

**Santa Ynez Pumping Plant**  
**Surge Tank Pedestal Replacement**

**CENTRAL COAST WATER AUTHORITY**

**CONTRACT DOCUMENTS**  
**And SPECIFICATIONS**



**May 8, 2024**

## NOTICE INVITING BIDS

**RECEIPT OF BIDS:** Sealed Bids will be received at the office of the Central Coast Water Authority, at 255 Industrial Way, Buellton, California 93427, until 3:00 p.m. on Tuesday May 28, 2024 for the "Santa Ynez Pumping Plant Surge Tank Concrete Pedestal".

**DESCRIPTION OF WORK:** The WORK includes to demolishing and reconstructing the Surge Tank concrete pedestals at the Santa Ynez Pumping Plant. The WORK includes disassembly of the Surge Tank piping and safe storage, removal of the Surge Tanks and safe storage, demolition of the concrete pedestals, protection of in-place piping, construction of the concrete pedestals, paint and line the Surge Tank and associated piping, re-installation of Surge Tank and associated piping. All work will be required to be conducted between July 9, 2024 and August 23, 2024.

**SITE OF WORK:** The site of the WORK is located 2800 Mesa Verde Road, Santa Ynez California 93460.

**SUBSTANTIAL COMPLETION OF WORK:** The WORK must be completed within 62 working days after the commencement date stated in the Notice to Proceed, which is scheduled to be issued on June 7, 2024. Work must be completed and the Surge Tank placed back into service by August 23, 2024.

**OPENING OF BIDS:** The Bids will be publicly opened and read at 3:00 p.m. on May 28, 2024, at the above-mentioned location for receipt of Bids.

**OBTAINING CONTRACT DOCUMENTS:** The Contract Documents are entitled " Santa Ynez Pumping Plant Surge Tank Concrete Pedestal". The Contract Documents may be obtained at the office of the OWNER shown below:

Central Coast Water Authority  
255 Industrial Way  
Buellton, CA 93427-9565  
Telephone: (805) 688-2292  
Attn: John L. Brady, Deputy Director Operations and Engineering

**BID AND BID SECURITY:** The bid must be submitted on the forms provided and must be accompanied by a bid guarantee. The bid guarantee must be in the form of a certified check, cashier's check, or bid bond, which serves as a guarantee that the bidder will, if successful, promptly comply with the Instructions to Bidders and execute the Agreement and furnish bonds as required by the specifications. The bid guarantee shall not be less than ten percent (10%) of the total amount of the bid and shall be payable to the Central Coast Water Authority. Certified checks submitted by the recipient of the Notice of Award will be deposited when received and refunded upon receipt of a Performance Bond and Payment Bond. A bid will not be considered unless one of the allowed forms of Bidder's Security is enclosed with it.

**PRE-BID CONFERENCE.** Prospective Bidders are encouraged to attend an optional pre-bid conference and a pre-bid tour of the proposed work site which will be conducted by the OWNER AT 9:00 AM on Thursday May 16, 2024 at the WORK location, 2800 Mesa Verde Road, Santa Ynez CA 93460. Central Coast Water Authority staff will be present to conduct a tour of the site and facilities and answer questions.

**PROJECT ADMINISTRATION:** All communications relative to this Project prior to opening of Bids

shall be made in writing to the address, telephone, and facsimile number listed below. Facsimile is the preferred method of communication.

John Brady, Deputy Director  
Central Coast Water Authority  
255 Industrial Way  
Buellton, CA 93427  
Telephone: (805) 688-2292, extension 228  
Fax: (805) 686-4700  
Email: [jlb@CCWA.com](mailto:jlb@CCWA.com)

**INTERPRETATION OF CONTRACT DOCUMENTS:** No oral interpretations will be made to any Bidder as to the meaning of the Contract Documents. Requests for an interpretation shall be made in writing and delivered to [Name and Location for Requests] no later than five (5) days before the time for opening the Bids. Interpretations of the Contract Documents will be in the form of an addendum to the Contract Documents and, when issued, will be sent as promptly as practical to all parties to whom the Contract Documents have been issued. All such addenda shall become part of the Contract.

**BIDS TO REMAIN OPEN:** The Bidder shall guarantee the Total Bid Price for a period of sixty (60) calendar days from the date of bid opening.

**WITHDRAWAL OF BIDS:** The Bidder may withdraw its Bid at any time prior to the date and hour set for opening of proposals upon presentation of a written request to John L. Brady, Operations Manager/Engineer, Central Coast Water Authority, 255 Industrial Way, Buellton, CA 93427, signed by an authorized representative of the Bidder or by the person filing the Bid.

**CONTRACTOR'S LICENSE CLASSIFICATION:** In accordance with the provisions of California Public Contract Code Section 3300, the OWNER has determined that the Bidder shall possess a valid Class A, General Engineering Contractor license at the time of the bid opening and at all times during performance of the WORK. Failure to possess the specified license shall render the Bid as non-responsive and shall act as a bar to award of the Contract to any bidder not possessing such license at the time of the bid opening.

**CALIFORNIA PREVAILING WAGE RATE REQUIREMENTS:** The CONTRACTOR is required to pay prevailing wage rates pursuant to California Labor Code Section 1720 and following, Bidder shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations. Copies of such prevailing rates of per diem wages are on file at the CCWA office, which copies shall be made available to any interested party on request. The CONTRACTOR shall post a copy of the Director's determination of such prevailing wages at each job site.

The Bidder shall comply with all applicable provisions of section 16100 of Title 8 of the California Code of Regulations, which require CONTRACTOR to keep accurate records of the work performed as provided in Labor Code section 1812, to allow CCWA to inspect Bidder's payroll records pursuant to Labor Code section 1776 and section 16400(e) of Title 8 of the California Code of Regulations, and to comply with all other requirements imposed by law.

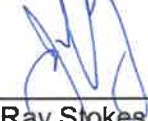
**DIR REGISTRATION:** This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Pursuant to Labor Code sections 1725.5 and 1771.1, Section 7029.1 of the Business and Professions Code, and Section 10164 and 20103.5 of the Public

Contract Code, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. No bid will be accepted nor any contract entered into without proof of the Bidder's and its subcontractors' current registration with the Department of Industrial Relations. Bidder shall certify that Bidder and all listed subcontractors are currently and validly registered with the Department of Industrial Relations and shall include its registration number on its bid. Each Bidder shall provide the registration number for each listed subcontractor in the space provided. If awarded a Contract, the Bidder and its subcontractors of every tier shall maintain active registration with the Department of Industrial Relations for the duration of the Project. It shall be the Bidder's sole responsibility to evaluate and include the cost of complying with all labor compliance requirements.

**SUBSTITUTION OF SECURITIES IN LIEU OF CONTRACT RETENSION:** In accordance with Section 22300 of the California Public Contract Code, the Successful Bidder will have the option of posting securities of equal or greater value in lieu of a cash retention.

The Central Coast Water Authority reserves the right to reject any and all Bids, to waive any informality in a bid and to make awards to the lowest responsive, responsible Bidder(s) as it may best serve its interest.

CENTRAL COAST WATER AUTHORITY

By:  For Ray Stokes \_\_\_\_\_ Date: 5/8/24 \_\_\_\_\_  
Ray Stokes  
Executive Director

## INSTRUCTIONS TO BIDDERS

1. DESCRIPTION OF WORK. The Central Coast Water Authority will receive sealed Bids for the " Santa Ynez Pumping Plant Surge Tank Concrete Pedestal" at the location and until the time stipulated in the Notice Inviting Bids. It is the Bidder's sole responsibility to deliver its Bid in proper time and at the proper place. If the Bid is not timely received, the Bid will be returned unopened to the Bidder. Bids will be publicly opened and read at the time and place stipulated in the Notice Inviting Bids. The WORK generally consists of demolishing and reconstructing the Surge Tank concrete pedestals at the Santa Ynez Pumping Plant. The WORK includes disassembly of the Surge Tank piping and safe storage, removal of the Surge Tanks and safe storage, demolition of the concrete pedestals, protection of in-place piping, construction of the concrete pedestals, paint and line the Surge Tank and associated piping, re-installation of Surge Tank and associated piping. All work will be required to be conducted between July 9, 2024 and August 23, 2024.
2. LICENSES. In accordance with the provisions of California Public Contract Code Section 3300, CCWA has determined that the Bidder shall possess a valid Class A, General Engineering Contractor license at the time of the bid opening and at all times during performance of the WORK. Failure to possess the specified license shall render the Bid as non-responsive and shall act as a bar to award of the Contract to any bidder not possessing such license at the time of the bid opening.
3. INTERPRETATIONS AND ADDENDA.
  - 3.1 All questions about the meaning or intent of the Contract Documents are to be directed to John L. Brady, Deputy Directors Operations and Engineering, 255 Industrial Way, Buellton, CA 92427 (phone 805-688-2292 extension 228, fax 805-680-4700). Additions, deletions, or revisions to the Contract Documents considered necessary by CCWA in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by CCWA as having received the Contract Documents. Questions received less than seven (7) days prior to the date of Bid Opening may not be answered. Only answers to such questions issued by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
  - 3.2 Addenda may also be issued to make other additions, deletions, or revisions to the Contract Documents. All addenda shall become part of the Contract Documents. In accordance with Public Contract Code §4014.5, if an addendum includes material change to the project and is issued less than 72 hours before the bid date, CCWA must extend the deadline for the submission of bids. CCWA reserves the right to determine in its sole discretion whether an addendum includes material changes to the project. It is the Bidder's responsibility to determine that they have received any and all Addenda prior to bidding. The bidder is advised to contact CCWA prior to the bid opening to confirm that all Addenda have been received
  - 3.3 The Bidders shall make no special interpretation or inference of intent from differing formats in the Technical Specifications.

#### 4. BIDDER'S EXAMINATION OF CONTRACT DOCUMENTS.

- 4.1 It is the responsibility of the Bidder, prior to submitting a bid and prior to entering into an agreement for the WORK:
- a. To examine thoroughly the Contract Documents and other related data identified in the Bidding Documents;
  - b. To become familiar with local conditions that may affect cost, progress, or performance of the WORK;
  - c. To consider federal, state, and local Laws and Regulations that may affect cost, progress, or performance of the WORK;
  - d. To study and carefully correlate the Bidder's observations with the Contract Documents; and
  - e. To notify CCWA of all conflicts, errors, ambiguities, or discrepancies in or between the Contract Documents and such other related data.
- 4.2 Information and data reflected in the Contract Documents with respect to Underground Utilities at or contiguous to the site are based upon information and data furnished to the OWNER by the owners of such Underground Utilities or others, and the OWNER does not assume responsibility for the accuracy or completeness of such information or data unless it is expressly provided otherwise in the Contract Documents. Before submitting a Bid, each Bidder will, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests, and studies and obtain any additional information and data which pertain to the physical conditions (surface, subsurface, and Underground Utilities) at or contiguous to the site or otherwise which may affect cost, progress, or performance of the WORK and which the Bidder deems necessary to determine its Bid for performing the WORK in accordance with the time, price, and other terms and conditions of the Contract Documents.

The submission of a Bid will constitute an incontrovertible representation by the Bidder that the Bidder has thoroughly examined and complied with the Contract Documents, including but not limited to the following:

- a. That the Bid is premised upon performing the WORK required by the Contract Documents without exception and such means, methods, techniques, sequences, or procedures as may be required by the Contract Documents;
- b. That Bidder has given CCWA written notice of all conflicts, errors, ambiguities, and discrepancies in the Contract Documents and the written resolution, if any, thereof by CCWA is acceptable to the Bidder; and
- c. That the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the WORK.
- d. That the Bid includes all applicable federal, state and local taxes.

- e. That Bidder, if awarded the contract, will make no claim against CCWA based on ignorance or misunderstanding of the Contract Documents and site conditions.
- 4.3 The failure or neglect of the Bidder to receive or examine any of the Contract Documents or to examine the site of the WORK shall in no way relieve the Bidder from any obligations required by the Contract Documents. No claims for additional compensation will be allowed which is based upon lack of knowledge of any Contract Document.
5. BID FORMS. The Bid shall be submitted on the Bid Forms bound herein; the pages may be removed from the bound volume for purposes of completing the Bid Forms provided all removed pages are returned to their respective locations within the bound volume upon submittal of a bid. All blank spaces on the Bid Forms shall be completed in ink. All names must be printed below the signatures. The Bid shall be submitted in a sealed envelope which shall be plainly marked in the upper left hand corner with the name and address of the Bidder and shall bear the words the "Santa Ynez Pumping Plant Surge Tank Concrete Pedestal" followed by "Central Coast Water Authority," the address where Bids are to be delivered or mailed to, and the date and hour of opening of Bids. The bidder's attention is called to the forms and documents listed below which must be executed in full as required. Signature by the Bidder indicates that the information provided by the Bidder is accurate and complete.

THE FOLLOWING ITEMS ARE TO BE EXECUTED AND SUBMITTED WITH THE BID (FAILURE TO DO SO MAY CAUSE THE BID TO BE REJECTED AS NONRESPONSIVE)

- a. Bid Form.
- b. Bid Certificate.
- c. Bid Sheet Schedule.
- d. List of Subcontractors.
- e. Bidder's General Information.
- f. Noncollusion Affidavit.
- g. Prevailing Wage Compliance Form.
- h. Bid Guarantee - A bid guarantee in the amount of ten percent (10%) of the bid amount must accompany the bid. The bid guarantee must be in the form of one of the following:
  - Cashier's check made payable to Central Coast Water Authority;
  - Certified check made payable to Central Coast Water Authority; or
  - Bid bond (form attached) executed by an admitted surety insurer authorized by the California State Department of Insurance to transact business in California, made payable to Central Coast Water Authority.

6. CERTIFICATES.

6.1 Bids by corporations must be executed in the corporate name by the president, a vice-president, or other corporate officer. Such Bid shall be accompanied by the enclosed Certificate of Authority to sign, attested by the secretary or assistant secretary, and with the corporate seal affixed. The corporate address and state of incorporation must appear below the signature.

6.2 Bids by partnerships must be executed in the partnership name and be signed by a managing partner. Such Bid shall be accompanied by the enclosed Certificate of Authority to sign, and his/her title must appear under the signature and the official address of the partnership must appear below the signature.

6.3 Bids by joint ventures must be executed in the joint venture name and be signed by a joint venture managing partner. Such Bid shall be accompanied by the enclosed Certificate of Authority to sign, and his/her title must appear under the signature and the official address of the joint venture must appear below the signature.

7. DISQUALIFICATION OF BIDDERS. More than one Bid from an individual, firm, partnership, corporation, or association under the same or different names will not be considered. If CCWA has reasonable grounds for believing that any Bidder is interested in more than one Bid for the WORK contemplated, all Bids in which such Bidder is interested will be rejected. If CCWA believes that collusion exists among the Bidders, all Bids will be rejected and collusion participants shall be restricted from submitting further bids. A party who has quoted prices to a Bidder is not disqualified from quoting prices to other Bidders, or from submitting a Bid directly for the WORK.

8. QUALIFICATION OF BIDDERS: Each Bidder shall be skilled and regularly engaged in the general class or type of work called for under the Contract Documents. A statement setting forth the Bidder's experience shall be submitted by each Bidder on the form provided herewith.

Each Bidder shall possess a valid Contractor's License issued by the Contractor's State License Board at the time its Bid is submitted, at time of award and until the Project is completed. The class of license shall be applicable to the work specified in the Notice Inviting Bids. Each Bidder shall also have no less than five (5) years' experience in the magnitude and character of the work bid, including successful completion of at least five (5) similar type projects.

It is the intention of CCWA to award the Contract to a responsive and responsible Bidder who furnishes satisfactory evidence that it has the requisite experience and ability, and that it has sufficient capital, facilities, and plant to enable prosecution of the work successfully and properly, and to complete it within the time named in the contract. To determine the degree of responsibility to be credited to the Bidder, CCWA will weight any evidence that the Bidder has performed satisfactorily other contracts of like nature, magnitude and comparable difficulty and comparable rates of progress.

In accordance with the provisions of the Labor Code, contractors or subcontractors may not perform work on a public works project who is ineligible to perform work on a public project pursuant to Section 1777.1 or 1777.7 of the Labor Code.



9. SUBMISSION OF BIDS. The Bid shall be delivered by the time and to the place stipulated in the Notice Inviting Bids. It is the Bidder's sole responsibility to see that its Bid is received at the proper time and place. If the Bid is not timely received, the Bid will be returned unopened to the Bidder.
10. BID SECURITY, BONDS, AND INSURANCE. Each Bid shall be accompanied by a certified or cashier's check or approved Bid Bond in the amount stated in the Notice Inviting Bids. Said check or bond shall be made payable to CCWA and shall be given as a guarantee that the Bidder, if awarded the WORK, will enter into an Agreement with CCWA, and will furnish the necessary insurance policies and endorsements and Performance and Payment Bonds in the amount stated in the General Conditions. In case of refusal or failure to enter into said Agreement, the check or Bid Bond, as the case may be forfeited to CCWA, at its option. If the Bidder elects to furnish a Bid Bond as its Bid security, the Bidder shall use the Bid Bond form bound herein. Bid bonds shall comply with the requirements contained in Article 3 of the General Conditions.
11. DISCREPANCIES IN BIDS. The Bidder shall furnish a price for all Bid items in the Schedule, and failure to do so will render the Bid non-responsive and may cause its rejection. In the event there are unit price Bid items in a Bidding schedule and the amount indicated for a unit price Bid item does not equal the product of the unit price and quantity, the unit price shall govern and the amount will be corrected accordingly, and the Bidder shall be bound by said correction. If the total indicated for the Schedule does not agree with the sum of the prices bid on the individual items, the prices Bid on the individual items shall govern and the total for the Schedule will be corrected accordingly, and the BIDDER shall be bound by said correction.
12. QUANTITIES APPROXIMATE. Any quantities shown in the Bid form or elsewhere herein shall be considered as approximations listed to serve as a general indication of the amount of WORK or materials to be performed or furnished, and as basis for the Bid comparison. CCWA does not guarantee that the actual amounts required will correspond with those shown. As deemed necessary or convenient, CCWA may increase or decrease the amount of any item or portion of Work or material to be performed or furnished or omit any such item or portion, in accordance with the Contract Documents.
  13. MODIFICATIONS AND UNAUTHORIZED ALTERNATIVE BIDS. Unauthorized conditions, limitations, or provisos attached to the Bid shall render it informal and may cause its rejection as being non-responsive. The Bid forms shall be completed without interlineations, alterations, or erasures in the printed text. Unless called for, Alternative Bids will not be considered. Oral, telegraphic, or telephonic Bids or modifications will not be considered.
14. WITHDRAWAL OF BID. The Bid may be withdrawn by the Bidder by means of a written request, signed by the Bidder or its properly authorized representative. Such written request must be delivered to the place stipulated in the Notice Inviting Bids for receipt of Bids prior to the scheduled closing time for receipt of Bids.
14. AWARD OF CONTRACT. Award of the contract, if awarded, will be made to the lowest responsive, responsible Bidder whose Bid complies with the requirements of the Contract Documents. Unless otherwise specified, any such award will be made within the period stated in the Notice Inviting Bids that the Bids are to remain open, unless extended by mutual agreement of the Bidders. Unless otherwise specified, any such award will be made within the period stated in the Notice Inviting Bids that the bids are to remain open.

15. **BID PROTESTS.** Any Bid protest must be submitted in writing to: John Brady, Deputy Director, Central Coast Water Authority, 255 Industrial Way, Buellton, California 93427 no later than seven (7) days after Bid opening. The Bid protest shall contain the name, address and telephone number of the protesting party along with a complete statement of the basis for the protest and shall refer to the specific portion of any document or documents that support the protest. The party filing the protest shall concurrently transmit a copy of the protest to all other parties with a direct financial interest that may be adversely affected by the outcome of the protest, including but not limited to, all other Bidders on the Project. CCWA staff will issue a written decision on the Bid protest within fifteen (15) days of Bid opening. If the protesting Bidder disagrees with CCWA staff's decision, it may request a hearing before the CCWA Board of Directors for a determination of the merits of the protest. The procedures and time limits set forth in this paragraph are mandatory and are the Bidder's sole and exclusive remedy in the event of a Bid protest. Failure to comply with these procedures shall constitute a waiver of any right to further pursue the bid protest, including filing a Government Code Claim or other legal proceedings.
16. **RETURN OF BID SECURITY.** Within fourteen (14) days after award of the contract, CCWA will, if requested, return the Bid securities accompanying such Bids that are not being considered in making the award. All other Bid securities will be held until the Agreement has been finally executed. They will then be returned, if requested, to the respective Bidders whose Bids they accompany.
17. **EXECUTION OF AGREEMENT.** The Bidder to whom award is made shall execute a written Agreement with CCWA on the form of agreement provided, shall secure all insurance, and shall furnish all certificates and bonds required by the Contract Documents within fourteen (14) calendar days after receipt of the Notice of Award from CCWA. The Bidder to whom the award is made shall execute a written Agreement with CCWA. Failure or refusal to enter into an Agreement as herein provided or to conform to any of the stipulated requirements in connection therewith shall be just cause for annulment of the award and forfeiture of the Bid security. If the lowest responsive, responsible Bidder refuses or fails to execute the Agreement, CCWA may award the Contract to the second lowest responsive, responsible Bidder. If the second lowest responsive, responsible Bidder refuses or fails to execute the Agreement, CCWA may award the contract to the third lowest responsive, responsible Bidder. On the failure or refusal of such second or third lowest Bidder to execute the Agreement, each such Bidder's Bid securities shall be likewise forfeited to CCWA.
18. **WORKERS' COMPENSATION REQUIREMENT.** The Bidder should be aware that in accordance with Section 3700 of the California Labor Code he shall, if awarded the Contract, be required to secure the payment of compensation to his employees and execute the Workers' Compensation Certification in the form contained in these Contract Documents.
19. **CALIFORNIA PREVAILING WAGE RATE REQUIREMENTS.** If CONTRACTOR is required to pay prevailing wage rates pursuant to California Labor Code Section 1720 and following, Bidder shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations. Copies of prevailing rates of per diem wages are on file at the office of CCWA, which copies shall be made available to any interested party on request. The CONTRACTOR shall post a copy of the Director's determination of such prevailing wages at each job site.

The Bidder shall comply with all applicable provisions of Section 16100 of Title 8 of the California Code of Regulations, which require CONTRACTOR to keep accurate records of the work performed as provided in Labor Code Section 1812, to allow CCWA to inspect Bidder's payroll records pursuant to Labor Code Section 1776 and Section 16400(e) of Title 8 of the California Code of Regulations, and to comply with all other requirements imposed by law.

20. SUBSTITUTE "OR EQUAL" ITEMS. Whenever materials or equipment are specified or described in the Contract Documents by using the name of a particular Supplier and the name is followed by the words "or equal", the Bidder may propose a substitute Supplier (which the Bidder considers as an "or equal"). These substitute Suppliers will only be considered after award of the Contract. The Bidder shall not be relieved of any obligation of the Contract Documents or be entitled to an adjustment in the Contract Price in the event any proposed substitute supplier is not subsequently approved.

THE FOLLOWING ITEMS ARE TO BE EXECUTED BY THE SUCCESSFUL BIDDER ONLY (BEFORE THE START OF WORK):

Within fourteen (14) calendar days of receipt of the Notice of Award, the CONTRACTOR shall complete and submit the following documents and requirements:

- a. Performance Bond
- b. Payment Bond.
- c. Insurance Endorsements, Certificates and Policies
- d. Worker's Compensation Certificate
- e. Agreement

After CCWA receives and determines that all of the submitted documents are acceptable, CCWA will provide the CONTRACTOR with a "Notice to Proceed."

**BID FORM**

BID TO: Central Coast Water Authority

- 1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with CCWA to perform the WORK as specified or indicated in the Contract Documents entitled the "Santa Ynez Pumping Plant Surge Tank Concrete Pedestal".

Bidder accepts all of the terms and conditions of the Contract Documents, including without limitation those in the Notice Inviting Bids and Instructions to Bidders, dealing with the disposition of the Bid Guarantee. The Bidder shall complete and submit the Bid, appropriate Bid Certificate, Bid Packages and Schedules, List of Subcontractors, Bidder's General Information, Non-collusion Affidavit and Bid Bond, all of which shall be part of this Bid.

This Bid will remain open for the period stated in the "Notice Inviting Bids" unless otherwise required by law. Bidder will enter into an Agreement within the time and in the manner required in the "Notice Inviting Bids" and the "Instructions to Bidders", and will furnish the insurance policies and endorsements, Performance Bond and Payment Bond required by the Contract Documents.

- 4. Bidder has examined copies of all the Contract Documents including the following addenda (receipt of all of which is hereby acknowledged):

Number(s) \_\_\_\_\_ Date(s) \_\_\_\_\_

Failure to acknowledge addenda shall render the bid non-responsive and shall be cause for its rejection.

- 5. Bidder has familiarized itself with the nature and extent of the Contract Documents, WORK, locality where the WORK is to be performed, the legal requirements (federal, state and local laws, ordinances, rules, and regulations), and the conditions affecting cost, progress or performance of the WORK and has made such independent investigations as Bidder deems necessary.
- 6. Bidder further agrees to complete the WORK required under the Contract Documents within the Contract Time stipulated in the Contract Documents, and to accept in full payment the Contract Price based on the Total Bid Price(s) named in the above described Bid Forms.
- 7. Bidder hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations, DIR Registration Number: \_\_\_\_\_.

The undersigned represents and warrants to CCWA that it is authorized to execute this Bid and obligate the Bidder to this Bid, that such authority was duly passed and adopted by such entity which is the official act and deed of the entity, and that the undersigned shall indemnify and defend CCWA if the undersigned is not authorized to act on behalf of the entity as indicated above.

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

By: \_\_\_\_\_ Title: \_\_\_\_\_  
(Signature)

**BID CERTIFICATE**

(if Corporation)

STATE OF )  
 ) ss:  
COUNTY OF )

I HEREBY CERTIFY that at a meeting of the Board of Directors of the \_\_\_\_\_

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

a corporation existing under the laws of the State of \_\_\_\_\_, held on \_\_\_\_\_, 20\_\_\_\_, the following resolution was duly passed and adopted:

"RESOLVED, that \_\_\_\_, as President of the Corporation, be and is hereby authorized to execute the Bid dated \_\_\_\_\_, 20\_\_, to the Central Coast Water Authority and this corporation and that his execution thereof, attested by the Secretary of the Corporation, and with the Corporate Seal affixed, shall be the official act and deed of this Corporation."

I further certify that said resolution is now in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the corporation this \_\_\_\_\_, day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
Secretary

(SEAL)





**BID SCHEDULE: Santa Ynez Pumping Plant Surge Tank Concrete Pedestal**

All bidders shall complete the attached Bid Schedule and include it with their bid.

Item No.	Description	Estimated Quantity/Unit	Unit Price	Amount
1.	Mobilization, bonds and insurance	Lump Sum	\$ _____	\$ _____
2.	Temporary removal of surge tank and appurtenances, demolition and disposal of pedestals and access stairs, reconstruction of pedestals and access stairs, reinstallation of surge tank and appurtenances to full functionality, as described in the drawings and specifications	Lump Sum	\$ _____	\$ _____
3.	Demobilization	Lump Sum	\$ _____	\$ _____
Total Bid Price in Figures				\$ _____

TOTAL BID PRICE: \_\_\_\_\_  
(Price in Words)

In case of discrepancy between words and figures of the total amount, the words shall prevail.

Bid amount of each of the above bid items must be filled in and completed in figures and written in words.

The above amount is for the completed Work and includes any and all sales taxes and levies, which may be applicable.

The undersigned has examined the location of the proposed Work and is familiar with the Specifications and the local conditions at the place where the Work is to be done. The undersigned has checked the above amount and understands that the District will not be responsible for any errors or omissions on the part of the undersigned in making up this proposal.

Respectfully submitted,

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

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Company

\_\_\_\_\_



Business Address

Phone No.

---

License Number

---

Expiration Date

**LIST OF SUBCONTRACTORS FOR THE  
“Santa Ynez Pumping Plant Surge Tank Concrete Pedestal”**

Section 4101 of the Public Contract Code requires the Bidder to list below the name and the location of the place of business of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent (.5%) of the prime contractor’s total bid. The Bidder shall also list below the portion of the WORK which will be done by each subcontractor under this Contract. The Bidder shall list only one subcontractor for each portion as is defined by the Bidder in its Bid. Failure to comply with this requirement will render the Bid non-responsive and may cause its rejection.

Work to be Performed	Subcontractor License Number	Subcontractor’s DIR Registration #	Percent of Total Bid	Subcontractor’s Name & Address

Note: Attach additional sheets if required.



- Date of completion of contract.
- Name, address, and telephone number of architect or engineer.
- Name of owner's project engineer.

To be considered for award, the CONTRACTOR shall have completed at least three projects of similar type and complexity and comparable value.

8. List of References. The following information should contain persons or entities familiar with the Bidder's Work. All five (5) references shall be provided and all information listed must be completed and include the name of agency, agency address and telephone number, name of contact person, type of construction project and Contract Amount.
- 9 The Bidder represents that it has personally examined the site, carefully read the Contract Documents and satisfied itself as to its ability to perform the work for the project, including all attending difficulties.
10. The Bidder acknowledges by affixing its signature hereto, that it is aware of any and all representations made herein, which are made under the penalty of perjury.

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

Bidder: \_\_\_\_\_

By: \_\_\_\_\_  
(Signature)

Name and Title  
\_\_\_\_\_



**PREVAILING WAGE COMPLIANCE FORM**

Instructions: Sign and return original. Upon acceptance by the Central Coast Water Authority, a copy will be signed by its authorized representative and promptly returned to you. Insert below, the names of your authorized representative(s).

I have read the General Conditions regarding Prevailing Wage Rates and agree to comply with all the provisions therein that apply to this contract.

Accepted: Central Coast Water Authority Contractor

By \_\_\_\_\_  
Title \_\_\_\_\_  
Date \_\_\_\_\_

By \_\_\_\_\_  
Title \_\_\_\_\_  
Date \_\_\_\_\_

Other authorized representative(s):  
\_\_\_\_\_

Other authorized representative(s):  
\_\_\_\_\_

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS,

That \_\_\_\_\_ as Principal, and  
\_\_\_\_\_ as Surety, are  
held and firmly bound unto the Central Coast Water Authority hereinafter called "CCWA," in the sum  
of \_\_\_\_\_  
\_\_\_\_\_ dollars,  
(not less than ten percent (10%) of the total amount of the Bid)

for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors,  
administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Principal has submitted a Bid to said CCWA to perform the WORK required under  
the bidding schedule of CCWA's Contract Documents entitled "Santa Ynez Pumping Plant Surge  
Tank Concrete Pedestal."

NOW THEREFORE, if said Principal is awarded a contract by CCWA and, within the time and in the  
manner required in the "Notice Inviting Bids" and the "Instructions to Bidders" enters into a written  
Agreement on the form of agreement bound with said Contract Documents, furnishes the required  
certificates of insurance, and furnishes the required Performance and Payment Bonds, then this  
obligation shall be null and void, otherwise it shall remain in full force and effect. The Surety stipulates  
and agrees that the obligations of said Surety shall in no way be impaired or affected by an extension  
of the time within which CCWA may accept such Bid and Surety further waives notice of any such  
extension. In the event suit is brought upon this bond by CCWA and CCWA prevails, said Principal  
and Surety shall pay all costs incurred by CCWA in such suit, including a reasonable attorney's fees  
and costs to be fixed by the court.

SIGNED AND SEALED, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
(Principal) (Surety)  
(SEAL) (SEAL)

By: \_\_\_\_\_ By: \_\_\_\_\_  
(Signature) (Signature)

(SEAL AND NOTARY ACKNOWLEDGEMENT OF SURETY)

## AGREEMENT

THIS AGREEMENT is dated as of the \_\_\_\_ day of \_\_\_\_\_ in the year 20\_\_ by and between the Central Coast Water Authority (OWNER) and \_\_\_\_\_ (CONTRACTOR).

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

### ARTICLE 1. GENERAL

CONTRACTOR shall complete in a workmanlike manner, all Work specified or indicated under the Contract Documents entitled "Santa Ynez Pumping Plant Surge Tank Concrete Pedestal" and in accordance with the Contract Documents, and furnish at CONTRACTOR's own expense, all labor, materials, equipment, tools, transportation, and services necessary for completing the Work, except for materials, equipment, and services to be furnished by OWNER and to do everything required by the Contract Documents for the sum of \$\_\_\_\_\_.

The Work is generally described as follows:

### ARTICLE 2. CONTRACT TIMES

The Work shall be completed within the number of calendar days as cited in the Notice Inviting Bidders from the commencement date stated in the Notice to Proceed.

### ARTICLE 3. CONSIDERATION

Contractor agrees to perform the Work according to the terms of this Agreement for the above-mentioned price and OWNER agrees to pay CONTRACTOR at the time, in the manner, and upon the conditions stipulated in the Contract Documents. OWNER and CONTRACTOR, for themselves, their heirs, executors, administrators, successors and assigns, agree to the full performance of the covenants contained in this Agreement and the Contract Documents.

### ARTICLE 4. LIQUIDATED DAMAGES

OWNER and the CONTRACTOR recognize that time is of the essence of this Agreement and that the OWNER will suffer financial loss if the Work is not completed within the time specified in Article 2, plus any extensions thereof allowed in accordance with the terms of the Contract Documents. The parties also recognize that the amount of OWNER's actual damages in the event of such delays are impractical and infeasible to determine at this time. Accordingly, the OWNER and the CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), the CONTRACTOR shall pay the OWNER \$1,000 for each day that expires after the time specified in Article 2, plus any extensions, until actual completion of the Work. The payment of liquidated damages pursuant to this Article is for the limited purpose of compensating OWNER for the costs and expenses associated with the delay in receiving the benefits and use of the Work and not for other damages that may be incurred by the OWNER. The CONTRACTOR's responsibility for or payment of liquidated damages shall not in any way preclude the OWNER from pursuing any of its other remedies under the Contract Documents or Laws for the CONTRACTOR's failure to complete the Work in a timely manner or otherwise satisfy its obligations as required by the Contract Documents.



## ARTICLE 5. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR concerning the Work consist of this Agreement and the following, which are incorporated into this Agreement by this reference: Notice Inviting Bids, Instructions to Bidders, Bid Forms, Bid Bond, Notice of Award and Acceptance of Notice, Performance Bond, Payment Bond, Worker's Compensation Certificate, Insurance Certificates and Endorsements, General Conditions, Technical Specifications, Drawings, Addenda, Notice to Proceed, Change Orders, and all other documents issued by the OWNER with respect to the Work. There are no Contract Documents other than those listed in this Article 5. The Contract Documents may only be amended by Change Order as provided in the General Conditions.

## ARTICLE 6. ASSIGNMENT

No assignment by a party to this Agreement of any rights under or interests in the Contract Documents will be binding on another party without the written consent of the party sought to be bound; and specifically but without limitation monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

OWNER and CONTRACTOR each binds itself, its successors, assigns and legal representatives to the other party, its successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have caused this Agreement to be executed the day and year first above written.

OWNER \_\_\_\_\_

CONTRACTOR \_\_\_\_\_

By \_\_\_\_\_

By \_\_\_\_\_

CORPORATE SEAL

Attest \_\_\_\_\_

Attest \_\_\_\_\_

Address for giving notices

Address for giving notices

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Approved as to Form:

License No. \_\_\_\_\_

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

Agent for service of process:

\_\_\_\_\_  
(Title)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**AGREEMENT CERTIFICATE**

(if Corporation)

STATE OF )  
 ) SS:  
COUNTY OF )

I CERTIFY that at a meeting of the Board of Directors of \_\_\_\_\_, a corporation existing under the laws of the State of \_\_\_\_\_, held on \_\_\_\_\_, 20\_\_\_\_, the following resolution was duly passed and adopted:

"RESOLVED, that \_\_\_\_\_, as \_\_\_\_\_ President of the Corporation, be and is authorized to execute the Agreement dated \_\_\_\_\_, 20\_\_\_\_, between the Central Coast Water Authority and this corporation and that his execution, attested by the Secretary of the Corporation, and with the Corporate Seal affixed, shall be the official act and deed of this Corporation."

I further certify that said resolution is now in full force and effect.

IN WITNESS WHEREOF, I have set my hand and affixed the official seal of the corporation this \_\_\_\_\_, day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_

Secretary

(SEAL)





## PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS,

That \_\_\_\_\_ as CONTRACTOR, and \_\_\_\_\_ as Surety, a surety corporation, organized and existing under and by virtue of laws of the State of \_\_\_\_\_, and duly authorized to transact business within the State of California are held and firmly bound unto the Central Coast Water Authority hereinafter called "OWNER," in the sum of \_\_\_\_\_ dollars, lawful money of the United States of America, for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, OWNER has awarded to CONTRACTOR a contract (Contract), the terms and provisions of which Contract are incorporated by reference and made part of this bond, for constructing the Work as specified or indicated in the Contract Documents entitled "SANTA YNEZ PUMPING PLANT SURGE TANK CONCRETE PEDESTAL."

WHEREAS, CONTRACTOR has entered into, or is about to enter into, the Contract with OWNER and is required to furnish a bond for the faithful performance of the Contract.

NOW THEREFORE, the condition of this obligation is such that if CONTRACTOR, his or its heirs, executors, administrators, successors, or assigns, shall abide by, keep, and perform all the covenants, conditions, requirements, obligations, and provisions of the Contract, any alterations made to the Contract, or any regulations pertaining to the Contract, to be performed on its or his part, at the times and in the manner specified therein, and shall indemnify, defend and hold harmless OWNER, its officers, agents, and employees as provided in the Contract, then this obligation shall be null and void, otherwise it shall remain in full force and effect.

The Surety stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract or the Work shall in any way release Surety or affect its obligations on this bond and Surety further waives notice of any such change, extension of time, alteration, or addition to the Contract as required by California Civil Code Section 2819, or otherwise.

