CITY OF ANGELS

WASTEWATER TREATMENT PLANT
BIOSOLIDS HANDLING IMPROVEMENTS PROJECT

CONTRACT DOCUMENTS AND
TECHNICAL SPECIFICATIONS

Bid Set

April 2021

drake haglan
AND ASSOCIATES

CITY OF ANGELS

WASTEWATER TREATMENT PLANT
BIOSOLIDS HANDLING IMPROVEMENTS PROJECT

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Bid Set

April 2021

Submitted to:

City of Angels
P.O. Box 667
584 South Main Street
Angels Camp, CA 95222

Prepared by:

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CITY OF ANGELS
WASTEWATER TREATMENT PLANT
BIOSOLIDS HANDLING IMPROVEMENTS PROJECT
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CITY OF ANGELS
WASTEWATER TREATMENT PLANT
BIOSOLIDS HANDLING IMPROVEMENTS PROJECT

Division 0 – Bidding and Contract Requirements

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SECTION 00020

INVITATION TO BID
CITY OF ANGELS
WASTEWATER TREATMENT PLANT
BIOSOLIDS HANDING IMPROVEMENT PROJECT

Sealed Bids will be received until **May 5, 2021**, at **2:00 p.m.**, by the City of Angels at 200 Monte Verda Street, #B, Angels Camp, for the Wastewater Treatment Plant Biosolids Handling Improvements Project (Project) by the City of Angels.

As soon as practical thereafter, sealed bids for the project will be publicly opened and read for performing work as follows:

> Grading, paving, and underground drainage systems constructed adjacent to the existing sludge drying beds at the City of Angels Wastewater Treatment Plant to create a paved area for biosolids handling and supplemental drying.

Project shall comply with the Milestone dates and Final Completion within ninety (90) calendar days from the date specified in the Notice to Proceed. Time is of the essence for commencement and completion of the work.

A mandatory pre-bid meeting is scheduled for this project. The pre-bid meeting shall be held April 27, 2021, at 2:00 p.m. at the City of Angels Wastewater Treatment Plant, 2990 Centennial Road, Angels Camp.

There are no disadvantage, women-owned, or veteran business hiring requirements for this project.

Contract documents in PDF format are available for download on the City website. Documents are in the Public Notices section – angelscamp.gov/city-hall/public-notice/. Hard copies are not available for purchase.

Each bid must conform and be fully responsive to this invitation, the plans and specifications, and all other documents comprising the pertinent contract documents.

Bidders must submit bids on a hard copy of the bid proposal form provided in the Contract Documents. Signed forms to be submitted by the Bidders include the following and are to be acknowledged in Section 00300, BID FORM:

- Bidder Questionnaire (Section 00160)
- Bidder's Signature and Authority (Section 00170)
- Statement Acknowledging Penal and Civil Penalties Concerning the Contractor's Licensing Laws (Section 00180)
- Insurance Acknowledgement (Section 00190)
- Bid Form (Section 00300)
- Bid Bond Affidavit (Section 00400)

- Bid Guaranty Bond (Section 00410)
- Certification of Bidder's Experience and Qualifications (Section 00420)
- Proposed Subcontractors (Section 00430)
- Site Visit Affidavit (Section 00450)
- Non-Collusion Affidavit to be Executed by Bidder and Submitted with Bid (Section 00480)
- Department of Industrial Relations and SB 854 Compliance Affidavit (Section 00490)

Questions regarding the contract documents shall be submitted in writing to:

Dave Richard, PE
On-Call City Engineer, Water/Wastewater
Dewberry | Drake Haglan
10060 White Rock Road, Suite 200
Rancho Cordova, CA 95670
drichard@dewberry.com

Bid-related questions must be submitted no later than 2:00 p.m. on April 30, 2021. Responses to questions will be provided on the City website. The questions and responses shall form part of the Contract Documents.

Bidding procedures are prescribed in the contract documents. Bids shall only be executed upon the bid form provided, which are a part of said Contract Documents. Bid guarantee in an amount not less than ten percent (10%) of the total bid dollar amount and conforming to the prescribed bidding procedures is required to be submitted with each bid, as a guaranty to be forfeited should the bidder, if awarded the contract, fail to enter into the same, or fails to furnish in a timely manner the bonds and/or proof of insurance.

