

BIG PINE COMMUNITY SERVICES DISTRICT

TECHNICAL SPECIFICATIONS

FOR THE

REHABILITATION OF THE 500,000 GALLON WELDED STEEL WATER STORAGE TANK

June 2017

Mr. Dave Tanksley, System Operator
Big Pine Community Services District
180 N. Main Street, Suite D
Big Pine, CA 93513

BID PACKAGE AND SPECIAL PROVISIONS

REHABILITATION OF A 500,000 GALLON MAIN WATER STORAGE TANK Project No. 001

Prepared by: Big Pine Community Services District

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NOTICE INVITING BIDS FOR

BIG PINE COMMUNITY SERVICES DISTRICT PROJECT 001 NOTICE INVITING BIDS

The BIG PINE COMMUNITY SERVICES DISTRICT is soliciting bids for the recoating of the inside of a 500,000 gallon main water storage tank.

PROJECT 001

Bid Packages, which include the Notice Inviting Bids, Bid Proposal Forms, Contract and Bond Forms, Special Provisions, Technical Specifications and Plans, may only be obtained from BIG PINE COMMUNITY SERVICES DISTRICT, at 180 N. Main Street, Suite D, BIG PINE, CA 93513. A non-refundable price of \$25.00 will be charged for each hard copy set of Bid Packages requested. An electronic copy of the bid package may be obtained by calling Tim Rudolph at (760) 798-4292 or Krista Harper at (951) 372-9196.

The Bid Packages are available for inspection at 180 N. Main Street, Suite D, Big Pine, CA 93513 during regular business hours. Checks are to be made out to "BIG PINE COMMUNITY SERVICES DISTRICT."

Bidders who obtain Bid Packages over the internet are responsible for notifying BIG PINE COMMUNITY SERVICES DISTRICT that they are plan holders. Bidders who fail to notify the District that they are plan holders may not be notified should any Addenda be issued. If the District issues any Addenda to the Bid Package that is not acknowledged, the Bid Proposal may be rejected. This project is subject to the State of California Department of Industrial Relations (DIR) prevailing wage labor rates.

Bids must be submitted in a sealed envelope clearly marked with the bidder's name and address, the word "BID", and the Project Title:

To be considered, **bids must be received by mail addressed to Big Pine Community Services District, P.O. Box 639, Big Pine, CA 93513 on or before 5:00 P.M. on July 26, 2017, or via hand delivery on the same date, to the 180 N. Main Street, Suite D, Big Pine, CA 93513 between 4:00 pm and 5:00 pm** at which time they will be publicly opened and read aloud. No oral, telegraphic, telephonic, or fax proposals or modifications will be accepted.

A mandatory pre-bid job walk is scheduled for this project on July 12, 2017 at 10:00 am. Responsible bidders must attend the job walk in order to bid on this project.

General Work Description:

Rehabilitation of the existing 500,000 gallon welded steel water storage reservoir including interior coating and disinfection, exterior painting, cathodic protection and miscellaneous structural/safety modifications.

All project work is more particularly described in the plans Project Plans, Construction Specifications, and Addendums and special provisions. All of the work shall be in accordance with all applicable Federal, State, and local laws, codes, and regulations.

Technical questions related to project work, engineering, site conditions, materials, construction methods, testing or other related inquiries should be directed to the Project Manager or Krista Harper at (951) 372-9196.

Requests for Information (RFI) may be made by contacting Timrudolph@cox.net or Krista@harepereng.com. Allow 24 hours for a reply. No replies will be made within five weekdays of the closing bid date.

Bids shall conform to and be responsive to the Contract Documents. Bids are required for the entire work described in the Contract Documents. The project site located at 231 West Street, Big Pine, CA 93513 is open and available for inspection during the pre-bid conference only.

Each Bid must be submitted on the Bid Proposal Forms furnished as a part of the Bid Package. Each Bid must be accompanied by a Proposal Guarantee in the amount and form described in the Bid Package, in an amount not less than 10% of the amount of the bid, made payable to the order of the Big Pine Community Services District. The check or bond shall be given as security that the bidder will enter into the Contract with the District and furnish the required Faithful Performance Bond, Labor and Materials Payment Bond, Certificates and/or original endorsements of insurance, or other required documents. The check or bond may be retained by the District for sixty (60) days or until the Contract is fully executed by the successful bidder and the District, whichever first occurs.

The successful bidder shall be required to furnish a Faithful Performance Bond and a Labor and Materials Payment Bond on the forms provided in the Bid Package and in the amount of 100% of the Contract amount.

The successful bidder must be licensed as required by law, and consistent with the Contract Documents, at the time the contract is awarded, which license shall be a current California Class A license and/or a C33 or a combination of all specialty classifications that will be required for complete performance of all of the work in accordance with the Contract Documents, and if applicable, a joint venture license as defined in the **Business and Professions Code, Section 7029**. Failure of the bidder to obtain proper and adequate licensing for an award of a contract shall constitute failure to execute the contract and shall result in the forfeiture of the security of the bidder.

The Contract is subject to the State Contract nondiscrimination and compliance requirements pursuant to **Government Code, Section 12990**, and other applicable law.

The Contract is also subject to and incorporates by reference the provisions of **Public Contract Code, Section 22300**, pursuant to which, the Contractor is permitted to substitute securities for earned retention or have them placed in escrow at the Contractor's expense, as also set forth in Section 1150.15 of the Standard Specifications.

Pursuant to **Section 1725.5 of the Labor Code**, the bidder is required to certify that they, and all subcontractors listed on the submitted Bid Form documents, are registered with the California Department of Industrial Relations.

Pursuant to **Section 1773 of the Labor Code**, the general prevailing wage rates in Inyo County have been determined by the Director of the State Department of Industrial Relations. These wage rates appear in the Department of Transportation publication entitled "General Prevailing Wage Rates," in effect at the time the project is advertised. Future effective wage rates, which have been predetermined and are on file with the State Department of Industrial Relations are referenced, but not printed, in said publication. Such rates of wages are on file with the State Department of Industrial Relations are available to any interested party upon request.

Big Pine Community Services District reserves the right at any stage of these proceedings to reject any or all Bids or to waive any immaterial defect in any Bid if it is deemed to be in the best interest of the District.

Each bidder must supply all the information required by the Contract Documents, Special Provisions and Standard Specifications.

Big Pine Community Services District

Dated: _____, 2017

BID SCHEDULE A
SCHEDULE OF WORK ITEMS
500,000 GALLON WELDED STEEL TANK

Contractor shall furnish all labor, materials, equipment, applicable taxes, and incidentals necessary for the accomplishment of the following specific work items.

Item No.	Description	Size-Quantity	Unit	Unit Price	Item Total
1	Interior Coating: Furnish all labor, materials, and equipment to prepare surfaces to SSPC-SP10 and coat interior with epoxy coatings in accordance with the specifications.	1	Lump Sum	\$	\$
2	Disinfection: Furnish all labor, materials, and equipment to prepare surfaces and disinfect interior.	1	Lump Sum	\$	\$
3	Exterior Painting: Furnish all labor, materials, and equipment to prepare exterior surfaces damaged from structural modification and new appurtenances to SSPC-SP10 and paint prepared surfaces with epoxy/urethane paint system in accordance with the specifications.	1	Lump Sum	\$	\$
4	Interior Caulking: Furnish all labor, materials, and equipment to caulk all designated voids on the interior surfaces in accordance with the specifications.	1	Lump Sum	\$	\$
5	Mid-Span Bracing: Furnish and install lateral bracing at the mid-span of the rafters.	1	Lump Sum	\$	\$
6	Roof Blocking: Furnish and install roof blocking at designated locations in accordance with the plans.	1	Lump Sum	\$	\$
7	Center Vent Screening: Furnish and install new 316 stainless steel screening on the center vent.	1	Lump Sum	\$	\$
8	Guardrailing: Remove and dispose of existing guardrailing. Furnish and install new guardrailing and kickplates around roof hatch/work area in accordance with the plans.	1	Lump Sum	\$	\$
9	Safety Gate: Furnish and install a safety gate at the top of the exterior ladder.	1	Lump Sum	\$	\$
10	Roof Hatch: Remove existing roof hatch and fabricate and install a new 36" x 36" roof hatch at existing location as noted on plans.	1	Lump Sum	\$	\$
11	Auxiliary Vent: Furnish and install 24" safety/exhaust fan roof vent.	1	Lump Sum	\$	\$

Item No.	Description	Size-Quantity	Unit	Unit Price	Item Total
12	Exterior Saf-T-Climb: Furnish and install a stainless steel Saf-T-Climb fall prevention device on exterior ladder, including dismount section.	1	Lump Sum	\$	\$
13	Exterior Ladder: Modify the top of the ladder and cage to provide a wider opening and brace the Saf-T-Climb rail in accordance with the plans.	1	Lump Sum	\$	\$
14	Fall Restraint System: Furnish and install fall restraint stainless steel cables, attachments, and necessary mounting hardware on the roof in accordance with the plans.	1	Lump Sum	\$	\$
15	Interior Ladder: Remove and dispose of existing interior ladder. Furnish and install a new fiberglass ladder at location designated on the plans.	1	Lump Sum	\$	\$
16	Interior Saf-T-Climb: Furnish and install a galvanized Saf-T-Climb fall prevention device on interior ladder, including dismount section.	1	Lump Sum	\$	\$
17	Overflow: Modify the existing overflow pipe and weir box to provide a 4ft-3in freeboard in conformance to details shown on the plans.	1	Lump Sum	\$	\$
18	Cathodic Protection Handholes: Furnish all labor, materials, and equipment to cut new cathodic protection handholes and install mounting bracket for meter box.	1	Lump Sum	\$	\$
Total for Bid Items 1 through 18					\$

**BID SCHEDULE B
OPTIONAL BID ITEMS
500,000 GALLON WELDED STEEL TANK**

Item No.	Description	Size-Quantity	Unit	Unit Price	Item Total
19	Pitted Areas: Furnish all labor, materials, and equipment to fill pits or weld plates over pitted or excessively corroded areas.	10	Crew Hour	\$	\$
20	Dehumidification: Use of dehumidification system for all interior work as directed by the District, including curing of coatings.	8	Week	\$	\$
21	Grinding: Furnish all labor, materials, and equipment to grind smooth sharp edges of rafters.	16	Crew Hour	\$	\$
22	Exterior Painting: Furnish all labor, materials, and equipment to prepare <u>all</u> exterior surfaces to SSPC-SP10 and paint exterior surfaces with epoxy/urethane paint system in accordance with the specifications.	1	Lump Sum	\$	\$
23	Cathodic Protection Equipment: Furnish all labor, materials, and equipment to install anodes and system components for a new galvanic cathodic protection system.	1	Lump Sum	\$	\$
Total for Bid Items 19 through 23					\$
Total for Bid Items 1 through 23					\$

(TOTAL AMOUNT WRITTEN)

(CONTINUED)

NOTES:

- Bid shall include all sales tax, and other taxes and fees.
- Contract award shall be to lowest bid for all items
- Quantities listed are for comparison purposes. Payments will be made based on actual measurement of work completed (except where noted otherwise, such as lump sum items).

BID PROPOSAL FORMS FOR

Big Pine Community Services District

REHABILITATION OF A 500,000 GALLON MAIN WATER STORAGE TANK PROJECT 001

ENCLOSURES:

Bid Proposal Form
Bid Bond
Cashier's or Certified Check Form
Designation of Subcontractors
Certification Regarding Equal Employment Opportunity
Labor Code Section 3700 Contractor's Labor Code Certification
Labor Code Section 1725.5 Contractor and Subcontractor Registration
Public Contract Code Section 7106 (Non-Collusion Affidavit)
Public Contract Code Section 10162 Questionnaire
Public Contract Code Statement (Section 10232)
Inyo County Ordinance No. 1156 (Contracting Preference)
Small Business Enterprise Commitment (Construction Contracts)
Small Business Enterprise Final Report of Utilization of Small Business Enterprise

BID PROPOSAL FORM

TO: BIG PINE COMMUNITY SERVICES DISTRICT
P. O. BOX 639
BIG PINE, CA 93513

FROM: _____

(Herein called "Bidder")

FOR: **PROJECT** _____
(Herein called "Project")

In submitting this Bid, Bidder understands and agrees that:

1. BID DEADLINE. Bids must be received no later than _____, by _____, at which time they will be publicly opened and read aloud. No oral, telegraphic, telephonic or fax proposals or modifications will be accepted.

2. BID AMOUNT TOTAL. The total amount of this Bid for provision of the services and/or materials for completion of the Project in accordance with the Contract Documents is set forth herein.

BID TOTAL (IN NUMBERS): \$ _____

BID TOTAL (IN WORDS): _____

No provision in this section is intended or shall be construed to alter the terms and conditions specified in the Contract Documents for payment of any amounts in the event the Project contract is awarded to Bidder pursuant to this Bid.

3. INCLUSION OF ALL COSTS. This Bid includes all costs for all labor, materials, tools, taxes, insurance, transportation, and other related supplies and services to perform all services and provide all materials as required by, and in accordance with, the Contract Documents for the Project.

4. CONTRACT DOCUMENTS. The Contract Documents shall constitute the Contract between the parties, which will come into full force and effect upon acceptance, approval, and

execution by the Big Pine Community Services District. The Contract Documents are complementary and are incorporated herein by reference and made a part hereof with like force and effect as if all of said documents were set forth in full herein. The Contract Documents include all documents defined as "Contract Documents" in the Standard Specifications of the Big Pine Community Services District.

5. ACCEPTANCE. District reserves the right to reject any and all Bids, or part of any Bid, to postpone the scheduled Bid deadline date(s), to make an award in its own best interest, and to waive any informalities or technicalities that do not significantly affect or alter the substance of an otherwise responsible Bid and that would not affect a Bidder's ability to perform the work adequately as specified. However, this Bid shall remain open and shall not be withdrawn for a period of sixty (60) calendar days after the date designated in the Notice Inviting Bids for publicly opening this Bid. If Bidder receives written notice of the award of the Project Contract to Bidder on or before the sixtieth day, Bidder shall execute the Contract and deliver to District the executed Contract and all of the bonds, certificates and/or endorsements of insurance coverage, and other required documents no later than fifteen (15) calendar days after the date on which Bidder receives such notice.

This solicitation in no way obligates District to award a Bid Contract described herein, nor will District assume any liability for the costs incurred in the preparation and transmittal of Bids in response to this solicitation. District reserves the right to not accept any Bid, to reject any or all Bids, to reject any part of any Bid proposal, to negotiate and modify any Bid, and to waive any defects or irregularities in any Bid at District's sole discretion. Furthermore, District shall have the sole discretion to award a Bid Contract as it may deem appropriate to best serve the interests of District. In this regard, District may consider demonstrated quality of work, responsiveness, comparable experience, professional qualifications, references, and proposed fees. Awards will not be based on cost alone. District does not guarantee a minimum or maximum dollar value for any Contract(s) resulting from this solicitation.

If the Contract Documents require or permit this Bid to include two or more Alternates, District reserves the right to award the Contract for that Alternate which District, in its sole discretion, determines at the time of award to be in District's best interest.

6. TIME OF COMPLETION. The Bidder further specifically agrees to complete all the work no later than seventy-five (75) calendar days from start date as specified in the Contract Special Provisions.

7. ADDENDA. The Bidder acknowledges receipt of the following Addenda and has provided for all Addenda changes in this Bid.

(Fill in Addendum numbers and dates Addenda have been received.
If none have been received, enter "NONE".)

WARNING: IF AN ADDENDUM OR ADDENDA HAVE BEEN ISSUED BY THE DISTRICT AND NOT NOTED ABOVE AS BEING RECEIVED BY THE BIDDER, THIS PROPOSAL MAY BE REJECTED.

8. BIDDER'S BUSINESS INFORMATION. Bidder provides the following information concerning its business:

Bidder's Name: _____

Address: _____

_____ Zip Code _____

(The above address will be used to send notices or requests for additional information.)

Telephone: _____

Federal Identification No.: _____

Contractor's License No.: _____ State: _____

Classification: _____ Expiration Date: _____

Type of Business (check one):

Individual (☐), Partnership (☐), Joint Venture (☐)

Corporation (☐), Other (Specify) : _____ (☐)

Owners, Officers, Partners, or Other Authorized Representatives:

IMPORTANT NOTICE: If bidder or other interested person is a corporation, state legal name of corporation above and list below, names of the president, secretary, treasurer, and chief executive officer/manager thereof; if a partnership, joint venture, or other business entity, state true name of firm above and list below, names of all partners, joint ventures, or for other entities, parties having authority to act on behalf of the entity, such as officers, owners, directors; if bidder or other interested person is an individual, state first, middle, and last names in full above and write "N/A" below.

9. PROPOSAL GUARANTEE. As security for the Bid, this Bid includes one of the following proposal guarantee instruments (the "Proposal Guarantee"), in the amount required by this section, as checked:

- (a) _____ Bid Bond from a corporate surety admitted to issue such bonds in the State of California; or
- (b) _____ Cashier's Check or Certified Check, made payable to the District, attached to the form entitled Cashier's or Certified Check; or
- (c) _____ Cash, in legal tender of the United States of America, enclosed in a separate envelope marked " Cash Proposal Guarantee."

The Proposal Guarantee is in the amount of Ten Percent (10%) of the total amount of the Bid. If the Contract Documents require or permit this Bid to include two or more Alternates, the amount of the Proposal Guarantee must not be less than Ten Percent (10%) of the amount of the bid total submitted for the alternate having the highest total bid amount. Only one form of Proposal Guarantee may be submitted with each Bid.

Bidder hereby agrees that District shall be entitled to payment by forfeiture of the Proposal Guarantee if District awards the Project Contract to Bidder, but Bidder fails or refuses to execute the Contract and/or furnish all of the bonds, certificates and/or endorsements of insurance coverage, and other required documents no later than fifteen (15) calendar days after the date on which Bidder receives notice of the award from District.

10. BID PROTEST. In the event a dispute arises concerning the bid process prior to the award of the contract, the party wishing resolution of the dispute shall submit an appeal request in writing to the County Director of Purchasing. Bidder may appeal the recommended award or denial of award, provided the following stipulations are met:

1. Only a bidder who has actually submitted a Bid Proposal is eligible to submit an appeal request/bid protest against another bidder. Subcontractors are not eligible to submit bid protests. A bidder may not rely on the bid protest submitted by another bidder, but must timely pursue its own protest.
2. Appeal must be in writing. The appeal must contain a complete statement of the basis for the protest and all supporting documentation. Materials submitted after the Bid Protest Deadline will not be considered. The protest must refer to the specific portion or portions of the Contract Documents upon which the protest is based. The protest must include the name, address and telephone number of the person representing the protesting bidder if different from the protesting bidder.
3. A copy of the protest and all supporting documents must also be transmitted by fax or by e-mail, by or before the Bid Protest Deadline, to the protested bidder and any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest.

4. Must be submitted within ten (10) calendar days of the date of the recommended award or denial of award letters.
5. An appeal of a denial of award can only be brought on the following grounds:
 - a. Failure to follow the selection procedures and adhere to requirements specified in the Bid Package or any addenda or amendments.
 - b. There has been a violation of conflict of interest as provided by California Government Code Section 87100 et seq.
 - c. A violation of State or Federal law.
6. Appeals will not be accepted for any other reasons than those stated above. All appeals must be sent to:
BIG PINE COMMUNITY SERVICES DISTRICT
P. O. BOX 639
BIG PINE, CA 93513

District shall make a decision concerning the appeal, and notify the Proposer making the appeal, within a reasonable timeframe prior to the tentatively scheduled date for awarding the contract. The decision of District's Director shall be deemed final.

11. ADDITIONAL REQUIRED DOCUMENTS. Bidder agrees that, in addition to the Proposal Guarantee, Bidder is required to submit, as a part of this Bid, the following forms properly completed, and signed as required, all of which accompany this Bid Proposal Form and are incorporated herein by this reference:

- (1) Designation of Subcontractors (Public Contract Code section 4100 et seq.)
- (2) Certification Regarding Equal Employment Opportunity (Government Code section 12900 et seq., sections 11135-11139.5)
- (3) Contractor's Labor Code Certification (Labor Code section 3700)
- (4) Contractor and Subcontractor Dept. of Industrial Relations (DIR) Registration (Labor Code section 1725.5)
- (5) Non-Collusion Affidavit (Public Contract Code Section 7106)
- (6) Public Contract Code Section 10162 Questionnaire
- (7) Public Contract Code Statement (Section 10232)
- (8) Small Business Enterprise Commitment (Construction Contracts)
- (9) Small Business Enterprise Final Report of Utilization of Small Business Enterprise

THE UNDERSIGNED HEREBY DECLARES, UNDER PENALTY OF PERJURY ACCORDING TO THE LAWS OF THE STATE OF CALIFORNIA, THAT THE STATEMENTS, DESIGNATIONS, CERTIFICATIONS, AND REPRESENTATIONS MADE IN THIS BID PROPOSAL, INCLUDING ALL ATTACHMENTS, ARE TRUE AND CORRECT AND HE OR SHE IS THE INDIVIDUAL, MANAGING PARTNER, CORPORATE OFFICER,

OR OTHER REPRESENTATIVE, DULY AUTHORIZED BY LAW TO MAKE THIS BID ON BEHALF OF BIDDER, AND BY SIGNING BELOW, MAKES THIS BID ON BEHALF OF BIDDER ACCORDING TO ALL OF THE TERMS AND CONDITIONS SET FORTH OR INCORPORATED BY REFERENCE HEREIN.

(Signature of Authorized Person)

(Date)

(Printed Name)

(Printed Title)

BIG PINE COMMUNITY SERVICES DISTRICT PROJECT 001

BID BOND (BID PROPOSAL GUARANTEE)

(Not required if a certified or cashier's check or a cash deposit accompanies the bid as a proposal guarantee)

KNOW ALL MEN BY THESE PRESENTS: That we, _____

_____ as Principal, and
(Name of Bidder)

(Name of Corporate Surety)

as Corporate Surety admitted to issue such bonds in the State of California, are held and firmly bound unto the District of Inyo, State of California, in the sum of _____
_____ dollars (\$ _____) for the payment
whereof we hereby bind ourselves, our successors, heirs, executors, and administrators, jointly and severally, firmly by these presents.

The condition of the foregoing obligation is such that whereas the above bounded Principal is about to submit to the Board of Supervisors of the District a bid for the construction of the **BIG PINE COMMUNITY SERVICES DISTRICT - PROJECT 001**, in compliance with the Contract therefor:

Now, if the bid of the Principal shall be accepted and the Contract awarded to the Principal by said Board of Supervisors, and if the Principal shall fail or neglect to enter into the Contract therefor in accordance with the terms of the Principal's bid and the terms set forth in the Bid Package, or to furnish the required Faithful Performance and Labor and Materials Payment Bonds, Certificates of insurance, and other required documents, to the satisfaction of the Board of Supervisors of said District, no later than fifteen (15) calendar days after the Principal has received notice from the District that the Contract has been awarded to the Principal, then the sum guaranteed by this Bond is forfeited to the District.

It is expressly agreed and understood that any errors, clerical, mathematical, or otherwise, in the bid shall not be or constitute a defense to a forfeiture of this Bond.

WITNESS our hands and seals this _____ day of _____, 20 ____ A.D.

Principal

(SEAL)

By: _____
(Title of Authorized Person)

(Address for Notices to be Sent)

Surety

(SEAL)

By: _____
(Title of Authorized Person)

(Address for Notices to be Sent)

NOTE:

THE SIGNATURES OF THE PRINCIPAL (BIDDER) AND THE SURETY MUST EACH BE ACKNOWLEDGED BEFORE A NOTARY PUBLIC (OR OTHER OFFICER AUTHORIZED UNDER CALIFORNIA LAW) AND THE ACKNOWLEDGMENTS MUST BE ATTACHED TO THIS BOND. The Bid Bond must be executed on this form by a corporate surety admitted to issue such bonds in the State of California. No substitutions will be accepted. If an attorney-in-fact signs for the surety, an acknowledged statement from the surety appointing and empowering the attorney-in-fact to execute such bonds in such amounts on behalf of the surety, must accompany the Bid Bond.

ADDRESS OF DISTRICT FOR NOTICES TO BE SENT:

Big Pine Community Services District
P.O. Box 639
Big Pine, CA 93513

**BIG PINE COMMUNITY SERVICES DISTRICT
PROJECT 001**

**CASHIER'S OR CERTIFIED CHECK
(BID PROPOSAL GUARANTEE)**

(Not required if Bid Bond accompanies the bid as a proposal guarantee)

A cashier's or certified check in the amount required as a proposal guarantee for the Bid and made payable to the District is attached below:

[]

ATTACH CHECK HERE

[]

Bidder (print name): _____

**BIG PINE COMMUNITY SERVICES DISTRICT
PROJECT 001**

DESIGNATION OF SUBCONTRACTORS

In compliance with the provisions of the **Subletting and Subcontracting Fair Practices Act (Section 4100 et. seq. of the Public Contract Code of the State of California)**, the undersigned bidder has set forth below the full 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 of California who, under subcontract to the Prime Contractor, specifically fabricates and installs a portion of the work or improvement according to detailed drawings contained in the Plans and Specifications to which the attached bid is responsive, and the portion of the work which will be done by each Subcontractor for each subcontract in excess of one-half of one percent of the Prime Contractor's total bid, or \$10,000.00, whichever is greater.

The Bidder understands that if he fails to specify a Subcontractor for any portion of the work to be performed under the Contract in excess of one-half of one percent of his bid, or \$10,000.00, whichever is greater, he shall be deemed to have agreed to perform such portion himself, and that he shall not be permitted to sublet or subcontract that portion of the work except in cases of public emergency or necessity, and then only after a finding, produced to writing as a public record of the Awarding Authority, setting forth the facts constituting the emergency or necessity. If no Subcontractors are to be employed on the project, enter the word "none".

ITEM NO.	DESCRIPTION OF WORK	% OF TOTAL CONTRACT	SUBCONTRACTOR'S LICENSE TYPE, NUMBER, EXPIRATION DATE	NAME, ADDRESS, PHONE NUMBER

Signature of Authorized Person)

(Title)

(Printed Name)

(Date)

**CERTIFICATION REGARDING
EQUAL EMPLOYMENT OPPORTUNITY**
(Government Code Section 12900 et seq., Sections 11135-11139.7)

**BIG PINE COMMUNITY SERVICES DISTRICT
PROJECT 001**

During the performance of this Contract, the Contractor and its subcontractors shall not unlawfully deny the Contract's benefits to any person, nor shall any person be unlawfully subjected to discrimination under the contract and its performance on the basis of religion, color, ethnic group identification, sex, age, or disability. In addition, the Contractor and its subcontractors shall not discriminate unlawfully against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, age, or sex. The Contractor shall insure that the evaluation and treatment of employees and applicants for employment are free from such discrimination.

The Contractor shall comply with the provisions of the Fair Employment and Housing Act (**Government Code, Section 12900 et seq.**), the regulations promulgated thereunder (**California Code of Regulations, Title 2, Section 7285.0 et seq.**), and the Provisions of **Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Government Code, Sections 11135-11139.7).**

Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

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

(Name and Title of Signer)

Signature

Date

Company Name _____

Business Address _____

CONTRACTOR'S LABOR CODE CERTIFICATION
(Labor Code Section 3700 et seq.)

BIG PINE COMMUNITY SERVICES DISTRICT
PROJECT 001

I am aware of the provisions of Section 3700 and following of the Labor Code which requires 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.

(Name and Title of Signer)

Signature

Date

Company Name

Business Address

CONTRACTOR AND SUBCONTRACTOR REGISTRATION
With
CA Department of Industrial Relations (DIR)
(CA LABOR CODE SECTION 1725.5)

Bidder hereby certifies that they, and all subcontractors listed on the submitted Bid Form documents, are registered with the California Department of Industrial Relations pursuant to requirements of California Labor Code Section 1725.5 and will comply with all requirements as noted in the aforementioned CA Labor Code Section.

Signed Name

Date

Printed Name

CA DIR Registration No.

NON-COLLUSION AFFIDAVIT

(Public Contract Code Section 7106)
(Code of Civil Procedure Section 2015.5)

BIG PINE COMMUNITY SERVICES DISTRICT PROJECT 001

The undersigned declares:

I am the _____ of _____,
the party making the foregoing bid. The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose. Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on

_____, at _____,
(Date) (City) (State)

(Name and Title of Signer)

Signature

Date

Company Name

Business Address

PUBLIC CONTRACT CODE SECTION 10162 QUESTIONNAIRE

BIG PINE COMMUNITY SERVICES DISTRICT PROJECT 001

In accordance with Public Contract Code Section 10162, the Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the Bidder, any officer of the Bidder, or any employee of the Bidder who has a proprietary interest in the Bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation:

Yes _____ No _____

If the answer is yes, explain the circumstances in the following space.

By bidder's signature on the Bid Proposal Form, Bidder certifies, under penalty of perjury under the laws of the State of California, that the foregoing statements in accordance with Public Contract Code Section 10162 are true and correct.

PUBLIC CONTRACT CODE STATEMENT (SECTION 10232)

BIG PINE COMMUNITY SERVICES DISTRICT PROJECT 001

In accordance with **Public Contract Code Section 10232**, the Contractor hereby states under penalty of perjury, that no more than one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board.

By Bidder's signature on the Bid Proposal Form, Bidder certifies, under penalty of perjury under the laws of the State of California, that the foregoing statements in accordance with **Public Contract Code Section 10232** are true and correct.

(Name and Title of Signer)

Signature

Date

Company Name

Business Address

CONTRACT AND BOND FORMS FOR

**BIG PINE COMMUNITY SERVICES DISTRICT
PROJECT 001**

ENCLOSURES:

Contract
Faithful Performance Bond
Labor and Materials Payment Bond

C O N T R A C T
For the
BIG PINE COMMUNITY SERVICES DISTRICT
PROJECT 001

THIS CONTRACT is awarded by the BIG PINE COMMUNITY SERVICES DISTRICT to CONTRACTOR on, and made and entered into effective, _____, 2017, by and between the DISTRICT, a political subdivision of the State of California, (herein "District"), and _____ (herein "CONTRACTOR"), for the construction of the **BIG PINE COMMUNITY SERVICES DISTRICT - PROJECT 001** (herein also "Project"), which parties agree, for and in consideration of the mutual promises, as follows:

1. CONTRACTOR shall furnish all labor, materials, methods, processes, implements, tools, machinery, equipment, transportation, permits, services, utilities, and all other items, and related functions and otherwise shall perform all work necessary or appurtenant to construct the Project in accordance with the Contract Documents within the Time for Completion set forth in the Contract Documents, for:

Title: BIG PINE COMMUNITY SERVICES DISTRICT - PROJECT 001

2. For the performance of all such work, DISTRICT shall pay to CONTRACTOR the total amount bid by CONTRACTOR for said Work: _____ dollars (\$_____._____._____), adjusted by such increases or decreases as authorized in accordance with the Contract Documents, and payable at such times and upon such conditions as otherwise set forth in the Contract Documents.

3. CONTRACTOR and DISTRICT agree that this Contract shall include and consist of: (a) all of the provisions set forth expressly herein; (b) the Bid Proposal Form, the Faithful Performance Bond, and the Labor and Materials Payment Bond, all of which are incorporated herein and made a part hereof by this reference; and (c) all of the other Contract Documents, and the Special Provisions concerning this Project including the Appendices, the Plans, any and all amendments or changes to any of the above-listed documents, including, without limitation, contract change orders, and any and all documents incorporated by reference into any of the above-listed documents.

4. This Contract, including the Contract Documents and all other documents, which are incorporated herein by reference, constitutes the entire agreement between CONTRACTOR and DISTRICT with respect to the subject matter hereof.

5. Pursuant to **Section 1773 of the Labor Code**, the general prevailing wage rates in Inyo District have been determined by the Director of the State Department of Industrial Relations. These wage rates appear in the Department of Transportation publication entitled "General Prevailing Wage Rates", in effect at the time the project is advertised. Future effective wage rates, which have been predetermined and are on file with the State Department of Industrial Relations are referenced, but not printed, in said publication. Such rates of wages are on file with the State Department of Industrial Relations and are available to any interested party upon request.

C O N T R A C T
for
BIG PINE COMMUNITY SERVICES DISTRICT
PROJECT 001

IN WITNESS WHEREOF, DISTRICT and CONTRACTOR have each caused this Contract to be executed on its behalf by its duly authorized representative, effective as of the day and year first above written.

DISTRICT

Big Pine Community Services District

By: _____

Name: _____

Title: _____

Dated: _____

APPROVED AS TO FORM AND
LEGALITY:

District Counsel

APPROVED AS TO ACCOUNTING
FORM:

District Auditor

CONTRACTOR

By: _____

Name: _____

Title: _____

Dated: _____

Taxpayer's Identification or
Social Security Number:

APPROVED AS TO INSURANCE
REQUIREMENTS:

District Risk Manager

**BIG PINE COMMUNITY SERVICES DISTRICT
PROJECT 001**

**FAITHFUL PERFORMANCE BOND
(100% OF CONTRACT AMOUNT)**

KNOW ALL MEN BY THESE PRESENTS: That _____

_____ as Principal, hereinafter called Contractor,
(Name of Contractor)

and _____
(Name of Corporate Surety)

as Corporate Surety, hereinafter called Surety, are held and firmly bound unto the District as

Obligee, hereinafter called District, in the amount of _____

_____ dollars (\$ _____),

for the payment whereof Contractor and Surety bind themselves, their heirs, executors,
administrators, successors and assignees, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written Contract dated _____, 20____,
entered into an agreement with the District for the Construction of the **BIG PINE COMMUNITY
SERVICES DISTRICT - PROJECT 001** (herein "Project"), to be constructed in accordance with
the terms and conditions set forth in the Contract for the **BIG PINE COMMUNITY SERVICES
DISTRICT - PROJECT 001**, which contract is by reference incorporated herein and is hereinafter
referred to as the "Contract".

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall
promptly and faithfully perform said Contract, then this obligation shall be null and void; otherwise
it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the District.

Whenever Contractor shall be, and is declared by District to be, in default under the Contract, the
District having performed Owner's obligations thereunder, the Surety may promptly remedy the
default, or shall promptly either:

1. Complete the Contract in accordance with its terms and conditions; or,

2. Obtain a Bid or Bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible Bidder, or if the District elects, upon determination by the District and the Surety jointly of the lowest responsible Bidder, arrange for a Contract between such Bidder and District, and make available as work progresses (even though there should be a default or a succession of defaults under the Contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the Contract price", as used in this paragraph, shall mean the total amount payable by District to Contractor under the Contract and any amendments thereto, less the amount properly paid by District to Contractor.

Any suit under this Bond must be instituted before the expiration of two (2) years from the date on which final payment under the Contract falls due, or the date on which any warranty or guarantee period expires, whichever is later.

No right of action shall accrue on this Bond to or for the use of any person or corporation other than the District named herein.

Signed and sealed this _____ day of _____, 20 ____.

(SEAL)

(Name of Corporate Surety)

By: _____
(Signature)

(Title of Authorized Person)

(Address for Notices to be Sent)

(SEAL)

(Name of Contractor)

By: _____
(Signature)

(Title of Authorized Person)

(Address for Notices to be Sent)

NOTE:

THE SIGNATURES OF THE CONTRACTOR AND THE SURETY MUST EACH BE ACKNOWLEDGED BEFORE A NOTARY PUBLIC (OR OTHER OFFICER AUTHORIZED UNDER CALIFORNIA LAW) AND THE ACKNOWLEDGMENTS MUST BE ATTACHED TO THIS BOND. The Faithful Performance Bond must be executed by a corporate surety on this form. No substitutions will be accepted. If an attorney-in-fact signs for the surety, an acknowledged statement from the surety appointing and empowering the attorney-in-fact to execute such bonds in such amounts on behalf of the surety must accompany the Faithful Performance Bond.

ADDRESS OF DISTRICT FOR NOTICES TO BE SENT:

Big Pine Community Services District
P.O. Box 639
Big Pine, CA 93513

BIG PINE COMMUNITY SERVICES DISTRICT PROJECT 001

LABOR AND MATERIALS PAYMENT BOND (100% OF CONTRACT AMOUNT)

KNOW ALL MEN BY THESE PRESENTS, that _____
(Name of Contractor)

_____ as Principal, hereinafter called CONTRACTOR,

and _____
(Name of Corporate Surety)

as Corporate Surety, hereinafter called SURETY, are held and firmly bound unto the District as Obligee, hereinafter called DISTRICT, for the use and benefit of claimants as hereinafter

defined in the amount of _____

_____ dollars (\$ _____)

for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assignees, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written contract dated _____, 20 _____, entered into an agreement with the District for the construction of the **BIG PINE COMMUNITY SERVICES DISTRICT - PROJECT 001** (hereinafter referred to as "PROJECT"), to be constructed in accordance with the terms and conditions set forth in the contract for the **BIG PINE COMMUNITY SERVICES DISTRICT - PROJECT 001**, which contract is by reference incorporated herein, and is hereinafter referred to as the "CONTRACT".

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly make payment to all claimants as hereinafter defined, for all labor and materials used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect, subject, however, to the following conditions.

1. A claimant is defined as one having a direct contract with the Contractor, or with a Subcontractor of the Contractor, for labor, materials, or both, used or reasonably required for use in the performance of the Contract. Labor and materials is construed to include, but not limited to, that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.
2. The above named Contractor and Surety hereby jointly agree with the District that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) calendar days after the date on which the last of such claimant's work or labor

was done or performed, or materials were furnished by such claimant, may sue on this Bond for the benefit of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The District shall not be liable for the payment of any costs or expenses of any such suit.

3. No suit or action shall be commenced hereunder by any claimant:

- a) Unless claimant, other than one having a direct contract with the Contractor, shall have given written notice to any two of the following: the Contractor, the District, or the Surety above named, within ninety (90) calendar days after such claimant did or performed the last of the work or labor, or furnished the last of the material for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in any envelope addressed to the Contractor, District, or Surety, at the address below, or at any place where an office is regularly maintained for the transaction of their business. Such notice may also be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer.
- b) After the expiration of one (1) year following the date on which District accepted the work done under the Contract. However, if any limitation embodied in this Bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
- c) Other than in a State Court of competent jurisdiction in and for the District or other political subdivision of the state in which the Project, or any part thereof, is situated, and not elsewhere.

4. The amount of this Bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed or recorded against said Project, whether or not claim for the amount of such lien be presented under and against this Bond.

Signed and sealed this _____ day of _____, 20 ____.

(Name of Contractor)

By: _____
(Signature)

(SEAL)

(Title of Authorized Person)

(Address for Notices to be Sent)

(Name of Corporate Surety)

By: _____
(Signature)

(SEAL)

(Title of Authorized Person)

(Address for Notices to be Sent)

NOTE:

THE SIGNATURES OF THE CONTRACTOR AND THE SURETY MUST BE ACKNOWLEDGED BEFORE A NOTARY PUBLIC (OR OTHER OFFICER AUTHORIZED UNDER CALIFORNIA LAW). The Labor and Materials Payment Bond must be executed by a corporate surety on this form. No substitutions will be accepted. If an attorney-in-fact signs for the surety, an acknowledged statement from the surety appointing and empowering the attorney-in-fact to execute such bonds in such amounts on behalf of the surety, must accompany the Labor and Materials Payment Bond.

ADDRESS OF DISTRICT FOR NOTICES TO BE SENT:

Big Pine Community Services District
P.O. Box 639
Big Pine, CA 93513

SPECIAL PROVISIONS

FOR REHABILITATION OF A 500,000 GALLON MAIN WATER STORAGE TANK

**BIG PINE COMMUNITY SERVICES DISTRICT
PROJECT 001**

Located at 231 West St., Big Pine, CA 93513

**Prepared by:
BIG PINE COMMUNITY SERVICES DISTRICT**

SPECIAL PROVISIONS APPROVAL

BIG PINE COMMUNITY SERVICES DISTRICT PROJECT 001

These Special Provisions have been prepared by the BIG PINE COMMUNITY SERVICES DISTRICT under the direction of the undersigned and are approved for the work contemplated herein.

Specifications Approval Date

**BIG PINE COMMUNITY SERVICES DISTRICT
PROJECT 001**

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**BIG PINE COMMUNITY SERVICES DISTRICT
PROJECT 001**

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BIG PINE COMMUNITY SERVICES DISTRICT

PROJECT 001

SPECIAL PROVISIONS

SECTION 1-GENERAL

1-1.01 INTRODUCTION: The Big Pine Community Services District - PROJECT 001 (Rehabilitation of a 500,000 Gallon Main Water Storage Tank), is to be constructed and completed in accordance with these Special Provisions, the Project Plans, and the Standard Specifications (Standard Specifications), the California Building Code dated _____ and all California Title 24 requirements. The Special Provisions, the Project Plans, and the sections of the Standard Specifications referenced herein, constitute a portion of the “Contract Documents” (as that term is defined in section 1070.04 of the Standard Specifications) governing the project and shall therefore be binding upon and observed by the person/entity with whom the District enters into contract for construction of the Project.

Copies of the Project Plans and the Standard Specifications may be obtained from the District.

Unless indicated otherwise, all references in this document to sections are to those in the Standard Specifications (designated by “SS” following the section number) or to other sections in these Special Provisions. In case of any irreconcilable conflict between the requirements of the Standard Specifications referenced herein and these Special Provisions, the latter shall prevail and be observed.

1-1.02 PROJECT DESCRIPTION-

Rehabilitation of the existing 500,000 gallon welded steel water storage tank including interior coating and disinfection, exterior painting, cathodic protection and miscellaneous structural/safety modifications.

SECTION 2-BIDDING

2-1.01 GENERAL: The bidder’s attention is directed to the provisions in **Section 20, “Bid Requirements and Conditions,”** of the District Standard Specifications and these Special Provisions for the requirements and conditions which must be observed in the preparation of the Proposal Form and the submission of the bid.

In accordance with **Public Contract Code Section 7106**, a Non-Collusion Affidavit is included in the Proposal. Signing the Proposal shall also constitute signature of the Non-Collusion Affidavit.

Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985) provides as follows:

Any state agency may suspend, for a period of up to three years from the date of conviction, any person from bidding upon, or being awarded, a public works or services contract with the

agency under this part or from being a Subcontractor at any tier upon the Contract, if that person, or any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, has been convicted by a court of competent jurisdiction of any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or Federal antitrust law in connection with the bidding upon, award of, or performance of, any Public Works Contract, as defined in **Section 1101**, with any public entity, as defined in **Section 1100**, including, for the purposes of this article, the Regents of the University of California or the Trustees of the California State University. A state agency may determine the eligibility of any person to enter into a Contract under this article by requiring the person to submit a statement, under penalty of perjury, declaring that neither the person nor any Subcontractor to be engaged by the person has been convicted of any of the offenses referred to in this Section within the preceding three years.

A form for the statement required by **Section 10285.1** is included in the Proposal.

2-1.02 REQUIRED LISTING OF PROPOSED SUBCONTRACTORS: Each proposal shall have listed therein the name, address, and license information for each subcontractor to whom the bidder proposes to subcontract portions of the work in an amount in excess of 1/2 of one percent (0.5 %) of its total bid or \$10,000, whichever is greater, in accordance with the **Subletting and Subcontracting Fair Practices Act**, commencing with **Section 4100 of the Public Contract Code**. The bidder's attention is directed to other provisions of said Act related to the imposition of penalties for a failure to observe its provisions by using unauthorized subcontractors or by making unauthorized substitutions.

A sheet for listing the subcontractors, as required herein, is included in the Proposal.

No contractor or subcontractor may be listed on a bid proposal for a District project submitted on or after _____, 2017 unless registered with the Department of Industrial Relations pursuant to **Labor Code section 1725.5**, with limited exceptions from this requirement for bid purposes only under **Labor Code section 1771.1(a)**.

No contractor or subcontractor may be awarded a contract for the District project awarded on or after ***** unless registered with the Department of Industrial relations pursuant to **Labor Code section 1725.5**.

Contractor agrees to comply with all related provisions of the Labor Code, including but not limited to, the provisions of **Labor Code Section 1775** relating to the payment of prevailing wages, **Section 1777.5** relating to the employment of apprentices and **Section 1811-1813** relating to the payment of Overtime. Failure to comply with the proper prevailing wage requirements may result in a penalty of up to \$200 per day per worker. Failure to comply with apprenticeship requirements may result in a penalty of \$100-\$300 for each calendar day of violation. Failure to pay proper overtime rate may result in a penalty of \$25 per day per worker.

SECTION 3-CONTRACT AWARD AND EXECUTION

3-1.01 GENERAL- The bidder's attention is directed to the provisions in **Section 30, "Contract Award and Execution, Requirements and Conditions,"** of the District Standard Specifications

and Special Provisions for the requirements and conditions concerning award and execution of the Contract.

3-1.02 CONTRACT AWARD: The right is reserved to reject any and all proposals.

The award of the Contract, if it is awarded, will be to the lowest responsible bidder whose proposal complies with all the requirements prescribed. Whenever possible, such award, if made, will be made within 30 days after the opening of the proposals.

However, failure of the District to make award within 30 days after the opening of the proposals shall not relieve the Contractor of its requirement to deliver an executed contract and bonds, and any other required documents, within 10 calendar days of receipt of the Contract.

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

SECTION 4-PROSECUTION AND PROGRESS

4-1.01 GENERAL-The bidder's attention is directed to the provisions in **Section 1017, "Prosecution and Progress,"** of the District Standard Specifications.

4-1.02 TIME OF COMPLETION- This section shall be amended by adding the following paragraphs:

The Contractor shall complete all designated portions of the work required under the Contract no later than seventy-five (75) calendar days from and including the Starting Date, plus such additional days, if any, which are expressly granted as extensions of time by Contract Change Orders signed and issued by the District. Such total number of days shall be referred to herein as the "Time of Completion."

Failure of the Contractor to perform any covenant or condition contained in the Contract Documents within the time period specified shall constitute a material breach of this Contract entitling the Owner to terminate the Contract unless the Contractor applies for, and receives, an extension of time in accordance with the procedures set forth in Section 1017.09 SS, "EXTENSION OF TIME."

4-1.03 LIQUIDATED DAMAGES- In accordance with Government Code, Section 53069.85, the Contractor shall pay to the District liquidated damages in the amount of:

\$1,000 per day for each and every calendar day delay in finishing work in excess of the Time for Completion specified herein.

The District shall be entitled to deduct the amounts of liquidated damages from any payment otherwise due to the Contractor.

SECTION 5-INSURANCE, DEFENSE AND INDEMNIFICATION

5-1.01 GENERAL-The bidder's attention is directed to the provisions in **Section 700, "Insurance, Defense and Indemnification,"** of the District Standard Specifications.

5-1.02 INSURANCE REQUIREMENTS FOR CONTRACTORS: This section of the District Standard Specifications to read as follows:

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

Contractor shall procure and maintain, for the duration of the Contract, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees, or subcontractors. The cost of such insurance shall be considered as included in the Contractor's submitted bid price.

5-1.03 MINIMUM SCOPE OF INSURANCE- Coverage shall be at least as broad as:

1. Commercial General Liability: Insurance Services Office Form CG 00 01. To include property damage, products and completed operations, and personal bodily injury coverages.
2. Automobile Liability: Insurance Services Office Form Number CA 0001 covering Code 1 (any auto) for bodily injury (including death) and property damage.
3. Workers' Compensation insurance as required by the State of California, with Statutory Limits, and Employers' Liability insurance.
4. Builder's Risk (Course of Construction) Insurance: Covering all risks of loss less policy exclusions, with limits equal to the completed value of the project and no coinsurance penalty provisions.
5. Surety Bonds as described in Section 5-1.14, below.

5-1.04 MINIMUM LIMITS OF INSURANCE- Contractor shall maintain limits of no less than:

1. Commercial General Liability: \$1,000,000 per occurrence for bodily injury, personal injury and property damage. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability: \$1,000,000 per accident for bodily injury and property damage.

3. Workers' Compensation: \$1,000,000 per accident for bodily injury or disease.
4. Builder's Risk – Installation Floater: Coverage shall be equal to 100% of the completed value of such work being performed with no coinsurance penalty provision.

5-1.05 DEDUCTIBLES AND SELF-INSURED RETENTIONS- Any deductibles or self-insured retentions must be declared to and approved by the District. At the option of the District, either: a.) the insurer shall reduce or eliminate such deductibles or self-insured retention as respects the District, its officers, officials, employees and volunteers; or, b.) the Contractor shall provide a financial guarantee satisfactory to the District guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

5-1.06 OTHER INSURANCE PROVISIONS- The insurance policies are to contain, or be endorsed to contain, the following provisions:

1. The District, its officers, officials, employees and volunteers are to be covered as insureds on the Commercial General Liability and Automobile policies with respect to liability arising out of automobiles owned, leased, hired, or borrowed by or on behalf of the Contractor; and with respect to liability arising out of work or operations performed by or on behalf of the Contractor; including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance (at least as ISO Form CG 20 10, 11 85 or both CG 20 10 and CG 23 37 forms if later revisions used).
2. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects the District, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the District, its officers, officials, employees or volunteers shall be in excess of the Contractor's insurance and shall not contribute with it.
3. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be cancelled except after thirty (30) days prior written notice (10 days for non-payment) has been provided to the District.