As part of the obligations secured by this bond, in addition to the above face amount, there shall be included all costs and expenses incurred by OWNER, including actual attorneys' fees and costs, in successively enforcing such obligations, all to be taxed as costs and included in any judgment.

Whenever CONTRACTOR shall be, and declared by OWNER in default under the Contract, Surety, upon written notification from OWNER, shall promptly remedy the default or promptly pay the amount of this bond to OWNER.

SIGNED AND SEALED, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

(SEAL)

(SEAL)

\_\_\_\_\_  
(CONTRACTOR)

\_\_\_\_\_  
(Surety)

By: \_\_\_\_\_  
(Signature)

By: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Type Name and Title)

\_\_\_\_\_  
(Type Name and Title)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(City/State/Zip Code/Telephone)

\_\_\_\_\_  
(City/State/Zip Code/Telephone)

(SEAL AND NOTARIAL ACKNOWLEDGMENT OF SURETY)

## PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS,

That \_\_\_\_\_ as CONTRACTOR, and \_\_\_\_\_ as Surety, a surety corporation, organized and existing under and by virtue of laws of the State of \_\_\_\_\_, and duly authorized to transact business within the State of California are held and firmly bound unto the Central Coast Water Authority hereinafter called "OWNER," in the sum of \_\_\_\_\_ dollars, lawful money of the United States of America, for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, OWNER has awarded to CONTRACTOR a contract (Contract), the terms and provisions of which Contract are incorporated by reference and made part of this bond, for constructing the Work as specified or indicated in the Contract Documents entitled "SANTA YNEZ PUMPING PLANT SURGE TANK CONCRETE PEDESTAL"

WHEREAS CONTRACTOR has entered into, or is about to enter into, the Contract with OWNER and is required to furnish a bond for the payment of materials, labor, and services of the Contract as more fully described in this bond.

NOW, THEREFORE, if said CONTRACTOR, its subcontractors, its heirs, executors, administrators, successors, or assigns, shall fail to pay for any materials, provisions, provender, equipment or other supplies 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 labor, all as required by the provisions of Title 15, Chapter 7, Sections 3247-3252 inclusive, of the Civil Code of the State of California and acts amendatory thereof, and sections of other codes of the State of California referred to therein and acts amendatory thereof, and provided that the persons, companies, or corporations so furnishing said materials, provisions, provender, equipment, or other supplies, appliances, or power used in, upon, for, or about performance of the Work contracted to be executed or performed, or any person, company, or corporation renting or hiring implements or machinery or power for or contributing to said Work to be done, or any person who performs Work or labor upon the same, or any person who supplies both Work and materials therefore, shall have complied with the provisions of said laws, then said Surety will pay the same in an amount not exceeding the sum set forth above and also will pay, in case suit is brought upon this bond, reasonable attorney's fees and costs incurred in successfully enforcing this bond, as fixed by the Court.

This bond shall inure to the benefit of any and all persons named in Section 3181 of the Civil Code of the State of California so as to give a right of action to them or their assigns in any suit brought upon this bond.

The Surety stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract or the Work shall in any way release Surety or affect its obligations on this bond and Surety further waives notice of any such change, extension of time, alteration, or addition to the Contract as required by California Civil Code Section 2819, or otherwise.



SIGNED AND SEALED, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_

(SEAL)

(SEAL)

(CONTRACTOR)

(Surety)

By: \_\_\_\_\_  
(Signature)

By: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Type Name and Title)

\_\_\_\_\_  
(Type Name and Title)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(City/State/Zip Code)

(City/State/Zip Code)

\_\_\_\_\_

\_\_\_\_\_  
(Telephone)

\_\_\_\_\_  
(Telephone)

(SEAL AND NOTARIAL ACKNOWLEDGMENT OF SURETY)

**WORKER'S COMPENSATION CERTIFICATE**

(AS REQUIRED BY SECTION 1861  
OF THE CALIFORNIA LABOR CODE)

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.

Contractor: \_\_\_\_\_

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

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

**NOTICE OF AWARD**

To: [Name and Address of Bidder]

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

Project Description  
CENTRAL COAST WATER AUTHORITY

“Santa Ynez Pumping Plant Surge Tank Concrete Pedestal”

The OWNER has considered the Bid submitted by you for the above-described Work in response to its Notice Inviting Bids dated May 6, 2024 .

You are hereby notified that your Bid has been accepted in the amount of \$ [\_\_\_\_\_].

You are required by the Notice Inviting Bids to execute the Agreement and furnish the required Performance Bond, Payment Bond and Certificates of Insurance and Insurance Endorsements within fourteen (14) calendar days from the date of this Notice of Award.

If you fail to execute the Agreement and to furnish the Bonds and insurance submittals within fourteen (14) calendar days from the date of this Notice, OWNER will be entitled to consider all your rights arising out of the OWNER’s acceptance of your Bid as abandoned and as a forfeiture of your Bid Bond. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the OWNER.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_

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

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Title)

**ACKNOWLEDGMENT OF NOTICE OF AWARD**

Receipt of the above Notice of Award is acknowledged by

---

---

---

This is the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_

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

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Title)

**COMMERCIAL GENERAL  
LIABILITY ENDORSEMENT**

**A. POLICY INFORMATION**

1. Insurer: \_\_\_\_\_
2. Policy Number: \_\_\_\_\_
3. Effective Date: \_\_\_\_\_
4. Endorsement Number: \_\_\_\_\_

**B. POLICY ENDORSEMENTS**

This endorsement modifies the above policy. Notwithstanding any inconsistent statement or provision in the policy, it is agreed that:

1. Scope of Coverage. This insurance includes coverage for bodily injury (including death), personal injury, property damage, owned and non-owned equipment, blanket contractual liability, completed operations, explosion, collapse, underground excavation and removal of lateral support, which coverage is at least as broad as Insurance Services Office (ISO) occurrence form CG 0001. The policy shall not contain any exclusions or restrictions with respect to claims arising out of XCU hazards (explosion, collapse, underground damage).
2. Additional Insureds. Central Coast Water Authority, any independent engineer and consultant, and each of their officers, elected officials, and employees (including without limitation permanent, temporary and contract employees) shall each be additional insureds in regard to liability arising out of the conduct of the named insured.
3. Waiver of Subrogation. The insurer waives any and all transfer rights of recovery (subrogation) it may have against the Additional Insureds described above or any other additional insureds.
4. Primary. This insurance shall be primary as respects the Additional Insureds shown in the schedule above and any other insurance, self-insurance or other coverage maintained by the Additional Insureds scheduled above shall be in excess of this insurance and shall not be called upon to contribute in the event of a loss.
5. Compliance. Any failure to comply with reporting or other provisions of this insurance including but not limited to any breaches of warranties shall not affect coverages provided to the Additional Insureds.
6. Separation of Insureds. This insurance includes separation of insureds and shall apply as if each named insured were the only named insured and separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the Insurer's liability.
7. Notice. The insurer shall give the Central Coast Water Authority at least thirty (30) calendar days' written notice of cancellation prior to cancellation or reduction of coverage or limits in the policy, except that if cancellation is for

nonpayment of premiums, written notice shall be given to Central Coast Water Authority at least ten (10) calendar days prior to cancellation.

8. Contractual Liability. This insurance, subject to all other terms and conditions, applies to the liability assumed by the Contractor under the terms of the Contract.

C. SIGNATURE OF INSURER OR AUTHORIZED REPRESENTATIVE OF THE INSURER

I, \_\_\_\_\_ (print/type name), represent and warrant that I have authority to bind the above listed insurance company and, by my signature below, bind this company.

\_\_\_\_\_  
Signature of Authorized Representative  
(Original signature required on endorsement furnished to the Authority)

Organization: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_

**AUTOMOBILE LIABILITY  
INSURANCE ENDORSEMENT**

A. POLICY INFORMATION

1. Insurer: \_\_\_\_\_
2. Policy Number: \_\_\_\_\_
3. Effective Date: \_\_\_\_\_
4. Endorsement Number: \_\_\_\_\_

B. POLICY ENDORSEMENTS

This endorsement modifies the above policy. Notwithstanding any inconsistent provision or statement in the policy, it is agreed that:

1. Additional Insureds. Central Coast Water Authority, any independent engineer and consultant, and each of their officers, elected officials, and employees (including without limitation permanent, temporary and contract employees) shall each be additional insureds in regard to liability arising out of the conduct of the named insured.
2. Waiver of Subrogation. The insurer waives any and all transfer rights of recovery (subrogation) it may have against the Additional Insureds described above or any other additional insureds.
3. Primary. This insurance shall be primary as respects the Additional Insureds shown in the schedule above and any other insurance, self-insurance or other coverage maintained by the Additional Insureds scheduled above shall be in excess of this insurance and shall not be called upon to contribute in the event of a loss.
4. Compliance. Any failure to comply with reporting or other provisions of this insurance including but not limited to any breaches of warranties shall not affect coverages provided to the Additional Insureds.
5. Separation of Insureds. This insurance includes separation of insureds and shall apply as if each named insured were the only named insured and separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the Insurer's liability.
6. Notice of Cancellation. We will give the Central Coast Water Authority at least thirty (30) calendar days' written notice of cancellation prior to cancellation or reduction of coverage or limits in the policy, except that if cancellation is for non-payment of premiums, written notice shall be given to Central Coast Water Authority at least ten (10) calendar days prior to cancellation.

C. SIGNATURE OF INSURER OR AUTHORIZED REPRESENTATIVE OF THE INSURER

I, \_\_\_\_\_ (print/type name), represent and warrant that I have authority to bind the above listed insurance company and, by my signature below, bind this company.

\_\_\_\_\_  
Signature of Authorized Representative  
(Original Signature required on endorsement furnished to the Authority)

Organization: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_



**UMBRELLA LIABILITY  
INSURANCE ENDORSEMENT**

A. POLICY INFORMATION

1. Insurer: \_\_\_\_\_
2. Policy Number: \_\_\_\_\_
3. Effective Date: \_\_\_\_\_
4. Endorsement Number: \_\_\_\_\_

B. POLICY ENDORSEMENTS

This endorsement modifies the above policy. Notwithstanding any inconsistent provision or statement in the policy, it is agreed that:

1. Additional Insured. The Central Coast Water Authority, any independent engineer and consultant, and each of their officers, elected officials, and employees (including, without limitation, permanent, temporary and contract employees) shall be Additional Insureds only with respect to liability arising out of:
  - a. The named insured's Work by or for the Additional Insureds; or
  - b. Automobiles owned, hired or used by or for the named insured in the course of Work performed for the insureds.
2. Waiver of Subrogation. The insurer waives any and all transfer rights of recovery (subrogation) it may have against the Additional Insureds described above or any other additional insureds.
3. Primary. This insurance shall be primary as respects the Additional Insureds shown in the schedule above and any other insurance, self-insurance or other coverage maintained by the Additional Insureds scheduled above shall be in excess of this insurance and shall not be called upon to contribute in the event of a loss.
4. Excess Insurance. Any insurance maintained by the Additional Insureds, whether primary, excess or otherwise, shall be in excess of the insurance provided by this policy.
5. Compliance. Any failure to comply with reporting or other provisions of this insurance including but not limited to any breaches of warranties shall not affect coverages provided to the Additional Insureds.
6. Separation of Insureds. This insurance includes separation of insureds and shall apply as if each named insured were the only named insured and separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the Insurer's liability.
7. Notice of Cancellation. The insurer shall give the Central Coast Water Authority at least thirty (30) calendar days' written notice of cancellation prior to cancellation or

reduction of coverage or limits in the policy, except that if cancellation is for nonpayment of premiums, written notice shall be given to Central Coast Water Authority at least ten (10) calendar days prior to cancellation.

- 8. Contractual Liability. This insurance, subject to all other terms and conditions, applies to the liability assumed by the Contractor under the terms of the Contract.
  
- 9. Following Form Coverage. The insurance provided by the policy is following form coverage at least as broad as the coverage provided by the primary (underlying) insurance policy(ies) including any endorsements applicable to such policy(ies).

C. SIGNATURE OF INSURER OR AUTHORIZED REPRESENTATIVE OF THE INSURER

I, \_\_\_\_\_ (print/type name), represent and warrant that I have authority to bind the above listed insurance company and, by my signature below, bind this company.

\_\_\_\_\_  
Signature of Authorized Representative  
(Original signature required on endorsement furnished to the Authority)

Organization: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_

**BUILDERS RISK  
INSURANCE ENDORSEMENT**

A. POLICY INFORMATION

1. Insurer: \_\_\_\_\_
2. Policy Number: \_\_\_\_\_
3. Effective Date: \_\_\_\_\_
4. Endorsement Number: \_\_\_\_\_

B. POLICY ENDORSEMENTS

This endorsement modifies the above policy. Notwithstanding any inconsistent provision or statement in the policy, it is agreed that:

1. Scope of Coverage. This insurance shall apply and provide coverage to completed operations and ongoing operations in an amount no less than the contract amount. The coverage provided by this insurance includes, but is not limited to, protection against perils of fire and extended coverage, theft, vandalism and malicious mischief and collapse.
2. Named Insured and Loss Payee. Coverage is amended to include the Central Coast Water Authority as a named insured and as the sole loss payee.
3. Primary. This insurance shall be primary as respects the interest of the sole loss payee and any insurance maintained by the sole loss payee, whether primary, excess or otherwise, shall not be called upon to contribute to a loss.
4. Waiver of Subrogation. The insurer waives any and all transfer rights of recovery (subrogation) it may have against the sole loss payee described above or any other named insureds.
5. Notice of Cancellation. The insurer shall give the Central Coast Water Authority at least thirty (30) calendar days' written notice of cancellation prior to cancellation or reduction of coverage or limits in the policy, except that if cancellation is for nonpayment of premiums, written notice shall be given to Central Coast Water Authority at least ten (10) calendar days prior to cancellation.

C. SIGNATURE OF INSURER OR AUTHORIZED REPRESENTATIVE OF THE INSURER

I, \_\_\_\_\_ (print/type name), represent and warrant that I have authority to bind the above listed insurance company and, by my signature below, bind this company.

\_\_\_\_\_  
Signature of Authorized Representative  
(Original signature required on endorsement furnished to the Authority)

Organization: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_

**WORKER'S COMPENSATION  
AND EMPLOYER'S LIABILITY  
INSURANCE ENDORSEMENT**

A. POLICY INFORMATION

1. Insurer: \_\_\_\_\_
2. Policy Number: \_\_\_\_\_
3. Effective Date: \_\_\_\_\_
4. Endorsement Number: \_\_\_\_\_

B. POLICY ENDORSEMENTS

This endorsement modifies the above policy, notwithstanding any inconsistent provision or statement in the policy, and it is agreed that:

1. Waiver of Subrogation. The insurer waives any and all transfer rights of recovery (subrogation) it may have against the Additional Insured Employer for claims and/or losses arising out of the performance of any Work for the Additional Insured Employer.
2. Notice of Cancellation. The insurer shall give the Central Coast Water Authority at least Thirty (30) calendar days' written notice of cancellation prior to cancellation or reduction of coverage or limits in the policy, except that if cancellation is for non-payment of premiums, written notice shall be given to Central Coast Water Authority at least ten (10) calendar days prior to cancellation.

C. SIGNATURE OF INSURER OR AUTHORIZED REPRESENTATIVE OF THE INSURER

I, \_\_\_\_\_ (print/type name), represent and warrant that I have authority to bind the above listed insurance company and, by my signature below, bind this company.

\_\_\_\_\_  
Signature of Authorized Representative  
(Original signature required on endorsement furnished to the Authority)

Organization: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_

**ESCROW AGREEMENT FOR SECURITY DEPOSITS  
IN LIEU OF RETENTION**

This Escrow Agreement is made and entered into by and between \_\_\_\_\_,  
whose address is \_\_\_\_\_,  
hereinafter called "OWNER", \_\_\_\_\_,  
whose address is \_\_\_\_\_,  
hereinafter called "Contractor", and \_\_\_\_\_,  
whose address is \_\_\_\_\_,  
hereinafter called "Escrow Agent".

For the consideration hereinafter set forth, the OWNER, Contractor, and Escrow Agent agree as follows:

(1) Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with the Escrow Agent as a substitute for retention earnings required to be withheld by OWNER pursuant to the Construction Contract entered into between the OWNER and Contractor for \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ dated \_\_\_\_\_ (hereafter referred to as the "Contract"). Alternatively, on written request of the Contractor, the OWNER shall make payments of the retention earnings directly to the escrow agent. When the Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the OWNER within ten (10) days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the OWNER and Contractor. Securities shall be held in the name of the \_\_\_\_\_ and shall designate the Contractor as the beneficial OWNER.

(2) The OWNER shall make progress payments to the Contractor for such funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.

(3) When the OWNER makes payment of retentions earned directly to the Escrow Agent, the Escrow Agent shall hold them for the benefit of the Contractor until the time that the escrow created under this contract is terminated. The Contractor may direct the investment of the payments into securities. All terms and conditions of this agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the OWNER pays the Escrow Agent directly.

(4) Contractor shall be responsible for paying all fees for the expenses incurred by the Escrow Agent in administering the Escrow Account and all expenses of the OWNER. These expenses and payment terms shall be determined by the OWNER, Contractor, and Escrow Agent.

(5) The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the OWNER.

(6) Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from the OWNER to the Escrow Agent that the OWNER consents to the withdrawal of the amount sought to be withdrawn by Contractor.

(7) The OWNER shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven days written notice to the Escrow Agent from the OWNER of the default, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the OWNER.

(8) Upon receipt of written notification from the OWNER certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.

(9) Escrow Agent shall rely on the written notifications from the OWNER and the Contractor pursuant to Sections (5) to (8), inclusive, of this agreement and the OWNER and Contractor shall hold the Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.

(10) The names of the persons who are authorized to give written notice or to receive written notice on behalf of the OWNER and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

At the time the Escrow Account is opened, the OWNER and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date first set forth above.

On behalf of OWNER:

On behalf of Contractor:

\_\_\_\_\_

Title

\_\_\_\_\_

Title

\_\_\_\_\_

Name

\_\_\_\_\_

Name

\_\_\_\_\_

Address

\_\_\_\_\_

Address

\_\_\_\_\_

Signature

\_\_\_\_\_

Signature

On behalf of Escrow Agent:

\_\_\_\_\_

Title

\_\_\_\_\_

Name

\_\_\_\_\_

Address

Signature \_\_\_\_\_

**CLOSEOUT AGREEMENT AND RELEASE OF CLAIMS**

THIS AGREEMENT AND RELEASE OF CLAIMS (Agreement) is made in Buellton, California, this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, by and between Central Coast Water Authority, (OWNER), and \_\_\_\_\_ (CONTRACTOR).

KNOW ALL PERSONS BY THESE PRESENTS:

1. That the undersigned, as the authorized representative of CONTRACTOR, and for each of its successors, assigns and partners, for and in consideration of \_\_\_\_\_ (\$ \_\_\_\_\_), for the original Contract amount, and the sum of \_\_\_\_\_ (\$ \_\_\_\_\_) for Contract Change Orders Nos.(1) through \_\_\_\_\_ (\_\_\_\_), receipt of which is acknowledged, does release and forever discharge OWNER, and each of its successors, assigns, directors, officers, agents, servants, volunteers and employees, from any and all rights, claims, causes of action, demands, debts, obligations, liabilities, actions, damages, costs and expenses (including but not limited to attorneys', paralegal and experts' fees, costs and expenses) and other claims, which may be asserted against OWNER by reason of any matter or thing which was the subject matter of or basis for:
  - A. The performance of all terms and conditions of that certain agreement dated \_\_\_\_\_, for OWNER project described "SANTA YNEZ PUMPING PLANT SURGE TANK CONCRETE PEDESTAL".
  - B. Change Orders Nos. one (1) through \_\_\_\_\_ (\_\_\_\_), as approved by the parties, pertaining to Purchase Order No. \_\_\_\_\_ and shown in Payment Request No. \_\_\_\_\_ (\_\_\_\_), dated \_\_\_\_\_.
2. Nothing contained in this Agreement shall waive or alter the rights, privileges, and powers of OWNER or the duties, liabilities and obligations of CONTRACTOR and its surety(ies) in respect to any portion of the Contract.
3. OWNER has received the following claims from CONTRACTOR:  
\_\_\_\_\_  
Except as expressly provided in this section, OWNER has received no other claims from CONTRACTOR.
4. Upon execution of this Agreement, OWNER agrees to promptly record a Notice of Completion with the Santa Barbara County Recorder.
5. CONTRACTOR and OWNER agree that the total adjusted Contract Price and time of performance after the execution of change orders, is as follows:

Original Contract Price	\$ _____
Original Calendar Days	_____ days
Adjusted Contract Price	\$ _____
Adjusted Calendar Days	_____ days



6.	The current amount owing to CONTRACTOR is:	\$ _____
	Adjusted Contract Price:	\$ _____
	Less: Amount Previously Paid (Request Nos. 1 through ____)	\$ (_____)
	Retention	\$ (_____)
	BALANCE:	\$ _____

The retention will be released to CONTRACTOR at the expiration of thirty-five (35) calendar days after date of recording a Notice of Completion with the Santa Barbara County Recorder or when all stop notices have been released, whichever last occurs. The release provided pursuant to this Agreement shall not apply to CONTRACTOR'S right to the retention amount until and to the extent such amounts are received by CONTRACTOR.

7. It is understood and agreed by CONTRACTOR that the facts with respect to which the release provided pursuant to this Agreement is given may turn out to be other than or different from the facts as now known or believed to be, and CONTRACTOR expressly assumes the risk of the facts turning out to be different than they now appear, and agrees that the release provided pursuant to this Agreement shall be, in all respects, effective and not subject to termination or rescission by any such difference in facts and CONTRACTOR expressly waives any and all rights it has or may have under California Civil Code Section 1542, which provides as follows:

"A general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the Release which if known by him must have materially affected his settlement with the debtor."

8. The release made by CONTRACTOR is not to be construed as an admission or admissions of liability and CONTRACTOR denies any such liability. CONTRACTOR agrees that it will forever refrain and forbear from commencing, instituting or prosecuting any lawsuit, action or other proceeding against OWNER based on, arising out of, or in any way connected with the subject matter of this release.

9. Except as specifically provided in this Agreement, the CONTRACTOR releases OWNER from all claims, including but not limited to those of its Subcontractors for all delay and impact costs, if any.

10. The CONTRACTOR represents and warrants to OWNER that CONTRACTOR has not assigned or transferred or purported to assign or transfer to any person, firm, corporation, association or entity any of the rights, claims, warranties, demands, debts, obligations, liabilities, actions, causes of action, damages, costs, expenses and other claims and CONTRACTOR agrees to indemnify and hold harmless OWNER, its successors, assigns, directors, officers, agents, servants, volunteers and employees, from and against, without limitation, any and all rights, claims, warranties, demands, debts, obligations, liabilities, actions, causes of action, damages, costs, expenses and other claims, including but not limited to attorneys', paralegal and experts' fees, costs and expenses arising out of or connected with any such assignment or transfer or purported assignment or transfer.

11. The parties acknowledge that they have been represented by counsel of their own choice in connection with the preparation and execution of this Agreement. The parties acknowledge and represent that they understand and voluntarily consent and agree to each and every provision contained in this Agreement.
12. The persons executing this Agreement represent and warrant to the other party that the execution and performance of the terms of this Agreement have been duly authorized by all individual, corporate, partnership, or other entity requirements and that said persons have the right, power, legal capacity and authority to execute and enter into this Agreement.
13. The parties further acknowledge and represent that no promise, inducement or agreement, not expressed in this Agreement, have been made and that, with respect to the matters considered, this Agreement contains the entire agreement among the parties and that the terms of the Agreement are contractual and not a mere recital.

CENTRAL COAST WATER AUTHORITY

Rya Stokes, Executive Director	DATED

ATTEST: _____	_____
	DATED

APPROVED AS TO FORM

By: _____	
_____ , _____	DATED

\_\_\_\_\_  
(Name of Contractor)

By: _____	
_____ , _____	DATED

By: _____	
_____ , _____	DATED

**NOTICE TO PROCEED**

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

To: [Name and Address of Contractor]  
\_\_\_\_\_  
\_\_\_\_\_

Project Description:                   CENTRAL COAST WATER AUTHORITY  
  "Santa Ynez Pumping Plant Surge Tank Concrete Pedestal"

You are notified to commence Work in accordance with the Agreement dated [Date of Contract] on [Commencement Date], and you are to complete the Work within [Days for Completion] consecutive calendar days thereafter. The date of completion of all Work is, therefore, [Date of Completion].

Central Coast Water Authority

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

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Title)

Acknowledgment of Notice

Receipt of the above Notice to Proceed is hereby acknowledged by

\_\_\_\_\_  
This \_\_\_\_ day of \_\_\_\_\_, 20\_\_

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

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Title)

## **GENERAL CONDITIONS**

### **ARTICLE 1 – DEFINITIONS**

Unless the context otherwise requires, wherever used in these General Conditions or in the other Contract Documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof. Where an entire word is in upper case in the definitions and is found in lower case in the Contract Documents, it has the ordinary dictionary definition.

**Agreement** - The written contract between the OWNER and the CONTRACTOR covering the Work to be performed; other documents are attached to the Agreement and made a part of the Agreement as provided in the Agreement.

**Application for Payment** - The form furnished by the OWNER which is to be used by the CONTRACTOR to request progress or final payment and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

**Bid** - The offer or proposal of the Bidder setting forth the price or prices for the Work.

**Bonds** - Bid, Performance, and Payment Bonds and other instruments which protect against loss due to inability or refusal of the CONTRACTOR to enter into or perform its Contract.

**Change Order** - A document which is signed by the CONTRACTOR and the OWNER, and authorizes an addition, deletion, or revision in the Work, or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

**Clarification** - A document issued by the ENGINEER to the CONTRACTOR that interprets the requirement(s) and/or design intent of the Contract Documents, may not represent an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times.

**Contract Documents:** Notice Inviting Bids, Instructions to Bidders, Bid Forms, Bid Bond, Notice of Award and Acceptance of Notice, Performance Bond, Payment Bond, Worker's Compensation Certificate, Insurance Certificates and Endorsements, General Conditions, Technical Specifications, Drawings, Addenda, Notice to Proceed, Change Orders, and all other documents issued by the OWNER with respect to the Work.

**Contract Price** - The total monies payable by the OWNER to the CONTRACTOR under the terms and conditions of the Contract Documents.

**Contract Times** - The number or numbers of successive calendar days or dates stated in the Contract Documents for the completion of the Work.

**CONTRACTOR** - The individual, partnership, corporation, joint-venture, or other legal entity with whom the OWNER has executed the Agreement.

**Day** - A calendar day of twenty-four (24) hours measured from midnight to the next midnight.

**Defective Work** - Work that is unsatisfactory, faulty, or deficient; or that does not conform to the Contract Documents; or that does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents; or Work that has been damaged prior to final payment.

Drawings - The drawings, plans, maps, profiles, diagrams, and other graphic representations which indicate the character, location, nature, extent, and scope of the Work and are referred to in the Contract Documents. Shop Drawings are not Drawings as so defined.

Effective Date of the Agreement - The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

ENGINEER - The individual, partnership, corporation, joint-venture, or other legal entity named as such by the OWNER.

Field Order - A written order issued by the OWNER which may or may not involve a change in the Work.

Laws - Any and all applicable laws, rules, regulations, ordinances, codes, and/or orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction.

Notice of Completion - After acceptance of the Work by the OWNER's governing body, the form is signed by the OWNER and recorded with the County Recorder. This date of recordation commences the thirty (30) day stop notice filing period on the Work.

Notice to Proceed - The written notice issued by the OWNER to the CONTRACTOR authorizing the CONTRACTOR to proceed with the Work and establishing the date of commencement of the Contract Times.

OWNER -The Central Coast Water Authority, located at 255 Industrial Way, Buellton, CA 93427.

OWNER's Representative – The person designated by the OWNER as its representative during the course of construction, to make all day-to-day field inspections, resolve field problems, interpret plans and estimate and compute payments due to CONTRACTOR.

Partial Utilization - Use by the OWNER of a substantially completed part of the Work for the purpose for which it is intended prior to Substantial Completion of all the Work.

Project - The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

Shop Drawings - All drawings, diagrams, illustrations, schedules, and other data which are specifically prepared by or for the CONTRACTOR and submitted by the CONTRACTOR to illustrate some portion of Work and all illustrations, brochures, schedules, performance charts, instructions, and diagrams to illustrate material or equipment for some portion of the Work.

Stop Notice - A legal remedy for subcontractors and suppliers who contribute to public works, but who are not paid for their Work, which secures payment from construction funds possessed by the OWNER. For public property, the Stop Notice remedy is designed to substitute for mechanic's lien rights.

Subcontractor - An individual, partnership, corporation, joint-venture, or other legal entity having a direct contract with the CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the site.

Substantial Completion - Refers to when the Work (or specified part) has progressed to the point where, in the opinion of the OWNER it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended.

Supplier - A manufacturer, fabricator, supplier, distributor, materialman, or vendor.

Work - The entire completed construction and the various separately identifiable parts required to be furnished under the Contract Documents. Work is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents.

## ARTICLE 2 -- PRELIMINARY MATTERS

- 2.1 DELIVERY OF BONDS AND INSURANCE ENDORSEMENT CERTIFICATES. When the CONTRACTOR delivers the signed Agreement to the OWNER, the CONTRACTOR shall also deliver to the OWNER such Bonds, insurance policies, endorsements and certificates as the CONTRACTOR may be required to furnish in accordance with the Contract Documents.
- 2.2 COPIES OF DOCUMENTS. The OWNER will furnish to the CONTRACTOR copies of the Contract Documents.
- 2.3 COMMENCEMENT OF CONTRACT TIMES; NOTICE TO PROCEED. The Contract Times will start to run on the commencement date stated in the Notice to Proceed.
- 2.4 STARTING THE WORK.
  - A. The CONTRACTOR shall begin to perform the Work on the commencement date stated in the Notice to Proceed, but no Work shall be done at the site prior to said commencement date.
  - B. Before undertaking each part of the Work, the CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. The CONTRACTOR shall promptly report in writing to the OWNER any conflict, error, or discrepancy which the CONTRACTOR may discover and shall obtain a written interpretation or clarification from the OWNER before proceeding with any Work affected thereby.
- 2.5 PRECONSTRUCTION CONFERENCE. Contractor is required to attend a preconstruction conference. This conference will be attended by the ENGINEER and others as appropriate in order to discuss the Work in accordance with the applicable procedures specified in the Contract Documents. The Contractor shall submit preliminary construction schedule prior to or at the meeting.

## ARTICLE 3 -- INTENT AND USE OF CONTRACT DOCUMENTS

- 3.1 INTENT.
  - A. The Contract Documents comprise the entire agreement between the OWNER and the CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. The

Contract Documents will be construed in accordance with the law of the place of the Project.

- B. It is the intent of the Contract Documents to describe the Work, functionally complete, to be constructed in accordance with the Contract Documents. When words or phrases which have a well-known technical or construction industry or trade meaning are used to describe Work, materials, or equipment such words or phrases shall be interpreted in accordance with that meaning unless a definition has been provided in Article 1 of the General Conditions. Reference to standard specifications, manuals, or codes of any technical society, organization, or association, or to the Laws of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, or Laws in effect at the time of opening of Bids, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual, or code shall be effective to change the duties and responsibilities of the OWNER, the CONTRACTOR, ENGINEER, or any of their consultants, agents, or employees from those set forth in the Contract Documents.
- C. If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity or discrepancy within the Contract Documents or between the Contract Documents and any provision of any such law or regulation applicable to the performance of the Work or of any such standard, specification, manual or code, CONTRACTOR shall report it to ENGINEER in writing at once, and CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency) until a clarification, field order or change order to the Contract Documents has been issued.

3.2 ORDER OF PRECEDENCE OF CONTRACT DOCUMENTS. In resolving conflicts resulting from errors or discrepancies in any of the Contract Documents, the order of precedence shall be as follows:

1. Permits from other agencies as may be required by law
2. Change orders
3. Agreement
4. Addenda
5. Notice Inviting Bids
6. Instructions to Bidders
7. General Conditions
8. Contractor's Bid
9. Drawings

3.3 AMENDING CONTRACT DOCUMENTS. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by a Change Order.

#### ARTICLE 4 -- SITE OF THE WORK

4.1 AVAILABILITY OF LANDS. The OWNER will furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of the CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by the OWNER, unless otherwise provided in the Contract Documents. Nothing contained in the Contract Documents shall be interpreted as

giving the CONTRACTOR exclusive occupancy of the lands or rights-of-way provided. The CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment; provided, that the CONTRACTOR shall not enter upon nor use any property not under the control of the OWNER until a written agreement for access has been executed by the CONTRACTOR and the property owner, and a copy of said agreement furnished to the ENGINEER prior to said use; and, neither the OWNER nor the ENGINEER will be liable for any claims or damages resulting from the CONTRACTOR's unauthorized trespass or use of any such properties.

#### 4.2 DIFFERING SITE CONDITIONS

- A. The CONTRACTOR shall notify the OWNER, in writing, of the following unforeseen conditions (hereinafter called differing site conditions) promptly upon their discovery (but in no event later than five (5) days) and before they are disturbed:
1. Subsurface or latent physical conditions at the site of the Work differing materially from those indicated, described, or delineated in the Contract Documents.
  2. Unknown physical conditions at the site of the Work of an unusual nature differing material from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract Documents.
- B. The ENGINEER will review the pertinent conditions, determine the necessity of obtaining additional explorations or tests with respect thereto, and advise the OWNER, in writing, of the ENGINEER's findings and conclusions. If the OWNER concludes that because of newly discovered conditions a change in the Contract Documents is required, a Change Order will be issued as provided in Article 10 to reflect and document the consequences of the difference.
- C. In each such case, an increase or decrease in the Contract Price or an extension or shortening of the Contract Times, or any combination thereof, will be allowable to the extent that they are attributable to any such difference. If the OWNER and the CONTRACTOR are unable to agree as to the amount or length thereof, a claim may be made therefore as provided in Articles 11 and 12.
- D. The CONTRACTOR's failure to give notice of differing site conditions within five (5) days of their discovery or before they are disturbed shall constitute a waiver of all claims in connection therewith, whether direct or consequential in nature.

### ARTICLE 5 – BONDS AND INSURANCE

- 5.1 BONDS. The CONTRACTOR shall furnish performance and payment bonds, each in the amount of the Contract price as security for the faithful performance and payment of all of CONTRACTOR's obligations under the Contract Documents. These bonds shall remain in effect at least until one (1) year after the date of substantial completion, except as otherwise provided by law or regulation or by the Contract Documents. The CONTRACTOR shall also furnish such other bonds as are required by the Contract Documents. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws, and shall be executed by sureties as are named in the current list of Companies Holding



Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies published in the U.S. Treasury Department's Circular 570. All bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act. All such sureties shall be duly licensed or authorized to issue bonds for the limits so required in California. If the surety on any bond furnished by the CONTRACTOR is declared a bankrupt or becomes insolvent or its right to do business in California is terminated, the CONTRACTOR shall, within seven (7) days thereafter substitute another bond and surety which must satisfy the conditions of the Contract Documents and be acceptable to OWNER.

## 5.2 INSURANCE.

- A. The CONTRACTOR shall procure and maintain in full force and effect the insurance required under this Paragraph 5.2, for the duration of the Agreement and until the Work has been accepted by the OWNER, including all times following completion when the CONTRACTOR may be correcting, removing, or replacing defective Work in accordance with Paragraph 14.4 CONTRACTOR's liabilities and responsibilities under the Contract Documents shall not be deemed limited in any way to the insurance coverage required by this Paragraph 5.2.
- B. The CONTRACTOR shall procure and maintain the following insurance:
1. Commercial General Liability. Commercial general liability insurance for bodily injury (including death), personal injury, property damage, owned and non-owned equipment, blanket contractual liability, completed operations, explosion, collapse, underground excavation and removal of lateral support covering CONTRACTORs performance under this Agreement, which coverage shall be at least as broad as Insurance Services Office (ISO) Occurrence form CG 0001, and with a limit in an amount of not less than two million Dollars (\$ 2,000,000). If insurance with a general aggregate limit or products-completed operations aggregate limit is used, either the general aggregate limit shall apply separately to the Project or location (with the ISO CG 2503, or ISO CG 2504, or insurers equivalent endorsement provided to the OWNER) or the general aggregate limit and products-completed operations aggregate limit shall be twice the required occurrence limit.
  2. Automobile Liability. Automobile liability insurance for bodily injury (including death) and property damage which coverage shall be at least as broad as ISO Business Auto Coverage (Form CA 0001), covering Symbol 1 (any auto), and with a limit in an amount of not less than One Million Dollars (\$ 1,000,000) each accident.
  3. Workers' Compensation and Employers Liability Insurance. Workers' compensation insurance covering CONTRACTOR'S employees in performance under this Agreement in accordance with statutory requirements and employers liability insurance with limits of not less than One Million Dollars (\$ 1,000,000) each accident, One Million Dollars (\$ 1,000,000) disease policy limit, and One Million Dollars (\$1,000,000) disease each employee.
  4. Excess Umbrella Liability. If the CONTRACTOR's primary liability insurance coverage limits required by this paragraph 5.2B are insufficient, the

CONTRACTOR may provide additional limits with an excess liability and/or umbrella liability insurance policy. This form of insurance will be acceptable only if the primary and excess liability and/or umbrella liability policy provides the required coverages.