Pursuant to the provisions of California Labor Code Section 6707, each bid submitted in response to this Invitation to Bid shall contain, as a bid item, adequate sheeting, shoring, and bracing, or equivalent method, for the protection of life and limb in trenches and open excavation, which shall conform to applicable safety orders. By listing this sum, the bidder warrants that its actions pursuant to this bid item shall not impose tort liability on the City, the Design Engineer, and their employees, agents, and subconsultants.

Pursuant to Section 1770, et. seq., of the California Labor Code, the successful bidder shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations.

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

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

Pursuant to Public Contract Code Section 22300, for moneys earned by the Contractor and withheld by the City to ensure the performance of the Contract, the Contractor may, at its option, choose to substitute securities meeting the requirements of said Public Contract Code Section 22300.

All bidders shall be licensed under the provisions of Chapter 9, Division 3 of the Business and Professions Code of the State of California to do the type of work contemplated in the project. In accordance with provisions of California Public Contract Code Section 3300, the City has determined that the **Contractor shall possess a valid Class A license** at the time that the bid is submitted. Failure to possess the specified license shall render the bid non-responsive.

The successful bidder will be required to furnish a Payment bond in the amount equal to one hundred percent (100%) of the Contract price as well as a Faithful Performance Bond, in the amount equal to one hundred percent (100%) of the Contract price. All bonds submitted shall be from admitted sureties.

Each bidder shall submit with its bid a statement setting forth its experience on the forms included in the Bid Proposal.

Telephones will not be available to bidders for the preparation of the bids or for calling in bid results. Bid forms received after the designated time will not be accepted. Bidders and their authorized agents are invited to attend the bid opening.

No bidder may withdraw its bid for sixty (60) days after the date set for the opening of bids.

The successful bidder must ensure that employees and applicants for employment are not discriminated against on the basis of age, color, race, national origin, ancestry, religion, sex, sexual preference, marital status, and comply with the Americans with Disabilities Act.

The City reserves the right to reject any or all bids; to make any awards or any rejections in what it alone considers to be in the best interest of the City; and waive any irregularities in the bids. Each bid must be signed by or on behalf of the bidder and must be enclosed in a SEALED ENVELOPE.

1. Name and address of bidder
2. Project for which the bid is being submitted
3. Date and time of bid opening

The envelope shall be addressed to the City of Angels:

If by mail (USPS) address to:	P.O. Box 667 Angels Camp, CA 95222
If delivery by courier, UPS, FedEx, etc. address to:	200 Monte Verda Street, #B Angels Camp, CA 95222

Dated: April 7, 2021

City of Angels

Melissa Eads
City Administrator

END OF SECTION

SECTION 00100

INSTRUCTIONS TO BIDDERS

1.00 WORK TO BE DONE

It is the intention of the City to construct improvements as shown and set forth on the plans, and in the particular locations shown on the plans. All of the work is particularly set forth in the plans and specifications, and all of said work, together with all other work incidental thereto, is included.

The work includes the furnishing of labor, materials, incidentals and equipment necessary for the construction of the Wastewater Treatment Plant Biosolids Handling Improvements Project. The Bidder shall be required to provide, at its own cost and expense, all necessary insurance, as required by law or these specifications, and shall pay the cost and expense of any and all incidental matters herein required.

2.00 EXAMINATION OF CONTRACT DOCUMENTS

Each bidder shall thoroughly examine and be familiar with the contract documents. The submission of a bid shall constitute an acknowledgment, upon which the City may rely, that the bidder has thoroughly examined and is familiar with the contract documents. The failure or neglect of a bidder to receive or examine any of the contract documents shall in no way relieve it from any obligation with respect to its proposal or to the Contract. No claim for additional compensation will be allowed which is based upon a lack of knowledge of any contract documents.

3.00 INSPECTION OF SITE

Bidders are required to inspect the site of the work to satisfy themselves by personal examination or by such other means, as they may prefer, of the location of the proposed work, and of the actual conditions, including subsurface, of and at the site of work. If, during the course of its examination, a bidder finds facts or conditions which appear to be in conflict with the letter or spirit of the bidding documents, the Bidder may apply to the City, in writing, for additional information and explanation before submitting its bid.

