or adversely affect the CIPP. If damage to the CIPP liner does occur, the Contractor shall repair or replace the area at no additional cost to the owner. Contractor shall trim loose or hanging/intruding pipe connection seals to be flush with the internal pipe wall. The Contractor shall not fold the hanging/intruding material.

### 3.09 EPOXY COATING APPLICATION

- A. Epoxy coating application shall conform to the details on the plans, and as directed by the CIPP liner or resin manufacturer.

### 3.10 TESTING

- A. General
  - 1. The physical properties of the installed CIPP liner shall be verified through field sampling and laboratory testing. Remove or prepare samples of the cured CIPP liner at locations designated by the Engineer, as specified in this section. Repair resulting voids in the CIPP liner using a resin mixture compatible with the CIPP.
  - 2. CIPP liner samples shall be tested in accordance with applicable ASTM test methods, including but not necessarily limited to those listed in the following table, to evaluate compliance with specification requirements.

<b>LABORATORY TEST METHODS</b>	
Liner Thickness	ASTM D2122
Flexural Strength	ASTM D790
Flexural Modulus	ASTM D790

- 3. Where test sample conditioning is required or allowed by applicable test specifications, but the test specifications do not specifically require or allow a maximum sample conditioning or "aging" period, the sample conditioning period shall not exceed 120 hours. Testing shall be completed within 7 days of obtaining the sample.
- 4. In the event a single CIPP liner sample fails to meet specification requirements as determined by laboratory testing, provide an additional sample from the same general location for repeat testing. Should the

second CIPP liner sample fail to meet specification requirements, the CIPP liner will be rejected by the Engineer.

B. Testing by Contractor's Approved Testing Laboratory

1. Retain an independent, third-party testing laboratory for material testing. The laboratory shall be approved by the Engineer in writing prior to the commencement of any CIPP liner installation operations. The testing laboratory so approved is hereinafter referred to as the Contractor's Approved Testing Laboratory.
2. Prior to installing the CIPP liner, submit to the Engineer an infrared spectrography chemical fingerprint of the CIPP resin approved for use on this project. During construction, the Engineer will direct the taking of random samples of the CIPP resin for infrared spectrography chemical fingerprint analysis by the Contractor's Approved Testing Laboratory. Take resin samples, or assist in the taking of resin samples, when and as directed by the Engineer. Infrared spectrography chemical fingerprinting results shall be submitted to the Engineer, at the same scale as the pre-construction analysis, for comparison with the pre-construction fingerprint to verify that the resin used is the same resin approved for use on this project. CIPP liner installed with resins other than the approved resin will be rejected, and shall be removed and replaced at your expense.
3. For each individual CIPP inversion, provide CIPP samples for testing by the Contractor's Approved Testing Laboratory as follows:
  - a. Two samples, one prepared by each of the two methods specified in ASTM F1216, Section 8, or by such other methods as may be approved by the Engineer.
4. The samples so provided shall be tested by the Contractor's Approved Testing Laboratory to determine liner thickness, flexural strength, and flexural modulus. Results of laboratory testing shall be submitted to the Engineer in the form of reports containing certified test results. The reports shall clearly identify the Engineer's station, date and time of day at which each sample was taken, and the duration of curing for each sample.
5. Samples shall be labeled with the Engineer's station and other identification as necessary to clearly identify the location where the sample was taken, and a chain of custody for each sample shall be prepared and maintained by the Contractor to the satisfaction of the Engineer.

C. Testing by Engineer's Testing Laboratory

1. The Engineer will also retain an independent, third-party testing laboratory for material testing, which laboratory is hereinafter referred to as the Engineer's Testing Laboratory. The Engineer's Testing Laboratory is in addition to, and may be an entity apart from, the accredited testing laboratory that may be engaged by the Engineer for inspection of materials not locally produced. Refer to Subsection 007300 1.23 "Inspection of Materials Not Locally Produced" of these Technical Specifications.