- C. The insurance policies required in Paragraph 5.2B, shall contain or be endorsed to contain the following specific provisions:
1. The commercial general and automobile liability policies and excess umbrella liability policy, if any, shall contain, or be endorsed to contain the following provisions: (1) the OWNER, ENGINEER, their elected officials, directors, officers, consultants, subconsultants, agents, employees and volunteers shall be named as additional insureds; (2) CONTRACTOR's insurance shall be primary insurance as respects the additional insureds and any insurance, self-insurance or other coverage maintained by the additional insureds shall not contribute to it; (3) any failure to comply with the reporting or other provisions of the policies including breaches and warranties shall not affect coverage provided to the additional insureds; (4) the policies shall waive transfer rights of recovery (subrogation) against the additional insureds; (5) the insurance, subject to all its other terms and conditions, shall apply to the liability assumed by the CONTRACTOR under the Contract Documents; and (6) the CONTRACTORS insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurers liability.
  2. Each insurance policy shall state, or be endorsed to state, that coverage shall not be canceled, terminated, suspended, voided or reduced in coverage by the insurance carrier or the CONTRACTOR or allowed to expire, except after thirty (30) days (ten (10) days for non-payment of premium) prior written notice has been given to the OWNER.
  3. Any excess/umbrella liability policy shall contain, or be endorsed to contain, the following provisions: (1) following form coverage at least as broad as the primary policy; (2) a schedule of underlying insurance which matches the actual policy numbers and coverage limits in the actual underlying policies; and (3) a total underlying coverage limit plus excess/umbrella limit equal to or greater than the required coverage limit for each type of coverage.
- D. The CONTRACTOR shall purchase and maintain "All Risk" Builder's Risk Insurance, in an amount equal to the Contract price which shall provide coverage for all risks of direct physical loss or damage including, but not limited to, fire, lightning, windstorm, hail, explosion, riot, riot attending a strike, civil commotion, smoke damage, damage by aircraft or vehicles, vandalism and malicious mischief, theft, collapse, flood, and earthquake. This insurance shall be written in a completed form and with losses payable to the CONTRACTOR and OWNER, as their interests may appear. This insurance shall include coverage, but not by way of limitation, for all damage or loss to the Work and to appurtenances, to materials and equipment to be used on the Project while the same are in transit, stored on or off the Project site, to construction plant and temporary structures. The policy shall contain a provision that in the event of payment for any loss under the coverage provided, the insurance company shall have no rights of recovery against the CONTRACTOR or the OWNER. The policy shall provide the OWNER the right to utilize the facilities without termination of the

policy until acceptance of the Project.

Such insurance may have a deductible clause not to exceed the below listed limits:

1. Coverage for "Acts of God" in excess of five percent (5%) of Contract amount as defined in Sections 4150 and 4151 of the Government Code is subject to separate coverage if Bid Items for Act of God insurance are awarded.
  2. Flood and earthquake deductible shall not exceed five percent (5%) of the value at risk at the time of risk.
  3. All other perils: \$5,000.
- E. Any policy of insurance required by this Paragraph 5.2 shall be an "occurrences" policy.
- F. All insurance coverage, as initially provided and as modified or changed, shall be subject to reasonable approval by OWNER. Any deductible or self-insured retention must be declared to and approved by the OWNER, and at the option of the OWNER, the insurer shall either reduce or eliminate such deductibles or self-insured retentions. Prior to performance under this Agreement, and at any subsequent time upon request by OWNER, CONTRACTOR shall provide OWNER with Certificates of Insurance evidencing the above coverages. The CONTRACTOR shall, upon demand of the OWNER, deliver to the OWNER certified copies of such policy or policies of insurance and the receipts for payment of premiums. If any of the required coverages expire during the term of this Agreement, the CONTRACTOR shall deliver to OWNER such Certificates of Insurance and certified copies of any renewed or replacement policies as provided in this Paragraph 5.2F at least ten (10) days prior to the expiration date.
- G. The above insurance coverage shall not limit the indemnification obligations of CONTRACTOR as provided below and the failure to maintain the required coverages shall constitute a material breach of this Agreement.
- H. All insurance required by this agreement shall be placed with insurers authorized by the State of California to transact insurance business of the types required herein. Each insurer shall have a current Best Insurance Guide rating of not less than A-VII unless prior approval is secured from the OWNER as to the use of such insurer.
- I. The CONTRACTOR shall require all subcontractors to purchase and maintain the types of insurance as are required herein and in limits and amounts sufficient to protect the CONTRACTOR and "additional insureds" from claims arising out of the Work of the subcontractor or by anyone directly or indirectly employed by them or by anyone for whose acts the subcontractor may be liable. The CONTRACTOR shall receive and maintain satisfactory evidence from such subcontractors that verifies that they are in compliance with this requirement. The CONTRACTOR shall continuously maintain such evidence and make it readily available for review by the OWNER and ENGINEER.

## ARTICLE 6 -- CONTRACTOR'S RESPONSIBILITIES

### 6.1 SUPERVISION AND SUPERINTENDENCE

- A. The CONTRACTOR shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. The CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction and safety precautions and programs incidental to the Work. The CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.
- B. The CONTRACTOR shall designate in writing and keep on the Work site at all times during its progress a technically qualified superintendent, who is an employee of the CONTRACTOR and who shall not be replaced without written notice to the OWNER. The superintendent will be the CONTRACTOR's representative at the site and shall have authority to act on behalf of the CONTRACTOR. All communications given to the superintendent shall be as binding as if given to the CONTRACTOR.
- C. The CONTRACTOR's superintendent shall be present at the site of the Work at all times while Work is in progress and shall be available by phone for emergencies twenty-four (24) hours per day, seven (7) days per week. Failure to observe this requirement shall be considered suspension of the Work by the CONTRACTOR until such time as such superintendent is again present at the site.

### 6.2 LABOR, MATERIALS, AND EQUIPMENT.

- A. The CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. The CONTRACTOR shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours, and the CONTRACTOR will not permit overtime Work or the performance of Work on Saturday, Sunday, or any federally observed holiday without the OWNER's written consent. The CONTRACTOR shall apply for this consent in writing a minimum of twenty-four (24) hours in advance.
- B. Except as otherwise provided in this Paragraph, the CONTRACTOR shall receive no additional compensation for overtime work, i.e., work in excess of eight (8) hours in any one calendar day or forty (40) hours in any one calendar week, even though such overtime work may be required under emergency conditions and may be ordered by the OWNER in writing. Additional compensation will be paid the CONTRACTOR for overtime work only in the event extra Work is ordered by the OWNER and the Change Order specifically authorizes the use of overtime work and then only to such extent as overtime wages are regularly being paid by the CONTRACTOR for overtime work of a similar nature in the same locality.
- C. All increased costs of inspection and testing performed during overtime work by the CONTRACTOR which is allowed solely for the convenience of the CONTRACTOR shall be borne by the CONTRACTOR. The OWNER has the authority to deduct the cost of all such inspection and testing from any partial payments otherwise due to

the CONTRACTOR.

- D. Unless otherwise specified in the Contract Documents, the CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, lubricants, power, light, heat, telephone, water, sanitary facilities, and all other facilities, consumables, and incidentals necessary for the furnishing, performance, testing, start-up, and completion of the Work.
  - E. All materials and equipment to be incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of the OWNER. If required by the ENGINEER, the CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the instructions of the applicable Supplier except as otherwise provided in the Contract Documents; but no provisions of any such instructions will be effective to assign to the OWNER, or any of the OWNER's consultants, agents, or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of General Conditions Paragraph 9.9C.
- 6.3 CONCERNING SUBCONTRACTORS, SUPPLIERS, AND OTHERS. The CONTRACTOR shall be responsible to the OWNER for the acts and omissions of its Subcontractors, Suppliers, and their employees to the same extent as CONTRACTOR is responsible for the acts and omissions of its own employees. Nothing contained in this Paragraph shall create any contractual relationship between any Subcontractor and the OWNER nor relieve the CONTRACTOR of any liability or obligation under the Contract Documents. The CONTRACTOR shall include these General Conditions and the Supplementary General Conditions as a part of all its subcontract agreements.
- 6.4 PERMITS. The OWNER shall obtain and pay for all construction permits and licenses from the agencies having jurisdiction, including the furnishing of insurance and bonds if required by such agencies. The enforcement of such requirements under this Contract shall not be made the basis for claims for additional compensation. The CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids. The CONTRACTOR shall pay all charges of utility owners for inspection or connections to the Work.
- 6.5 PATENT FEES AND ROYALTIES. The CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of the OWNER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed by the OWNER in the Contract Documents. The CONTRACTOR shall indemnify, defend, and hold harmless the OWNER, their consultants, subconsultants, and the officers, directors, employees and agents of each and any of them from and against all claims, damages, losses, and expenses (including but not limited to, fees of engineers, architects, attorneys and other professionals, and court costs, including

costs of appeal) arising directly, indirectly or consequentially out of any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents, and shall defend all such claims in connection with any alleged infringement of such rights.

#### 6.6 LAWS.

- A. The CONTRACTOR shall observe and comply with all federal, state, and local laws, ordinances, codes, orders, and regulations which in any manner affect those engaged or employed on the Work, the materials used in the Work, or the conduct of the Work. If any discrepancy or inconsistency should be discovered in this Contract in relation to any such law, ordinance, code, order, or regulation, the CONTRACTOR shall report the same in writing to the OWNER. The CONTRACTOR shall indemnify, defend, and hold harmless the OWNER, the ENGINEER their consultants, subconsultants, and their officers, directors, employees and agents of each and any of them against all claims, damages, losses and expenses (including, but not limited to, fees of engineers, architects, attorneys and other professionals, and court costs, including costs of appeal) arising directly, indirectly, or consequentially from violation of any such law, ordinance, code, order, or regulation, whether by CONTRACTOR or by its employees or Subcontractors. Any particular law or regulation specified or referred to elsewhere in the Contract Documents shall not in any way limit the obligation of the CONTRACTOR to comply with all other provisions of federal, state, and local Laws.
- B. The CONTRACTOR shall give all notices required by law and comply with all laws, ordinances, rules and regulations pertaining to the conduct of the Work. The CONTRACTOR shall be liable for all violations of the law in connection with Work furnished by the CONTRACTOR. If the CONTRACTOR observes that the drawings or specifications are at variance with any law or ordinance, rule or regulation, he/she shall promptly notify the OWNER engineer in writing and any necessary changes shall be made by written instruction or change order. If the CONTRACTOR performs any Work knowing it to be contrary to such laws, ordinances, rules or regulations and without giving notice to the OWNER, the CONTRACTOR shall bear all costs arising therefrom.

6.7 TAXES. The CONTRACTOR shall pay all sales, consumer, use, and other similar taxes required to be paid by the CONTRACTOR in accordance with the Laws of the place of the Project which are applicable during the performance of the Work.

6.8 USE OF PREMISES. The CONTRACTOR shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Project site, the land and areas identified in and permitted by the Contract Documents, and the other land and areas permitted by Laws, rights-of-way, permits, and easements. The CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the Work. Should any claim be made against the OWNER or the ENGINEER by any such owner or occupant because of the performance of the Work, the CONTRACTOR shall promptly attempt to settle with such other party by agreement or otherwise resolve the claim through litigation.

## 6.9 SAFETY AND PROTECTION.

- A. The CONTRACTOR shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
1. All employees on the Work and other persons and organizations who may be affected thereby;
  2. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
  3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

The CONTRACTOR shall execute and maintain its Work so as to avoid injury or damage to any person or property. The CONTRACTOR shall comply with the requirements of the specifications relating to safety measures applicable in particular operations or kinds of Work.

In carrying out the Work, the CONTRACTOR shall at all times, exercise all necessary precautions for the safety of employees appropriate to the nature of the Work and the conditions under which the Work is to be performed, and be in compliance with all federal, state and local statutory and regulatory requirements including California Department of Industrial Relations (Cal/OSHA) regulations; and the U.S. Department of Transportation Omnibus Transportation Employee Testing Act (as applicable). Safety precautions as applicable shall include, but shall not be limited to, adequate life protection, and life saving equipment; adequate illumination for underground and night operations; instructions in accident prevention for all employees such as machinery guards, safe walkways, scaffolds, ladders, bridges, gang planks; confined space procedures; trenching and shoring; fall protection; and other safety devices, equipment and wearing apparel as are necessary or lawfully required to prevent accidents, injuries, or illnesses; and adequate facilities for the proper inspection and maintenance of all safety measures.

In accordance with Section 6705 of the California Labor Code, the CONTRACTOR shall submit to the OWNER specific plans to show details of provisions for worker protection from caving -ground during excavations of trenches of five feet or more in depth. The excavation/trench safety plan shall be submitted to, and accepted by the OWNER prior to starting excavation. The trench safety plan shall have details showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground. If such a plan varies from the shoring system standards established by the Construction Safety Orders of Cal/OSHA, the plan shall be prepared by a California registered civil or structural engineer. As part of the plan, a note shall be included stating that the registered civil or structural engineer certifies that the plan complies with the Cal/OSHA Construction Safety Orders, or that the registered civil or structural engineer certifies that the plan is not less effective than the shoring, bracing, sloping or other provisions of the Safety Orders. In no event shall the CONTRACTOR use a shoring, sloping, or protective system less effective than that required by said Construction

Safety Orders. Submission of this plan in no way relieves the CONTRACTOR of the requirement to maintain safety in all areas. If excavations or trench work requiring a Cal/OSHA permit are to be undertaken, the CONTRACTOR shall submit his/her permit with the excavation trench work safety plan to the OWNER before Work begins.

The names and telephone numbers of at least two medical doctors practicing in the vicinity and the telephone number of the local ambulance service shall be prominently displayed adjacent to telephones.

- B. The CONTRACTOR shall comply with all applicable Laws (whether referred to herein or not) of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss and shall erect and maintain all necessary safeguards for such safety and protection. The CONTRACTOR shall notify owners of adjacent property and utilities when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
  - C. The CONTRACTOR shall designate a qualified and experienced safety representative at the site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and program. The CONTRACTOR's safety representative shall be certified by the Board of Certified Safety Professionals as a Certified Safety Professional.
  - D. Materials that contain hazardous substances or mixtures may be required on the Work. A Material Safety Data Sheet shall be requested by the CONTRACTOR from the manufacturer of any hazardous product used.
  - E. Material usage shall be accomplished with strict adherence to OSHA safety requirements and all manufacturer's warnings and application instructions listed on the Material Safety Data Sheet and on the product container label.
  - F. The CONTRACTOR shall be responsible for coordinating any exchange or material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the site in accordance with Laws.
  - G. The CONTRACTOR shall notify the OWNER if it considers a specified product or its intended usage to be unsafe. This notification must be given to the OWNER prior to the product being ordered, or if provided by some other party, prior to the product being incorporated in the Work.
- 6.10 EMERGENCIES. In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from OWNER is obligated to immediately act to prevent threatened damage, injury, or loss. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If OWNER determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Change Order will be issued to document the consequences of such action.



6.11 CONTINUING THE WORK. The CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with the OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as the CONTRACTOR and the OWNER may otherwise agree in writing.

6.12 INDEMNIFICATION.

A. CONTRACTOR shall defend, indemnify, protect and hold the OWNER, ENGINEER and their agents, consultants, officers, elected officials, directors and employees harmless from and against any and all liabilities, claims, costs, expenses, losses, damages and fees established, asserted, or incurred which arise out of, relate to or result from the Work, the Agreement, the Contract Documents and any and all documents prepared or services performed in connection with the Work, as well as the failure, neglect, or refusal of CONTRACTOR or its subcontractors, subconsultants, agents, officers or employees to perform the Work or any other obligations of CONTRACTOR under the Contract Documents unless arising from OWNER's established sole active negligence or willful misconduct. This indemnification shall include, but not be limited to, the costs, expenses and damages incurred by the OWNER and ENGINEER to defend any and all such claims, stop notices or lawsuits, to which OWNER or ENGINEER are made a party. Such indemnification by the CONTRACTOR shall include, but not be limited to, the following:

1. Liability or claims resulting directly or indirectly from the negligence or carelessness of the CONTRACTOR, subcontractors and suppliers, or their employees, or agents in the performance of the Work, or in guarding or maintaining the same, or from any improper materials, implements, or appliances used in its construction, or by or on account of any act or omission of the CONTRACTOR, subcontractors and suppliers, or their employees, or agents;
2. Liability or claims arising directly or indirectly from bodily injury, occupational sickness or disease, or death of the CONTRACTOR's, Subcontractor's, or Supplier's own employees engaged in the Work resulting in actions brought by or on behalf of such employees against the OWNER and/or ENGINEER;
3. Liability or claims arising directly or indirectly from or based on the violation of any law, ordinance, regulation, order, or decree, whether by the CONTRACTOR, subcontractors, suppliers, or their employees, or agents;
4. Liability or claims arising directly or indirectly from the use or manufacture by the CONTRACTOR, subcontractors, suppliers, or their employees, or agents in the performance of this Contract of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article, or appliance, unless otherwise specifically stipulated in this Contract;
5. Liability or claims arising directly or indirectly from the breach of any warranties, whether express or implied, made to the OWNER or any other parties by the CONTRACTOR, subcontractors, suppliers, or their employees, or agents;
6. Liability or claims arising directly or indirectly from the willful misconduct of

the CONTRACTOR, subcontractors, suppliers, or their employees, or agents; and

7. Liability or claims arising directly or indirectly from any breach of the obligations assumed herein by the CONTRACTOR.
    - B. The CONTRACTOR shall reimburse the OWNER and the ENGINEER for all costs and expenses, (including but not limited to fees and charges of engineers, attorneys, and other professionals and court costs including all costs of appeals) incurred by said OWNER and ENGINEER, in enforcing the provisions of this Paragraph 6.12.
    - C. The indemnification obligation under this Paragraph 6.12 shall not be limited in any way by any limitation of the amount or type of damages, compensation, or benefits payable by or for the CONTRACTOR or any such Subcontractor or other person or organization under workers' compensation acts, disability benefit acts, or other employee benefit acts.
    - D. CONTRACTOR shall defend, at CONTRACTOR 's own cost, expense and risk, any and all suits, actions, or other legal proceedings of every kind that may be brought or instituted against OWNER or its consultants, subconsultants, directors, officers, employees, agents or volunteers.
    - E. CONTRACTOR shall pay and satisfy any judgment, award or decree that may be rendered against OWNER or its consultants, subconsultants, directors, officers, employees, agents or volunteers, in any and all suits, actions, or other legal proceedings.
    - F. CONTRACTOR'S obligation to indemnify shall not be restricted to insurance proceeds, if any, received by the OWNER, or its consultants, subconsultants, directors, officers, employees, agents or volunteers.
- 6.13 CONTRACTOR'S DAILY REPORTS. The CONTRACTOR shall complete a daily report indicating location worked, total manpower for each construction trade, major equipment on site, each Subcontractor's manpower and equipment, weather conditions, and other related information involved in the performance of the Work. If requested by the OWNER, the CONTRACTOR shall submit to the OWNER a copy of the CONTRACTOR's daily reports within three days after the request.

## ARTICLE 7 -- OTHER WORK

### 7.1 RELATED WORK AT SITE.

- A. The OWNER may perform other Work related to the Project at the site by the OWNER's own forces, have other Work performed by utility owners, or let other direct contracts therefor which may contain general conditions similar to these. If the fact that such other Work is to be performed was not noted in the Contract Documents, written notice thereof will be given to the CONTRACTOR prior to starting any such other Work.
- B. The CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (or the OWNER, if the OWNER is performing the additional Work with the OWNER's employees) proper and safe access to the

site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such Work, and shall properly connect and coordinate the Work with theirs. The CONTRACTOR shall do all cutting, fitting, and patching of the Work that may be required to make its several parts come together properly and integrate with such other Work. The CONTRACTOR shall not endanger any Work of others by cutting, excavating, or otherwise altering their Work and will only cut or alter their Work with the written consent of the OWNER and the others whose Work will be affected.

- C. If the proper execution or results of any part of the CONTRACTOR's Work depends upon the Work of any such other contractor, utility owner or OWNER, the CONTRACTOR shall inspect and report to the OWNER in writing any delays, defects, or deficiencies in such other Work that render it unavailable or unsuitable for such proper execution and results. The CONTRACTOR's failure to report such delays, defects, or deficiencies will constitute an acceptance of the other Work as fit and proper for integration with the CONTRACTOR's Work except for latent defects and deficiencies in the other Work.

- 7.2 COORDINATION. The OWNER will provide coordination of activities among the OWNER, CONTRACTOR, and parties performing such other Work.

#### ARTICLE 8 -- OWNER'S RIGHTS AND RESPONSIBILITIES

- 8.1 COMMUNICATIONS. The OWNER will issue all its communications to the CONTRACTOR through the OWNER's Representative.
- 8.2 PAYMENTS. The OWNER will make payments to the CONTRACTOR as provided in Article 14.
- 8.3 LANDS AND EASEMENTS. The OWNER's duties in respect of providing lands are set forth in Paragraph 4.1.
- 8.4 CHANGE ORDERS. The OWNER will execute Change Orders as indicated in Article 10.
- 8.5 SUSPENSION OF WORK. The OWNER's right to stop Work or suspend Work is set forth in Paragraphs 13.3 and 16.1.
- 8.6 TERMINATION OF AGREEMENT. The OWNER's right to terminate services of the CONTRACTOR is set forth in Paragraphs 15.2 and 15.3.

#### ARTICLE 9 – OWNER'S REPRESENTATIVE'S STATUS DURING CONSTRUCTION

- 9.1 OWNER's REPRESENTATIVE. The ENGINEER will be an OWNER's representative during construction. The duties and responsibilities and the limitations of authority of the ENGINEER as the OWNER's Representative during construction are set forth in the Contract Documents.
- 9.2 VISITS TO SITE. The OWNER's Representative will make visits to the site during construction to observe the progress and quality of the Work and to determine, in general, if the Work is proceeding in accordance with the Contract Documents. The OWNER's Representative will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The OWNER's Representative will not, during

such visits or as a result of such observations of the CONTRACTOR's Work in progress, supervise, direct, coordinate, or have control over the CONTRACTOR's Work.

- 9.3 PROJECT REPRESENTATION. The OWNER's Representative will furnish on-site representatives for contract administration and coordination of activities among the OWNER, CONTRACTOR, and other parties.
- 9.4 CLARIFICATIONS AND INTERPRETATIONS. The OWNER's Representative will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents as the OWNER's Representative may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents.
- 9.5 AUTHORIZED VARIATIONS IN WORK. The OWNER's Representative may authorize variations in the Work from the requirements of the Contract Documents. These may be accomplished by a Field Order or other written directive and will require the CONTRACTOR to perform the Work involved in a manner that minimizes the impact to the Work and the Contract Times. If the CONTRACTOR believes that a Field Order or other written directive justifies an increase in the Contract Price or an extension of the Contract Times, the CONTRACTOR may make a claim therefore as provided in Article 11 or 12. Wherever the term "Field Order" appears in the Contract Documents, it shall be deemed to be followed by the words "or other written directive".
- 9.6 REJECTING DEFECTIVE WORK. The OWNER's Representative has authority to reject Work which the OWNER's Representative believes to be defective and will also have authority to require inspection or testing of the Work whether or not the Work is fabricated, installed, or completed.
- 9.7 CONTRACTOR SUBMITTALS, CHANGE ORDERS, AND PAYMENTS.
- A. The ENGINEER will receive, process, monitor and return all CONTRACTOR submittals.
  - B. The OWNER's Representative responsibilities for Change Orders are set forth in Articles 10, 11, and 12.
  - C. The OWNER's Representative responsibilities for Applications for Payment, are set forth in Article 14.
- 9.8 DECISIONS ON DISPUTES. The OWNER's Representative will be the initial interpreter of the requirements of the Contract Documents and of the acceptability of the Work. Claims, disputes, and other matters relating to the acceptability of the Work and interpretation of the requirements of the Contract Documents pertaining to the performance of the Work shall be determined by the OWNER's Representative. Any claims in respect to changes in the Contract Price or Contract Times shall be resolved in accordance with the requirements set forth in Articles 10, 11, and 12.
- 9.9 LIMITATION ON ENGINEER'S RESPONSIBILITIES.
- A. Neither the OWNER's Representative or ENGINEER's authority to act under this Article 9 or other provisions of the Contract Documents nor any decision made by

the OWNER's Representative or ENGINEER in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the OWNER's Representative or ENGINEER to the CONTRACTOR, any Subcontractor, any Supplier, any surety for any of them, or any other person or organization performing any of the Work.

- B. Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed," "as reviewed," "as approved," or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper," or "satisfactory," or adjectives of like effect or import are used to describe a requirement, direction, review, or judgment of the OWNER's Representative or/ENGINEER as to the Work, it is intended that such requirement, direction, review, or judgment will be solely to evaluate the Work for compliance with the requirements of the Contract Documents, and conformance with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents, unless there is a specific statement indicating otherwise. The use of any such term or adjective shall not be effective to assign to the OWNER's Representative or ENGINEER any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.9C.
- C. The OWNER's Representative or ENGINEER will not supervise, direct, control, or have authority over or be responsible for the CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of the CONTRACTOR to comply with Laws applicable to the performance of the Work. The OWNER's Representative or ENGINEER will not be responsible for the CONTRACTOR's failure to perform the Work in accordance with the Contract Documents. The OWNER's Representative or ENGINEER will not be responsible for the acts or omissions of the CONTRACTOR nor of any Subcontractor, Supplier, or any other person or organization performing any of the Work.

## ARTICLE 10 -- CHANGES IN THE WORK

### 10.1 GENERAL.

- A. Without invalidating the Agreement and without notice to any surety, the OWNER may at any time or from time to time, order additions, deletions, or revisions in the Work; these will be authorized by a written Field Order and/or a Change Order issued by the OWNER.
- B. If the CONTRACTOR believes that it is entitled to an increase or decrease in the Contract Price or an extension or shortening in the Contract Times as the result of a Field Order, a claim may be made as provided in Articles 11 and 12.
- C. If the OWNER and CONTRACTOR agree on the value of any Work, or the amount of Contract Times that should be allowed as a result of a Field Order, the CONTRACTOR shall proceed so as to minimize the impact on and delays to the Work pending the issuance of a Change Order.
- D. If the OWNER and the CONTRACTOR are unable to agree as to the extent of an increase or decrease in the Contract Price or an extension or shortening of the

Contract Times that should be allowed as a result of a Field Order, the OWNER can direct the CONTRACTOR to proceed on the basis of time and materials so as to minimize the impact on and delays to the Work, and a claim may be made therefor as provided in Articles 11 and 12.

- E. The CONTRACTOR shall not be entitled to an increase in the Contract Price nor an extension of the Contract Times with respect to any Work performed that is not required by the Contract Documents as amended, modified, or supplemented by Change Order, except in the case of an emergency.
- F. The OWNER and the CONTRACTOR shall execute appropriate Change Orders covering:
  - 1. Changes in the Work which are ordered by the OWNER pursuant to Paragraph 10.1A;
  - 2. Changes required because of acceptance of defective Work under Paragraph 13.5; and
  - 3. Changes in the Contract Price or Contract Times which are agreed to by the parties under Articles 11 and/or 12, respectively.
- G. If notice of any change is required by the provisions of any Bond to be given to a surety, the giving of any such notice shall be the CONTRACTOR's responsibility, and the amount of each applicable Bond shall be adjusted accordingly.

## 10.2 ALLOWABLE QUANTITY VARIATIONS

- A. In the event of an increase or decrease in bid item quantity of a unit price contract, the total amount of Work actually done or materials or equipment furnished will be paid for according to the unit price established for such Work under the Contract Documents, wherever such unit price has been established; provided, that an adjustment in the Contract Price may be made for changes which result in an increase or decrease in excess of twenty-five percent (25%) of the estimated quantity of any unit price bid item of the Work.
- B. In the event a part of the Work is to be entirely eliminated and no lump sum or unit price is named in the Contract Documents to cover such eliminated Work, the price of the eliminated Work shall be agreed upon in writing by the OWNER and the CONTRACTOR. If the OWNER and the CONTRACTOR fail to agree upon the price of the eliminated Work, said price shall be determined in accordance with the provisions of Article 11.

## ARTICLE 11 -- CHANGE OF CONTRACT PRICE

### 11.1 GENERAL.

- A. The Contract Price constitutes the total compensation payable to the CONTRACTOR for performing the Work. All duties, responsibilities, and obligations assigned to or undertaken by the CONTRACTOR to complete the Work shall be at its expense without change in the Contract Price.

- B. The Contract Price may only be changed by a Change Order. Any claim for an increase in the Contract Price shall be based on written notice delivered by the CONTRACTOR to the OWNER promptly (but in no event later than (five (5) days) after the start of the event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within sixty (60) days after the start of such event (unless the OWNER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the CONTRACTOR's written statement that the amount claimed covers all known amounts (direct, indirect, and consequential) to which the CONTRACTOR is entitled as a result of such event. All claims for adjustment in the Contract Price will be determined by the OWNER. No claim for an adjustment in the Contract Price will be valid if not submitted in accordance with this Paragraph 11.1B.
- C. The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:
  - 1. Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved;
  - 2. By mutual acceptance of a lump sum, which will include an allowance for overhead and profit in accordance with Paragraph 11.4; or
  - 3. On the basis of the cost of Work (determined as provided in Paragraphs 11.3) plus a CONTRACTOR's fee for overhead and profit (determined as provided in Paragraph 11.4).

11.2 COSTS RELATING TO WEATHER. The CONTRACTOR shall have no claims against the OWNER for damages for any injury to Work, materials, or equipment, resulting from the action of the elements. If, however, in the opinion of the OWNER, the CONTRACTOR has made all reasonable efforts to protect the materials, equipment, and Work, the CONTRACTOR may be granted a reasonable extension of Contract Times to make proper repairs, renewals, and replacements of the Work, materials, or equipment.

### 11.3 COST OF WORK (BASED ON TIME AND MATERIALS).

- A. General: The term "cost of Work" means the sum of all costs necessarily incurred and paid by the CONTRACTOR for labor, materials, and equipment in the proper performance of extra Work. Except as otherwise may be agreed to in writing by the OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in Paragraph 11.5.
- B. Labor: The costs of labor will be the actual cost for wages prevailing for each craft or type of workers performing the extra Work at the time the extra Work is done, plus employer payments of payroll taxes, workers compensation insurance, liability insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. Labor costs for equipment operators and helpers will be paid only when such costs are not included in the invoice for equipment rental. The labor costs for foremen shall be

proportioned to all of their assigned Work and only that applicable to extra Work shall be paid. Nondirect labor costs including superintendence shall be considered part of the markup set out in Paragraph 11.4.

- C. Materials: The cost of materials reported shall be at invoice or lowest current price at which materials are locally available and delivered to the job in the quantities involved, plus the cost of freight, delivery and storage, subject to the following:
1. All trade discounts and rebates shall accrue to the OWNER, and the CONTRACTOR shall make provisions so that they may be obtained;
  2. For materials secured by other than a direct purchase and direct billing to the purchaser, the cost shall be deemed to be the price paid to the actual supplier as determined by the OWNER. Markup except for actual costs incurred in the handling of such materials will not be allowed;
  3. Payment for materials from sources owned wholly or in part by the purchaser shall not exceed the price paid by the purchaser for similar materials from said sources on extra Work items or the current wholesale price for such materials delivered to the Work site, whichever price is lower; and
  4. If in the opinion of the OWNER the cost of material is excessive, or the CONTRACTOR does not furnish satisfactory evidence of the cost of such material, then the cost shall be deemed to be the lowest current wholesale price for the quantity concerned delivered to the Work site less trade discount. The OWNER reserves the right to furnish materials for the extra Work and no claim will be allowed by the CONTRACTOR for costs and profit on such materials.
- D. Equipment: The CONTRACTOR will be paid for the use of equipment at the rental rate listed for such equipment specified in the Contract Documents. Such rental rate will be used to compute payments for equipment whether the equipment is under the CONTRACTOR's control through direct ownership, leasing, renting, or another method of acquisition. The rental rate to be applied for use of each item of equipment will be the rate resulting in the least total cost to the OWNER for the total period of use. If it is deemed necessary by the CONTRACTOR to use equipment not listed in the Contract Documents, an equitable rental rate for the equipment will be established by the OWNER. The CONTRACTOR may furnish cost data which might assist the OWNER in the establishment of the rental rate. Payment for equipment shall be subject to the following:
1. All equipment shall, in the opinion of the OWNER, be in good working condition and suitable for the purpose for which the equipment is to be used;
  2. Before construction equipment is used on the extra Work, the CONTRACTOR shall plainly stencil or stamp an identifying number thereon at a conspicuous location, and shall furnish to the OWNER, in duplicate, a description of the equipment and its identifying number;
  3. Unless otherwise specified, manufacturer's ratings and manufacturer approved modifications shall be used to classify equipment for the



determination of applicable rental rates. Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer;

4. Individual pieces of equipment or tools having a replacement value of \$1,000 or less, whether or not consumed by use, will be considered to be small tools and no payment will be made therefor; and
5. Rental time will not be allowed while equipment is inoperative due to breakdowns.

E. Equipment on the Work Site: The rental time to be paid for equipment on the Work site will be the time the equipment is in productive operation on the extra Work being performed and, in addition, will include the time required to move the equipment to the location of the extra Work and return it to the original location or to another location requiring no more time than that required to return it to its original location; except, that moving time will not be paid if the equipment is used on other than the extra Work, even though located at the site of the extra Work. Loading and transporting costs will be allowed, in lieu of moving time, when the equipment is moved by means other than its own power, except that no payment will be made for loading and transporting costs when the equipment is used at the site of the extra Work on other than the extra Work. The rental time of equipment on the Work site will be computed subject to the following:

1. When hourly rates are listed, any part of an hour less than thirty (30) minutes of operation will be considered to be half-hour of operation, and any part of an hour in excess of thirty (30) minutes will be considered one hour of operation;
2. When daily rates are listed, any part of a day less than four (4) hours operation will be considered to be half-day of operation. When owner-operated equipment is used to perform extra Work to be paid for on a time and materials basis, the CONTRACTOR will be paid for the equipment and operator, as set forth in Paragraphs 3, 4, and 5, following;
3. Payment for the equipment will be made in accordance with the provisions in Paragraph 11.3D, herein;
4. Payment for the cost of labor and subsistence or travel allowance will be made at the rates paid by the CONTRACTOR to other workers operating similar equipment already on the Work site, or in the absence of such labor, established by collective bargaining agreements for the type of workmen and location of the extra Work, whether or not the operator is actually covered by such an agreement. A labor surcharge will be added to the cost of labor described herein in accordance with the provisions of Paragraph 11.3B, herein, which surcharge shall constitute full compensation for payments imposed by state and federal laws and all other payments made to or on behalf of workers other than actual wages; and
5. To the direct cost of equipment rental and labor, computed as provided herein, will be added the allowances for equipment rental and labor as provided in Paragraph 11.4, herein.

- F. Special Services: Special Work or services are defined as that Work characterized by extraordinary complexity, sophistication, innovation, or a combination of the foregoing attributes which are unique to the construction industry. The OWNER in making estimates for payment for special services may consider the following:
1. When the OWNER and the CONTRACTOR, determine that a special service or Work is required which cannot be performed by the forces of the CONTRACTOR or those of any of its Subcontractors, the special service or Work may be performed by an entity especially skilled in the Work to be performed. After validation of invoices and determination of market values by the OWNER, invoices for special services or Work based upon the current fair market value thereof may be accepted without complete itemization of labor, material, and equipment rental costs;
  2. When the CONTRACTOR is required to perform Work necessitating special fabrication or machining process in a fabrication or a machine shop facility away from the job site, the charges for that portion of the Work performed at the off-site facility may, by agreement, be accepted as a special service and accordingly, the invoices for the Work may be accepted without detailed itemization; and
  3. All invoices for special services will be adjusted by deducting all trade discounts. In lieu of the allowances for overhead and profit specified in Paragraph 11.4, herein, an allowance of 15 percent (15%) will be added to invoices for special services.
- G. Sureties. All Work performed under this Article shall be subject to all of the provisions of the Contract Documents and the contracted sureties shall be bound with respect to such Work as under the Agreement. Copies of all amendments to surety bonds or supplemental surety bonds shall be submitted to the OWNER for review prior to the performance of any Work under this Article.

11.4 CONTRACTOR'S OVERHEAD AND PROFIT.

- A. Extra Work ordered on the basis of time and materials will be paid for at the actual necessary cost as determined by the OWNER, plus allowances for overhead and profit. The allowance for overhead and profit will include full compensation for superintendence, bond and insurance premiums, taxes, field office expense, extended overhead, home office overhead, and all other items of expense or cost not included in the cost of labor, materials, or equipment provided for under Paragraph 11.3. The allowance for overhead and profit will be made in accordance with the following schedule:

Overhead and Profit Allowance

Labor .....	20 percent
Materials .....	15 percent
Equipment .....	15 percent

To the sum of the costs and markups provided for in this Article, 2 percent (2%) will

be added as compensation for bonds and insurance.

- B. It is understood that labor, materials, and equipment may be furnished by the CONTRACTOR or by the Subcontractor on behalf of the CONTRACTOR. When all or any part of the extra Work is performed by a Subcontractor, the allowance specified herein will be applied to the labor, materials, and equipment costs of the Subcontractor, to which the CONTRACTOR may add five percent (5%) of the Subcontractor's total cost for the extra Work. Regardless of the number of hierarchical tiers of Subcontractors, the five percent (5%) increase above the Subcontractor's total cost which includes the allowances for overhead and profit specified in this Paragraph 11.4 may be applied one time only.

11.5 EXCLUDED COSTS. The term "cost of the Work" shall not include any of the following:

- A. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and sole proprietorships) general managers, engineers, architects, estimators, attorneys; auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by CONTRACTOR whether at the site or in CONTRACTOR's principal or a branch office for general administration of the Work and not specifically covered by paragraph 11.3F all of which are to be considered administrative costs covered by the CONTRACTOR's allowance for overhead and profit;
- B. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site
- C. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments;
- D. Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by Paragraph 11.4 above);
- E. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property; and
- F. Other overhead or general expense costs of any kind and the cost of any item not specifically and expressly included in Paragraph 11.4.