Submission of a bid by the bidder shall constitute conclusive evidence that, if awarded the Contract, it has relied and is relying on its own examination of (1) the site of the work, (2) access to the site, (3) all other data and matters requisite to the fulfillment of the work and on its own knowledge of existing facilities on and in the vicinity of the site of the work to be constructed under the Contract, (4) the conditions to be encountered, (5) the character, quality and scope of the proposed work, (6) the quality and quantity of the materials to be furnished, and (7) the requirements of the bid, the plans, the specifications, and the other contract documents.

The information provided by the City is not intended to be a substitute for, or a supplement to the independent verification by the bidder to the extent such independent investigation of site conditions is deemed necessary or desirable by the bidder.

4.00 INTERPRETATION OF CONTRACT DOCUMENTS

No oral representations or interpretations will be made to any bidder as to the meaning of the contract documents. Requests for an interpretation shall be made in writing and received at the time provided previously to:

Dave Richard, PE
On-Call City Engineer, Water/Wastewater
Dewberry | Drake Haglan
10060 White Rock Road, Suite 200
Rancho Cordova, CA 95670
drichard@dewberry.com

Requests to clarify possible ambiguous or incomplete statements or designs require issuance of an addendum by the City for the interpretation to become effective. All requests for clarifications shall be made in writing. Any addenda issued for the Project will be posted on the City website.

5.00 POSTPONEMENT OF OPENING

The City reserves the right to postpone the date and time for receiving and/or opening of bids at any time prior to the date and time established in the Invitation to Bid. Postponement notices shall be provided in the form of an addendum.

6.00 OPENING OF BIDS

All bids, irrespective of any irregularities or informalities, if received on time, will be opened and publicly read aloud at the time and place set forth in the Invitation to Bid. Bidders, their representatives and other interested persons may be present at the opening and reading of bids.

Any bids received after the scheduled closing time as set forth in the Invitation to Bid or as postponed by addenda will be considered non-responsive and will not be opened. Any such bids will be returned unopened to the Bidder. The public reading of each bid will include at least the following:

A. Name and address of bidder.

B. The total amount of bid.

C. The nature and amount of the security furnished with the bid.

7.00 PREPARATION OF BID FORMS

Bid shall be made on the bid forms provided in the contract documents and must be submitted at the time and place stated in the Invitation to Bid. All blanks in the bid forms must be appropriately filled in either in ink or typed, and all prices must be stated in figures. All bid forms must be submitted in sealed envelopes bearing on the outside the name of the bidder, its address, and the name of the project for which the bid is submitted. It is the sole responsibility of the bidder to see that its bid is received in proper time. Any bid received after the scheduled closing time for receipt of bids will be returned to the bidder unopened. City shall not be responsible for errors or omissions in the bid. Bidders shall write their names on each bid form at the space provided.

8.00 BIDDER'S SIGNATURE AND AUTHORITY

If the bid is made by an individual, this person's name, signature, and post office address must be shown; if made by a firm or partnership, the name and post office address of the firm or partnership, a list of the general partners, and the signature of at least one of the general partners must be shown, if made by a corporation, the bid shall show the name of the state under the laws of which the corporation is chartered, the name and post office address of the corporation, and the title of the person who signs on behalf of the corporation. If the bid is made by the corporation, a certified copy of the bylaws or resolution of the Board of Directors of the corporation shall be furnished showing the authority of the officer or agent signing the bid to execute Contracts on behalf of the corporation. If the bid is made by a joint venture, the bid shall be signed by a representative of one of the joint venture firms. Additionally, the bid shall include a copy of the resolution or agreement empowering the representative to execute the bid and bind the joint venture.

9.00 ERASURES AND CORRECTIONS

The bid submitted must not contain any erasure, interlineations, or other corrections unless each such correction is suitably authenticated by affixing, in the margin immediately opposite the correction, the initials of the person or persons submitting the bid.