2. In addition to the CIPP samples provided for testing by the Contractor's Approved Testing Laboratory, also provide CIPP samples for testing by the Engineer's Testing Laboratory. Provide CIPP samples for testing by the Engineer's Testing Laboratory at one location for every four individual CIPP inversions or installations, but at not less than one location for every 3,000 feet of CIPP liner installed, as follows:
    - a. One sample for flexural testing prepared by placing a thin 12" by 24" steel plate in the pipe invert at a location designated by the Engineer. For pipe sizes in which use of the specified steel plate is impractical, another sample preparation method approved by the Engineer may be employed. The samples shall be clearly labeled with the Engineer's station at which the sample was taken, and date, time of day, and duration of curing.
    - b. Two samples prepared by core drilling 2-inch diameter test plugs at locations directed by the Engineer, for measurement of liner thickness.
  3. The samples so provided will be tested by the Engineer or the Engineer's Testing Laboratory to determine liner thickness, and by the Engineer's Testing Laboratory to determine flexural strength and flexural modulus.
- D. Payment
1. Full compensation for preparing samples, taking samples, assisting in the taking of samples, leakage testing, and for all testing and reporting by the Contractor's Approved Testing Laboratory, shall be considered as included in the contract price paid per linear foot for CIPP sewer rehabilitation, and no additional compensation will be allowed therefor. The City of Turlock will pay for testing and reporting by the Engineer's Testing Laboratory.

### **3.11 FINAL CCTV INSPECTION**

- A. Conduct final CCTV inspection in conformance with the provisions in Section 330130.11 "Television Inspection of Sewers" of these Technical Specifications.

### **3.12 NON-CONFORMING WORK**

#### **A. GENERAL**

1. CIPP liner that fails to meet specification requirements in any respect, as determined by laboratory testing or visual inspection, will be rejected by the Engineer. When notified of rejected work by the Engineer, repair or remove and replace the defective work, or offer a credit to the Engineer as specified in the following subsections. Any credits will be withheld from the next progress payment, the final payment, and/or the retention.

#### **B. REPAIR OR REMOVE AND REPLACE**

1. Develop remedial methods for repair, or removal and replacement, of the rejected work and shall submit the proposed methods to the Engineer for review and approval. Remedial methods may include removal and replacement of the CIPP liner or another method approved in writing by the Engineer.

2. Upon notice of the Engineer’s approval of the proposed remedial method or methods, implement the approved methods to bring rejected work into compliance with specification requirements as directed by the Engineer. Bear the full expense of all remedial work and related testing.

C. CREDIT

1. General

- a. You may offer a cost credit to the City of Turlock for non-conforming work in accordance with the following subsections in lieu of repair or removal and replacement. The City of Turlock is under no obligation to accept the credit, and reserves the right to have the non-conforming work repaired or removed and replaced.

2. Wrinkles Below Pipe Centerline

- a. You may offer a credit to the City of Turlock for wrinkles in the installed CIPP liner that are below the pipe centerline. The credit shall apply along the entire length of a particular wrinkle. The credit shall be determined as shown in the following table:

<b>Pipe Size</b>	<b>Direction</b>	<b>Height of Wrinkle</b>	<b>Severity</b>	<b>Credit</b>
≤ 24”	Any	Maximum Allowable Wrinkle Height to 4% of pipe diameter (See Note 1)	Minor	0.25 x (Contract Unit Price)
≤ 24”	Longitudinal	>4% of pipe diameter to 8% of pipe diameter	Severe	0.50 x (Contract Unit Price)
≤ 24”	Transverse	>4% of pipe diameter	Unacceptable	N/A
≤ 24”	Longitudinal	>8% of pipe diameter	Unacceptable	N/A
> 24”	Any	Maximum Allowable Wrinkle Height to 1” (See Note 1)	Minor	0.25 x (Contract Unit Price)
> 24”	Longitudinal	>1” to 2”	Severe	0.50 x (Contract Unit Price)
> 24”	Transverse	>1”	Unacceptable	N/A
> 24”	Longitudinal	>2”	Unacceptable	N/A
Note 1: See Item 4 of Subsection 330130.72 3.07G of these Technical Specifications.				

- b. Wrinkle height and direction shall be estimated from the CCTV inspections, and the final determination of the severity and direction will be made by the Engineer.