11.6 CONTRACTOR'S EXTRA WORK REPORT. In order to be paid for extra Work, the CONTRACTOR must submit a daily extra Work report on a form acceptable to the OWNER. The form must be completely filled out based on the provisions of Paragraphs 11.3 through 11.5 and signed by the CONTRACTOR and OWNER's Representative at the end of each work day. Failure to complete the form and obtain appropriate signatures by the next working day after the extra Work of the previous day was completed will result in CONTRACTOR's costs for extra Work being disallowed.

## ARTICLE 12 -- CHANGE OF CONTRACT TIMES

### 12.1 GENERAL.

- A. The Contract Times may only be changed by a Change Order. Any claim for an extension of the Contract Times shall be based on written notice delivered by the CONTRACTOR to the OWNER promptly (but in no event later than five (5) days) after the start of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within thirty (30) days after the start of such event (unless the OWNER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the CONTRACTOR's written statement that the adjustment claimed is the entire adjustment to which the CONTRACTOR is entitled as a result of said event. All claims for adjustment in the Contract Times will be determined by the OWNER. No claim for an adjustment in the Contract Times will be valid if not submitted in accordance with the requirements of this Paragraph 12.1A. An increase in Contract Times does not mean that the CONTRACTOR is due an increase in Contract Price. Only compensable time extensions will result in an increase in Contract Price.
- B. Time is of the essence of the Agreement due to scheduling requirements between various contractors and subcontractors, completing the Work to allow timely use of the Work by the OWNER, and to avoid incurring additional costs if the Work is not completed in a timely manner.
- C. When CONTRACTOR is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of CONTRACTOR, the Contract Times will be extended in an amount equal to the time lost on the critical path of the Project due to such delay, if a claim is made therefor as provided in Paragraph 12.1. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER; acts or neglect of utility owners or other contractors performing other Work as contemplated by Article 7; and fires, floods, epidemics, abnormal weather conditions, or acts of God, except that CONTRACTOR shall not be entitled to extended Contract Time for the initial seven (7) days of delay caused by such fires, floods, epidemics, abnormal weather conditions, or acts of God. Delays attributable to and within the control of Subcontractor or Supplier shall be deemed to be delays within the control of the CONTRACTOR.
- D. When CONTRACTOR is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times in an amount equal to the time lost on the critical path of the Project due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay. In no event will OWNER be liable to CONTRACTOR, any Subcontractor, any Supplier, any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out or resulting from the following:
1. Delays caused by or within the control of CONTRACTOR; or
  2. Delays beyond the control of both parties including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, or acts or neglect by utility owners or other contractors performing other Work as

contemplated by Article 7.

- 12.2 EXTENSIONS OF CONTRACT TIMES FOR DELAY DUE TO WEATHER. Contract Times may be extended by the OWNER because of delays in the completion of the Work due to unusually severe weather, provided that the CONTRACTOR shall, within ten (10) days of the beginning of any such delay, notify the OWNER in writing of the cause of delay and request an extension of Contract Times. The OWNER will ascertain the facts and the extent of the delay and extend the Contract Times when, in its judgment, the findings of the fact justify such an extension.

#### ARTICLE 13 - CONTRACTOR SUBMITTALS

##### 13.1 GENERAL.

- A. Wherever submittals are required under the Contract Documents, all such submittals by the CONTRACTOR shall be submitted to the ENGINEER.
- B. Within fourteen (14) calendar days after the date of commencement as stated in the Notice to Proceed, the CONTRACTOR shall submit the following items to the ENGINEER for review:
1. A preliminary schedule of Shop Drawings, Samples, and proposed Substitutes ("Or-Equal") submittals.
  2. A list of all permits and licenses the CONTRACTOR shall obtain indicating the agency required to grant the permit, the expected date of submittal for the permit, and required date for receipt of the permit.
  3. Required submittals for this Project including shop drawing and/or material specifications and/or manufacturers installation, maintenance and warranty information for the following items.
    - a. Worker Safety Plan
    - b. Concrete
    - c. Reinforcements

##### 13.2 PRECONSTRUCTION CONFERENCE SUBMITTALS.

- A. At the preconstruction conference referred to in the Contract Documents, the CONTRACTOR shall submit the following items to the OWNER for review:
1. A preliminary schedule of Shop Drawings, Samples, and proposed Substitute ("Or-Equal") submittals.
  2. A list of all permits and licenses the CONTRACTOR shall obtain indicating the agency required to grant the permit, the expected date of submittal for the permit, and required date for receipt of the permit.
  3. A Project Schedule.
  4. List of CONTRACTOR's assignments for safety, first aid, dust control,

training, fire prevention and waste management.

### 13.3 SHOP DRAWINGS.

- A. Wherever called for in the Contract Documents, or where required by the ENGINEER, the CONTRACTOR shall furnish to the ENGINEER for review, four (4) copies of each shop drawing submittal. The term "Shop Drawings" as used in this Article shall be understood to include detail design calculations, shop drawings, fabrication, and installation drawings, erection drawings, list, graphs, catalog sheets, data sheets, environmental mitigation plans, and similar items. Whenever the CONTRACTOR is required to submit design calculations as part of a submittal, such calculations shall bear the signature and seal of an engineer registered in the appropriate branch and in the state wherein the Project is to be built, unless otherwise directed.
- B. All Shop Drawing submittals shall be accompanied by the ENGINEER's standard submittal transmittal form.
- C. A separate transmittal form shall be used for each specific item or class of material or equipment for which a submittal is required. However, transmittal of a submittal of various items using a single transmittal form will be required only when the items taken together constitute a manufacturer's "package" or are so functionally related that expediency indicates review of the group or package as a whole. A multiple-page submittal shall be collated into sets, and each set shall be stapled or bound, as appropriate, prior to transmittal to the ENGINEER.
- D. Except as may otherwise be indicated herein, the ENGINEER will return prints of each submittal to the CONTRACTOR with its comments noted thereon, within fifteen (15) calendar days following their receipt by the ENGINEER. It is considered reasonable that the CONTRACTOR shall make a complete and acceptable submittal to the ENGINEER by the second submission of a submittal item.
- E. If copies of a submittal are returned to the CONTRACTOR marked "NO EXCEPTIONS TAKEN," formal revision and resubmission of said submittal will not be required.
- F. If copies of a submittal are returned to the CONTRACTOR marked "MAKE CORRECTIONS NOTED," formal revision and resubmission of said submittal will not be required, except that the CONTRACTOR may be required to submit additional information for portions of the submittal that are incomplete.
- G. If a submittal is returned to the CONTRACTOR marked "AMEND-RESUBMIT," the CONTRACTOR shall revise said submittal and shall resubmit the required number of copies of said revised submittal to the ENGINEER.
- H. If a submittal is returned to the CONTRACTOR marked "REJECTED-RESUBMIT," the CONTRACTOR shall revise said submittal and shall resubmit the required number of copies of said revised submittal to the ENGINEER.
- I. Fabrication of an item shall be commenced only after the ENGINEER has reviewed the pertinent submittals and returned copies to the CONTRACTOR marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED." Corrections

indicated on submittals shall be considered as changes necessary to meet the requirements of the Contract Documents and shall not be taken as the basis for changes to the contract requirements.

- J. All CONTRACTOR shop drawings submittals shall be carefully reviewed by an authorized representative of the CONTRACTOR, prior to submission to the ENGINEER. Each submittal shall be dated, signed, and certified by the CONTRACTOR, as being correct and in strict conformance with the Contract Documents. In the case of shop drawings, each sheet shall be so dated, signed, and certified. No consideration for review by the ENGINEER of any CONTRACTOR submittals will be made for any items which have not been so certified by the CONTRACTOR. All non-certified submittals will be returned to the CONTRACTOR without action taken by the ENGINEER, and any delays caused thereby shall be the total responsibility of the CONTRACTOR.
  - K. The ENGINEER's review of CONTRACTOR shop drawings submittals shall not relieve the CONTRACTOR of the entire responsibility and risk for any misfits due to any errors in CONTRACTOR submittals. The CONTRACTOR shall be responsible for the dimensions and the design of adequate connections and details.
- 13.4 CONTRACTOR'S SCHEDULE. The CONTRACTOR's construction schedules and reports shall be prepared and submitted to the OWNER. A hard copy and Diskette containing all data will be provided by the CONTRACTOR to the OWNER at the preconstruction conference. The CONTRACTOR will resubmit this information updated to reflect Project status with each payment request.
- 13.5 SAMPLES.
- A. Whenever in the Specifications samples are required, the CONTRACTOR shall submit not less than three (3) samples of each item or material to the ENGINEER for acceptance at no additional cost to the OWNER.
  - B. Samples, as required in the Contract Documents, shall be submitted for acceptance a minimum of twenty-one (21) days prior to ordering such material for delivery to the jobsite, and shall be submitted in an orderly sequence so that dependent materials or equipment can be assembled and reviewed without causing delays in the Work.
  - C. All samples shall be individually and indelibly labeled or tagged, indicating all specified physical characteristics and Manufacturer's name for identification and submitted to the ENGINEER for acceptance. Upon receiving acceptance of the ENGINEER, one set of the samples will be stamped and dated by the ENGINEER and returned to the CONTRACTOR, and one set of samples will be retained by the ENGINEER, and one set of samples shall remain at the job site until completion of the Work.
  - D. Unless indicated otherwise, all colors and textures of specified items presented in sample submittals shall be from the manufacturer's standard colors and standard materials, products, or equipment lines. If the samples represent non-standard colors, materials, products, or equipment lines and their selection will require an increase in contract time or price, the CONTRACTOR will clearly indicate same on the transmittal page of the submittal.

## 13.6 RECORD DRAWINGS.

- A. The CONTRACTOR shall keep and maintain, at the job site, one record set of Drawings. On these, it shall mark all Project conditions, locations, configurations, and any other changes or deviations which may vary from the details represented on the original Contract Drawings, including buried or concealed construction and utility features which are revealed during the course of construction. Special attention shall be given to recording the horizontal and vertical location of all buried utilities that differ from the locations indicated, or which were not indicated on the Contract Drawings. The record drawings shall be supplemented by any detailed sketches as necessary or directed to indicate, fully, the Work as actually constructed. These master record drawings of the CONTRACTOR's representation of as-built conditions, including all revisions made necessary by addenda and change orders shall be maintained up-to-date during the progress of the Work.
- B. In the case of those drawings which depict the detail requirement for equipment to be assembled and wired in the factory, such as motor control centers and the like, the record drawings shall be updated by indicating those portions which are superseded by change order drawings or final shop drawings, and by including appropriate reference information describing the change orders by number and the shop drawings by manufacturer, drawing, and revision numbers.
- C. Record drawings shall be accessible to the OWNER and ENGINEER at all times during the construction period.
- D. Final payment will not be acted upon until the CONTRACTOR prepared record drawings have been prepared and delivered to the OWNER. Said up-to-date record drawings shall be in the form of a set of prints with carefully plotted information overlaid in red.
- E. Upon substantial completion of the Work and prior to final acceptance, the CONTRACTOR shall finalize and deliver a complete set of record drawings to the OWNER, conforming to the construction records of the CONTRACTOR. This set of drawings shall consist of corrected drawings showing the Record Drawings will be assumed to be correct, and the CONTRACTOR shall be responsible for the accuracy of such information, and for any errors or omissions which may appear on the Record Drawings as a result.

- 13.7 OTHER SUBMITTALS. The CONTRACTOR shall provide all other submittals required in the Contract Documents including certificates of compliance, manufacturers' certificates of proper installation and operation, sample test report forms, test reports, welding procedures prequalifications, welder qualifications, reports, and all other required submittals.

## ARTICLE 14 - INSPECTIONS AND TESTS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

- 14.1 NOTICE OF DEFECTS. Prompt notice of defects known to the OWNER will be given to the CONTRACTOR. All defective Work, whether or not in place, may be rejected, corrected, or accepted as provided in this Article 14. Defective Work may be rejected even if approved by prior inspection.



14.2 ACCESS TO WORK. OWNER, ENGINEER, their Consultants, Subconsultants, other representatives and personnel of OWNER, independent testing laboratories and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting, and testing. CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR's site safety procedures and programs so that they may comply therewith as applicable.

14.3 INSPECTIONS AND TESTS.

- A. The CONTRACTOR shall give the OWNER and ENGINEER not less than twenty-four (24) hours notice of readiness of the Work for all required inspections, tests, or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. If Laws of any public body having jurisdiction other than the OWNER require any Work to specifically be inspected, tested, or approved, the CONTRACTOR shall pay all costs in connection therewith. The CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with the OWNER'S or the ENGINEER'S acceptance of a Supplier of materials or equipment submitted for review prior to the CONTRACTOR'S purchase thereof for incorporation in the Work. The cost of all inspections, tests, and approvals in addition to the above which are required by the Contract Documents will be paid by the OWNER (unless otherwise specified).
- C. The OWNER or ENGINEER will make, or have made, such inspections and tests as the OWNER or ENGINEER deems necessary to see that the Work is being accomplished in accordance with the requirements of the Contract Documents. Unless otherwise specified in the Contract Documents, the CONTRACTOR shall bear the cost of corrective measures deemed necessary by the OWNER or ENGINEER as well as the cost of subsequent reinspection and retesting. Neither observations by the OWNER or ENGINEER nor inspections, tests, or approvals by others shall relieve the CONTRACTOR from the CONTRACTOR'S obligation to perform the Work in accordance with the Contract Documents.
- D. All inspections, tests, or approvals other than those required by Laws of any public body having jurisdiction shall be performed by organizations acceptable to the OWNER and the CONTRACTOR.
- E. If any Work (including the Work of others) that is to be inspected, tested, or approved is covered without written concurrence of the OWNER or ENGINEER, it must, if requested by the OWNER or ENGINEER, be uncovered for observation. Such uncovering shall be at the CONTRACTOR'S expense unless the CONTRACTOR has given the OWNER or ENGINEER not less than twenty-four (24) hours notice of the CONTRACTOR'S intention to perform such test or to cover the same and the OWNER or ENGINEER has not acted with reasonable promptness in response to such notice.
- F. If any Work is covered contrary to the written request of the OWNER or ENGINEER, it must, if requested by the OWNER or ENGINEER, be uncovered for the OWNER'S or ENGINEER'S observation and recovered at the CONTRACTOR'S expense.

- G. If the OWNER or ENGINEER considers it necessary or advisable that covered Work be observed by the OWNER or ENGINEER or inspected or tested by others, the CONTRACTOR, at the OWNER's or ENGINEER's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as the OWNER or ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment. If it is found that such Work is defective, the CONTRACTOR shall bear all direct, indirect, and consequential costs and damages of such uncovering, exposure, observation, inspection, and testing and of satisfactory reconstruction, including but not limited to, fees and charges of engineers, architects, attorneys, and other professionals. However, if such Work is not found to be defective, the CONTRACTOR will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof, the CONTRACTOR may make a claim therefor as provided in Articles 11 and 12.
- 14.4 OWNER MAY STOP THE WORK. If the Work is defective, or the CONTRACTOR fails to perform Work in such a way that the completed Work will conform to the Contract Documents, the OWNER may order the CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the OWNER to stop the Work shall not give rise to any duty on the part of the OWNER to exercise this right for the benefit of the CONTRACTOR or any other party.
- 14.5 CORRECTION OR REMOVAL OF DEFECTIVE WORK. If required by the OWNER or ENGINEER, the CONTRACTOR shall promptly either correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by the OWNER or ENGINEER, remove it from the site and replace it with non-defective Work. The CONTRACTOR shall bear all direct, indirect, and consequential costs and damages of such correction or removal, including but not limited to fees and charges of engineers, architects, attorneys, and other professionals made necessary thereby.
- 14.6 ONE YEAR CORRECTION PERIOD.
- A. If within one (1) year after the date of final acceptance or such longer period of time as may be prescribed by Laws or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, the CONTRACTOR shall promptly, without cost to the OWNER and in accordance with OWNER's written notification, correct such defective Work, or, if it has been rejected by the OWNER, remove it from the site and replace it with non-defective Work; and satisfactorily correct or remove and replace any damage to other Work of others resulting therefrom. If the CONTRACTOR does not promptly comply with such notification, or in an emergency where delay would cause serious risk of loss or damage, the OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all direct, indirect, and consequential costs and damages of such removal and replacement including but not limited to fees and charges of engineers, architects, attorneys, and other professionals will be paid by the CONTRACTOR.
- B. Where defective Work (and damage to other Work resulting therefrom) has been corrected, removed, or replaced under this Paragraph 13.6, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily

completed.

- 14.7 ACCEPTANCE OF DEFECTIVE WORK. If, instead of requiring correction or removal and replacement of defective Work, the OWNER prefers to accept the defective Work, the OWNER may do so. The CONTRACTOR shall bear all direct, indirect, and consequential costs attributable to the OWNER's evaluation of and determination to accept such defective Work. If any such acceptance occurs prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and the OWNER shall be entitled to an appropriate decrease in the Contract Price.

#### ARTICLE 15 -- PAYMENTS TO CONTRACTOR AND COMPLETION

- 15.1 SCHEDULE OF VALUES (LUMP SUM PRICE BREAKDOWN). The CONTRACTOR's Bid Schedule shall serve as the basis for progress payments and shall be incorporated into a form of Application for Payment acceptable to the OWNER.
- 15.2 UNIT PRICE BID SCHEDULE. Progress payments on account of unit price Work will be based on the number of units completed.
- 15.3 APPLICATION FOR PROGRESS PAYMENT.
- A. The CONTRACTOR shall submit to the OWNER for review, the Application for Payment filled out and signed by the CONTRACTOR covering the Work completed as of the date of the Application for Payment and accompanied by such supporting documentation as is required by the Contract Documents. The CONTRACTOR shall submit the Application for Payment to the OWNER by the tenth (10<sup>th</sup>) day of each month. Except as otherwise provided in the Contract Documents, OWNER shall make each progress payment by the last day of each month.
- B. The Application for Payment shall identify, as a subtotal, the amount of the CONTRACTOR's total earnings to date; plus the value of materials stored at the site which have not yet been incorporated into the Work; and less a deductive adjustment for materials installed which were not previously incorporated in the Work, but for which payment was allowed under the provisions for payment for materials stored at the site, but not yet incorporated in the Work.
- C. The net payment due the CONTRACTOR shall be the above-mentioned subtotal from which shall be deducted the total amount of all previous payments made to the CONTRACTOR. The OWNER may retain a portion of the amount otherwise due to the CONTRACTOR, as follows:
1. Retention of ten percent (10%) of each approved progress payment until the Work is fifty percent (50%) complete; then the OWNER may, at its option, refund that portion of retainage held by the OWNER that is in excess of five percent (5%) of the total of the Work done to date and thereafter continue to retain five percent (5%) of the value of all approved progress payment requests subsequently submitted.
  2. The OWNER may reinstate up to ten percent (10%) retention of the total of the Work done if the OWNER determines, at its discretion, that the CONTRACTOR is not performing the Work satisfactorily or there is other specific cause for such withholding.

- D. The value of materials sorted at the site shall be an amount equal to the value of all acceptable materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, provided each item will become a permanent part of the Work. The Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that the CONTRACTOR has received the materials and equipment free and clear of all liens, charges, security interests, and encumbrances (Liens) and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect the OWNER's interest in such items, all of which will be satisfactory to the OWNER.

15.4 CONTRACTOR'S WARRANTY OF TITLE. The CONTRACTOR warrants and guarantees that title to all Work, materials, and equipment covered by an Application for Payment, whether incorporated in the Work or not, will pass to the OWNER no later than the time of payment free and clear of all Liens.

#### 15.5 REVIEW OF APPLICATIONS FOR PROGRESS PAYMENT.

- A. The OWNER's Representative will, within five (5) days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the application to the OWNER, or return the application to the CONTRACTOR indicating in writing the OWNER's Representative reasons for refusing to recommend payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the application. If the OWNER's Representative still disagrees with a portion of the application, it will submit the application recommending the undisputed portion of the application to the OWNER for payment and provide reasons for recommending non-payment of the disputed amount.
- B. The OWNER's Representative may refuse to approve the application for progress payment and/or the OWNER may refuse to make payment, in whole or in part, of the amount recommended by the OWNER's Representative to the extent as may be necessary to protect the OWNER from loss because of: (1) defective Work not remedied; (2) third party claims filed or reasonable evidence indicating probable filing of such claims; (3) failure of the CONTRACTOR to make payments properly to subcontractors or for labor, materials or equipment; (4) reasonable evidence that the Work cannot be completed for the unpaid balance of the contract sum; (5) damage to the OWNER or another contractor; (6) reasonable evidence that the Work will not be completed within the contract time and that the unpaid balance will not be adequate to cover actual or liquid damages for the anticipated delay; or seven (7) persistent failure of the CONTRACTOR to carry out the Work in accordance with the Contract Documents.

#### 15.6 PARTIAL UTILIZATION.

- A. The OWNER shall have the right to utilize or place into service any item of equipment or other usable portion of the Work prior to completion of the Work. Whenever the OWNER plans to exercise said right, the CONTRACTOR will be notified in writing by the OWNER, identifying the specific portion or portions of the Work to be so utilized or otherwise placed into service.

- B. It shall be understood by the CONTRACTOR that until such written notification is issued, all responsibility for care and maintenance of all of the Work shall be borne by the CONTRACTOR. Upon issuance of said written notice of partial utilization, the OWNER will accept responsibility for the protection and maintenance of all such items or portions of the Work described in the written notice.
- C. The CONTRACTOR shall retain full responsibility for satisfactory completion of the Work, regardless of whether a portion thereof has been partially utilized by the OWNER, and the CONTRACTOR's one (1) year correction period shall commence only after the date of Substantial Completion for the Work.

15.7 SUBSTANTIAL COMPLETION. When the CONTRACTOR considers the Work ready for its intended use the CONTRACTOR shall notify the OWNER in writing that the Work is substantially complete. The CONTRACTOR shall attach to this request a list of all Work items that remain to be completed and a request that the OWNER prepare a certificate of Substantial Completion. Within a reasonable time thereafter, the OWNER, and the CONTRACTOR shall make an inspection of the Work to determine the status of completion. If the OWNER does not consider the Work substantially complete, or the list of remaining Work items to be comprehensive, the OWNER will notify the CONTRACTOR in writing giving the reasons therefor, and the CONTRACTOR shall thereafter correct such items and resubmit in accordance with the provisions of this paragraph. If the OWNER considers the Work substantially complete, the OWNER will execute and record the certificate of Substantial Completion signed by the OWNER and CONTRACTOR, which shall fix the date of Substantial Completion.

15.8 APPLICATION FOR FINAL PAYMENT. After the CONTRACTOR has completed all of the Work items referred to in Paragraph 15.7 and delivered schedules, guarantees, Bonds, certificates of inspection, marked-up record documents, and other documents, all as required by the Contract Documents, and after the OWNER has indicated that the Work is acceptable, the CONTRACTOR may make application for final payment. The Application for Final Payment shall be accompanied by all documentation called for in the Contract Documents, together with complete and legally effective releases or waivers (satisfactory to the OWNER) of all liens or stop notices arising out of or filed in connection with the Work.

15.9 FINAL PAYMENT AND ACCEPTANCE.

- A. If, on the basis of the OWNER's observation of the Work during construction and final inspection, and the OWNER's review of the Application for Final Payment and accompanying documentation, all as required by the Contract Documents, the OWNER is satisfied that the Work has been completed and the CONTRACTOR's other obligations under the Contract Documents have been fulfilled, including but not limited to CONTRACTOR's completion and execution of the Closeout Agreement and Release of Claims, the OWNER will, within fourteen (14) calendar days after receipt of the final Application for Final Payment, indicate in writing the OWNER's Representative recommendation of payment and present the application to the OWNER for payment and submit to the OWNER a Notice of Completion signed by the CONTRACTOR and OWNER's Representative.
- B. After acceptance of the Work by the OWNER's governing body, the OWNER will make final payment to the CONTRACTOR of the Contract Price after deducting all prior payments, if any, and all amounts to be kept or retained under the provisions of the Contract Documents, including the following items:

1. Liquidated damages, as applicable;
2. Claims made against the OWNER on account of the CONTRACTOR's performance of the Work or Stop Notices filed in connection with the Work or other items entitling the OWNER to a credit; and
3. Two times the value of outstanding items of correction Work or punch list items yet uncompleted or uncorrected, as applicable. All such Work shall be completed or corrected to the satisfaction of the OWNER within the time stated on the Notice of Completion, otherwise the CONTRACTOR waives any and all claims to all monies withheld by the OWNER to cover the value of all such uncompleted or uncorrected items.

15.10 CONTRACTOR'S CONTINUING OBLIGATION. The CONTRACTOR's obligation to perform and complete the Work within the time limits specified in the Agreement and in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by the OWNER's Representative, nor the issuance of a Notice of Completion, nor any payment by the OWNER to the CONTRACTOR under the Contract Documents, nor any use or occupancy of the Work or any part thereof by the OWNER, nor any act of acceptance by the OWNER nor any failure to do so, nor any review of a Shop Drawing or sample submittal, will constitute an acceptance of Work not in accordance with the Contract Documents or a release of the CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents.

15.11 FINAL PAYMENT TERMINATES LIABILITY OF OWNER. Final payment is defined as the last progress payment made to the CONTRACTOR for earned funds, less retainage as applicable, less deductions listed in Paragraph 15.9B. The acceptance by the CONTRACTOR of any undisputed amounts of the final payment referred to in Paragraph 15.9 shall be contingent upon CONTRACTOR providing a release of the OWNER and its agents in the form included in these Contract Documents from all claims of liability to the CONTRACTOR for anything done or furnished for, or relating to, the Work or for any act or neglect of the OWNER or of any person relating to or affecting the Work which relate to such undisputed amounts. The CONTRACTOR shall be entitled to except from such release, any demands against the OWNER for the remainder, if any, of the amounts kept or retained under the provisions of Paragraph 15.9; and any pending, unresolved claims filed prior to the date of the Notice of Completion.

## ARTICLE 16 -- SUSPENSION OF WORK AND TERMINATION

16.1 SUSPENSION OF WORK BY OWNER. The OWNER, may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than ninety (90) days by notice in writing to the CONTRACTOR. The CONTRACTOR shall resume the Work on receipt from the OWNER of a notice of resumption of Work. The CONTRACTOR will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension if the CONTRACTOR makes an approved claim therefor as provided in Articles 11 and 12.

16.2 TERMINATION OF AGREEMENT BY OWNER (CONTRACTOR DEFAULT).

- A. In the event of default by the CONTRACTOR, the OWNER may give five (5) days written notice to the CONTRACTOR and CONTRACTOR's surety of OWNER's

intent to terminate the Agreement and provide the CONTRACTOR an opportunity to remedy the conditions constituting the default. It will be considered a default by the CONTRACTOR whenever CONTRACTOR shall:

1. Declare bankruptcy, become insolvent, or assign its assets for the benefit of its creditors;
  2. Fail to provide materials or workmanship meeting the requirements of the Contract Documents;
  3. Disregard or violate provisions of the Contract Documents or OWNER's instructions;
  4. Fail to prosecute the Work according to the approved progress schedule; or
  5. Fail to provide a qualified superintendent, competent workmen, or materials or equipment meeting the requirements of the Contract Documents.
- B. If the CONTRACTOR fails to remedy the conditions constituting default within the time allowed, the OWNER may issue the Notice of Termination to the CONTRACTOR and CONTRACTOR's surety and the surety shall have the right to take over and perform the Work.
- C. In the event the Agreement is terminated in accordance with Paragraph 16.2A, and the CONTRACTOR's surety does not commence performance of the Work within fifteen (15) days from the date of mailing the Notice of Termination to surety in accordance with Paragraph 16.2.B, herein, the OWNER may take possession of the Work and may complete the Work by whatever method or means the OWNER may select. The cost of completing the Work will be deducted from the balance which would have been due the CONTRACTOR had the Agreement not been terminated and the Work completed in accordance with the Contract Documents. If such cost exceeds the balance which would have been due, the CONTRACTOR shall pay the excess amount to the OWNER. If such cost is less than the balance which would have been due, the CONTRACTOR shall not have claim to the difference.

### 16.3 TERMINATION OF AGREEMENT BY OWNER (FOR CONVENIENCE).

- A. The OWNER may terminate the Agreement at any time if it is found that reasons beyond the control of either the OWNER or CONTRACTOR make it impossible or against the OWNER's interests to complete the Work. In such a case, the CONTRACTOR shall have no claims against the OWNER except for the value of Work performed up to the date the Agreement is terminated and for the cost of materials and equipment on hand, in transit, or on definite commitment, as of the date the Agreement is terminated, which would be needed in the Work and which meet the requirements of the Contract Documents.
- B. The value of Work performed and the cost of materials and equipment delivered to the site, as mentioned above, will be determined by the OWNER in accordance with the procedure prescribed for the making of the final application for payment under Paragraphs 14.3 and 14.4.

#### 16.4 TERMINATION OF AGREEMENT BY CONTRACTOR.

- A. The CONTRACTOR may terminate the Agreement upon ten (10) days written notice to the OWNER, whenever:
  - 1. The Work has been suspended under the provisions of Paragraph 16.1, herein, for more than ninety (90) consecutive days through no fault or negligence of the CONTRACTOR, and notice to resume Work or to terminate the Agreement has not been received from the OWNER within this time period; or
  - 2. The OWNER should fail to pay the CONTRACTOR any monies due him in accordance with the terms of the Contract Documents and within sixty (60) days after presentation to the OWNER by the CONTRACTOR of a request therefor, unless within said ten (10) day period the OWNER shall have remedied the condition upon which the payment delay was based.
- B. In the event of such termination, the CONTRACTOR shall have no claims against the OWNER except for those claims specifically enumerated in Paragraph 16.3, and as determined in accordance with the requirements of such paragraph.

### ARTICLE 17 -- STATUTORY REQUIREMENTS

#### 17.1 STATE WAGE DETERMINATIONS.

- A. As required by Sections 1770 and following, of the California Labor Code, the CONTRACTOR shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations. Copies of such prevailing rate of per diem wages are on file at the office of the OWNER, which copies shall be made available to any interested party on request. The CONTRACTOR shall post a copy of such prevailing wages at each job site.
- B. In accordance with Section 1775 of the California Labor Code, the CONTRACTOR shall, as a penalty to the OWNER, forfeit not more than \$200.00 for each calendar day or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of the California Department of Industrial Relations for any public Work done under the Contract by him or her or by any subcontractor under him or her.

#### 17.2 PAYROLL RECORDS; RETENTION; INSPECTION; NONCOMPLIANCE PENALTIES; RULES AND REGULATIONS. CONTRACTOR shall comply with the provisions of Section 1776 of the California Labor Code relating to the keeping of accurate payroll records.

#### 17.3 DISQUALIFICATION OF CONTRACTOR. CONTRACTOR shall be prohibited from performing the Work, or a portion of the Work, with a subcontractor who is ineligible to perform Work on public works projects pursuant to California Labor Code sections 1777.1 or 1777.7. Any contract entered into between CONTRACTOR and a debarred subcontractor shall be void and subcontractor may not receive any money from OWNER for performing Work as a subcontractor on the Project, and any money from OWNER that may have been paid to any barred subcontractor by CONTRACTOR on the Project shall be returned to OWNER. CONTRACTOR shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to Work on the Project.



- 17.4 APPRENTICES ON PUBLIC WORKS. The CONTRACTOR shall comply with all applicable provisions of Section 1777.5 of the California Labor Code relating to employment of apprentices on public works.
- 17.5 WORKING HOURS. The CONTRACTOR shall comply with all applicable provisions of Section 1810 to 1815, inclusive, of the California Labor Code relating to working hours. The CONTRACTOR shall, as a penalty to the OWNER, forfeit \$25.00 for each worker employed in the execution of the Contract by the CONTRACTOR or by any subcontractor for each calendar day during which such worker is required or permitted to Work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week, unless such worker receives compensation for all hours worked in excess of eight (8) hours at not less than 1-1/2 times the basic rate of pay.
- 17.6 WORKERS' COMPENSATION.
- A. In accordance with the provisions of Section 3700 of the California Labor Code, the CONTRACTOR shall secure the payment of compensation to his employees.
- B. Prior to beginning Work under the Contract, the CONTRACTOR shall sign and file with the OWNER the following certification:
- "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this Contract."
- C. Notwithstanding the foregoing provisions, before the Contract is executed on behalf of the OWNER, a Bidder to whom a contract has been awarded shall furnish satisfactory evidence that it has secured in the manner required and provided by law the payment of workers' compensation.
- 17.7 PROTECTION OF WORKERS IN TRENCH EXCAVATIONS. As required by Section 6705 of the California Labor Code and in addition thereto, the CONTRACTOR shall submit for acceptance by the OWNER or by a registered civil or structural engineer, employed by the OWNER, to whom authority to accept has been delegated, in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation, of such trench or trenches. The plan shall be prepared by a registered civil or structural engineer employed by the CONTRACTOR, and all costs therefor shall be included in the price named in the Agreement for completion of the Work as set forth in the Contract Documents. Nothing in this Section shall be deemed to allow the use of a shoring, sloping, or other protective system less effective than that required by the Construction Safety Orders. Nothing in this Section shall be construed to impose tort liability on the OWNER, the ENGINEER, or any of their officers, agents, representatives, or employees.
- 17.8 INSPECTIONS. CONTRACTOR shall comply with all applicable provisions of section 16100 of Title 8 of the California Code of Regulations, which require CONTRACTOR to keep accurate records of the Work performed as provided in Labor Code section 1812, to allow OWNER to inspect CONTRACTOR's payroll records pursuant to Labor Code Section 1776 and Section 16400(e) of Title 8 of the California Code of Regulations, and to comply with all other requirements imposed by law.

- 17.9 CONTRACTOR NOT RESPONSIBLE FOR DAMAGE RESULTING FROM CERTAIN ACTS OF GOD. As provided in Sections 7105 of the California Public Contract Code, the CONTRACTOR shall not be responsible for the cost of repairing or restoring damage to the Work which damage is determined to have been proximately caused by an act of God, in excess of 5 percent (5%) of the contracted amount, provided, that the Work damaged was built in accordance with accepted and applicable building standards and the plans and specifications of the OWNER. The CONTRACTOR shall obtain insurance to indemnify the OWNER for any damage to the Work caused by an act of God if the insurance premium is a separate bid item in the bidding schedule for the Work. For purposes of this Section, the term "acts of God" shall include only the following occurrences or conditions and effects: earthquakes in excess of a magnitude of 3.5 on the Richter Scale and tidal waves.
- 17.10 UNPAID CLAIMS. If, at any time prior to the expiration of the period for service of a stop notice, there is served upon the OWNER a stop notice as provided in Sections 3183 and 3210 of the California Civil Code, pursuant to Section 3186 of the California Civil Code, the OWNER shall, until the discharge thereof, withhold from the monies under its control so much of said monies due or to become due to the CONTRACTOR under this Contract as shall be sufficient to answer the claim stated in such stop notice and to provide for the reasonable cost of any litigation thereunder; provided, that if the OWNER shall, in its discretion, permit CONTRACTOR to file with the OWNER the bond referred to in Section 3196 of the Civil Code of the State of California, said monies shall not thereafter be withheld on account of such stop notice.
- 17.11 RETAINAGE FROM MONTHLY PAYMENTS. Pursuant to Section 22300 of the California Public Contract Code, the CONTRACTOR may substitute securities for any money withheld by the OWNER to insure performance under the Contract. At the request and expense of the CONTRACTOR, securities equivalent to the amount withheld shall be deposited with the OWNER or with a state or federally chartered bank in California as the escrow agent, who shall return such securities to the CONTRACTOR upon satisfactory completion of the Contract. Alternatively, the CONTRACTOR may request and the OWNER shall make payment of retentions earned directly to the escrow agent at the expense of the CONTRACTOR. At the expense of the CONTRACTOR, the CONTRACTOR may direct the investment of the payments into securities and the CONTRACTOR shall receive the interest earned on the investments upon the same terms provided for in this section for securities deposited by the CONTRACTOR. Upon satisfactory completion of the Contract, the CONTRACTOR shall receive from the escrow agent all securities, interest, and payments received by the escrow agent from the OWNER, pursuant to the terms of this section. If CONTRACTOR elects to receive interest on moneys withheld in retention by OWNER, CONTRACTOR shall, at the request of any subcontractor performing more than five percent (5%) of CONTRACTOR's total Bid, make that option available to the subcontractor regarding any moneys withheld in retention by CONTRACTOR from the subcontractor. The subcontractor shall receive the identical rate of interest received by CONTRACTOR from OWNER on any retention moneys withheld from the subcontractor, less any actual pro rata costs associated with administering and calculating that interest. In the event that the interest rate is a fluctuating rate, the rate for the subcontractor shall be determined by calculating the interest rate paid during the time that retentions were withheld from the subcontractor. If CONTRACTOR elects to substitute securities in lieu of retention, then, by mutual consent of CONTRACTOR and the subcontractor, the subcontractor may substitute securities in exchange for the release of moneys held in retention by CONTRACTOR. Deposit of securities with an escrow agent shall be subject to a written agreement between the escrow agent, CONTRACTOR and the OWNER which is substantially similar to the form provided in California Public Contract Code section 22300. The OWNER will not certify that the Contract has been satisfactorily completed until at least thirty (30) days after filing by the

OWNER of a Notice of Completion. Securities eligible for investment under Section 22300 shall be limited to those listed in Section 16430 of the Government Code and to bank or savings and loan certificates of deposit, interest bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by the CONTRACTOR and the OWNER.

17.12 PUBLIC WORKS CONTRACTS; ASSIGNMENT TO AWARDING BODY. In accordance with Section 7103.5 of the California Public Contract Code, the CONTRACTOR and Subcontractors shall conform to the following requirements. In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the CONTRACTOR or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the CONTRACTOR, without further acknowledgment by the parties.