5-1.07 ACCEPTABILITY OF INSURERS: Insurance is to be placed with insurers with a current A.M. Best rating of no less than A:VII, unless otherwise acceptable to the District.

5-1.08 VERIFICATION OF COVERAGE: Contractor shall furnish the District with original certificates and amendatory endorsements, or copies of the applicable insurance language, effecting coverage required by this contract. All certificates and endorsements are to be received and approved by the District before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The District reserves the right to require complete, certified copies of all required insurance policies, including endorsements, required by these specifications, at any time.

5-1.09 SUBCONTRACTORS: Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein.

5-1.10 BUILDER’S RISK (COURSE OF CONSTRUCTION INSURANCE): Contractor may submit evidence of Builder’s Risk insurance in the form of Course of Construction coverage. Such coverage shall name the District as a loss payee as their interest may appear.

If the project does not involve new or major reconstruction, at the option of the District, an Installation Floater may be acceptable. For such projects, a Property Installation Floater shall be obtained that provides for the improvement, remodel, modification, alteration, conversion, or adjustment to existing buildings, structures, processes, machinery, and equipment. The Property Installation Floater shall provide property damage coverage for any building, structure, machinery, or equipment damaged, impaired, broken, or destroyed during the performance of the work, including during transit, installation, and testing at the District’s site.

5-1.11 DEFENSE AND INDEMNIFICATION: Contractor shall hold harmless, defend, and indemnify the District and its officers, officials, employees, and volunteers from and against all claims, damages, losses, and expenses including attorney fees and litigation costs, arising out of the performance of the work described herein, caused in whole or in part by any negligent act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, except where caused by the sole negligence or willful misconduct of the District or Department.

5-1.12 CONTRACTOR’S LIABILITY NOT LIMITED BY INSURANCE: Nothing contained in the insurance requirements is to be construed as limiting the liability of the Contractor or the Contractor’s sureties.

5-1.13 WAIVER OF SUBROGATION: Contractor hereby agrees to waive rights of subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation. The Workers’ Compensation policy shall be endorsed with a waiver of subrogation in favor of the District for all work performed by the Contractor, its employees, agents, and subcontractors.

5-1.14 SURETY BONDS: Contractor shall provide the following Surety Bonds:

1. Bid Bond (10% of Bid Proposal amount).
2. Faithful Performance Bond (100% of Bid Proposal amount).
3. Labor and Materials Bond (100% of Bid Proposal amount).

SECTION 6-SITE PREPARATION / UTILITIES

6-1.01 General – SECTION NOT USED

7-1.02-PAYMENT: The Contractor shall be paid by individual Bid Form lump sum and unit price items for all work as indicated on the bid schedule.

APPENDIX A

STANDARD SPECIFICATIONS

FOR CONSTRUCTION OF

REHABILITATION OF THE 500,000 GALLON WELDED STEEL WATER STORAGE TANK

for

Big Pine Community Services District

Based on the Inyo County Standard Specifications of March 1997

MAY 2017

The STANDARD SPECIFICATIONS are based on the INYO COUNTY STANDARD SPECIFICATIONS where referenced in the Bid Package and Contract Documents, this is the Standard Specification Document for the Project.

Definitions to be changed are: where INYO COUNTY OR COUNTY is written it is to be interpreted to mean: INYO COUNTY =Big Pine Community Services District ,(BPCSD) COUNTY =District

Changes to the original Specifications are as follows- and are in blue ink on the notes pages

Page 11 Section 707 Verification of Coverage's- change address – to Verify where to send with Project Manager

Page 67 Sections 1070.04 Definitions – change definition of Engineer

Page 82 Section 1200.01 Preconstruction Conference – changed meeting location to District Office at BPCSD 180 North Main Street Big Pine, CA 93153

Page 84 Section 1300.04 Submittal Form and Content – change address to send information to- See Special Provisions for Location

STANDARD SPECIFICATIONS



**Prepared By:
Inyo County Public Works Department
March, 1997**

INYO COUNTY STANDARD SPECIFICATIONS
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DIVISION 1

GENERAL REQUIREMENTS

SECTION 20. BID REQUIREMENTS AND CONDITIONS

21 BID SUBJECT TO CONTRACT DOCUMENTS

Bids shall be made in accordance with, and subject to, the requirements set forth in the Contract Documents, which are incorporated in the Contract and more specifically defined in **SECTION 1070.04, DEFINITIONS**, and include, without limitation, the Notice Inviting Bids, Bid Proposal Forms, Plans, Standard Specifications and Special Provisions.

22 LICENSE

No contract will be awarded to a Bidder who is not licensed to conduct business in the State of California and licensed to perform the work required by the Contract Documents.

Unless otherwise provided in State or Federal law, the Contractor shall be required to possess a valid California State Contractor's license for the work covered in the Contract Documents at the time the Contractor submits a bid. If applicable, a joint venture license as defined in the **Business and Professions Code Section 7029** shall be obtained prior to award of the Contract.

23 BID PROPOSALS; PROPOSAL GUARANTEES

Bids shall only be made upon the Bid Proposal Forms included in the Bid Package furnished by the County for this Project. All Bid Proposal Forms shall be completely filled in and properly executed. The signatures of all persons signing the Bid Proposal Forms shall be in longhand. Erasures, interlineations, or other corrections shall be authenticated by affixing in the margin immediately opposite the correction the initials of a person signing the Bid Proposal Forms. If any required unit price and the total amount indicated by a Bidder for any item are not in agreement, the unit price alone shall be considered as representing the Bidder's intention, and the totals shall be corrected to conform thereto.

Bids shall not contain any recapitulation of the work to be done. Alternative proposals will not be considered, except as expressly called for by the County. No oral, telegraphic, telephonic or fax proposals or modifications will be accepted.

Bids shall be accompanied by a "Proposal Guarantee" for bid security in the form of (1) cash, (2) a certified or cashier's check, or (3) Bidder's bond from an Admitted Corporate Surety on

the District

the forms provided in the Bid Package, in an amount not less than ten (10%) percent of the amount of bid, made payable to the ~~County of Inyo~~. If the Notice Inviting Bids, Bid Proposal Forms, and/or Contract Documents require or permit each bid to include two or more alternates, the amount of the Proposal Guarantee must be not less than ten (10%) percent of the amount of the bid submitted for the alternate having the highest total bid amount. Said Proposal Guarantee shall be given as a guarantee that the Bidder will enter into a contract and furnish the required bonds, certificates of insurance and other required documents, if awarded the Contract.

Proposal Guarantees shall be retained for such time as set forth in **SECTION 32, EXECUTION OF CONTRACT; PROPOSAL GUARANTEE RETENTION AND RELEASE**.

Bids shall be accompanied by a Designation of Subcontractors as required by **Section 4100-4107 of the California Public Contract Code** and shall list the name of each subcontractor, its address and California State Contractor's License number, license expiration date and particular division of work or trade. This Designation of Subcontractors, along with the Noncollusion Affidavit (California) (**Public Contract Code Section 7106**), Certification Regarding Equal Employment Opportunity (**Government Code Section 12900 et seq., Sections 11135-11139.5**), **Public Contract Code Section 10162** Questionnaire, **Public Contract Code Section 10232** Statement, and Labor Code Certification (**Labor Code Section 3700**), and such other certifications and forms, if any, as set forth in the Bid Package must be properly completed, signed as required, and submitted as part of the Bid.

Bids shall be sealed in an envelope marked and addressed as set forth in the Notice Inviting Bids. Bids shall be delivered to the addressee at the location designated in the Notice Inviting Bids on or before the day and hour set for the opening of bids in the Notice Inviting Bids, and shall bear the name of the Bidder. A Bid will not be accepted after the date and time designated in the Notice Inviting Bids. It is the sole responsibility of the Bidder to see that his Bid is delivered and received in proper time and at the proper place. Any Bid received after said designated date and time shall be returned to the Bidder unopened.

24 WITHDRAWAL OF BID

At any time prior to the date and time for opening Bids, as designated in the Notice Inviting Bids, Bidder may withdraw his Bid by delivering to the County a signed written request for withdrawal. Such request must actually be received by the County prior to the date and time for opening bids as designated in the Notice Inviting Bids.

The withdrawal of a Bid does not prevent or prohibit a Bidder from filing a new Bid so long as the new Bid is delivered as set forth in **SECTION 23, BID PROPOSALS; PROPOSAL GUARANTEES** prior to the time and date for opening of Bids as designated in the Notice Inviting Bids.

A Bid which is received on or before the date and time designated in the Notice Inviting Bids for publicly opening Bids, and which is not properly withdrawn prior to said date and time,

shall remain open and shall not be withdrawn for a period of sixty (60) calendar days, after said date.

25 BIDDERS INTERESTED IN MORE THAN ONE BID

No person, partnership, corporation, or other entity shall be allowed to make or file, or be interested in more than one Bid for the Work, unless alternative bids are called for. A person, partnership, corporation, or other entity submitting a subproposal to a Bidder, or who has quoted prices on material to a Bidder, is not thereby disqualified from submitting a subproposal or quoting prices to other Bidders.

26 INTERPRETATION OF PLANS AND OTHER CONTRACT DOCUMENTS

Any person or entity contemplating submitting a Bid who is in doubt as to the true meaning of any part of the Plans, Specifications, or other Contract Documents, or finds discrepancies in, or omissions from the Plans and Specifications or other Contract Documents, may submit to the County a written request for an interpretation or correction thereof. The person submitting the request will be responsible for its prompt delivery. An interpretation or correction of the Contract Documents will be made only at the sole discretion of County and only by Addendum duly issued by the County. A copy of such Addendum will be mailed or delivered to each person or entity that has received a Bid Package. The County will not be responsible for any other explanation or interpretation of the documents.

27 ADDENDA

Addenda issued before the expiration of the time in which to submit bids, shall be included in the Bid and shall be a part of the Contract.

28 EXISTING CONDITIONS AND EXAMINATION OF CONTRACT DOCUMENTS

The Bidder represents that he has carefully examined the Contract Documents and the site where the Work is to be performed and that he has familiarized himself with all local conditions and federal, state and local laws, ordinances, rules and regulations that may affect in any manner the performance of the Work. The Bidder further represents that he has studied all surveys and investigation reports about subsurface and latent physical conditions pertaining to the jobsite, that he has performed such additional surveys and investigations as he deems necessary to complete the Work at his Bid Price, and that he has correlated the results of all such data with the requirements of the Contract Documents. The submittal of a Bid shall be conclusive evidence that the Bidder has investigated and is satisfied as to the conditions to be encountered, including locality, uncertainty of weather and all other contingencies, and as to the character, quality, quantities and scope of the Work.

The Plans and Specifications for the Work may show subsurface or other obscured conditions as they are supposed or believed to exist; but it is not intended or to be inferred that the conditions as shown thereon constitute any representation or warranty that such conditions are actually existent. Except as otherwise specifically provided in the Contract Documents, the County, and/or its officials, employees, or agents shall not be liable for any loss sustained by the Contractor as a result of any variance of the actual conditions revealed during the progress of the work or otherwise, from the conditions shown on the Plans and Specifications.

29 INTERPRETATION OF ESTIMATED PROPOSAL QUANTITIES

Estimates of quantities of work to be done and materials to be furnished pursuant to the Plans and Specifications may be set forth for unit bid pricing as a part of the Bid Proposal. If so, each such estimate is the result of careful calculation and is believed to be correct. It is given only as a basis for comparison of proposals for the award of the Contract. The County does not expressly or by implication agree that the actual quantities involved will correspond exactly with such estimates. The Bidder shall not plead misunderstanding, misrepresentation, or deception because of such estimates of quantities, or of the character, location, or other conditions pertaining to the Work. Payment to the Contractor for such quantities of work performed or materials furnished shall be in accordance with the Contract Documents. It is understood that the quantities may be increased or decreased pursuant to Contract Change Orders issued by the County hereunder with no change in the applicable Unit Bid Prices.

SECTION 30. CONTRACT AWARD AND EXECUTION, REQUIREMENTS AND CONDITIONS

31 AWARD OF CONTRACT OR REJECTION OF BIDS

The award of the Contract, if it be awarded, will be to the lowest responsible Bidder whose Bid is responsive, that is, which Bid fully complies with all the instructions and requirements set forth in the Bid Package. The County, however, reserves the right to reject any and all bids, and to waive any immaterial irregularity in bids received. If, in the judgment of the County, a bid is not responsive, it shall be considered sufficient grounds for rejection of the entire bid.

Upon request by the County, no later than ten (10) days after the bid opening, and prior to the award of the Contract, the three apparent lowest responsible bidders shall submit a preliminary Schedules of Values in accordance with **SECTION 1017.06, SCHEDULE OF VALUES FOR LUMP SUM PROJECTS**.

The award to the lowest responsible Bidder, if made, will be made no later than thirty (30) calendar days after the opening of the Bid proposals.

If the lowest responsible Bidder refuses or fails to execute the Contract and/or deliver the other required documents by the required time, the County may award the Contract to the second lowest responsible Bidder, and, and if the County does so, such award shall be made no later than sixty (60) days after the bid opening. If the second lowest responsible Bidder fails or refuses to execute the Contract and/or deliver the other required documents by the required time, the County may award the Contract to the third lowest responsible Bidder, and, if the County does so, such award shall be made no later than sixty (60) days after the Bid opening date.

The periods of time specified above within which the award of Contract may be made shall be subject to extension for such further period as may be agreed upon in writing between the County and the Bidder concerned.

The effective date of the action by the County Board of Supervisors to award the Contract to a Bidder shall be the "Contract Award Date" for that Bidder.

Promptly after the Contract Award Date, the County shall give the Bidder to which the Contract is awarded (the "successful Bidder") written notice of the award of the Contract (herein "Notice of Award") and transmit the Contract to the successful Bidder for execution and return to the County within the required time.

32 EXECUTION OF CONTRACT; PROPOSAL GUARANTEE RETENTION, FORFEITURE, AND RELEASE

32.1 CONTRACT EXECUTION REQUIREMENTS

The form of Contract, bonds and other documents which the successful bidder, as Contractor, shall be required to execute are included in the Bid Package.

The successful Bidder shall deliver and cause the County to receive all required documents no later than fifteen (15) calendar days after the successful Bidder receives the Notice of Award. The required documents include four (4) fully-executed (except for the County's signature) originals of the Contract and the bonds, certificates and/or original endorsements of insurance, and all other required documents. The date on which the Contractor delivers all such documents to, and they are received by, the County shall also be referred to herein as the "Contract Delivery Date."

Promptly after receipt of the documents, the County shall assure that all required documents have been received from the successful Bidder.

The Contract shall be deemed to be fully executed, and thus to be binding upon the Contractor and the County, only at such time as (a) the County determines that the Contractor has signed and returned the Contract and all other required documents in accordance with the Contract Documents, and (b) the County then signs the Contract, signifying such determination and transmits or otherwise delivers one of the fully-executed originals to the Contractor.

32.2 PROPOSAL GUARANTEE RETENTION, FORFEITURE, AND RELEASE

In case of refusal or failure of the Bidder for any reason to enter into said Contract, furnish the required bonds, certificates of insurance or other required documents no later than fifteen (15) calendar days, after the date on which Bidder receives written notice of award by the County, the amount of such check or bond shall be forfeited to the County. Forfeiture does not preclude the County from seeking all other remedies provided by law to recover losses sustained as a result of the Bidder's failure to enter into the contract or to furnish the required bonds, certificates and/or endorsements of insurance and other required documents.

The County shall be entitled to retain the Bid Proposal Guarantees submitted by Bidders (a) for a period of sixty (60) days after the bid opening date or (b) until the Contract is fully executed, whichever first occurs. Thereafter, the Bid Proposal Guarantees, except the guarantees forfeited, shall be promptly returned to the applicable Bidders.

Notwithstanding the foregoing or any other provision of the Contract Documents to the contrary, if the Contract is awarded to a Bidder, the County shall be entitled to retain the Bidder's Bid Proposal Guarantee, and the Bidder shall keep it in full force and effect, until (a)

the expiration of at least thirty (30) days after the Bidder receives the Notice of Award or (b) the date on which the Contract is fully executed, whichever first occurs. Thereafter, the Bid Proposal Guarantee, except any guarantee forfeited, shall be promptly returned to such Bidder.

33 BONDS

All bonds submitted by a Bidder or the Contractor shall be furnished by a Corporate Surety satisfactory to the County, on the forms provided by the County as part of the Bid Package. In order to be acceptable to the County, a Corporate Surety must be authorized to transact surety insurance and issue such bonds in the State of California and have an agent for service of process in California.

The successful Bidder, simultaneously with the execution of the Contract, shall furnish a Labor and Materials Payment Bond in an amount equal to 100% of the Contract amount, and a Faithful Performance Bond in an amount equal to 100% of the Contract amount.

34 INSURANCE DOCUMENTS REQUIREMENTS

The successful Bidder shall be required to furnish the County, simultaneously with the execution of the Contract, certificates and/or original endorsements of insurance as required pursuant to **SECTION 700, INSURANCE, DEFENSE AND INDEMNIFICATION**.

35 FAILURE TO EXECUTE CONTRACT

Failure by a Bidder to which the Contract is awarded to execute the Contract, or to furnish the required bonds, certificates or original endorsements of insurance, and other required documents, within the time specified in **SECTION 32, EXECUTION OF CONTRACT; PROPOSAL GUARANTEE RETENTION, FORFEITURE, AND RELEASE** shall be just cause for the annulment or rescission by the County of the award and the forfeiture of the Proposal Guarantee by the Bidder.

A Bidder which is awarded the Contract and fails to execute the Contract or furnish the required bonds, certificates and/or original endorsements of insurance, or other required documents, shall be liable to the County for all damages resulting therefrom, including without limitation, reasonable attorneys' fees and costs.

The Bidder's liability for such damages shall not be limited in amount or otherwise to or by the Proposal Guarantee forfeited hereunder.

SECTION 700. INSURANCE, DEFENSE AND INDEMNIFICATION

701 INSURANCE REQUIREMENTS FOR CONTRACTORS

Bidders' attention is directed to the insurance requirements below. It is highly recommended that Bidders confer with their respective insurance carriers or brokers to determine in advance of Bid submission the availability of insurance certificates and endorsements as prescribed and provided herein. If an apparent low Bidder fails to comply strictly with the insurance requirements, that Bidder may be disqualified from award of the Contract. The Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by the Contractor, his agents, representatives, employees or subcontractors. The cost of such insurance shall be included in the Contractor's Bid.

702 MINIMUM SCOPE OF INSURANCE

Coverage shall be at least as broad as:

1. Commercial General Liability: Contractor shall procure and maintain during the entire term of this Agreement a policy of Commercial General Liability insurance which includes blanket contractual liability, broad form property damage, products/completed operations and personal injury coverages.
2. Automobile/Aircraft/Watercraft Liability Insurance: Contractor shall provide comprehensive automobile/aircraft/watercraft liability insurance for bodily injury (including death) and property damage applicable to all owned, non-owned, and hired vehicles, aircraft or watercraft utilized for the performance of this Agreement.
3. Workers' Compensation insurance as required by the Labor Code of the State of California and Employers' Liability Insurance.
4. Builder's Risk: Contractor shall procure and maintain in force throughout the duration of this Agreement builder's risk insurance equal to one hundred percent (100%) of the completed value of such work being performed. Said policy shall not include a deductible of more than \$5,000 per occurrence.

703 MINIMUM LIMITS OF INSURANCE

The Contractor shall maintain limits of no less than:

1. Commercial General Liability: \$ 1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage.

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

2. Workers' Compensation and Employers Liability Coverage

The Insurer shall agree to waive all rights of subrogation against the County, its officers, officials, employees and volunteers for losses arising from work performed by the Contractor for the County.

The Contractor expressly waives its immunity for injuries to its employees and agrees that the obligation to indemnify, defend and hold harmless provided for in this Contract extends to any claim brought by or on behalf of any employee of the Contractor. This waiver is mutually negotiated by the parties. This waiver shall not apply to any damage resulting from the sole negligence of the County, its agents and employees. To the extent any of the damages referenced herein were caused by or resulted from the concurrent negligence of the County, its agents or employees, the obligations provided herein to indemnify, defend and hold harmless is valid and enforceable only to the extent of the negligence of the Contractor, its officers, agents and employees. This insurance shall be in strict accordance with the requirements of the most current and applicable State Worker's Compensation Insurance laws.

3. All Coverages

Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after at least thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the County.

706 ACCEPTABILITY OF INSURERS

Insurance is to be placed with insurers with a Best's rating of no less than B⁺. Notwithstanding the foregoing, Worker's Compensation and Employers Liability Coverages may be placed with an insurer with a lower Best's rating, subject to approval by the County, which approval shall not be unreasonably withheld.

707 VERIFICATION OF COVERAGES

The Contractor shall furnish the County with Certificates of Insurance and with original endorsements effecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements are to be received and approved by the County before work commences by mailing or delivering the same to the ~~County of Inyo, Attention: Risk Manager, P. O. Drawer "N," Independence, California 93526.~~ The County reserves the right to require complete, certified copies of all required insurance policies at any time.

VERIFY WHERE TO SEND WITH PROJECT
MANAGER

708 SUBCONTRACTORS

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

709 BUILDERS RISK (DELETED)

710 DEFENSE AND INDEMNIFICATION

The Contractor shall defend, indemnify and hold harmless the County, their agents, officers, employees, and volunteers from and against all claims, damages, losses, judgments, liabilities, expenses and other costs, including litigation costs and attorney's fees, arising out of, resulting from, or in connection with, the performance of this Contract by the Contractor, or Contractor's agents, officers or employees. Contractor's obligation to defend, indemnify and hold the County, their agents, officers, employees, and volunteers harmless applies to any actual or alleged personal injury, death or damage or destruction to tangible or intangible property, including the loss of use.

Excepting only those liabilities, claims and damages caused solely and exclusively by the active fault or negligence of the County, the Engineer, or their officers, agents, employees, or volunteers, the Contractor's obligation under this paragraph extends to any claim, damage, loss, liability, expense or other costs which is caused in whole or in part by any act or omission of the Contractor or any of its subcontractors or the agents, employees, suppliers, or materialmen of any of them or anyone directly or indirectly employed by any of them, or anyone for whose acts or omissions any of them may be liable.

The Contractor's obligation to defend, indemnify and hold the County, their agents, officers, employees, and volunteers harmless under the provisions of this paragraph is not limited to or restricted by any requirement in this Contract for the Contractor to procure and maintain a policy of insurance coverage.

711 CONTRACTOR'S LIABILITY NOT LIMITED BY INSURANCE

Nothing contained in the insurance requirements applicable to the Contractor pursuant to this Contract shall be construed as limiting the liability of the Contractor or the Contractor's Sureties.

1010 SUMMARY OF WORK

1010.01 WORK TO BE DONE

The Contractor shall perform all work necessary to complete the Contract in a satisfactory manner. Unless otherwise provided, the Contractor shall furnish all materials, equipment, tools, labor, and incidentals necessary to complete the Work.

1010.02 MEANING AND INTENT OF PLANS AND SPECIFICATIONS.

These Standard Specifications, the Plans, the Special Provisions and any addenda thereto, Contract Change Orders, and all supplementary documents are essential parts of the Contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be self-explanatory and cooperative, and to describe and provide for a complete Work. Should it appear that the work to be done or any of the matters relative thereto are not sufficiently detailed or explained in the Plans or Specifications, or should there be any questions which may arise as to the meaning or intent of the Plans or Specifications, the matter shall be referred to the Engineer, who shall interpret the true meaning and intent of the Plans and Specifications.

If the Engineer's interpretation of the Plans and Specifications is that the Contractor is responsible under the Contract for work which he did not contemplate doing, the Contractor, immediately upon being directed to, shall do such work, even though he does not agree that it is covered by the Contract and feels that there is a reasonable argument against such coverage. The Contractor may file a claim against the County for payment for the aforesaid work, and the performance thereof shall not constitute a waiver of, or in any way prejudice such claim.

1010.03 TITLES, REFERENCES AND DIMENSIONS.

Titles, headings, subheadings and indexes are used primarily for convenience and are not necessarily deemed to be parts of the Contract. The misplacement, addition or omission of any word, letter, figure, or punctuation mark shall in no way lessen or change the intent or meaning of the Specifications.

The reprinting or repetition in the Specifications of certain clauses from any other specification or law or document, to which reference is made herein, shall in no way limit the scope of such reference or the applicability of any such specification, law or document, in its entirety. Where work is not dimensioned on Plans, it shall be executed according to the scale, but figured dimensions shall govern in all cases, although they may differ from the scale dimensions.

1010.04 REASONABLY IMPLIED PARTS OF THE WORK SHALL BE DONE THOUGH ABSENT FROM SPECIFICATIONS.

Any part of the Work which is not mentioned in the Specifications but is shown on the Plans, or any part not shown on the Plans but described in the Specifications, or any part not shown on the Plans nor described in the Specifications, but which is necessary or normally required as a part of such work, or is necessary or required to make each installation satisfactorily and legally operable, shall be performed by the Contractor as Incidental Work without extra cost to the County, as if fully described in the Specifications and shown on the Plans, and the expense thereof shall be included in the price bid.

1010.05 CONFLICT BETWEEN PARTS OF SPECIFICATIONS OR PLANS

If there is any conflict between the Plans and Specifications or between any parts of the Specifications, they shall govern in descending order of precedence as follows:

- 1) Addenda, including changes made to the Plans or Specifications by Contract Change Orders.
- 2) Special Provisions of the Specifications
- 3) Plans
- 4) Standard Plans

In the case of a conflict in the Plans, the Plan bearing the highest Change Number, unless otherwise specified, shall prevail over and be substituted for, such plan bearing a lesser Change Number. Any references to such Plan shall be considered to have been changed accordingly.

In the case of a conflict in The General Requirements (Division 1) of the Specifications, The Special Provisions shall prevail over the other sections of the General Requirements

1010.06 CHANGES IN THE WORK

The County may require changes in, additions to, or deductions from the Work, including complete termination thereof. Such changes will be made by a written Contract Change Order signed by the County. Upon receipt of a Contract Change Order signed by the County, the Contractor will promptly proceed with the ordered work. Adjustment, if any, in the amounts to be paid to the Contractor by reason of any such change, addition or deduction shall be determined as set forth in the **SECTION 1150.04, "PAYMENT FOR CHANGES IN THE WORK."** Adjustments, if any, in the time for completion of the Contract by reason of such change, addition, or deduction shall be determined as set forth in **SECTION 1017.09, "EXTENSION OF TIME."** Except where the Engineer specifically orders the Contractor in writing to proceed with changes, additions, or deductions prior to issuance of a written Contract Change Order signed by the County, the Contractor will not proceed with any changes,

additions, or deductions until a written Contract Change Order signed by the County has been issued. Except where the Engineer specifically orders the Contractor in writing to proceed with changes, additions, or deductions prior to issuance of a written Contract Change Order signed by the County, no payment for changes in the work will be made, and no changes in the time for completion by reason of changes in the work will be made, unless the changes are covered by a written Contract Change Order signed by the County and issued in advance of the Contractor's proceeding with the changed work.

If ordered in writing by the Engineer to proceed with specific changes prior to issuance of a written Contract Change Order signed by the County, Contractor shall proceed with the work so ordered prior to actual receipt of a written Contract Change Order signed by the County. In such cases, the Engineer will, as soon as practical, issue a written Contract Change Order for such work.

The Engineer may order minor changes in the Work not involving an increase or decrease in the Contract amount, and not involving a change in the time for completion, and not inconsistent with the purposes for which the Work is being constructed. If the Contractor believes that any order for minor changes in the Work involves changes in the Contract amount or time for completion, he shall not proceed with the minor changes so ordered and shall within seven (7) days of the receipt of such order notify the Engineer in writing of his estimate of the changes in the Contract amount and time for completion he believes to be appropriate. Thereafter, the Contractor shall not proceed with such changes until either a written Contract Change Order covering such work is signed by the County and issued, or the Engineer specifically orders the Contractor in writing to proceed prior to issuance of a written Contract Change order signed by the County. No payment for changes in the Work ordered by the Engineer, and no changes in the time for completion by reason of such changes in the time for completion by reason of such changes will be made, unless the Contractor has notified the Engineer in writing, within seven (7) days of the receipt of such order, of the Contractor's estimate of the changes in the Contract amount and time for completion which he believes to be appropriate.

1010.07 OBSTRUCTIONS

The Contractor shall remove and dispose of all structures, debris, or other obstructions of any character necessary to accommodate the Work. Where such obstructions consist of improvements not required by law to be removed by the County thereof, all such improvements shall be removed, maintained and permanently replaced by the Contractor at his expense except as otherwise specifically provided in the Contract.

1010.08 UTILITIES

The County has endeavored to determine the existence of utilities at the site of the Work from the record of the owners of known utilities in the vicinity of the Work. The position of these utilities as derived from such records are shown on the Plans. The service connections to these utilities may not be shown on the Plans.

The Contractor shall make his own investigations, including exploratory excavations, to determine the locations and type of existing service laterals or appurtenances when their presence can be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes, on or adjacent to the site of the Work. If the Contractor discovers utility facilities not identified in the Plans or Specifications or in a position different from that shown in the Plans and Specifications, he shall immediately notify in writing the Engineer and the owner of the utility facility.

When it is necessary to remove, relocate, protect, or temporarily maintain an existing main or trunkline utility facility not indicated in the Plans and Specifications with reasonable accuracy, the County will compensate the Contractor for the costs of locating, for the costs of repairing damage not due to the failure of the Contractor to exercise reasonable care, for the costs of removing, relocating, protecting, or temporarily maintaining such utility facilities, and for the costs for equipment on the site necessarily idled during such work. These costs, the work to be done by the Contractor in locating, removing, relocating, protecting or temporarily maintaining such utility facilities shall be covered by a written Contract Change Order conforming to the provisions of **SECTION 1010.06, "CHANGES IN THE WORK"** and **SECTION 1150.04, "PAYMENT FOR CHANGES IN THE WORK."** The County may make changes in the alignment and grade of the Work to obviate the necessity to remove, relocate, protect or temporarily maintain such utility facilities or to reduce the costs of the work involved in removing, relocating, protecting or temporarily maintaining such utility facilities. changes in alignment and grade will be ordered in accordance with **SECTION 1010.06, "CHANGES IN THE WORK."** When it is necessary to remove, relocate, protect, or temporarily maintain a utility (other than [a] existing main or trunkline utility facilities not indicated in the Plans and Specifications with reasonable accuracy, or [b] existing service laterals or appurtenances when their presence cannot be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes, on or adjacent to the site of the work) the cost of which is not required to be borne by the County thereof, the Contractor shall bear all expenses incidental to the work on the utility or damage thereto. The work on the utility shall be done in a manner satisfactory to the owner thereof; it being understood that the owner of the utility has the option of doing such work with his own forces or permitting the work to be done by the Contractor. No representations are made that the obligations to remove, relocate, protect, or temporarily maintain any utility and to pay the cost thereof is or is not required to be borne by the owner of such utility, and it shall be the responsibility of the Contractor to investigate whether or not said cost is required to be borne by the owner of the utility.

The right is reserved to governmental agencies and to owners of utilities to enter at any time upon any street, alley, right-of-way or easement for the purpose of making changes in their

property made necessary by the Work and for the purpose of maintaining and making repairs to their property.

1010.09 PLANS AND SPECIFICATIONS FURNISHED BY THE COUNTY

The County will furnish to the Contractor free of charge all copies of Plans and Specifications reasonably necessary up to ten (10) sets for the execution of the Work. The Contractor shall keep one set of Plans and Specifications in good order available to the Engineer at the site of the Work. The Engineer will provide the Contractor with one set of blue-line plans of the original Contract Plans as referenced in **SECTION 1015.09, "RECORD DOCUMENTS."**

1010.10 INCIDENTAL WORK

The Contractor shall perform Incidental Work in accordance with this and all of the other subsections of **SECTION 1010, "SUMMARY OF WORK"**.

In accordance with the subsections of **SECTION 1150, "MEASUREMENT AND PAYMENT"**, payment for all Work included in the Specifications or on the Plans, or necessary or required to complete the Contract shall be included in, the lump sum price or unit price bid, and no direct or additional payment will be made for any such Incidental Work.

Set forth in **SECTIONS 1010.10, "INCIDENTAL WORK"** through **1010.14, "MOBILIZATION"**, are typical examples of Incidental Work and requirements governing such work. In addition, elsewhere in the General Requirements or Special Provisions, or on the Plans, may be set forth other work, including the furnishing and installation of materials and products, and requirements governing the Contractor's operations. Without exception all such work shall be done as Incidental Work. No direct or additional payment will be made therefor, and the cost thereof shall be included in the price or prices Bid.

When there is doubt regarding the proper allocation of cost of any Incidental Work, the Bidder shall include such cost in the price bid for the Bid Item, or Items, he deems most appropriate.

1010.11 DISPOSAL OF MATERIALS.

No material shall be placed on private or public property without proper authority. The Contractor shall not allow any portion of any refuse, excavated material, surplus concrete or mortar, or any washings therefrom, to be disposed of upon paved streets, into catchbasins or otherwise into any sewer system.

Burning at the site is prohibited.

1010.12 MAINTENANCE OF SITE, PREVENTION OF DUST NUISANCE, AND FINAL CLEANUP

The Contractor shall at all times maintain the site of the Work, including field offices and construction sheds, in an orderly and satisfactorily neat and clean condition, and shall at suitable intervals, in jobsite areas, remove from the site as his property all accumulations of rubbish or refuse material, surplus concrete, mortar, and excavated materials not required or suitable for backfill, and shall not dump any portion thereof, or any washings from concrete mixers or mixing boxes, upon paved streets. The Contractor shall provide on-site collection and containment of containers for the collection of debris, rubbish, and other waste materials, and shall provide collection containers on-site for such materials.

The Contractor shall take adequate measures to prevent the impairment of the operation of sewer systems. He shall prevent construction material, pavement, concrete, earth, or other debris from entering a sewer, catchbasin, storm water inlet or any other sewer or sewer related structure.

In order to protect the public from dust nuisance and property from dust damage, the Contractor shall keep the entire site of the Work, inclusive of vehicular and pedestrian traffic routes through the work, continuously free of dirt and dust by adequate periodic blading, power brooming, watering or other approved means.

The Contractor may store materials and equipment in available space at the site, at locations that will not interfere with the normal use of the area.

Those parts of public streets, ways and sidewalks that are occupied by the Contractor shall be immediately vacated by him and returned to public use when his use thereof is no longer necessary for the prosecution of the Work.

Upon completion and before final acceptance of the Work, the Contractor shall remove all rubbish, surplus or discarded material, falsework, forms, temporary structures, signs not a part of the work, and all his equipment and machinery, and shall leave the entire site in a satisfactorily neat and clean condition. Buildings constructed, altered, or worked in by him shall be left "vacuum clean," for carpeted floor and "mopped clean" for tiled and concrete floors, and he shall remove all stains, grease, mastic, adhesive, dust, dirt, finger prints, labels, splattered plaster and paint, and other foreign materials from interior and exterior surfaces. The Contractor shall wash and shine glazing and mirrors and polish glossy surfaces.

1010.13 OTHER EXAMPLES OF INCIDENTAL WORK

For the guidance of the Contractor and to avoid unwarranted claims for extras, examples of other Incidental Work, in addition to the examples set forth in the preceding sections, are given hereinafter, and it is understood and agreed that, no complete enumeration of such work being possible due to the diversity thereof, the omission of any such work herefrom is inadvertent and no ground for any claim that such work is other than incidental and included in the price Bid.

Typical examples of such Incidental Work are the following: all work pursuant to order, regulations, resolutions, ordinances and laws of Governmental bodies having jurisdiction; pavement restoration; work pursuant to the satisfaction of, relative to Federal or other Agency requirements specified in the contract to be the responsibility of the Contractor; all work including paperwork and all costs entailed by provision of administration, supervision and overhead by the Contractor as required by the Contract; preparing estimates and negotiating for extra work; provision of necessary shop or detail drawings, samples and test specimens; provision of equipment for, and the making of tests and adjustments; traffic routing; providing project signs If specified; clearing, grubbing and site preparation; grading and common excavation; removing, plugging, and filling existing sewers; maintaining sewer service; constructing sand bed for pipe sewers and other facilities furnishing and placing drains, cutting; patching; altering existing conduits; steel work; concrete work; providing admixtures for concrete; masonry work; mechanical work; electrical work; constructing embankment; compacting; providing redwood headers; galvanizing; painting; restoring landscaping; furnishing water and electrical power necessary for the conduct of operations under the contract; and furnishing and installing all materials, including appurtenances and accessories such as anchor bolts, bracing, brackets, hangers, clamps, inserts, gaskets, etc., not specified nor shown on the plans but necessary, or required, to satisfactorily complete the contract work, and produce legally and satisfactorily operable facility.

1010.14 MOBILIZATION

Mobilization to be performed by the Contractor shall include the obtaining of all permits, construction schedules, licenses, and the moving onto the site of all equipment; temporary buildings, and other construction facilities; all as required for the proper performance and completion of the Work. Such work shall include but not be limited to the following principal items, as applicable to the Project:

- a) Moving onto the site all of the Contractor's equipment required for the first month's operations.
- b) Installing temporary construction power and wiring.
- c) Establish fire protection system.
- d) Develop water supply.

- e) Provide and install telephones in Engineer's and Contractor's field offices.
- f) Provide field office trailers for the Contractor and the Engineer, complete with all specified furnishings and utility services.
- g) Provide on-site sanitary facilities as specified.
- h) Arrange for and erect Contractor's work and storage area.
- i) Obtain all required permits.
- j) Post all required OSHA notices and establish on-site safety programs.
- k) Have Contractor's superintendent at jobsite full time.

Five (5%) percent of the total Contract price, exclusive of retention otherwise provided for in the Contract Documents, will be retained from any money due to the Contractor until all of the mobilization items listed above have been completed as specified. Any retention of such money for failure to complete all such mobilization items shall be in addition to the specified ten (10%) percent retention (retainage) of any payments due to the Contractor as provided under other terms of the Contract.

As soon as practicable after receipt of the Notice to Proceed, the Contractor shall submit a breakdown to the Engineer for approval, which shall show the estimated value of each major component of mobilization. When approved in writing by the Engineer, the breakdown will be the basis for the initial progress payments to the Contractor for Mobilization.

SECTION 1015 QUALITY OF THE WORK

1015.01 INTERPRETATION OF PLANS AND SPECIFICATIONS

The Engineer shall decide any and all questions which may arise as to the interpretation of the Plans and Specifications and shall have authority to disapprove or reject materials and equipment furnished and work performed which is not in accordance with the Contract Documents. The Engineer may request any additional submittal information necessary to determine acceptability of shop drawings and project data as defined in **SECTION 1300.01, "SHOP DRAWINGS GENERALLY."**

Figured dimensions on drawings shall govern, but work not dimensioned shall be as directed. Work not particularly shown or specified shall be the same as similar parts that are shown or specified. Large-scale details shall take precedence over smaller scale drawings as to shape and details of construction. Specifications shall govern as to materials and workmanship. Drawings and Specifications are intended to be fully complementary and to agree. The Specification calling for the higher quality materials or workmanship shall prevail. Materials or work described in words which so applied have a well-known technical or trade meaning shall be deemed to refer to such recognized standards. In the event of any discrepancy between any drawings and the figures thereon, the figures shall be taken as correct. In the event of any doubt or question arising respecting the true meaning of the Plans or Specifications, reference shall be made to the Engineer whose decision thereon shall be final.

1015.02 CONFORMITY WITH CONTRACT DOCUMENTS AND ALLOWABLE DEVIATIONS

The Work shall conform to the lines, grades, dimension tolerances, and material and equipment requirements shown on the Plans or set forth in the Specifications. Although measurement sampling and testing may be considered evidence as to such conformity, the Engineer shall be the sole judge as to whether the work or materials deviate from the Plans and Specifications and his decision as to any allowable deviations therefrom shall be final.

If specific lines, grades and dimensions are not shown on Plans, those furnished by the Engineer shall govern.

1015.03 MANUFACTURER'S INSTRUCTIONS

All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricate supplier or distributor, except as otherwise specifically provided in the Contract Documents.

1015.04 COORDINATION OF PLANS AND SPECIFICATIONS

The Specifications, Plans and other Contract Documents are essential parts of the Contract and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for the complete Work. In the event of an apparent difference between Plans and Specifications, reference shall be made to **SECTION 1010.05, "CONFLICT BETWEEN PARTS OF SPECIFICATIONS OR PLANS."**

1015.05 SUPPLEMENTAL DRAWINGS

The Plans may be supplemented by such drawings as are necessary to better define the Work. All such drawings delivered to the Contractor by the Engineer shall be deemed to be part of the Plans. If the Contractor believes that any supplemental drawings call for changes in the work for which the Contract amount or time for completion should be changed, he shall not proceed with the changes in the work, so called for, and shall within seven (7) days of the receipt of the supplemental drawings notify the Engineer in writing of his estimate of the changes in the Contract amount and time for completion he believes to be appropriate. Thereafter, the Contractor shall not proceed with such changes until either a written Contract Change Order covering such work is signed by the County and issued, or the Engineer specifically orders the Contractor in writing to proceed prior to issuance of a written Contract Change Order signed by the County. No payment for changes in the work called for by the supplemental drawings, and no changes in the time for completion by reason of such changes will be made, unless Contractor has notified the Engineer in writing, within seven (7) days of the receipt of such supplemental drawings, of the Contractor's estimate of the changes in the contract amount and time for completion which he believes to be appropriate.

1015.06 ERRORS OR DISCREPANCIES NOTED BY CONTRACTOR

It is the duty of the Contractor to promptly notify the Engineer in writing of any design, materials or specified method that the Contractor believes may prove defective or insufficient. If the Contractor believes that a defect or insufficiency exists in design, materials or specified method and fails to promptly, and within seven (7) days of discovering such defect or insufficiency, notify the Engineer in writing of this belief, the Contractor waives any right to assert that the defect or insufficiency in design, materials or specified method at any later date in any legal or equitable proceeding against the County, or in any subsequent arbitration or

settlement conference between the County and the Contractor. The Engineer on receipt of any such notice will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, any work done by the Contractor after he comes to the belief that a defect or insufficiency exists in design, materials or specified method which is directly or indirectly affected by such alleged defect or insufficiency in design, materials or specified method will be at his own risk and he shall bear all cost arising therefrom.

If the Contractor, either before commencing work or in the course of the work, finds any discrepancy or conflict between the Specifications and the Plans or between either of them and the physical conditions at the site of the Work or finds any error or omission in any of the Specifications or Plans or in any survey, he shall promptly before such conditions are disturbed, and within seven (7) days of discovering such discrepancy, error or omission, notify the Engineer in writing of such discrepancy, conflict, error or omission. If the Contractor observes that any Plans or Specifications are at variance with any applicable law, ordinance, regulation, order or decree, he shall promptly, and within seven (7) days of discovering such discrepancy, error or omission notify the Engineer in writing of such discrepancy or conflict. The Engineer on receipt of any such notice, will promptly investigate the circumstances and give appropriate instructions to the Contractor. Until such instructions are given, any work done by the Contractor after his discovery of such error, omission, discrepancy or conflict which is directly or indirectly affected by such error, omission, discrepancy or conflict, will be at his own risk and he shall bear all cost arising therefrom.

No claim by the Contractor under this clause shall be allowed unless the Contractor has given the notice required. However, the time prescribed therefor may be extended by the County. Such extension to be effective must be in writing.

No claim by the Contractor for an equitable adjustment hereunder shall be allowed if asserted after the final payment under this Contract.

1015.07 SUPERVISION

The Contractor shall supervise 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, but the Contractor shall not be solely responsible for the negligence of others in the design or selection of a specific means, method, technique, sequence or procedure of construction which is indicated in, and required by, the Contract Documents except as otherwise provided in **SECTION 1015.06, "ERRORS OR DISCREPANCIES NOTED BY CONTRACTOR."**

The Contractor shall be responsible to see that the completed Work complies with the Contract Documents.

The Contractor prior to starting work in the field, shall designate in writing the name of the authorized representative at the project site responsible for all phases of work at all times during its progress. The authorized representative shall not be replaced without written notice to the Engineer. The authorized representative will be the Contractor's liaison at the site and shall have authority to act on behalf of the Contractor. All communications given to the authorized representative shall be as binding as given to the Contractor. During periods when the Work is suspended, the Contractor shall make appropriate arrangements for any emergency work which may be required.

Whenever the representative is not present on any particular part of the Work where the Engineer may desire to inform the Contractor relative to interpretation of the Plans and Specifications or to disapprove or reject materials or work performed, the Engineer may so inform the foreman or other worker in charge of the particular part of the Work in reference to which the information is given. Information so given shall be as binding as if given to the Contractor's authorized representative.

Further, the Contractor shall similarly notify the Engineer of the names and telephone number of an authorized representative and an alternate, one of whom will be available nights, weekends and holidays from the start to the completion of the Work and will be responsible for the work site, equipment and the work of all trades.

Only competent and skillful men shall be employed on the Work, and whenever the Engineer shall notify the Contractor in writing that any employee on the Work is, in the opinion of the Engineer, incompetent, unfaithful, disorderly or refuses to carry out the provisions of the Contract, such employee shall be permanently dismissed from the Work.

1015.08 INTIMIDATION

Neither the Contractor nor his employees shall intimidate the Engineer or any of his representatives. Intimidation by an employee of the Contractor shall be sufficient cause, at the request of the Engineer, for permanent dismissal of such employee from the Work. Intimidation by the Contractor shall be due cause for termination of the Contract.

1015.9 RECORD DOCUMENTS

The County shall provide the Contractor with one complete set of the Contract Bid Package and one complete blueline set of Plans to be used as reference in preparing "Record Documents."

The County shall also provide the Contractor with one complete set of the Contract Bid Package and one complete set of mylar Plans to be used in preparing "Record Documents." No later than the fifteenth (15th) day of each month, the Contractor shall annotate the documents comprising the Contract Bid Package and mylar Plans by utilizing a qualified draftsman, and

shall legibly and accurately show on them any and all changes, deletions, and additional information incorporated into the Work during the preceding month. When so annotated these documents and plans become the "Record Documents." Copies of the "Record Documents" showing such changes and additions in the Work and additional information from the previous month shall be submitted to the Engineer no later than said fifteenth (15th) day of each month, or as otherwise agreed upon by the County in writing.

"Record Documents" must include annotations clearly showing the following:

1. Locations of work buried under or outside each building, such as plumbing and electrical line and conduits;
2. Locations of underground work, points of connection with existing utilities, changes in direction, valves, manholes, catch basins, capped stub outs and invert elevations;
3. Actual numbering of each electrical circuit;
4. Locations of significant work concealed inside each building whose general locations are changed or not shown on the Drawings;
5. Locations of all items, not necessarily concealed, which vary from the Contract Documents, deviations caused by any Change Orders, field clarifications, request for clarifications, supplemental drawings and addenda;
6. Installed location of all cathodic protection anodes;
7. Deviations from the sizes, locations and other features of installations shown in the Plans;
8. Information to locate work concealed in each building. In some instances dimensions may be used to identify locations, in other instances, correlation with other spaces may be used;
9. Information such as manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.

Before the final inspection is requested, the Contractor shall make revisions or corrections as may be necessary for the Record Documents to be a true, complete and accurate record of the Work.

Upon requesting final inspection, the Contractor shall submit "Record Documents" to the Engineer for final review and approval.

SECTION 1017 PROSECUTION AND PROGRESS

1017.01 SUBCONTRACTING

If the Contractor shall subcontract any part of this Contract, the Contractor shall be as fully responsible to the County for the acts and omissions of his Subcontractor, and of the Subcontractor's officers, agents, and persons either directly or indirectly employed by the Subcontractor, as the Contractor is for the acts and omissions of persons directly employed by the Contractor. Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the County. The Contractor shall cause every Subcontractor to be bound by the terms of the Contract Documents.

The divisions and sections of the Specifications and the identifications of any drawings shall not control the Contractor in dividing the Work among Subcontractors.

When a portion of the Work which has been subcontracted by the Contractor is not being prosecuted in a manner satisfactory to the County, the Subcontractor shall be removed immediately on the written request of the Engineer and shall not again be employed on the Work.