10.00 BID IRREGULARITIES

Changes in or additions to the bid form, recapitulations of the work bid upon, alternative bids, omissions, or any other modifications of the bid form which are not specifically called for in the contract documents may result in rejection of the bid by the City, as not being responsive to the Invitation to Bid. No oral or telephonic modification of any bid submitted will be considered.

11.00 MODIFICATION OF BID

On written request filed with the City, a bid already received may be modified or withdrawn at any time prior to the time established for receiving bids. The request must be executed by the bidder or its authorized representative as described in Paragraph 00100-8.00, BIDDER'S

SIGNATURE AND AUTHORITY. Modifications shall be made in writing, executed, and submitted in the same form and manner as the original bid. Withdrawal of a bid does not prejudice a bidder's right to submit a new bid within the time designated for the submission of bids. No bid may be withdrawn after the scheduled closing time except as provided in Paragraph 00100-12.00, WITHDRAWAL OF BIDS.

12.00 WITHDRAWAL OF BIDS

In accordance with Public Contract Code 5103, within five days after the opening of bids, a bidder may withdraw its bid providing the bidder can establish to the City's satisfaction that a mistake was made in preparing the bid. A bidder desiring to withdraw shall give written notice to the City, specifying, in detail, how the mistake occurred and how the mistake made the bid materially different than it was intended to be. Withdrawal will not be permitted for mistakes resulting from errors in judgment or carelessness in inspecting the site of the work or in reading the contract documents.

13.00 ADDENDA

Addenda issued during the time of bidding shall become a part of the documents furnished bidders for the preparation of bids, shall be covered in the bids, and shall be made a part of the Contract. Each bid shall include specific acknowledgment in the space provided of receipt of all Addenda issued during the bidding period. Failure to so acknowledge may result in the bid being rejected as not responsive. Failure of any bidder to receive such Addenda shall not be grounds for non-compliance with the terms of the instructions.

14.00 BID PRICES

Bid prices shall include everything necessary for the completion of the work including but not limited to providing the materials, equipment, tools, plant and other facilities, and the management, superintendence, labor and services. Bid prices shall include allowance for all federal, state and local taxes.

In the event of a difference between a price quoted in words and a price quoted in figures for the same quotation, the words shall be the amount bid. In the event that the product of a unit price and an estimated quantity does not equal the extended amount quoted, the unit price shall govern, and the correct product of the unit price and the estimated quantity shall be deemed to be the amount bid. If the sum of two or more items in a bidding schedule does not equal the total amount quoted, the individual item amounts shall govern and the correct total shall be deemed to be the amount bid.

The award of contract, if it is awarded, will be awarded to the lowest responsive, responsible Bidder whose proposal complies with all the requirements prescribed.

15.00 BID GUARANTY

The bid form shall be accompanied by a bid guaranty bond provided by an admitted surety insurer authorized to carry on business in the State of California with a minimum A - Class IVrating with Best's Rating Guide for payment to the City or meeting the following minimum requirements:

If the Best's Rating for any surety company who has furnished a bid guaranty for the bidder is less than A - Class IV and/or not Treasury Rated, bidder may be required to, within five working days of bid opening, submit to the City an original or certified copy of each of the following documents for each surety company which has furnished a bid guaranty for that bidder:

A. Appropriate authorization of the signatory to execute each bid guaranty.

B. A certificate of authority issued by the State Insurance Commissioner.

C. A certificate from the County Clerk that the above certificate is not ineffective; and

D. The surety company's financial statement for the prior quarter as specified in Section 995.670 of the California Code of Civil Procedure.

Simultaneously with the submission of the documents described in the preceding paragraphs, the bidder shall also submit an affidavit or declaration, under penalty of perjury under the laws of the State of California, demonstrating the following facts for each bid guaranty submitted or to be submitted on the bidder's behalf.

A. That the surety company's assets exceed its liabilities by more than the amount of the bid guaranty or guaranties submitted on the bidder's behalf, and

B. That in issuing the bid guaranty or guaranties submitted on the bidder's behalf, the surety company shall be in full compliance with California Insurance Code Section 12090, supported by appropriate references to the surety company's most recent financial statement on file in the office of the State Insurance Commissioner.

Any bidder wishing to object to the sufficiency of any surety company used by another bidder shall comply fully with the provisions of Section 995.650 of the California Code of Civil Procedure.