17.13 RESOLUTION OF CONSTRUCTION CLAIMS.

- A. For any claim of three hundred and seventy-five thousand dollars (\$375,000) or less by the CONTRACTOR against OWNER for (1) a time extension, (2) payment of money or damages arising from Work done by, or on behalf of, the CONTRACTOR pursuant to the Contract Documents and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (3) an amount the payment of which is disputed by the OWNER, the following procedures will apply:
1. The claim must be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the day of final payment. Nothing in this subsection is intended to extend the time limit or supersede notice requirements for the filing of claims as set forth elsewhere in the Contract Documents.
  2.
    - a. For claims of less than or equal to fifty thousand dollars (\$50,000), the OWNER shall respond in writing to any written claim within forty-five (45) days of receipt of the claim, or may request, in writing, within thirty (30) days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the OWNER may have against the claimant.
    - b. If additional information is thereafter required, it shall be requested and provided pursuant to this subsection, upon mutual agreement of the OWNER and the claimant.
    - c. The OWNER's written response to the claim, as further documented, shall be submitted to the claimant within fifteen (15) days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.

3.
      - a. For claims of over fifty thousand dollars (\$50,000) and less than or equal to three hundred seventy-five thousand dollars (\$375,000), the OWNER shall respond in writing to any written claim within sixty (60) days of receipt of the claim, or may request, in writing, within thirty (30) days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the OWNER may have against the claimant.
      - b. If additional information is thereafter required, it shall be requested and provided pursuant to this subsection, upon mutual agreement of the OWNER and the claimant.
      - c. The OWNER's written response to the claim, as further documented, shall be submitted to the claimant within thirty (30) days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.
    4. If the claimant disputes the OWNER's written response, or the OWNER fails to respond within the time prescribed, the claimant may so notify the OWNER, in writing, either within fifteen (15) days of receipt of the OWNER's response or within fifteen (15) days of the OWNER's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the OWNER shall schedule a meet and confer conference within thirty (30) days for settlement of the dispute.
    5. If following the meet and confer conference the claim or any portion remains in dispute, the claimant may file a claim pursuant to Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the California Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the claimant submits his or her written claim pursuant to subsection 17.13.A.1 until the time the claim is denied, including any period of time utilized by the meet and confer conference.
    6. This section does not apply to tort claims and nothing in this section is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code.
  - B. The following procedures will apply to all civil actions filed to resolve claims against OWNER by the CONTRACTOR, which do not exceed three hundred seventy-five thousand dollars (\$375,000.00) for (1) a time extension, (2) payment of money or damages arising from Work done by, or on behalf of, the CONTRACTOR pursuant to the Contract Documents and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (3) an amount the payment of which is disputed by the OWNER:
    1. Within sixty (60) days, but no earlier than thirty (30) days, following the filing or responsive pleadings, the court shall submit the matter to non-binding

mediation unless waived by mutual stipulation of both parties. The mediation process shall provide for the selection within fifteen (15) days by both parties of a disinterested third person as mediator, shall be commenced within thirty (30) days of the submittal, and shall be concluded within fifteen (15) days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the fifteen (15) day period, any party may petition the court to appoint the mediator.

2. a. If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the California Code of Civil Procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery Act of 1986 (Article 3 (commencing with Section 2016) of Chapter 3 of Title 3 of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subsection consistent with the rules pertaining to judicial arbitration.
  - b. Notwithstanding any other provision of law, upon stipulation of the parties, arbitrators appointed for purposes of this section shall be experienced in construction law, and, upon stipulation of the parties, mediators and arbitrators shall be paid necessary and reasonable hourly rates of pay not to exceed their customary rate, and such fees and expenses shall be paid equally by the parties, except in the case of arbitration where the arbitrator, for good cause, determines a different division. In no event shall these fees or expenses be paid by state or county funds.
  - c. In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, any party who after receiving an arbitration award requests a trial de novo does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, also pay the attorney's fees of the other party arising out of the trial de novo.
- C. 1. The OWNER shall pay money as to any portion of a claim subject to this Paragraph 17.13 which is undisputed except as otherwise provided in the Contract Documents.
  2. In any suit filed under Paragraph 17.13.B, the OWNER shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law.

#### 17.14 REMOVAL, RELOCATION, OR PROTECTION OF EXISTING UTILITIES.

- A. In accordance with the provisions of Section 4215 of the California Government Code, OWNER shall be responsible for the timely removal, relocation, or protection of existing main or trunkline utility facilities located on the Project site subject to the Contract Documents, if such utilities are not identified by OWNER in the plans and specifications made a part of the Notice Inviting Bids. OWNER will compensate CONTRACTOR for the costs of locating, repairing damage not due to the failure of

the CONTRACTOR to exercise reasonable care, and removing or relocating such utility facilities not indicated in the plans and specifications with reasonable accuracy, and for equipment on the Project necessarily idled during such Work.

- B. The CONTRACTOR shall not be assessed liquidated damages for delay in completion of the Project, when such delay was caused by the failure of OWNER or the owner of the utility to provide for removal or relocation of such utility facilities.
- C. Nothing in this Paragraph 17.14 shall be deemed to require OWNER to indicate the presence of existing service laterals or appurtenances when the presence of such utilities on the site of the Project can be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes, on or adjacent to the site of construction; provided, however, nothing in this Paragraph 17.14 shall relieve OWNER from identifying main or trunklines in the plans and specifications.
- D. If the CONTRACTOR while performing the Contract discovers utility facilities not identified by the public agency in the Contract Documents, CONTRACTOR shall immediately notify OWNER and utility in writing.
- E. The public utility, where they are the owner, shall have the sole discretion to perform such repairs or relocation Work or permit the CONTRACTOR to do such repairs or relocation Work at a reasonable price.

17.15 RETENTION PROCEEDS; WITHHOLDING; DISBURSEMENT. In accordance with Section 7107 of the Public Contracts Code, the following shall apply:

- A. The retention proceeds withheld from any payment by the OWNER from the original CONTRACTOR, or by the original CONTRACTOR from any subcontractor, shall be subject to this paragraph 17.15.
- B. Within 60 days after the date of completion of the Work, the retention withheld by the OWNER shall be released. In the event of a dispute between the OWNER and the CONTRACTOR, the OWNER may withhold from the final payment an amount not to exceed 150 percent (150%) of the disputed amount. For the purposes of this paragraph, "completion" means any of the following:
  - 1. The occupation, beneficial use, and enjoyment of a Work of improvement, excluding any operation only for testing, startup, or commissioning, by the OWNER, accompanied by cessation of labor on the Work.
  - 2. The acceptance by the OWNER of the work of improvement.
  - 3. After the commencement of the Work, a cessation of labor on the Work for a continuous period of one hundred (100) days or more, due to factors beyond the control of the CONTRACTOR.
  - 4. After the commencement of the Work, a cessation of labor on the Work for a continuous period of thirty (30) days or more, if the OWNER files for record a notice of cessation or a notice of completion.
- C. Subject to subparagraph 4, within seven (7) days from the time that all or any

portion of the retention proceeds are received by the CONTRACTOR, the CONTRACTOR shall pay each of its Subcontractors from whom retention has been withheld, each Subcontractor's share of the retention received. However, if a retention payment received by the CONTRACTOR is specifically designated for a particular Subcontractor, payment of the retention shall be made to the designated Subcontractor, if the payment is consistent with the terms of the subcontract.

- C. The CONTRACTOR may withhold from a Subcontractor its portion of the retention proceeds if a bona fide dispute exists between the Subcontractor and the CONTRACTOR. The amount withheld from the retention payment shall not exceed one hundred fifty percent (150%) of the estimated value of the disputed amount.
- E. In the event that retention payments are not made within the time periods required by this paragraph 17.16, the OWNER or CONTRACTOR withholding the unpaid amount shall be subject to a charge of two percent (2%) per month on the improperly withheld amount, in lieu of any interest otherwise due. Additionally, in any action for the collection of funds wrongfully withheld, the prevailing party shall be entitled to attorney's fees and costs.

#### 17.16 TIMELY PROGRESS PAYMENTS; INTEREST; PAYMENT REQUESTS.

- A. If the OWNER fails to make any progress payment within thirty (30) days after receipt of an undisputed and properly submitted payment request from the CONTRACTOR, the OWNER shall pay interest to the CONTRACTOR equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure.
- B. Upon receipt of a payment request, the OWNER shall act in accordance with both of the following:
  - 1. Each payment request shall be reviewed by the OWNER as soon as practicable after receipt for the purpose of determining that the payment request is a proper payment request.
  - 2. Any payment request determined not to be a proper payment request suitable for payment shall be returned to the CONTRACTOR as soon as practicable, but not later than seven days, after receipt. A request returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the payment request is not proper.
- C. The number of days available to the OWNER to make a payment without incurring interest pursuant to this paragraph shall be reduced by the number of days by which the OWNER exceeds the seven-day requirement set forth above.
- D. For purposes of this paragraph:
  - 1. A "progress payment" includes all payments due the CONTRACTOR, except that portion of the final payment designated by the contract as retention earnings.
  - 2. A payment request shall be considered properly executed if funds are available for payment of the payment request, and payment is not delayed

due to an audit inquiry by the financial officer of the OWNER.

#### 17.17 DIGGING TRENCHES OR OTHER EXCAVATIONS.

- A. Contractor shall promptly, and before the following conditions are disturbed, notify OWNER, in writing of any: (1) material that CONTRACTOR believes may be material and is hazardous waste, as defined in section 25117 of the Health and Safety Code, and 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; or (3) unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent Work of the character provided for in the Contract Documents
- B. OWNER shall promptly investigate the conditions, and if OWNER 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 shall issue a change order under the procedures described in the Contract Documents.
- C. That, in the event that a dispute arises between OWNER and the 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 Documents, but shall proceed with all Work to be performed under the Contract Documents. CONTRACTOR shall retain any and all rights provided either by the Contract Documents or by law which pertain to the resolution of disputes and protests between OWNER and CONTRACTOR.

#### ARTICLE 18 – MISCELLANEOUS

- 18.1 GIVING NOTICE. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.
- 18.2 TITLE TO MATERIALS FOUND ON THE WORK. The OWNER reserves the right to retain title to all soils, stone, sand, gravel, and other materials developed and obtained from excavations and other operations connected with the Work. Unless otherwise specified in the Contract Documents, neither the CONTRACTOR nor any Subcontractor shall have any right, title, or interest in or to any such materials. The CONTRACTOR will be permitted to use in the Work, without charge, any such materials which meet the requirements of the Contract Documents.
- 18.3 RIGHT TO AUDIT. If the CONTRACTOR submits a claim to the OWNER for additional compensation, the OWNER shall have the right, as a condition to considering the claim, and as a basis for evaluation of the claim, and until the claim has been settled, to audit the CONTRACTOR's books to the extent they are relevant. This right shall include the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to discover and verify all direct and indirect costs of whatever nature



claimed to have been incurred or anticipated to be incurred and for which the claim has been submitted. The right to audit shall include the right to inspect the CONTRACTOR's plans, or such parts thereof, as may be or have been engaged in the performance of the Work. The CONTRACTOR further agrees that the right to audit encompasses all subcontracts and is binding upon Subcontractors. The rights to examine and inspect shall be exercisable through such representatives as the OWNER deems desirable during the CONTRACTOR's normal business hours at the office of the CONTRACTOR. The CONTRACTOR shall make available to the OWNER for auditing, all relevant accounting records and documents, and other financial data, and upon request, shall submit true copies of requested records to the OWNER.

- 18.4 SEVERABILITY: If any term, provision, covenant or condition of the Contract Documents shall be or become illegal, null, void or against public policy, or shall be held by any court of competent jurisdiction to be illegal, null or void or against public policy, the remaining provisions of the Contract Documents shall remain in full force and effect and shall not be affected, impaired or invalidated thereby. The term, provision, covenant or condition that is so invalidated, voided or held to be unenforceable shall be modified or changed by the parties to the extent possible to carry out the intentions and directives set forth in this Agreement.
- 18.5 WAIVER: The waiver of any breach of any provision of the Contract Documents by any party shall not be deemed to be a waiver of any preceding or subsequent breach, nor shall any waiver constitute a continuing waiver. No waiver shall be binding unless executed in writing by the party making the waiver.
- 18.6 SUCCESSORS AND ASSIGNS: The Contract Documents shall be binding on and shall inure to the benefit of the parties and their respective heirs, legal representatives, successors and assigns.
- 18.7 ASSIGNMENT: CONTRACTOR shall not have the right to assign any of its rights or delgate any of its obligations or duties under the Contract Documents without the expressed written consent of OWNER.
- 18.8 CONTROLLING LAW: The Contract Documents shall be construed in accordance with and governed by the laws of the State of California with venue proper only in the City and County of Santa Barbara, State of California.

- END OF SECTION -

**SANTA YNEZ PUMP STATION SURGE TANK  
SUPPORT REPLACEMENT  
SPECIAL PROVISIONS  
TABLE OF CONTENT**

<b><u>SECTION</u></b>	<b><u>DESCRIPTION</u></b>
030500	GENERAL CONCRETE CONSTRUCTION
050520	BOLTS ANCHORS
099000	PAINT AND COATING
312300	EARTHWORKS
400722	FLEXIBLE PIPE COUPLING AND EXPANSION JOINTS
402001	GENERAL REQUIREMENT FOR STEEL PIPING

SECTION 030500  
GENERAL CONCRETE CONSTRUCTION

**PART 1 - GENERAL**

1.01 DESCRIPTION

This section includes materials, installation, and testing of formwork, reinforcing steel, joints, concrete, and finishing and curing for general concrete construction.

1.02 RELATED WORK SPECIFIED ELSEWHERE

Earthwork: See drawings.

1.03 SUBMITTALS

- A. Submit shop drawings in accordance with the General Provisions
- B. Prepare concrete and mortar mix designs and laboratory 7-day and 28-day compressive tests or submit test reports of 7- and 28-day compressive tests of the mix where the same mix has been used on two previous projects. Submit mix design in writing for review by the Owner at least 15 days before placing of any concrete.
- C. Submit manufacturer's catalog data and descriptive literature for form ties, form coatings and curing compound, joint sealant, backing rod, epoxy bonding compound, and epoxy anchor adhesive.
- D. Submit mill test certificates identifying chemical and physical analyses of each load of reinforcing steel delivered. If mill test reports are unavailable and the quantity of steel for a structure exceeds 5 tons, provide a laboratory test to prove conformance with the specified ASTM standard.
- E. Submit reinforcing bending lists and placing drawings for all reinforcing. Placing drawings shall indicate all openings (mechanical, electrical, equipment, and architectural) including additional reinforcing at openings and corner bar arrangements at intersecting beams, walls, and footings indicated in the typical detail and structural drawings. Placing drawings shall be coordinated with the concrete placing schedule. Each bending list and placing drawing submitted shall be complete for each major element of a structure (grade slabs, footings, walls, deck, floor, or roof slabs) including dowels and corner bars. Furnishing such lists shall not be construed that the lists will be reviewed for accuracy. The Contractor shall be wholly and completely responsible for the accuracy of the lists and for furnishing and placing reinforcing steel in accordance with the details shown in the drawings and as specified. Placing drawings shall be prepared by the

Contractor and shall not incorporate photocopies of the contract drawings.

- F. Provide certificate that cement used complies with ASTM C 150 and these specifications.
- G. Provide certificates that aggregates comply with ASTM C33 and contain less than 1% asbestos by weight or volume. State weathering region limits of coarse aggregates: severe, moderate, or negligible. State basis of determining that potential reactivity is negligible. Identify certifications and tests to actual materials to be used in the work. Provide additional tests and certifications for each change in material source. Provide an alternate material source of aggregate if tests indicate that aggregates are reactive or possess severe weathering potential. Submit gradation analysis with concrete mix designs.
- H. Provide delivery tickets for ready-mix concrete or weighmasters certificate per ASTM C94, including weights of cement and each size aggregate and amount of water added at the plant and record of pours. Record the amount of water added on the job on the delivery ticket. Water added at the plant shall account for moisture in both coarse and fine aggregate.
- I. Provide certificate of compliance with these specifications from the manufacturer of the concrete admixtures.

## **PART 2 - MATERIALS**

### **2.01 NONDOMESTIC CEMENT AND ADDITIVES**

- A. The use of nondomestic cement and additives in concrete may be permitted only after review of a written request to use such materials. The request to use nondomestic materials shall include a chemical analysis that indicates the material meets the project specifications. Certifications that state the nondomestic materials meet the project requirements will not be accepted.
- B. Test reports for concrete materials shall be current to within three months of inclusion into the project and shall be identifiable to the materials supplied.

### **2.02 FORMWORK**

- A. Design forms according to ACI 347.
- B. Class I Forms: Use steel forms, ply form, or smooth-surface plywood 3/4-inch minimum thickness for straight surfaces and 1/2-inch minimum thickness for curved surfaces.
- C. Class II Forms: Use plywood in good condition, metal, or smooth-planed boards free from large or loose knots with tongue and groove or ship lap joints.
- D. Class II forms may be used for exterior concrete surfaces that are 1 foot or more below finished grade. Use Class I forms for all other surfaces.

- E. Coat forms with form release agent.

#### 2.03 BOND BREAKER

Bond breaker shall be a nonstaining type which will provide a positive bond prevention, such as Williams Tilt-Up Compound, as manufactured by Williams Distributors, Inc., Seattle, Washington; Silcoseal 77, as manufactured by SCA Construction Supply Division, Superior Concrete Accessories, Franklin Park, Illinois; or equal.

#### 2.04 FORM RELEASE AGENT

- A. Form release agent shall effectively prevent absorption of moisture and prevent bond with the concrete. Agent shall be nonstaining and nontoxic after 30 days.
- B. For steel forms, release agent shall prevent discoloration of the concrete due to rust.

#### 2.05 REINFORCING STEEL

- A. Reinforcement shall conform to ASTM A615 or A706, Grade 60. All reinforcing shall be galvanized coated per ASTM 767. Repair damaged coatings per ASTM A780, paint containing zinc dust.
- B. Fabricate reinforcing in accordance with the current edition of the Manual of Standard Practice, published by the Concrete Reinforcing Steel Institute. Bend reinforcing steel cold.
- C. Deliver reinforcing steel to the site bundled and with identifying tags.

#### 2.06 TIE WIRE

Tie wire shall be 16 gauge minimum, black, soft annealed.

#### 2.07 BAR SUPPORTS

Bar supports in beams and slabs exposed to view after form stripping shall be galvanized and plastic coated. Use concrete supports for reinforcing in concrete placed on grade.

#### 2.08 JOINT SEALANT FOR CONCRETE STRUCTURES

- A. Joint sealant shall be a multipart, gray, nonstaining, nonsagging, gun grade polyurethane sealant, which cures at ambient temperature to a firm, flexible, resilient, tear-resistant rubber. Sealant shall comply with ASTM C920, Type M, Grade P, Class 25 for horizontal joints and Grade NS, Class 25 for vertical joints and be recommended by the manufacturer for continuous immersion in water.

Characteristic or Parameter	Technical Requirements
Pot life	1 to 3 hours
Hardness	35 Shore A, ±5, ASTM D2240
Elongation	650%, ASTM D412
Tensile strength	200 psi, ASTM D412
Peel strength on concrete	No adhesion loss at 25 pounds
Temperature service range	40°F to 167°F
Immersion in water	Continuous

- B. Sealant shall be Tremco Vulkem 227 or Sikaflex-2CNS (for Grade NS, Class 25), Sikaflex-2CSL of Sika Corporation or Vulkem 245 (for Type M, Grade P, Class 25), or equal. Troweling of sealants into joints will not be permitted.

2.09 BOND BREAKER TAPE

Bond breaker tape shall be an adhesive-backed glazed butyl or polyethylene tape that will adhere to the premolded joint material or concrete surface. The tape shall be the same width as the joint. The tape shall be compatible with the sealant.

2.10 PREMOLDED JOINT FILLER

Joint filler shall be performed, nonextruded type constructed of closed-cell neoprene conforming to ASTM DI 752, Type I, as manufactured by W. R. Grace Company of Cambridge, Massachusetts; W. R. Meadows, Inc., Elgin, Illinois; or equal.

2.11 CEMENT

- A. Use domestic portland cement that conforms to ASTM C150, Type II/V. Use Type III cement for high early strength concrete only for special locations and only when reviewed in advance by the Owner's Representative.
- B. Use only one brand of cement in any individual structure. Use no cement that has become damaged, partially set, lumpy, or caked. Reject the entire contents of the sack or container that contains such cement. Use no salvaged or reclaimed cement.
- C. Maximum tricalcium aluminate shall not exceed 8%. The maximum percent alkalis shall not exceed 0.6%.

2.12 AGGREGATES

Aggregates shall be natural rock, sand, or crushed natural rock and shall comply with ASTM C33 and shall contain less than 1% asbestos by weight

or volume. Aggregates shall be free from any substances that will react with the cement alkalies, as determined by Appendix X-I of ASTM C33.

## 2.13 WATER AND ICE

Use water and ice that is clean and free from objectionable quantities of organic matter, alkali, salts, and other impurities that might reduce the strength, durability, or otherwise adversely affect the quality of the concrete. Water shall not contain more than 500 mg/L of chlorides or more than 500 mg/L of sulfate.

## 2.14 CONCRETE ADMIXTURES

- A. Class A concrete shall contain an air-entraining admixture conforming to ASTM C260.  
Admixtures shall be Master Builders MB-AE 90, Sika AER, or equal.
- B. Class A concrete shall contain a water-reducing admixture conforming to ASTM C494, Type A. It shall be compatible with the air-entraining admixtures. The amount of admixture added to the concrete shall be in accordance with the manufacturer's recommendations. Admixture shall be Master Builders Pozzolith polymer-type normal setting, Plastocrete 161 or Plastiment, Sika Chemical Corporation, or equal.
- C. Concrete shall contain a shrinkage-reducing admixture at the rate of 1.5 gallons per cubic yard of concrete. Quantity of shrinkage-reducing admixture used in the mix shall be added to the quantity of water for purposes of determining the water/cement ratio. Admixture shall be Eucon SRA by Euclid Chemical, Tetraguard AS20 by BASF Construction Chemicals, Grace Construction Products "Eclipse," or equal.
- D. Mineral Admixture: Class A concrete shall contain a mineral admixture, fly ash Class F, conforming to ASTM C618, not to exceed or replace more than 15% of the cement material required without the mineral admixture.
- E. Class A concrete shall contain a liquid admixture for mitigation and control of alkali-silica reactivity (ASR). The dosage rate shall be determined in the concrete mix design per manufacturer's formula. The admixture shall contain a 30% lithium nitrate solution. ASR mitigation admixture shall be RASIR™ by W.R. Grace or equal.
- F. Do not use any admixture that contains chlorides or other corrosive elements in any concrete. Admixtures shall be nontoxic after 30 days.

## 2.15 GROUT

- A. Nonshrink grout shall conform to ASTM C1107 and to these specifications. Use a nongas-liberating type, cement base, premixed product requiring only the addition of water for the required consistency. Grout shall be UPCON High Flow, Master Flow 928, or equal. Components shall be inorganic.

- B. Ordinary type grout (dry pack) shall consist of one part portland cement to two parts sand (100% passing a No. 8 sieve). Add sufficient water to form a damp formable consistency.
- C. Epoxy Leveling Grout:
  1. Mix the two components of epoxy leveling grout in compliance with the manufacturer's instructions. The grout shall be Sika Top 111 Plus or equal.
  2. Use sand that is oven dry and meets the following gradation requirements for epoxy grout:

Sieve Size	No.8	No. 50	No.100
% Passing	100	30±15	5 ±5

#### 2.16 REPAIR MORTAR

- A. Mortar used for repair of concrete voids shall be made of the same materials as used for concrete, except that the coarse aggregate shall be omitted or the mortar shall consist of not more than one part cement to two and one-half parts sand by damp loose volume. The quantity of mixing water shall be no more than necessary for handling and placing.
- B. Materials for repair of major defects or cracks shall be in accordance with "Repair of Defects and Cracks" specified in Part 3.

#### 2.17 BONDING COMPOUND

- A. Epoxy bonding compound shall be Sikadur 32 Hi-Mod, Sika Chemical Corporation, Lyndhurst, New Jersey; Concrevic by BASF; Euco Epoxy 452 by Euclid Chemical Company; or equal.
- B. Non epoxy bonding compound shall be Weldcrete by Larsen Products Corp., Link by Sta-Dry Manufacturing Corp., Euco Weld by Euclid Chemical Co., or equivalent. The compound shall be rewettable for up to two weeks.

#### 2.18 CONCRETE MIX DESIGN

- A. Conform to ASTM C94, except as modified by these specifications.
- B. Air content as determined by ASTM C231 shall be 4% ± 1%.
- C. Maximum water-cement ratio for Class A concrete = 0.45 by weight.
- D. Use classes of concrete as described in the following table:



<b>Class</b>	<b>Type of Work</b>	<b>28-Day Compressive Strength (in psi)</b>	<b>Minimum Cement Content (in lbs per C.Y.)</b>
A	Concrete for all structures and concrete not otherwise specified. Concrete fill at structure foundations, cradle, supports across pipe trenches, and reinforced pipe encasement.	4,000	564

E. Measure slump in accordance with ASTM C143. Slump shall be as follows :

Slab on grade or heavy sections wider (in plan view) that 3 feet	3 inches maximum
Footing, walls, suspended slabs, beams, and columns	4 inches maximum

Proportion and produce the concrete to have a maximum slump as shown. A tolerance of up to 1 inch above the indicated maximum shall be allowed for individual batches provided the average for all batches or the most recent 10 batches tested, whichever is fewer, does not exceed the maximum limit. Concrete of lower than usual slump may be used provided it is properly placed and consolidated.

F. Aggregate size shall be 3/4 inch maximum for slabs and sections 8 inches thick and less.  
Aggregate size shall be 1 inch maximum for slabs and sections greater than 8 inches and less than 17 inches. Aggregate size shall be 1 1/2 inches maximum for all larger slabs and sections. Aggregate size for floor grout shall be maximum 3/8 inch.

G. Combined aggregate grading shall be as shown in the following table :

	<b>Maximum Aggregate Size</b>			
	<b>1 1/2"</b>	<b>1"</b>	<b>3/4"</b>	<b>3/8"</b>
Aggregate Grade per ASTM C33	467	57	67	8

H. Mix design for pumped concrete shall produce a plastic and workable mix. The percentage of sand in the mix shall be based on the void content of the coarse aggregate.

## 2.19 CURING COMPOUND

A. Curing compound shall conform to ASTM C309, Type 1-D, Class A.

- B. Curing compound shall be compatible with required finishes and coatings and shall meet the State of California Clean Air Quality Standards which limit the quantity of volatile organic compounds to 350 grams per liter.

2.20 MATS, PAPER, AND SHEETING FOR CURING

- A. Burlap mats shall conform to AASHTO M 182.
- B. Sisal-kraft paper and polyethylene sheets shall conform to ASTM CI 71.

2.21 REINFORCING DOWEL ADHESIVE

Dowel anchor shall be HIT-RE-500SD by Hilti: SET-3G By Simpson or equal.

**PART 3 -EXECUTION**

3.01 FORM TOLERANCES

- A. Failure of the forms to produce the specified concrete surface and surface tolerance shall be grounds for rejection of the concrete work. Rejected work shall be repaired or replaced at no additional cost to the Owner.
- B. The following table indicates tolerances or allowable variations from dimensions or positions of structural concrete work:

	<b>Maximum Tolerance (inch)</b>
Sleeves and inserts	+1/4 -1/4
Projected ends of anchors	+1/4 -0.0
Anchor bolt setting	+1/4-1/4
Finished concrete, all locations	+1/4-1/4 in 10 feet
	Max ±1-inch in total length

The planes or axes from which the above tolerances are to be measured shall be as follows:

Sleeves and inserts:	Centerline of sleeve or insert.
Projected ends of anchors:	Plane perpendicular to the end of the anchor as located in the drawings.
Anchor bolt setting:	Centerline of anchor bolt.
Finish concrete:	The concrete surface as defined in the drawings.

Where equipment is to be installed, comply with manufacturer's tolerances if more restrictive than above.

3.02 FORM SURFACE PREPARATION

- A. Clean form surfaces to be in contact with concrete of foreign material prior to installation.
- B. Coat form surfaces in contact with concrete with a release agent prior to form installation.

3.03 FORM REUSE

Reuse only forms that provide a uniform surface texture on exposed concrete surfaces. Apply light sanding or other surface treatment between uses for uniform texture. Plug unused tie rod holes with corks, shave flush, and sand the concrete surface side. Do not patch forms other than filling tie rod holes, except in the case of Class II forms. Do not use metal patching discs on Class I forms.

3.04 REMOVAL OF FORMS

- A. Forms and shoring for elevated structural slabs or beams shall remain in place until the concrete has reached a compressive strength equal to the specified 28-day compressive strength as determined by test cylinders. Do not remove supports and reshore. The following table indicates the minimum allowable time after the last cast concrete is placed before forms, shoring, or wall bracing may be removed:

Sides of footings and encasements	24 hours
Walls, vertical sides of beams, girders, columns, and similar members not supporting	48 hours

- B. Do not remove forms from concrete that has been placed with outside air temperature below 50°F without first determining if the concrete has properly set without regard for time. Do not apply heavy loading on green concrete. Immediately after forms are removed, the surface of the concrete shall be carefully examined and any irregularities in the surface shall be repaired and finished as specified.

3.05 FORMED OPENINGS

Openings shall be of sufficient size to permit final alignment of pipes or other items without deflection or offsets of any kind. Allow space for packing where items pass through the wall to ensure watertightness. Provide openings with continuous keyways and water stops. Provide a slight flare to facilitate grouting and the escape of entrained air during grouting. Provide formed openings with reinforcement as indicated in the typical structural details. Reinforcing shall be at least 2 inches clear from the opening surfaces and encased items.

3.06 EMBEDDED ITEMS

Set anchor bolts and other embedded items accurately and hold securely in position until the concrete is placed and set. Check all special castings, channels, or other metal parts that are to be embedded in the concrete prior to and again after concreting. Check nailing blocks, plugs, and strips necessary for the attachment of trim, finish, and similar work prior to concreting.

### 3.07 BEVELED EDGES (CHAMFER)

Form 3/4-inch beveled edges on exposed concrete edges and comers, beam soffit comers, and where indicated in the drawings. Reentrant comers in concrete members shall not have fillets, unless otherwise shown in the drawings. The top edges of slabs, walkways, beams, and walls may be beveled with an edging trowel in lieu of using chamfer strips.

### 3.08 CONSTRUCTION JOINTS

- A. Provide construction joints where shown in the drawings.
- B. When it is necessary to make a joint because of an emergency, furnish and place reinforcing dowels across the joint normal to the face of joint created if not normal to specified reinforcement and at the centerline of the concrete section being terminated. Carefully remove set concrete to a plane but rough surface near normal to adjacent formed or finish surfaces. Embed and extend dowels 48 bar diameters each side of the joint. Size and spacing of dowels shall match the largest reinforcing in the member but no closer than 6 inches on center. Furnishing and placing such reinforcing steel shall be at the Contractor's expense.
- C. After a concrete placement pour has been completed to the construction joint and the concrete has hardened, thoroughly clean the entire surface of the joint of surface laitance, loose or defective concrete, and foreign material. Expose clean aggregate by sandblasting and thoroughly cleaning the surface of construction joints before placing the new concrete. Cover horizontal construction joints with grout bedding. Spread uniformly and work thoroughly into all irregularities of the surface. The consistency of the mortar shall be suitable for placing and working and shall be placed immediately prior to placing new concrete.
- D. In case of emergency, place additional construction joints. (An interval of 45 minutes constitutes cause for an emergency construction joint.)

### 3.09 INSTALLATION OF PREMOLDED JOINT FILLER

Install in joint accurately as shown. Attach to concrete with a bonding agent recommended by the joint sealant and joint filler manufacturer for compatibility.

### 3.10 INSTALLATION OF JOINT SEALANTS

- A. Immediately before installing the joint sealant, clean the joint cavity by

sandblasting or power wire brushing. Install bond breaker tape per manufacturer's instructions.

- B. After the joints have been prepared as described above, apply the joint sealant. Apply the primer, if required, and joint sealant only with the equipment and methods recommended by the joint sealant manufacturer. Application criteria for the sealant materials, such as temperature and moisture requirements and primer cure time, shall be in accordance with the recommendations of the sealant manufacturer.
- C. Apply masking tape along the edges of the exposed surface of the exposed joints. Trowel the joints smooth with a tuck pointing tool wiped with a solvent recommended by the sealant manufacturer.
- D. After the sealant has been applied, remove the masking tape and any sealant spillage.

### 3.11 PLACING REINFORCEMENT

- A. Place reinforcing steel in accordance with the current edition of Recommended Practice for Placing Reinforcing Bars, published by the Concrete Reinforcing Steel Institute.
- B. Place reinforcing in accordance with the following, unless otherwise indicated:
  - 1. Reinforcement indicated in the drawings is continuous through the structure to the farthest extent possible. Terminate bars and hooks 2 inches clear from faces of concrete.
- C. Reinforcing steel, before being positioned and just prior to placing concrete, shall be free from loose mill and rust scale and from any coatings that may destroy or reduce the bond. Clean reinforcing steel by sandblasting or wire brushing and remove mortar, oil, or dirt to remove materials that may reduce the bond.
- D. Do not straighten or rebend reinforcing steel in the field. Do not use reinforcing with bends not shown in the drawings.
- E. Position reinforcing steel in accordance with the drawings and secure by using annealed wire ties or clips at intersections and support by concrete or metal supports, spacers, or metal hangers. Do not place metal clips or supports in contact with the forms. Bend tie wires away from the forms to provide the specified concrete coverage. Bars, in addition to those shown in the drawings, which may be found necessary or desirable by the Contractor for the purpose of securing reinforcement in position shall be provided by the Contractor at his own expense.
- F. Place reinforcement a minimum of 2 inches clear of any metal pipe or fittings.
- G. Secure reinforcing dowels in place prior to placing concrete. Do not press dowels into the concrete after the concrete has been placed.

3.12 SITE-MIXED CONCRETE

Conform to ACI 304.

3.13 READY-MIXED CONCRETE

Conform to ASTM C94.

3.14 PLACING CONCRETE

Conform to ACI 304.

3.15 PUMPING CONCRETE

Conform to ACI 304.2R-91.

3.16 WEATHER REQUIREMENTS

- A. Conform to ACI 305 for placing during hot weather.
- B. Conform to ACI 306 for placing during cold weather.

3.17 BONDING TO OLD CONCRETE

Coat the contact surfaces of structural sections with epoxy bonding compound when noted in the drawings. The method of preparation and application of the bonding compound shall conform to the manufacturer's printed instructions and recommendations for specific application for this project.

3.18 GROUTING SADDLE SUPPORTS

- A. Block out the original concrete or finish off a sufficient distance below the bottom of the machinery base to provide for the thickness of grout shown in the drawings. After the machinery has been set in position and placed at the proper elevation by steel wedges, fill the space between the bottom of the machinery base and the original pour of concrete with a pourable nonshrink grout. Grout and grouting procedure shall be in accordance with API 686, Chapter 4, paragraphs 3.6 and 3.7, and Chapter 5.

3.19 CONCRETE FINISHES

- A. Complete concrete surfaces in accordance with the following schedule:

<b>Finish Designation</b>	<b>Area Applied</b>
F-1	Beams, columns, and exterior walls not exposed to view.
F-3	Beams, columns, and walls of structures or buildings exposed to view. Underside of formed
S-1	Slabs and floors to be covered with concrete or grout.

S-4	Slabs and floors of structures or buildings exposed to
E-1	Exposed edges. EXCEPTION: edges normally covered with earth.
E-2	Top of walls, beams, and similar unformed surfaces.

- B. Finish F-1: Repair defective concrete, fill depressions deeper than 1/2 inch, and fill tie holes.

Finish F-3: In addition to Finish F-1, remove fins, fill depressions 1/4 inch or deeper, fill depressions and airholes with mortar. Dampen surfaces and then spread a slurry consisting of one part cement and one and one-half parts sand by damp loose volume, over the surface with clean burlap pads or sponge rubber floats. Remove any surplus by scraping and then rubbing with clean burlap.

Finish S-1: Screed to grade with wood float finish.

Finish S-4: Steel trowel finish without local depressions or high points and apply a light hair-broom finish. Do not use stiff bristle brooms or brushes. Leave hair-broom lines parallel to the direction of slab drainage.

Finish E-1: Provide chamfer or beveled edges.

Finish E-2: Strike smooth and float to an F-3 or F-4 finish.

### 3.20 CURING CONCRETE

- A. Conform to ACI 308.
- B. Water cure with burlap mats unless optional curing are approved. Water cure new surge tank pedestals.
- C. It is the responsibility of the Contractor to select the appropriate curing method in response to climatical and/or site conditions occurring at the time of concrete placement. Take appropriate measures as described in ACI 305 and 306 for protecting and curing concrete during hot and cold weather.

### 3.21 REPAIR OF DEFECTS AND CRACKS

- A. Do not repair defects until concrete has been evaluated by the Owner's Representative.
- B. Surface Defects:
1. Repair surface defects that are smaller than 1 foot across in any direction and are less than 1/2 inch in depth.
  2. Repair by removing the honeycombed and other defective concrete down to

sound concrete, cut or grind edges perpendicular to the surface and at least 3/8 inch deep, abrasive clean and thoroughly dampen the surface, work into the surface an epoxy bonding agent, and fill the hole with one part cement to one-part fine sand. Match the finish on the adjacent concrete, and cure as specified.

C. Severe Defects:

1. Repair severe defects that are larger than surface defects but do not appear to affect the structural integrity of the structure.
2. Repair by removing the honeycombed and other defective concrete down to sound concrete, make edges of the repair area perpendicular to the surface, as required above, sandblast the sound concrete surface, coat the exposed surfaces with epoxy bonding compound, place nonshrink grout, match the finish on the adjacent concrete, and cure as specified.

D. Repair minor cracks in concrete structures that are wider than 1/10 inch by cutting out a square edged and uniformly aligned joint 3/8 inch wide by 3/4 inch deep, preparing exposed surfaces of the joint, priming the joint, and applying polyurethane joint sealant.