1017.02 ASSIGNMENT

The performance of the Contract may not be assigned, except upon the written consent of the County. Consent will not be given to any proposed assignment which would relieve the original Contractor or his surety of their responsibilities under the Contract, nor will the County consent to any assignment of a part of the Work under the Contract.

Upon obtaining a prior written consent of the County, the Contractor may assign moneys due or to become due him under the Contract, to the extent permitted by law, but any assignment of moneys shall be subject to all proper setoffs in favor of the County and to all deductions provided for in the Contract, and particularly all money withheld, whether assigned or not, shall be subject to being used by the County for the completion of the Work in the event that the Contractor should be in default therein.

No assignment of this Contract will be approved unless it shall contain a provision that the funds to be paid to the assignee under the assignment are subject to a prior lien for services rendered or materials supplied for performance of the Work called for under the Contract in favor of all persons, firms, or corporations rendering such services or supplying such materials and that the County may withhold funds due until all work required by the Contract Documents is completed to the County's satisfaction.

1017.03 BEGINNING OF WORK; NOTICE TO PROCEED

The Contractor shall begin Work no later than fifteen (15) calendar days after the date on which the Contractor receives the Notice to Proceed and shall diligently prosecute the same to completion within the Time for Completion, commencing on the starting date as provided in **SECTION 1017.07, "TIME FOR COMPLETION AND PAYMENTS TO COUNTY FOR DELAY."**

The County shall issue the Notice to Proceed not less than fifteen (15), nor more than thirty (30), calendar days after the Contract Delivery Date. The Contract Delivery Date is defined in **SECTION 1070.04, "DEFINITIONS"**.

The Contractor shall deliver to the County a written Notice of Contractor's Intent to Begin Work at least seventy two (72) hours before work is begun. This Notice shall specify the date the Contractor intends to start. If the project has more than one location of work, a separate Notice shall be given for each location.

If the Contractor begins work in advance of receiving the Notice to Proceed, any work performed by him in advance of the receipt of said Notice to Proceed shall be considered as having been done by him at his own risk and as a volunteer unless the Contract has been executed by the County.

The delivery to the County of the awarded Contract properly signed on behalf of the Contractor, along with the required bond certificates and original endorsements of insurance, and other required documents, all properly executed as required, submission of the construction schedule, schedule of values, and proposed substitutions submittals as required by the Contract, and delivery of the seventy two (72) hour Notice to the County as required above, shall constitute the Contractor's authority to enter upon the site of the Work and to begin operations, subject to his assumption of the risk of the disapproval of the Contract, as above provided, and subject also to the following:

1. The Contractor shall, on commencing operation, take precautions required for public safety and shall fully comply with all the provisions of the Contract Documents.
2. In the event of the County's disapproval of the Contract or required bonds, certificates or original endorsements of insurance, or other required documents, the Contractor shall at his expense do such work as is necessary to leave the site in a neat condition to the satisfaction of the Engineer. If the work done affects any existing road or highway, the Contractor shall at his expense restore it to its former condition, or the equivalent thereof, to the satisfaction of the Engineer.
3. All work done according to the Contract prior to its approval, will, when the Contract is approved, be considered authorized work and will be paid for as provided in the Contract.

4. The Contractor shall not be entitled to any additional compensation or an extension of time for any delay, hindrance, interference caused by or attributable to, commencement of work prior to the date on which the Notice to Proceed is issued, except to the extent that such a delay, hindrance, or interference would have been compensable hereunder had work been commenced on the date of such approval and the progress thereof, been the same as that actually made.

1017.04 TIME OF COMPLETION.

The Contractor shall complete all or any designated portion of the Work called for under the contract within the time set forth in the Special Provisions. A working day is defined as any day, except Saturdays, Sundays, legal holidays, and days on which the Contractor is specifically required by the Special Provisions to suspend construction operations. Also included in these exceptions are days on which the Contractor is prevented from proceeding with normal operations due to adverse or inclement weather, or storm, or conditions resulting immediately from these, provided that the following conditions are also met:

- 1) At least seventy five (75%) percent of the normal labor and equipment force cannot proceed with the current controlling operation or operations;
- 2) Such restriction is in effect for at least sixty (60%) percent of the total daily time; and
- 3) The Engineer certifies that these two preceding conditions are in effect.

The current controlling operation or operations is to be construed to include any feature of the Work, considered at the time by the Engineer and the Contractor, which, if delayed, will delay the time of completion of the Contract. Extensions of time to cover unavoidable delays, other than adverse weather, which prevent the Contractor from proceeding with the current controlling operation or operations will be handled in accordance with the provisions of **SECTION 1017.09, "EXTENSION OF TIME."** The Engineer will furnish the Contractor a weekly statement showing the number of working days charged to the Contract for the preceding week, the number of working days of time extensions being considered or approved, the number of working days originally specified for completion of the Contract, the number of working days remaining to complete the Contract, and the extended date for completion thereof. The Contractor will be allowed fifteen (15) days from the issuance of the weekly statement of working days in which to file a written protest setting forth in what respects he differs from the Engineer, otherwise the decision of the Engineer shall be deemed to have been accepted by the Contractor as correct. If any portion of a day is a legal holiday, the entire day will be considered a legal holiday for purposes of this Section.

1017.05 PROGRESS SCHEDULE.

CONTRACTOR'S CONSTRUCTION SCHEDULE; CRITICAL PATH; CONTROLLING OPERATIONS (CRITICAL ACTIVITIES)

On the Contract Delivery Date, together with the signed Contract, the Contractor shall submit to the Engineer three (3) copies of a Construction Schedule showing the Contractor's proposed sequence of operations in the performance of the Work, and the estimated dates of starting and finishing the various major parts of the Work.

The Construction Schedule shall set forth the Critical Path Schedule for, and identify, all controlling operations. The Critical Path Schedule shall set forth the schedule for beginning, diligently prosecuting to completion, and completing each activity which is part of the Work, the beginning, diligent prosecution, and/or completion of which is a prerequisite to, or otherwise reasonably essential to, the beginning, diligent prosecution, and/or completion of some other such prerequisite or essential part of the Work. Each such part of the Work shall be referred to herein as a "controlling operation" or a "critical activity."

The Construction Schedule shall also set forth the schedule for, and identify, all other major activities to be completed in the performance of the Work. Such an activity shall be referred to herein as a "non-controlling operation" or "noncritical activity."

The Construction Schedule shall conform to the requirements for time for completion set forth in **SECTION 1017.07, "TIME FOR COMPLETION AND PAYMENTS TO COUNTY FOR DELAY."** The Construction Schedule shall show a reasonable and orderly work sequence that will preclude excessive times for completion of any part of the Work or controlling operation shown on the Schedule. It shall show and be in accordance with the order and delivery dates for equipment and materials requiring special fabrication or otherwise not readily available for purchase and affecting, or a part of, a controlling operation.

The Construction Schedule, including without limitation, the designation of controlling operations and the critical path, shall be subject to the approval or, and modification by, the County.

Modification of the construction schedule by the County shall not relieve the Contractor of the responsibility for complying with the provisions of **SECTION 1017.09, "EXTENSION OF TIME."**

The Construction Schedule shall consist of a graphic network diagram, or a computer printout, or a list of activities. A brief explanation of the Schedule shall accompany the Schedule.

The Contractor shall submit to the Engineer a complete evaluation of Contractor's Critical Path Schedule each month. The Contractor's monthly evaluation of his Critical Path Schedule shall show the following:

- a) percentage of each activity completed;
- b) anticipated completion time of the entire Work;
- c) description of problem areas;
- e) current and anticipated delaying factors and their impact;
- f) explanation of corrective action taken or proposed.

The Contractor shall submit to the Engineer a revised Critical Path Schedule when:

- a) A Contract Change Order affects the completion date or the sequence of activities;
- b) Construction of any critical activity falls significantly behind the schedule;
- c) Delay on a noncritical activity changes the course of the critical path;
- d) Contractor elects to change any sequence of activities affecting the critical path; or
- e) When requested for good cause by the Engineer.

1017.06 SCHEDULE OF VALUES FOR LUMP SUM PROJECTS

A. TIME FOR SUBMISSION BY BIDDERS AND CONTRACTOR

Upon written request by the County, each Bidder shall submit a preliminary Schedule of Values, including a Schedule for each Alternate, to the County no later than ten (10) calendar days after the Bid Opening Date.

Whether or not such a preliminary Schedule of Values is requested from Bidders, the Contractor shall prepare and submit to the County, together with the Contract signed by the Contractor, no later than the Contract Delivery Date, two (2) copies of a final Schedule of Values covering each component item of work set forth in the Contract Documents for completing the entire Work, and showing the value of each kind of work, labor, and materials. No partial payment estimate for any Progress Payment shall be prepared until the Engineer gives written acceptance of the Schedule of Values.

Upon request by the Engineer, the Contractor shall support the values with data which will substantiate their correctness. The Schedule of Values, unless objected to by the Engineer, shall be used as the basis for the Contractor's Applications for Payment.

B. FORM AND CONTENT OF SCHEDULE OF VALUES

The Schedule of Values shall:

1. Be typed on 8-1/2 inch x 11 inch white paper. Automated printouts will be considered for approval by the Engineer upon Contractor's request. Each page of the Schedule shall be identified with:

- a. Title of Project and Location
 - b. Project number
 - c. Name and address of Contractor
 - d. Date of submission
 - e. Page number and total number of pages.
2. List the installed value of the component items of the Work in sufficient detail to serve as a basis for computing values for progress payments during construction.
 3. Follow the table of contents of the Special Provisions as the format for listing component items including Divisions and Sections.

Identify each line item with the number and title of the respective major section of the Special Provisions.

4. For each major line item, list sub-values of major products or operations under the item.
5. Provide a separate listing for bonds, insurance premiums, job mobilization, field supervision and layout, construction facilities, temporary utilities controls.
6. For the various portions of the Work:
 - a. Each item shall include a directly proportional amount of the Contractor's overhead and profit.
 - b. For items on which progress payments will be requested for stored materials, break down the value into:
 - i. The cost of the materials, delivered and unloaded, with taxes paid.
 - ii. The total installed value.
7. The sum of all values listed in the schedule shall equal the total Contract sum.

1017.07 TIME FOR COMPLETION AND PAYMENTS TO COUNTY FOR DELAY

The Contractor shall complete all designated portions of the Work called for under the Contract within the time set forth in the **SECTION 1017.07 "TIME FOR COMPLETION AND PAYMENTS TO COUNTY FOR DELAY"** of the Special Provisions.

Failure of the Contractor to perform any covenant or condition contained in the Contract Documents within the time period specified shall constitute a material breach of this Contract entitling the County to terminate the Contract unless the Contractor applies for, and receives, an extension of time in accordance with the procedures set forth in this section and **SECTION 1017.09, "EXTENSION OF TIME."**

Failure of the County to insist upon the performance of any covenant or condition within the time period specified in the Contract Documents shall not constitute a waiver of the Contractor's duty to complete performance within the designated periods unless the waiver is in writing signed by the County.

The County's agreement to waive a specific time provision or to extend the time for performance shall not constitute a waiver of any other time provisions contained in the Contract Documents. Failure of the Contractor to complete performance promptly within the additional time authorized in the waiver or extension of time agreement shall constitute a material breach of this Contract entitling the County to terminate.

In accordance with **Government Code 53069.85**, the Contractor shall pay the County the amount per day set forth in **SECTION 1017.07 "TIME FOR COMPLETION AND PAYMENTS TO COUNTY FOR DELAY"** of the Special Provisions for each and every day of delay in completing the Work within the allowed time. These amounts shall be deducted from any payments due or to become due the Contractor.

The Contractor shall not be deemed in breach of this Contract and no payment to the County for such delay shall be made because of any delays in the completion of the Work due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor, provided the Contractor requests an extension of time in accordance with the procedures set forth in this Section and **SECTION 1017.09, "EXTENSION OF TIME."** Unforeseeable causes of delay beyond the control of Contractor may include acts of God, acts of a public enemy, acts of the government, acts of the County, or acts of another contractor in the performance of a Contract with the County, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and weather or delays of subcontractors due to such causes, or delays caused by failure of the County or the county of a utility to provide for removal or relocation of existing utility facilities. Delays caused by actions or neglect of Contractor or his agents, servants, employees, officers, subcontractor, directors, or of any party contracting with Contractor to perform part or all of the Work or to supply any equipment or materials shall not be excusable delays. Excusable delays (those beyond the Contractor's control) shall not entitle the Contractor to any additional compensation. The sole remedy of the Contractor shall be to seek an extension of time.

1017.08 SCHEDULING OF WORK

Whenever the Contractor varies the normal period during which work or any portion of it is carried on each day, he shall give forty eight (48) hours notice to the Engineer in writing, so that the Engineer may be present to observe the work in progress. If the Contractor fails to give such forty eight (48) hour notice, any work done in absence of the Engineer will be subject to rejection.

The Contractor shall give forty eight (48) hours notice to the Engineer in advance of backfilling or otherwise covering any part of the Work so that the Engineer may observe such part of the Work before it is concealed.

If Saturday, Sunday, Holidays, or overtime work is to be performed, the Engineer must be notified at least forty eight (48) hours in advance thereof.

The Contractor, must have written authorization from the Engineer to perform work between the hours of 9:00 P.M. and 6:00 A.M.

1017.09 EXTENSION OF TIME

The time for completion of the Work or any part of the Work may be extended only by a written Contract Change Order executed by the County subject to, and in accordance with **SECTION 1010.06, "CHANGES IN THE WORK", SECTION 1017.04, "TIME OF COMPLETION"** and other applicable provisions of the Contract Documents.

Requests for an extension of time must be delivered to the Engineer no later than seven (7) days following the first to occur of the following dates: (a) the date on which the Contractor receives a communication which the Contractor believes calls for changes in the Work for which the time for completion should be changed, as set forth in **SECTION 1010.06, "CHANGES IN THE WORK"** or (b) the date of the occurrence which caused the delay is the basis for the extension of time requested. The request must be submitted in writing and must state the cause of the delay, the date of the occurrence causing the delay, and the amount of additional time requested. Requests for extensions of time shall be supported by all evidence reasonably available or known to the Contractor which would support the extension of time requested.

Request for extensions of time failing to include the information specified in this Section and requests for extensions of time which are not received within the time specified above shall be deemed to be a waiver by the Contractor of, and shall therefore result in the forfeiture of, the Contractor's right to receive any extension of time requested.

If the Contractor is requesting an extension of time because of weather, he shall supply daily written reports to the Engineer describing such weather and the work which could not be performed that day because of such weather, or conditions resulting therefrom, and which he otherwise would have performed.

The County's acceptance of the daily reports shall not be deemed an admission of the Contractor's right to receive an extension of time or a waiver of the County's right to strictly enforce the time provisions contained in the Contract Documents.

When the Contractor has submitted a request for an extension of time in accordance with the procedures of this Section and **SECTION 1017.07, "TIME FOR COMPLETION AND**

PAYMENT TO COUNTY FOR DELAY,” the County will ascertain the facts and extent of the delay and extend the time for completing the Work if, in its judgment, the findings of fact justify such an extension, and its findings of facts thereon, shall be final and conclusive. An extension of time may be granted by the County after the expiration of the time originally fixed in the Contract Documents for completion, or as previously extended, and the extension so granted pursuant to a Contract Change Order signed by the County shall be deemed to commence and be effective from the date of such expiration.

Any extension of time granted by the County shall not release the sureties upon any bond required under the Contract.

The Contractor shall not be entitled to additional payment for expenses, overhead or any other potential costs or expenses solely on the basis of a Contract Change Order granting an extension of time.

1017.10 TEMPORARY SUSPENSION OF WORK

The Engineer shall have the authority to suspend the Work wholly or in part, for such period as he may deem necessary, due to unsuitable weather, or to such other conditions as are considered unfavorable for the suitable prosecution of the Work, or for such time as he may deem necessary due to the failure on the part of the Contractor to carry out orders given, or to perform any provision of the Contract.

The Contractor shall immediately comply with the written order of the Engineer to suspend the Work wholly or in part. The suspended Work shall be resumed when conditions are favorable and methods are corrected, as ordered or approved in writing by the Engineer.

In the event that a suspension of Work is ordered as provided above, and should such suspension be ordered by reason of the failure of the Contractor to carry out orders or to perform any provision of the Contract; or by reason of weather conditions being unsuitable for performing any item or items of Work, which Work, in the sole opinion of the Engineer, could have been performed prior to the occurrence of such unsuitable weather conditions had the Contractor diligently prosecuted the Work when weather conditions were suitable; the Contractor, at his expense, shall do all the Work necessary to provide a safe, smooth, and unobstructed passageway through construction for use by public traffic during the period of such suspension. In the event that the Contractor fails to perform the Work above specified, the County may perform such Work and, if the County does so, the cost thereof shall be deducted from moneys due or to become due the Contractor.

In the event that a suspension of Work is ordered by the Engineer due to unsuitable weather conditions, and in the sole opinion of the Engineer, the Contractor has prosecuted the Work with energy and diligence prior to the time that operations were suspended, the cost of providing a smooth and unobstructed passageway through the Work will be paid for as extra

work or, at the option of the Engineer, such Work will be performed by the County at no cost to the Contractor.

If the Engineer orders a suspension of all of the Work or a portion of the Work which is the current controlling operation or operations, due to unsuitable weather or to such other conditions as are considered unfavorable to the suitable prosecution of the Work, the days on which the suspension is in effect shall not be considered working days as defined in **SECTION 1017.04, TIME OF COMPLETION**. If a portion of the Work at the time of such suspension is not a current controlling operation or operations, but subsequently does become the current controlling operation or operations, the determination of working days will be made on the basis of the then current controlling operation or operations.

If a suspension of Work is ordered by the Engineer, due to the failure on the part of the Contractor to carry out orders given or to perform any provision of the Contract, the days on which the suspension order is in effect shall be considered working days if such days are working days within the meaning of the definition set forth in **SECTION 1017.04, TIME OF COMPLETION**.

In the event of a suspension of the Work under any of the conditions set forth in this Section, such suspension of the Work shall not relieve the Contractor of his responsibilities as set forth in **SECTION 1060, REGULATORY REQUIREMENTS**, or any other applicable provision of the Contract.

1017.11 USE OF COMPLETED PORTIONS

When the Work or any portion of it is sufficiently complete to be utilized or placed into service, the County shall have the right upon written notification to the Contractor to utilize such portions of the Work and to place the operable portions into service and to operate same.

Upon said notice and commencement of utilization or operation by the County, the Contractor shall be relieved of the duty of maintaining the portions so utilized or placed into operation; provided, however, that nothing in this Section shall be construed as relieving the Contractor of the full responsibility for completing the Work in its entirety, for making good defective work and materials, for protecting the Work from damage, and for being responsible for damage and for the Work as set forth in the Contract Documents, nor shall such action by the County be deemed completion and acceptance, and such action shall not relieve the Contractor, his sureties, or insurers of the provisions of the **SECTION 700, GENERAL CONDITIONS, SECTION 1060.11, INDEMNITY, and SECTION 1400.05, ONE YEAR GUARANTEE; REMEDIAL WORK COSTS AND REQUIREMENTS**.

1017.12 CONTRACTOR'S CERTIFICATION OF COMPLETION

Prior to submitting to the County a Certification of Completion in accordance with this Section, the Contractor shall assure all actions to be certified as set forth herein have been completed.

Prior to or concurrently with the Contractor's written request for final inspection as described in **SECTION 1017.13, COUNTY INSPECTION AFTER CONTRACTOR'S CERTIFICATION OF COMPLETION**, the Contractor shall submit to the County written certification signed and dated by the Contractor's authorized representative, together with relevant documents, evidencing that:

1. The Contractor has reviewed all the Contract Documents.
2. The Contractor has inspected the Work, i.e. the Project, and has determined that the Project has been completed in accordance with the Contract Documents.
3. All inspections and approvals from regulatory, funding, and other governing authorities required by applicable law and the Contract Documents, except the County's final inspection as provided in this Section, have been completed and/or obtained. The Contractor shall list all such inspections and approvals in the Contractor's Certification of Completion and shall submit relevant Certificates of Compliance, Certifications of Inspections, and other such documents with the Contractor's certification. Such inspections and approvals may include, for example and without limitation, building inspection and the associated Certificate of Occupancy, fire marshal inspection and written approval, and health department inspection and the associated permit to operate.
4. The Contractor has caused the equipment and systems to be tested and demonstrated to the Engineer or the County's Representative that the equipment and systems are operational.
5. The Contractor has delivered to the County all ownership documents; Manufacturers' and/or suppliers' warranty and guarantee documents, instructions, maintenance, repair, and operations manuals; software source and programming documentation (as applicable); and other such documents pertaining to the County's rights in and use of materials and articles, including without limitation the equipment, supplies, and systems, installed or otherwise incorporated into the Project by the Contractor.
6. The Contractor has delivered to the County all of the final Record Documents for the completed Project.
7. The Contractor has completed all work comprising the Project in accordance with the Contract Documents, effective as of the date specified in the certification.
8. The person signing the Certification of Completion is authorized by the Contractor to do so, and that by signing the Certification, the person is declaring under penalty of perjury under the

laws of the State of California that the information set forth in the Certification is true and correct.

If any conditions or exceptions exist, they shall be set forth in the Certification, and the Certification shall constitute a conditional certification, and shall be deemed to authorize and entitle the County, at the County's discretion, to withhold giving the Contractor the Final Estimate of Payment, and accordingly, the Final Payment, unless and until all conditions and exceptions are resolved and the Contractor submits to the County an unconditional Certification of Completion as set forth in items 1 through 8 above in this Section.

1017.13 COUNTY INSPECTION AFTER CONTRACTOR'S CERTIFICATION OF COMPLETION

With reasonable promptness after the County receives the Contractor's Certification of Completion, the Engineer shall cause an inspection to be made to verify the completion of the Project in accordance with the Contract Documents.

The Engineer shall give the Contractor written notice of the completion of the inspection. If the Engineer determines that any of the work is incomplete or defective and requires repair, removal, or replacement, the notice shall identify such incomplete or defective work.

Promptly upon receipt of such notice identifying incomplete or defective work, the Contractor shall perform necessary or appropriate remedial work at the Contractor's sole cost and expense, and shall submit another Certification of Completion which identifies the incomplete or defective work and the remedial work done, and also sets forth fully the contents of a Contractor's Certification of Completion as otherwise required in this Contract. "remedial work" shall include all work to complete repair, remove, and/or replace incomplete or defective work, together with any and all work which is displaced, damaged, or partially or wholly destroyed in the course of or as the result of such completion, repair, removal, or replacement.

With reasonable promptness after the County receives such a second (or subsequent) Certification of Completion from the Contractor, the Engineer shall cause a re-inspection to be made. The Contractor shall continue to do remedial work and submit Certificates of Completion, and the Engineer shall continue to cause re-inspections to be made in accordance with this Section so long as incomplete or defective work is identified by the Engineer in the inspection notice.

If the Engineer causes re-inspections to be made in accordance with this Section, the County shall be entitled to deduct all re-inspection costs from the Final Payment to the Contractor.

Action by the Engineer or other employee or agent of the County to cause an inspection (including any re-inspection) to be performed or to give written notice of such inspection pursuant to this Section shall not be deemed to be acceptance of the Project by the County, acknowledgment of completion of the Project by the County, or a waiver of any rights granted

the County pursuant to the Contract with regard to giving a final estimate, making final payment, or any other matter.

1017.14 COUNTY ACCEPTANCE AND NOTICE OF COMPLETION; COMPLETION DATE AND ACCEPTANCE DATE

Upon the completion of Engineer's Final Inspection report and submission of the Contractor's unconditional Certification of Completion, together with required supporting documents, the Director of Public Works shall promptly make a written recommendation to the County for acceptance of the Project as being complete and authorizing the County's agent to verify, sign, and cause to be recorded, a Notice of Completion, in accordance with applicable law, including, without limitation, **Civil Code Sections 3086 and 3093**.

The County shall be deemed to have accepted the Project only upon the duly authorized action of its Board of Supervisors, pursuant to which the Board expressly determines that the Work constituting the Project is complete and accepts the completed Project. The date upon which such Board action becomes effective shall also be referred to as the "Acceptance Date." No other acts by the County or any of its officials, employees, agents, or volunteers shall be deemed to constitute acceptance of the Project by the County.

The date of completion of the Project (herein also referred to as the "Completion Date,") shall be the same as the "Acceptance Date," excepting only if some other date is expressly determined by the County, by duly authorized action of its Board of Supervisors, to be the date on which the Project was completed. Such determination shall be in accordance with applicable provisions of **Civil Code Section 3086, Public Contract Code Section 7107** and other applicable law, together with requirements of the Contract Documents.

SECTION 1020 ALLOWANCES

DELETED

SECTION 1030 SPECIAL PROJECT PROCEDURES

DELETED

SECTION 1040 COORDINATION

1040.01 COOPERATION BETWEEN CONTRACTORS.

The County reserves the right to contract for and perform other or additional work on or near the Work covered by this Contract.

When separate contracts are let within the limits of any one project, each contractor shall conduct his/her work so as not to interfere with or hinder the progress of completion of the work being performed by other contractors. Contractors working on the same project shall cooperate with each other as directed.

Each contractor involved shall assume all liability , financial or otherwise, in connection with his/her contract and shall protect and save harmless the County from any and all damages or claims that may arise because of inconvenience, delays, or loss experienced by him because of the presence and operations of other contractors working within the limits of the same project.

The Contractor shall arrange his/her work and shall place and dispose of the materials being used so as not to interfere with the operations of the other contractors within the limits of the same project. He shall join his/her work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

SECTION 1050 FIELD ENGINEERING

1050.01 LINE AND GRADE FOR THE WORK

All the Work shall be done in accordance with the lines, elevations and grades shown on the Plans. The necessary reference survey stakes, marks or points for such lines, elevations and grades will be set by the Engineer. Unless otherwise specified or shown on the Plans, all elevations refer to a project datum elevation and location.

The Contractor shall keep the Engineer informed, in advance, of his intended sequence of operations so that the necessary reference survey stakes, marks, or points may be set, and associated measurements made, with a minimum of inconvenience and delay.

The Contractor shall make all measurements necessary for the proper prosecution of the Work from the reference stakes set by the Engineer.

SECTION 1060 REGULATORY REQUIREMENTS

1060.01 LAWS AND REGULATIONS

The Contractor shall keep himself fully informed of the Ordinances and Regulations of the County and all Federal and State laws in any manner affecting the performance of the Work or those persons engaged therein, and of all orders and decrees of governmental bodies or officials having any authority or jurisdiction over the same. He shall himself observe and comply with and shall cause all his agents, employees and subcontractors to observe and comply with all such ordinances, regulations, laws, orders and decrees. The Contractor shall save harmless and indemnify the County and all its officers and employees against any claim or liability arising from or based on the violation of any such ordinance, regulations, law, order or decree, whether by himself, his agents, employees or his subcontractors.

If any discrepancy or inconsistency is discovered in the Plans, Specifications, or Contract for the Work in relation to any such law, ordinance, regulation, order, or decree, the Contractor shall forthwith and no later than seven (7) days after discovery of such, report the same to the Engineer in writing and cease operations on that part of the Work until the Engineer has given him appropriate instructions as provided for in **SECTION 1015.06, ERRORS OR DISCREPANCIES NOTED BY THE CONTRACTOR.**

All construction and materials, including connections, supports, hangers, fastenings, and the like, shall be furnished, installed, or constructed as the case may be, by the Contractor in full accordance with the requirements of the Uniform Building Code, the State Fire Marshall, the Safety Orders issued by the Division of Occupational Safety and Health of the State of California, and all other prevailing codes and regulations having jurisdiction over construction or the structure. Work so necessitated, if not covered for payment, shall be done as Incidental Work. The building permit, if required, will be secured by the Engineer and furnished to the Contractor along with an approved set of Plans and Specifications. The Contractor shall keep the building permit, and the approved Plans and Specifications at the job site, readily available for inspection during regular working hours, for the duration of the job.

1060.02 INVENTIONS, PATENTS AND COPYRIGHTS

The Contractor shall pay all royalties and assume all costs arising from the use of any invention, design, process, materials, equipment, product or device which is the subject of patent rights or copyrights.

The Contractor shall hold harmless, indemnify, and defend the County, the Engineer, and their consultants and each of their directors, officers, employees and agents from and against all claims, damages, losses, expenses and other costs, including costs of defense and attorneys' fees, arising 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, materials, equipment, product or device, and shall defend all such claims in connection with any alleged infringement of such rights.

1060.03 PUBLIC CONVENIENCE AND SAFETY

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

Convenient access to driveways, houses and buildings along the line of Work shall be maintained and temporary crossings shall be provided and maintained in good condition. Not more than one crossing or intersecting street or road shall be closed at any one time.

The Contractor shall provide and maintain such fences, barriers, directional signs, lights and flagmen as are necessary to give adequate warning to the public at all times of any dangerous conditions to be encountered as a result of the construction work and to give directions to the public.

1060.04 DAMAGE TO WORK OR PROPERTY

The Contractor shall be responsible for the safekeeping of, and shall protect, the Work and materials from damage due to the nature of the Work, the action of the elements, the carelessness of other contractors, or from any other cause whatsoever, until acceptance of the Work. Should any such damage occur, he shall repair it at his own expense, and leave the Work in a condition satisfactory to the Engineer.

Neither the County nor any of its officers, employees or agents assumes any responsibility for collecting indemnity from the person or persons causing damage to the Work of the Contractor.

Any damage, arising from or in consequence of the performance of the Contract, pavements, curbs, landscaping, sidewalks footings, walls, stairs, fences, sewerage and drainage structures, mains pipes, valves, conduits, poles, wires, transformers, to adjoining work or to any other improvement or property above or below the surface of the ground, whether private or public, shall be repaired at once by the Contractor at his own expense, or upon the occurrence of such damage the Contractor shall obtain from the owner of the damaged property release from his liability for such damage. If, in the opinion of the Engineer, the best interest of the County requires such repair to be made prior to the execution of any part of the work included in the contract the Engineer will so notify the Contractor who shall delay or discontinue the performance of that part of the Work until the necessary repair has been made. Such delay shall not be considered unavoidable, and no extension of time for completion of the Contract will be granted therefor. When ordered by the Engineer to make any such repair, the Contractor shall start work thereon within forty eight (48) hours and shall prosecute the same

with diligence to completion. Upon failure of the Contractor to comply with such order, or upon his failure to make immediate emergency repairs which are necessary in the best interest of the County or of the public, the Engineer shall have authority to cause such repair to be made and to deduct the cost thereof from any money due, or which may become due, to the Contractor.

Repair or replacement of damaged work or property by the Contractor shall return such work or property to at least the condition before the damage, with respect to quality, strength, appearance, serviceability for use intended, and finish.

The Contractor shall promptly report to the Engineer and to his Insurance Carrier with copies to the Engineer, all claims submitted by third parties for damages to property alleged to have been caused by project work, and shall submit monthly status reports listing all of the claims until all claims are settled or withdrawn.

The Contractor shall take immediate action to mitigate or correct any damages when in the opinion of the Engineer these damages present a hazard to persons or property. When no emergency exists, corrections shall be made as soon as the Engineer has determined that the progress of the Work will not cause further damage.

The Engineer may withhold sufficient funds to cover one hundred twenty five percent (125%) of the Engineer's estimate of the cost of repairs. These funds will be released after receipt of a statement signed by the claimant indicating that the damage has been repaired or other settlement made to the satisfaction the property owner.

1060.05 PRESERVATION OF PROPERTY

The Contractor shall exercise due care to avoid injury to existing improvements or facilities, utility facilities, adjacent property and trees, shrubbery, and landscaping that are not to be removed.

All trees, shrubbery and landscaping that are not to be removed, and polelines, fences, signs, survey markers and monuments, buildings and structures, conduits, pipelines under or above ground, sewer and waterlines, all highway or street facilities and any other improvement or facilities within or adjacent to the Work shall be protected from injury or damage, and the Contractor shall provide and install suitable safeguards to protect such objects from injury or damage. If such objects are injured or damaged by reason of the Contractor's operation, they shall be replaced or restored at the Contractor's expense to a condition as good as when the Contractor entered upon the Work or as good as required by the Plans and Specifications if any such objects are a part of the Work being performed.

The fact that any such pipe or other underground facility is not shown on the Plans shall not relieve the Contractor of his responsibility under this Section.

In addition to any requirements imposed by law, the Contractor shall shore up, brace, underpin and protect as may be necessary, all foundations and other parts of all existing structures adjacent to an adjoining the site of the Work which are in any way affected by the excavations or other operations connected with the performance of the Work. Whenever any notice is required to be given by the County or the Contractor to any adjacent or adjoining landowner or other party before commencement of any work, such notice shall be given by the Contractor.

In an emergency affecting the safety of life or property, including adjoining property, the Contractor, without special instructions or authorizations, shall act at his discretion to prevent such threatened loss or injury.

1060.06 REGIONAL NOTIFICATION CENTER CONTACT

The Contractor except in an emergency, shall contact the appropriate Regional Notification Center at least two (2) working days or such other time period required by applicable law or Notification Center policy prior to commencing any excavation. If the excavation will be conducted in an area or in a private easement which is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the County, and obtain an inquiry identification number from that Notification Center. No excavation shall be commenced and carried out by the Contractor unless such an inquiry identification number has been assigned to the Contractor or any Subcontractor of the Contractor and, the County has been given the identification number by the Contractor.

Emergency shall be defined as a sudden, unexpected occurrence, involving, a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property or essential public services. Emergency includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, damage to a subsurface installation requiring immediate repair, or sabotage **(Government Code Section 4216)**.

Subsurface installation means any underground pipeline, conduit, duct, wire or other structure, except nonpressurized sewer lines, nonpressurized storm drains, or other nonpressurized drain lines, operated or maintained in or across a public street or public right-of-way **(Government Code Section 4216)**.

1060.07 EXCAVATION WORKER PROTECTION PLANS AND HAZARDOUS WASTE NOTICES

A. EXCAVATION PLANS FOR WORKER PROTECTION REQUIRED BY LABOR CODE SECTION 6705

As provided in **Labor Code Section 6705**, if the total amount of the Contract is in excess of twenty five thousand dollars (\$25,000), the Contractor shall submit to the County, 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 any trench or trenches five (5) feet or more in depth. The Plan shall be prepared by a registered civil or structural engineer. As a part of the Plans, 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.

The County may have made investigations of subsurface conditions in areas where the work is to be performed. If so, these investigations are identified in the Special Provisions and the records of such investigations are available for inspection at the office of the Engineer. The detailed plan showing the design of shoring, etc., which the Contractor is required to submit to the County in advance of excavation will not be based on subsurface conditions which are more favorable than those revealed by the investigations made by the County nor will the plan be based on soils-related design criteria which is less restrictive than the criteria set forth in the report on the aforesaid investigations of subsurface conditions.

The detailed Plan showing the design of shoring, etc., shall include surcharge loads for nearby embankments and structures, for spoil banks, and for construction equipment and other construction loadings. The plan shall indicate for all trench conditions the minimum horizontal distances from the side of the trench at its top to the near side of the surcharge loads.

Nothing contained in this article shall be construed as relieving the Contractor of the full responsibility for providing shoring, bracing, sloping or other provisions which are adequate for worker protection.

B. HAZARDOUS WASTE NOTICES REQUIRED

As-provided in **Public Contract Code section 7104**, with regard to any of the Work required pursuant to the Contract Documents which involves digging trenches or other excavations that extend deeper than four (4) feet below the surface:

(a) The Contractor shall promptly and before the following conditions are disturbed, notify the County, in writing, of any:

- (1) Material that the Contractor believes may be material that is hazardous waste, as defined in **Section 25117 of the Health and Safety Code**, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.
 - (2) Subsurface or latent physical conditions at the site differing from those indicated.
 - (3) Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.
- (b) The County shall promptly investigate the conditions, and if its 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.
- (c) In the event a dispute arises between the County and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost or, time required for, performance of any part of the Work, the Contractor shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all Work to be performed under the Contract. The Contractor shall retain any and all rights provided either by the Contract or by law which pertain to the Resolution of Disputes and protests between the County and the Contractor.

1060.08 FIRST AID

The Contractor shall maintain adequate emergency first aid treatment for his employees to comply with the **Federal Occupational Safety and Health Act of 1970 (P.L. 91-596)** and other applicable law.

1060.09 SAFETY

The Contractor shall be solely and completely responsible for conditions of the jobsite, including safety of all persons and property during performance of the Work, and the Contractor shall fully comply with all state, federal and other laws, rules, regulations and orders relating to safety of the public and workers, and otherwise with generally accepted construction practices.

The right or obligation of the Engineer to conduct construction review or observation of the Contractor's performance shall not include any obligation to review, observe, or provide notice

to Contractor regarding the adequacy of the Contractor's safety measures in, on, or near the construction site.

1060.10 PERSONAL LIABILITY

No director, officer, employee, agent, or volunteer of the County, the Engineer or their consultants shall be personally responsible for any liability arising under or by virtue of the Contract.

1060.11 INDEMNITY

To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the County, the Engineer and each of their employees from and against all claims, damages, losses, expenses and other costs, including costs of defense and attorneys' fees, arising out of or resulting from or in connection with the performance of the Work, both on and off the jobsite, provided that any of the foregoing (a) is attributable to personal injury, bodily injury, sickness, disease or death, or to injury to, or destruction of, tangible property (other than the Work itself), including the loss of use resulting therefrom, and (b) is caused in whole or in part by any act or omission of the Contractor, any subcontractor, any supplier, anyone directly or indirectly employed by any of them or anyone for whose acts or omissions any of them may be liable, regardless; of whether or not caused in part by any act or omission (active, passive or comparative negligence included), of a party indemnified hereunder.

In any and all claims against the indemnified parties by any employee of the Contractor, any subcontractor, any supplier, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under the first and fourth paragraphs in this Section on **INDEMNITY** shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable, by or for the contractor, or any subcontractor, or any supplier, or other persons under workers' compensation acts, disability benefit acts, or other employee acts.

The obligations of the Contractor under the first and fourth paragraphs in this Section on **INDEMNITY** shall not extend to the liability of the Engineer, employees and agents, arising out of or resulting from or in connection with the preparation or approval of maps, drawings, opinions, reports, surveys, designs or Specifications, providing that the foregoing was the sole and exclusive cause of the loss, damage or injury.

The Contractor shall also indemnify and hold harmless the County, the Engineer, and each of their employees and agents from and against all losses, expenses, damages (including damages to the Work itself), attorneys' fees, and other costs, including all costs of defense, which any of them may incur with respect to the failure, neglect or refusal of the Contractor to faithfully perform the Work and all of the Contractor's obligations under the Contract. Such costs,

expenses, and damages shall include all cost, including attorneys' fees, incurred by the indemnified parties in any lawsuit to which they are a party.

1060.12 HOURS OF LABOR

Pursuant to **Labor Code Sections 1813 and 1727** and related applicable law, the Contractor shall forfeit and pay to the County, as a penalty, twenty five dollars (\$25) for each worker employed in the execution of the Contract by the Contractor or any of its Subcontractors 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 more than forty (40) hours in any one calendar week in violation of the provisions of the **Labor Code** and, in particular, **Section 1810 to Section 1815** thereof, inclusive, except that work performed by employees of Contractors in excess of eight (8) hours per day and forty (40) hours during any one week shall be permitted upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half (1-1/2) times the basic rate of pay as provided in said **Section 1815**.

1060.13 PREVAILING WAGE

The Contractor shall comply with **Labor Code Section 1775**. In accordance with said **Section 1775, Section 1727**, and other applicable law, as a penalty, the Contractor shall forfeit and pay to the County the penalty amount determined by the California Labor Commissioner of not more than fifty dollars (\$50) for each calendar day or portion thereof for each worker paid less than the stipulated prevailing rates, as determined by the Director of Industrial Relations of the State of California, for such work or craft in which such worker is employed for any work done under the contract by him or by any subcontractor under him in violation of the provisions of the **Labor Code** and in particular, **Labor Code Sections 1770 to 1780**, inclusive. In addition to such payment and pursuant **Section 1776**, the difference between such stipulated prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the stipulated prevailing wage rate, shall be paid to each worker by the Contractor.

Labor code Section 1776 requires the Contractor and its Subcontractors to keep accurate payroll records and make such available for inspection by persons and entities identified in that Section, in the manner stated therein. **Section 1776**, places the responsibility for compliance with **Section 1776** on the Contractor.

1060.14 PAYROLL RECORDS

It shall, be the responsibility of the Contractor to maintain an accurate payroll record showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, the actual per diem wages paid to each employee, the itemized deductions for each employee, indication of apprentices, and ratio of apprentices to journeymen, and such additional information as appears on the certified payroll record forms

promulgated by the Division of Labor Standards Enforcement of the California Department of Industrial Relations, in accordance with **Labor Code Section 1776**, and to ensure that each Subcontractor also complies with all provisions of **Labor Code Section 1776**, this Section of the Contract, and other applicable law.

All payroll records shall be certified as accurate by the Contractor or subcontractor, as applicable, or its agent having authority over such matters. As required by **Labor Code Section 1776**, the certified payroll records shall be on forms promulgated by the **Division of Labor Standards Enforcement of the California Department of Industrial Relations** or shall contain the same information as the forms.

In accordance with **Labor Code Section 1776**, the Contractor shall ensure that all payroll records are available for inspection at the Contractor's principal office during normal business hours, and shall notify the County, in writing, of the place where all payroll records are located and any change in such location within five (5) working days of such change.

The Contractor shall furnish a copy of all payroll records, upon request, to employees or their authorized agents, to the County, to the **Division of Labor Standards Enforcement and to the Division of Apprenticeship Standards of the Department of Industrial Relations**. The Contractor shall also furnish a copy of payroll records to the general public upon request provided the public request is made through the County, the **Division of Apprenticeship Standards or the Division of Labor Standards Enforcement of the Department of Industrial Relations**. In no event shall members of the general public be given access to payroll records at the Contractor's principal office.

Records made available to the general public or any public agency in accordance with **Labor Code Section 1776** and this Section shall be marked or obliterated in such a manner that the name, address, telephone number, and/or social security number of employees do not appear on the modified record.

The Contractor shall file a certified copy of any requested payroll records with the entity that requested such records within ten (10) days of the date a written request for payroll records has been received.

Failure of the Contractor to comply with any provision of this Section or **Labor Code Section 1776** within ten days of the date a written request for compliance is received shall result in a forfeiture and payment by the Contractor, as a penalty, to the County of twenty five dollars (\$25) per calendar day or portion thereof, for each worker, until strict compliance is effectuated. Upon notification by the **Division of Apprenticeship Standards or the Division of Labor Standards Enforcement of the Department of Industrial Relations**, the County shall withhold any penalties forfeited and payable by the Contractor under this Section or **Labor Code Section 1776** from the Contractor's payments then due, and shall otherwise comply with **Labor Code Section 1727** and related applicable law.

The Contractor shall submit a certified copy of each payroll of the Contractor and its Subcontractors, weekly to the Engineer.

Each payroll shall be accompanied by a Statement of Compliance signed by the employer or his agent indicating that the payrolls are correct and complete and that the wage rates contained therein are not less than those required by the Contract. The Statement of Compliance shall be on forms furnished by the County or on any form with identical wording. The Contractor shall be responsible for the submission of copies of payrolls of all subcontractors.

If by the 15th of the month, the Contractor has not submitted satisfactory payrolls for all work or any portion of the Work performed during the monthly period ending on or before the first of that month, the County may retain an amount not to exceed ten percent (10%) of the estimated value of the work performed during the month from the next monthly estimate, and hence, the monthly progress payment based on the estimate, except that, in any event, such retention shall not exceed twenty thousand dollars (\$20,000) nor be less than one thousand dollars (\$1,000). Retentions for failure to submit satisfactory payrolls shall be additional to all other retentions provided for in the Contract. The retention for failure to submit payrolls for any monthly period will be released for payment on the monthly estimate for partial payments next following the date that all the satisfactory payrolls for which the retention was made are submitted.

The Contractor shall provide adequate supporting documentation in such detail so as to permit tracing transactions from support documentation to the accounting records to the financial reports and billings.

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

1060.15 TRAVEL AND SUBSISTENCE PAYMENTS

Each worker needed to execute the Work must be paid travel and subsistence payments as defined in the applicable collective bargaining agreements filed in accordance with **Labor Code Section 1773.8**.

1060.16 APPRENTICES

Attention is directed to the provisions in **Labor Code Sections 1777.5 and 1777.6** concerning the employment of apprentices by the Contractor or any subcontractor under him.

The Contractor shall, and shall be responsible for requiring each of his subcontractors to, comply with the requirements of **Labor code Sections 1777.5 and 1777.6** in the employment of apprentices.

Information relative to apprenticeship standards, wage schedules and other requirements may be obtained from the **Director of Industrial Relations**, ex officio the Administrator of Apprenticeship, San Francisco, California, or from the **Division of Apprenticeship Standards** and its branch offices.

Willful violations of **Section 1777.5** will result in a forfeiture and payment, as a civil penalty, to the County of \$50 for each calendar day of noncompliance, which will be withheld from progress payments by the County upon notice from the **California Department of Industrial Relations** and as otherwise provided by **Labor Code Section 1777.7** and other applicable law.

1060.17 WARRANTY OF TITLE

No materials, supplies, equipment, or other articles for the Work under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest or any part thereof is retained by the seller or supplier. The Contractor warrants clear and good title to all materials, supplies, equipment, or other articles installed and incorporated in the Work and agrees upon completion of all work to deliver to the premises, together with all improvements and appurtenances constructed or placed thereon by him, to the County free from any claims, liens, encumbrances or charges and further agrees that neither he nor any person, firm or corporation furnishing any material or labor for any work covered by the Contract shall have any right to a lien upon the premises or any improvement or appurtenance thereon, provided that this shall not preclude the Contractor from installing metering devices or other equipment of utility companies or of municipalities, the title of which is commonly retained by the utility company or the municipality.

Nothing contained in this Section, however, shall defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection or any right under any law permitting such persons to look to funds due the Contractor in the hands of the County. The provision of this Section shall be inserted in all subcontracts and material contracts, and notices of its provision shall be given to all persons furnishing materials for the Work when no formal contract is entered into for such materials.

1060.18 PROPERTY RIGHTS IN MATERIALS

Nothing in the Contract shall be construed as vesting in the Contractor any right of property in the materials used after they have been attached or affixed to the Work or the soil, or after payment has been made for materials delivered to the site of the Work, or stored subject to or under the control of the County.

All such materials shall become the property of the County upon being so attached or affixed or upon payment for materials delivered to the site of the Work or stored subject to or under the control of the County.

Soil, stone, gravel and other materials found at the site of the Work and which conform to the Plans and Specifications for incorporation into the Work may be used in the Work. No other use shall be made of such materials except as may be otherwise described in the Plans and Specifications.

Notwithstanding the foregoing, the Contractor shall remain responsible for, and with regard to, such materials as set forth in **SECTION 1060.05, "PRESERVATION OF PROPERTY"** and other applicable provisions of the Contract Documents.

1060.19 MUTUAL RESPONSIBILITY OF CONTRACTORS

Nothing in the Contract shall be interpreted as granting to the Contractor exclusive occupancy of the site of the Project. The Contractor must ascertain to his own satisfaction the scope of the Project and the nature of any other contracts that have been or may be awarded by the County in the construction of the Project, to the end that the Contractor may perform this Contract in the light of such other contracts, if any.

The Contractor shall not cause any unnecessary hindrance or delay to any other contractor working on the Project. If the performance of any contract for the Project is likely to be interfered with by the simultaneous performance of some other contract or contracts, the Engineer shall decide which contractor shall cease work temporarily and which contractor shall continue or whether the work under the contracts can be coordinated so that the contractors may proceed simultaneously. On all questions concerning conflicting interest of contractors performing related work, the decision of the Engineer shall be binding upon all contractors concerned, and the County shall not be responsible for any damages suffered or extra costs incurred by the Contractor resulting directly or indirectly from the award or performance or attempted performance of any other contract or contracts on the Project or caused by a decision or omission of the Engineer respecting the order of precedence in the performance of the contracts.

If through acts of neglect on the part of the Contractor, any other contractor or any subcontractor shall suffer loss or damage on the Work, the Contractor agrees to settle with such other contractor or subcontractor by agreement or arbitration, if such other contractor or subcontractor will so settle. If such other contractor or subcontractor shall assert any claim against the County, the Engineer, the County's Representative, or their consultants or any of their directors, officers, employees, or agents on account of any damage alleged to have been so sustained, the County shall notify the Contractor who shall hold harmless, indemnify and defend the County, the Engineer, the County's Representative, and their consultants, and each of their directors, officers, employees, and agents against any such claim, including all attorneys' fees and any other costs incurred by the indemnified parties relative to any such claim.