The bid guaranty bond shall be in the sum of at least ten percent (10%) of the total amount of the bid price, or, alternatively, by a certified or cashier's check, payable to the City in the sum of at least ten percent (10%) of the total amount of the bid price. The bid guaranty bond shall be provided on the form included in Section 00410, BID GUARANTY BOND, of these contract documents.

The amount payable to the City under the bid guaranty bond, or the certified or cashier's check and the amount thereof, as the case may be, shall be forfeited to the City as liquidated damages in case of a failure or neglect of the bidder to furnish, execute, and deliver to the City the required performance and payment bonds, evidences of insurance, and to enter into, execute, and deliver to the City the Agreement on the form provided herewith, within ten (10) calendar days after receiving written notice from the City that the award has been made and the Agreement is ready for execution.

The bid guarantees of the three lowest bidders will be retained until the Agreement is signed, evidence of insurance provided, and satisfactory bonds furnished or other disposition made thereof. The bid guarantees of all bidders except the three lowest responsive bids will be returned within 15 calendar days after the bids are opened.

16.00 QUALIFICATION OF BIDDER

Each bidder shall complete and submit with their bid Section 00420, CERTIFICATION OF BIDDER'S EXPERIENCE AND QUALIFICATIONS.

Upon the request of City, any bidder whose bid is under consideration for the award of the Contract shall promptly submit satisfactory evidence showing the bidder's financial resources, its construction experience, and its organization's availability for the performance of the Contract.

The bidder may be required to establish, to the satisfaction of the City, the reliability and responsibility of the persons or entities proposed to furnish and perform the work described in the contract documents.

17.00 SUBCONTRACTORS

In accordance with California Public Contracting Code Section 4100, et. seq., the bidder shall list, in Section 00430, PROPOSED SUBCONTRACTORS, the name, portion of work to be performed, and location of the place of business for the following.

A. Each subcontractor who will perform work or labor or render service to the bidder in or about the construction of the work or improvement, in an amount in excess of one-half of one percent of the bidder's total bid.

B. Any subcontractor licensed by the State of California who, under subcontract to the bidder, will specially fabricate and install a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of one percent of the bidder's total bid.

Failure to list the subcontractors defined in subparts 1) and 2) above will render the bid non-responsive and will be grounds for rejection of the bid. Failure to comply with the provisions of the California "Subletting and Subcontracting Fair Practices Act" shall make the Contractor subject to the sanctions as set forth in the Act.

18.00 SUBSTITUTIONS DURING BIDDING

Manufacturers or suppliers of materials and equipment may offer an alternative product to the Contractor and request that alternatives to specified products be considered equal. Inclusion of such alternatives in the bid is the responsibility of the Contractor. Inclusion should only be considered if the Contractor believes the offered alternative is equal in quality and performance to the specified product. After award of the Contract, such offers of alternative products will be reviewed and processed as a substitution as provided under Section 00700, GENERAL CONDITIONS.

19.00 BIDDERS INTERESTED IN MORE THAN ONE BID

No person, firm, or corporation, under the same or different name, shall make, file, or be interested in more than one bid for the same work unless alternate bids are called for. Pursuant to Public Contract Code Section 7106, bidders shall execute and furnish with their bids Section 00480, NON-COLLUSION AFFIDAVIT. Reasonable grounds to believe that any individual, partnership, corporation, or combination is interested in more than one bid for the proposed work may cause rejection of all bids in which that individual, partnership, corporation, or combination is interested,

A person, firm, or corporation may, however, submit subproposals or quote prices on materials to more than one bidder.

20.00 SHEETING, SHORING AND BRACING

Pursuant to the provisions of California Labor Code Section 6707, each bid submitted shall contain, in the bid item indicated, the amount included in the bid for adequate sheeting, shoring, and bracing, or equivalent method, for the protection of life and limb in trenches and open excavation, which shall conform to applicable safety orders. By listing this sum, the bidder warrants that its actions pursuant to this bid item shall not impose tort liability on the City, the Design Engineer, and their employees, agents, and subconsultants.

Pursuant to California Labor Code Section 6705, the Contractor shall submit a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer.