E. If the cracks are major or affect the hydraulic capacity or function of the element, the Owner's Representative may require the concrete to be repaired by epoxy injection.

F. Major Defects and Cracks: If the defects affect the structural integrity of the structure or if patching does not satisfactorily restore quality and appearance to the surface, the Owner's Representative may require the concrete to be removed and replaced, complete.

### 3.22 CONCRETE TESTS

A. Concrete quality testing will be performed on the concrete by the Owner .

1. Frequency of Sampling: Cast five concrete test cylinders from each 50 cubic yards, or fraction thereof, of each class of concrete placed in any one day. Sampling and curing of the cylinders shall conform to ASTM C31. Strength Testing: Test cylinders in accordance with ASTM C39. Test one cylinder at 3 days and at 7 days for information; test two cylinders at 28 days for acceptance; and hold one cylinder for verification. Strength acceptance will be based on the average of the strengths of the two cylinders tested at 28 days. If one cylinder of a 28-day test manifests evidence of improper sampling, molding, or testing, other than low strength, discard it and use the fifth cylinder for the test result.
2. Determine concrete slump by ASTM C143 with each strength test sampling and as required to establish consistency.
3. Determine air content of the concrete using ASTM C231 to verify the



percentage of air in the concrete immediately prior to depositing in forms.

4. The average value of concrete strength tests shall be equal to or greater than the specified 28-day strength. No test shall be less than 90% of the specified 28-day strength.
  5. If the 28-day strength tests fail to meet the specified minimum compressive strength, the concrete will be assumed to be defective and one set of three cores from each area may be taken as selected by the Owner and in accordance with ASTM C42. If the average compressive strength of the set of three concrete cores fails to equal 90% of the specified minimum compressive strength or if any single core is less than 75% of the minimum compressive strength, the concrete will be considered defective. The Owner may require additional coring, nondestructive load testing, or repair or replacement of defective concrete. Costs of coring, testing of cores, load testing, and required repairs pertaining thereto shall be paid by the Contractor at no extra cost to the Owner.
- B. To facilitate concrete sampling and testing, the Contractor shall:
1. Furnish labor to assist the Owner in obtaining and handling samples at the project site.
  2. Advise the Owner in advance of concrete placing operations to allow for scheduling and completion of quality testing.
  3. Provide and maintain facilities for safe storage and proper curing of concrete test specimens on the project site, as required by ASTM C31.

END OF SECTION

SECTION 050520  
BOLTS AND ANCHORS

**PART 1 - GENERAL**

1.01 DESCRIPTION

This section describes materials and installation of anchor bolts, washers, and epoxy anchors.

1.02 RELATED WORK SPECIFIED ELSEWHERE

General Concrete Construction: 030500.

1.03 DESIGN CRITERIA

Structural Connections: AISC Specification for Structural Steel Buildings (March 9, 2005), except connection details are shown in the contract drawings.

1.04 SUBMITTALS

- A.
- B. Submit shop drawings in accordance with the General Provisions.
  
- B. Submit manufacturer's catalog data and ICC reports for bolts, washers, and concrete anchors. Show dimensions and reference materials of construction by ASTM designation and grade.

**PART 2 - MATERIALS**

2.01 STAINLESS STEEL ANCHOR

Stainless steel anchor bolts shall be ASTM F593, Type 316. Use ASTM F594 nuts with ASTM F593 bolts. Provide washer for each nut and bolthead. Washers shall be of the same material as the nuts.

2.02 LUBRICANT FOR STAINLESS STEEL BOLTS AND NUTS

Lubricant shall be chloride free and shall be RAMCO TG-50, Anti-Seize by RAMCO, Specialty Lubricants Corporation Husky™ Lube O'Seal, or equal.

## **PART 3 -EXECUTION**

### **3.01 STORAGE OF MATERIALS**

Store material, either plain or fabricated, above ground on platforms, skids, or other supports. Keep material free from dirt, grease, and other foreign matter and protect from corrosion.

### **3.02 PLACING ANCHOR BOLTS**

- A. Bolt holes in fixed saddle support bearing plate shall be 1/16 inch in diameter larger than bolt size. Measure cast-in-place bolt locations in the field before drilling companion holes in structural steel plate or assembly.
- B. Existing slotted holes in bearing plates indicated in the drawings, shall conform to AISC Specifications, Section J3, Table J3.3.
- C. Anchor bolts shall be of the length that will extend entirely through but not more than 1/2 inch beyond the nuts.
- D. At the tank fixed support, draw nuts tight against the work to a snug-tight condition. Tap boltheads with a hammer while the nut is being tightened.
- E. At the tank sliding support, tighten nuts by hand without the use of a wrench.

### **3.03 INSTALLING ANCHOR BOLTS**

- A. For static items (tanks), use preset anchor bolts.

END OF SECTION

SECTION 099000  
PAINTING AND COATING

**PART 1 - GENERAL**

1.01 DESCRIPTION

This section includes materials and application of painting and coating systems for exposed metal.

1.02 RELATED WORK SPECIFIED ELSEWHERE

General Concrete Construction: 030500.

1.03 SUBMITTALS

- A. Submit shop drawings in accordance with the General Provisions.
- B. Submit manufacturer's data sheets showing the following information:
  - 1. Percent solids by volume.
  - 2. Minimum and maximum recommended dry-film thickness per coat for prime, intermediate, and finish coats.
  - 3. Recommended surface preparation.
  - 4. Recommended thinners.
  - 5. Statement verifying that the specified prime coat is recommended by the manufacturer for use with the specified intermediate and finish coats.
  - 6. Application instructions including recommended equipment and temperature limitations.
  - 7. Curing requirements and instructions.
- C. Submit color swatches.
- D. Submit certificate and supplier's data sheets identifying the type and gradation of abrasives used for surface preparation. The certificate or data sheets shall specifically identify that the abrasives comply with federal and state of California regulations for materials to be used for abrasive blasting for surface preparation for paints and coatings.
- E. Submit material safety data sheets for each coating.

**PART 2 - MATERIALS**

2.01 PAINTING AND COATING SYSTEMS

The following index lists the various painting and coating systems by service and generic type:

**PAINT COATINGS SYSTEM INDEX**

No.	Title	Generic Coating
Exposed Metal Coating Systems		
15.	Exposed Metal, Atmospheric Weathering or Water Condensation Environment	Acrylic

These systems are specified in detail in the following paragraphs. For each coating, the required surface preparation, prime coat, intermediate coat (if required), topcoat, and coating thicknesses are described. Mil thicknesses shown are minimum dry-film thicknesses.

2.02 EXPOSE METAL COATING SYSTEM

- A. System No. 15--Exposed Metal, Atmospheric Weathering or Water Condensation Environment:

Type: One component acrylic enamel having a minimum volume solids content of 35% with an acrylic primer.

Service Conditions: For use on interior and exterior metal and piping subject to sunlight, weathering, humidity, or water condensation.

Surface Preparation:  
SSPC SP-6.

Prime Coat: Sherwin-Williams Pro-Cryl Universal Primer, Devoe Devflex 4020DTM water-borne primer, Carboline 3358, Tnemec Series 18, or equal applied to a minimum dry-film thickness of 3 mils.

Finish Coats: Two or more coats of Sherwin-Williams Sher-Cryl 866-300, Devoe Devflex 659, Carboline 3359 or 3359DTM, Tnemec Series 28 or 29, or equal. Apply sufficient coats to provide a total minimum dry-film thickness of 8 mils. Thickness of any individual coat shall not exceed 4 mils.

## PART 3 -EXECUTION

### 3.01 WEATHER CONDITIONS

- A. Do not paint in the rain, wind, snow, mist, and fog or when steel or metal surface temperatures are less than 5°F above the dew point.
- B. Do not apply paint when the relative humidity is above 85%.
- C. Do not paint when temperature of metal to be painted is above 120°F.
- D. Do not apply alkyd, inorganic zinc, silicone aluminum, or silicone acrylic paints if air or surface temperature is below 40°F or expected to be below 40°F within 24 hours.

### 3.02 SURFACE PREPARATION PROCEDURES

- A. Remove oil and grease from metal surfaces in accordance with SSPC SP-1. Use clean cloths and cleaning solvents and wipe dry with clean cloths. Do not leave a film or greasy residue on the cleaned surfaces before abrasive blasting.
- B. Remove weld spatter and weld slag from metal surfaces and grind smoothly rough welds, beads, peaked comers, and sharp edges including erection lugs in accordance with SSPC SP-2 and SSPC SP-3. Grind 0.020 inch (minimum) off the weld caps on pipe weld seams. Grind outside sharp comers, such as the outside edges of flanges, to a minimum radius of 1/4 inch.
- C. Do not abrasive blast or prepare more surface area in one day than can be coated in one day; prepare surfaces and apply coatings the same day. Remove sharp edges, burrs, and weld spatter.
- D. Do not abrasive blast PVC, CPVC, or FRP piping or equipment. Do not abrasive blast epoxy- or enamel-coated pipe that has already been factory coated, except to repair scratched or damaged coatings.
- E. For carbon steel, do not touch the surface between the time of abrasive blasting and the time the coating is applied. Apply coatings within two hours of blasting or before any rust bloom forms.
- F. Surface preparation shall conform with the SSPC specifications as follows:

Solvent Cleaning	SP-1
Hand Tool Cleaning	SP-2
Power Tool Cleaning	SP-3
White Metal Blast Cleaning	SP-5
Commercial Blast Cleaning	SP-6
Brush-Off Blast Cleaning	SP-7

- G. 0
- H. Dust blasting is defined as cleaning the surface through the use of very fine abrasives, such as siliceous or mineral abrasives, 80 to 100 mesh. Apply a fine etch to the metal surface to clean the surface of any contamination or oxide and to provide a surface profile for the coating.
- I. Brush-off blasting of concrete and masonry surfaces is defined as opening subsurface holes and voids and etching the surface for a coating to bond.
- J. For carbon steel surfaces, after abrasive blast cleaning, the height of the surface profile shall be 2 to 3 mils. Verify the surface profile by measuring with an impresser tape acceptable to the Owner's Representative. Perform a minimum of one test per 100 square feet of surface area. Testing shall be witnessed by the Owner's Representative. The impresser tape used in the test shall be permanently marked with the date, time, and locations where the test was made. Test results shall be promptly presented to the Owner's Representative.
- K. Do not apply any part of a coating system before the Owner's Representative has reviewed the surface preparation. If coating has been applied without this review, if directed by the Owner's Representative, remove the applied coating by abrasive blasting and reapply the coat in accordance with this specification.

### 3.03 PROCEDURES FOR ITEMS HAVING SHOP-APPLIED PRIME COATS

- A. After application of primer to surfaces, allow coating to cure for a minimum of two hours before handling to minimize damage.
- B. When loading for shipment to the project site, use spacers and other protective devices to separate items to prevent damaging the shop-primed surfaces during transit and unloading. If wood spacers are used, remove wood splinters and particles from the shop-primed surfaces after separation. Use padded chains or ribbon binders to secure the loaded items and minimize damage to the shop-primed surfaces.
- C. Cover shop-primed items 100% with protective coverings or tarpaulins to prevent deposition of road salts, fuel residue, and other contaminants in transit.
- D. Handle shop-primed items with care during unloading, installation, and erection operations to minimize damage. Do not place or store shop-primed items on the ground or on top of other work unless ground or work is covered with a protective covering or tarpaulin. Place shop-primed items above the ground upon platforms, skids, or other supports.

### 3.04 FIELD TOUCH-UP OF SHOP-APPLIED PRIME COATS

- A. Remove oil and grease surface contaminants on metal surfaces in accordance

with SSPC SP-1. Use clean rags wetted with a degreasing solution, rinse with clean water, and wipe dry.

- B. Remove dust, dirt, salts, moisture, chalking primers, or other surface contaminants that will affect the adhesion or durability of the coating system. Use a high-pressure water blaster or scrub surfaces with a broom or brush wetted with a solution of trisodium phosphate, detergent, and water. Before applying intermediate or finish coats to inorganic zinc primers, remove any soluble zinc salts that have formed by means of scrubbing with a stiff bristle brush. Rinse scrubbed surfaces with clean water.
- C. Remove loose or peeling primer and other surface contaminants not easily removed by the previous cleaning methods in accordance with SSPC SP-7. Take care that remaining primers are not damaged by the blast cleaning operation. Remaining primers shall be firmly bonded to the steel surfaces with blast cleaned edges feathered.
- D. Remove rust, scaling, or primer damaged by welding or during shipment, storage, and erection in accordance with SSPC SP-10. Take care that remaining primers are not damaged by the blast cleaning operation. Areas smaller than 1 square inch may be prepared per SSPC SP-11. Remaining primers shall be firmly bonded to the steel surfaces with cleaned edges feathered.
- E. Use repair procedures on damaged primer that protects adjacent primer. Blast cleaning may require the use of lower air pressure, smaller nozzles, and abrasive particle sizes, short blast nozzle distance from surface, shielding, and/or masking.
- F. After abrasive blast cleaning of damaged and defective areas, remove dust, blast particles, and other debris by dusting, sweeping, and vacuuming; then apply the specified touch-up coating.

### 3.05 PAINTING SYSTEMS

- A. All materials of a specified painting system, including primer, intermediate, and finish coats, shall be produced by the same manufacturer. Thinners, cleaners, driers, and other additives shall be as recommended by the paint manufacturer for the particular coating system.
- B. Deliver paints to the jobsite in the original, unopened containers.

### 3.06 PAINT STORAGE AND MIXING

- A. Store and mix materials only in areas designated for that purpose by the Owner's Representative. The area shall be well-ventilated, with precautionary measures taken to prevent fire hazards. Post "No Smoking" signs. Storage and mixing areas shall be clean and free of rags, waste, and scrapings.



Tightly close containers after each use. Store paint at an ambient temperature from 50°F to 100°F.

- B. Prepare multiple-component coatings using all of the contents of the container for each component as packaged by the paint manufacturer. Do not use partial batches. Do not use multiple-component coatings that have been mixed beyond their pot life. Provide small quantity kits for touch-up painting and for painting other small areas. Mix only the components specified and furnished by the paint manufacturer. Do not intermix additional components for reasons of color or otherwise, even within the same generic type of coating.

### 3.07 PROCEDURES FOR THE APPLICATION OF COATINGS

- A. Conform to the requirements of SSPC PA-1. Follow the recommendations of the coating manufacturer including the selection of spray equipment, brushes, rollers, cleaners, thinners, mixing, drying time, temperature and humidity of application, and safety precautions.
- B. Stir, strain, and keep coating materials at a uniform consistency during application. Power mix components. For multiple component materials, premix each component before combining. Apply each coating evenly, free of brush marks, sags, runs, and other evidence of poor workmanship. Use a different shade or tint on succeeding coating applications to indicate coverage where possible. Finished surfaces shall be free from defects or blemishes.
- C. Do not use thinners unless recommended by the coating manufacturer. If thinning is allowed, do not exceed the maximum allowable amount of thinner per gallon of coating material. Stir coating materials at all times when adding thinner. Do not flood the coating material surface with thinner prior to mixing. Do not reduce coating materials more than is absolutely necessary to obtain the proper application characteristics and to obtain the specified dry-film thicknesses.
- D. Remove dust, blast particles, and other debris from blast cleaned surfaces by dusting, sweeping, and vacuuming. Allow ventilator fans to clean airborne dust to provide good visibility of working area prior to coating applications. Remove dust from coated surfaces by dusting, sweeping, and vacuuming prior to applying succeeding coats.
- E. Apply coating systems to the specified minimum dry-film thicknesses as determined per SSPC PA-2.
- F. Apply primer immediately after blast cleaning and before any surface rusting occurs, or any dust, dirt, or any foreign matter has accumulated. Reclean surfaces by blast cleaning that have surface colored or become moist prior to coating application.
- G. Apply a brush coat of primer on welds, sharp edges, nuts, bolts, and irregular surfaces prior to the application of the primer and finish coat. Apply the brush coat prior to and in conjunction with the spray coat application. Apply the spray coat over the brush coat.

- H. Before applying subsequent coats, allow the primer and intermediate coats to dry for the minimum curing time recommended by the manufacturer. In no case shall the time between coats exceed the manufacturer's recommendation.
- I. Each coat shall cover the surface of the preceding coat completely, and there shall be a visually perceptible difference in applied shade or tint of colors.
- J. Applied coating systems shall be cured at 75°F or higher for 48 hours. If temperature is lower than 75°F, curing time shall be in accordance with printed recommendations of the manufacturer, unless otherwise allowed by the Owner's Representative.
- K. Assembled parts shall be disassembled sufficiently before painting or coating to ensure complete coverage by the required coating.

### 3.08 SURFACES NOT TO BE COATED

Do not paint the following surfaces unless otherwise noted in the drawings or in other specification sections. Protect during the painting of adjacent areas:

- A. Concrete walkways.
- B. Mortar-coated pipe and fittings.
- C. Metal letters.
- D. Glass.
- E. Roofings.
- F. Fencing.
- G. Copper tubing, red brass piping, and PVC piping except where such piping occurs in rooms where the walls are painted or required for color coding.
- H. Electrical fixtures except for factory coatings.
- I. Nameplates.
- J. Grease fittings.
- K. Brass and copper, submerged.
- L. Buried pipe, unless specifically required in the piping specifications.
- M. Fiberglass items, unless specifically required in the FRP specifications.
- N. Aluminum handrail, stairs, and grating.

### 3.09 PROTECTION OF SURFACES NOT TO BE PAINTED

Remove, mask, or otherwise protect hardware, lighting fixtures, switch plates, aluminum surfaces, machined surfaces, couplings, shafts, bearings, nameplates on machinery, and other surfaces not intended to be painted. Provide drop cloths to prevent paint materials from falling on or marring adjacent surfaces. Protect working parts of mechanical and electrical equipment from damage during surface preparation and painting process. Mask openings in motors to prevent paint and other materials from entering the motors.

### 3.10 DRY-FILM THICKNESS TESTING

- A. Measure coating thickness specified for carbon steel surfaces with a magnetic-type dry-film thickness gauge in accordance with SSPC PA-2. Provide certification that the gauge has been calibrated by a certified laboratory within the past six months. Provide dry-film thickness gauge as manufactured by Mikrotest or Elcometer.
- B. Test the finish coat of metal surfaces (except zinc primer and galvanizing) for holidays and discontinuities with an electrical holiday detector, low-voltage, wet-sponge type. Provide measuring equipment. Provide certification that the gauge has been calibrated by a certified laboratory within the past six months. Provide detector as manufactured by Tinker and Razor or K-D Bird Dog.
- C. Check each coat for the correct dry-film thickness. Do not measure within eight hours after application of the coating.
- D. For metal surfaces, make five separate spot measurements (average of three readings) spaced evenly over each 100 square feet of area (or fraction thereof) to be measured. Make three readings for each spot measurement of either the substrate or the paint. Move the probe or detector a distance of 1 to 3 inches for each new gauge reading. Discard any unusually high or low reading that cannot be repeated consistently. Take the average (mean) of the three readings as the spot measurement. The average of five spot measurements for each such 100-square-foot area shall not be less than the specified thickness. No single spot measurement in any 100-square-foot area shall be less than 80%, nor more than 120%, of the specified thickness. One of three readings which are averaged to produce each spot measurement may underrun by a greater amount as defined by SSPC PA-2.
- E. Perform tests in the presence of the Owner's Representative.

### 3.11 REPAIR OF IMPROPERLY COATED SURFACES

If the item has an improper finish color or insufficient film thickness, clean and topcoat the surface with the specified paint material to obtain the specified color and coverage. Sandblast or power-sand visible areas of chipped, peeled, or abraded paint, feathering the edges. Then prime and finish coat in accordance with the specifications. Work shall be free of runs, bridges, shiners, laps, or other imperfections.

### 3.12 CLEANING

- A. During the progress of the work, remove discarded materials, rubbish, cans, and rags at the end of each day's work.
- B. Thoroughly clean brushes and other application equipment at the end of each period of use and when changing to another paint or color.
- C. Upon completion of painting work, remove masking tape, tarps, and other protective materials, using care not to damage finished surfaces.

END OF SECTION



SECTION 312300  
EARTHWORK

**PART 1 -GENERAL**

1.01 DESCRIPTION

This section includes materials, testing, and installation for general earthwork.

1.02 RELATED WORK SPECIFIED ELSEWHERE

General Concrete Construction: 030500.

1.03 SUBMITTALS

- A. Submit excavation plan.
- B. Submit dewatering plan including disposition of storm water.

1.04 TESTING FOR COMPACTION

- A. The Owner will test for compaction and relative density as described below.
- B. Determine the density of soil in place by the sand cone method, ASTM D1556.  
Compaction tests will be performed for each lift or layer.
- C. Determine laboratory moisture-density relations of soils per ASTM D 1557.
- D. Sample materials per ASTM D75.
- E. "Relative compaction" is the ratio, expressed as a percentage, of the inplace dry density to the laboratory maximum dry density.
- F. Compaction shall be deemed to comply with the specifications when no more than one test of any three consecutive tests falls below the specified relative compaction. The one test shall be no more than three percentage points below the specified compaction. The Contractor shall pay the costs of any retesting of work not conforming to the specifications.

1.05 DISPOSAL OF EXCESS MATERIALS

Excess site excavated or wasted material shall be disposed of offsite by the Contractor at his expense. No prearranged disposal site or related permits have been determined or secured by the Owner.

#### 1.06 MATERIAL AVAILABILITY

Sufficient earthwork material to complete the work is not available at the site. Secure source of material and permits to complete the project requirements.

#### 1.07 MEASUREMENT AND PAYMENT

Payment for all the work in this section, exclusive of authorized overexcavation shall be included as part of the lump-sum bid amount stated in the Proposal.

### **PART 2 - MATERIALS**

#### 2.01 STRUCTURAL FILL

Structural fill is material that is to be placed beneath structures to the limits indicated in the drawings. Material shall be Caltrans Class II aggregate base.

#### 2.02 WATER FOR COMPACTION

Water shall be free of organic materials and shall have a pH of 7.0 to 9.0, a maximum chloride concentration of 500 mg/L, and a maximum sulfate concentration of 500 mg/L. Provide all water needed for earthwork. Provide temporary piping and valves to convey water from the source to the point of use.

### **PART 3 -EXECUTION**

#### 3.01 DEWATERING

Provide and operate equipment adequate to keep excavations and trenches free of water. Remove water during period when concrete is being deposited, when pipe is being laid, and during the placing of backfill. Avoid settlement or damage to adjacent property. Dispose of water in a manner that will not damage adjacent property. When dewatering open excavations, dewater from outside the structural limits and from a point below the bottom of the excavation. Obtain and comply with discharge permit from the City.

#### 3.02 EXCAVATION

- A. Excavation is unclassified. Perform excavation regardless of the type, nature, or condition of the material encountered to accomplish the construction. Do not operate excavation equipment within 5 feet of existing structures or newly completed construction. Excavate with hand tools in these areas.

- B. After the required excavation has been completed, the Owner will observe the exposed subgrade to determine the need for any additional excavation. It is the intent that additional excavation is to be conducted in all areas within the influence of the structure where unacceptable subgrade materials exist at the exposed subgrade. Overexcavation shall include the removal of all such unacceptable material that exists directly beneath the structure or within a zone outside and below the structure defined by a line sloping at 1-horizontal to 1-vertical from 1 foot outside the edge of the footing. Refill the overexcavated areas with structural backfill material.
- C. The Contractor will not receive any additional payment for refill material used for his convenience.

### 3.03 LIMITS OF FOUNDATION EXCAVATION

Excavate to the depths and widths needed to accomplish the construction. Allow for forms, working space, structural backfill, and site grading. Do not excavate for footings, slabs, or conduits below elevations indicated. Unless unacceptable material is encountered and overexcavation is authorized by the Owner, backfill overexcavations with compacted structural backfill material. Correct cuts below grade by trimming adjoining areas and creating a smooth transition. The Contractor shall bear all costs for correcting unauthorized overexcavated areas.

### 3.04 PREPARATION OF FOUNDATION SUBGRADE

- A. The finished subgrade shall be within a tolerance of  $\pm 0.08$  of a foot of the grade and cross section indicated, shall be smooth and free from irregularities, and shall be at the specified relative compaction. The subgrade shall extend over the full width and extend 1 foot beyond the edge of the foundations.
- B. Compact the top 12 inches of the subgrade to 90% relative compaction. Recompanction will not be required if rock is exposed at final subgrade.
- C. Remove soft material encountered and replace with structural backfill. Fill holes and depressions to the required line, grade, and cross sections with structural backfill.

### 3.05 PREPARATION FOR PLACING FILL

- A. After excavation of existing material or removal of unacceptable material at the exposed subgrade, scarify the final subgrade surface to a depth of 12 inches and compact to 90% relative compaction.



- B. Remove foreign materials and trash from the excavation before placing any fill material.  
Obtain the specified compressive strength and finish of concrete work per Sections 030500 before backfilling.

### 3.06 PLACING AND COMPACTING FILL AND STRUCTURAL FILL

- A. Place in maximum 8-inch lifts and compact each lift to 95% relative compaction.

### 3.07 MOISTURE CONTROL

- A. During the compacting operations, maintain optimum practicable moisture content required for compaction purposes in each lift of the material. Maintain uniform moisture content throughout the lift. Insofar as practicable, add water to the material at the site of excavation. Supplement by sprinkling the material. At the time of compaction, the water content of the material shall be at optimum water content or within 2 percentage points above optimum. Aerate material containing excessive moisture by blading, discing, or harrowing to hasten the drying process.

### 3.08 PLACING AND COMPACTING AGGREGATE BASE FOR HYDRAULIC STRUCTURES

- A. Material excavated beneath the surge tank that is not to be replaced with concrete backfill shall be replaced with aggregate base material.
- B. Place the aggregate base in 6- to 8-inch lifts and compact to 95% relative compaction.

END OF SECTION

SECTION 400722  
FLEXIBLE PIPE COUPLINGS AND EXPANSION JOINTS

**PART 1 -GENERAL**

1.01 DESCRIPTION

This section includes materials and installation of flexible expansion joints.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Painting and Coating: 099000.
- B. General Requirements for Steel Piping: 402001.

1.03 SUBMITTALS

- A. Submit shop drawings in accordance with the General Provisions.
- B. Submit manufacturer's catalog data on expansion joints. Show manufacturer's model or figure number for each type of coupling or joint for each type of pipe material for which joints are used. Show coatings.
- C. Submit manufacturer's recommended torques to which the coupling bolts shall be tightened for the flexible gasketed sleeve-type compression pipe couplings.
- D. Show materials of construction by ASTM reference and grade. Show dimensions.
- E. Show number, size, and material of construction of tie rods and lugs for each thrust harness on the project.

**PART 2 - MATERIALS**

2.01 COUPLING SYSTEM DESIGN AND COMPONENT UNIT RESPONSIBILITY

The coupling manufacturer shall furnish the gaskets, bolts, nuts, glands, end rings, and hardware for pipe couplings of all types and shall design these components as an integral system. Design the gaskets for the coupling and appropriately size to provide a watertight seal at the design pressure and temperature. Ship gaskets, bolts, nuts, glands, end rings, and hardware for pipe couplings with the pipe coupling and clearly label indicating the origin of the material, including place and date of manufacture. Package the manufacturer's printed installation instructions with each pipe coupling.

## 2.02 TYPE 12 EXPANSION JOINTS: METAL BELLOWS CONNECTION JOINT

- A. Provide multiple bellows, annular, flanged expansion joint constructed from single metal laminations. Provide thrust restraining rod system. Minimum pressure rating shall be 250 psi at a temperature of 200°F. Flanges shall be Class 300 per ASME B16.5. Provide fixed, flat-face flanges. Materials of construction shall be as follows:

Item	Material	Specification
Bellows	Stainless steel	ASTM A240, Type 304
Flanges	Steel	ASTMA105

- B. Products: Flexider.

## 2.03 BOLTS AND NUTS FOR FLANGES

See Section 400500.

## PART 3 -EXECUTION

### 3.01 SHIPMENT AND STORAGE

- A. Inspect on receipt for damage in shipment and conformance with quantity and description on the shipping notice and order. Unload carefully to the ground without dropping. Do not load or unload by inserting forklift tines or lifting chains inside the waterway. Use nonmetallic slings, padded chains, or padded forklift tines to lift items. Lift with eyebolts or rods through flange holes or chain hooks at ends.
- B. Protect from weather and the accumulation of dirt, rocks, and debris. Do not expose rubber seats to sunlight or ozone for more than 30 days. Also, see the manufacturer's specific storage instructions.
- C. Make sure flange faces, joint sealing surfaces, body seats, and disc seats are clean.
- D. Do not allow stainless steel couplings or other items to contact carbon steel surfaces during storage, handling, or installation and erection at the site.

### 3.02 INSTALLATION OF EXPANSION JOINTS

- A. Clean oil, scale, rust, and dirt from pipe ends. Clean gaskets in flexible pipe couplings before installing.
- B. Install expansion joints per manufacturer's recommendations, so that 50% of total travel is available for expansion and 50% is available for contraction.

- C. Do not spring flanges or ends of connecting piping into position. Separately work connecting piping system into position to bring the piping flanges or ends into alignment.

with the matching coupling flanges or joints. Do not move couplings to achieve piping alignment.

- D. Line up pipe flange bolt holes with joint flange bolt holes within 1/16-inch maximum offset from the center of the bolt hole to permit insertion of bolts without applying any external force to the piping.
- E. Flange face separation shall be within the gasket spacing  $\pm 1/16$  inch. Use only one gasket per flanged connection.
- F. Lubricate bolt threads with graphite and oil prior to installation.
- G. Thoroughly clean contact surfaces of gaskets and pipe ends.

### 3.03 PAINTING AND COATING

- A. Coat expansion joints and tank located above ground with the same coating system as specified for the adjacent pipe. If the adjacent pipe is not coated, coat couplings per Section 099000, System No. 15. Color shall match the color of the connecting pipe and tank.

### 3.04 HYDROSTATIC TESTING

Hydrostatically test flexible pipe couplings, expansion joints, segmented sleeve couplings, and expansion compensators in place with the pipe being tested.

END OF SECTION



SECTION 402001  
GENERAL REQUIREMENTS FOR STEEL PIPING

**PART 1 - GENERAL**

1.01 DESCRIPTION

This section includes general requirements for materials, fabrication, installation, and testing of steel pipe.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Painting and Coating: 099000.
- B. Flexible Pipe Couplings and Expansion Joints: 400722.

1.03 SUBMITTALS

- A. Submit shop drawings in accordance with the General Provisions.
- B. Submit materials list showing material of pipe and fittings with ASTM reference and grade. Submit manufacturer's certification of compliance with referenced standards, e.g., ASTM A53, A135, and A587 and AWWA C200. Provide recertification by an independent domestic testing laboratory for materials originating outside of the United States. Show piping service (fuel oil, gasoline, water, air, etc.).
- C. For piping 6 inches and larger, submit piping layout drawings showing location and dimensions of pipe and fittings. Include laying lengths of joints and other equipment determining piping dimensions. Label or number each fitting or piece of pipe and provide the following information for each item:
  - 1. Material of construction, with ASTM or API reference and grade.
  - 2. Wall thickness of steel cylinder.
  - 3. Mortar lining thickness (if pipe has been specified to have a mortar lining).
  - 4. Mortar coating thickness, where mortar coating is required.
  - 5. Paint prime coating, where prime coat is required .
  - 6. Manufacturer's certificates of compliance with referenced pipe standards, e.g., ASTM A53, ASTM A135, API 5L, AWWA C200.
  - 7. Show weld sizes and dimensions of grooved-end collars, flanges, reinforcing collars, wrapper plates, and crotch plates.

## 1.04 NDT QUALIFICATION

Personnel performing NDT shall meet the requirements of AWWA C200, Section 5 or shall be qualified as an AWS Certified Welding Inspector (CWI or SCWI) or shall hold a current AWS Radiographic Interpreter Certification.

## PART 2 - MATERIALS

### 2.01 JOINTS

Where piping connects to wall pipes, meters, valves, or other equipment, the pipe ends shall match the ends of the wall pipes, meters, valves, or equipment.

### 2.02 FLANGES

- A. Forged flange material shall conform to ASTM A105, A 181, or A 182. Steel flange material shall conform to ASTM A283 (Grade C or D), A285 (Grade C), or A36.
- B. Determine the pressure class of the flanges based on the test pressures shown in Section 400515. For test pressures 200 psi and less, use Class 150 flanges. For test pressures greater than 200 psi, use Class 300 flanges having the following facings unless otherwise indicated:

Test Pressure (psi)	Size Range (inches)	Flange Facing
200 to 375	48 and smaller	Flat
376 to 740	36 and smaller	Flat

- C. Class 300 flanges 24 inches and smaller with flat faces shall comply with AWWA C207, Class F or ASME B16.5. For test pressures greater than 375 psi, the minimum flange thickness shall comply with ASME B16.5 or MSS SP-44, Class 300.
- D. Blind flanges shall comply with AWWA C207, Table 7. Where the mating pipe flange has a ring joint or a raised facing, the blind flange shall have the same facing.

### 2.03 BOLTS, NUTS, AND GASKETS FOR FLANGES

See Section 400500.

## PART 3 - EXECUTION

### 3.01 FABRICATION, ASSEMBLY, AND ERECTION

- A. Beveled ends for butt-welding shall conform to ASME B16.25. Remove slag by chipping or grinding. Surfaces shall be clean of paint, oil, rust, scale, slag, and other.

material detrimental to welding. When welding the reverse side, chip out slag before welding.

- B. Fabrication shall comply with ASME B3 I.3, Chapter V. Welding procedure and performance qualifications shall be in accordance with Section IX, Articles II and III, respectively, of the ASME Boiler and Pressure Vessel Code.

- C. The minimum number of passes for welded joints shall be as follows:

<b>Steel Cylinder Thickness (Inch)</b>	<b>Minimum Number of Passes for Welds</b>
Less than 0.1875	1
0.1875 through 0.25	2
Greater than .025	3

Welds shall be full penetration.

- D. Use the shielded metal arc welding (SMAW) submerged arc welding (SAW), gas- shielded flux-cored arc welding (FCAW), or gas-metal arc welding (GMAW) process for shop welding. Use the SMAW process for field welding.
- E. Welding preparation shall comply with ASME B3 I.3, paragraph 328.4. Limitations on imperfections in welds shall conform to the requirements in ASME B31.3, Table 341.3.2, and paragraph 341.4 for visual examination.
- F. Identify welds in accordance with ASME B31.3, paragraph 328.5.
- G. Clean each layer of deposited weld metal prior to depositing the next layer of weld metal, including the final pass, by a power-driven wire brush.
- H. Welding electrodes for carbon steel piping shall comply with AWS A5.1, A5.17, A5.18, A5.20, or A5.23. Carbon steel flux cored wire shall have



a maximum boron content of 0.006%.

### 3.02 FIELD HYDROSTATIC TESTING

Hydrostatically test pipe and fittings in the field in accordance with Section 400515. See Section 400515 for test pressures.

### 3.03 PAINTING AND COATING

- A. Coat pipe located above ground or in vaults and structures in accordance with Section 099000, System No. 15.

### 3.04 FIELD THICKNESS MEASUREMENT AND REPAIR OF PAINT COATINGS FOR STEEL PIPE

- A. Field repair shop applied prime coats per Section 099000.
- B. Test linings and coatings per ASTM G62, Method B, with a holiday detector set at 125 volts per mil coating thickness. Repair holidays and pinholes by applying the prime, intermediate, and finish coatings to each holiday or pinhole and retest.
- C. Measure the lining and coating thickness on each pipe section using a calibrated coating thickness gauge. Make five separate spot measurements (average of three readings) spaced evenly over every 15 linear feet (or fraction thereof) to be measured. Make three gauge readings for each spot measurement of either the substrate or the paint. Move the probe a distance of 1 to 3 inches for each new gauge reading. Discard any unusually high or low gauge reading that cannot be repeated consistently. Take the average (mean) of the three gauge readings as the spot measurement. The average of five spot measurements for each area shall not be less than the specified thickness. No single spot measurement in any area shall be less than 80%, or more than 120%, of the specified thickness. One of three readings that are averaged to produce each spot measurement may underrun by a greater amount. If a section of the pipe, item, or piece of equipment does not meet these criteria, remove the entire lining or coating and recoat the entire item or piece of equipment.
- D. Thickness determination shall meet the following requirements:
  - 1. No individual reading shall be below 75% of specified thickness.
  - 2. Individual spot readings (consisting of three point measurements within 3 inches of each other) shall have an average not less than 80% of specified thickness.
  - 3. The average of all spot readings shall be equal to or greater than nominal thickness specified.
- E. Thickness determinations shall be conducted using a Type 1 magnetic

thickness gauge as described in SSPC PA2 specification.

- F. If the item has an insufficient film thickness, clean and topcoat the surface with the specified finish coatings to obtain the specified coverage. Sandblast or power-sand visible areas of chipped, peeled, or abraded coating, feathering the edges. Then coat in accordance with the specifications. Work shall be free of runs, bridges, shiners, laps, or other imperfections.