1060.20 TERMINATION FOR BREACH

If the Contractor refuses or fails to prosecute the Work or any separable part thereof with such diligence as will ensure its completion within the time specified herein, or any extension thereof, or fails to complete such Work within such time, or if the Contractor is adjudged as bankrupt, or if he makes a general assignment for the benefit of his creditors, or if a receiver is appointed on account of his insolvency, or if he files a petition to take advantage of any debtor's act, or if he or any of his subcontractors violates any of the provisions of the Contract, or if he persistently or repeatedly refuses or fails, except in cases for which Extension of Time is provided, to supply enough properly skilled workmen or proper materials to complete the Work in the time specified, or if he fails to make prompt payment to subcontractors or for material or labor, or if he persistently disregards applicable law or instructions given by the County, the Engineer, or the County's Representative, the County may, without prejudice to any other right or remedy, serve written notice upon the Contractor and his surety of the County's intention to terminate the Contract, said notice to contain the reasons for such intention to terminate the Contract, and unless no later than ten (10) days after the service of such notice, such violations shall cease and satisfactory arrangements for the corrections thereof be made, the Contract shall upon the expiration of said ten (10) days cease and terminate. In such case, the Contractor shall not be entitled to receive any further payment until the Work is finished and the County accepts the completed Project.

In the event of any such termination, the County shall immediately serve written notice thereof upon the surety and the Contractor, and the surety shall have the right to take over and perform the Contract or obtain a Bid or Bids for completing the Contract as more specifically set forth in the Contractor's Faithful Performance Bond issued by the surety for the Contract.

If the surety (a) no later than fifteen (15) days after the serving upon it of a Notice of Termination, fails to give the County written notice of its intention to take over and perform the Contract or solicit a Bid or Bids for completing the Contract, as provided in the Contractor's Faithful Performance Bond, and thereafter (b) fails to commence performance thereof or advertise for bids, as applicable, no later than thirty (30) days from the date of service of said Notice, the County may take over the Work and prosecute the same to completion, by Contract or by any other method it may deem advisable, for the account and at the expense of the Contractor, and Contractor's surety shall be liable to the County for any excess cost or other damage occasioned to or incurred by the County thereby, and in such event the County may, without liability for so doing, take possession of and utilize in completing the Work such materials, appliances, plants, and other property belonging to the Contractor that may be on the site of the Work and be necessary therefor. For any portion of such Work that the County elects to complete by furnishing its own employees, materials, tools, and equipment, the County shall be compensated for such in accordance with the schedule of compensation for force account work in **SECTION 1150.04, "PAYMENT FOR CHANGES IN THE WORK."**

If the unpaid balance of the Contract price as of the Contract termination date exceeds the direct and indirect costs of completing the Work, including, but not limited to, all costs to the County arising from professional services and attorneys' fees and all costs generated to insure or bond the work of substituted contractors or subcontractors utilized to complete the Work, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the County promptly upon demand; on failure of the Contractor to pay, the Surety shall make such payment to the County on demand by the County. Any portion of such difference not paid by the Contractor or surety no later than thirty (30) days following the mailing of a demand for such costs by the County shall earn interest at the rate of 10 percent (10%) per annum or the maximum rate authorized by California law, whichever is lower.

The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to the County.

1060.21 NOTICE AND SERVICE OF NOTICE

Any notice required or given under the Contract shall be in writing, be dated and signed by the party giving such notice or its duly authorized representative and be served as follows:

If to the County, by personal service upon the County by delivery to a person identified in **Code of Civil Procedure Section 416.50 (a)**, or by deposit in the United States mail, postage prepaid, certified mail, addressed to County of Inyo, 224 North Edwards, Independence, California 93526.

If to the Contractor, by personal service upon the Contractor or his authorized representative at the site of the Project, or by deposit in the United States mail, postage prepaid certified mail, addressed to the Contractor at the address set forth for the Contractor in the Contract.

If to the Surety, by personal service upon said Surety or other authorized person or by deposit in the United States mail, postage prepaid certified mail, addressed to Surety at the address set forth for Surety in the bond.

All mailed Notices shall be in sealed envelopes, shall be sent by certified mail with postage prepaid, and shall be addressed to the addresses designated above or such substitute addresses which a party designates in writing and serves as set forth herein.

Service by mail as set forth above is complete upon deposit. To the extent required by applicable law, any right or duty to act or respond to such Notice is extended by five (5) days if service is by mail.

Any Notice shall be deemed to have been received on, as applicable to the method of transmittal, the fifth (5th) day after the date of deposit in the mail, such earlier date as receipt is indicated on any type of receipt by mail or delivery service, or the date of personal delivery.

1060.22 PARTIAL INVALIDITY

If any provision of this Contract is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall nevertheless continue in full force without being impaired or invalidated in any way.

1060.23 ATTORNEYS' FEES

If either party to the Contract brings any action or proceedings against the other arising from or relating to any provision of the Contract, including without limitation, any action at law or in equity or any arbitration proceeding for purposes such as, without limitation, to enforce or to declare the termination, cancellation, interpretation, or revision of the Contract, the prevailing party in such action or proceeding shall be entitled to recover its reasonable attorneys' fees and costs incurred in connection therewith.

1060.24 LANDS AND RIGHTS-OF-WAY

The lands and right-of-way upon which the Work is to be constructed shall be provided by the County. The Contractor shall make his own arrangements and pay all expenses for additional area required by him outside the limits of the Ownership, lands and rights-of-way.

Work in public right-of-way shall be done in accordance with the requirements of the permit issued by the public agency in whose right-of-way the Work is located in addition to conforming to the Plans and Specifications . If a permit is not required, the Work shall conform to the Standards of the public agency involved in addition to conforming to the Plans and Specifications.

1060.25 WAIVER OF RIGHTS

Except as otherwise specifically provided in the Contract, no action or failure to act by the County, the Engineer, the County's Representative, or the Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder.

1060.26 TAXES

Except as provided below, the County shall not withhold any federal or state income taxes or social security from any payments made by the County to the Contractor under the terms and conditions of the Contract.

To the extent the County reasonably determines such action to be required by law, the County shall withhold California State income taxes from payments made under the Contract to non-California resident independent contractors when it is anticipated that total annual payments to the Contractor under the Contract will exceed one thousand four hundred ninety nine dollars (\$1,499.00).

Except as set forth above, the County has no obligation to withhold any taxes or payments from sums paid by the County to the Contractor, under the Contract. Payment of all taxes and other assessments on such sums is the sole responsibility of the Contractor. The County has no responsibility or liability for payment of the Contractor's taxes or assessments.

The total amounts paid by the County to the Contractor, and taxes withheld from payments to non-California residents, if any, shall be reported annually to the Internal Revenue Service and the California State Franchise, Tax Board.

NOTICE OF TAXABLE POSSESSORY INTEREST: The terms of the Contract may result in the creation of a possessory interest. If such a possessory interest is vested in a private party to the Contract the private party may be subjected to, and if so, shall be responsible for, the payment of personal property taxes levied on such interest.

1060.27 ASSIGNMENT OF ANTI-TRUST ACTIONS

Pursuant to **Public Contract Code Section 7103.5**, in entering into a Public Works Contract or 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. Section 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code)**, arising from the 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.

In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing 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. Section 15) or under the Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code)**, arising from purchases of goods, materials or services by the bidder for sale to the purchasing body pursuant to the Bid. Such assignment shall be made and become effective at the time the purchasing body tenders Final Payment to the Bidder.

1060.28 RESOLUTION OF CONSTRUCTION CLAIMS

All Public Works claims of three hundred seventy-five thousand dollars (\$375,000.00) or less which arise between the County and the Contractor under this Contract shall be governed by **Article 1.5 (commencing with Section 20104) of the Public Contract Code**, portions of which are quoted below in this Section.

Public Contract Code Section 20104.2 provides:

For any claim subject to this article, the following requirements apply:

(a) The claim shall be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the date of final payment. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims.

(b)(1) For claims of less than fifty thousand dollars (\$50,000 00), the Local Agency shall respond in writing to any written claim no later than forty five (45) days of receipt of the Claim, or may request, in writing, no later than thirty (30) days of receipt of the Claim, any additional documentation supporting the claim or relating to defenses to the Claim the Local Agency may have against the claimant.

(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the Local Agency and the claimant.

(3) The Local Agency's written response to the Claim, as further documented, shall be submitted to the claimant within 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.

(c)(1) For Claims of over fifty thousand dollars (\$50,000.00) and less than or equal to three hundred seventy-five thousand dollars (\$375,000.00), the Local Agency shall respond in writing to all written claims 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 to the Claim the Local Agency may have against the claimant.

(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the Local Agency and the claimant.

(3) The Local Agency's written response to the Claim, as further documented, shall be submitted to the claimant within 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 or requested documentation, whichever is greater.

(d) If the claimant disputes the Local Agency's written response, or the Local Agency fails to respond within the time prescribed, the claimant may so notify the Local Agency, in writing, either within fifteen (15) days of receipt of the Local Agency's response or within fifteen (15) days of the Local Agency's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the Local Agency shall schedule a meet and confer conference within thirty (30) days for settlement of the dispute.

(e) Following the meet and confer conference, if the claim or any portion remains in dispute, the claimant may file a claim as provided, in **Chapter I (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code**. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the claimant submits his or her written claim pursuant to subdivision (a) until the time the claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process.

(f) This article does not apply to tort claims and nothing in this article is intended nor shall be construed to change the time periods for filing tort claims or actions specified by **Chapter I (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**.

Public Contract Code Section 20104.4 provides:

The following procedures are established for all civil actions filed to resolve claims subject to this article:

(a) Within sixty (60) days, but no earlier than thirty (30) days, following the filing or responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide for the selection within 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 with the fifteen (15) day period, any party may petition the court to appoint the mediator.

(b)(1) If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to **Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of civil Procedure**, notwithstanding **Section 1141.11** of that code. **The Civil Discovery Act of 1986 (Article 3 (commencing with Section 2016) of Chapter 3 of Title 3 of Part 4 of the Code of Civil Procedure)** shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.

(2) Notwithstanding any other provision of law, upon stipulation of the parties, arbitrators appointed for purposes of this article shall be experienced in construction law, and, upon stipulation of the parties, mediators and arbitrators shall be paid necessary and reasonable hourly rates of pay not to exceed their customary rate, and such fees and expenses shall be paid equally by the parties, except in the case of arbitration where the arbitrator, for good cause, determines a different division. In no event shall these fees or expenses be paid by State or County funds.

(3) In addition to **Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure**, any party who after receiving an arbitration award requests a trial de novo but does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, also pay the attorney's fees of the other party arising out of trial de novo.

(c) The court may, upon request by any party, order any witness to participate in the mediation or arbitration process.

Public Contract Code Section 20104.6 provides:

(a) No Local Agency shall fail to pay money as to any portion of a claim which is undisputed except as otherwise provided in the contract.

(b) In any suit filed under **Section 20104.4**, the Local Agency shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law.

1060.29 INUREMENT

The Contract shall inure to the benefit of and shall be binding upon the CONTRACTOR and the COUNTY and their respective successors and assigns.

1060.30 AMENDMENT

The Contract, including without limitation, any or all of the Contract Documents, may be amended only by written agreement executed by duly authorized representatives of the Contractor and the County, excepting only such authority expressly granted by the Contract to the County with respect to certain Contract Change Orders.

1060.31 GOVERNING LAW

The Contract shall be governed by the laws of the State of California. Venue for any arbitration or other legal proceeding between the parties relating to this Contract shall be in the County of Inyo in the State of California.

SECTION 1070 ABBREVIATIONS, SYMBOLS AND DEFINITIONS

1070.01 ORGANIZATION ACRONYMS

The following abbreviations and acronyms may be used in the Contract Documents. The following acronyms apply to the organizations, codes, and/or documents indicated:

AA	Aluminum Association
AAMA	American Architectural Manufacturers' Association
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGA	American Gas Association
AIA	American Institute of Architects
AIRA	Acoustical and Insulation Materials Association
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Movement and Control Association
ANSI	American National Standards Institute
APA	American Plywood Association
ARI	Air-conditioning and Refrigeration Institute
ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWI	Architectural Woodwork Institute
AWPA	American Wood Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association
BHMA	Builders Hardware Manufacturers' Association
BIA	Brick Institute of America
CAC	California Administrative Code, now entitled California Code of Regulations
CAX/OSHA	State of California Construction Safety Orders
CDA	Copper Development Association, Inc.
CGAI	Compressed Gas Association
CISPI	Cast Iron Soil Pipe Institute
CLTMI	Chain Link Fence Manufacturers' Institute
CRA	California Redwood Association
CRC	California Code of Regulations (formerly California Administrative Code)
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standard (See NBS)
CSKA	Chemical Specialties Manufacturing Association
CSS	State of California, Business and Transportation Agency, Department of Public Works, Division 6 Highways "Standard Specifications"

DFPA	Douglas Fir Plywood Association
ESO	Electrical Safety Orders
FGMA	Flat Glass Marketing Association's "Glazing Manual"
FM	Factory Mutual System, Factory Mutual Engineering Division and/or Corporation
FS	Federal Specifications (General Services Administration)
GA	Gypsum Association
HI	Hydraulic Institute
IAMPO	International Association of Plumbing and Mechanical Officials
ICBO	International Conference of Building Officials
IEEE	Institute of Electrical and Electronics Engineers, Inc.
IES	Illuminating Engineering Society
MIA	Marble Institute of America
MIKA	Metal Lath Manufacturer's Association
MM	State of California, Business and Transportation Agency, Department of Public Works, Division 6 Highways' "Materials Manual"
MSS	Manufacturers Standardization Society of the Valve and Fittings Industry
NAAMM	The National Association of Architectural Metal Manufacturers
NBS	National Bureau of Standards
NCMA	National Concrete Masonry Association
NEBB	National Environmental Balancing Bureau
NEC	National Electric Code (of NFPA)
NEMA	National Electric Manufacturers' Association
N FLUID	PA National Fluid Power Association
NFPA	National Fire Protection Association
NOMA	National Oak Flooring Manufacturer's Association
NPVLMMA	National Paint, Varnish and Lacquer Manufacturer's Association
NSF	National Sanitation Foundation
NTMA	The National Terrazzo and Mosaic Association
NWMA	National Woodwork Manufacturer's Association
OSA	Office of the State Architect (California)
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PCI	Prestressed Concrete Institute
PEI	Porcelain Enamel Institute
PS	U.S. Dept. of Commerce Product Standard (see NBS)
RIS	Redwood Inspection service
SDI	Steel Deck Institute
SFM	State of California, office of State Fire Marshal and/or its "Listing Service for Building Materials"
SJI	Steel Joist Institute
SMACNA	Sheet Metal and Air-Conditioning Contractors, National Association
SPA	Southern Pine Association
SPI	The Society of the Plastic Industry, Inc.
SSPC	Steel Structures Painting Council

SWI	Steel Window Institute
TCA	Tile Council of America
TIMA	Thermal Insulation Manufacturers Association
UBC	Uniform Building Code (see ICBO)
UFC	Uniform Fire Code
UL	Underwriters' Laboratories, Inc.
UMC	Uniform Mechanical Code (see IAPMO)
UPC	Uniform Plumbing Code (see IAPMO)
UL	Underwriters' Laboratories, Inc.
USS	United States Standard
WCLA	West Coast Lumbermen's Association
WCLIB	West Coast Lumber Inspection Bureau
WIC	Woodwork Institute of California
WRI	Wire Reinforcement Institute
WWPA	Western Wood Products Association

1070.02 ABBREVIATIONS

Alternating Current	AC
Afternoon	PM
Ampere	AMP
Ampere!(with number, e.g., 30A)	A
Before noon	AM
Brake horsepower	BHP
British thermal unit	BTU
Carbon dioxide	CO ₂
critical path method	CPM
Cubic feet per day	CU FT/DAY
Cubic feet per hour	CU FT/HR
Cubic feet per minute	CFM
Cubic feet per second	CU FT/SEC
Cubic foot (feet)	CU FT
Cubic inch (inches)	CU IN
Cubic yard (yards)	CU YD
Decibels	DB
Direct Current	DC
Dry bulb (temperature)	DB
Fahrenheit	F
Feet per day	FT/DAY
Feet per hour	FT/hr
Feet per minute	FPM
Feet per Second	FPS
Foot-candle	FC
Gallons per day	GPD

Gallons per minute	GPM
Gallons per second	GPS
Heat transfer coefficient	U
Hertz	HZ
Horsepower	HP
Inches per second	IN/SEC
Inside diameter	ID
Kilovolt	KV
Kilovolt-ampere	KVA
Kilowatt	KWA
Kips	K
Kips per square inch	KSI
Lineal foot	LF
Miles per hour	MPH
Noise reduction coefficient	NRC
Number	NO.
Numbers	NOS.
On center	OC
Ounces per square foot	OZ/SQ FT
outside diameter	OD
outside screw and yoke	OS&Y
Polyvinylchloride	PVC
Post meridiem (afternoon)	PM
Pounds per cubic foot	PCF
Pounds per lineal foot	PLF
Pounds per square foot	PSF
Pounds per square inch	PSI
Pounds per square inch gage	PSIG
Relative humidity	RH
Revolutions per minute	RPM
Revolutions per second	RPS
Sound transmission class	STC
Square foot (feet)	SQ FT
Square inch (inches)	SQ IN
Square yard (yards)	SQ YD
Thermal conductivity	K
Thermal resistance	R
Tongue and groove	T&G
Top of Sheathing	TS
Top of Parapet	TP
U factor (Coefficient of heat transfer)	U
United States	US
United States Steel (gage)	USS
Volts (with number 12OV)	V
Wet bulb	WB

Additional abbreviations, used only on the Drawings, may be only listed and defined thereon.

1070.03 SYMBOLS

Symbols, used only on the Drawings, are shown thereon.

1070.04 DEFINITIONS

Whenever the following terms occur in the Contract Documents, the meaning shall be as follows:

ACCEPTANCE, FINAL ACCEPTANCE. Acceptance of the completed Project by duly authorized action of the Board of Supervisors of the County of Inyo in accordance with **SECTION 1017.14, “COUNTY ACCEPTANCE AND NOTICE OF COMPLETION; COMPLETION DATE AND ACCEPTANCE DATE.”**

ACCEPTED BID. The bid (proposal) accepted by the County.

BID, BID PROPOSAL. The written offer of a bidder to perform the specified work in accordance with the contract documents, made out and submitted in accordance with the bid requirements and conditions, on bid proposal forms furnished by the County of Inyo.

BID PACKAGE. The Notice Inviting Bids, Bid Proposal Forms, Contract and Bond Forms, Bid Requirements and Conditions, Contract Award and Execution Requirements and Conditions, Specifications, Plans, and all other. Contract Documents submitted to bidders by the County or County’s agent relating to the Project.

BIDDER. Any individual, partnership, corporation, joint venture, or other combination thereof, or other entity submitting a bid for the specified work, acting directly or through an authorized representative.

BY OTHERS. Work on this Project that is outside the scope of work to be performed by the Contractor under this Contract, but that will be performed by the County, other contractors, or by other means, at the County’s cost.

BY COUNTY. Work on this Project that will be performed by the County or its agents, at the County’s cost.

CALENDAR DAYS, DAYS. Unless otherwise specified, days, or calendar days, means each and every day shown on the calendar, Saturdays, Sundays and holidays included.

COMPLETION DATE. The Acceptance Date or such other date of completion determined in accordance with **SECTION 1017.14, "COUNTY ACCEPTANCE AND NOTICE OF COMPLETION; COMPLETION DATE AND ACCEPTANCE DATE."**

CONCEALED AND CONCEALED SPACE. Embedded within construction, in trenches, in crawl space, space between finish ceiling and structure above; space between double walls and furred in areas.

CONTRACT. The written agreement entered into between the County and the Contractor governing the performance of the work, and the furnishing of labor, materials, tools, and equipment for the completion of the work. The Contract shall include all Contract Documents, all of which shall be deemed to be incorporated by reference into the Contract.

CONTRACT AMOUNT. The total amount of the bid for which the Contract is awarded, subject to such adjustments as authorized in accordance with the Contract Documents. If the bid includes bid amounts for two or more alternates, the Contract Amount is the total amount of the bid for the alternate for which the Contract is awarded, subject to such adjustments as authorized in accordance with the Contract Documents.

CONTRACT AWARD DATE. The date on which County takes action to award the Contract to a bidder as more specifically defined in **SECTION 30, CONTRACT AWARD AND EXECUTION, REQUIREMENTS AND CONDITIONS."**

CONTRACT DELIVERY DATE. The date on which Contractor delivers the signed Contract to county together with all other required documents, as more specifically set forth in **SECTION 32.1, "CONTRACT EXECUTION REQUIREMENTS."**

CONTRACT DOCUMENTS. The Contract Documents shall include (a) the contract and all documents incorporated therein by reference, which shall include (b) the Notice Inviting Bids, (c) the Bid Proposal, Contract, and Bond Forms, as set forth in the Bid Package and executed and submitted to the County by the Contractor, (d) the Bid Requirements and Conditions, (e) Contract Award and Execution Requirements and Conditions, (f) all of the other Specifications, including the general provisions in Division 1 and the technical provisions in the remaining Divisions, (g) the Plans, any and all amendments or changes to any of the above-listed documents, including without limitation, contract change orders, and (i) any and all documents incorporated by reference into any of the above -listed documents. The terms "Contract Documents," "Component Parts," and "Contract" are intended to, and shall be construed as, referring to all of the documents listed in subsections (a) through (i) in this definition of Contract Documents.

CONTRACTOR. The individual, partnership, corporation, Joint venture, or other combination thereof, or other entity which has entered into the Contract with the county for the performance of the Work. The term "Contractor" means the Contractor or his authorized representative.

CORPORATE SURETY, ADMITTED SURETY INSURER. A corporate insurer or interinsurance exchange to which the California State Insurance Commissioner has issued a certificate of authority to transact surety insurance in California, as defined in **Insurance Code Section 105.**

COUNTY. The County of Inyo, a political subdivision of the State of California, and/or the County of Inyo Department of Public Works.

DAYS. Unless otherwise specified, days shall mean calendar days, each and every day shown on the calendar, Saturdays, Sundays and Holidays included.

DRAWINGS. Plans.

ENGINEER. means the engineer or architect retained by the District, or the person designated by the District as its engineering representative during the course of construction, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties delegated to them.

EXPOSED. Not installed underground or "concealed" as above.

FINISHED SPACE. Space indicated or scheduled to be finished.

FURNISH, SUPPLY. Supply complete with all parts and accessories.

INDICATED. As shown and/or noted on the Drawings.

INSTALL. Furnish and install or apply, including establishing in place, condition, or status, complete and ready for use or service.

LIQUIDATED DAMAGES. The amount prescribed in **SECTION 1017.07, "TIME FOR COMPLETION AND PAYMENTS TO COUNTY FOR DELAY"**, pursuant to the authority of **Government Code Section 53069.85**, to be paid to the County or to be deducted from any payments due or to become due the Contractor for each day's delay, beyond the time allowed in the Specifications, in completing the whole or any specified portion of the Work.

NOTICE OF AWARD. Notice to successful bidder of the County's action to award the Contract, deemed received by the Contractor as of the Contract Award Date, as more specifically set forth in **SECTION 30, "CONTRACT AWARD AND EXECUTION, REQUIREMENTS AND CONDITIONS."**

NOTICE TO PROCEED. The notice given by the County to the Contractor to begin work, as more specifically set forth in **SECTION 1017.03, "BEGINNING OF WORK; NOTICE TO PROCEED."**

OWNER. County of Inyo or the County officer expressly authorized in writing by the Inyo County Board of Supervisors to act on the County's behalf with regard to the Contract.

OWNER'S REPRESENTATIVE. The person or firm authorized in writing by the County to represent it during the performance of the Work by the Contractor. The County's Representative means the County's Representative or his/her assistants. .

PLANS, DRAWINGS. The plans, drawings, or reproductions thereof, which show the location, character, dimensions, and details of the Work to be done.

PROJECT. The erection, construction, alteration, repair or improvement of any structure, building, road, or other type improvement of any kind, which is required directly or indirectly by the Contract.

PROVIDE. Furnish and install.

SECTION. References to numbered sections of the Bid Requirements and Conditions, Contract Award and Execution Requirements and Conditions, and the other Specifications for the Project.

SITE. Geographical location of the Project.

SPECIFICATIONS. The information, directions, provisions and requirements contained in the various divisions of the specifications.

SPECIFIED. As written in the Specifications.

STANDARD DRAWINGS, STANDARD PLANS. That portion of the Plans identified or referenced as such.

STARTING DATE. The date on which Contractor shall be deemed to have commenced work as more specifically defined in **SECTION 1017.04, "TIME FOR COMPLETION"**

SUBCONTRACTOR. An individual, partnership, corporation, Joint venture or other combination thereof, or other entity which has a contract with the Contractor to perform any of the work at the site. Subcontractor also means an individual, partnership, corporation, joint venture or other combination thereof, or other entity which has a contract with another subcontractor to perform any of the work at the site.

SUPPLEMENTAL PROVISIONS. Additions, deletions, and changes to other General Requirements set forth in the Specifications.

TIME FOR COMPLETION. The number of days in which Contractor is required to complete the Project, as more specifically, defined in **SECTION 1017.04, "TIME FOR COMPLETION."**

UNFINISHED SPACE. Space not indicated or scheduled to be finished and spaces ordinarily only accessible to building maintenance personnel

UTILITY. Public or private fixed works for the transportation of fluids, gases, power, signals or communications.

WORK. Any and all obligations, duties, and responsibilities necessary . to complete the Project undertaken by the Contractor pursuant to the Contract, including all labor necessary to produce such Project and all materials, equipment, and supplies incorporated or to be incorporated in the Project. Also, the completed Project or parts thereof required to be provided under the Contract.

WORKING DAY. Any day defined as a "working day" pursuant to **SECTION 1017.04, "TIME OF COMPLETION."**

1070.05 TERMS

Wherever the terms "required," "permitted," "ordered," "designated," "directed," "prescribed," or terms of like import are used in the Specifications, it shall be understood that the requirements, permission, order, designation, prescription, or direction of the Engineer is intended, unless otherwise expressly stated. Similarly, the terms "acceptable," "satisfactory," "or equal," or terms of like import in the Specifications shall mean acceptable to or satisfactory to the Engineer, unless otherwise expressly stated. The words "provide" and "install" shall each be understood to mean "furnish and install".

SECTION 1080 IDENTIFICATION SYSTEMS DELETED

SECTION 1090 REFERENCE STANDARDS

1090.01 REFERENCE STANDARDS

All work performed and all materials, processes, and articles furnished by the Contractor shall comply with applicable ASTM standards, building codes, and other such standards as expressly required by the Contract Documents or otherwise by applicable law (herein referred to generally as "standards").

Whenever reference is made to a standard, code, specification, or test and the designation representing the date of adoption or latest revision thereof is omitted, it shall mean the latest revision of such standard, code, specification, or test in effect on the day the Notice Inviting Bids is dated.

SECTION 1100 ALTERNATES/ALTERNATIVES

1100.01 TRADE NAMES AND ALTERNATIVES

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

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

Whenever the Specifications permit the substitution of a similar or equivalent material or article, no tests or action relating to the approval of such substitute material will be made until the request for substitution is made in writing by the Contractor accompanied by complete data as to the equality of the material or article proposed. Such request shall be made in ample time to permit approval without delaying the Work, but need not be made in less than thirty five (35) days after award of the Contract.

1100.02 ALTERNATIVE EQUIPMENT

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

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

The Engineer, before considering or granting such request, may require the Contractor to furnish, at his expense, evidence satisfactory to the Engineer that the equipment proposed for use by the Contractor is capable of producing work equal to, or better than, that which can be produced by the equipment specified.

If such permission is granted by the Engineer, it shall be understood that such permission is granted for the purpose of testing the quality of work actually produced by such equipment and is subject to continuous attainment of results which, in the opinion of the Engineer, are equal to, or better than, that which can be obtained with the equipment specified. The Engineer shall have the right to withdraw such permission at any time that he determines that the alternative equipment is not producing work that is equal, in all respects, to that which can be produced by

the equipment specified. Upon withdrawal of such permission by the Engineer, the Contractor will be required to use the equipment originally specified and shall, in accordance with the directions of the Engineer, remove and dispose of or otherwise remedy, at his expense, any defective or unsatisfactory work produced with the alternative equipment.

Neither the County nor the Contractor shall have any claim against the other for either the withholding or the granting of permission to use alternative equipment, or for the withdrawal of such permission.

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

Nothing in this Section shall relieve the Contractor of his responsibility for furnishing materials or producing finished work of the quality specified in these Specifications or in the Special Provisions.

1100.03 ALTERNATIVE METHODS OF CONSTRUCTION

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

SECTION 1150 MEASUREMENT AND PAYMENT

SECTION 1150.01 MEASUREMENT OF QUANTITIES FOR UNIT PRICE WORK.

A. General. Unless otherwise specified, quantities of work shall be determined from measurements or dimensions in horizontal planes. However, linear quantities of pipe, piling, fencing and timber shall be considered as being the true length measured along longitudinal axis.

Unless otherwise provided in the Specifications, volumetric quantities shall be the product of the mean area of vertical or horizontal sections and the intervening horizontal or vertical dimension. The planimeter shall be considered an instrument of precision adapted to measurement of all areas.

B. Methods of Measurement. Materials and items of work which are to be paid for on the basis of measurement shall be measured in accordance with methods stipulated in the particular sections involved.

C. Certified Weights. When payment is to be made on the basis of weight, the weighing shall be done on certified platform scales or, when approved by the Engineer, on a completely automated weighing and recording system. The Contractor shall furnish the Engineer with duplicate licensed weighmaster's certificates showing actual net weights. The County will accept the certificates as evidence of weights delivered.

D. Units of Measurement. Measurements shall be in accordance with U.S. Standard Measures. A pound is an avoirdupois pound. A ton is 2,000 pounds avoirdupois. The unit of liquid measure is the U.S. gallon.

1150.02 LUMP SUM WORK.

Items for which quantities are indicated "Lump Sum", "L.S.", or "Job", shall be paid for at the price indicated in the Bid. Such payment shall be full compensation for the items of work and all work appurtenant thereto.

1150.03 PROGRESS PAYMENTS AND RETENTION

The Contractor shall be entitled to partial payment of the total Contract amount on a calendar month basis in accordance with this Section. Such payments shall also be referred to as "Progress Payments".

The Contractor shall, on or before the fifteenth (15th) day of each calendar month after actual construction work is started, cause an estimate in writing to be submitted to the Engineer showing the value of (a) the Work completed by the Contractor and (b) the materials paid for in full by the Contractor and either delivered on the ground at the site of the Work or stored subject to or under the control of the County, and shall also submit copies of paid invoices for the materials. In estimating such value of the Work completed, the Contractor may take into consideration, along with other facts and conditions deemed by him to be proper, the ratio of the difficulty or cost of the Work done to the probable difficulty or cost of the Work remaining to be done. Such an estimate for a Progress Payment shall also be referred to as an Application for Payment or payment request.

No later than ten (10) days after the Engineer's receipt of the Contractor's estimate, the Engineer shall give the Contractor written notice that such estimate is either approved or disapproved. If the estimate is disapproved totally or in part, the Engineer shall identify in the notice of disapproval such errors, omissions, or other discrepancies upon which the Engineer bases his disapproval.

No later than ten (10) days after receipt of such notice of disapproval, the Contractor shall respond to the Engineer in writing. The Engineer shall consider any additional information or documentation submitted by the Contractor by such response.

No later than ten (10) days after receiving the response, the Engineer shall notify in writing the Contractor as to the Engineer's final determination of the estimated value of the work completed and the fully paid materials delivered or stored during the calendar month for which Contractor is requesting a Progress Payment.

The County shall retain ten percent (10%) of such estimated value (also referred to herein as "retention") as part security for the fulfillment of the Contract by the Contractor, unless the Contractor has substituted approved equivalent securities as defined by **SECTION 1150.15, "WITHHELD RETENTION FUNDS: SUBSTITUTE SECURITY,"** and shall pay to the Contractor the balance of such estimated value after deducting therefrom all previous payments and all sums to be withheld or retained pursuant to the Contract. Tax withholdings required by the state or federal government are described in **SECTION 1060.26, "TAXES,"** the County shall make such payment no later than fifteen (15) days after the date of the Engineer's notification to the Contractor of the final estimated value determination.

1150.04 PAYMENT FOR CHANGES IN THE WORK

The increase or decrease in compensation to be paid to the Contractor for changes in, additions to, or deductions from the Work, including without limitation, increases or decreases in the quantity of any item or portion of the Work, shall be authorized solely by a written Contract Change Order executed by the County pursuant **SECTION 1010.06, "CHANGES IN THE WORK"** and other applicable provisions of the Contract.

Any such adjustment in the compensation payable to the Contract shall be determined by one or more of the following methods as determined by the County in its sole discretion:

1. Unit prices contained in the contract.
2. Mutually agreeable lump-sum or unit prices. If requested by the Engineer, the Contractor shall furnish an itemized breakdown of the quantities and prices used in computing the proposed lump-sum and unit prices.
3. Force account whereby the Contractor is compensated for furnishing labor, materials, tools and equipment as follows:

(a) The cost of labor plus fifteen percent (15%) for workers directly engaged in the performance of the Work. The cost of labor shall include actual wages paid including employer payments to, or on, behalf of the workers for health and welfare, pension, vacation and similar purposes plus payments imposed on payroll amounts by state and federal laws plus subsistence and travel allowance payments to workers.

(b) The cost of material plus fifteen percent (15%). The cost of material shall include sales tax, freight and delivery charges. The County reserves the right to furnish such materials as it deem advisable and the Contractor shall not be paid the fifteen percent (15%) markup on such materials.

(c) For tools and equipment actually engaged in the performance of the Work, rental rates plus fifteen percent (15%). The rental rates shall be those prevailing in the area where the Work is performed. No rental charge shall be made for the use of tools or equipment having a replacement value of five hundred dollars (\$500) or less.

(d) Subcontractor invoices to the Contractor plus five percent (5%) . Subcontractor invoices shall be based on the above described cost of labor plus fifteen percent (15%), cost of materials plus fifteen percent (15%), and tool and equipment rental rates plus fifteen percent (15%).

In applying any of the methods listed in this Section for adjustment of compensation, The Contractor shall not be entitled to payment for any item not set forth above, including without limitation, the Contractor's overhead, general administrative expense, supervision or damages claimed for delay in prosecuting the remainder of the Work.

For force account work, the Contractor shall submit to the Engineer for his verification daily work sheets showing an itemized breakdown of labor, materials, tools and equipment and any associated subcontractor services used in performing the Work. No payment will be made for Work not verified by the Engineer.

1150.05 NOTICE OF POTENTIAL CLAIM

The Contractor shall not be entitled to submit any claim for or receive any payment of any additional compensation for any act, or failure to act, by the County or the Engineer, including failure or refusal to issue a Contract Change Order, or for the happening of any event, thing, occurrence, or other cause, unless the Contractor shall have given the Engineer written Notice of Potential Claim as hereinafter specified. Compliance with this Section shall be a prerequisite to the Contractor's rights to submit claims pursuant to **SECTION 1150.06, "FINAL ESTIMATE, FINAL PAYMENT AND CLAIMS"** and **SECTION 1060.28, "RESOLUTION OF CONSTRUCTION CLAIMS,"** and shall apply to all matters which may be the subject of a claim, including without limitation, matters within the scope of the provisions in **SECTION 1010.06, "CHANGES IN THE WORK,"** **SECTION 1017.07, "TIME OF COMPLETION AND PAYMENTS TO COUNTY FOR DELAY"** and related provisions of the Contract Documents and any claim which is based on differences in measurements or errors of computation as to Contract quantities.

The written Notice of Potential Claim shall set forth the reasons for which the Contractor believes additional compensation will or may be due, the nature of the costs involved, and the amount of the potential claim, or if the amount is unknown or cannot be determined with reasonable certainty at the time, a reasonable estimate of the amount. The Contractor shall give the written Notice of Potential Claim to the Engineer prior to the time that the Contractor shall have performed the Work giving rise to the potential claim, if based on an act or failure to act by the County or the Engineer, and in all cases, no later than seven (7) days after the happening of the event, thing, occurrence, or other cause, giving rise to the potential claim.

It is intended that differences between the parties arising under and by virtue of the Contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken. The Contractor hereby agrees that he shall have no right to additional compensation or an extension of the time for completion of the Work for any claim that may be based on any such act, failure to act, event, thing or occurrence for which no written Notice of Potential Claim as herein required was filed.

1150.06 FINAL ESTIMATE, FINAL PAYMENT, AND CLAIMS

Final payment shall be governed by **Public Contract Code Section 7107** and the provisions of these Specifications. Nothing herein is intended or shall be construed as a waiver of any provision of **Section 7107** and in the event of any inconsistency of any of the provisions set forth herein with **Section 7107**, the provisions of **Section 7107** shall govern.

1150.07 PROPOSED FINAL ESTIMATE

No later than fifteen (15) days after the Completion Date, the Engineer shall submit to the Contractor a proposed Final Estimate which sets forth at least the following information:

- (1) Original Contract Price
- (2) Total Contract Change Orders
- (3) Final Contract Price
- (4) Total Amount Paid to Date to the Contractor
- (5) Deductions for County's Claims Against the Contractor
- (6) Total Amount Owed to the Contractor (Final Payment)
- (7) Deductions for Amounts the County is required to Withhold (e.g., stop notice claims, regulatory agency withholding)
- (8) Total Actual Amount Remaining to be Paid to the Contractor.

1150.08 CLAIMS SUBMISSION AND RESPONSE TO PROPOSED FINAL ESTIMATE

No later than thirty, (30) days after the Completion Date, the Contractor shall submit all its claims for additional payment to the County. After receipt of the proposed Final Estimate, but no later than thirty (30) days after the Completion Date, the Contractor shall also submit its written response to the estimate to the County.

1150.09 FINAL PAYMENT - NO CLAIMS SUBMITTED

If the Contractor submits written approval of the proposed Final Estimate or fails to submit either any claims or any other written response to the proposed Final Estimate within the required time, the Contractor shall be deemed to have approved the proposed Final Estimate, and no later than fifty five (55) days after the Completion Date, payment in the amount of the Total Actual Amount Remaining to be Paid to the Contractor shall be submitted to the Contractor by the County.

1150.10 SEMIFINAL ESTIMATE AND PAYMENT - CLAIMS SUBMITTED

If the Contractor submits written claims or other objections to the proposed Final Estimate within the required time, the Engineer shall issue a semifinal estimate, identifying the specific amounts withheld as disputed claim or other amounts pending resolution of the dispute and shall cause the semifinal estimate and payment in accordance with the estimate to be submitted to the Contractor by the County no later than fifty five (55) days after the Completion Date.

1150.11 CLAIMS CONTENT AND RESOLUTION

Claims submitted by the Contractor shall be in writing and shall set forth the nature of the claim, the amount claimed, the basis upon which the Contractor believes it is entitled to payment for the claim, and SUPPORTING documentation as appropriate to enable the Engineer to verify the information set forth in the claim. It shall be the responsibility of the Contractor to furnish within a reasonable time such information and details as may be required to determine the facts or contentions involved in each claim. Failure to submit such information and details shall be sufficient cause for denying the claim.

No claim may be submitted which has not been made in accordance with the requirements of **SECTION 1010.06, "CHANGES IN THE WORK," SECTION 1017.07, "TIME OF COMPLETION AND PAYMENTS TO COUNTY FOR DELAY, and SECTION 1150.05, "NOTICE OF POTENTIAL CLAIM."**

All claims shall also comply with, and shall be resolved in accordance with, **SECTION 1060.28, "RESOLUTION OF CONSTRUCTION CLAIMS."**

1150.12 FINAL PAYMENT AFTER CLAIMS DETERMINATION

If claims have been submitted, then upon proper authorization by, and after the completion of claims resolution procedures required pursuant to the Contract Documents, the Director of Public Works shall issue the County's final determination of the claims within a reasonable time. Concurrently, the Director of Public Works shall issue the Final Estimate, based upon the determination of claims. The Director of Public Works shall cause the determination and Final Estimate to be issued in writing to the Contractor.

Any final payment determined to be due to the Contractor pursuant to such final estimate shall be submitted by to the Contractor no later than thirty (30) days after the issuance of such Final Estimate.

1150.13 ACCEPTANCE OF FINAL AND SEMIFINAL PAYMENTS AS PAYMENT IN FULL FOR NON-DISPUTED WORK

Semifinal and final payments made by the County and accepted by the Contractor shall be conclusive and binding against both parties as establishing the full and complete compensation and the amount which the Contractor is entitled to be paid for the work for which the relevant semifinal or Final Estimate is issued and paid by the County.

Acceptance by the Contractor of semifinal payment based upon a semifinal estimate issued in accordance with the provisions of **SECTION 1150.09, "FINAL PAYMENT-NO CLAIMS SUBMITTED"** shall be deemed to constitute the Contractor's full and complete release of the

County from all claims or liability for payment and all work performed and labor and materials supplied for the Project except such work, labor, and/or materials as are expressly set forth in disputed claims for which no payment is made in such semifinal payment, and the Contractor shall be deemed to have waived any and all rights to submit any additional claims against the County pursuant to this Section or **SECTION 1060.28, "RESOLUTION OF CONSTRUCTION CLAIMS."**

Acceptance by the Contractor of Final Payment based upon the Final Estimate issued in accordance with the provisions of **SECTION 1150.09, "FINAL PAYMENT-NO CLAIMS SUBMITTED"** shall be deemed to constitute the Contractor's full and complete unconditional release of from all claims or other liability for payment for all work performed and labor and materials supplied for the Project, and the Contractor shall be deemed to have waived any and all rights to submit thereafter any claims against the County pursuant to this section or **SECTION 1060.28, "RESOLUTION OF CONSTRUCTION CLAIMS."**

1150.14 COUNTY'S RIGHT TO WITHHOLD CERTAIN AMOUNTS AND MAKE APPLICATION THEREOF

In addition to the amount which the County may retain as retention under, the above **SECTION 1150.03, "PROGRESS PAYMENTS AND RETENTION,"** the County may withhold a sufficient amount or amounts from any payment otherwise due to the Contractor as is necessary to cover:

1. Payments which may be past due and payable for properly filed claims against the Contractor or any Subcontractors for labor or materials furnished in or about the performance of the Work under this Contract, and the County's reasonable potential attorney's fees and other litigation costs related to enforcement of the claims as provided in **Civil Code Section 3186** when any such claim is set forth in a Stop Notice, or to the fullest extent such costs may be withheld as otherwise permitted by law. The amount withheld on the basis of a Stop Notice shall be no less than 125% of the claimed amount, excluding interest.
2. Amounts which the County is required to withhold pursuant to a court order, an order/directive issued by a public entity as authorized by law, or pursuant to duly-authorized action by a public entity assessing fines or penalties pursuant to applicable law.
3. Estimated or actual costs for correcting defective work not remedied;
4. Estimated costs if the Contractor does not update the Contractors Construction Schedule as required in **SECTION 1017.05, "PROGRESS SCHEDULE;"**
5. Estimated costs if the Contractor does not maintain the Record Drawings as required in **SECTION 1015.09, "RECORD DOCUMENTS;"** and

6. Amounts claimed by the Contractor as payments to the County for delay or other offsets.

The County may in its discretion apply such withheld amount or amounts to the payment of claims. In so doing, the County shall be deemed the agent of the Contractor and any payments so made by the County shall be considered as a payment made under the contract by the County to the Contractor, and the County shall not be liable to the Contractor for such payment made in good faith. Such payments may be made without prior judicial determination of the claim or claims. The County will render to the Contractor a proper account of such funds disbursed in behalf of the Contractor.

1150.15 WITHHELD RETENTION FUNDS: SUBSTITUTE SECURITY

As required pursuant to **Public Contract Code Section 22300**, a copy of which is set forth in **DIVISION 1, APPENDIX 1**, shall apply to this Contract to the extent required by law, and is incorporated herein by this reference.

Pursuant to **Public Contract Code Section 22300**, at the request, option, and sole expense of the Contractor, equivalent securities may be substituted for moneys withheld to ensure performance of the Contract, that is, for earned retention, or such earned retention amounts may be placed in an escrow account to ensure performance. (See **SECTION 1150.03, "PROGRESS PAYMENTS AND RETENTION"**).

To the fullest extent permitted by law, the County reserves the right to solely determine the adequacy of the securities being proposed by the Contractor and the value of those securities. The County shall be entitled to charge an administrative fee, as determined by the County in its sole discretion, for substituting equivalent securities for retention amounts. To the fullest extent permitted by law, the County's decisions with respect to the administration of the provisions of **Section 22300** shall be final and shall include, but not be limited to, determinations of what securities are equivalent, the value of the securities, the negotiability of the securities, the costs of administration and the determination of whether or not the administration should be accomplished by an independent agency or by the County. The County shall be entitled, at any time, to request the deposit of additional securities of a value designated by, the County, at the County's sole discretion, to satisfy this requirement. To the fullest extent permitted by law, if the County does not receive satisfactory securities within twelve (12) consecutive days of the date of the written request, the County shall be entitled to withhold, amounts due the Contractor until securities of satisfactory value to the County have been received.

1150.16 STOP NOTICE RELEASE BONDS

In the event the Contractor wishes to provide a release bond for any stop notice served on the County rather than allow the County to withhold any amount pursuant to the stop notice, the Contractor may provide to the County a release bond which meets the requirements set forth herein.

A stop notice release bond provided by the Contractor shall name as the obligee, shall meet the requirements set forth in **Civil Code Section 3196**, and shall be in a form and issued by a corporate surety approved by the County, which approval shall not be unreasonably withheld. The corporate surety shall comply with the definitions and other requirements for corporate sureties for bonds which the Contractor is otherwise required to provide pursuant to the Contract Documents. The corporate surety which issues a Stop Notice Release Bond shall not be the same surety as issued the Contractor's Labor and Materials Bond for the Project.

A Stop Notice Release Bond shall be issued in an amount equal to one hundred twenty-five percent (125%) of the amount claimed in the stop notice.

SECTION 1200 PROJECT MEETINGS

1200.01 PRECONSTRUCTION CONFERENCE

On the date designated by the County in written notice to the Contractor, prior to commencement of Work, and after the Contractor submits the signed Contract and other required documents to the County as required by **SECTION 32, "EXECUTION OF CONTRACT, PROPOSAL GUARANTEE, RETENTION, FORFEITURE, AND RELEASE,"** a preconstruction conference will be held to discuss procedures to be followed during the progress of the Work. The location of this conference will be at the offices of the ~~Inyo County Department of Public Works in Independence, California.~~ Attending will be the following:

1. Engineer
2. Contractor's designated representative
3. Major Subcontractors (one representative for each major subcontractor)
4. Others as appropriate

BPCSD

BPCSD Office
180 North Main Street
Big Pine, CA 93515

Periodic construction project meetings will be held in the Contractor's Field Office to discuss progress of the Work and billing percentage completion as work progresses. Attending will be the following:

1. Engineer
2. Contractor's Superintendent
4. Subcontractors, as appropriate to the agenda
5. Suppliers, as appropriate to the agenda.

The Contractor shall take all reasonable actions necessary to assure that Contractor and/or its representative, its Superintendent, and its relevant subcontractors and suppliers are present at such conference and meetings.

SECTION 1300 SUBMITTALS

1300.01 SHOP DRAWINGS GENERALLY

Shop drawings shall include, but are not limited to, fabrication, erection, layout formwork, falsework and manufacturers' standard drawings, samples, descriptive literature, catalogs, brochures, performance and test data, wiring and control diagrams, all other drawings and descriptive data pertaining to materials, equipment, piping, duct and conduit and wiring systems, and methods of construction as may be required to show that the materials, equipment, or systems and the positions conform to the Contract Documents.

Shop drawings, including without limitation samples and substitutions, for submittal to the County hereunder are also referred to herein as submittals.

1300.02 SAMPLES

The samples described in each section of the Specifications shall be submitted in duplicate at least 25 days prior to usage. Materials such as concrete, mortar, etc. which require on-site inspection shall be obtained from the Project Site. Samples must be of sufficient size and quality to clearly illustrate functional characteristics, with integrally related parts and attachment devices. Samples shall be marked showing the project name, contract number, name of manufacturer, catalog number, finish and segment of work where representative sample will be used and ASTM or FS reference if applicable. Unapproved samples and samples not incorporated in the Work shall be removed from County property, when directed by the Engineer.