21.00 WAGE RATES

Pursuant to provisions of the Labor Code Section 1770, et. seq., of the State of California, the Director of the Department of Industrial Relations has ascertained the prevailing rate of wages of the locality in which the Work is to be performed and applicable to the work to be done. Copies of these wage determinations are on file with the City.

Bidders shall promptly notify the City, in writing, about all the classifications of labor not listed in the prevailing wage determinations but necessary for the performance of the Work, before bids are submitted.

22.00 OFFER OF ASSIGNMENT OF ANTITRUST ACTIONS

As provided by Section 7103.5, of the California Public Contract Code, in entering into a public works contract or subcontract, the Contractor or subcontractor offers and agrees to assign to the City all rights, title and interest in, and 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, services or materials pursuant to the public works contract or subcontract. This assignment shall be made and become effective at the time the City tenders final payment to the Contractor, without further acknowledgment by the parties.

23.00 ASSIGNMENT OF CONTRACT

Any attempted assignment by the Contractor of any contract to be entered into hereunder, or any part thereof, or of funds to be received thereunder by the Contractor, is void unless such assignment has had prior written approval of City and the Surety has been given due notice of such assignment in writing and has consented thereto in writing.

24.00 AWARD OR REJECTION OF BIDS

The contract, if awarded, will be awarded to the lowest, responsive, responsible bidder based on the lowest total bid in compliance with these instructions and the Notice Inviting Bids, provided the bid is reasonable and it is to the interest of the City to accept the bid.

The City reserves the right, at its sole discretion, to reject any and all bids and further reserves the right to reject any bids which are: a) non-responsive (e.g.: bids which are incomplete, obscure, or irregular-, bids which omit a bid on any one or more items on which the bids are required, bids which are unbalanced-, bids accompanied by insufficient or irregular bid guaranties), b) any bids from bidders who have previously failed to perform properly or to complete on time contracts of any nature with the City; or c) any bid which fails to provide satisfactory documentation of the bidder's qualifications as required by Section 00100-16.00, QUALIFICATION OF BIDDER. The City reserves the right to waive irregularities.

25.00 BONDS AND INSURANCE

The successful bidder, simultaneously with the execution of the Agreement, will be required to furnish a Payment Bond on forms provided by the City in an amount equal to one hundred percent (100%) of the Contract Price, a Faithful Performance Bond in an amount equal to one hundred percent (100%) of the Contract Price, the Workers Compensation Insurance Certificate, and evidences of insurance. Said insurance and bonds shall only use

the forms attached and shall be secured from a surety company satisfactory to City with a minimum A -Class IV rating with Best's Rating Guide or meeting the following minimum requirements:

If the Best's Rating for any surety company from which the bidder intends to procure the payment bond, performance bond, or both, is less than A - Class IV and/or not Treasury Rated, bidder may be required to, within 5 working days after bid opening, submit to the City an original or certified copy of each of the following documents for each surety company from which the bidder intends to procure such bond or bonds:

A. Appropriate authorization of the signatory to execute each bond.

B. A certificate of authority issued by the State Insurance Commissioner.

C. A certificate from the County Clerk that the above certificate is not ineffective; and

D. The surety company's financial statement for the prior quarter as specified in Section 995.670 of the California Code of Civil Procedure.

Simultaneously with the submission of the documents described in the preceding paragraphs, the bidder shall also submit an affidavit or declaration, under penalty of perjury under the laws of the State of California, demonstrating the following facts for the bond or bonds submitted or to be submitted on the bidder's behalf

A. That the surety company's assets exceed its liabilities by more than the amount of the bond or bonds submitted on the bidder's behalf, and

B. That in issuing the bond or bonds submitted on the bidder's behalf, the surety company shall be in full compliance with California Insurance Code Section 12090, supported by appropriate references to the surety company's most recent financial statement on file in the office of the State Insurance Commissioner.

Any bidder wishing to object to the sufficiency of any surety company used by another bidder shall comply fully with the provisions of Section 995.650 of the California Code of Civil Procedure.