### 3. Deficient Liner Thickness

- a. You may offer a credit to the City of Turlock for installed CIPP liner that is thinner than the specified thickness. Each reach containing deficient CIPP liner thickness shall have its own credit, and the credit shall apply along the entirety of each reach. A reach is defined as a segment of sewer main from one manhole or structure to the next adjacent manhole or structure.
- b. For each reach containing deficient CIPP liner thickness, the thickness of the installed CIPP liner shall be determined as specified in Subsection 330130.72 3.10 “Testing” of these Technical Specifications and the specified thickness is shown on the profiles contained in the Plans. The credit shall be no less than the credit calculated by the following formula, which accounts for the reduction in the factor of safety in the CIPP liner design:

$$\text{Credit} = 5 \times \left[ 1 - \left( \frac{\text{Installed Thickness}}{\text{Specified Thickness}} \right)^{1.5} \right] \times (\text{Contract Unit Price})$$

- c. No credit for deficient CIPP liner thickness will be accepted if the installed thickness of the CIPP liner is less than 94% of the specified thickness of the CIPP liner.

### 4. Deficient Initial Flexural Modulus

- a. You may offer a credit to the City of Turlock for installed CIPP liner that has a lower initial flexural modulus than the specified initial flexural modulus. Each reach containing deficient initial flexural modulus shall have its own credit, and the credit shall apply along the entirety of each reach. A reach is defined as a segment of sewer main from one manhole or structure to the next adjacent manhole or structure.
- b. For each reach containing deficient initial flexural modulus, the initial flexural modulus of the installed CIPP liner shall be determined as specified in Subsection 330130.72 3.10 “Testing” of these Technical Specifications and the specified initial flexural modulus is shown in the table entitled “Minimum CIPP Structural Properties” in Subsection 330130.72 2.01 “CIPP Liner Tube and Resin” of these Technical Specifications. The credit shall be no less than the credit calculated by the following formula, which accounts for the reduction in the factor of safety in the CIPP liner design:

$$\text{Credit} = 5 \times \left[ 1 - \left( \frac{\text{Installed Initial Flexural Modulus}}{\text{Specified Initial Flexural Modulus}} \right)^{0.5} \right] \times (\text{Contract Unit Price})$$



- c. No credit for deficient initial flexural modulus will be accepted if the installed initial flexural modulus of the CIPP liner is less than 81% of the specified initial flexural modulus of the CIPP liner.

5. Deficient Initial Flexural Strength

- a. You may offer a credit to the City of Turlock for installed CIPP liner that has a lower initial flexural strength than the specified initial flexural strength. Each reach containing deficient initial flexural strength shall have its own credit, and the credit shall apply along the entirety of each reach. A reach is defined as a segment of sewer main from one manhole or structure to the next adjacent manhole or structure.
- b. For each reach containing deficient initial flexural strength, the initial flexural strength of the installed CIPP liner shall be determined as specified in Subsection 330130.72 3.10 “Testing” of these Technical Specifications, and the specified initial flexural strength is shown in the table entitled “Minimum CIPP Structural Properties” in Subsection 330130.72 2.01 “CIPP Liner Tube and Resin” of these Technical Specifications. The credit shall be no less than the credit calculated by the following formula, which accounts for the reduction in the factor of safety in the CIPP liner design:

$$\text{Credit} = 5 \times \left[ 1 - \left( \frac{\text{Installed Initial Flexural Strength}}{\text{Specified Initial Flexural Strength}} \right) \right] \times (\text{Contract Unit Price})$$

- c. No credit for deficient initial flexural strength will be accepted if the installed initial flexural strength of the CIPP liner is less than 90% of the specified initial flexural strength of the CIPP liner.

**3.13 MEASUREMENT**

- A. CIPP liner will be measured by the linear foot, as the installed length measured horizontally along the longitudinal axis of the pipe for both tangent and curved alignments. Where the installed CIPP extends through a manhole or other structure, measurement will include the distance through the structure. Where the installed CIPP terminates at the wall of a manhole or other structure, measurement will be made to the point of termination and will not include the distance through the structure. Where the host pipe enters a structure at an angle different from a right angle and the CIPP is cut to conform to the inside surface of the structure, measurement will be made to the point of intersection of the longitudinal axis of the pipe with the inside surface of the structure.

**END OF SECTION**

**SECTION 330561**  
**POLYMER CONCRETE MANHOLES**

**PART 1 GENERAL**

**1.01 SCOPE**

- A. This specification covers polymer concrete manholes intended for use in sanitary sewers.