END OF SECTION

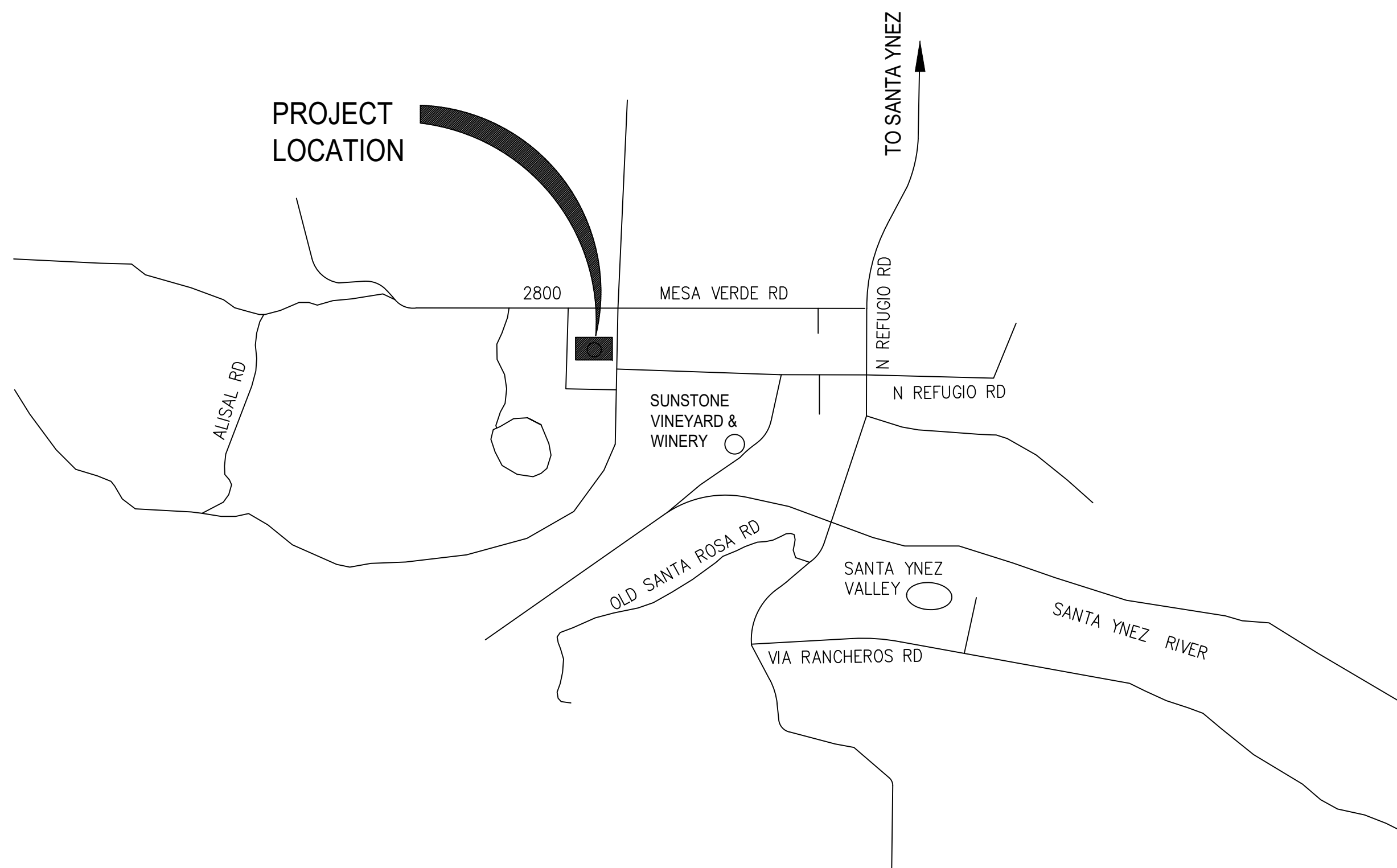
CONSTRUCTION PLANS FOR

# CENTRAL COAST WATER AUTHORITY

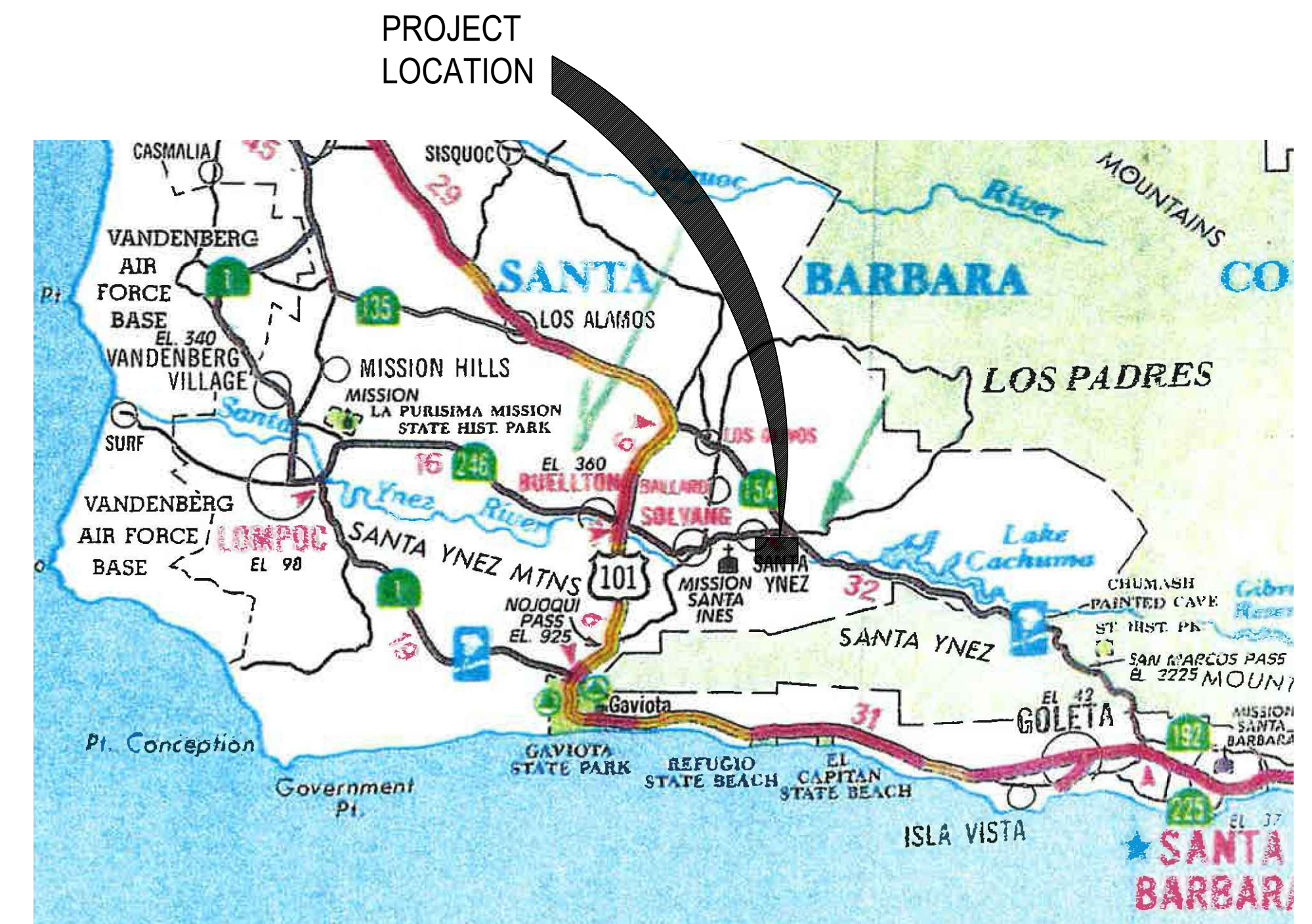
## SANTA YNEZ PUMP STATION

### SURGE TANK SUPPORT REPLACEMENT

APRIL 2024



**LOCATION MAP**  
NOT TO SCALE



**VICINITY MAP**  
NOT TO SCALE



999 W. Town and Country Road Orange, CA 92868-4713 (714) 567-2501

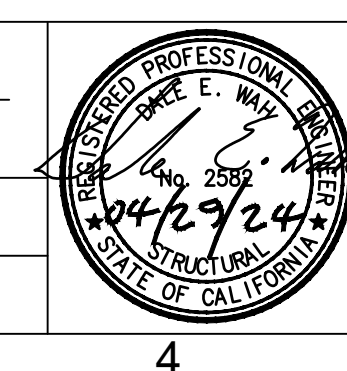


Know what's below.  
Call before you dig.

REV	DATE	DESCRIPTION	APPR

**VERIFY SCALES**  
BAR IS ONE INCH ON ORIGINAL DRAWING  
  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DESIGNED BY <b>TNN</b>	PROJECT ENGINEER <b>DALE E. WAH</b>
DRAWN BY <b>GR</b>	REG NUMBER <b>2582</b>
CHECKED BY <b>DEW</b>	PROJECT NUMBER <b>-</b>
DATE <b>APR 2024</b>	CADD STANDARDS <b>AECOM</b>



**AECOM**

AECOM Technical Services, Inc.  
999 Town and Country Road  
Orange, California, 92868  
T 714.280.2400 F 714.567.2409  
www.aecom.com

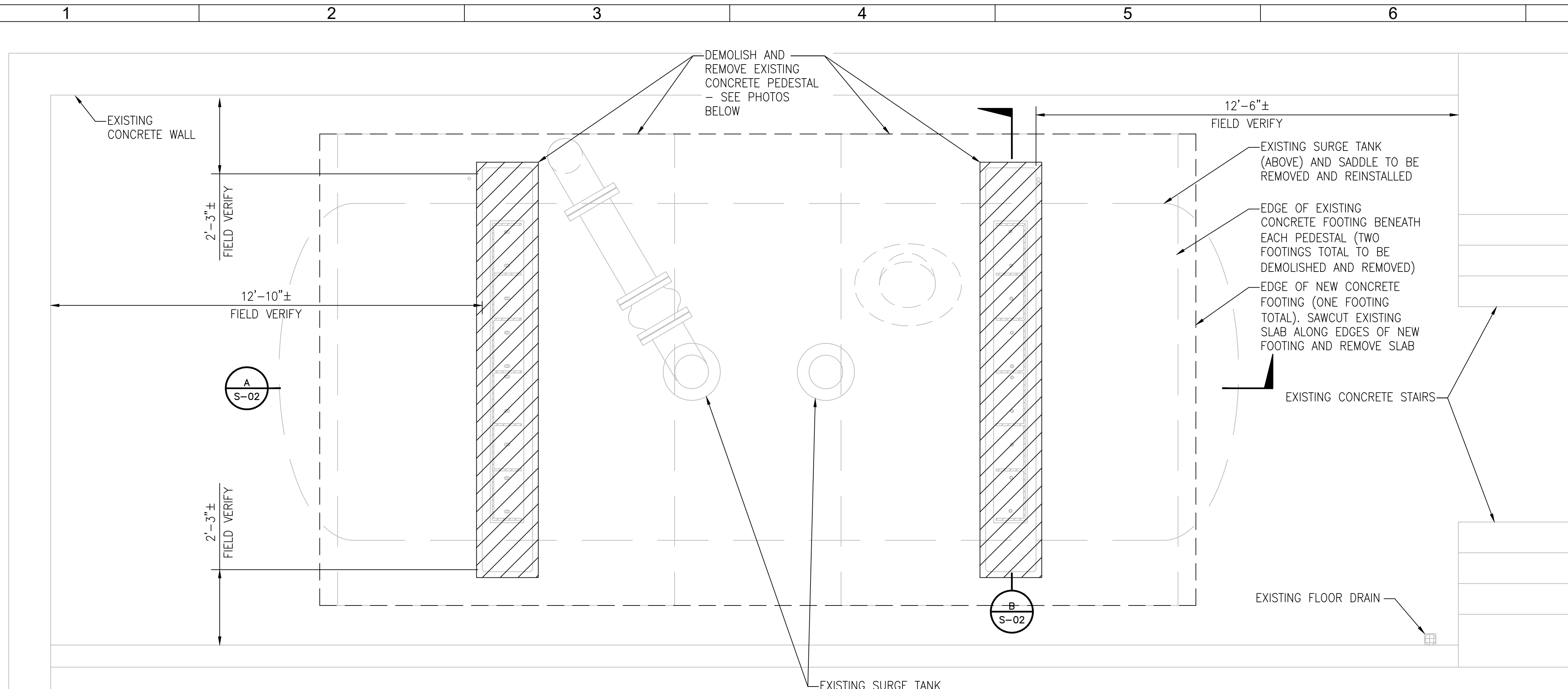
CENTRAL COAST WATER  
AUTHORITY

SANTA YNEZ PUMP STATION
VICINITY MAP AND PROJECT LOCATION

DRAWING <b>G-001</b>
SHEET <b>1</b>
OF - SHEETS <b>-</b>

D:\a\1\proj\cswa\16072417 - Tank Pedestal Repair\900\_CAD\_CS\910\_CAD\01-DWG - Tank Pedestal Repair\900\_CAD\_CS\910\_CAD\01-DWG - Tank Pedestal Repair.dwg - Plotted by: Nguyen, Thang Date: 4/25/2024 - 5:35 PM XREFS: 9-bd-cover - C-BD IMAGES: LOCATION\_MAP.rvt

D:\MSA\Projects\Projects\CCWA\60723417 - Tank Pedestal Repair\900\_CAD\_CS\910\_CAD\5-01.dwg Layout Name: S-01 - Plotted by: Nguyen, Thang Date: 4/25/2024 - 5:36 PM  
 XREFS: C-BD IMAGES: IMG\_8879.JPG = IMG\_8880.JPG = IMG\_8918.JPG



NOTES:  
 1. CONTRACTOR TO FIELD VERIFY HEIGHT OF EXISTING PIPING CONNECTIONS AND SHALL ENSURE NEW PEDESTAL HEIGHTS ARE SET SUCH THAT PIPING CONNECTIONS CAN BE MADE.



**EXISTING SITE PHOTO**  
 SCALE: NTS



**EXISTING SITE PHOTO**  
 SCALE: NTS



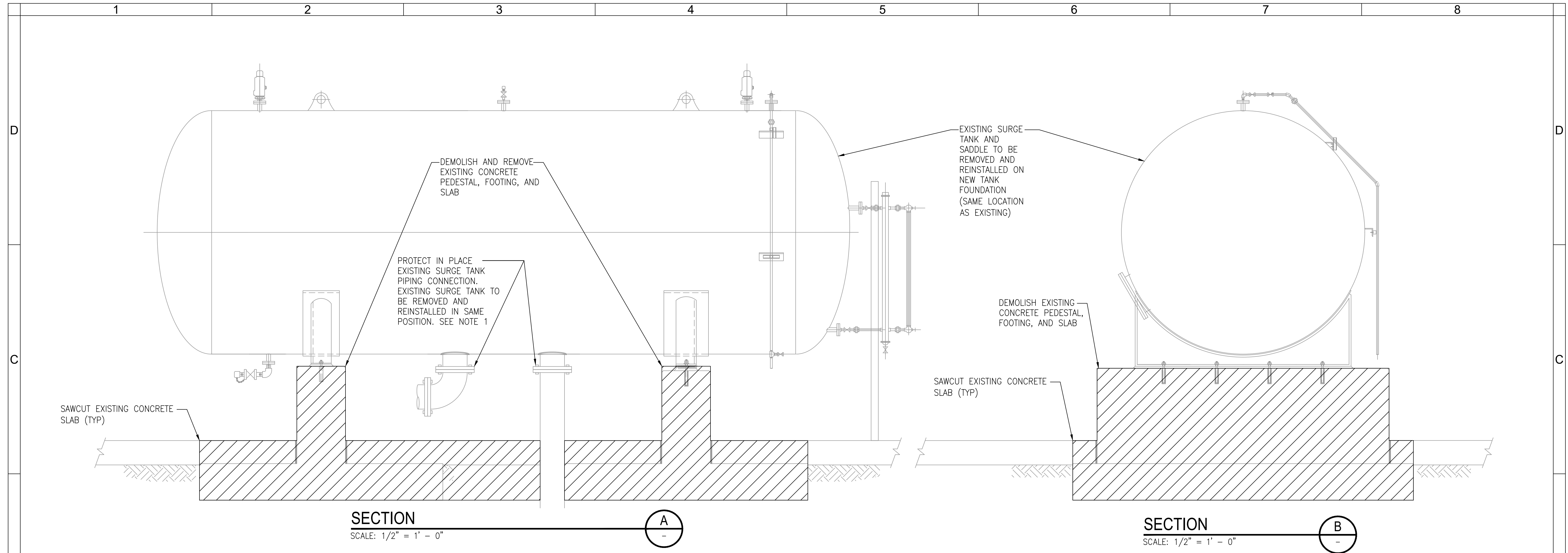
**EXISTING SITE PHOTO**  
 SCALE: NTS

ISSUED FOR CONSTRUCTION



<table border="1"> <tr> <th>REV</th> <th>DATE</th> <th>DESCRIPTION</th> <th>APPR</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	REV	DATE	DESCRIPTION	APPR					<b>VERIFY SCALES</b> BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DESIGNED BY: TNN DRAWN BY: GR CHECKED BY: DEW DATE: APR 2024	PROJECT ENGINEER: DALE E. WAH REG NUMBER: 2582 PROJECT NUMBER: CADD STANDARDS: AECOM			CENTRAL COAST WATER AUTHORITY	SANTA YNEZ PUMP STATION HYDROPNEUMATIC TANK DEMOLITION PLAN AND PHOTOS	DRAWING: S-01 SHEET: OF - SHEETS:
REV	DATE	DESCRIPTION	APPR													

D:\AECOM\Projects\USCAM\Legacy\usr1\p001\Projects\CCWA\60723417 - Tank Pedestal Repair\900\_CAD\_CS\910\_CAD\15-02.dwg Layout Name: S-02 - Plotted by: Nguyen, Thung Date: 4/25/2024 - 5:35 PM  
 XREFS: C-BD IMAGES:



NOTES:  
 1. CONTRACTOR TO FIELD VERIFY HEIGHT OF EXISTING PIPING CONNECTIONS AND SHALL ENSURE NEW PEDESTAL HEIGHTS ARE SET SUCH THAT PIPING CONNECTIONS CAN BE MADE.

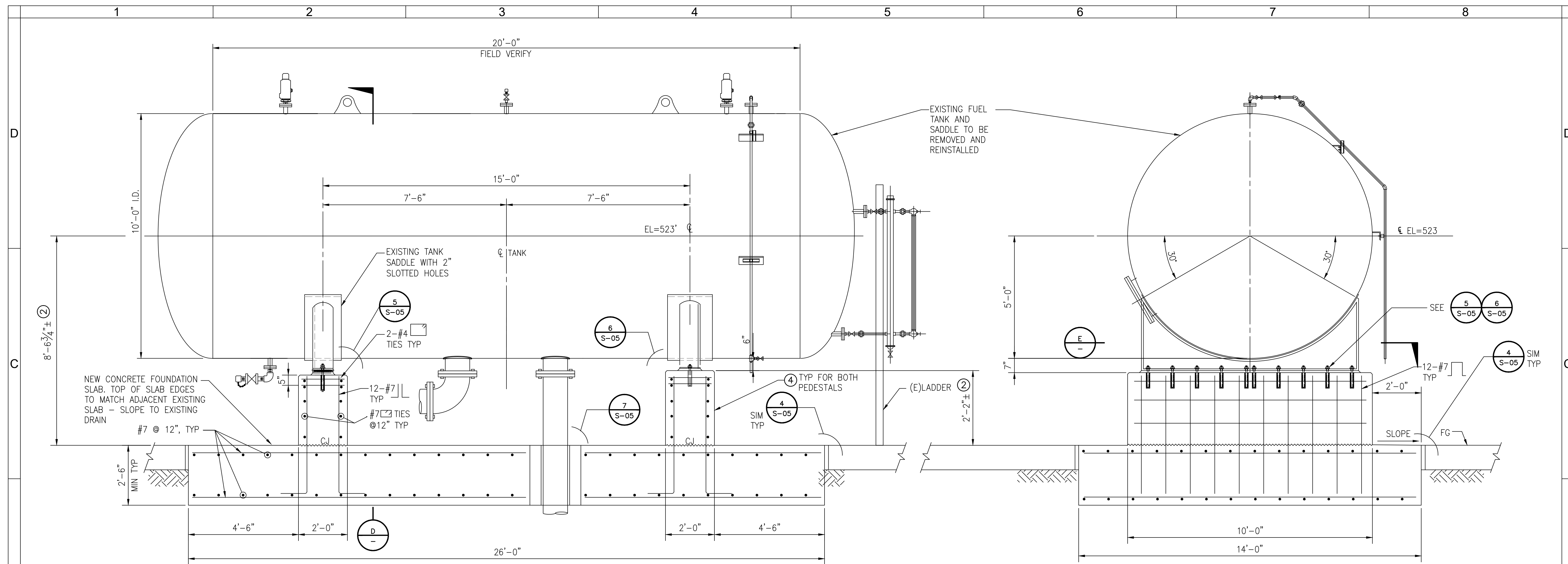


ISSUED FOR CONSTRUCTION

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY		DESIGNED BY <b>TNN</b>	PROJECT ENGINEER <b>DALE E. WAH</b>			CENTRAL COAST WATER AUTHORITY	SANTA YNEZ PUMP STATION	DRAWING <b>S-02</b>
DRAWN BY <b>GR</b>	REG NUMBER <b>2582</b>	CHECKED BY <b>DEW</b>	PROJECT NUMBER <b>-</b>					SHEET <b>OF - SHEETS</b>
DATE <b>APR 2024</b>	APPR <b>APR 2024</b>	CADD STANDARDS <b>AECOM</b>	AECOM Technical Services, Inc. 999 Town and Country Road Orange, California, 92668 T 714.280.2400 F 714.567.2409 www.aecom.com	HYDROPNEUMATIC TANK DEMOLITION SECTIONS	OF - SHEETS <b>-</b>			

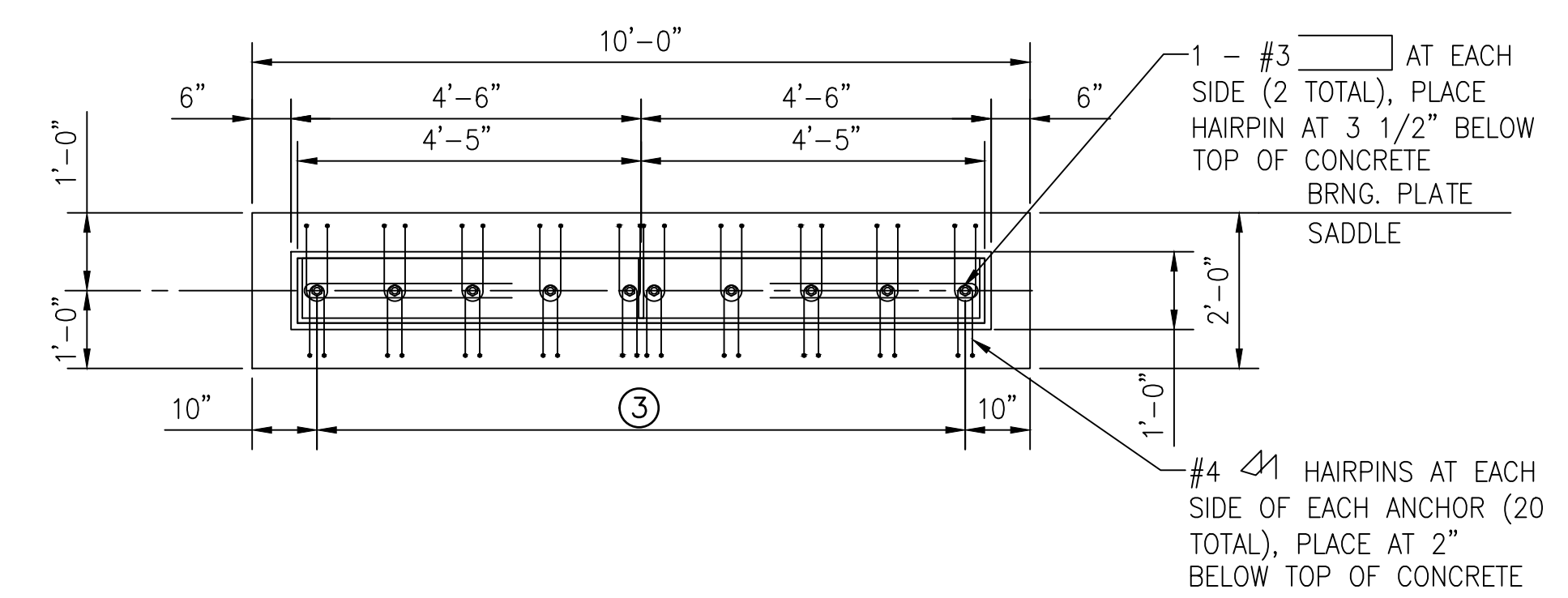


D:\MSA\Projects\CentralCoast\USCAM1\Legacy\usr1\p01\Projects\CCWA\60723417 - Tank Pedestal Repair\900\_CAD\_CS\910\_CAD\CS-04.dwg Layout Name: S-04 - Plotted By: Nguyen, Thang Date: 4/25/2024 - 5:35 PM  
 XREFS: C-BD IMAGES:



**SECTION**  
SCALE: 1/2" = 1' - 0"

**SECTION**  
SCALE: 1/2" = 1' - 0"



**PEDESTAL PLAN**  
SCALE: 1/2" = 1' - 0"

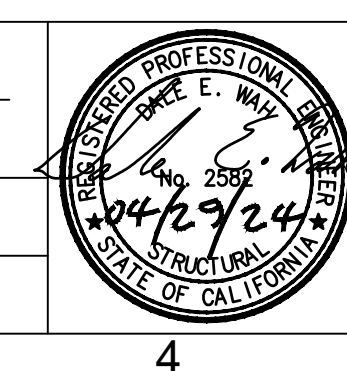
- NOTES:**
- ① SEE SPECIFICATIONS FOR FOUNDATION PREPARATION.
  - ② CONTRACTOR TO FIELD VERIFY PRIOR TO ANY DEMOLITION
  - ③ BOLT LOCATIONS TO MATCH EXISTING BOLT HOLES ON EXISTING TANK SADDLE. CONTRACTOR TO FABRICATE A ONE-PIECE TEMPLATE OF THE BOLT HOLE LOCATIONS SEPARATELY FOR EACH EXISTING TANK SADDLE FOR USE IN PLACING THE NEW ANCHOR BOLTS PRIOR TO PLACEMENT OF PEDESTAL
  - ④ AS AN ALTERNATIVE, THE CONTRACTOR MAY OPT TO SHORE THE TANK IN PLACE, CONNECTING THE EXISTING PIPING TO THE TANK PRIOR TO POURING THE PEDESTALS OR PROVIDE A LATE POUR POCKET AT THE TOP OF THE PEDESTALS TO RECEIVE THE ANCHOR BOLTS.

**ISSUED FOR CONSTRUCTION**

REV	DATE	DESCRIPTION	APPR
1			
2			

**VERIFY SCALES**  
BAR IS ONE INCH ON ORIGINAL DRAWING  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

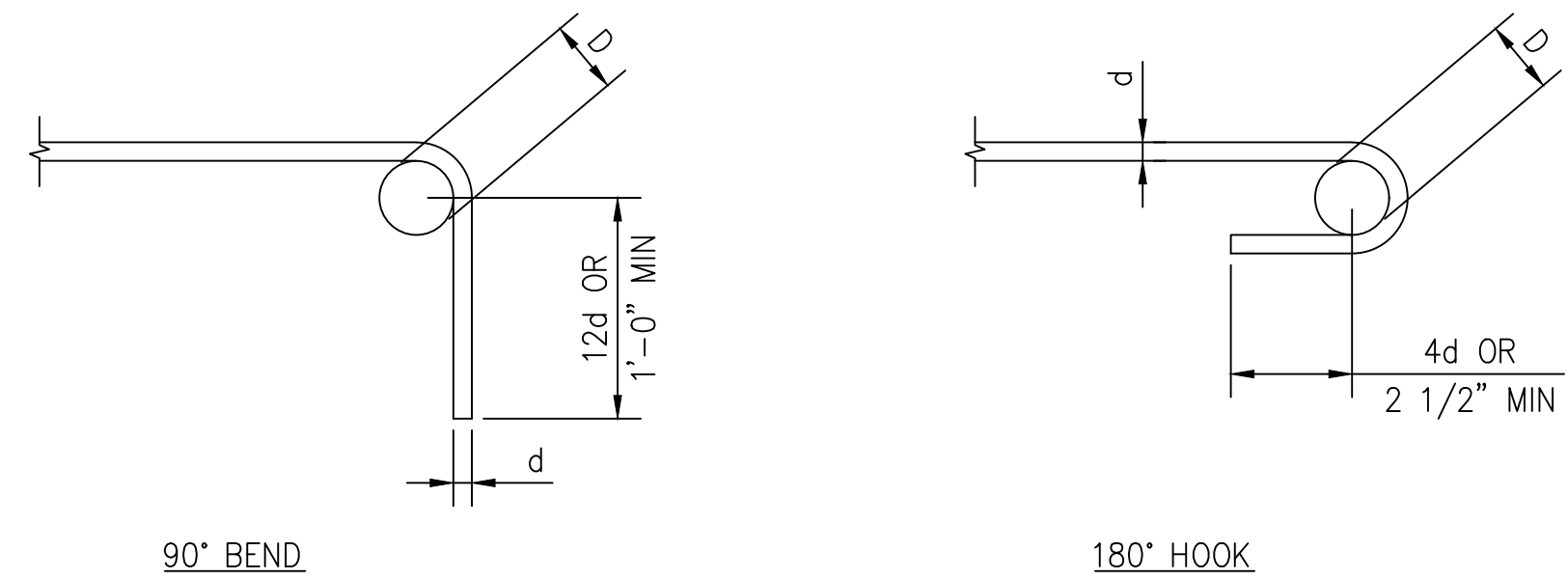
DESIGNED BY <b>TNN</b>	PROJECT ENGINEER <b>DALE E. WAH</b>
DRAWN BY <b>GR</b>	REG NUMBER <b>2582</b>
CHECKED BY <b>DEW</b>	PROJECT NUMBER <b>-</b>
DATE <b>APR 2024</b>	CADD STANDARDS <b>AECOM</b>



**CENTRAL COAST WATER AUTHORITY**

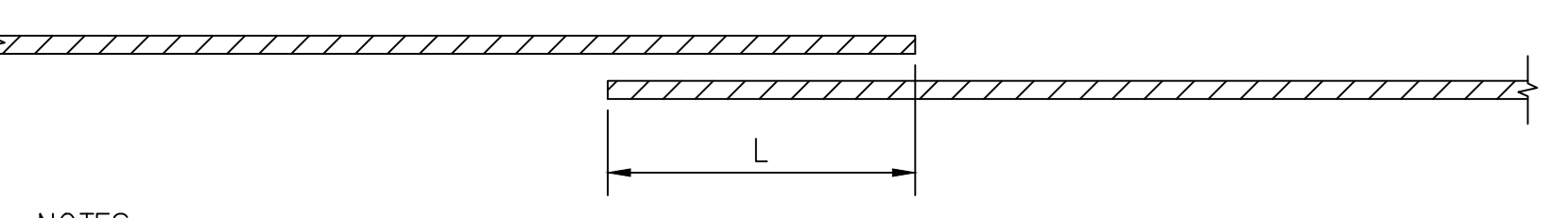
<b>SANTA YNEZ PUMP STATION</b>		DRAWING <b>S-04</b>
<b>HYDROPNEUMATIC TANK SECTIONS AND DETAILS</b>		SHEET <b>-</b>
		OF - SHEETS <b>-</b>





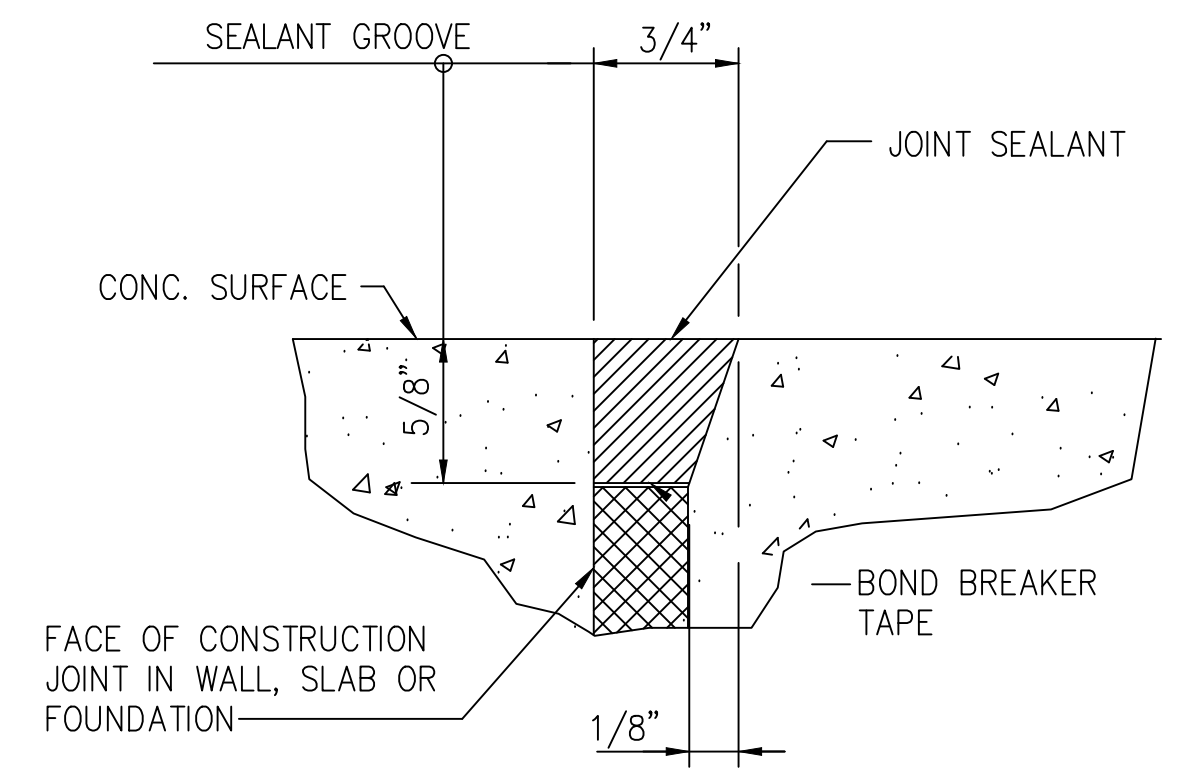
D = 8d FOR #9 AND LARGER  
D = 6d FOR #8 AND SMALLER BARS

BAR	REINFORCING LAP SPLICE SCHEDULE			
	f'c = 2500 L (inches)	f'c = 3000 L (inches)	f'c = 4000 L (inches)	f'c = 4500 L (inches)
3	24	22	19	18
4	32	29	25	24
5	39	36	31	30
6	47	43	37	35
7	69	63	54	51
8	78	72	62	59
9	88	81	70	66

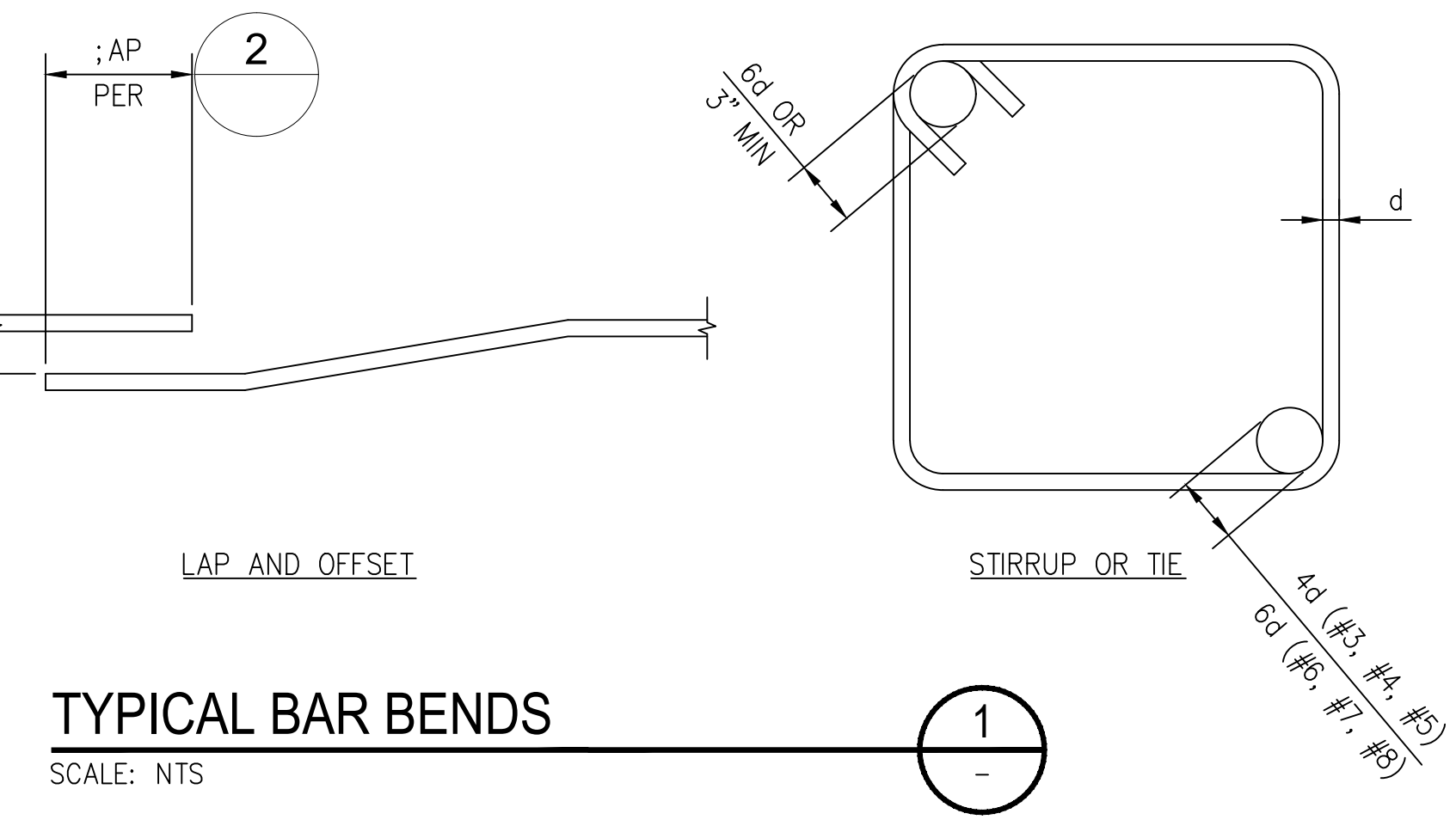
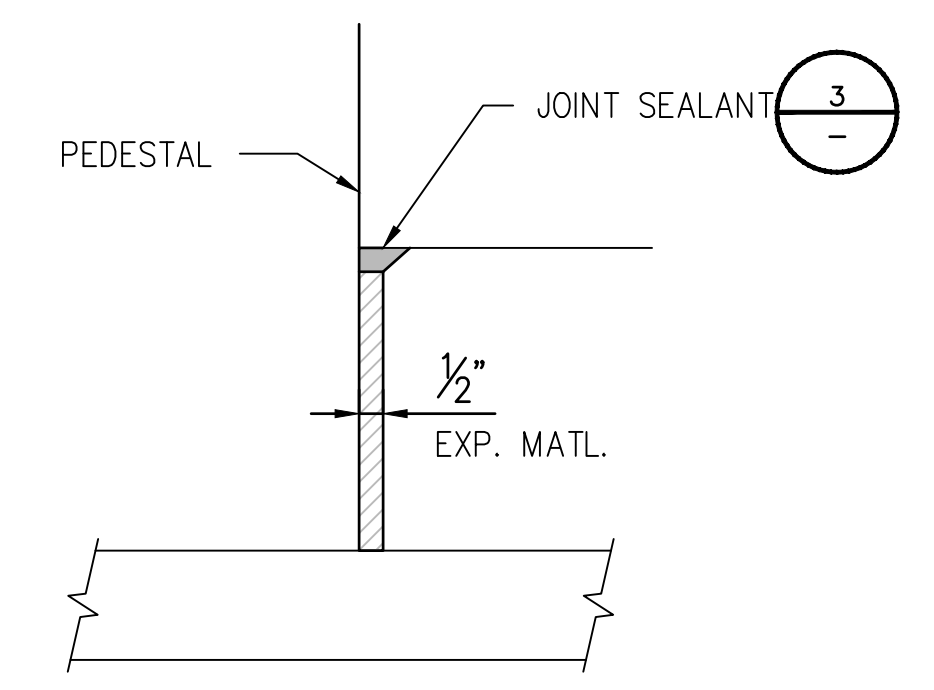


**NOTES:**

- LAPS SHOWN IN THIS TABLE ARE CLASS B, CATEGORY 3 TYPE SPLICES. LAP LENGTH IS BASED UPON SMALLER OF TWO BARS BEING SPLICED WHEN NOT THE SAME SIZE.
- INCREASE LAP LENGTHS BY A FACTOR OF 1.3 FOR HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THIS REINFORCEMENT



- NOTE**
- SANDBLAST CLEAN GROOVE PRIOR TO INSTALLING SEALANT.
  - PRIME VERTICAL EDGES.
  - CONSTRUCTION JOINTS EXPOSED TO HYDRAULIC OR SOIL BEARING SURFACES TO HAVE GROOVE AND SEALANT.