1300.03 SUBSTITUTIONS

The Contractor may submit proposed substitutions for approval as "or (approved) equal" materials, processes, or articles pursuant to the criteria set forth in the Contract Documents and particularly in **SECTION 1400.01, "QUALITY AND SAFETY OF MATERIALS, PROCESSES, AND ARTICLES: "EQUALS".**

The Contract is based on the standards of quality established in the Contract Documents. Proposed substitutions will be considered only when identified as such and when substantiated by the Contractor's submittal of required data no later than thirty five (35) calendar days after the date of the Notice to Proceed. No substitution will be considered after the thirty five (35) day substitution submittal period. The Engineer will consider proposals for substitution of materials, processes, and articles only when accompanied by full and complete technical data and all other information required by the Engineer to evaluate the proposed substitution.

1300.04 SUBMITTAL FORM AND CONTENT

The Contractor shall review, give written approval (by mark, initials, etc.), and submit for review by the Engineer such Shop Drawings as required, or as the Contractor otherwise deems necessary or appropriate, for compliance with the Contract Documents, or as requested by the Engineer.

Six copies of each Shop Drawing shall be submitted, together with a submittal form provided by the County, to the Engineer by delivering them to the ~~Inyo County Public Works Department, at 168 North Edwards Street in Independence, California, or mailing them to the Department at P.O. Drawer Q, Independence, California 93526.~~ SEE SPECIAL PROVISIONS FOR LOCATION

Each Shop Drawing shall be complete in all respects. The Contractor shall provide all information on or with the Shop Drawing reasonably necessary for the evaluation of the submittal for compliance with the Contract Documents.

Each Shop Drawing shall state the date submitted, project name, Contractor name, and names of all relevant suppliers, manufacturers, and subcontractors. If the Shop Drawing shows any deviations from the Contract Documents requirements because of standard shop practices or other reasons, the deviations and the reasons therefor shall be set forth on, or as an attachment to, the submittal form. Material lists shall be complete as to the name of manufacturer, catalog number, size, capacity, finish, all pertinent ratings, and identification symbols used on the Plans, Specifications, and other Contract Documents.

If the Contractor is submitting a Shop Drawing for approval as an "or equal" substitution, the Contractor shall identify the submittal as a proposed substitution and shall otherwise comply with applicable requirements of SECTION 1400.01, "QUALITY AND SAFETY OF MATERIALS, PROCESSES, AND ARTICLES; "EQUALS"".

The Contractor shall submit Shop Drawings, with related information, with such promptness and in such orderly sequence as necessary to cause no delay in prosecution of the Work.

The Engineer may request that additional information be included in specified submittals as necessary to determine the quality or acceptability of such materials or products.

Parts lists and service instructions packaged with or accompanying the equipment installed in the Work shall be delivered to the Engineer at the jobsite.

Manufacturer's warranties for products installed in the Work shall be delivered to the Engineer at the jobsite.

Maintenance and operation Manuals shall be submitted to the County by the Contractor at the end of each phase of construction. The Contractor shall provide permanent quality manual of maintenance and operation for all material requiring operation or for which the manufacturer, supplier, or installer recommend maintenance (i.e., floor coverings, roofing, operating

mechanisms, electrical devices, paint, etc.). Manuals shall contain manufacturer's instructions and recommendations for proper operation and maintenance. Where applicable the maintenance manual shall include parts lists, sources of parts and service and program for frequency of maintenance. Three sets of each manual shall be provided to the County.

1300.05 ENGINEER REVIEW

No later than twenty (20) calendar days after receipt of said shop Drawings, the Engineer will return two of the copies of the shop drawings to the Contractor with any comments noted thereon.

If so noted by the Engineer, the Contractor shall correct the Shop Drawings and resubmit them in the same manner as specified for the original submittal. In the letter of transmittal accompanying resubmitted Shop Drawings, the Contractor shall direct specific attention to revisions other than the corrections requested by the Engineer on previous submittals.

If the Engineer fails to complete his review within the time allowance and if the Contractor's controlling operation which is a part of the critical path is delayed by reason of the delay in review, the Contractor may request an extension of time commensurate with the delay in completion of the work thus caused in accordance with **SECTION 1017.09, "EXTENSION OF TIME"** and **SECTION 1010.06, "CHANGES IN THE WORK"**.

The review by the Engineer is only of general conformance with the design concept of the Project and general compliance with the Plans and Specifications and shall not be construed as relieving the Contractor of the full responsibility for: providing materials, equipment, and work required by the Contract; the proper fitting and construction of the Work; the accuracy and completeness of the Shop Drawings; selecting fabrication processes and techniques of construction; and performing the Work in a safe manner.

No portion of the Work requiring a Shop Drawing submittal shall be commenced until the submittal has been reviewed by the Engineer and returned to the Contractor with a notation indicating that a resubmittal is not required.

1300.06 CHANGE ORDERS RELATED TO SUBMITTALS

If the Contractor believes that any Shop Drawing or communication relative thereto calls for changes in the Work for which the Contract amount or time for completion should be changed, he shall not proceed with the changes in the Work so called for, the procedures set forth in **SECTION 1010.06, "CHANGES IN THE WORK"** shall apply, and the Contractor shall promptly, and no later than seven (7) days after receipt of such drawing or communication, notify the Engineer in writing of his estimate of the changes in the Contract amount and time for completion he believes to be appropriate. Thereafter, the Contractor shall not proceed with such changes until either a written Contract Change Order covering such Work is signed by the

County and issued, or the Engineer specifically orders the Contractor in writing to proceed prior to issuance of a written Contract Change Order signed by the County.

No payment for changes in the Work called for in such Shop Drawing or communication, and no changes in the time for completion by reason of such changes will be made, unless Contractor has notified the Engineer in writing, no later than seven (7) days after the receipt of such drawing or communication, of the Contractor's estimate of the changes in the Contract amount and time for completion which he believes to be appropriate, and County signs and issues a written Contract Change Order for the changes.

1300.07 SUBMITTAL WARRANTY

By submitting a Shop Drawing, and expressly including, without limitation, a proposed substitution, the Contractor makes the following representations and warranties:

1. The Contractor represents that the submittal, including without limitation all material, equipment, articles, processes, and other work shown thereon, conforms to the Contract Documents, including without limitation the Plans and Specifications, or a change order duly signed and issued by County thereunder, excepting only those deviations set forth in writing as part of the submittal.
2. The Contractor expressly warrants that if installed into the Project, the work represented by the submittal will conform to the design requirements and all other applicable provisions of the Contract Documents.
3. The Contractor expressly warrants that the work represented by the submittal will conform to the submittal.
4. The Contractor acknowledges that the purpose of the submittal is to induce the County to authorize use of the work represented by the submittal as complying with the Contract Documents as to the material, process, or article, or its equal specified therein.
5. The Contractor acknowledges that the Contractor has independently selected the work submitted based upon the Contractor's skill and judgment and that the County may rely on the skill, judgment, and integrity of the Contractor in connection with the Contractor's representation that the work represented by the submittal will conform to the Contract Documents.
6. For a submittal which is a proposed substitution, the Contractor represents and warrants that the work represented by the submittal, i.e., the material, processes, and/or articles, is equal or better in every respect to, and will perform satisfactorily under the conditions and use indicated by the Contract Documents as, the material, process, and/or article specified in the Contract Documents.

1300.08 COST REDUCTION INCENTIVE

The Contractor may submit to the Engineer, in writing, proposals for modifying the Plans, Specifications or other requirements of the Contract for the sole purpose of reducing the total cost of construction. The cost reduction proposal shall not impair, in any manner, the essential functions or characteristics of the project, including but not limited to service life, economy of operation, ease of maintenance, desired appearance, or design and safety standards.

Cost reduction proposals shall contain the following information:

1. A description of both the existing Contract requirements for performing the Work and the proposed changes.
2. An itemization of the Contract requirements that must be changed if the proposal is adopted.
3. A detailed estimate of the cost of performing the Work under the existing Contract and under the proposed change. The estimates of cost shall be determined in the same manner as if the work were to be paid for on a force account basis as provided in **SECTION 1150.04, "PAYMENTS FOR CHANGES IN WORK."**
4. A statement of the time within which the Engineer is requested to make a decision thereon.
5. The Contract items of work affected by the proposed changes, including any quantity variation attributable thereto.

The provisions of this Section shall not be construed to require the Engineer to consider any cost reduction proposal which may be submitted hereunder. The County shall not be liable to the Contractor for failure to accept or act upon any cost reduction proposal submitted pursuant to this Section nor for any delays to the Work attributable to any such proposal.

The Contractor shall continue to perform the Work in accordance with the requirements of the Contract until an executed Contract Change Order, incorporating the cost reduction proposal has been issued. If an executed Contract Change Order has not been issued by the date upon which the Contractor's cost reduction proposal specifies that a decision thereon should be made, or such other date as the Contractor may subsequently have specified in writing, such cost reduction proposal shall be deemed rejected.

The Engineer shall be the sole judge of the acceptability of a cost reduction proposal and of the estimated net savings in construction costs from the adoption of all or any part of such proposal. In determining the estimated net savings, the right is reserved to disregard the Contract bid prices if such prices do not represent a fair measure of the value of work to be performed or to be deleted.

The County reserves the right where it deems such action appropriate, to require the Contractor to share in the County's costs of investigating a cost reduction proposal submitted by the Contractor as a condition of considering such proposal. Where such a condition is imposed the Contractor shall indicate his acceptance thereof in writing, and such acceptance shall constitute full authority for the County to deduct amounts payable to the County from any moneys due or that may become due to the Contractor under the Contract.

If the Contractor's cost reduction proposal is accepted in whole or in part, such acceptance shall be by a Contract Change Order, which shall specifically state that it is executed pursuant to this Section. Such Contract Change Order shall incorporate the changes in the Plans and Specifications which are necessary to permit the cost reduction proposal or such part of it as has been accepted to be put into effect, and shall include any conditions upon which the County's approval thereof is based if the approval of the County is conditional. The Contract Change Order shall also set forth the estimated net savings in construction costs attributable to the cost reduction proposal effectuated by the Contract Change Order, and shall further provide that the Contractor be paid fifty (50%) percent of said estimated net savings amount. The Contractor's cost of preparing the cost reduction incentive proposal and the County's costs of investigating a cost reduction incentive proposal, including any portion thereof paid by the Contractor, shall be excluded from consideration in determining the estimated net savings in construction costs.

Acceptance of the cost reduction proposal and performance of the work thereunder shall not extend the time of completion of the Contract unless specifically provided for in the Contract Change Order authorizing the use of the cost reduction proposal.

The amount specified to be paid to the Contractor in the Contract Change Order which effectuates a cost reduction proposal shall constitute full compensation to the Contractor for the cost reduction proposal and the performance of the work thereof pursuant to the said Contract Change order.

The County expressly reserves the right to adopt a cost reduction proposal for general use on Contracts administered by the County when it determines that said proposal is suitable for application to other contracts. When an accepted cost reduction proposal is adopted for general use, only the Contractor who first submitted such proposal will be eligible for compensation pursuant to this section, and in that case, only as to those Contracts awarded to him prior to submission of the accepted cost reduction proposal and as to which such cost reduction proposal is also submitted and accepted by County. Cost reduction proposals identical or similar to previously submitted proposals will be eligible for consideration and compensation under the provisions of this Section if the identical or similar previously submitted proposals were not adopted for general application to other contracts administered by the County. Subject to the provisions contained herein, the County or any other public agency shall have the right to use all or any part of any submitted cost reduction proposal without obligation or compensation of any kind to the Contractor.

This Section of the Specifications shall apply only to Contracts awarded to the lowest bidder pursuant to competitive bidding.

SECTION 1400 QUALITY CONTROL

1400.01 QUALITY AND SAFETY OF MATERIALS, PROCESSES, AND ARTICLES; "EQUALS"

All materials, processes, and articles shall be of the quality specified in the Contract Documents.

When the quality of a material, process, or article is not specifically set forth in the Plans and Specifications, the best available quality of materials, processes, or article shall be provided.

All materials and articles, including without limitation, equipment and supplies, to be incorporated in the Work shall be new, unless otherwise specified. All such materials and articles shall be produced in a good and workmanlike manner.

Whenever any material, process, or article is indicated or specified by grade, patent or proprietary name, or by name of manufacturer, such specification shall be deemed to be used for the purpose of facilitating description of the materials, process, or articles desired and shall be deemed to be followed by the words "or (approved) equal." Accordingly, for such material, process, or article, the Contractor may utilize any material, process, or article which is substantially equal or better in every respect to that specified in the Contract Documents.

However, if the material, process, or article submitted or utilized by the Contractor is not substantially equal or better in every respect to that specified, then the Contractor must furnish the material, process, or article specified or one that is the substantial equal or better in every respect. In the event that the Contractor furnishes any material, process, or article more expensive than that specified, the difference in cost of such material, process, or article so furnished shall be borne by the Contractor.

In accordance with **Public Contract Code Section 3400**, the Contractor shall submit data substantiating requests for substitution of such "equal" items no later than thirty five (35) days after award of the contract. This thirty five (35) day period of time is not intended and shall not be construed to extend or otherwise alter the number of days allowed for the completion of the Work.

All materials and articles, including without limitation, equipment and supplies provided, and all processes utilized, shall, without additional charge to the County, fully conform with all applicable State and Federal safety laws, rules, regulations, and orders, and it shall be the Contractor's responsibility to provide such materials, processes, and articles notwithstanding any omission or error in the Contract Documents therefor, or that a particular material, process, or article was specified.

1400.02 SAMPLES AND TESTS

A. GENERAL RESPONSIBILITIES

The County shall provide for all tests and inspections required by the Contract Documents and governmental agencies having Jurisdiction and any additional tests and/or inspections the County deems necessary or appropriate to confirm the Contractor's compliance.

The County shall be responsible for payment for (a) costs and expenses for any services by consultant laboratories, engineers, or other parties retained by the County to provide tests or inspections, (herein referred to as "Lab/Inspectors"), and (b) any fees associated with tests and/or inspections by other governmental agencies having jurisdiction, unless otherwise expressly provided in the Contract.

The Contractor shall coordinate all work and schedules to allow for timely performance of required tests and inspections. The Contractor shall review specific requirements for required tests and inspections, prepare the Work, and notify the Engineer of readiness and availability for testing and/or inspection, as necessary for execution of said tests and inspections in a prompt manner in order to avoid causing any delay in the Work.

The Contractor shall furnish without charge such samples for testing as may be requested by the Engineer.

All Work (which term includes but is not restricted to materials, workmanship, and manufacture and fabrication of components) shall be subject to inspection and test by the Engineer at all reasonable times and at all places prior to acceptance. Any such inspection and test is for the sole benefit of the County and shall not relieve the Contractor of the responsibility of providing quality control measures to assure that the work strictly complies with the Contract requirements. No inspection or test by the Engineer shall be construed as constituting or implying acceptance. Inspection or testing shall not relieve the Contractor of responsibility for damage to or loss of the material prior to acceptance of the completed Work. The Contractor shall furnish promptly, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspection and test as may be required by the County.

All inspection and tests by the County shall be performed in such manner as will not unnecessarily delay the Work. The County reserves the right to charge to the Contractor any additional cost of inspection or test when material or workmanship is not ready at the time specified by the Contractor for inspection or test or when reinspection or retest is necessitated by prior rejection.

If the County deems it necessary or advisable at any time before acceptance of the entire Work to make an examination of work already completed, by removing or tearing out such work, the Contractor shall, on request, promptly furnish all necessary facilities, labor, and material. If

such work is found to be defective or nonconforming in any material respect, due to the fault of the Contractor or his Subcontractors, he shall defray all the expenses of such examination and of satisfactory reconstruction. if, however, such work is found to meet the requirements of the Contract, and the examination was not caused indirectly or directly by the Contractor's failure to comply with the Contractor's obligations hereunder, the Contractor may make written request for an equitable adjustment in the Contract price to compensate the Contractor for the additional services involved in such examination and reconstruction and, if completion of the Work has been delayed thereby, for a suitable extension of time.

B. REFERENCES TO TESTS

Tests shall be made in accordance with commonly recognized procedures of technical organizations and such special procedures as may be prescribed elsewhere in the Contract Documents, including with limitation:

1. ASTM C3740-80 - Practice for Evaluation of Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
2. ASTM E329-77 (1983) - Standard Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in construction.

C. RESPONSIBILITIES OF LAB/INSPECTORS AND CONTRACTOR

The Contractor and the County acknowledge and agree that the roles and responsibilities of Lab/Inspectors and the Contractor in testing and inspection are as follows:

1. LAB/INSPECTORS. It shall be the responsibility of Lab/Inspectors to:
 - a. Secure and handle all samples and specimens required for testing or inspection in consultation with the Engineer, or to assist the Engineer as requested by the Engineer, in securing such samples and specimens.
 - b. Test samples and specimens; inspect work.
 - c. Provide qualified personnel at site after due notice. Cooperate with the Engineer and Contractor in the performance of services.
 - d. Perform specified inspection, sampling, and testing of products in accordance with specified requirements in the Contract Documents with requirements of applicable governing authorities, and with reference standards.
 - e. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - f. Promptly notify the Engineer and the Contractor of observed irregularities or nonconformance of work or products.
 - g. Perform additional inspections and tests as requested and required by County.
 - h. Attend preconstruction conferences and progress meetings upon request by the Engineer.

Lab/Inspectors have no authority to:

- a. Release, revoke, alter, or enlarge on requirements of Contract Documents.
- b. Approve or accept any portion of the Work.
- c. Assume any duties of the Contractor.
- d. Require the Contractor to stop work.

2. CONTRACTOR. It shall be the responsibility of the Contractor to:

- a. Notify appropriate Lab/Inspectors and the Engineer at least seventy two (72) hours in advance of time for the need for testing.
- b. Furnish required samples without charge and give sufficient notice of placing of orders to permit testing.
- c. Cooperate with Lab/Inspector personnel and provide access to the Work.
- d. Provide incidental labor and facilities to provide access to the work to be tested, to assist Lab/Inspector and/or Engineer obtain and handle samples at the site or at source of products to be tested, to facilitate tests and inspections and for storage and curing of test samples.
- e. Refrain from using material or equipment represented by samples until tests, if required, have been made and materials or equipment found to be acceptable.
- f. Refrain from incorporating any product into the Work which becomes unfit for use after acceptance thereof.

D. REQUIRED TESTS AND INSPECTIONS

Required tests and inspections include the following tests and inspections, together with all others expressly required by the provisions of the Contract Documents, Standard Specifications and otherwise by applicable law:

1. SOIL INSPECTING AND TESTING

Required soils and related inspections and tests include, but are not necessarily limited to:

- a. Visually inspect on-site and imported fill and backfill, making such tests and retests as are necessary to determine compliance with the Contract requirements and suitability for the proposed purpose;
- b. Make field density tests on samples from in-place material as required;
- c. As pertinent, inspect and test the scarifying and recompact of cleaned subgrade; inspect the progress of excavating, filling, and grading; make density tests at fills and backfills; and verify compliance with provisions of the Contract Documents, Standard Specifications and governmental agencies having jurisdiction.

2. MASONRY

A. Concrete Masonry Units:

1. The Contractor shall require supplier of units to furnish to the County recent (within one month) representative test reports and certificates of compliance to the test requirements specified below. If units are not certified, the County shall have Lab/Inspectors sample and test units at the Contractor's expense.
2. Sample and test in accordance with ASTM C140 to comply with requirements of ASTM C90.

B. Cement:

1. Test or certify as specified in Paragraph 3, "Concrete Inspecting and Testing."

C. mortar:

1. The Lab/Inspector shall sample and test 2 x 4 cylinders one pair made on each of the first three (3) consecutive days of work.

D. Grout:

1. Sample and test prisms, sampled by the Lab/Inspector at the same frequency as mortar, made by filling cells in concrete block used for construction. Molds will be broken away after the specimen has set. Specimens will be tested in vertical position.

3. CONCRETE INSPECTING AND TESTING

A. Portland cement:

1. The Contractor shall cause the cement manufacturer to provide Certificates of Compliance and deliver them directly to the concrete producer for further delivery directly to the Lab/Inspector, and subsequently to the Engineer.
2. The Contractor shall require the Certificates of Compliance to positively identify the cement as to production lot, bin or silo number, dating and routing of shipment, and compliance with the specified standards.
3. If so required by the Engineer, the Contractor shall promptly provide such other specific physical and chemical data as requested.

B. Aggregate:

1. Provide one test unless character of material changes, material is substituted, or additional test is requested by the Engineer.

2. Sample from conveyor belts or batching gates at the ready-mix plant:
 - a. Sieve analysis to determine compliance with-specified standards and grading;
 - b. Specific gravity test for compliance with specified standards.

C. Laboratory design mix:

1. After approval of the aggregate, and whenever the character or source of materials is change, the Contractor shall provide a mix design in accordance with ACI 613.
2. The Contractor shall provide designs for all mixes prepared by a licensed-civil engineer.
3. The Contractor shall pay the cost of a design mix prepared by a laboratory retained by the County.

D. molded concrete cylinders:

1. Provide three (3) test cylinders for each one hundred fifty (150) cubic yds., or fraction thereof, of each class of concrete of each day's placement.
2. Test one cylinder at seven (7) days, one at twenty eight (28) days, and one when so directed.
3. Report the mix, slump, gage, location of concrete in the structure, and test results.
4. Take specimens and made tests in accordance: with the applicable ASTM standard specifications.

E. Core tests:

1. Provide only when specifically so directed by the Engineer because of low cylinder test results.
2. Cut from locations directed by the Engineer, securing in accordance with ASTM C42, and prepare and test in accordance with ASTM C39.

F. Placement inspections:

1. Throughout progress of concrete placement, make slump tests to verify conformance with specified slump.
2. Using all required personnel and equipment, throughout the progress of concrete placement verify that finished concrete surfaces have the level or slope that is required by the Contract Documents.

4. CONCRETE REINFORCEMENT INSPECTING AND TESTING

A. Prior to use, test all reinforcement steel bars for compliance with the specified standards.

1. Material identified by mill test reports, and certified by the Lab/Inspector, does not require additional testing. The Contractor shall require the supplier to furnish mill test reports to the Lab/Inspector for certification.

2. The Contractor shall tag identified steel at the supplier's shop. No steel shall arrive at the job site without such tags.
- B. Continuous inspection for all welding of reinforcement steel is required.
5. STRUCTURAL STEEL INSPECTING AND TESTING
- A. Prior to use, test all structural steel for compliance with the specified standards.
- B. Unidentified steel: The Lab/Inspector shall make one tensile test and one bend test for each five (5) tons or fraction thereof of each shape and size of unidentified structural steel.
- C. Shop welding:
1. On single pass welds, inspect after completion of welding and prior to painting.
 2. On, multiple pass welds, and on butt welds with cover pass on the back side, continuous inspection is required.
- D. Field welding:
1. Inspection shall be required as deemed necessary by the County.

6. ROOFING AND WATERPROOFING INSPECTING AND TESTING

- A. Prior to the start of waterproofing and membrane roofing installation, conduct a job site meeting attended by representatives of the material suppliers' installing subcontractor, the Contractor's field superintendent, the County inspector, and the Engineer, to agree upon procedures to be followed.
- B. Prior to the start of installation, verify that materials at the job site comply with the specified standards, that the subcontractor is qualified to the extent specified, and that the installing personnel are fully informed as to procedures to be followed.
- C. During installation, verify that materials are installed in strict accordance with the manufacturers' recommendations as approved by the Engineer. Submittals shall be used to verify compliance.
- D. When so directed by the Engineer, the Contractor shall make test cuts to verify conformance with the specified requirements.
- E. The Contractor shall pay all costs of patching at areas of test cuts.

1400.03 OBSERVATION OF WORK BY ENGINEER

The Engineer and the County's Representative shall at all times have safe access to the Work during construction and shall be furnished with every reasonable facility for ascertaining full knowledge respecting the progress, workmanship and character of materials and equipment used and employed in the Work.

Whenever the Contractor varies the normal period during which work or any portion of it is carried on each day, he shall give at least forty eight (48) hours prior notice to the Engineer so that the Engineer may be present to observe the work in progress. If the Contractor fails to give such forty eight (48) hours notice, any work done in the absence of the Engineer will be subject to rejection.

The Contractor shall give at least forty eight (48) hours prior notice to the Engineer in advance of backfilling or otherwise covering any part of the work so that the Engineer may observe such part of the work before it is concealed.

If Saturday, Sunday, Holiday, or overtime work is to be performed, the County Engineer's office shall be notified at least forty eight (48) hours in advance thereof.

Neither the Contractor nor his employees shall intimidate the Engineer or, any of his representatives.

Intimidation by an employee of the Contractor shall be sufficient cause, at the request of the Engineer, for permanent dismissal of such employee from the Work.

Intimidation by the Contractor shall be due cause for termination of the Contract.

1400.04 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

Any work which does not conform to the requirements of the Contract Documents shall be remedied or removed and replaced by the Contractor, together with any other work which may be displaced in so doing and no compensation will be allowed him for such removal, replacement or remedial work. All nonconforming materials shall be immediately removed from the site.

Any work done beyond the lines and grades shown on the plans or established by the Engineer or any changes in, additions to, or deductions from the Work done without written Contract Change Order will be considered as unauthorized and will not be paid for. Work so done may be ordered remedied, removed or replaced at the Contractor's expense.

Upon failure on the part of the Contractor to comply promptly with any order of the Engineer requiring removal, replacement or remedial work pursuant to this **SECTION 1400.04**,

“REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK”, the Engineer shall have authority to cause nonconforming materials, rejected work or unauthorized work to be remedied, removed or replaced at the Contractor's expense and to deduct the costs from any moneys due or to become due the Contractor.

1400.05 ONE-YEAR GUARANTEE; REMEDIAL WORK COSTS AND REQUIREMENTS

The Contractor shall and hereby does guarantee the Work for a period of one year (herein the "Guarantee Period") against any and all defects in workmanship and/or materials.

The Guarantee Period for all Work which constitutes the Project shall begin on the date of acceptance ("Acceptance Date") of the completed Project by the County, excepting only that, for work which constitutes a portion of the Project utilized or placed in service by County prior to the Acceptance Date pursuant to **SECTION 1017.11, "USE OF COMPLETED PORTIONS"** the Guarantee Period shall begin on the date of the written notice by the County to the Contractor of the County's determination to utilize or place in service said portion pursuant to said Section.

At the Contractor's sole expense and at no expense to the County, the Contractor shall repair, remove, and/or replace any work reasonably determined within the Guarantee Period by the Contractor or the County to be defective in workmanship and/or materials, together with any and all work which is displaced, damaged, or partially or wholly destroyed in the course of or as the result of such repair, removal, or replacement, all of which shall also be referred to herein as "Remedial Work."

The County may give the Contractor written notice of defects in workmanship and/or materials. No later than ten (10) days after receipt of such notice, the Contractor shall complete all necessary or appropriate Remedial Work or, if such Remedial Work cannot reasonably be completed by that date, the Contractor shall begin such Remedial Work by that date and shall diligently prosecute it to completion. If the Contractor fails to do so, the County may cause the Remedial Work to be done by the County or a third party.

The County may reasonably determine that the defective work requires immediate remedial action either (a) because the defective work creates a dangerous condition, or otherwise presents an unreasonable risk of harm to persons or property, unless it is promptly remedied, or (b) because immediate remedial action is needed in order to prevent further damage to the County, including without limitation direct monetary loss to the County or interruption of the operations of the County, and that to delay the Remedial Work in order to notify the Contractor and/or allow time for its completion as otherwise set forth herein, is likely to present an unreasonable risk of harm to the County, other persons, or property.

If the County makes such a determination, notwithstanding the foregoing or any other provision of this Contract to the contrary, the County shall make reasonable efforts to notify the

Contractor and provide the Contractor the opportunity to perform the Remedial Work, but if such notification is not reasonably possible or if the Contractor fails or refuses to perform the Remedial Work within the time requested by the County, the County may cause the Remedial Work to be done by the County or a third party.

All Remedial Work shall be done at the Contractor's sole expense and at no expense to the County. If the County causes Remedial Work to be done by the County or a third party pursuant to rights granted to the County pursuant to this Section, the Contractor shall pay all costs and expenses reasonably incurred by the County in connection with such Remedial Work, plus fifteen percent (15%) of such costs and expenses for the County's overhead expenses. The Contractor shall make such payment to the County no later than thirty five (35) days after the date of the written notice by the County to the Contractor stating the nature of the Remedial Work, the costs and expenses, and the overhead expenses.

The Contractor's Faithful Performance Bond and the Labor and Material Payment Bond required by this Contract shall remain in full force and effect for the Guarantee Period and for such period thereafter as required to cover all Remedial Work performed by Contractor pursuant to this Section.

The guarantee established pursuant to this Section is not intended, and shall not be construed, to limit in any way, or to waive in any manner, the guarantee or warranty on any work, including without limitation, any materials, supplies, equipment, or furnishings, provided by the Contractor pursuant to the Contract Documents for which the manufacturer or supplier grants a more extensive guarantee or warranty. The Contractor agrees to be obligated as a co-guarantor or co-warrantor with such manufacturer or supplier and shall furnish the County all applicable guarantee and warranty certificates as a prerequisite to the County's acceptance of the Project.

No guarantee or warranty period set forth in this Section or in any other document shall limit the liability of the Contractor, his insurers, or his sureties pursuant to the indemnity or insurance provisions of the Contract, that is, **SECTIONS 1060.11, "INDEMNITY" and SECTION 700, "INSURANCE, DEFENSE AND INDEMNIFICATION."**

SECTION 1500 CONSTRUCTION FACILITIES & TEMPORARY CONTROLS

1500.01 ILLUMINATION OF WORK

When any work is performed at night, or in a tunnel, or in any other place where daylight is shut off or obscured, the Contractor shall at his own expense provide artificial illumination sufficient for the proper conduct and thorough inspection of the Work.

1500.02 CONTRACTOR TO FURNISH WATER

The Contractor shall furnish all water necessary for the conduct of operations under this Contract.

Should it be necessary to use County or City water from low pressure hydrants, the Contractor shall first obtain a permit from the Chief of the Fire Department for use of hydrants for authorized purposes. The permit shall then be filed with the Department of Water & Power or other appropriate regulatory or utility agency, together with the application for water supply.

1500.03 SANITARY FACILITIES

Sanitary facilities shall be provided for the use of the workmen.

Sanitary facilities shall be available for use at the site prior to the start of Work in the field. The sanitary facilities shall be provided, maintained, relocated, and removed by the Contractor at the direction of the Engineer. The Contractor shall obey and enforce such sanitary regulations as may be prescribed by the Environmental Health Department, of Inyo County.

B. Removed Equipment and Materials. The Contractor shall salvage as the property of the County all removed equipment, appurtenances and other materials not specified to be reused in the work except those not wanted by the County which the Contractor shall remove from the site as his property and dispose of in a legal manner.

1500.04 FIELD OFFICE

When required in the Special Provisions, the Contractor shall provide, maintain, and subsequently remove as his property, a field office of one of the two standard types, as therein specified, for the free and exclusive use of the Engineer and his representatives.

The field office, equipped as specified, shall be available at the site for the Engineer's use prior to the start of any work in the field under the contract. The field office shall be located where directed, and relocated when necessary. The field office shall be secured with keyed cylinder-type locks. The Contractor shall maintain the field office and its appurtenances in good repair and acceptable appearance and shall provide daily cleaning service and constant maintenance and replenishment, as applicable, of paper towels, paper cups, soap, toilet paper, bottled water service with hot and cold water faucets, telephone service, electric lighting and electric heating.

The Contractor shall be responsible for the safety of engineering instruments and equipment belonging to the County and stored in the field office, and shall provide steel locker space for such storage.

Standard type field offices shall be trailer type mobile structures with the following features:

- All metal frame
- AU metal exterior, sides and roof
- Security guard screens on all windows
- Cylinder lock on door, with 2 keys
- Toilet and wash basin in separate compartment in office
- Insulated double walls, floor and roof
- Self contained, built-in electric heater with fan that may be used for cooling
- Fluorescent ceiling lights
- 110-volt electric wall plugs on all walls
- Minimum interior height 7 feet
- Minimum interior width 7 feet
- Railed stairway to entrance door
- Steel locker attached to wall
- Sign on office reading: "Resident Engineer";
- and shall have the features and contain the equipment and facilities hereinafter indicated:

	Type A Large	Type B Small
Minimum Interior Length	30 feet	15 feet
Doors	2	1
Windows	4	2
Bottled water service with hot and cold faucets	1	1
Wash basin	1	1
Paper towel dispenser with towels	1	1
Paper cup dispenser with cups	1	1
Desks - 3011 x 6011	2	1
Swivel Chairs	2	1
Straight Chairs	2	2
Drafting table 31 x 61	1	1
Drafting stool	1	1
4-drawer steel file case with lock	1	0

Plan rack and plan hangers	1	1
Bookcase	1	1
Waste paper basket	2	1
Clothes hangers	1	1
First aid kit	1	1
Telephone - one party unlimited		

In the event the contract cost exceeds one million dollars (\$1,000,000) or the time of completion exceeds two hundred fifty (250) working days, the Contractor shall provide a photocopying machine in addition to the above requirements. The photocopying machine shall be the dry copying type using ordinary, commonly available paper.

SECTION 1600 MATERIALS AND EQUIPMENT

1600.01 MATERIALS AND EQUIPMENT

All equipment, materials and supplies to be incorporated in the Work shall be new, unless otherwise specified. All equipment, materials and supplies shall be produced in a good and workmanlike manner. When the quality of a material, process or article is not specifically set forth in the Plans and specifications, the best available quality of the materials, process or article shall be provided.

Whenever any material, process or article is indicated or specified by grade, patent or proprietary name or by name of manufacturer, such specification shall be deemed to be used for the purpose of facilitating description of the materials, process or articles desired and shall be deemed to be followed by the words "or (approved) equal," and the Contractor may offer any materials, process or article which shall be substantially equal or better in every respect to that so indicated or specified; provided, however, that if the material, process or article offered by the Contractor is not, equal or better in every respect to that specified, then the Contractor must furnish the material, process or article specified or one that is the substantial equal or better in every respect. In the event that the Contractor furnishes material, process or article more expensive than that specified, the difference in cost of such material, process or article so furnished shall be borne by the Contractor.

In accordance with **Section 3400 of the Public Code**, the Contractor shall submit data substantiating requests for substitution of "equal" items within thirty five (35) days after award of the contract. This thirty five (35) day period of time is included in the number of days allowed for the completion of the Work.

All materials, equipment, and supplies provided shall, without additional charge to the County, fully conform with all applicable State and Federal safety laws, rules, regulations, and orders and it shall be the Contractor's responsibility to provide such materials, equipment and supplies notwithstanding any omission or error in the contract documents therefor, or a particular material, equipment or supply was specified.

SECTION 1650 STARTING OF SYSTEMS/COMMISSION

1650.01 EQUIPMENT TO BE PUT IN TO OPERATION AND FAILURE OR FAULTY PERFORMANCE THEREOF CORRECTED

Before acceptance of the Work, the Contractor shall put the mechanical and electrical systems and all related equipment and appurtenances installed, relocated, modified or repaired, as the case may be, to the extent of the work actually performed under the Contract, in satisfactory and legal operation. He shall do all testing, timing, adjusting and other operations necessary to insure proper functioning of such systems and equipment in all respects in the manner contemplated.

Final adjustment of equipment shall be as determined in the field by the Engineer.

Failure or faulty performance of any equipment, furnished, installed, 'relocated, modified, or repaired, as the case may be, under the contract, will be considered "defective work" as specified in **SECTION 1400.04, "REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK."**

The Contractor shall furnish all labor, materials, equipment and tools, and shall defray all other expenses in connection therewith, to satisfactorily repair or replace, as necessary, as determined by the Engineer, all equipment, auxiliaries and appurtenances, to the extent of the hereinbefore defined responsibility therefor, that have failed or have performed in a faulty manner, and shall thereupon put such equipment and appurtenances into satisfactory operation.

SECTION 1700 CONTRACT CLOSEOUT

1700.01 CONTRACT CLOSEOUT

Prior to the final inspection as described in **SECTION 1150.06, “FINAL ESTIMATE, FINAL PAYMENT AND CLAIMS”**, the Contractor shall follow the conditions as described in this Section.

When the Contractor considers the Work is complete, he shall submit written certification to the County's Representatives that:

1. The Contract Documents have been reviewed.
2. The Work has been inspected for compliance with the Contract Documents.
3. The Work has been completed in accordance with the Contract Documents.
4. The Equipment and systems have been tested in the presence of the Owner's Representatives and are operational.

The County's Representatives will make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.

Should the County's Representatives consider that the Work is incomplete or defective:

1. The Engineer will promptly notify the Contractor in writing, listing the incomplete or defective Work. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in compliance with the Contract Documents.
2. The Contractor shall take immediate steps to remedy the stated deficiencies, and send a second written certification to the County's Representatives that the Work is complete.
3. The County's Representatives will then reinspect the Work.

Should the County's Representatives perform reinspections due to failure of the Work to comply with the Contract, a deduction for the reinspections costs will be made from the final payment to the Contractor.

The Contractor shall provide to the Engineer evidence proving compliance with requirements of governing authorities including: certificates of compliance, certificates of mechanical inspection and etc. as the Project warrants.

SECTION 1800 MAINTENANCE

DELETED

DIVISION 2 EARTHWORK

SECTION 2010 SUBSURFACE INVESTIGATION

2010.01 SUBSURFACE INVESTIGATION

Where the County has made investigations of site conditions including subsurface conditions in areas where work is to be performed under the Contract, or in other areas, some of which may constitute possible local material sources, such investigation are made only for the purpose of study and design. Where such investigations have been made, bidders or Contractors may, upon written request, inspect the records of the County as to such investigations subject to and upon the conditions hereinafter set forth. Such inspection of records may be made at the Inyo County Public Works Department, Independence, California. The records of such investigations are not a part of the Contract and are shown solely for the convenience of the bidder or Contractor. It is expressly understood and agreed that the County assumes no responsibility whatsoever in respect to the sufficiency or accuracy of the investigations thus made, the records thereof, or of the interpretations set forth therein or made by the county in its use thereof and there is no warranty or guaranty, either express or implied, that the conditions indicated by such investigations or records thereof are representative of those existing throughout such areas, or any part thereof, or that unlooked-for developments may not occur, or that materials other than, or in proportions different from those indicated, may not be encountered.

When a log of test borings or other record of geotechnical data obtained by the County's investigation of subsurface conditions is included with the Plans, it is expressly understood and agreed that said record does not constitute a part of the Contract, represents only the opinion of the County as to the character of the materials or the conditions encountered by it in its investigations, is included in the Plans only for the convenience of bidders and its use is subject to all of the conditions and limitations set forth in this Section.

SECTION 2050 DEMOLITION

2050.01 GENERAL

Before the initiation of demolition, the Contractor shall perform an engineering survey of the structure to be demolished to determine the condition of the structure, with emphasis upon the possibility of unplanned collapse of any portion. The Contractor shall maintain written evidence of the engineering survey. If in the opinion of the Engineer any portion of the structure is deemed unsafe, shoring or bracing shall be used to insure the safety of the demolition team.

The Contractor shall prepare a workplan outlining the demolition procedures.

Any public thoroughfares in the demolition area shall be protected and properly identified. Where sidewalk sheds are used, these shall have a load limit of at least one hundred fifty (150) lb/ft, and the workplan shall not allow any falling material onto the deck area. Where removal of materials is through chutes, material should not be dropped to any point outside the exterior walls of the building, except through enclosed wooden or metal chutes, unless there is no danger to adjacent buildings or thoroughfares. When chutes are at an angle of more than forty five (45°) degrees from the horizontal, they shall be enclosed on all sides.

In removing walls, masonry wall or sections will not be allowed to fall on to lower floors. Structural or load-bearing walls will not be removed until the upper floors have been completely demolished and removed. Blasting will not be allowed.

Only stairs, passageways and ladders designated as a means of access are to be used by any persons entering the building under demolition. Other access ways are to be completely closed off at all times.

In mechanical demolition, the weight of the demolition ball must not exceed fifty percent (50%) of the crane's rated load, based on the length of the boom and the maximum angle of operation, nor shall it exceed twenty five percent (25%) of the nominal breaking strength of the line by which it is suspended, whichever results in a lesser value. The ball is to be attached to the load line with a swivel-type connection and shall be attached by positive means so that it cannot become accidentally disconnected.

2050.02 REMOVING PORTIONS OF EXISTING FACILITIES.

Portions of the existing facilities which interfere with the building work shall be removed to the limits shown on the Plans to provide for alterations. Removal shall be done carefully to minimize damage to the portions to remain. Remaining portions that are damaged by the Contractor's operation shall be restored to original condition at the Contractor's expense.

Attention is directed to "Relocating Materials and Equipment," in the Special Provisions.

Surfaces that are exposed to view at the limits of removal work shall be patched, bumps shall be removed and depressions filled, and the surface shall be finished to match the existing surrounding surfaces. Depressions in concrete less than one inch deep shall be deepened to one inch minimum depth before filling with cement mortar.

Anchor bolts and reinforcement shall be removed at least one inch below the surrounding surfaces, and the resulting hole shall be patched with cement mortar.

A saw cut approximately one (1") inch deep and on a straight true line shall be made in exposed surfaces at boundaries of masonry and concrete to be removed.

Surplus removed materials shall be disposed of away from the premises. Such disposal shall conform to the laws, rules, and regulations of all agencies having jurisdiction at the disposal site.

2050.03 RELOCATING MATERIALS AND EQUIPMENT

Existing materials and equipment shown on the Plans to be relocated shall be removed, and installed at their respective new locations.

Removal of materials or equipment to be relocated shall be done carefully to avoid damage to the removed materials or equipment or to the materials or equipment to remain. Assemblies to be relocated which require dismantling for removal shall be matchmarked before dismantling.

Materials or equipment to be relocated shall have all adhering concepts, mastics, earth or other deleterious materials removed and shall have all exterior surfaces cleaned.

Materials or equipment that are damaged by the Contractor shall be replaced or restored to their original at the Contractor's expense.

Connections, anchorages and fasteners for relocated materials and equipment shall match existing and shall be furnished and installed by the Contractor. Assemblies which have been dismantled shall be reassembled to match the existing installation. Relocated materials and equipment shall be installed as required for new work.

Modifications to wiring and plumbing to accommodate relocated items shall match existing. Ends of piping and conduits to be abandoned shall be capped.

Surplus removed materials and equipment shall be disposed of away from the premises. Such disposal shall conform, to the laws, rules and regulations of all agencies having jurisdiction at the disposal site.

9800 - TANK COATING AND PAINTING SPECIFICATION

PART 1 - GENERAL

1.1 PURPOSE

- A. The purpose of this specification is to establish methods and procedures for coating, curing of coating, painting and handling of hazardous and non-hazardous materials/wastes for the interior and exterior surfaces of the steel water tank.

1.2 SCOPE OF WORK

- A. The Contractor shall furnish all labor, equipment and materials as required by these specifications for a 500,000 gallon welded steel water storage tank with a 61 ft. diameter and a 24 ft. height. The dimensions are approximate only and shall be field verified by the Contractor prior to bidding.
- B. Work to be accomplished includes application of protective coatings to interior surfaces and paints to exterior surfaces, including surface preparation, handling of hazardous and non-hazardous materials/wastes, disinfection of interior surfaces and other work necessary to accomplish the approved end result. The following items are required on the tank, except as otherwise noted, generally as follows:
 - 1. Remove all interior coatings by abrasive blast cleaning.
 - 2. Apply a three-coat epoxy coating system to all interior surfaces noted in 1. above.
 - 3. Electrically detect epoxy coating system noted in 2. above and repair as required.
 - 4. Cure interior epoxy coating as specified herein.
 - 5. Test, handle and dispose of coating wastes in conformance to all regulations.
 - 6. Apply a flexible sealant to inaccessible voids as designated by the Engineer and all roof lap seams.
 - 7. Wash down interior surfaces and disinfect complete interior.
 - 8. All damaged surfaces from structural modifications, new appurtenances, and one foot past both roof hatches shall be abrasively blast cleaned or other approved method.
 - 9. Apply specified primer to all prepared surfaces noted in 8. above.
 - 10. Apply intermediate and finish coats of paints to surfaces noted in 9. above.
 - 11. Test, handle and dispose of hazardous and non-hazardous wastes generated from exterior painting operations in conformance to all regulations.

- C. Surfaces not to be painted include fencing, concrete surfaces, liquid level indicator accessories, glass, plastic, nameplates, and other surfaces on which coatings or paints would not adhere or would interfere with operation of specific item.
- D. If severely corroded or damaged areas are discovered during the course of abrasive blast cleaning operations, the Contractor shall notify the Engineer or authorized representative. Welding and repair of severely corroded areas of tank and other mechanical repairs may be required during project.
 - 1. The Contractor shall allow the District access to make tank repairs while the existing coatings or paints are being removed. The District reserves the option to repair the tank structure with:
 - a. Change order to the contract.
 - b. District employees.
 - c. A separate Contractor.
 - d. Any combination of the above.
 - 2. A time extension will be issued should structural repairs preclude abrasive blast cleaning and/or coating or paint application. Preparation work shall continue while tank repairs are being made. The time extension will assume the Contractor will be able to re-mobilize and begin coating and painting within two weeks of notification. No additional time will be granted to permit the Contractor to complete other projects prior to this project.

1.3 REFERENCE SPECIFICATIONS AND STANDARDS

- A. Without limiting the general aspects or other requirements of this specification, work and equipment shall conform to applicable requirements of the municipal, state and federal codes, laws and ordinances governing the work, the District, manufacturer's printed instructions, subject to Engineer's approval.
- B. The Engineer's decision shall be final as to interpretation and/or conflict between any of the referenced codes, laws, ordinances, specifications and standards contained herein.

1.4 COMPLETION OF WORK

- A. All surface preparation, coating and paint application, and handling/disposing of hazardous materials/wastes shall be completed within the number of calendar days consistent with the Contract Completion Schedule noted in the Information for Bidders. If work is not completed within the number of calendar days specified, Contractor shall bear all additional expenses incurred after contract completion schedule.

1.5 CONTRACTOR

- A. The contractor shall be a licensed Painting and Decorating Contractor in the State of California (C-33 Classification). He shall have a minimum of five (5) years practical experience and successful history in the application of specified products to surfaces of

steel water storage tank. Upon request, he shall substantiate this requirement by furnishing a written list of references.

1.6 DEFINITIONS

- A. "Engineer" refers to the person authorized by the District to oversee the execution of the contract, acting either directly or through his properly authorized agents, each agent acting only within the scope of authority delegated to him.
- B. "Coating" refers to protective materials used or applied on interior surfaces.
- C. "Paint" refers to protective materials used or applied on exterior surfaces.
- D. "Coat" refers to paint applied in a single or multiple pass application to form an evenly distributed film when dry. Designations for "coats" are primer or first coat, intermediate or second coat, and finish coat, and any coats applied beyond the designated coats.
- E. "District" refers to Big Pine Community Services District.

1.7 HOURS OF WORK

- A. The Contractor's activities shall be confined to an eight-hour shift between the hours of 7:00 a.m. and 5:00 p.m. Monday through Friday, excluding District-designated holidays. Deviation from these hours will not be permitted without the prior consent of the Engineer, except in emergencies involving immediate hazard to persons or property.
- B. In the event of either a requested or emergency deviation, inspection service fees for District personnel and any third-party inspector will be charged against the Contractor. The service fees will be calculated at overtime rates including benefits, overhead, and travel time. The service fees will be deducted from any amounts due the Contractor. Charges will be made for any change to extraordinary work hours, including standby time due to late crew arrival or "no-show" by crew.
- C. Inspections requested by or made necessary as a result of actions by the Contractor on Saturdays, Sundays or holidays must be scheduled and approved by Engineer and paid for by Contractor at the prevailing rate for overtime or holiday work.

1.8 PRE-BID CONFERENCE

- A. A mandatory Pre-Bid Conference for the project will be conducted by the Engineer at the site as noted in the Notice Inviting Bids. The object of the Pre-Bid Conference is to acquaint bidders with existing facility and site. The conditions and requirements of the plans and specifications shall govern over any information presented at the Pre-Bid Conference, unless amended in writing by the Engineer. All bidders must attend the Pre-Bid Conference to have their bid accepted by the District.

1.9 PRE-CONSTRUCTION CONFERENCE

- A. Pre-Construction Conference shall be scheduled prior to start of project. The District, Contractor and Engineer shall be present. The sequence of work will be discussed and will be mutually agreed upon to ensure that the work is accomplished and completed as

stated in the Contract, and to allow for inspection and operations flexibility by District. A schedule of work to be accomplished and a list of labor, material and equipment rates for additional work will be established and maintained throughout the project. Contractor shall furnish resumes of all personnel assigned to project, and a complete set of approved submittal data for use by inspection personnel. Contractor shall have a designated representative for all projects.