**1.02 REFERENCES**

- A. ASTM C 478 (most current) Standard Specification for Precast Reinforced Concrete Manhole Sections
- B. ASTM C 579 (most current) Standard Test Methods for Compressive Strength of Chemical-Resistant Mortars, Grouts, Monolithic, Surfacing, and Polymer Concretes
- C. ASTM C 443 (most current) Standard Specification for Joints for Concrete Pipe and Manholes Using Rubber Gaskets
- D. ASTM C 580 (most current) Standard Test Method for Flexural Strength and Modulus of Elasticity of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes
- E. ASTM C 857 (most current) Standard Practice for Minimum Structural Design Loading for Underground Utility Structures
- F. ACI 350-06 Code Requirements for Environmental Engineering Concrete Structures & Commentary
- G. ACI 440.1R-15 Guide for the Design and Construction of Structural Concrete Reinforced with Fiber-Reinforced Polymer (FRP) Bars
- H. ACI 548.6R-96 Polymer Concrete-Structural Applications State-of-the-Art Report
- I. ASTM D 648 (most current) Test Method for Deflection Temperature of Plastics Under Flexural Load in Edgewise Position
- J. ASTM D 6783 (most current) Standard Specification for Polymer Concrete Pipe
- K. ASTM D 2584 (most current) Test Method for Ignition Loss of Cured Reinforced Resins
- L. ASTM C 923 (most current) Standard Specifications for Resilient Connectors between Concrete Manholes Structures and Pipe
- M. ASTM C 990 (most current) Standard Specification for Joints for Concrete Pipe, Manholes and Precast Box Sections using Preformed Flexible Joint Sealants
- N. ASTM C 497 (most current) Test Methods for Concrete Pipe, Manhole Sections, or Tile
- O. California Greenbook Standard Specifications for Public Works Construction Section 211-2

### **1.03 SUBMITTALS**

- A. Conform to bid document requirements.
- B. Submit manufacturer's data and details of following items for approval:
  - 1. Shop drawings of manhole sections, base units and construction details, jointing methods, materials, and dimensions.
  - 2. Summary of criteria used in manhole design including, as minimum, material properties, loading criteria, and dimensions assumed. Include certification from manufacturer that polymer concrete manhole design meets or exceeds the load and strength requirements of ASTM C 478 and ASTM C 857, reinforced in accordance with ACI 440.1R-15. Include current ISO 9001:2018 certification.
  - 3. Frames, grates, rings, and covers.
  - 4. Materials to be used for pipe connections.
  - 5. Materials to be used for stubs and stub plugs, if required.
  - 6. Proof of independent Chemical Resistance testing conducted in accordance with the Standard Specifications for Public Works Construction (California Greenbook) Section 211-2.

## **PART 2 PRODUCTS, MATERIALS AND EQUIPMENT**

### **2.01 POLYMER CONCRETE MANHOLES**

- A. Provide polymer concrete manhole sections, monolithic base sections and related components referencing to ASTM C 478. ASTM C 478 material and manufacturing is allowed compositional and dimensional differences required by a polymer concrete product.
- B. Provide base riser section with monolithic floors, unless shown otherwise.
- C. Provide riser sections joined with bell and spigot / ship-lap design seamed with butyl mastic and/or rubber gaskets (ASTM C 990) so that on assembly, manhole base, riser and top section make a continuous and uniform manhole structure.
- D. Construct riser sections for polymer concrete manholes from standard polymer concrete manhole sections of the diameter indicated on drawings. Use various lengths of polymer concrete manhole sections in combination to provide correct height with the fewest joints.
- E. Design wall sections for depth and loading conditions with wall thickness as designed by polymer concrete manufacturer.
- F. Provide tops to support AASHTO HS-20 or HL-93 or vehicle loading or loads as required and receiving cast iron frame covers or hatches, as indicated on drawings.

### **2.02 DESIGN CRITERIA**

- A. Polymer concrete manhole risers, cones, flat lids, grade rings and manhole base sections shall be designed by manufacturer to meet the intent of ASTM C 478 with allowable compositional and sizing differences as designed by the

polymer concrete manufacturer.