**TYPICAL BAR BENDS**

SCALE: NTS

**CONC LAP SPLICE SCHEDULE**

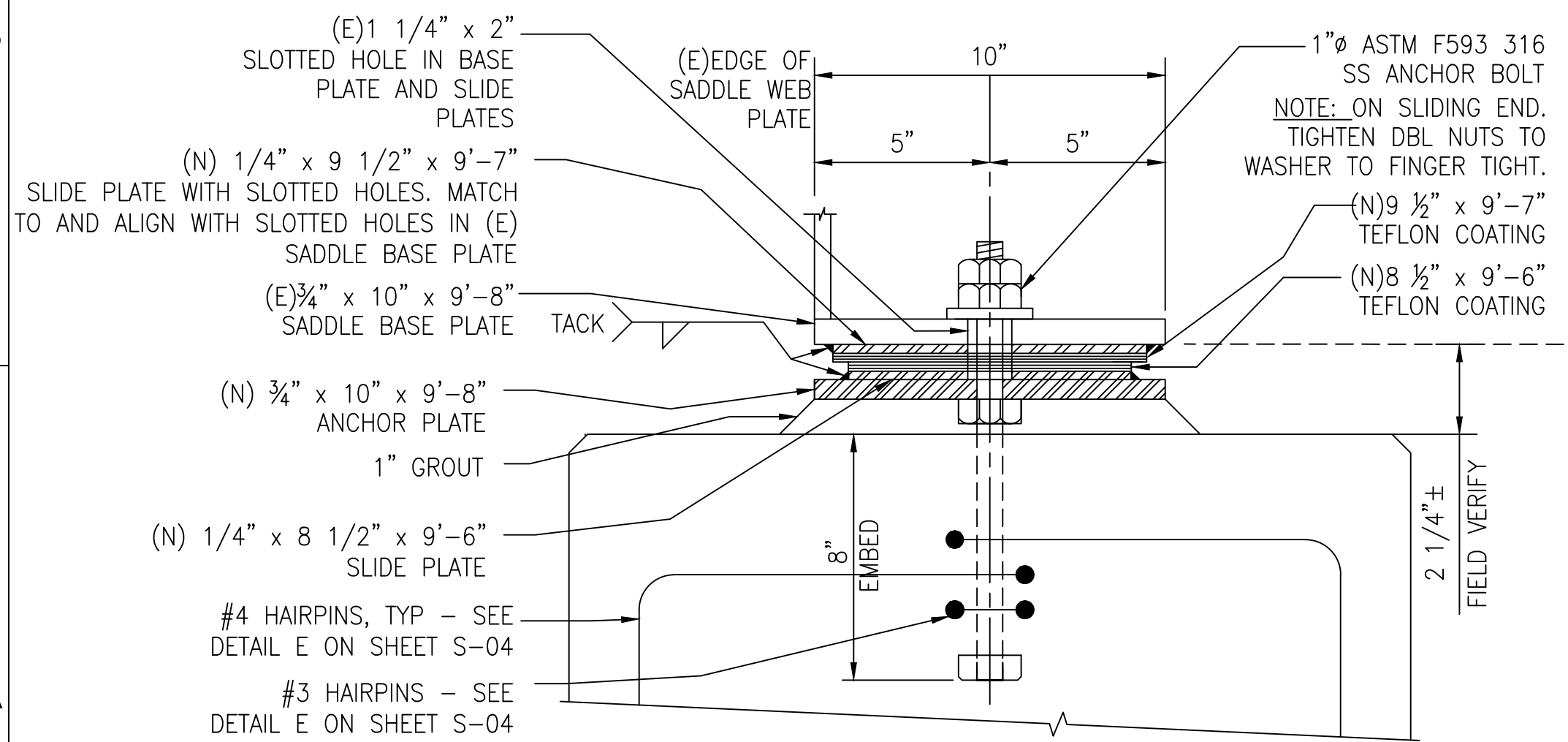
SCALE: NTS

**SEALANT GROOVE CONSTRUCTION JOINTS**

NOT TO SCALE

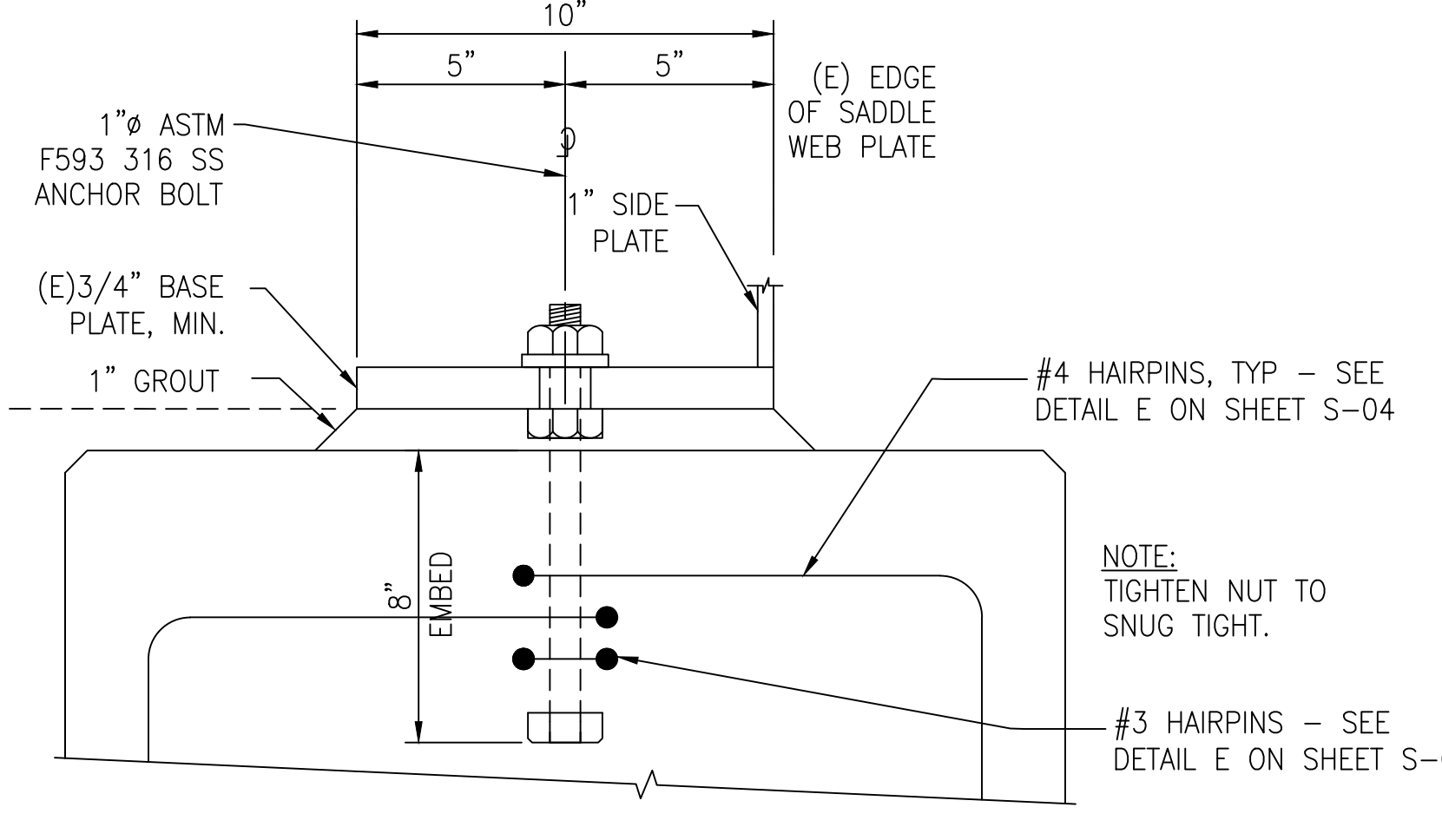
**JOINT SEALANT**

NOT TO SCALE FROM:



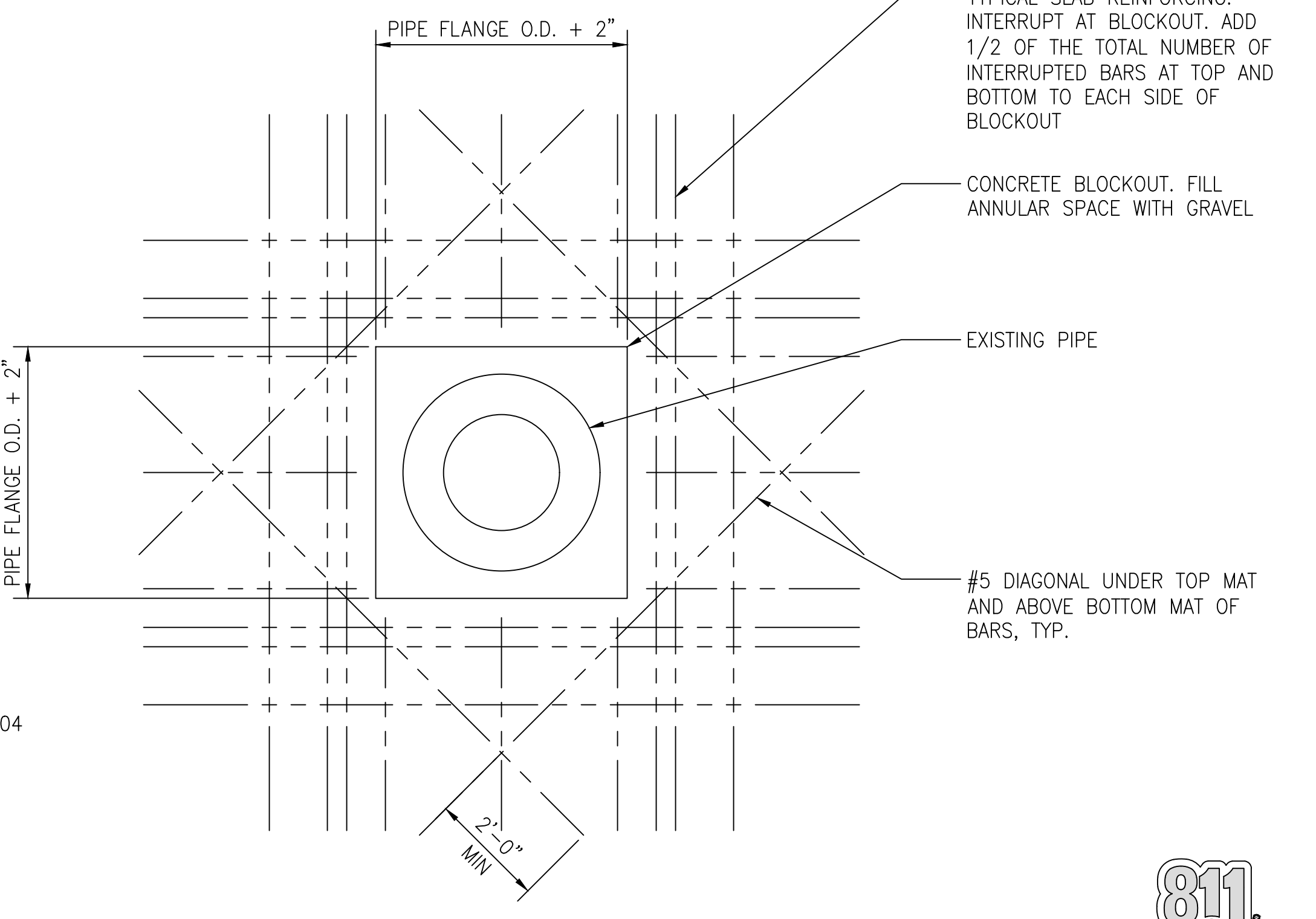
**SLIDING TANK SUPPORT DETAIL**

SCALE: 3"=1'-0"



**FIXED TANK SUPPORT DETAIL**

SCALE: 3"=1'-0"



**SLAB BLOCKOUT**

SCALE: NTS

**ISSUED FOR CONSTRUCTION**



D:\A\1000\Projects\CWA\60723417 - Tank Pedestal Repair\00\_CAD\_CSI\010\_CAD\CAD\Sheet\S-05.dwg    Plotted By: Nguyen, Thang    Date: 4/29/2024 - 6:15 PM  
 XREFS: C-BD    IMAGES:

REV	DATE	DESCRIPTION	APPR	DESIGNED BY TNN	PROJECT ENGINEER DALE E. WAH	DRAWN BY GR	REG NUMBER 2582	CHECKED BY DEW	PROJECT NUMBER	DATE APR 2024	CADD STANDARDS AECOM			<b>CENTRAL COAST WATER AUTHORITY</b>	SANTA YNEZ PUMP STATION	DRAWING S-05			
STRUCTURAL DETAILS																SHEET			
OF - SHEETS																-			



D:\MSD\Projects\CCWA\Projects\Sanitary\Sanitary\Drawings\00\_CAD\_CS\010\_CAD\06.dwg Layout Name: S-03 - Plotted by: Nguyen, Thung Date: 4/29/2024 - 6:15 PM  
 XREFS: C-BD IMAGES:

**GENERAL NOTES**

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND TANK ATTACHMENTS, APPURTENANCES, PRIOR TO ANY WORK.
2. EXISTING TANK DRAWINGS ARE AVAILABLE AT THE CCWA GENERAL OFFICE.
3. MATERIALS:  
 CONCRETE  $f'_c$  = 4,000 psi MIN AT 3 DAYS  
 REINFORCEMENT = GRADE 60  
 FILL MATERIAL = CLASS II AGG. BASE  
 FILL COMPACTION = 95% R.D.  
 CEMENT = TYPE II/IV  
 FLY ASH = CLASS F (15% MAX OF TOTAL CEMENTITIOUS MATERIALS)
4. PERMITS:  
 ACCESS = CCWA  
 CONSTRUCTION = CITY OF SANTA YNEZ  
 DISPOSAL = CITY  
 AIR QUALITY CONTROL =
5. SCHEDULE: THE CONTRACTOR SHALL DEVELOP A COMPLETE AND COMPREHENSIVE WORK SCHEDULE FOR ALL WORK AND SUBMIT TO THE OWNER FOR REVIEW AND APPROVAL.
6. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ALL MATERIALS TO THE OWNER FOR REVIEW. NOTE: IT IS ANTICIPATED THAT THE SLIDE BEARING FOR SLIDE PEDESTAL WILL BE SUPPLIED IN FOUR (4) SECTIONS: TWO TOP AND TWO BOTTOM.
7. CONTRACTOR TO COAT TANK, APPURTENANCES, CONNECTING PIPING, AND SUPPORTS PER SYSTEM NO. 15 PER SPECIFICATION SECTION 099000.

**ORDER OF WORK**

1. DRAIN TANK AND ALL CONNECTING PIPING
2. REMOVE ALL CONNECTED PIPING WHICH IS NOT SELF SUPPORTING OR NOT SUPPORTED BY ADJACENT FRAMING.
3. REMOVE TANK, STORE ON SITE AND SUPPORT SO AS TO NOT DAMAGE CONNECTIONS TO THE TANK OR SADDLE SUPPORTS.
4. REMOVE AND RECONSTRUCT PEDESTALS AND FOOTINGS PER DEMOLITION AND RECONSTRUCTION NOTES.
5. RECOAT INTERIOR AND EXTERIOR OF TANK.
  - a. INTERIOR COATING:
  - b. EXTERIOR COATING:
6. RESET TANK ON NEW PEDESTALS
7. RECONNECT NEW OR REUSABLE PIPING
8. PRESSURE TEST SURGE TANK @ XXX psi

**DEMOLITION NOTES**

1. REMOVE THE ENTIRE EXISTING PEDESTALS AND FOOTINGS AND PROCEED WITH CONSTRUCTING ALL NEW PEDESTALS, FOOTINGS AND REINFORCEMENT.

**MATERIAL SPECIFICATIONS**

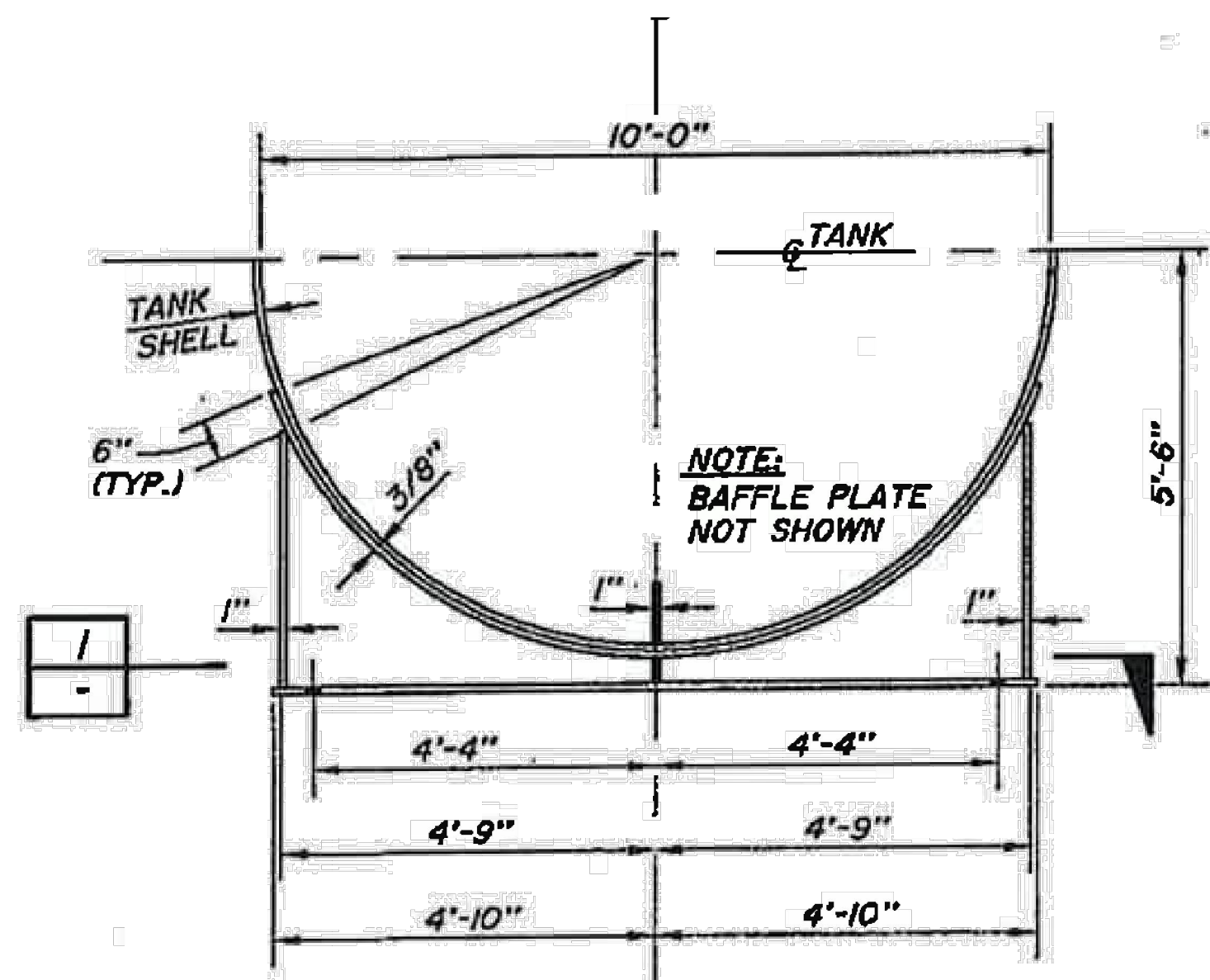
1. EXPANSION BEARINGS: FLUOROFOLD SLIDE BEARINGS
  - a. PREFABRICATED BEARINGS: SLIDE BEARINGS, LP  
 11133 I-45 S. SUITE Q  
 CONROE, TX, 77302
  - b. STEEL PLATE: ASTM A36
  - c. CIP ANCHOR BOLTS: ASTM F593 316 SS
  - d. WELDING BRNGS. TO PLATE:
2. 24 INCH FLEXIBLE PIPE CONNECTION:
  - a. FLEXIBLE CONN.: FLEXIDER USA  
 15303 OLD HWY 80  
 EL CAJON, CA 92021
  - b. 24" WELDED FLANGE

ISSUED FOR CONSTRUCTION

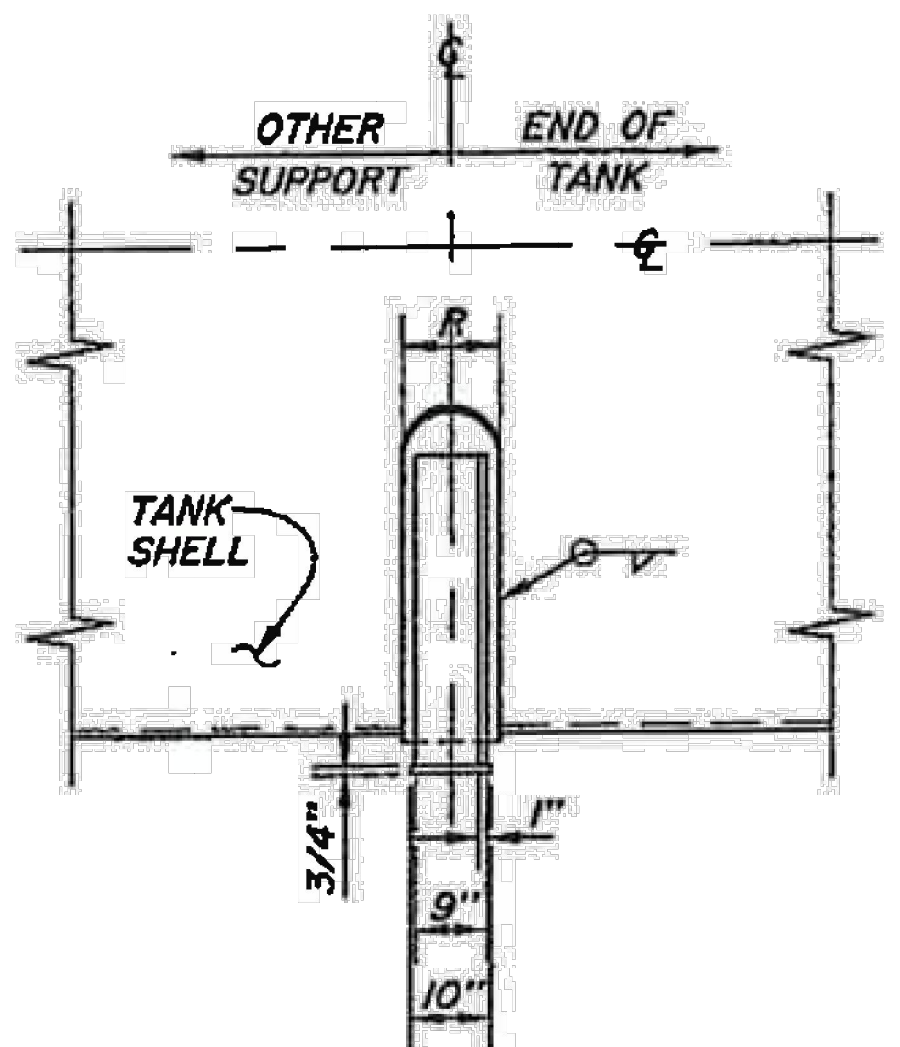


Know what's below.  
Call before you dig.

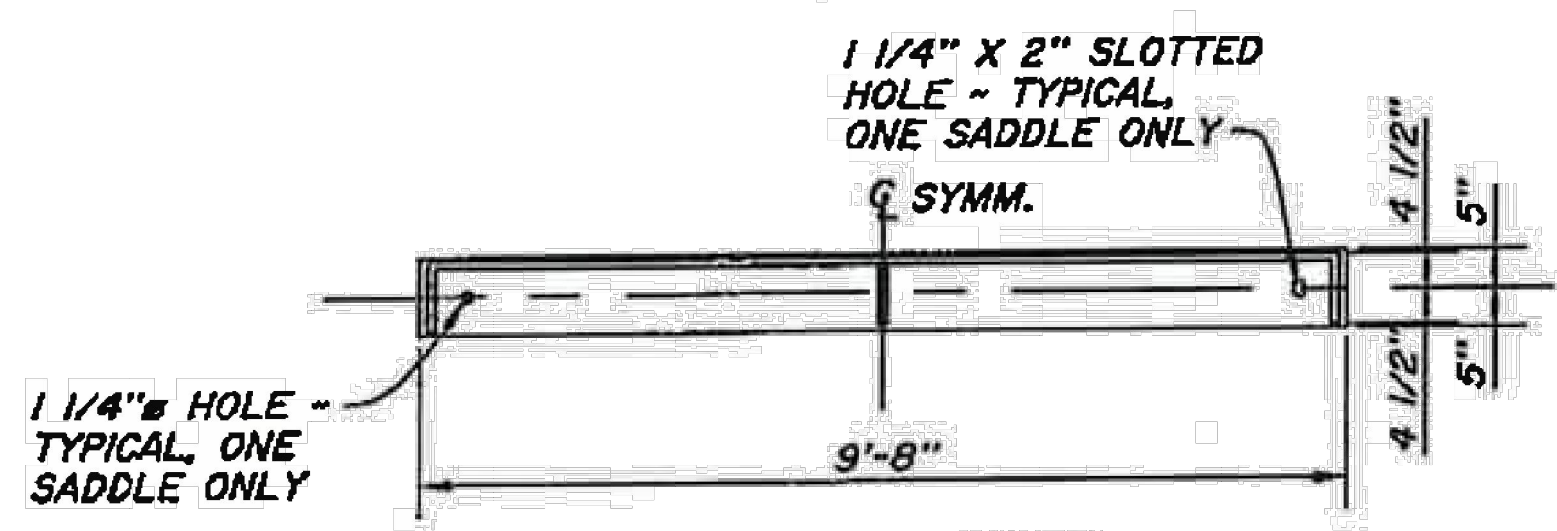
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DESIGNED BY TNN	PROJECT ENGINEER DALE E. WAH			CENTRAL COAST WATER AUTHORITY	SANTA YNEZ PUMP STATION	DRAWING S-06
	DRAWN BY GR	REG NUMBER 2582				PROJECT NUMBER -	CADD STANDARDS AECOM
CHECKED BY DEW	DATE APR 2024						
REV      DATE      DESCRIPTION      APPR	1	2	3	4	5	6	7



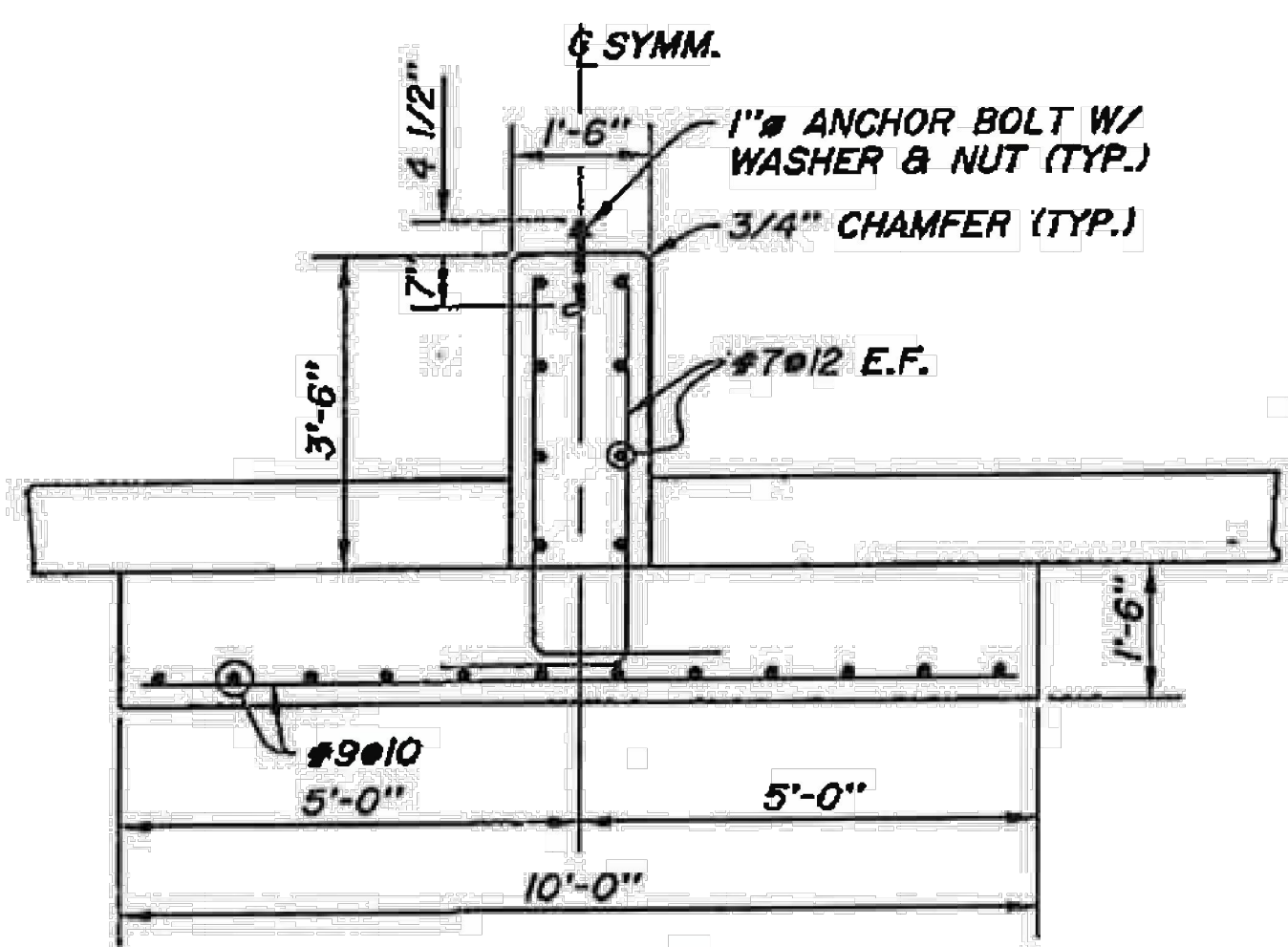
**STEEL SUPPORT SADDLE**



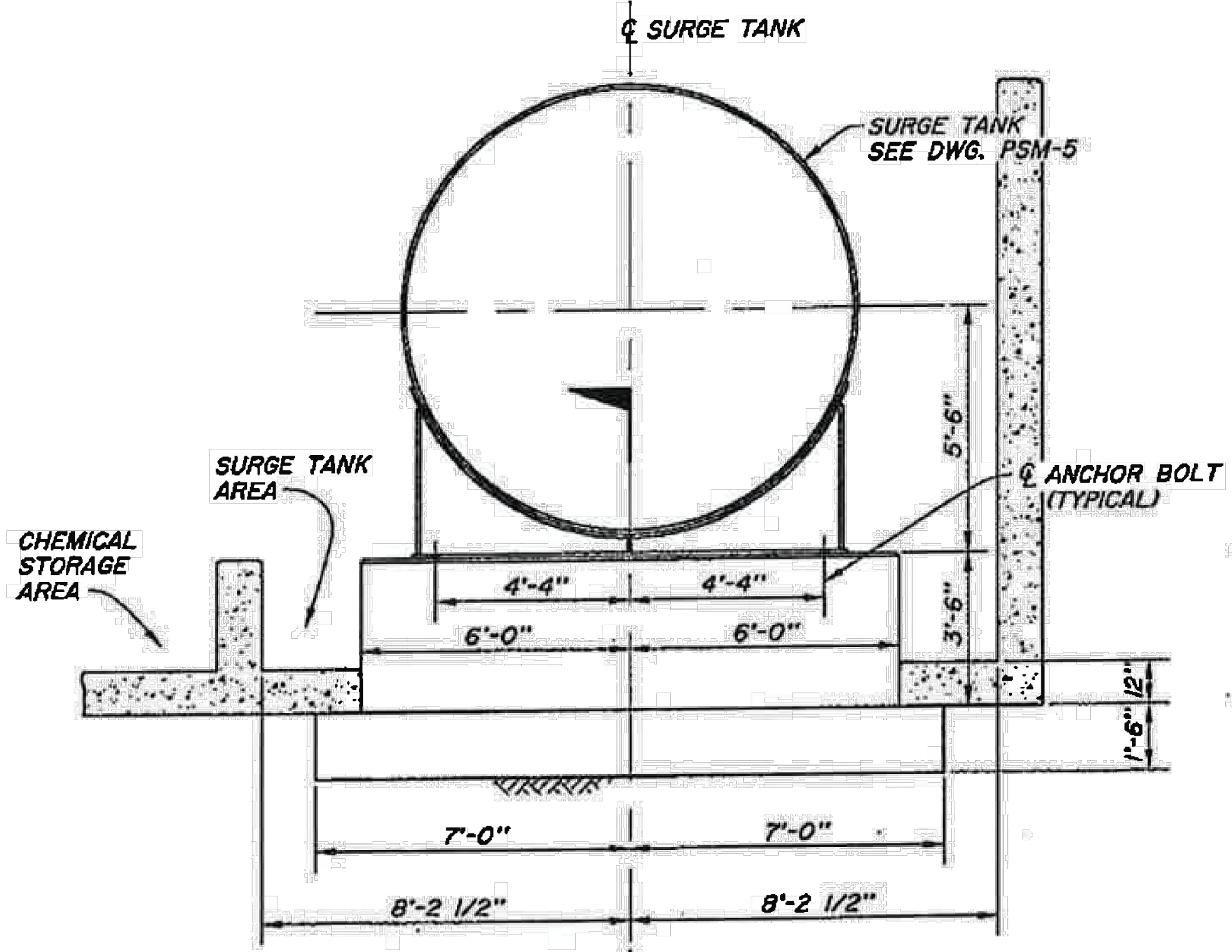
**SIDE VIEW**



**SECTION 1**



**SECTION 2**



**CONCRETE FOOTING AND PIER**

DWG: \\na.aecom.com\na\AMER\Central\USCAM\Legacy\usr1\p001\Projects\CCWA\60723417 - Tank Pedestal Repair\300\_CAD\_GS\310\_CAD\1-07.dwg Layout Name: S-03 - Plotted by: Nguyen, Thang Date: 4/25/2024 - 5:37 PM  
 XREFS: C-BD IMAGES:

**PROVIDED FOR REFERENCE ONLY**  
 INFORMATION SHOWN HEREON ASSUMED ACCURATE. CONTRACTOR TO VERIFY.



REV	DATE	DESCRIPTION	APPR
1			
2			

DESIGNED BY	PROJECT ENGINEER
DRAWN BY	REG NUMBER
CHECKED BY	PROJECT NUMBER
DATE	CADD STANDARDS
APR 2024	<b>AECOM</b>

**AECOM**

AECOM Technical Services, Inc.  
 999 Town and Country Road  
 Orange, California, 92668  
 T 714.280.2400 F 714.567.2409  
 www.aecom.com

**CENTRAL COAST WATER  
 AUTHORITY**

**SANTA YNEZ PUMP STATION**

DRAWING
SHEET
OF - SHEETS