- B. The Contractor shall submit manufacturers' literature and Material Safety Data Sheets (MSDS) on all materials to be used in coating and painting operations, including, but not limited to coatings, paints, thinners, solvents and cleaning fluids. No materials will be allowed which have been stored over 60 days, or manufacturer's recommended shelf life, whichever is less. Contractor shall maintain copies of MSDS's at jobsite at all times. Copies of all invoices showing purchased dates and delivery for all material mentioned above will be required.

1.10 QUALITY ASSURANCE

- A. General: Quality assurance procedures and practices shall be utilized to monitor all phases of surface preparation, application and inspection throughout the duration of the project. Procedures or practices not specifically defined herein may be utilized provided they meet recognized and acceptable professional standards and are approved by the Engineer.
- B. All materials furnished and all work accomplished under the Contract shall be subject to inspection by the Engineer. The Contractor shall be held strictly to the true intent of the Specifications in regard to quality of materials, workmanship, and diligent execution of the Contract.
- C. Work accomplished in the absence of prescribed inspection may be required to be removed and replaced under the proper inspection, and the entire cost of removal and replacement, including the cost of all materials which may be furnished by the District and used in the work thus removed, shall be borne by the Contractor, regardless of whether the work removed is found to be defective or not. Work covered up without the authority of the Engineer or Inspector, shall, upon order of the Engineer, be uncovered to the extent required, and the Contractor shall similarly bear the entire cost of accomplishing all the work and furnishing all the materials necessary for the removal of the covering and its subsequent replacement, as directed and approved by the Engineer.
- D. The Engineer will make, or have made, such tests as he deems necessary to assure the work is being accomplished in accordance with the requirements of the Contract. Unless otherwise specified in the Special Conditions, the cost of such testing will be borne by the District. In the event such tests reveal non-compliance with the requirements of the Contract, the Contractor shall bear the cost of such corrective measures deemed necessary by the Engineer, as well as the cost of subsequent retesting and re-inspection. It is understood and agreed the making of tests shall not constitute an acceptance of any portion of the work, nor relieve the Contractor from compliance with the terms of the Contract.
- E. Surface Preparation: Surface preparation will be based upon comparison with: "Pictorial Surface Preparation Standards for Painting Steel Surfaces", SSPC-Vis 1, ASTM

Designation D2200 and as described below. Anchor profile for prepared surfaces shall be measured by using a non-destructive instrument such as a K-T Surface Profile Comparator, digital surface profile gauge or Testex Press-O-Film System. Temperature and dewpoint requirements noted in 1.10 F. herein shall apply to all surface preparation operations, except low and high temperature limits and operation of dehumidification equipment shall be determined at the Pre-Construction Conference.

F. Application: No coating shall be applied under the following conditions:

1. When the surrounding air temperature or the temperature of the surface to be coated or painted is below 55 degrees F for epoxy coatings, below 45 degrees F for epoxy low temperature cure coatings, or below 40 degrees F for urethane coating, or above 125 degrees F for all materials;
2. To wet or damp surfaces or in rain, fog or mist;
3. When the surface temperature is less than 5 degrees F above the dewpoint.
4. Paint shall not be applied when wind speed exceeds fifteen miles per hour.
5. When it is expected the air temperature will drop below 55 degrees F for epoxy coating, below 45 degrees F for epoxy low temperature cure coatings, or 40 degrees F for urethane coating, or surface temperature less than 5 degrees F above the dewpoint within two hours after application of coatings or paints.
 - a. Dewpoint shall be measured by use of an instrument such as a sling psychrometer in conjunction with U.S. Department of Commerce Weather Bureau Psychrometric Tables or equivalent. If dehumidification is used, equipment must run continuously during all phases of contract, except disinfection phase.
 - b. If above conditions are prevalent, coating and paint application shall be delayed or postponed until conditions are favorable. The day's application shall be completed in time to permit the film sufficient drying time prior to damage by atmospheric conditions.

G. Overspray and Dust Control: The Contractor shall conduct all operations so as to confine abrasive blasting debris and coating and paint overspray to within the bounds of the site. The Contractor shall take all precautions necessary to prevent adverse off-site consequences of blast cleaning or application operations. Any complaints received by the District relating to any such potential off-site problems will be immediately delivered to the Contractor-assigned jobsite representative. The Contractor shall immediately halt blast cleaning or application work and shall take whatever corrective action is required to mitigate any such problems. All costs associated with protection of off-site properties and/or correction of damage to property as a result of blast cleaning or application operations shall be borne directly by the Contractor at no additional expense to the District.

1. District approval of Contractor's blast cleaning and overspray prevention procedures and Engineer's presence on project does not free Contractor from responsibility for compliance. Daily approval of procedures will be required prior

to start of blast cleaning or spray operations.

- H. Thickness Testing: Thickness of coatings and paints shall be tested with a non-destructive film thickness gauge. An instrument such as a Tooke Gage should be used if a destructive tester is deemed necessary. Testing shall be accomplished in conformance to SSPC-PA 2, "Measurement of Dry Paint Thickness with Magnetic Gages" except as modified hereinafter.
 - 1. Flat coated or painted surfaces shall be tested in conformance to SSPC-PA 2.
 - 2. Structural members, piping and other irregular surfaces shall be tested with frequency and locations as directed by the Engineer.
- I. Holiday Testing: Coating integrity of ALL interior coated surfaces shall be tested with an approved inspection device. All pinholes shall be marked, repaired in accordance with the manufacturer's printed recommendations and retested. No pinholes or other irregularities will be permitted in the final coating.
- J. Inspection Devices: Contractor will furnish, until final acceptance of coatings and paints, inspection devices in good working condition for detection of holidays and measurement of dry film thickness. They shall also furnish U.S. Department of Commerce, National Bureau of Standards certified thickness calibration plates to test accuracy of thickness gauges. Dry film thickness gauge holiday detectors shall be available at all times until final acceptance of application. Inspection devices shall be operated by, or in the presence of the Engineer with location and frequency basis determined by the Engineer.
- K. Acceptable Inspection Devices: Acceptable devices for ferrous metal surfaces include, but are not limited to Tinker and Razor Models AP and AP-W holiday detectors equipped with a wire brush electrode supplied by the manufacturer, and "Inspector", or "Positest", or "Positector" or "Quanix" units for dry film thickness gauging. Inspection devices shall be operated in accordance with these specifications and the manufacturer's instructions.
- L. Warranty Inspection: Warranty inspection shall be conducted between the eleventh and sixteenth months following completion of all work and filing of the Notice of Acceptance. The draining of the tank will be accomplished when there will be minimum inconvenience to the District. All personnel present at the Pre-Construction Conference should be present at the inspection. All defective work shall be repaired in strict accordance with this specification and to the satisfaction of the Engineer.
 - 1. Notification: The District shall establish the date for the inspection and shall notify the Contractor at least 30 days in advance. The District will drain the reservoir and Contractor shall provide, at his own expense, suitable lighting, scaffolding and ventilation for the inspection. At District's option, warranty inspection for interior surfaces may be accomplished by diving operations with tank in service.
 - 2. Interior Inspection: The entire interior coating system shall be visually inspected as specified in 1.10 QUALITY ASSURANCE. All defective coating as well as damaged or rusting spots of the tank shall be satisfactorily repaired by and at the sole expense of the Contractor. All repaired areas shall then be electrically tested as specified in the above mentioned section and repair/electrical testing

procedure repeated until surface is acceptable to the Engineer.

3. Exterior Inspection: The exterior paint system at repaired areas shall be visually inspected as specified in 1.10 QUALITY ASSURANCE. All defective paint as well as damaged or rusting spots of the tank shall be satisfactorily repaired by and at the sole expense of the Contractor. All repaired areas shall then be again inspected as specified in the above mentioned section and repair procedure repeated until surface is acceptable to the Engineer.
4. Inspection Report: The Engineer shall prepare an inspection report covering the first anniversary inspection, setting forth the number and type of failures observed, the percentage of the surface area where failure has occurred, and the names of the persons making the inspection.
5. Schedule: Upon completion of inspection and receipt of Inspection Report as noted herein, District shall notify Contractor of results of inspection and establish a date for Contractor to proceed with remedial work. Any delay on part of Contractor to meet schedule may cause District to proceed to have defects remedied by others as outlined under General Provisions.
6. Remedial Work: Any location where coating or paint has peeled, bubbled, or cracked and any location where rusting is evident shall be considered to be a failure of the system. The Contractor shall make repairs at all points where failures are observed by removing the deteriorated coating or paint, cleaning the surface, and reapplying the same system. If the area of failure exceeds 25 percent of a specific coated or painted surface, the entire applied system may be required to be removed and reapplied based on the District's sole judgment in accordance with the original specification.
 - a. Specific coated surfaces are defined as follows:
 - (1) Underside of roof and support structure
 - (2) Shell
 - (3) Bottom
 - (4) Attachments, accessories and appurtenances
 - (5) Caulking
 - b. Specific painted surfaces are defined as follows:
 - (1) Roof
 - (2) Shell
 - (3) Attachments, accessories and appurtenances
7. Upon completion of warranty remedial repairs, Contractor shall disinfect tank as originally specified. Contractor shall furnish new gaskets and nuts and bolts for

manholes as needed and re-seal tank for service.

8. Costs: All costs for repair shall be borne by the Contractor and in figuring his bid, the Contractor shall include an appropriate amount for testing and repair as no additional allowance will be paid by the District for said inspection and repair.

1.11 SAFETY AND HEALTH REQUIREMENTS

- A. Contractor shall submit a notarized letter signed by a principal officer of the Corporation certifying the Contractor fully complies with California Code of Regulations pertaining to the work including, but not limited to, the following Construction Safety Orders (CSO) or General Industry Safety Orders (GISO). Review of Contractor's safety plans by Engineer does not imply that the District accepts responsibility for such plans or safety activities.

1.	Illness Injury Prevention Program	CSO/GISO	1508/3203
2.	Confined Space Plan	GISO	5156/5159
3.	Respiratory Protection	CSO/GISO	1531/5144
4.	Hazard Communication	GISO	5194
5.	Lead-Based Paint Compliance Plan	CSO	1532.1
6.	Rolling Scaffolds	CSO	1646
7.	Employee Safety Instruction	CSO	1510
8.	Emergency Medical Service	CSO	1512
9.	Dusts, Fumes, Mists, Vapors & Gases	CSO	1528

- B. General: Contractor assumes the responsibility to accomplish all work in a safe and prudent manner, and to conform to all applicable safety requirements, regulations and guidelines of federal, state and local regulatory agencies, as well as applicable manufacturer's printed instructions and appropriate technical bulletins and manuals. Without in any way limiting that responsibility or assuming responsibility for safety, District is particularly concerned that the following are strictly observed:

1. Life Saving Equipment: Contractor shall provide and require use of personal protective life saving equipment for all its personnel working in or about the project site.
2. Access Facilities: All ladders, scaffolding and rigging shall be designed for their intended uses. Ladders and scaffolding shall be erected where requested by Engineer to facilitate inspection and be moved by the Contractor to locations requested by the Engineer.
3. Ventilation: Contractor shall ensure there is proper ventilation, air education and exhausting of work space to reduce the concentration of zinc-laden air contam-

inants to a level which poses no hazard to personnel at or near the job site. Air circulation and exhausting of solvent vapors shall be continued until coatings and paints have fully cured. If conventional blast cleaning is accomplished, total containment during blast cleaning and coating and paint application operations is mandatory. The exhaust blower or dehumidification equipment capacity shall be sufficient to maintain air changes within containment interior in accordance with Cal/OSHA, coating and paint manufacturer's recommendations and local Air Quality Management District regulations.

- a. Exhaust blower shall exhaust into an Engineer-approved structure which precludes the exhausting of zinc-laden coating or paint chips or particulate matter onto the site or into the atmosphere.
4. Dehumidification: Dehumidification equipment systems must be approved by the Engineer. Equipment must be operated on a continuous basis during all blasting, coating, painting and curing operations, including shifts during which no work is being accomplished. Requirement for exhausting of dust, etc. from containment interior noted in 1.11 B.3.a. above applies to all dehumidification operations. The system used must be similar or equal to the following requirements specified in 1.12 "DEHUMIDIFICATION".
5. Head and Face Protection and Respiratory Devices: Equipment shall include protective helmets which shall be worn by all persons while in the vicinity of the work. During abrasive blasting operations, nozzlemen shall wear U.S. Bureau of Mines approved positive pressure air-supplied helmets and all other persons who are exposed to blasting dust shall wear respiratory protection determined necessary by the exposure assessment of the Certified Industrial Hygienist.
 - a. Positive pressure air-fed hoods and/or masks shall be supplied by an air source currently certified to produce "Class D Breathing Air". Contractor shall at all times during the work maintain onsite current documentation to substantiate the quality of the breathing air.
 - b. Barrier creams shall be used on any exposed areas of skin.
6. Grounding: All hoses shall be grounded to prevent accumulation of charges of static electricity.
7. Illumination: Sparkproof artificial lighting shall be provided for all work in confined spaces. Light bulbs shall be guarded to prevent breakage. Lighting fixtures and flexible cords shall comply with the requirements of NFPA 70 "National Electric Code" for the atmosphere in which they will be used. Whenever required by the Engineer, the Contractor shall provide additional illumination and necessary supports to cover all areas to be inspected. The level of illumination for inspection purposes shall be determined by the Engineer.
8. Toxicity and Explosiveness: The maximum allowable concentration of vapor shall be kept below the maximum safe concentration for eight-hour exposure, plus Lower Explosive Limit (L.E.L.) must be strictly maintained. Exterior paints have been determined to contain zinc. All regulations related to safety of personnel and handling of such materials shall be strictly followed. Cost of

handling and disposing of such materials will be borne by the Contractor.

- a. Contractor's responsibility for meeting all regulations relating to toxic and hazardous materials includes, but is not limited to, obtaining all permits and EPA numbers, processing paperwork, blood testing of personnel at start and finish of project, sampling and testing of wastes, paying fees, handling and packaging of wastes at site, and delivering materials to the selected Class I dumpsite using licensed hazardous materials transporters. All regulations relating to working with heavy metals or confined spaces shall be strictly enforced. Documentation of all hazardous or toxic waste disposal will be required and a copy supplied to the District.
9. Protective Clothing: When handling and mixing coatings and paints, workmen shall wear gloves and eye shields. If working with lead or other heavy metals, regulations regarding handling of exposed clothing shall be strictly enforced.
10. Fire: Contractor shall provide appropriate fire abatement devices and prohibit any flames, welding and smoking during mixing and application of materials.
11. Sound Levels: Whenever the occupational noise exposure exceeds the maximum allowable sound levels, the Contractor shall provide and require the use of approved ear protective devices.
 - a. Noise suppression shall be practiced at all times to minimize disturbance to persons living or working nearby, and to the general public. Measures to be used in effecting noise suppression shall include (but not limited to) equipping all internal combustion engines with critical residential silencers (mufflers), shielding noise-producing equipment from nearest areas of human occupancy by location in such positions as to direct the greatest noise emissions away from such areas, and conducting operations in the most effective manner to minimize noise generation consistent with the prosecution of the Contract in a timely and economic manner. Whenever levels are above local ordinances, they shall be adjusted as directed by the Engineer.
12. Gas and Air Monitoring: Contractor shall furnish monitoring equipment to determine the presence of oxygen deficiency or dangerous air contamination. Continual monitoring will be required. Concentration levels will be as prescribed by Cal/OSHA.
- C. Power: The contractor shall provide, at his own expense, all necessary power required for the sand blasting and painting operations under the contract.
- D. Contractor shall provide Health Department approved sanitary facilities for all Contractor personnel, as no existing facilities will be available to the Contractor. Facilities shall be maintained during the project to complete standards established by the District and shall be removed prior to Contractor's departure from the site at completion of the project

1.12 DEHUMIDIFICATION

- A. Scope: If dehumidification is required by the additive Bid Item, the interior of the tank shall be dehumidified continuously, 24 hours per day, 7 days per week, during the cleaning and coating operations and also during the final curing period, unless fewer days or hours are approved by the Engineer.
1. The purpose of dehumidifying the interior of the tank during the cleaning and coating operations and during the final cure period is to nullify the adverse effects of cold and/or wet atmospheric conditions. Additionally, the dehumidification equipment will provide the necessary ventilation for the removal of solvent vapors during the coating and final cure phases.
 2. Dust collectors and/or separators are required. The contractor shall, at all times, maintain the concentration of solvent vapors in all parts of the structure 10% below the lower explosive limit (LEL).
- B. Final Cure: Final cure of coating is specified in 3.10 "FINAL CURING OF EPOXY COATINGS".
- C. General:
1. The structure shall be continuously dehumidified 24 hours per day, during blasting, coating, between coats of coating, and during the final cure period, unless fewer hours are approved by the Engineer.
 2. The Contractor shall maintain the dehumidification system at all times, including final cure period, and shall remove the ventilation and dehumidification system upon completion of the final cure period.
 3. The Contractor shall make modifications to the dehumidification system as directed by the Engineer to ensure a safe working environment, complete removal of all solvent vapors, and maintenance of the proper relative humidity at the concrete and steel surfaces.
 4. Ducting shall be airtight and reinforced with spirally-wound wire to prevent collapse. The Contractor shall furnish and install an appropriate airtight connecting device between the duct and designated opening. All bends in duct work shall have a minimum radius of 2 x ID of the ducting (i.e. 18" ID = 36" minimum radius).
 5. The Contractor shall design and submit for review a dehumidification and ventilation plan. If lead coating or paint is being removed, the ventilation plan shall provide for a minimum cross-draft velocity of 100 feet per minute in the vicinity of the work area. The cross-draft velocities may be obtained with use of a portable blower or fans. If lead coating or paint is being removed, air filtration is required with HEPA PM-10 filters.
 6. The Contractor shall furnish, install and maintain three (3) 3000 cubic foot per minute circulation fans inside the structure, or as modified by the Engineer.
 7. The circulation fans may be moved as necessary, but shall be placed in dead air space areas and directed toward the designated opening at all times.

8. The Contractor shall seal all structure openings, to prevent the entry of moist air detrimental to the blasting, coating, or curing of the process. An approved air lock entry shall be provided for ingress to and egress from the structure.
9. The area adjacent to the surface that is to be blasted and coated shall not be exposed to a relative humidity over thirty-five percent (35%) at anytime during blasting, cleaning, and coating operations.

D. Equipment

1. The dehumidification equipment shall be a solid desiccant (not liquid, granular or loose lithium chloride) design having a single rotary desiccant bed capable of continuous operation, fully automatic, with drip-proof automatic electrical controller.
2. Dehumidification equipment operated on the structure must be capable of making two complete air changes every sixty minutes unless the 100 feet per minute cross velocity requirement requires a larger volume.
3. The processed air from the dehumidification unit must maintain a relative humidity of eleven percent (11%) or less.
4. During the coating and cure phase, dehumidification units must have auxiliary heaters capable of maintaining an air temperature inside the tank of a minimum of 70 degrees F.
5. Air heaters are not acceptable as substitutes for dehumidification units.
6. Air chillers, heaters, or air conditioners may be used downstream of the dehumidifiers if they are approved for use by the manufacturer of the dehumidification equipment.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Materials specified are those which have been evaluated for the specific service. Products of ICI Devco Coatings, Sherwin-Williams Company, and Tnemec Company, Inc. are listed to establish a standard of quality for the project. Standard products of manufacturers other than those specified, will be accepted when it is proved to the satisfaction of the Engineer they are equal in composition, durability, usefulness and convenience for the purpose intended. Substitutions will be considered provided the following minimum conditions are met:
 1. The proposed coating or paint system shall have a dry film thickness equal to or greater than that of the specified system.
 2. The proposed coating or paint system shall employ an equal or greater number of separate coats.

3. The proposed coating or paint system shall employ coatings or paints of the same generic type.
 4. All requests for substitution shall carry full descriptive literature and directions for application, along with complete information on generic type, non-volatile content by volume and a list of 10 similar projects, all at least three years old, where the products have been applied to similar exposure.
 5. The District requires that the Contractor provide certified laboratory data sheets showing the results of complete spectrographic and durability tests accomplished on the proposed substitute. Tests shall be accomplished by an independent testing laboratory satisfactory to the Engineer and all costs incurred in the testing program shall be borne by the Contractor. In any case, the Engineer shall be sole and final judge of the acceptability of any proposed substitution. Requests for substitution must be approved in writing prior to date of bid.
- B. The Contractor shall submit prior to start of project manufacturer's literature and Material Safety Data Sheets (MSDS) on all materials to be used in coating and painting operations, including, but not limited to coatings, paints, thinners, solvents and cleaning fluids. No materials will be allowed which have been stored over 60 days, or manufacturer's recommended shelf life, whichever is less. Contractor shall maintain copies of MSDS's at job site at all times.
1. An electronic submittal will be accepted in only the following format.
 - a. The file shall be in pdf format.
 - b. Each project submittal shall be a separate document file.
 - c. Each document file shall be labeled in the following sequence:
 - (1) Owner Name/Project Name
 - (2) Submittal No.
 - (3) Description
- C. All materials shall be brought to the jobsite in the original sealed containers. They shall not be opened or used until District's representative has physically inspected contents and obtained necessary data from information printed on containers or label. Materials exceeding storage life recommended by the manufacturer shall be rejected. Copy of invoice showing purchase and delivery dates will be required.
- D. Flammability, toxicity, allergenic properties, and any other characteristic requiring field precautions shall be identified and specific safety practices shall be stipulated.
- E. All coating and paint materials shall be stored in enclosed structures to protect them from weather and excessive heat or cold. Flammable materials must be stored to conform with District, County, State and Federal safety codes for flammable materials. At all times coatings and paints shall be protected from freezing.
- F. Contractor shall use products of same manufacturer for all coats.

2.2 SPECIFIC INTERIOR COATING MATERIALS

- A. Coating materials for interior surfaces of tank must appear on the Standard 61 of the

National Sanitation Foundation (NSF), or Standard 61 of Underwriters' Laboratory. Products containing perchloroethylene (PCE), trichloroethylene (TCE), lead, chromium or zinc will not be permitted. In addition, products containing Methyl Ethyl Ketone (MEK) or Methyl Isobutyl Ketone (MIBK) will not be allowed in amounts that will cause volatile organic analysis to be above maximum contaminant levels or action levels.

1. The Contractor shall provide, prior to coating any surfaces of the tank, written certifications from the coating manufacturers stating that the coating materials, thinners, solvents, and equipment cleaning fluids provided by the manufacturers do not contain PCE or TCE. The Contractor shall also certify, in writing, that no material containing PCE, TCE, lead or chromium in any form will be used for the interior coatings or exterior paints of the tank. This shall include all solvents, thinners, and cleaning fluids at the job site, regardless of where the materials were obtained.
 2. The Engineer may require all solvents, thinners and cleaning fluids be tested for TCE and PCE prior to being used at the job site. The Contractor shall provide the Engineer with samples of each material at no cost to the District. Unacceptable materials shall be removed from the job site.
- B. All coating materials shall comply with air pollution regulations, specifically the local air quality management District or air pollution control District rules, and rules for the District.
- C. All coating materials shall also conform to regulations and applicable requirements of local, State and Federal health regulatory agencies.
- D. Epoxy coatings shall be similar or equal to products such as ICI Devoe Bar-Rust 233H LV Multi-Purpose Epoxy Coating or Tnemec Pota-Pox Series L140F low VOC. First or prime coat shall not be gray, but finish coat shall be white
- E. Joint sealant shall be a flexible polyurethane such as Sikaflex 1A or polysulfide product.

2.3 DISINFECTION MATERIALS

- A. Disinfection materials shall conform to all requirements of AWWA Standard C652, latest revision.
- B. Cleaner for pre-disinfection cleaning of interior surfaces shall be Gre-Sa-Way or approved equal.
- C. Product to prevent flash rusting during wet abrasive blast cleaning shall be Hold Tight 102 or approved equal.

2.4 SPECIFIC EXTERIOR PAINT MATERIALS

- A. Paint materials for exterior surfaces of tank will consist of an epoxy primer, epoxy intermediate coat and urethane finish coat. Products containing lead, chromium or zinc will not be permitted.
- B. All paint materials shall comply with air pollution regulations, specifically the local air

quality management District or air pollution control District rules, and rules for the District.

- C. All paint materials shall also conform to regulations and applicable requirements of local, State and Federal health regulatory agencies.
- D. Prime coat shall be similar or equal to products such as ICI Devoe Bar-Rust 231H Low VOC's Multi-Purpose epoxy coating, Tnemec L69 Epoxoline II epoxy coating, or Sherwin Williams Macropoxy 646-100.
- E. Intermediate coat shall be similar or equal to products such as ICI Devoe Bar-Rust 231H Low VOC Multi-Purpose epoxy coating, Tnemec L69 Epoxoline II epoxy coating, or Sherwin Williams Macropoxy 646-100.
- F. Finish coat shall be similar or equal to products such as Devoe Bar-Ox Devthane 379H urethane coating, Tnemec Series 1095 Low VOC's urethane coating, or Sherwin-Williams High Solids Polyurethane 100 urethane coating.
- G. Joint sealant shall be a flexible polyurethane elastomeric sealant similar or equal to Sikaflex 2C-NS as manufactured by Sika Corporation.

PART 3 - EXECUTION

3.1 GENERAL

- A. All surface preparation, coating and paint application shall conform to applicable standards of the District and the manufacturer's printed instructions, as approved by the Engineer. Material applied prior to approval of the surface, by the Engineer, shall be removed and reapplied to the satisfaction of the Engineer at the expense of the Contractor.
- B. All work shall be accomplished by skilled craftsmen qualified to accomplish the required work in a manner comparable with the best standards of practice. Resumes of personnel proposed to be used on the project shall be submitted for approval upon Notice of Award. Continuity of personnel shall be maintained and transfers of key personnel shall be coordinated with the Engineer.
- C. The Contractor shall provide a supervisor to be at the work site during cleaning and application operations. The supervisor shall have the authority to sign any change orders, coordinate work and make other decisions pertaining to the fulfillment of their contract.
- D. Dust, dirt, oil, grease or any foreign matter which will affect the adhesion or durability of the finish must be removed by washing with clean rags dipped in an approved commercial cleaning solution, rinsed with clean water and wiped dry with clean rags.
- E. No rubber tire vehicles or equipment shall be permitted on the interior floor after the floor has been blasted.
- F. The Contractor's equipment shall be designed for application of materials specified and shall be maintained in first class working condition. Compressors shall have suitable

traps and filters to remove water and oils from the air. Blotter test shall be accomplished at each start-up period and as deemed necessary by the Engineer. Contractor's equipment shall be subject to approval of the Engineer. This approval does not relieve the Contractor's responsibility for the safe operation of the equipment or its performance.

1. Cleanliness of compressed air supply shall be verified daily, and as deemed necessary by Engineer, by directing a stream of air, without abrasive, from the blast nozzle onto a white blotter or cloth for twenty seconds. If oil or water appears on the blotter or cloth, all traps and separators shall be blown down until two subsequent twenty-second tests show no further oil or water.
- G. Application of the first coat shall follow immediately after surface preparation and cleaning within an eight-hour period, for unseen weather conditions, as defined in 1.10 Quality Assurance F., shall be re-cleaned per the original specifications prior to application of the first coat. Brush-off blast cleaning SSPC-SP7 (sweep blast) will not be accepted in lieu of SSPC-SP10 (Near White Metal) blast.
1. If dehumidification equipment is required, cleaned areas may have first coat applied at last shift of the week, provided dehumidification equipment has run continuously during the complete week, and surfaces meet all requirements of the specification. Monitoring devices approved by the Engineer shall be used to ensure continuous operation.
- H. Because of presence of moisture and possible contaminants in atmosphere, care shall be taken to ensure previously coated or painted surfaces are protected or re-cleaned prior to application of subsequent coat(s). Methods of protection and re-cleaning shall be approved by the Engineer.
1. Project is subject to intermittent shutdown if, in the opinion of the Engineer, cleaning and application operations are creating a localized condition detrimental to ongoing facility activities, personnel or adjacent property.
 2. In the event of emergency shutdown by the Engineer, Contractor shall immediately correct deficiencies. All additional costs created by shutdown shall be borne by Contractor.
- I. The Contractor shall provide, at his own expense, all necessary power required for his operations under the contract.
- J. Contractor shall seal any tank vents, pumps, motors, and other open areas to prevent intrusion of coating or paint or other contaminants. The sealing system shall be designed to allow continuous operation of facilities or equipment, with no detrimental effects. If necessary, sealing system shall be removed daily at termination of work, or as directed by the Engineer.

3.2 SURFACE PREPARATION, GENERAL

- A. The latest revision of the following surface preparation specifications of the Society for Protective Coatings shall form a part of this specification. (Note: An element of surface area is defined as any given square inch of surface).

1. Solvent Cleaning (SSPC-SP1): Removal of oil, grease, soil and other contaminants by use of solvents, emulsions, cleaning compounds, steam cleaning or similar materials and methods, which involve a solvent or cleaning action.
 2. Hand Tool Cleaning (SSPC-SP2): Removal of loose rust, loose mill scale and other detrimental foreign matter present to degree specified by hand chipping, scraping, sanding and wire brushing.
 3. Power Tool Cleaning (SSPC-SP3): Removal of loose rust, loose mill scale and other detrimental foreign matter present to degree specified by power wire brushing, power impact tools or power sanders.
 4. Commercial Blast Cleaning (SSPC-SP6): Blast cleaning until at least two-thirds of each element of surface area is free of all visible residue.
 5. Brush-off Blast Cleaning (SSPC-SP7): Blast cleaning to remove loose rust, loose mill scale, and other detrimental foreign matter present to the degree specified.
 6. Near White Blast Cleaning (SSPC-SP10): Blast cleaning to near white metal cleanliness, until at least ninety-five percent of each element of surface area is free of all visible residues.
 7. Power Tool Cleaning to Bare Metal (SSPC-SP11): Power tool cleaning to produce a bare metal surface and to retain or produce a surface profile of at least 1.0 mil.
 8. High and Ultra High Pressure Water Jetting (SSPC-SPWJ1 through 4): Water jet cleaning of metals to remove rust, mill scale, coating, paint and other detrimental foreign matter to present to varying degrees of cleanliness from light cleaning to clean to bare substrate.
- B. Any burrs, weld spatter, sharp edges, corners, or rough welds which would cause difficulty in achieving a defect-free paint system shall be chipped or ground smooth in conformance to NACE Standard SP0178-latest edition. It is not the intent to have the welds or "scars" ground "flush". The object of the grinding is to eliminate sharp edges, corners, and overlaps to provide a surface for the application of a uniform thickness of coating or paint without voids or other defects.
- C. Abrasive blasting nozzles shall be equipped with "deadman" emergency shut-off nozzles. Blast nozzle pressure shall be a minimum of 95 P.S.I. and shall be verified by using an approved nozzle pressure gage at each start-up period or as directed by the Engineer. Number of nozzles used during all blast cleaning operations must be sufficient to ensure timely completion of project, subject to designation and approval by Engineer.
- D. All blast hose connections shall be tethered and secured to prevent separation during blast cleaning operations, and shall be taped with duct tape prior to pressurizing. All taped connections shall be visually inspected for leaks within five minutes after start of blast cleaning operations and at the end of blast cleaning operations. Leaking

connections shall be immediately repaired to prevent further damage.

- E. Field blast cleaning for all surfaces shall be by dry method unless otherwise directed. Contractor is responsible for maintaining dust emissions within the legal level and that level which would not create a nuisance.
- F. Particle size of abrasives used in blast cleaning shall be that which will produce a 2.0 mil surface profile or in accordance with recommendations of the manufacturer of the specified coating or paint system to be applied, subject to approval of Engineer.
- G. Abrasive used in blast cleaning operations shall be new, washed, graded and free of contaminants which would interfere with adhesion of coatings and paints and shall not be reused unless specifically approved by the Engineer. Abrasives shall be certified for unconfined dry blasting pursuant to the California Administrative Code, Section 92520 of Subchapter 6, Title 17 or subsequent revision, and shall appear on the current listing of approved abrasives. Invoices or load sheets confirming above shall be required.
- H. Recycled ferrous metallic abrasives must meet or exceed the cleanliness standards set forth in SSPC-AB2. The operating mix of abrasive media shall be such that a sharp angular not peened profile is produced. Any recycled abrasive shall be such that a sharp angular not peened profile is produced. Any recycled abrasive shall be designed for the use (i.e. steel grit) and be free of grease, oil, or other debris or contaminants that could be detrimental to the service life of the applied coatings. If steel shot media is used it shall be limited to no more than 1/3 of the operating mix. Recycled abrasive shall be tested for contamination through the use of a vial test in accordance with the procedures outlined in SSPC's Publication 91-12 and ISO 8502-3.
- I. During blast cleaning operations, caution shall be exercised to ensure existing coatings and paints are not exposed to abrasion from blast cleaning.
- J. Blast cleaning from rolling scaffolds shall only be accomplished within confines of interior perimeter of scaffold. Reaching beyond limits of perimeter will be allowed only if blast nozzle is maintained in a position which will produce a profile acceptable to the Engineer.
- K. Accessible interior surfaces of the inlet and outlet nozzle permanently attached to the tank shall be cleaned of all old coating and rust by blast cleaning or other approved methods. Precautions shall be taken so as to prevent any damage to the existing gate or butterfly valves at the inlet nozzle. All exposed surfaces of the valves shall be masked prior to blast cleaning the nozzles. The removable portions of the inlet nozzle shall be removed and blast cleaned as specified herein.
- L. During blast cleaning operations, inlet, outlet, overflow, and drain openings in bottom shall be covered with plywood bulkheads, or other approved barriers, to prevent entry of spent abrasive, removed coating or other foreign materials.
- M. The Contractor shall keep the area of his work in a clean condition and shall not permit blasting materials to accumulate as to constitute a nuisance or hazard to the prosecution of the work or the operation of the existing facilities. Spent abrasives and other debris shall be removed at the Contractor's expense as directed by the Engineer.

- N. Blast cleaned and coated and painted surfaces shall be cleaned prior to application of specified coatings or paints via a combination of blowing with clean dry air, brushing/brooming and/or vacuuming as directed by the Engineer. Air hose for blowing shall be at least 1/2" in diameter and shall be equipped with a shut-off device.
- O. High Pressure or Ultra High Pressure Water Jetting (SSPC-SPWJ1 through 4) shall not be used on interior surfaces and shall only be used on exterior surfaces when and as directed by Engineer. Pressures shall be those determined by Engineer to effectively accomplish removal of loose, peeling/flaking coatings or paint or other detrimental surface contaminants.
- P. Tests on surfaces of abrasively blast cleaned steel shall be accomplished to detect oil and other contaminants which might be deposited on surfaces. This will include chemical tests or ultraviolet (black light) tests, as required.

3.3 HAZARDOUS MATERIALS, GENERAL

- A. Exterior surfaces have been determined to contain high levels of zinc. All regulations related to safety, worker protection and handling of such materials shall be strictly followed. Submittal of a written plan of action for the project shall be accomplished by Contractor prior to start of project.
- B. Contractor shall comply with requirements of Department of Public Health Title 22 for handling and disposing of hazardous wastes resulting from surface contamination and removed coating and paint particles.
- C. All work must be accomplished in compliance to the following.
 - 1. On first day of any zinc-based coating or paint removal, work environment must be tested by or under the supervision of a Certified Industrial Hygienist (CIH) to determine levels of protection required to protect workers and the environment from lead and other heavy metal contamination. All costs related to testing by the CIH shall be borne by the Contractor. Field testing may be accomplished by either an Industrial Hygienist or a CIH.
 - 2. Testing will include air sampling and testing of filters removed from the workers' respirators or personal air monitors to determine the level of lead exposure. Upon completion of testing, the CIH shall file a written report on the results of the testing. Level of exposure will then determine the type respiratory protection, clothing, housekeeping, hygiene facilities, medical surveillance, medical removal protection, employee information and training, signs, record keeping, and observation of monitoring required for the project.
 - 3. No exterior painting work shall re-commence until the report from the CIH is filed and worker and environmental protection required is in place. Costs for the time delay shall be included in the Contractor's original bid.
- D. Contractor is responsible for maintaining dust emissions within the legal level and that level which would not create a nuisance. Dust emissions, abrasive deflection and removed paint particles shall be contained where abrasive blasting is being accomplished, unless vacuum blasting or other means of cleaning are approved by

Engineer. No water, abrasive deflection or paint particles shall be allowed to land on the ground around the tank.

- E. All zinc paint removal work shall be governed by, but not necessarily limited to Code of Federal Regulations (29 CFR 1926, applicable sections)
 - 1. Health and Safety Code, Division 20, Chapters 6.5 (California Hazardous Waste Control Act)
 - 2. Title 22 California Administrative Code, Division 4.5 (Minimum Standard for Management of Hazardous and Extremely Hazardous Materials)
 - 3. Title 8, California Administrative Code
 - 4. Code of Federal Regulations (29 CFR 1926, applicable sections)
- F. Transportation and Disposal of Debris: The Contractor shall arrange to have the debris transported from the site in accordance with the requirements of 40 CFR 263, and disposed of properly in accordance with 40 CFR 264 and 40 CFR 268. Signed manifests shall be returned to the Engineer to verify that all steps of the handling and disposal process have been completed properly.
 - 1. Written confirmation that the debris will be treated and disposed of in accordance with requirements of 40 CFR 264 and 40 CFR 268 shall be received by the Engineer prior to start of the work. The programs shall provide assurance that the debris is handled properly from cradle to grave, and include the necessary notifications and certifications on shipments, provide the name of the disposal facility, and include a schedule for the submittal of the completed manifests to the Engineer.
- G. The District shall remove four representative samples of soil from job site prior to start of work. Samples shall be tested for determination of lead to ensure soil does not contain excessive levels of noted heavy metals. If soils contain excessive levels of noted or other heavy metals, site remediation shall be the responsibility of the District. Copies of laboratory analyses reports shall be forwarded to Contractor immediately upon receipt from laboratory, prior to start of any work. Any required remediation schedule will be determined by the District.

3.4 SURFACE PREPARATION, INTERIOR

- A. All interior surfaces shall be blast cleaned in conformance to Society for Protective Coatings Specification SSPC-SP10 (Blast Cleaning to Near White Metal).
 - 1. The complete center vent structure, roof hatches and roof vents shall be blast cleaned including 1 foot past the structure onto the exterior roof when interior roof surfaces are blasted. The perimeter of the blast cleaned surfaces shall be cut to straight lines and the edge of the existing paint system sufficiently feathered to create a smooth transition between the two paint systems.
 - 2. Contractor shall be responsible for removal and replacement of center vent cover as needed to coat and paint all surfaces. The scope of work in the structural

portion of the technical specifications requires the vent screening to be removed and replaced. Therefore, removal of the vent cover shall be coordinated between the coating contractor and the structural contractor.

3.5 SURFACE PREPARATION, EXTERIOR

- A. All areas damaged by structural modifications, new appurtenances and roof hatches on the exterior surfaces shall be blast cleaned in conformance to Society for Protective Coatings Specification SSPC-SP10 (Blast Cleaning to Near-White Metal).
 - 1. Surface preparation around the roof hatches shall be in accordance with section **Error! Reference source not found..**

3.6 SURFACE PREPARATION, EXTERIOR (OPTIONAL)

- A. All exterior roof, shell and tank appurtenance shall be blast cleaned in conformance to Society for Protective Coatings Specification SSPC-SP10 (Blast Cleaning to Near White Metal).

3.7 APPLICATION, GENERAL

- A. Coating and paint application shall conform to the requirements of the Society for Protective Coatings Paint Application Specification SSPC-PA1, latest revision, for "Shop, Field and Maintenance Painting," the District, the manufacturer of the coating and paint materials printed literature and as specified herein and approved by the Engineer.
- B. Thinning shall only be permitted as recommended by the manufacturer and approved by the Engineer and shall not exceed limits set by applicable regulatory agencies.
 - 1. If Contractor applies any materials which have been modified or thinned to such a degree as to cause them to exceed established VOC levels, Contractor shall be responsible for any fines, costs, remedies, or legal action and costs that may result.
- C. Each application of coating and paint shall be applied evenly, free of brush marks, sags, runs and no evidence of poor workmanship. Care should be exercised to avoid lapping on glass or hardware. Coatings and paints shall be sharply cut to lines. Finished surfaces shall be free from defects or blemishes.
- D. Protective coverings or drop cloths shall be used to protect floors, fixtures, equipment, prepared surface and applied paints. Personnel walking on exterior roof of tank shall take precautions to prevent damage or contamination of painted surfaces. If required by Engineer, personnel shall wear soft-soled shoes, or shoe coverings approved by Engineer. Care shall be exercised to prevent coating or paint from being spattered onto surfaces which are not to be coated or painted. Surfaces from which such material cannot be removed satisfactorily shall be refinished as required to produce a finish satisfactory to the Engineer.
- E. All materials shall be applied as specified herein.
- F. All welds and irregular surfaces shall receive a brush coat of the specified product prior

to application of the intermediate and finish coat. Application of stripe coat shall not be accomplished simultaneously with spray coat and shall be allowed to dry a sufficient amount of time before application of subsequent spray coat. Coating and paint shall be brushed in multiple directions to ensure penetration and coverage, as approved by the Engineer. These areas include, but are not limited to, welds, nuts, bolts, etc. Care shall be exercised to ensure dry film thickness of coatings and paints does not exceed the maximum thickness allowed by the manufacturer of the specific product being applied.

- G. At conclusion of each day's blast cleaning and coating and paint operations, a 6" wide strip of blast cleaned substrate shall remain uncoated to facilitate locating point of origin for successive day's blast cleaning operations.
- H. Epoxy coated surfaces or other multi-component materials exposed to excessive sunlight or an excessive time element beyond manufacturer's recommended recoat cycle, shall be scarified by Brush-off Blast Cleaning (SSPC-SP7) or methods approved by Engineer, prior to application of additional coating. Scarified coating shall have sufficient depth to assure a mechanical bond of subsequent coat, as recommended by the manufacturer.
- I. All attachments, accessories, and appurtenances shall be prepared and finished in the same manner as specified for adjoining tank sections, except as specifically designated by the Engineer.
- J. Each successive application of coating or paint shall be of sufficient contrast in color to facilitate inspection for uniform coverage of each coat. Owner shall designate finish colors.

3.8 APPLICATION, INTERIOR EPOXY COATING SYSTEM

A. Interior Roof, above the bottom:

- 1. After completion of surface preparation as specified, all surfaces above the bottom shall receive three 5.0 mils coats of epoxy coating specified in 2.2 D., "SPECIFIC INTERIOR COATING MATERIALS". Total dry film of the completed system shall be a minimum of 15.0 mils.
- 2. Maximum dry film thickness allowed, if not specified in manufacturer's approved literature, will be as determined, in writing, by the coating manufacturer's headquarters technical representative.

B. Interior **Bottom** Surfaces:

- 1. After completion of surface preparation as specified, all bottom surfaces shall receive three 6.0 to 7.0 mil coats of epoxy coating specified in 2.2 D., "SPECIFIC INTERIOR COATING MATERIALS". Total dry film of the completed system shall be a minimum of 20.0 mils.
 - a. Maximum dry film thickness allowed, if not specified in manufacturer's approved literature, will be as determined, in writing, by the coating manufacturer's headquarters technical representative.

C. Designated void areas and lap seams:

1. After completion of finish coat application of epoxy coating, as specified, designated void areas, including but not limited to, column base, bolt holes, roof to shell transition and roof lap joints shall be primed, if required, and filled with joint sealant as specified under 2.2 E., "SPECIFIC INTERIOR COATING MATERIALS". Prior to filling joints, area shall be blown down or wiped as necessary to clean area. Voids shall be filled flush at a 1:1 angle.

3.9 QUALITY ASSURANCE, INTERIOR, EPOXY COATING SYSTEM

- A. All coating components shall be mixed in exact proportions specified by the manufacturer. Care shall be exercised to ensure all material is removed from containers during mixing and metering operations.
- B. All coatings shall be thoroughly mixed, utilizing an approved slow-speed power mixer until all components are thoroughly combined and are of a smooth consistency. Coatings shall not be applied beyond pot-life limits or recoat cycles specified by manufacturer.
- C. Thinners shall be added to coating materials only as required in accordance with manufacturer's printed literature and in the presence of the Engineer. Quantities of thinner shall not exceed limits set by applicable regulatory agencies.
- D. Application shall be by airless spray method, except as otherwise specified. Drying time between coats shall be strictly observed as stated in manufacturer's printed instructions, except there shall be a minimum of 12 hours between coats.
- E. Maximum time to recoat shall be strictly observed as stated in the manufacturer's printed instructions. Contractor shall be responsible for all cost associated with application of coating within the recoat window. If the maximum recoat window is violated, the Contractor will be required to brush-off blast the surfaces as required by the manufacture and the Engineer. The Contractor will be required to provide a fine abrasive that will not unnecessarily damage the coating to be scarified. If recoat violation is caused by the Contractor's schedule, all costs for brush-off blasting will be borne by the Contractor.
- F. When two or more coats are specified, where possible, each coat shall contain sufficient approved color additive to act as an indicator of coverage or the coats must be of contrasting color.
- G. Care shall be exercised during spray operations to hold the spray nozzle perpendicular and sufficiently close to surfaces being coated, to avoid excessive evaporation of volatile constituents and loss of material into the air or the bridging of cracks and crevices. Reaching beyond limits of scaffold perimeter will not be permitted. All overspray identified by Engineer shall be removed by hand or pole sanding prior to application of subsequent coat.
- H. Joint sealant may be applied by caulking gun, trowel or other approved method. Sealant shall be pressed firmly into voids to insure 100% filling/sealing.
- I. Upon completion of coating operations, after curing interval in accordance with

manufacturer's recommendations, holiday detection shall be accomplished, with a wire brush electrode, using the specified instrument at 1,500 volts. Repair and retesting shall be accomplished as specified under 1.10 "QUALITY ASSURANCE" Engineer is not precluded from verifying adequacy of holiday testing by accomplishing holiday detection of selected areas, using his own holiday detector.

1. Upon completion of coating application to bottom surfaces, lower shell surfaces of completed epoxy coating that may have been subjected to damage from abrasive blast cleaning of bottom surfaces shall be holiday detected again and repaired as noted above in 3.9 I.
- J. All mixing, thinning, application and holiday detection of coatings shall be accomplished in the presence of the Engineer.
- K. A time element equivalent to 7 days curing time at 70 degrees F and 50% relative humidity shall be allowed before placing the epoxy coating into service, as determined in 3.10 "FINAL CURING OF EPOXY COATINGS".

3.10 FINAL CURING OF EPOXY COATINGS

- A. Upon completion and acceptance of applied coating system, Contractor shall furnish an approved exhaust fan or blower of sufficient capacity to ensure removal of solvent vapors during curing process. The fan or blower, after approval by Engineer, shall be installed as approved by the Engineer and shall remain in continuous operation until coating is completely cured as determined by the manufacturer of the coating system. Operation and maintenance of blower during curing operations shall be the responsibility of the Contractor. In the event of blower malfunction, District will immediately notify Contractor, who will be responsible for immediate repair of blower or furnishing of another operating blower until completion of curing operations.
 1. If dehumidification is being used, the equipment shall remain in-place and run continuously during all curing operations.
- B. After completion of curing cycle as noted above, the Contractor shall test the applied coating with a solvent rub test performed in accordance to ASTM D5402 to verify, to the Engineer, adequate curing has been attained.
 1. If final cure has not been attained, based on above tests, ventilation shall be continued until applied coating passes the "acetone wipe-test" or "hardness test".
- C. After final cure is approved by Engineer, Contractor shall remove fan or blower.

3.11 APPLICATION EXTERIOR PAINT AND QUALITY ASSURANCE FOR PAINT SYSTEMS

- A. After completion of surface preparation as specified, all prepared surfaces shall receive the primer specified under 2.4 D., "SPECIFIC EXTERIOR PAINT MATERIALS". Dry film thickness shall not be less than 3.0 mils.
 1. Manufacturer shall provide recoat window guidelines for product based on temperature variations with minimum and maximum recoat windows.