1. AASHTO HS-20 or HL-93 design or as required loading applied to manhole cover and transition and base slabs
2. Polymer manholes will be designed based upon live and dead load criteria in ASTM C 857 and ACI 350-06.
3. Unit soil weight of 120 pcf located above portions of manhole, including base slab projections.
4. Internal liquid pressure based on unit weight of 63 pcf.
5. Dead load of manhole sections fully supported by polymer concrete manhole base.

## **2.03 DESIGN**

A. Polymer concrete manhole risers, cones, flat lids, grade rings and manhole base sections shall be designed by manufacturer to meet loading requirements of ASTM C 478, ASTM C 857 and ACI 350-06 as modified for polymer concrete manhole design as follows:

1. Polymer concrete mix design shall consist of thermosetting resin, sand, and aggregate. No Portland cement shall be allowed as part of the mix design matrix. All sand and aggregate shall be inert in an acidic environment.
2. Reinforcement – Shall use acid resistant reinforcement (FRP bar) in accordance with ACI 440.1R-06 as applicable for polymer concrete design.
3. The wall thickness of polymer concrete structures shall not be less than that prescribed by the manufacturer's design by less than 95% of stated design thickness.
4. Each polymer concrete manhole component shall be free of all defects, including indentations, cracks, and foreign inclusions that, due to their nature and degree or extent, detrimentally affect the strength and serviceability of the component part. Cosmetic defect shall not be cause for rejection. The nominal internal diameter of manhole components shall not vary more than 2%.
5. Marking and Identification - Each manhole shall be marked with the following information - Manufacturer's name or trademark, manufacturer's location, and production date.
6. Manhole joints shall be assembled with a bell/spigot or shiplap butyl mastic and/or gasketed joint so that on assembly, manhole base, riser and top section make a continuous and uniform manhole. Joint sealing surfaces shall be free of dents, gouges, and other surface irregularities that would affect joint integrity.
7. Minimum clearance between wall penetrations and joints shall be per manufacturer's design.
8. Construct invert channels to provide smooth flow transition with

minimal disruption of flow at pipe-manhole connections. Invert slope through manhole is as indicated on drawings. All precast base sections to be cast monolithically. Polymer bench and channel are to be constructed with all polymer concrete material, monolithically. Extended ballast slab requirements for buoyancy concerns can be addressed with cementitious concrete material.

9. Provide resilient connectors conforming to requirements of ASTM C 923 or other options as available. All connectors are to be watertight. Install approved resilient connectors at each pipe entering and exiting manholes in accordance with manufacturer's instructions

#### **2.04 QUALITY CONTROL**

- A. Facility quality control shall be maintained by adhering to ISO 9001:2018 for manufacturing. All fabricators shall be ISO 9001:2018 certified and shall provide documentation of current certification. All manufacturing shall take place in an all polymer concrete facility. At no time will the polymer concrete manufacturing facility share the facility with a cementitious precast product production facility. Fabricator shall also provide references of 5 previous projects in the last 5 years performed with the contractor for reference and review by the Owner.

#### **2.05 GROUTING**

- A. All materials for grouting and patching shall be a polyester mortar compound provided by the manufacturer of the manhole or an approved equal.

#### **2.06 ACCESS FRAMES AND COVERS**

- A. Metal frames and covers for manholes shall be cast iron with a tensile strength of 38,000 psi, shall be South Bay Foundry Frame and Lid No. 624/106 or approved equal, and shall conform to Standard Drawing S-5.

### **PART 3 EXECUTION**

#### **3.01 GENERAL REQUIREMENTS**

- A. Manholes shall consist of a precast polymer concrete base section, reinforced polymer concrete riser section(s), reinforced polymer concrete taper (cone) section(s), adjustment rings, a cast iron frame and cover, and a cast-in-place concrete collar.
- B. Manhole sections of various heights shall be used to result in the required overall height of the manhole barrel.
- C. 4 feet of all pipes connecting to manholes to be removed and replaced or to be newly constructed shall be removed and replaced with like-sized PVC pipe per the details on the Plans to allow for the installation of the precast manhole bases and barrel/cone sections.
- D. A rubber gasket approved by the Engineer shall be installed around the outside of all PVC pipes entering manholes, such that the gasket will be situated in the approximate center of the polymer concrete surrounding the pipe where it penetrates the manhole base or wall.

**END OF SECTION**