- B. After proper drying interval, primed areas shall be carefully inspected to determine if paint edges have lifted or if other defects exist. If necessary, repairs shall be accomplished, using procedures as specified herein to effect a smooth transition between primer and subsequent coats.
- C. The primer shall be clean, dry and show no evidence of oxidation, after which all exterior primed surfaces shall receive the intermediate coat specified under 2.4 E., "SPECIFIC EXTERIOR PAINT MATERIALS", to a dry film thickness of 3.0 mils.
 - 1. Manufacturer shall provide recoat window guidelines for product based on temperature variations with minimum and maximum recoat windows.
- D. After specified drying interval, all intermediate coated surfaces shall receive the finish coat specified under 2.4 F., "SPECIFIC EXTERIOR PAINT MATERIALS", to a dry film thickness of 3.0 mils.
- E. Total dry film thickness of the completed three-coat system shall not be less than 9.0 mils at any point in the surface where bare metal was originally exposed, or less than 6.0 mils above the previous thickness where the new two-coat system was applied over existing paint.
 - 1. Prior to start of intermediate coat application, Contractor and Engineer shall conduct spot dry film thickness tests to determine the minimum dry film thickness of the existing paint system. A mutual agreement shall be reached as to the specific dry film thickness of the existing paint system, which shall then be used in determining if sufficient additional paint has been applied over the existing paint.
 - a. Maximum dry film thickness allowed, if not specified in manufacturer's approved literature, will be as determined, in writing, by the paint manufacturer's headquarters technical representative.
 - 2. Paint shall not be applied when wind speed exceeds fifteen miles per hour.
- F. Upon completion of exterior painting operations, inspection shall be accomplished as specified under 1.10 "QUALITY ASSURANCE". All applicable sections of 3.9 "QUALITY ASSURANCE, INTERIOR, EPOXY COATING SYSTEM" shall apply to exterior painting operations.
- G. All mixing, thinning, application and holiday detection of coatings and paints shall be accomplished in the presence of the Engineer.
- H. Color Scheme: The District shall select colors for the project. The Contractor shall submit a current chart of the manufacturer's available colors to the District's representative ten days prior to start of painting operations.
- I. The Contractor shall supply the District with five extra gallons of both the epoxy and urethane paints used for the exterior surfaces.

3.12 DISINFECTION

A. Disinfecting of interior surfaces of tank shall be accomplished in the presence of the Engineer and District's Operations, in conformance to AWWA Standard C652 Section 4.3 Chlorination Method 2 as modified herein:

1. Disinfection shall be accomplished after completion and acceptance by District of all interior recoating and curing of coating as required in 3.10 "FINAL CURING OF EPOXY COATINGS".
2. Prior to disinfecting, the complete interior shall be cleaned with an approved cleaner or detergent applied via high pressure method. If deemed necessary by Engineer because of contaminants remaining on surfaces, immersed areas shall be scrubbed with a brush or similar implement which will apply force and pressure to the surface to completely remove residual solvents and other surface contaminants.
3. Contractor shall coordinate with the District to purge all tank piping to remove stagnate water and any debris trapped in the line prior to disinfecting the interior of the tank.
4. Cleaned surfaces shall then be rinsed with clean water. Residual water and contamination removed during washing process shall be thoroughly flushed from tank and contained. The District will provide a location to dispose of the residual water. This operation shall be accomplished after completion of interior coating work as directed by the Engineer.
5. After completion of cleaning cycles as noted above, all interior surfaces shall be jet washed with a chlorine or chloramine solution having a content of 200 PPM. Chlorine or chloramine solution used to disinfect the interior of the tank shall remain in the bottom of the tank when the tank is filled.
 - a. Contractor shall furnish and install new gaskets and nuts and bolts for the manholes and seal-up the tank.
6. Once the tank has been completely filled, the tank will be isolated from the water system and the District will take a Bac-T test. Should the Bac-T test fail, the Contractor will be responsible for reimbursing the District for the rejected and drained water and will be required to re-chlorinate the tank as described above until the Bac-T tests are negative.

3.13 TESTING FOR VOLATILE ORGANIC COMPOUNDS (VOC'S)

A. To monitor the presence of VOC's leached into the water from the coating process, the following procedure shall be utilized:

1. After satisfactory curing, the tank shall be filled by District in accordance with standard filling procedure. Water shall then be retained for a period of five days.
2. On the sixth day following completion of filling of tank, samples of water shall be removed by District, in accordance with latest SWRCB Division of Drinking Water memoranda. Samples shall then be forwarded, by District, to an approved test

laboratory for testing to determine presence of VOC's.

3. After testing of samples, results must show levels of leached organics to be in accordance with levels established by the SWRCB Division of Drinking Water for various VOC's. Results will be verified by SWRCB Division of Drinking Water and tank will then be placed into operating service.
4. If levels of leached organics exceed those acceptable to the SWRCB Division of Drinking Water, the tank shall be drained, flushed, refilled and retested at the Contractor's expense. Failure of the tank to attain levels acceptable to the SWRCB Division of Drinking Water shall be the responsibility of the Contractor and remedial measures to attain such levels shall be at his sole expense.
5. If leached organics produce any taste and odor objectionable to consumers of the water from the tank, the tank shall be drained, recleaned, flushed, refilled and retested at the Contractor's expense. Failure of the tank to be taste and odor-free shall be the responsibility of the Contractor and remedial measures to attain such a condition shall be at his sole expense.

3.14 CLEANUP

- A. Upon completion of the work, all staging, scaffolding and containers shall be removed from the site or destroyed in a manner approved by the Engineer. Coating, paint and thinner containers, and excess coatings, paints and thinners, shall be disposed of in conformance to current regulations. Coating or paint spots upon adjacent surfaces shall be removed and the entire jobsite cleaned. All damage to surfaces resulting from the work of this section shall be cleaned, repaired or refinished to the complete satisfaction of the Engineer at no cost to the District.
- B. Upon completion and acceptance of all coating and painting operations, site soil shall be retested by the District, in same locations tested prior to start of work, for presence of lead or other heavy metals. Testing shall be accomplished by the same laboratory as the original testing under requirements of Title 22. If soils contain excessive levels of lead or other heavy metals above those levels determined by testing at start of work and beyond acceptable levels of current regulations, Contractor shall be responsible for removal and disposal of contaminated soil, and returning the site to its original condition. Copies of laboratory analyses reports shall be forwarded to Contractor immediately upon receipt from laboratory, prior to start of any work. Any required remediation schedule will be determined by the District.

3.15 OMISSIONS

- A. Care has been taken to delineate herein those surfaces to be coated or painted. However, if coating and painting requirements have been inadvertently omitted from this section or any other section of the specifications, it is intended that all metal surfaces, unless specifically exempted herein, shall receive a first-class protective system equal to that given the same type surface pursuant to these specifications.

END OF SECTION

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13200 - MISCELLANEOUS STRUCTURAL MODIFICATIONS

PART 1 - GENERAL

1.1 PURPOSE

- A. This specification establishes methods and procedures for miscellaneous structural and safety modifications.

1.2 SCOPE OF WORK

- A. The Contractor shall furnish, fabricate and install all the miscellaneous structural and safety modification items as required by these specifications and noted drawing for the following 500,000 gallon tank with a 61 ft. diameter and a 24 ft. height. (Dimensions are approximate only and should be field verified by Contractor.)
- B. Work to be completed for the tank includes additions, replacement and modification of miscellaneous structural items to bring the structure into compliance with current safety and health codes, standards and regulations. The following items are required on the tank as listed:
 - 1. Furnish and install new lateral bracing at mid span of the rafters.
 - 2. Furnish and install roof blocking at designated locations, 120 degrees apart at locations noted on the drawings.
 - 3. Remove and dispose of all vent screening prior to coating interior and install new screening at completion of interior coating.
 - 4. Remove existing guardrailing and furnish and install new guardrailing around the roof hatch/work area.
 - 5. Furnish and install a self-closing gate at the termination of the ladder at the roof level.
 - 6. Remove existing roof hatch and fabricate and install a new 36" x 36" roof hatch at location designated on the plans. Hatch must be aligned with the interior ladder in a manner that allows a person safe access to the ladder.
 - 7. Furnish and install a 24" safety/exhaust fan roof vent at location designated by the Engineer.
 - 8. Furnish and install Saf-T-Climb fall prevention device on the exterior ladder, including dismount section.
 - 9. Modify the top of the ladder and cage to brace the fall prevention device as noted on plans for dismounting the exterior ladder.
 - 10. Furnish and install fall restraint cables, attachments, and necessary mounting hardware.

11. Remove and dispose of the existing interior ladder and replace with a fiberglass ladder at location noted on the plans. Align the ladder braces with the roof hatch in a manner that allows a person safe access to the ladder.
12. Furnish and install Saf-T-Climb fall prevention device on the interior ladder, including dismount section.
13. Existing overflow pipe and weir box shall be modified to provide a 4 ft. 3 in. freeboard in conformance to details shown on the plans.
14. Fill or weld plates over excessively pitted areas or corroded rafters, as determined necessary by the Engineer.
15. Excessively corroded areas on the rafter flanges that comprise of sharp edges from sandblasting shall be ground smooth and rounded, as determined necessary by the Engineer.

1.3 DEFINITIONS

- A. The following pairs of words shall be considered identical in meaning and may be used interchangeably: "District" and "Owner"; "General Conditions" and "General Provisions"; "Drawings" and "Plans"; "Standard Drawings" and "Standard Plans".
- B. The District referred to in these specifications is the Big Pine Community Services District. Engineer shall be person or persons as designated by the District.
- C. The definition of the word "Engineer" contained herein is: The person authorized by the District to oversee the execution of the contract, acting either directly or through his properly authorized agents, each agent acting only within the scope of authority delegated to him.

1.4 APPLICABLE STANDARDS AND SPECIFICATIONS

- A. Without limiting the general aspects or other requirements of this specification, work and equipment shall conform to applicable requirements of municipal, state and federal codes, laws and ordinances governing the work, and the District, subject to Engineer's approval.
- B. Welding and design shall be accomplished in conformance to the latest revision of AWWA D100 Standard for Welded Steel Reservoir for Water Storage. Where tolerances and details are not defined by the AWWA Standard, the applicable sections of the American Petroleum Institute (API) Standard 650 shall apply. Welders shall be certified to the procedure and process called for in the work, and certification papers shall be on file with the Contractor at the job site, or in possession of welders at all times.
- C. Original drawings and typical sketch drawings are included as specific references. Contractor is to submit shop drawings or sketches in detail of each item to be added, replaced or modified, as noted in 1.7.

1.5 COMPLETION OF WORK

- A. All work shall be completed within the number of calendar days consistent with the Contract

Period noted in the Contract Documents. If work is not completed within the number of calendar days specified, Contractor shall bear all additional expenses incurred after contract completion schedule.

1.6 CONTRACTOR

- A. The Contractor shall be licensed under the laws of the State of California in the classification of General Engineering "A". He shall have a minimum of five years' practical experience and successful history of similar new steel tank work. Contractor shall substantiate this requirement by furnishing a written list of references. The Owner reserves the right to contact references not on the written list provided by the Contractor.

1.7 SUBMITTALS

- A. Six copies of detailed shop drawings or sketches of field work and required calculations shall be submitted to the Engineer for review for all structural work. Drawings or sketches shall contain sufficient details to clearly define work to be accomplished. Submitted drawings and calculations shall be stamped and signed by a California licensed Structural or Civil Engineer. Fabrication or installation shall not be commenced prior to review and approval of shop drawings or sketches.
- B. An electronic submittal will be accepted in only the following format.
 - 1. The file shall be in pdf format.
 - 2. Each project submittal shall be a separate file.
 - 3. Each file shall be labeled in the following sequence:
 - a. Owner Name/Project Name
 - b. Submittal No.
 - c. Description

1.8 HOURS OF WORK

- A. The Contractor's activities shall be confined to a ten-hour shift between the hours of 7:00 a.m. and 5:00 p.m. Monday through Thursday, excluding District-designated holidays. Deviation from these hours will not be permitted without the prior consent of the Engineer, except in emergencies involving immediate hazard to persons or property.
- B. In the event of either a requested or emergency deviation, inspection service fees for District personnel and any third-party inspector will be charged against the Contractor. The service fees will be calculated at overtime rates including benefits, overhead, and travel time. The service fees will be deducted from any amounts due the Contractor. Charges will be made for any change to extraordinary work hours, including standby time due to late crew arrival or "no-show" by crew.
- C. Inspections requested by or made necessary as a result of actions by the Contractor on Saturdays, Sundays or holidays must be scheduled and approved by Engineer and paid for by Contractor at the prevailing rate for overtime or holiday work.

1.9 EXTRA WORK

- A. The District may, as the need arises, order changes in work through additions, deletions, or

modifications, without invalidating the Contract. Such changes will be effected through written change orders delivered to the Contractor describing the change required in the work, together with any adjustment in contract price or time of completion as hereinafter provided. No such change shall constitute the basis of claims for damages or anticipated profits; however, the Engineer will make reasonable allowance for the value of any work, materials, or equipment furnished and subsequently rendered useless because of such change. Any adjustment in Contract price resulting from a change order will be considered in computing subsequent monthly payments due the Contractor. Any work accomplished in accordance with a change order shall be subject to all provisions of the original Contract, and the Contractor's sureties shall be bound thereby to the same degree as under the original Contract. The Contractor will not receive payment for extra work accomplished unless said extra work is ordered in writing.

- B. Any adjustment in contract price shall be based on unit price bid items or additive and deductive bid items submitted by the Contractor in his original bid on the work where such bid items are applicable, or time and material rates established at the Pre-Construction Conference or in accordance with Section 5.03 of General Conditions when the above is not applicable.

1.10 PRE-BID CONFERENCE

- A. A mandatory Pre-Bid Conference for the project will be conducted by the Engineer at the site as noted in the Notice Inviting Bids. The object of the Pre-Bid Conference is to acquaint bidders with existing facility and site. The conditions and requirements of the plans and specifications shall govern over any information presented at the Pre-Bid Conference, unless amended in writing by the Engineer.

1.11 PRE-CONSTRUCTION CONFERENCE

- A. Pre-Construction Conference shall be scheduled upon issuance of Notice to Proceed. The District, Contractor and Engineer shall be present. The sequence of work will be discussed and will be mutually agreed upon to ensure the work is accomplished and completed as stated in the Contract and to allow for inspection and operations flexibility by District. A schedule of work to be accomplished and a list of labor, material and equipment rates for additional work will be established and maintained throughout the project. Contractor shall furnish resumes of all personnel assigned to project, and a complete set of approved submittal data for use by inspection personnel.
- B. Where applicable, Contractor shall submit manufacturers' literature and Material Safety Data Sheets (MSDS) on all materials to be used. Contractor shall maintain copies of MSDS's at job site at all times.

1.12 QUALITY ASSURANCE

- A. Quality assurance procedures and practices shall be used to monitor all phases of work throughout the duration of the project. Procedures or practices not specifically defined herein may be used provided they meet recognized and acceptable professional standards and are reviewed and approved by the Engineer.
- B. All materials furnished and all work accomplished under the Contract shall be subject to inspection by the Engineer. The Contractor shall be held strictly to the true intent of the

Specifications in regard to quality of materials, workmanship, and diligent execution of the Contract.

- C. Welding procedures and welding operators shall have been qualified in accordance with AWWA D100 Standard. All butt joints shall be complete penetration and fusion of joints. All completed welds shall be free of slag and all finish steel surfaces free from weld spatters. Examination of the welded joints shall be made as the work progresses in accordance with API 653 Section 10 (Revised), herein included as part of this specification.
- D. Work accomplished in the absence of prescribed inspection may be required to be removed and replaced under proper inspection. The entire cost of removal and replacement, including the cost of all materials which may be furnished by the District and used in the work thus removed, shall be borne by the Contractor, regardless of whether the work removed is found to be defective or not. Work covered up without approval of the Engineer, shall, upon order of the Engineer, be uncovered to the extent required. The Contractor shall bear the entire cost of accomplishing all the work and furnishing all the materials necessary for the removal of the covering and its subsequent replacement, as directed and approved by the Engineer.
- E. Except as otherwise provided herein, the cost of inspection will be furnished by the District.
- F. The Engineer will make, or have made, such tests as he deems necessary to assure the work is being accomplished in accordance with the requirements of the Contract. In the event such tests reveal non-compliance with the requirements of the Contract, the Contractor shall bear the cost of such corrective measures deemed necessary by the Engineer, as well as the cost of subsequent retesting. It is understood and agreed the making of tests shall not constitute an acceptance of any portion of the work, nor relieve the Contractor from compliance with the terms of the Contract.
- G. The one-year warranty inspection shall be conducted between the eleventh and sixteenth months following completion of all work and filing of the Notice of Acceptance. The draining of the tank will be accomplished when there will be minimum inconvenience to the District. All personnel present at the Pre-Construction Conference should be present at this inspection. All defective work shall be repaired in strict accordance with this specification and to the satisfaction of the Engineer.
 - 1. Notification: The District shall establish the date for the inspection and shall notify the Contractor at least 30 days in advance. The District will drain the tank and Contractor shall provide, at his own expense, suitable lighting and ventilation for the inspection. At the District's option, warranty inspection for interior surfaces may be accomplished by diving operations with tank in service.
 - 2. Inspection: The entire work shall be visually inspected as specified. All defective work shall be satisfactorily repaired by and at the sole expense of the Contractor.
 - 3. Inspection Report: The Engineer shall prepare an inspection report covering the first anniversary inspection, setting forth the number and type of defects observed, and the names of the persons making the inspection.
 - 4. Schedule: Upon completion of inspection and receipt of Inspection Report as noted herein, District shall notify Contractor of results of inspection and establish a date for

Contractor to proceed with remedial work. Any delay on part of Contractor to meet schedule established by District shall constitute breach of this Contract and District may proceed to have defects remedied as outlined under General Provisions.

5. Remedial Work: The Contractor shall make repairs at all points where defects are observed by removing the defective work and repairing or replacing it to bring the item into total conformance to the original specification.
6. Upon completion of warranty remedial work, Contractor shall wash down as needed and disinfect tank as specified in Section 9800. Contractor shall furnish and install new gaskets for the manholes and nuts and bolts, as deemed necessary by the District.
7. Costs: All noted costs for Contractor's inspection and all costs for repair shall be borne by the Contractor and in figuring his bid, the Contractor shall include an appropriate amount for testing and repair as no additional allowance will be paid by the District for said inspection and repair. Contractor shall furnish new gaskets for manholes as needed and re-seal tank for service.

1.13 SAFETY AND HEALTH REQUIREMENTS

- A. Contractor shall submit a notarized letter signed by a principal officer of the Corporation or Company certifying the Contractor fully complies with California Code of Regulations pertaining to the work, including, but not limited to the following Construction Safety Orders (CSO) and General Industry Safety Orders (GISO). Review of Contractor's safety plan by Engineer does not imply that District accepts responsibility for such plans or safety activities.

1.	Illness Injury Prevention Program	CSO/GISO	1508/3203
2.	Confined Space Plan	GISO	5156/5159
3.	Respiratory Protection	CSO/GISO	1531/5144
4.	Hazard Communication	GISO	5194
5.	Lead-Based Paint Compliance Plan	CSO	1532.1
6.	Rolling Scaffolds	CSO	1646
7.	Employee Safety Instruction	CSO	1510
8.	Emergency Medical Service	CSO	1512
9.	Dusts, Fumes, Mists, Vapors & Gases	CSO	1528

- B. General: Contractor assumes the responsibility to accomplish all work in a safe and prudent manner, and to conform to all applicable safety requirements, regulations and guidelines of federal, state and local regulatory agencies, as well as applicable manufacturer's printed instructions and appropriate technical bulletins and manuals. Without in any way limiting that responsibility or assuming responsibility for safety, the District is particularly concerned

that the following are strictly observed:

1. Life Saving Equipment: Contractor shall provide and require use of personal protective life saving equipment for all its personnel working in or about the project site.
2. Access Facilities: All ladders, scaffolding and rigging shall be designed for their intended uses. Ladders and scaffolding shall be erected where requested by Engineer to facilitate inspection and be moved by the Contractor to locations requested by the Engineer.
3. Ventilation: Where ventilation is used to control hazardous exposure, all equipment shall be explosion-proof, of industrial design and shall be approved by the Engineer. Household-type venting equipment will not be acceptable. Ventilation shall reduce the concentration of air contaminant to the degree a hazard does not exist by educting air, vapors, etc from the confined space.
 - a. Ventilation system shall be furnished and installed by the Contractor in accordance with these specifications. The Contractor shall make modifications to the ventilation system as required by Cal/OSHA to ensure a safe working environment and complete removal of all contaminated vapors.
4. Head and Face Protection and Respiratory Devices: Equipment shall include protective helmets, which shall be worn by all persons while in the vicinity of the work.
 - a. When and where required, positive pressure air-fed hoods and/or masks shall be supplied by an air source currently certified to produce "Class D Breathing Air". Contractor shall at all times during the work maintain onsite current documentation to substantiate the quality of the breathing air.
5. Grounding: Welding leads and related equipment shall be grounded to prevent accumulation of charges of static electricity.
6. Illumination: Sparkproof artificial lighting shall be provided for all work in confined spaces. Light bulbs shall be guarded to prevent breakage. Lighting fixtures and flexible cords shall comply with the requirements of NFPA 70 "National Electric Code" for the atmosphere in which they will be used. Whenever required by the Engineer, the Contractor shall provide additional illumination and necessary supports to cover all areas to be inspected. The level of illumination for inspection purposes shall be determined by the Engineer.
7. Toxicity and Explosiveness: The solvents in existing interior coatings when burned or exposed to excessive heat may be explosive at low concentrations and highly toxic. Because of toxicity, the maximum allowable concentration of vapor shall be kept below the maximum safe concentration for eight-hour exposure, plus Lower Explosive Limit (L.E.L.) must be strictly maintained. Exterior coatings have been determined to contain zinc. All regulations related to safety of personnel and handling of such materials shall be strictly followed. Cost of handling and disposing of such materials will be borne by the Contractor.

- a. Contractor's responsibility for meeting all regulations relating to toxic and hazardous materials includes, but is not limited to, obtaining all permits and EPA numbers, processing paperwork, blood testing of personnel, sampling and testing of wastes, paying fees, handling and packaging of wastes at site, and delivering materials to the selected Class I dumpsite using licensed hazardous materials transporters. All regulations relating to working with heavy metals or confined spaces shall be strictly enforced.
8. Protective Clothing: During cutting, burning and welding operations, workmen shall wear gloves, eye shields and other protective clothing. If working with lead or other heavy metals, regulations regarding handling of exposed clothing shall be strictly enforced.
9. Fire: Appropriate type fire abatement devices shall be provided by Contractor, and be readily available at the job site during all operations.
10. Sound Levels: Whenever the occupational noise exposure exceeds the maximum allowable sound levels, the Contractor shall provide and require the use of approved ear protective devices.
 - a. Noise suppression shall be practiced at all times to minimize disturbance to persons living or working nearby and to the general public. The measures to be used in effecting noise suppression shall include (but not be limited to) equipping all internal combustion engines with critical residential silencers (mufflers), shielding noise-producing equipment from nearest areas of human occupancy by location in such positions as to direct the greatest noise emissions away from such areas, and conducting operations in the most effective manner to minimize noise generation consistent with the prosecution of the Contract in a timely and economic manner. Whenever levels exceed local ordinances or District requirements, they shall be adjusted as directed by the Engineer.
11. Gas and Air Monitoring: Contractor will furnish monitoring equipment to determine the presence of oxygen deficiency or dangerous air contamination. Continual monitoring will be required. Concentration levels would be as prescribed by Cal/OSHA.

PART 2 - MATERIALS OF CONSTRUCTION

2.1 GENERAL

- A. All materials specified are those, which have been evaluated for the specific use. Any proposed substitutions must be submitted to the Engineer prior to the bid opening.
- B. All steel plate components shall be fabricated from new ASTM A-36 material and all new carbon steel pipe shall be ASTM A-53 material. Contractor shall provide certified mill test reports for all steel plate and pipe.
- C. Materials of construction not specified as noted herein, shall be as noted in applicable sections of Standard Specifications for Public Works Construction, latest edition.

2.2 PRODUCTS

- A. Self-Closing Gate: Self-Closing Gate shall be a FabEnCo, Inc. Model No. XL71-33PC, Houston Texas (713) 686-6620, or approved equal.
- B. Safety Climb: Safety Climb shall be a Saf-T-Climb rigid rail fall prevention system by Miller Safety Products or approved equal.
- C. Fall Restraint System:
 - 1. Wire rope: Shall be ¼" S.S. 7 x 19 Wire Rope with clear vinyl coating from McMaster-Carr 8912T754, Landmann, US Cargo Control or approved equal.
 - 2. Carabiner: Carabiners shall be Miller 17D-1, DBI Sala or approved equal.
 - 3. Compression Sleeves: Shall be tin-plated copper alloy from McMaster-Carr 3883T47, Nicropress, or approved equal.
 - 4. Thimble: Shall be McMaster-Carr 3868T45 or approved equal
- D. Nuts and Bolts: All bolts and nuts used on the interior of the tank shall be ASTM A307 steel galvanized after fabrication for appurtenances and ASTM A563 or A325 for rafters.

PART 3 - EXECUTION

3.1 GENERAL

- A. All work shall be executed in accordance with the requirements of the American Water Works Association Standard D100, latest revision, the District, and these specifications. Where the foregoing standards, recommendations, and specifications are conflicting, said conflicts shall be brought to the attention of the Engineer.
- B. All work shall be executed by skilled craftsmen qualified to accomplish the required work in a manner comparable with the best standards of practice. Resumes of personnel to be used on the project shall be submitted upon Notice of Award. Continuity of personnel shall be maintained and transfers of key personnel shall be coordinated with the Engineer.
- C. The Contractor shall provide a Project Superintendent to be at the work site during all operations. The superintendent shall have the authority to sign any change orders, pay estimates coordinate work and make other decisions pertaining to the execution of their contract.
- D. The Contractor shall cooperate with the District who may be conducting other operations on or near the tank.
- E. All installation and repair work shall be accomplished in such a way as to minimize tank down-time. All repair operations shall be completed so as not to impair completion schedule for project, which includes subsequent recoating and repainting of tank by others.
- F. The Contractor shall coordinate with the District at least seven (7) days before starting work at the site.

- G. All equipment, piping, and surfaces of the tank shall be protected from all damage and dust or other deleterious material infiltration during the operations of the Contractor. Any items damaged by the operations of the Contractor shall be replaced in kind or acceptably repaired to the satisfaction of the Engineer by the Contractor at no cost to the District.
- H. All work shall be made accessible to the Engineer at all times. The District may use own forces, engage full-time independent inspection services, or perform inspections intermittently. The Contractor is to supervise the job properly between inspections.
- I. The Engineer shall inspect the cleaning of pitted areas prior to welding and following post-weld repair applications.
- J. Any burrs, weld spatter, sharp edges, corners, or rough welds that would cause difficulty in achieving a defect-free paint system shall be chipped or ground smooth in conformance to NACE Standard RP0178-89. It is not the intent to have the welds or "scars" ground "flush". The object of the grinding is to eliminate sharp edges, corners, and overlaps to provide a surface for the application of a uniform thickness of coating or paint without voids or other defects.
- K. Should vents, holes, rigging attachments, or any other modification, cutting or welding be required to meet safety standards, they may be accomplished at the expense of the Contractor upon submitting of details in writing to, and with subsequent approval by the Engineer.
- L. Where it is necessary to abrasively blast clean or chemically strip coated or painted areas prior to, and after, any welding operations, work will be coordinated with the Engineer.
- M. Any remedial cleaning, coating and painting application shall be accomplished in accordance with the requirements listed in Section 3.3.
- N. Contractor shall provide approved sanitary facilities for all Contractor personnel, as no existing facilities will be available to the Contractor. Facilities shall be maintained during duration of project to complete standards of the District and shall be removed prior to Contractor's departure from the site at completion of the project.
- O. The Contractor's equipment shall be designed for installation of materials specified and shall be maintained in first class working condition. Contractor's equipment shall be subject to approval of the Engineer.
- P. The Contractor shall provide, at his own expense, all necessary power and scaffolding required for his operations under the contract.
 - 1. The interior of the tank will be recoated and the exterior repainted upon completion and acceptance of the structural modifications. Contractor may privately arrange for the coating and painting contractor to furnish scaffolding for accomplishment of all structural work prior to use of scaffolding for his work.

3.2 HEAVY METAL COMPLIANCE AND TESTING

- A. Contractor shall comply with requirements of the California Department of Public Health

Title 22 and Cal/OSHA Title 8 for worker protection during removal of paint and handling of hazardous wastes resulting from surface contamination and any removed paint particles. Contractor will remove existing interior coating and exterior paint where cutting, burning and welding will be accomplished. If any additional exterior paint is to be removed, submittal of a written plan of action for the project shall be accomplished by Contractor prior to start of project.

3.3 MODIFICATIONS AND REPAIRS

- A. Preparation: Prior to removal, modification or installation of any materials or fittings, existing exterior paint within six inches of specified work will be removed by Contractor in conformance to regulations noted in **Error! Reference source not found.** Contractor shall be responsible for removal of paint to a degree the existing paint will not interfere with any cutting, burning or welding operations.
- B. Welding: Welding shall be accomplished as specified herein and in conformance to referenced standards and industry practice.
- C. Drawings and Sketches: Available original site, piping and accessory drawings and miscellaneous typical sketch drawings are included as specific references. Contractor is to submit shop drawings or sketches in detail of each item to be added, replaced or modified, as noted in 1.7.
- D. Mid-span Bracing: Fabricate and install new lateral braces 3 ½" x 3 ½" x 1/4" angle at the mid-span of the rafters as shown on the plans.
- E. Roof Blocking: Rafters shall be reinforced/blocked with 3 ½" x 3 ½" x 1/4" angle at three locations 120 degrees apart as detailed on the plans.
- F. Center Vent: The center vent cover and existing screening shall be removed prior to coating the interior surfaces at the vent. After completion of the interior coating and exterior painting, new screening shall be installed. Screening for vent shall consist of 316 stainless steel screening 20 mesh on inside and 2 mesh backup on outside. Screening shall not be installed until after completion of the interior coating and exterior painting.
- G. Guardrailing: Remove existing guardrailing and fabricate and install new sections of guardrailing as designated on the plans, including kickplates. Pipe sections may be used provided they meet current Cal/OSHA requirements. Guardrailing layout shall be field verified prior to fabrication. Provide two brackets for securing the interior ladder dismount section on the guardrailing.
- H. Safety Gate: A self-closing hinged gate in accordance with Section 2.2 A. shall be provided at ladder opening at location noted on the plans. Gate shall not be installed until exterior painting is complete.
- I. Roof Hatch: Remove existing roof hatch and furnish and install an approved new 36" x 36" hatch with hinged cover at location noted on the plans. Hatch must be aligned with the interior ladder in a manner that allows a person safe access to the ladder. If necessary, install ¼" plate over existing opening as needed to cover the opening from the removal of the existing hatch. Place a seal weld at the roof to curb transition on the interior of the tank.

- J. Safety/Exhaust Fan Roof Vent: Furnish and install 24" diameter vent with an exhaust fan flange at a location designated by the Engineer. This is not a center vent. The purpose of this vent is to provide for attachment of Contractor's ventilation fan during interior cleaning and coating operations. Vent shall conform to details shown on the plans. Bolts and nuts for the vent shall be stainless steel or galvanized material. Screening for vent shall consist of 316 stainless steel screening 20 mesh on inside and 2 mesh backup on outside. Screening shall not be installed until after completion of the interior coating and exterior painting.
- K. Saf-T-Climb Device, Exterior: Furnish and install an approved new stainless steel Saf-T-Climb fall prevention device on the exterior ladder in accordance with Section 2.2 B., "PRODUCTS". The top of the Saf-T-Climb shall be braced in accordance with the plans.
- L. Exterior Ladder: Modify the top of the ladder and cage to brace the new safety climb rail and provide a 24" clear opening.
- M. Fall Restraint System: Furnish and install two new stainless steel cable assemblies as noted in Section 2.2 C and shown on the plans. Cable shall be stainless steel aircraft cable, 7 x 19 construction with a plastic sleeve the full length of the cable. Cable collar around the center vent at the top of the roof shall be 1/4" diameter cable, placed in a plastic sleeve to prevent paint damage. Use a minimum of two swaged cooper oval sleeves to connect the lapped ends of the cable. Cable shall also show a maximum of 2" greater diameter than the center neck at the roof level. Cable shall rest freely upon the roof after installation.
1. The two new stainless steel fall prevention personnel cables shall be 1/4" diameter and shall be fabricated with a swaged loop at the center vent attaching point and at the hold down point adjacent to the roof hatch/work area for a carabiner. The carabiner shall be double locking with a minimum tensile strength of 5,000 pounds and a minimum gate face of 3,600 pounds. The length of each personnel cable shall terminate 42" from outer perimeter of roof when attached to center cable.
 2. All cables shall contain stainless steel tags with proper identification in accordance with ANSI/ASSE Z359.1-1999.
 3. Paint the cable attachment bracket safety yellow.
- N. Interior Ladder: Remove and dispose of existing interior ladder. Existing brackets shall be cut flush with shell and shall be ground smooth to present an integrated interface with the shell. A new fiberglass ladder meeting Cal/OSHA requirements shall be installed in accordance with the plans at the new roof hatch. Isolator sleeves and washers shall be installed where dissimilar metals are in contact. The first ladder rung shall be located a minimum of 5 inches and a maximum of 10 inches below roof plate and a minimum of 8 inches from the shell. Align ladder with hatch in a manner that allows a person safe access to the ladder.
- O. Saf-T-Climb Device, Interior: Furnish and install an approved galvanized Saf-T-Climb fall prevention device on the interior ladder in accordance with Section 2.2 B. A dismount section shall be included on the interior ladder.
- P. Lower Overflow: Existing 8" overflow shall be lowered to allow a 4 ft. 3 in. freeboard between the roof plate and the top of overflow weir box in accordance with the plans. The

existing weir box shall be cut flush with the shell and shall be ground smooth. Furnish a new weir box 2 ft. ht. x 2 ft. deep x 3' wide in accordance with the plans. The existing opening in the shell from the removal of the overflow shall be plated over with ¼" plate and seal welded.

1. The determination for the structural reinforcement of the existing tank shell shall be determined by a licensed California structural engineer, experienced in tank design, for the Contractor, including submittal of calculations. All design costs, material costs, fabrication, inspection of all welds and completion of installation to the satisfaction of the Owner shall be the responsibility of the Contractor and shall be included in the Contractor's lump sum bid item.

- Q. Pit/Perforation Treatment: Excessively pitted or perforated areas shall be either filled with weld metal and ground smooth, or covered with a metal plate of the same plate thickness. Plate shall extend six inches beyond pit or perforation with a 100% fillet weld around perimeter of plate. This work will be accomplished on an hourly rate time and material basis. The following additional work may be required:
- R. Grinding: Excessively corroded areas on the rafter flanges that comprise of sharp edges from sandblasting shall be ground smooth and rounded as determined necessary by the Engineer.

3.4 TESTING

- A. The Contractor shall furnish all material, labor and equipment necessary to test the modifications as specified herein. Testing shall be completed prior to acceptance of work as complete and meeting the requirements of the specification.
- B. Spot examination of the welded joints shall be made as the work progresses by magnetic particle, dye penetrant method, or by spot radiographic examination as applicable.
- C. All defects uncovered by testing process shall be corrected and retested until such defects are eliminated.
- D. Contractor shall provide a watertight installation. After flushing of the chlorinated water and upon filling of the tank, any leaks, which occur on the tank or appurtenant piping shall be repaired by the Contractor at his expense and to the satisfaction of the Engineer. All chlorinated water shall be de-chlorinated in accordance to the District's NPDES permit prior to disposal.

3.5 CLEANUP

- A. Upon completion of the work, all staging, erection brackets, scaffolding and debris shall be removed from the tank and site and disposed in a manner approved by the Engineer. The entire job site shall be left in a clean condition.

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16641 - CATHODIC PROTECTION BY GALVANIC ANODES

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section addresses materials, installation and testing requirements for a new interior sacrificial anode cathodic protection system on one (1) welded steel ground storage water reservoir owned and operated by the Big Pine CSD. The reservoir is known as the 500,000 Reservoir and has a capacity of 500,000 gallons. The interior of the reservoir will have a new epoxy coating (by others).
- B. The work includes supplying all materials, tools and labor to install the following: sacrificial magnesium rod anodes and cables, cutting of new five (5) inch diameter anode handholes in the roof plates, providing six (6) inch diameter anode handhole covers, anode and cable mounting and suspension hardware and internal/external mounted potential monitoring test equipment.

1.2 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

- A. Commercial Standards: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designations only.
 - 1. ASTM B107-13 Standard Specification for Magnesium-Alloy Extruded Bars, Rods, Tubes and Wire
 - 2. ASTM D1248-12 Standard Specification for Polyethylene Plastic Extrusion Materials for Wire and Cable
 - 3. NACE SP0196-15 Galvanic Anode Cathodic Protection of Internal Submerged Surfaces of Steel Water Tanks
 - 4. NSF/ANSI 61-13 Drinking Water System Components – Health Effects

1.3 SUBMITTALS

- A. Submit the following for review and approval by the Owner's Corrosion Engineer (3 copies):
 - 1. Anodes
 - 2. Wire and Cable
 - 3. Anode Handhole Covers
 - 4. Potential Meter and Enclosure
 - 5. Permanent Reference Electrode
- B. Submit shop drawings in accordance with Owner's requirements. Shop drawings to include specific anode core to lead wire connections.

1.4 MANUFACTURERS

- A. All materials furnished under this specification shall be standard products of manufacturers regularly engaged in the manufacture of such products and equipment and shall be the manufacturer's latest design that complies with the specification requirements. All materials shall be manufactured in the USA where feasible.

PART 2 - MATERIALS

2.1 ANODE HANDHOLE COVERS

- A. Anode hole covers shall be 3/32" (min.) thick galvanized, cadmium plated or zinc plated mild steel or bare stainless steel, six (6.0) inches in diameter, with a 1/2" diameter centered stainless steel through bolt. A galvanized or cadmium plated steel bar or 1/2" thick FRP (fiberglass reinforced plastic - **not PVC**) bar shall be utilized to hold the cover in place and shall be dimensioned as shown. The bar shall be factory drilled and tapped to accept the 1/2" bolt. The end of the bolt shall be peened or saw cut with a slot to prevent the bar from coming off the bolt. A 6" dia., full face, 0.100" thick (min.) neoprene rubber gasket with a 9/16" diameter center hole shall be provided under the cover to seal the cover to the anode handhole in the roof plate. An additional EPDM or neoprene rubber grommet shall be provided between the roof plate and the neoprene cover gasket to facilitate future removal of the cover.

2.2 ANODES

- A. ASTM B107 Magnesium Rod, Galvorod Alloy (Dow Chemical) Certified (Standard Potential - 1.4/1.5 VDC – max. open circuit voltage to CSE) or approved equal. High potential (primary grade) anodes shall not be utilized for this project. Anodes shall be **NSF/ANSI Standard 61** certified.

1. Chemical composition of the anode shall be as follows:

a.	Aluminum	2.5-3.5 % maximum
b.	Manganese	0.20 % minimum
c.	Zinc	0.7-1.3 %
d.	Silicon	0.05 % maximum
e.	Copper	0.01 % maximum
f.	Nickel	0.001 % maximum
g.	Iron	0.002 % maximum
h.	Other (each)	0.05 % maximum
i.	Other (total)	0.30 % maximum
j.	Magnesium	Remainder

2. Bare Anode Weight: 25.0 pounds (min.) for 10-foot long rod (2.024" dia.).

3. Anode Diameter = 2.024 inches O.D. \pm 0.024"
Rod anodes shall be continuously cast or extruded with a centrally located 0.188" diameter iron wire core and shall be supplied with the anode lead wire conductor both factory silver soldered and hydraulically crimped or split bolted to the core.

The entire soldered/crimped connection shall be completely encapsulated in a waterproof heat shrinkable sleeve followed by an epoxy potting compound contained within an additional PVC sleeve or an overall heat shrinkable sleeve.

4. Anodes must be **NSF 61** certified with accompanying NSF paperwork and approved manufactures are Galvotec Alloys, Inc., Timminco Limited, Max Mag or other approved equal.

2.3 ANODE LEAD WIRES

- A. Anode lead wires shall be AWG #8 stranded copper conductors, ASTM D-1248 Type 1, Class A, Type CP, HMW/PE insulated (black), insulation thickness 0.110", not less than 15' in length and extend to the roof plate connection without splicing.

2.4 POTENTIAL METER AND ENCLOSURE

- A. An **analog** DC voltmeter shall be provided in an external enclosure to allow measurement of interior structure-to-water potentials. The meter shall read from 0-2 volts DC and have a minimum internal resistance of 100K ohms per volt sensitivity. Meter shall be at least 2-1/2" square and the face of the meter shall be permanently marked with a "yellow arc" from +0.850 volts to +1.200 volts. The meter circuit shall be provided with an external "push-to-read" momentary switch, which is normally "off" or "open" (NO). The voltmeter and switch shall be mounted on a PVC or acrylic board as shown.
- B. The enclosure for the meter shall be a painted steel NEMA 3R (rain tight) box with a hinged cover. The box shall be a Hoffman type or style with a gasket built into the cover for sealing. Box size shall be 8" x 8" x 4" and the cover shall have a hasp for padlocking the cover to the box. The meter and enclosure shall be the Model GMC-707TK as manufactured by GMC Electrical, Ontario, California or approved equal. If desired by the Owner, a **digital DC voltmeter** may be supplied as Model 707-D-TK in a 6" x 8" x 4" high-impact NEMA 4 polycarbonate box.

2.5 PERMANENT REFERENCE ELECTRODE

- A. The permanent reference electrode shall be the "Staperm", Model Cu-2-FW and shall be a 1-1/8" diameter x 8" long ABS (yellow) plastic housing with an internally coiled 1/8" diameter 99.9% pure copper rod suspended in a saturated laboratory grade copper-copper sulphate (CuSO₄) conductive paste. The electrode shall contain a chloride-ion trap and utilize a ceramic electrolyte contact plug on the bottom end. The design life shall be a minimum of 20 years with a stability of ± 5 millivolt (mV) under a 3 micro-amp (μ A) load. The electrode cable size shall be AWG #14 with RHH-RHW (yellow) insulation and be of sufficient length to reach from the electrode to the external potential meter enclosure without splicing. The electrode shall be as manufactured by GMC Electrical of Ontario, California or approved equal.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. The following installation procedures shall be accomplished with the tank wet or dry (Owner's option). The anodes will be suspended from the roof plates as shown in the Plans and shall meet all requirements of NACE Standard SP0196-15.

3.2 ANODE HANDHOLES

- A. The Contractor shall cut new exactly circular five (5.0) inch diameter holes, either by flame cut or a magnetic-mount circular hole saw, in the roof plate at the locations shown and **before** the tank is coated. Do not allow any part of the cut out roof plate material to fall into the tank. Coat the exposed edges of each cut hole with either matching roof paint or epoxy after grinding the edges smooth. Paint the exterior tops of all new handhole covers as directed by the Owner or as shown in the painting specifications.

3.3 ANODE INSTALLATION

- A. Install each anode and lead wire at the indicated locations (by the use of the individual anode clevis assembly):

NOTE: DO NOT PERFORM ITEMS "C" AND "D" BELOW UNTIL AFTER THE 11th MONTH COATING WARRANTY INSPECTION HAS BEEN PERFORMED (BY OTHERS)

- B. Suspend each anode from its clevis assembly as shown. Verify that the installed anode is the correct design distance off the tank floor. Cover the lead wire solderless lugs with a taped closed plastic "baggie" or other suitable cover to prevent corrosion of the connector until it's installed (connected).
- C. Connect the individual lead wire copper conductors to the roof plate by the use of the solderless lug connector and S/S bolt as shown after grinding the interior roof plate to bare metal. Anode supplier to provide a sufficient length of anode lead cable to connect to the lug without splicing the cable.
- D. After each connection is made, coat the exposed lug connector and any exposed cable copper conductor and interior bare steel roof plate with epoxy or other approved insulating coating to a thickness of at least 1/16". Slide each individual handhole cover centered and in place on the exterior roof plate and tighten the 1/2" bolt until it is just snug. Do not over tighten.

3.4 METER ENCLOSURE

- A. Mount the meter enclosure box on the exterior shell of the tank by the use of the mounting tabs provided on the box and type "M8" threaded metal studs attached (pin-brazed) **or** other "unistrut" or angle iron type mounting hardware welded to the shell as required by the Owner. Any pin-brazed or welded structures shall be accomplished **before** the tank is coated. Attach the box to the studs or mounting angles with stainless steel hexagonal nuts. Route 3/4" rigid galvanized conduit up the exterior side of the tank from the box to the roof plate. Terminate the conduit at the roof plate entry with a 3/4" Type LB steel conduit fitting. Attach an AWG #14 THWN (black) insulated copper cable from the voltmeter negative (-) terminal to the switch and then to the grounding lug or provided grounding wire in the box

as shown.

3.5 PERMANENT REFERENCE ELECTRODE

- A. Suspend the permanent reference electrode from its own lead wire at the location shown on the plans. On knuckle style roofs, attach the #14 lead wire to the interior ladder with a galvanized or stainless steel clamp. Route the electrode lead wire up the interior tank shell adjacent to the interior ladder and through the conduit fitting and down the exterior shell (behind or attached to the exterior ladder) in the $\frac{3}{4}$ " steel conduit to the meter enclosure. Do not splice or nick the electrode cable. Connect the reference lead copper conductor to the voltmeter positive (+) terminal with a ring-tongue solderless connector. Fill both sides of the roof mounted LB conduit interior inlet and outlets and the conduit entry into the meter enclosure with a canned type expandable "foam sealant" to prevent condensation and humidity from entering the $\frac{3}{4}$ " steel conduit and meter enclosure. Locate the $\frac{3}{4}$ " conduit entry to the monitoring box on the bottom of the box as shown on the Plans.

PART 4 - TESTING AND WARRANTY

4.1 CATHODIC PROTECTION SYSTEM TESTING

- A. A Corrosion Engineering firm retained by the Owner shall accomplish structure-to-water testing of the galvanic anode cathodic protection system. Testing will be conducted per the requirements of NACE Standard SP0196-15. Testing shall be accomplished after the newly installed and connected cathodic protection system has been in operation for at least one hour (and the tank maintained full during that interval) and only after the internal **coating warranty inspection** has been performed. Open-circuit anode potentials, initial connected potentials and final connected potentials shall be taken and recorded and a report presented to the Owner. Testing may be conducted by the installation Contractor if they have experience in such testing. Contractor shall only be held responsible for supplying the specified anode material, mounting hardware and potential monitoring equipment and not for the results of the system testing unless deficiencies are noted in the anode material.

4.2 WARRANTY

- A. All materials, especially the anodes, shall be warranted for a period of at least twelve (12) months after the cathodic protection system has been energized (connected). Any deficiencies in the materials, especially in the initial measured anode **open-circuit voltage** (to CSE) or **lack of NSF certification**, shall be cause to reject the entire lot of materials. The Contractor shall replace deficient materials, including labor to reinstall and any retesting required, at no cost to the Owner.

4.3 CLEANUP

- A. All debris, tools, storage materials and painting materials shall be removed from the tank roof and from the premises at the completion of the work herein specified. Any cost incurred by the Owner to clean up debris or other materials resulting from this work shall be back charged to the Contractor.

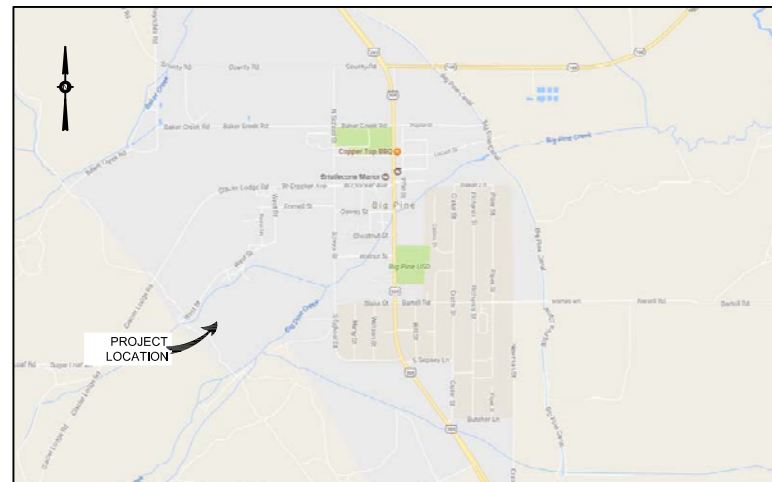
END OF SECTION

BIG PINE COMMUNITY SERVICES DISTRICT

PLANS FOR

REHABILITATION OF A 500,000 GALLON WELDED
STEEL WATER STORAGE TANK

JUNE 2017



VICINITY MAP
NTS

APPROVED BY:

R.C.E.

DATE _____

SUBMITTED BY:

KRISTA HARPER

R.C.E. 71280

DATE _____



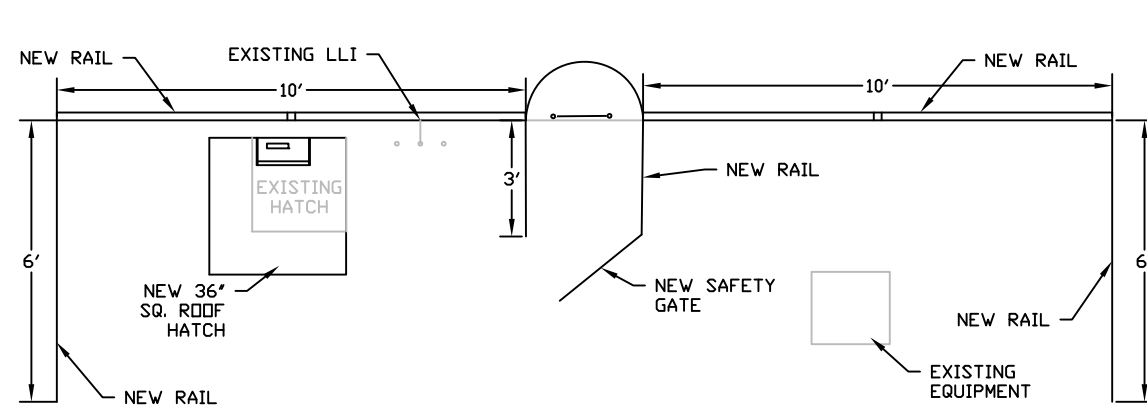
AERIAL MAP
NTS



INDEX MAP
NTS

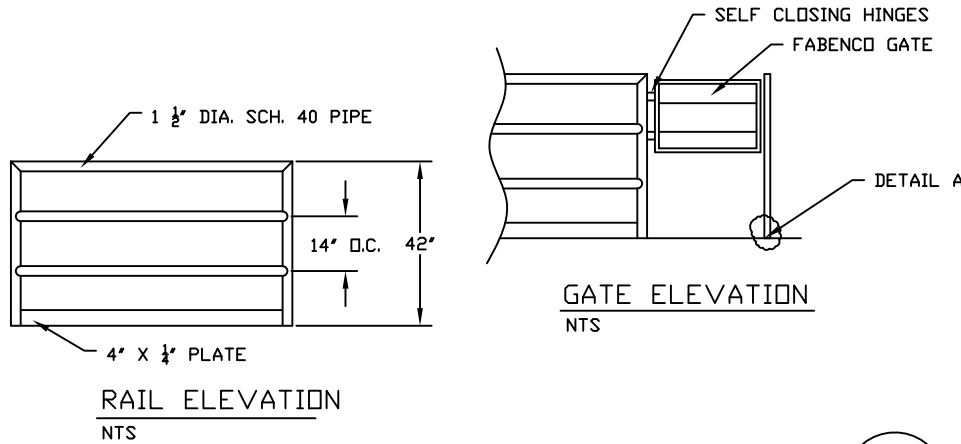
SITE LOCATION: WEST STREET, BIG PINE, CA 93513

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	COVER PAGE
2	GUARDRAILING, AUXILIARY VENT, & HATCH
3	ROOF BRACING
4	EXTERIOR & INTERIOR LADDER DETAILS
5	SAF-T-CLIMB & OVERFLOW
6	CATHODIC PROTECTION LAYOUT
7	CATHODIC PROTECTION DETAILS

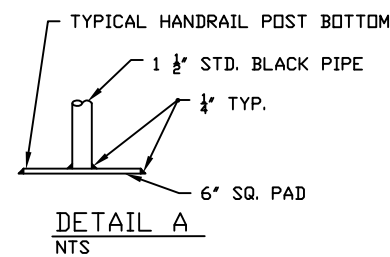


- NOTE:
1. CONFIGURATION MAY VARY, FEILD VERIFY MEASUREMENTS PRIOR TO FABRICATION
 2. MINIMUM AISLE WALKING WIDTH OF 30"

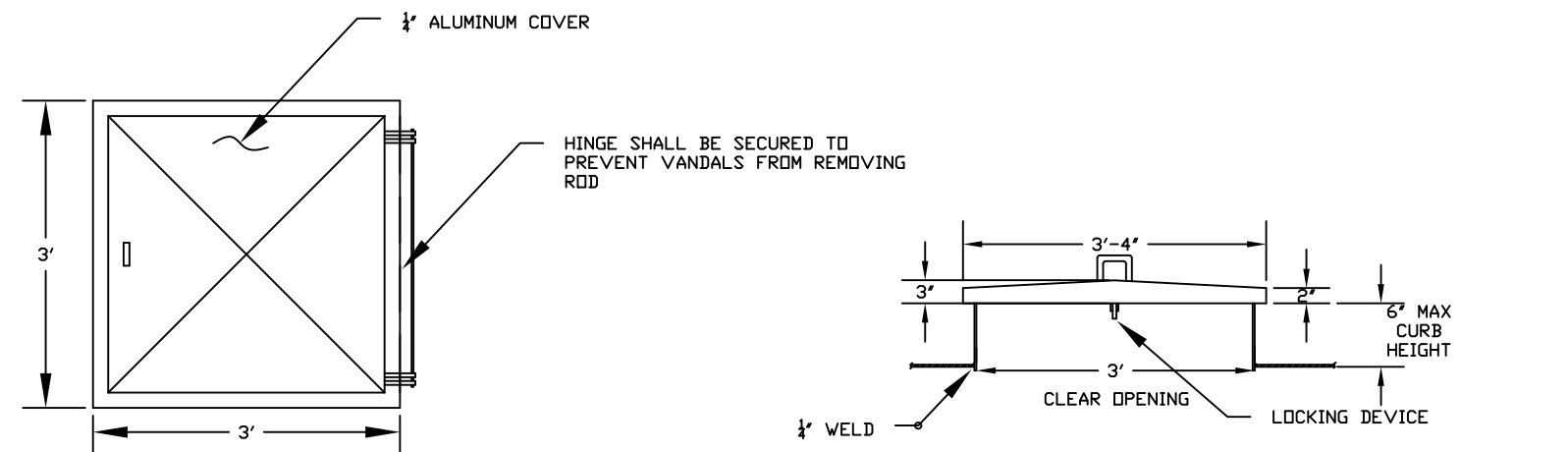
GUARDRAILING LAYOUT
NTS



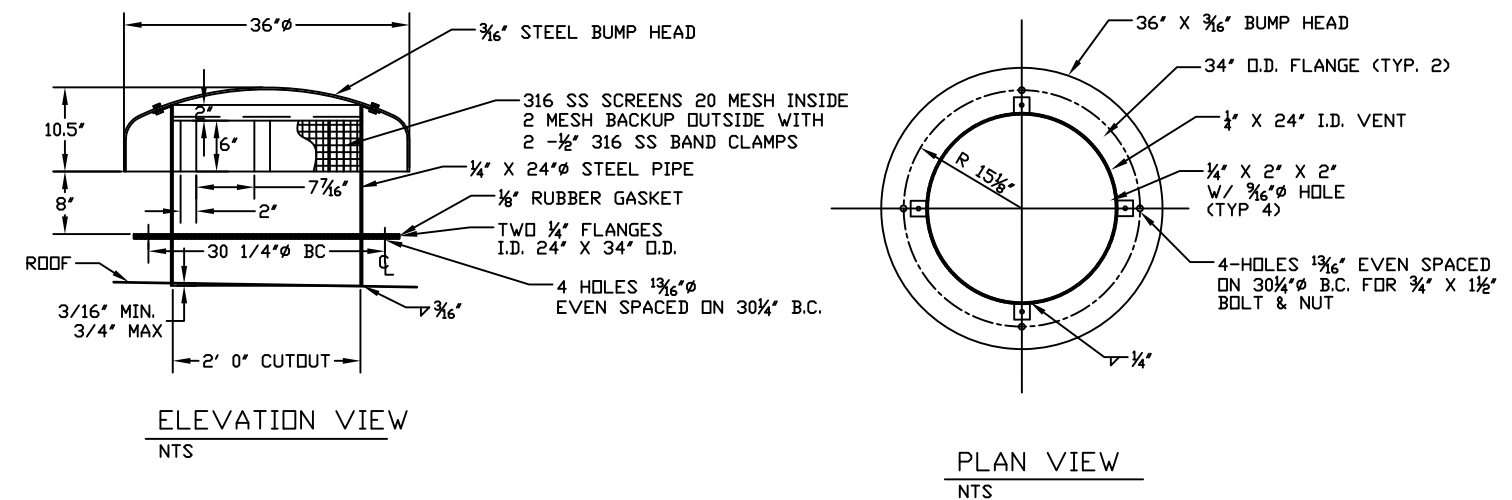
GUARDRAILING DETAILS
NTS



DETAIL A
NTS



ROOF HATCH DETAILS
NTS



NOTE: VENT LOCATION SHALL BE ADJUSTED AS NEEDED TO FIT BETWEEN STRUCTURAL MEMBERS.

AUXILARY VENT LAYOUT
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DATE: 6-6-17

NO.	DESCRIPTION	DATE	APPROVED
REVISIONS			

BIG PINE COMMUNITY SERVICES
DISTRICT PLANS FOR REHABILITATION
OF A 500,000 GALLON WELDED STEEL
WATER STORAGE TANK

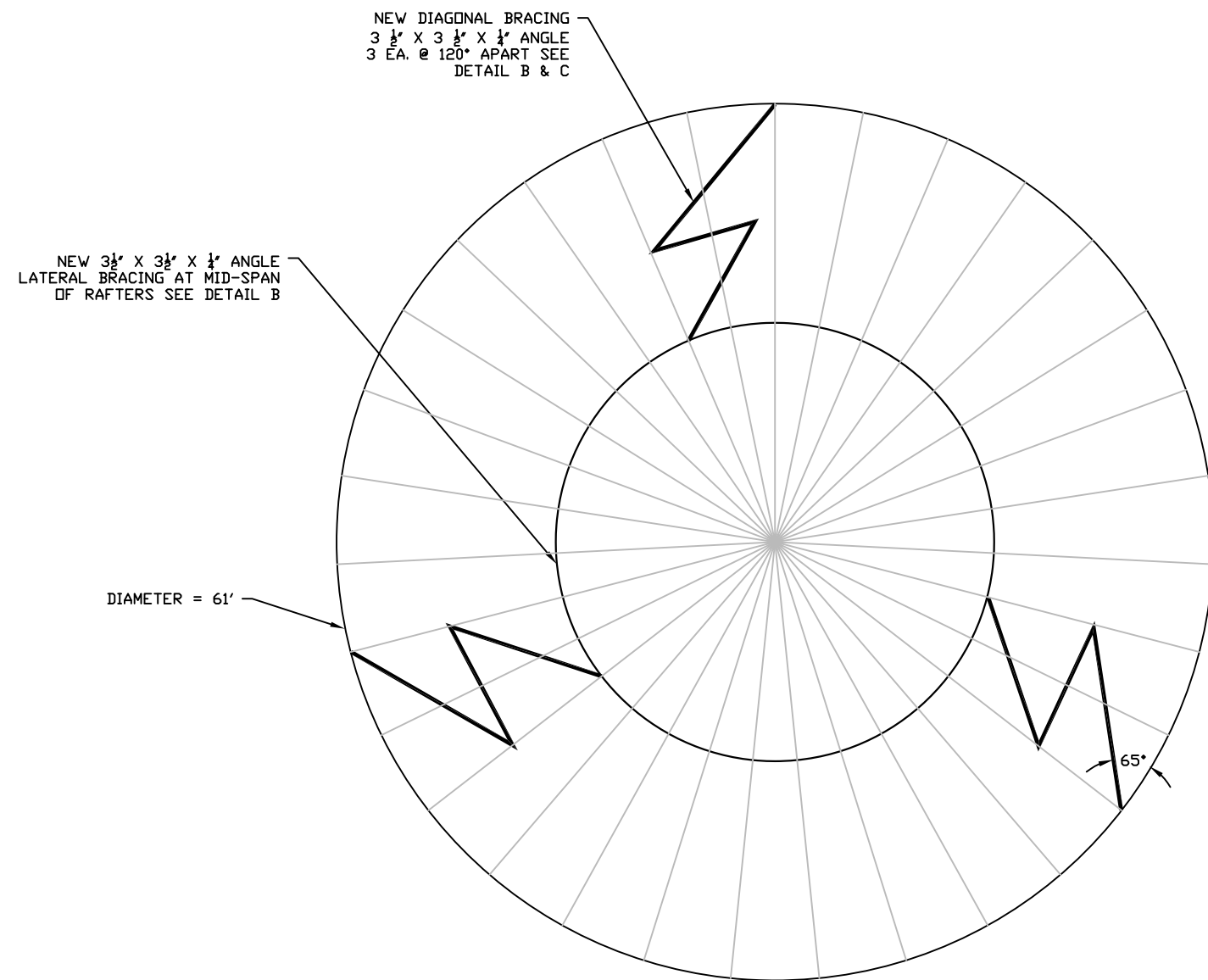
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GUARDRAILING, AUXILIARY VENT, & HATCH

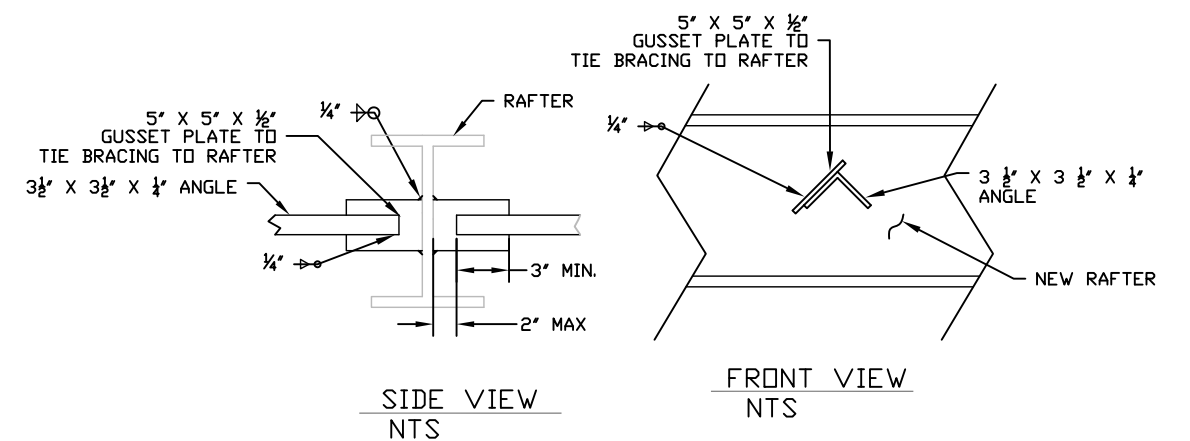
PROJECT NO. 2796

SHT. 2 OF 7 SHTS.

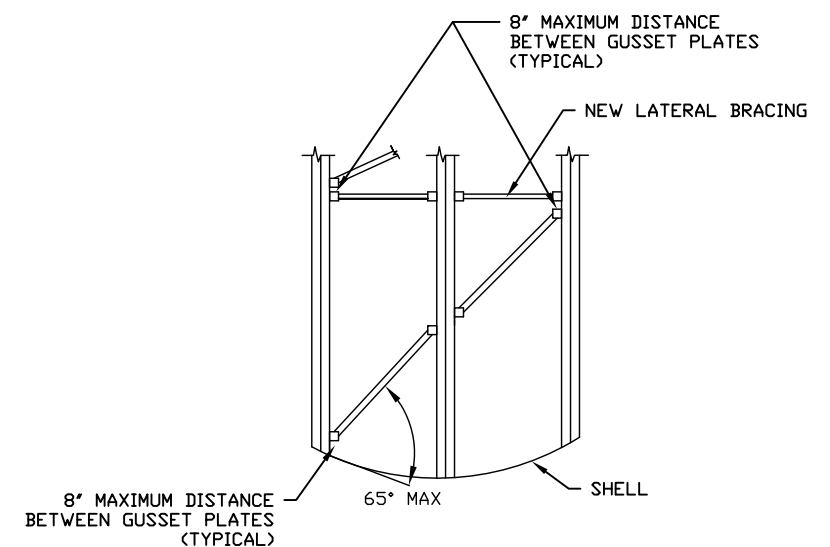
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RAFTER BRACING LAYOUT
NTS



MIDSPAN BRACING DETAILS
NTS



ROOF BLOCKING DETAILS
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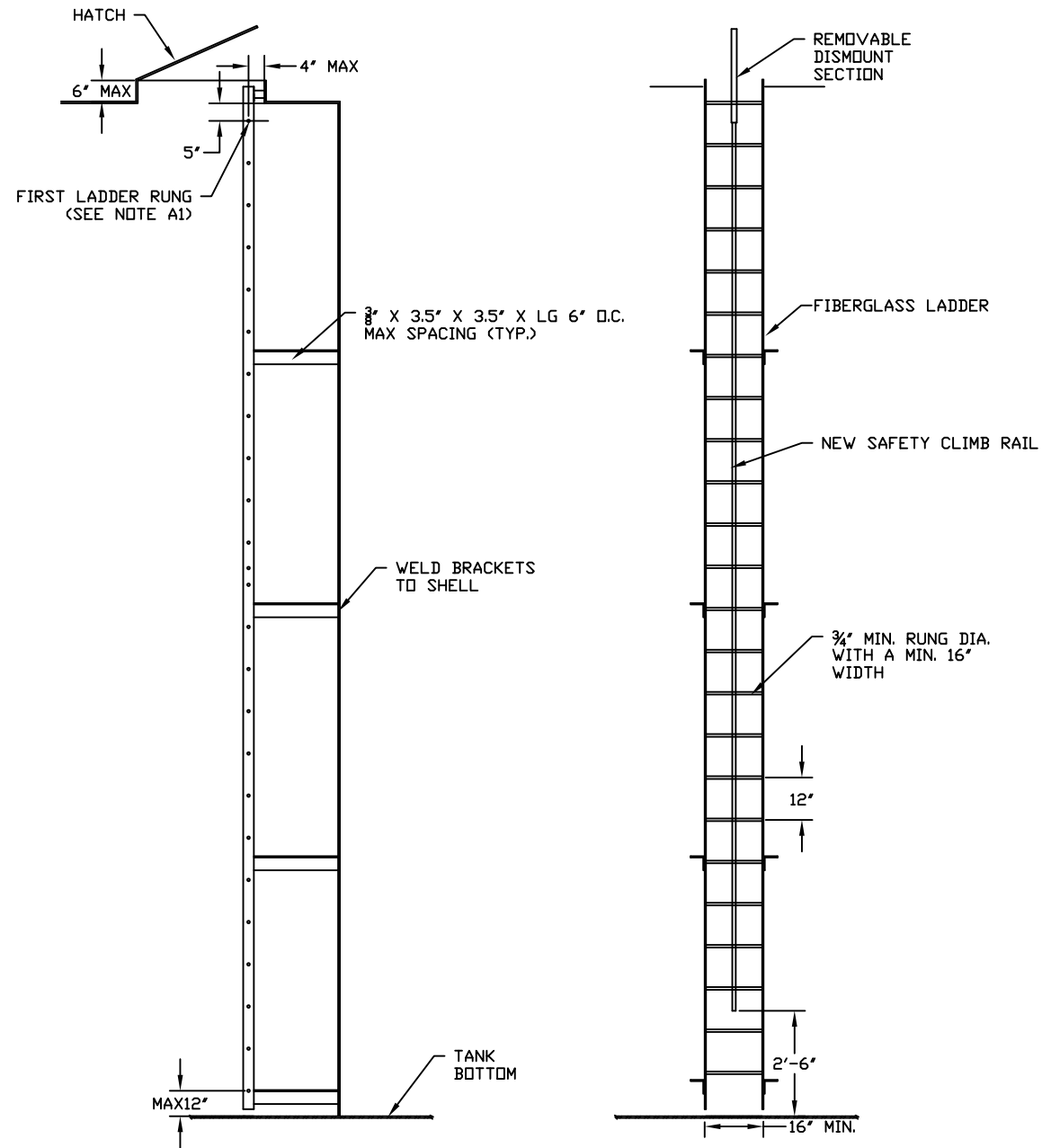
SHEET TITLE

ROOF BRACING

PROJECT NO. 2796

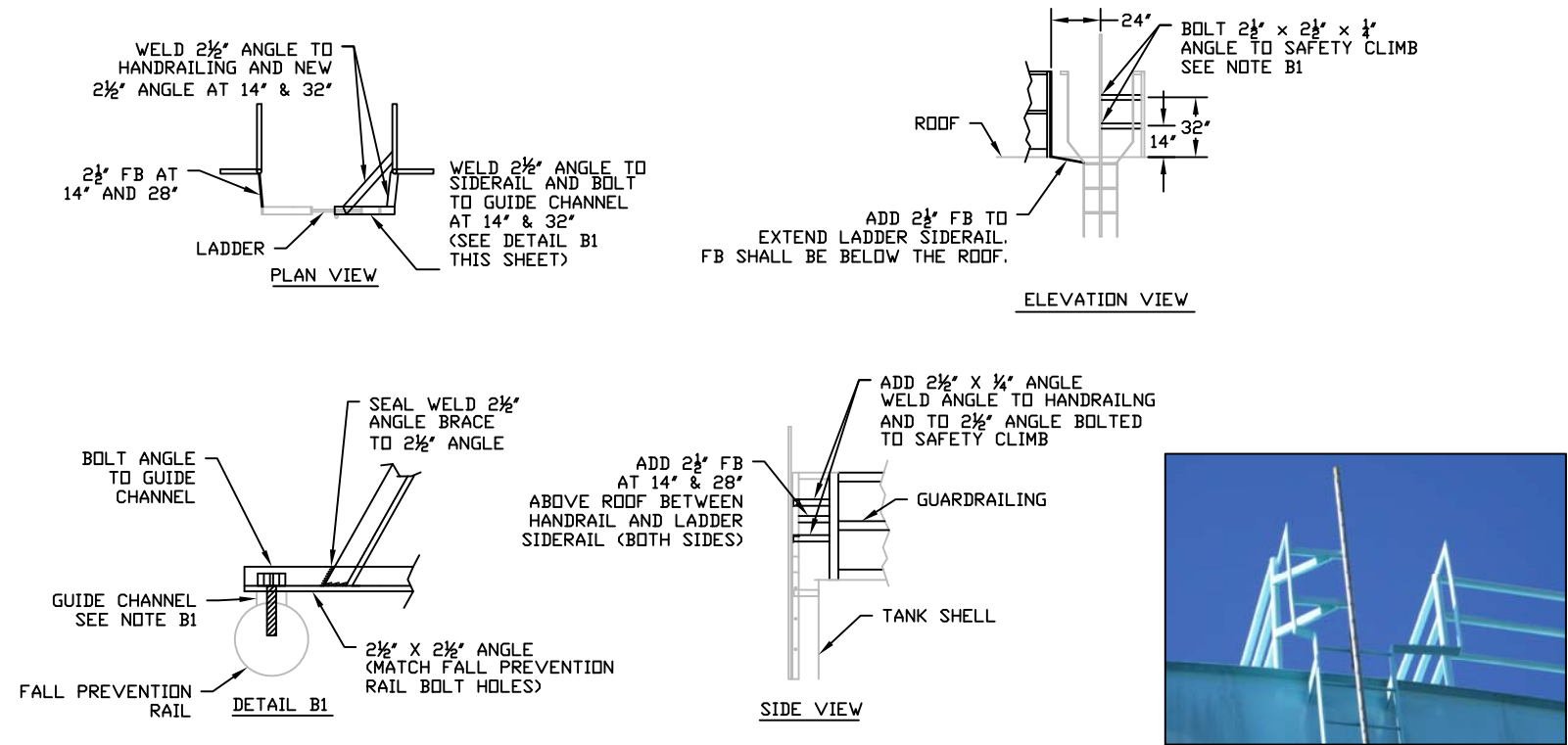
SHT. 3 OF 7 SHTS.

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INTERIOR LADDER DETAIL
NTS

NOTE
A1: FIRST LADDER RUNG SHALL BE LOCATED A MIN. OF 5' AND MAX 10' BELOW ROOF PLATE AND MIN. OF 8' FROM SHELL.

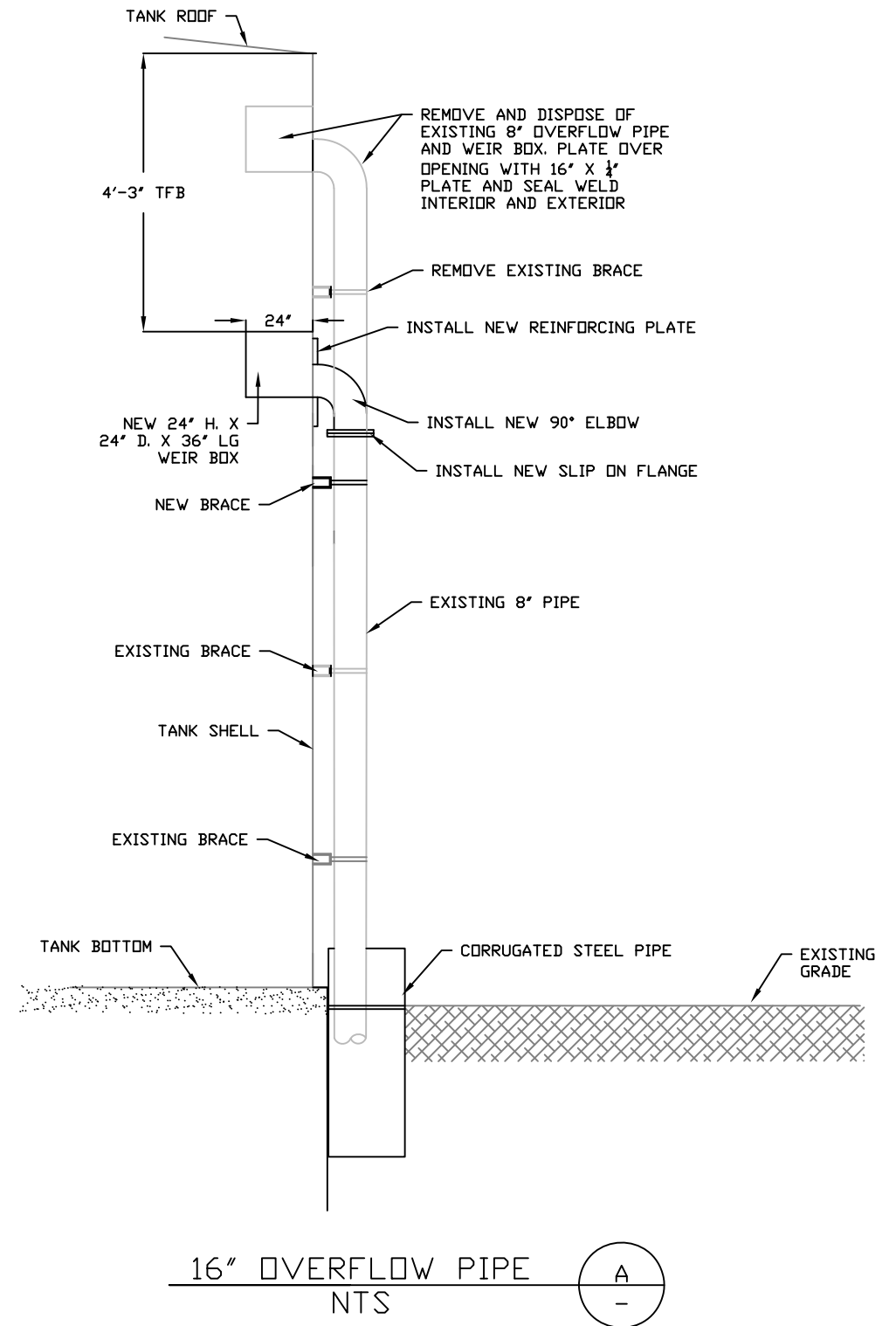
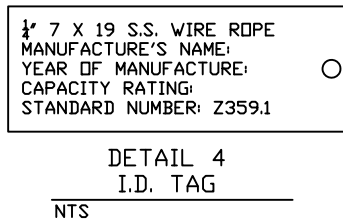
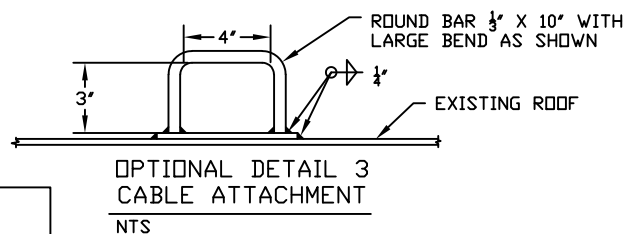
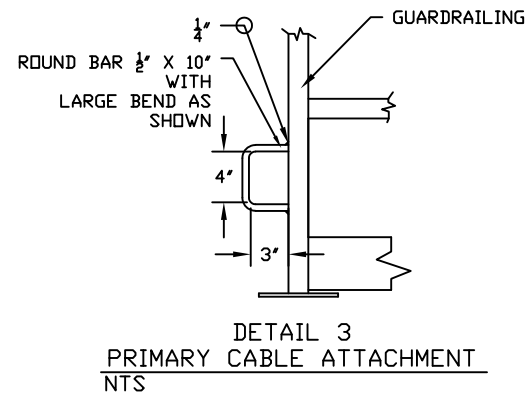
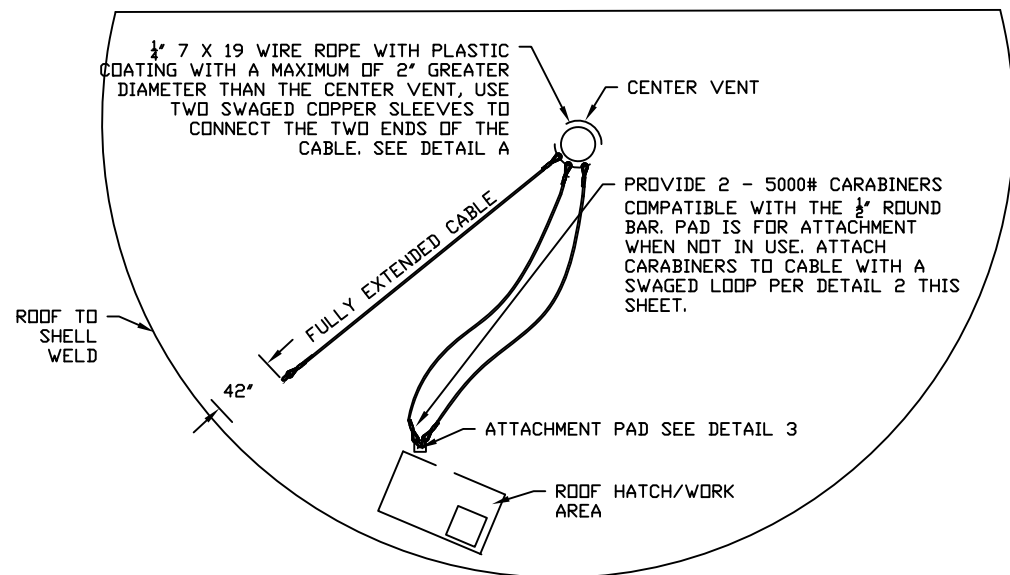
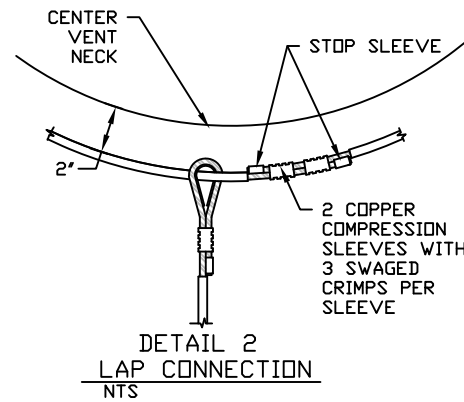
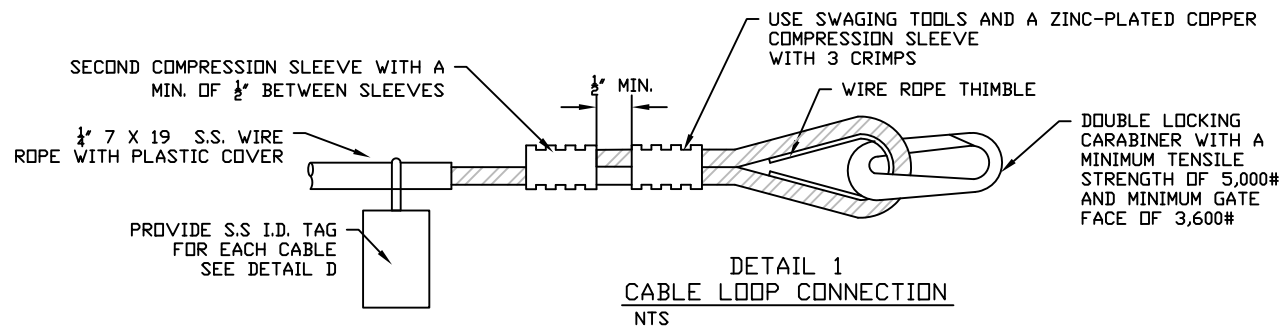


EXTERIOR LADDER DETAILS
NTS

NOTE:
B1. SAFETY CLIMB GUIDE CHANNEL MUST EXTEND ABOVE UPPER BRACE CONNECTION 2' MAXIMUM



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REVISIONS					
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BIG PINE COMMUNITY SERVICES
DISTRICT PLANS FOR REHABILITATION
OF A 500,000 GALLON WELDED STEEL
WATER STORAGE TANK

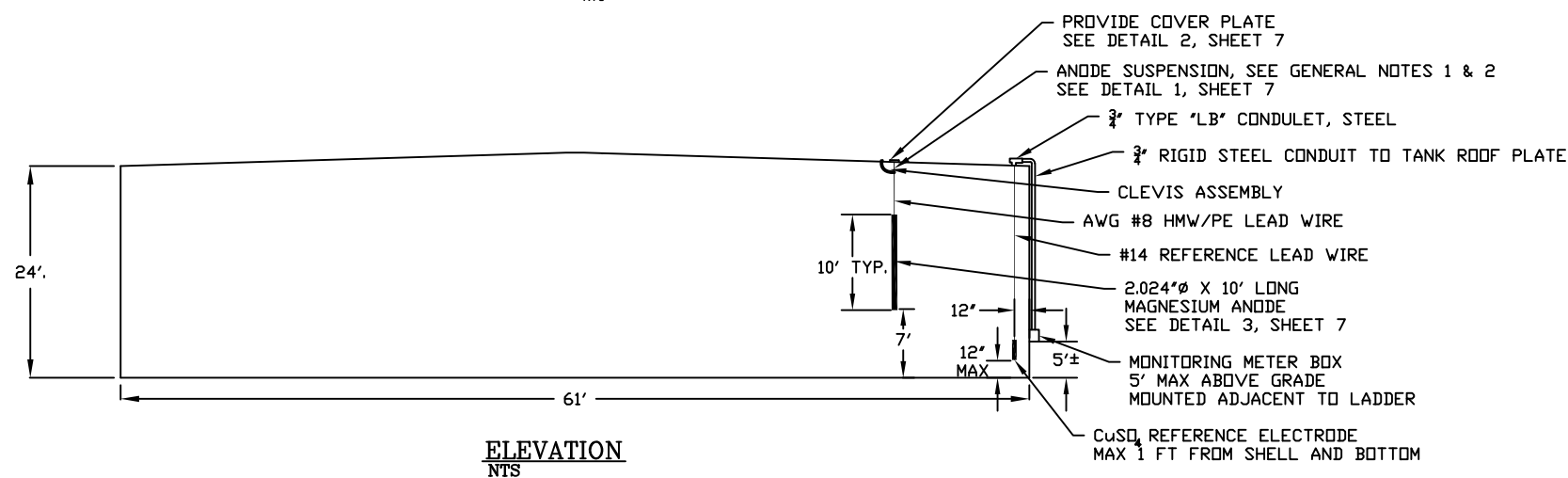
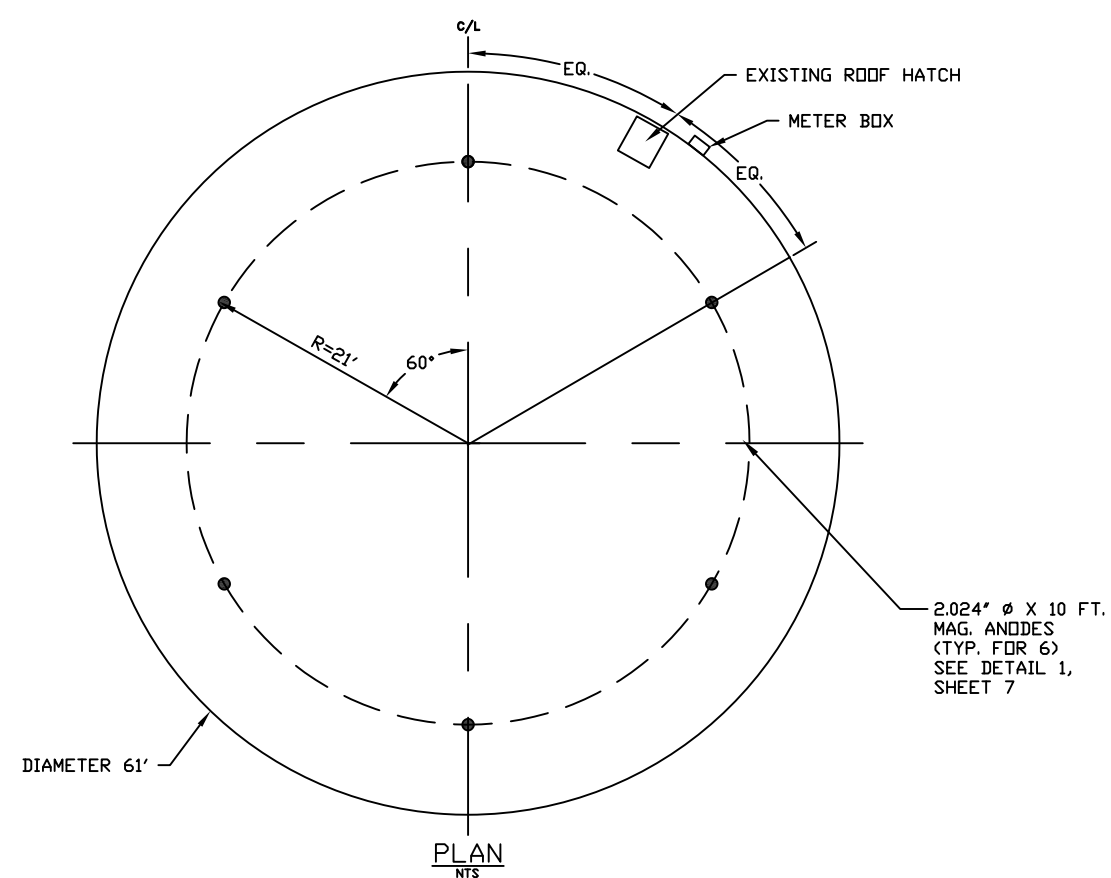
SHEET TITLE

SAF-T-CLIMB & OVERFLOW

PROJECT NO. 2796

SHT. 5 OF 7 SHTS.

SCALE: NTS



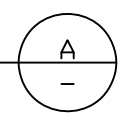
GENERAL NOTES

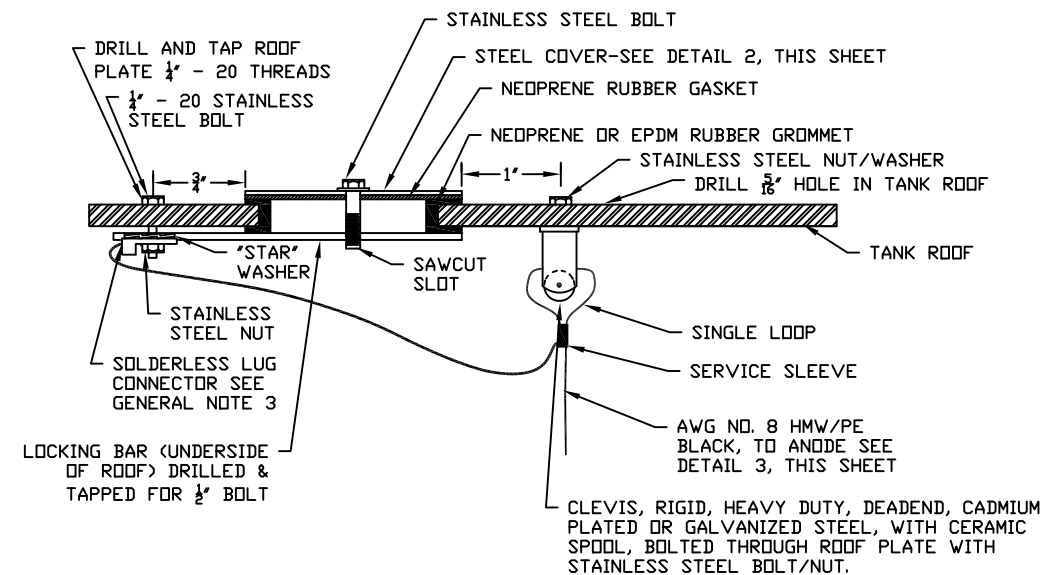
1. PROVIDE NEW ANODE MOUNTING HARDWARE PER DETAIL 1, SHEET 7
2. ANODES TO BE SUSPENDED BY THEIR OWN LEAD WIRE PER DETAIL 1, SHEET 7
3. CLEAN METAL UNDER SOLDERLESS LUG TO BARE WITH GRINDER OR WIRE BRUSH. COVER ALL EXPOSED METAL WITH MIN. 1/16" EPOXY AFTER ASSEMBLY.
4. NEW ANODE LOCATIONS MAY BE MOVED ± 2' ALONG CIRCUMFERENCE AND OR ± 1' ALONG RADII TO AVOID ROOF RAFTERS AND/OR RING GIRDERS UNDER ROOF PLATES.

MATERIAL LIST

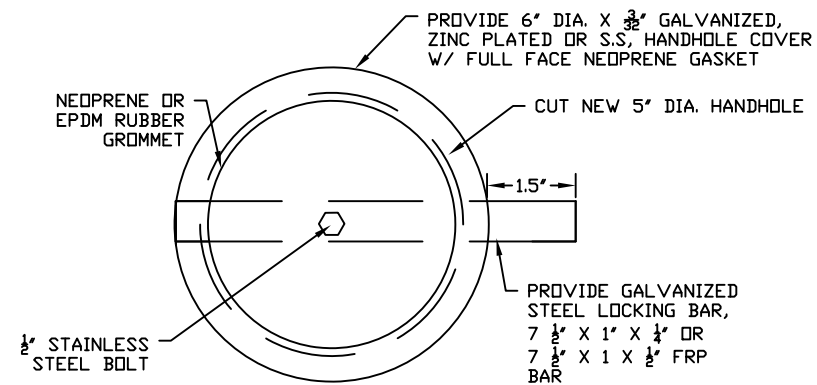
ITEM	QUANTITY	DESCRIPTION
1 ANODE	6	2.024" DIA. X 10' MAGNESIUM GALVOROD ANODE WITH 15' AWG. #8 STRANDED COPPER LEAD WIRE, HMW/PE INSULATION, BLACK.
2 SOLDERLESS LUG	6	T & B #31003 COPPER OR BRONZE, SIZED FOR AWG #8 CONDUCTOR (OR APPROVED EQUAL)
3 SERVICE SLEEVE	6	HOT-DIPPED GALVANIZED STEEL CRIMPABLE SLEEVE, SIZED TO FIT AROUND TWO CONDUCTORS.
4 CLEVIS ASSEMBLY	6	STEEL HEAVY DUTY, GALVANIZED WITH CERAMIC SPOOL
5 HANDHOLE COVER	6	6" DIA. X 3/32" GALVANIZED STEEL PLATE WITH 7 1/2" X 1" X 1/4" GALVANIZED STEEL BAR, STAINLESS STEEL 1/2" BOLT AND FULL FACE NEOPRENE RUBBER GASKET AND GROMMET.
6 BOLTS/NUTS FOR CABLE LUG	6	1/4" - 20 STAINLESS STEEL BOLTS AND NUTS, LENGTH APPROX. 1".
7 METER ASSEMBLY AND REFERENCE ELECTRODE	1	STEEL ENCLOSURE BOX PLUS METER AND SWITCH, COPPER SULFATE REFERENCE

CATHODIC PROTECTION
NTS

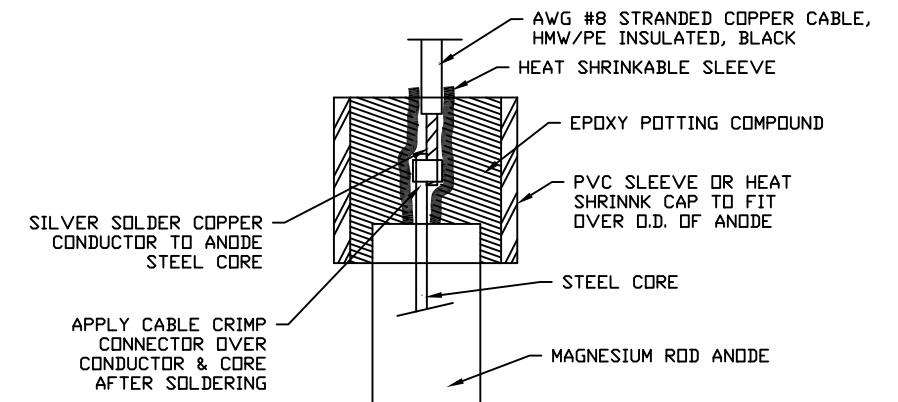




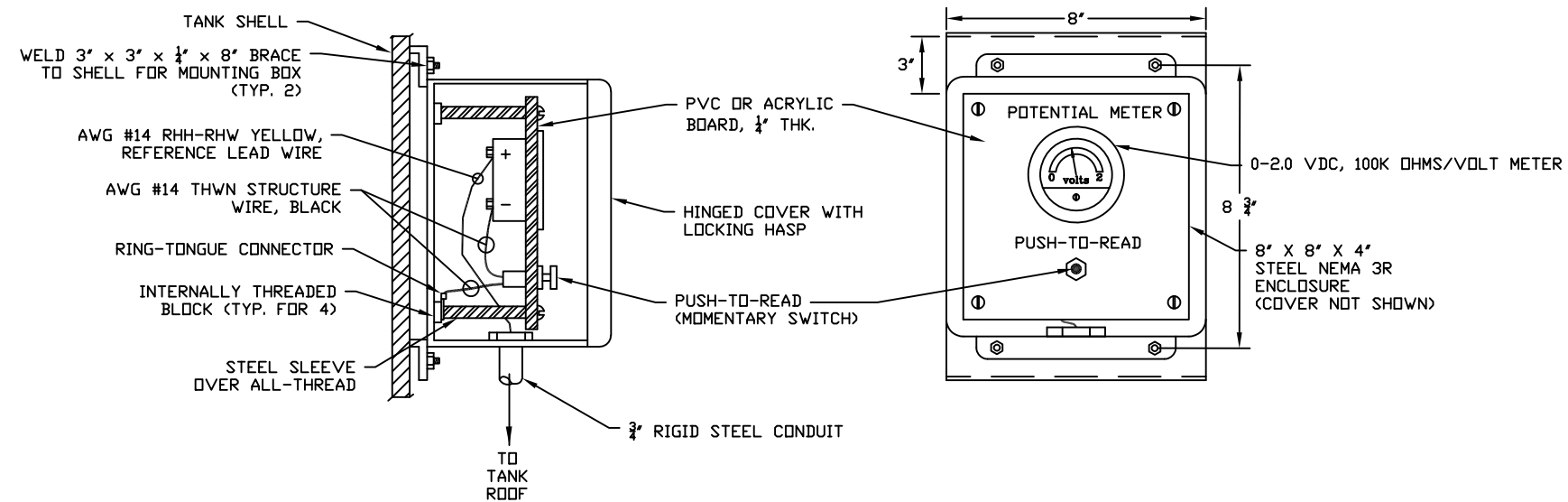
ANODE MOUNTING ASSEMBLY
NTS



HANDHOLE COVER
NTS



LEAD WIRE ATTACHMENT TO ANODE
NTS



POTENTIAL METER & ENCLOSURE
EXTERIOR MOUNTED ON RESERVOIR SHELL
NTS



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BIG PINE COMMUNITY SERVICES
DISTRICT PLANS FOR REHABILITATION
OF A 500,000 GALLON WELDED STEEL
WATER STORAGE TANK

SHEET TITLE

CATHODIC PROTECTION DETAILS

PROJECT NO. 2796

SHT. 7 OF 7 SHTS.

SCALE: NTS