The form of Agreement, as provided in Section 00500, AGREEMENT, which the successful bidder as Contractor will be required to execute, and the forms of bonds as provided in Sections 00610, FAITHFUL PERFORMANCE BOND and 00620, PAYMENT BOND, which it will be required to furnish, shall be carefully examined by the bidder. The Faithful Performance Bond is to secure the faithful performance of the Contract and the Payment Bond is to secure the payment of those to whom the bidder may become legally indebted for labor, materials, tools, equipment, or services of any kind used or employed by the bidder in performing the work.

26.00 AWARD OF CONTRACT

Within sixty (60) calendar days after the time of opening of the bids, the City will act either to accept a bid, to reject all bids or with the consent of the bidders and their sureties to extend the time in which the City may act. The acceptance of a bid will be evidenced by a Notice of Award of Contract in writing, delivered in person or by certified mail to the bidder whose bid is accepted. No other act of City will constitute acceptance of a bid. The issuance of a Notice of Award of Contract shall obligate the bidder whose bid is accepted to furnish performance and payment bonds and evidences of insurance, and to execute the Agreement in the form set forth in the contract documents. The Agreement will require the completion of the work according to the contract documents.

If award is made, it will be based on the lowest responsive, responsible bid.

27.00 CITY OF ANGELS BUSINESS LICENSE

At the time the Contractor submits the Contract Documents, Contractor is required to possess or have submitted all documentation to the City to obtain a City of Angels Business License. A copy of the license or documentation verifying submittal to obtain the license shall be provided.

28.00 EXECUTION OF CONTRACT

The Agreement shall be executed by the successful bidder and returned, together with the Contract, bonds, business license, and evidences of insurance, within ten days after receiving written Notice of the Award of the Contract. Time is of the essence in this regard. After execution by City, one copy of the Agreement shall be returned to Contractor.

Failure or refusal to enter into a Contract as herein provided or to conform to any of the stipulated requirements in connection therewith shall be just cause for annulment of the award and the forfeiture of the proposal guaranty. If the successful bidder refuses or fails to execute the agreement, the City may award the contract to the second lowest responsible bidder. If the second lowest responsible bidder refuses or fails to execute the agreement, the City may award the contract to the third lowest responsible bidder. On the failure or refusal of such second or third lowest bidder to execute the agreement, such bidder's guarantees shall be likewise forfeited to the City. The work may then be re-advertised.

29.00 CONSTRUCTION DOCUMENTS

Within five days after the execution of the Agreement by the City, the City will furnish the Contractor five copies of the Specifications, full and, if available, half-size plans.

END OF SECTION

SECTION 00160

BIDDER QUESTIONNAIRE

In accordance with Government Code Section 14310.5, the bidder shall complete, under penalty of perjury, the following questionnaire:

1. 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 the law or a safety regulation?	YES____ NO____
2. Has a contractor's license held by your firm and/or any owner, officer or partner of your firm been revoked at any time in the last five years?	YES____ NO____
3. Within the last five years, has a surety firm completed a contract on your firm's behalf, or paid for completion of a contract to which your firm was a party, because your firm was considered to be in default or was terminated for cause by the project owner?	YES____ NO____
4. At the time of submitting this questionnaire, is your firm ineligible to bid on or be awarded a public works contract, or perform as a contractor on a public works contract, pursuant to either California Labor Code Section 1777.1 (prevailing wage violations) or Labor Code Section 1777.7 (apprenticeship violations)?	YES____ NO____
5. At any time in the last five years, has your firm, or any of its owners, officers or partners been convicted of a crime involving the awarding of a contract for a government/public construction project, or the bidding or performance of a government/public contract?	YES____ NO____
6. Within the last five years, has your firm been assessed liquidated damages on any public contract?	YES____ NO____
7. Within the last three years has your firm or representatives been debarred from bidding on, or completing any public works construction contract for any reason?	YES____ NO____
8. Has CAL OSHA assessed penalties against your firm for any serious or willful violation occurring on a construction project at any time in the last three years?	YES____ NO____
9. In the past three years, have civil penalties or Notice of Complaint (letter of warning) been issued or assessed against your firm pursuant to California Labor Code 1777.7 for violation of California public works apprenticeship requirements by the California Division of Apprenticeship Standards (DAS)?	YES____ NO____
10. In the past three years, has a public agency in California withheld contract payments or assessed penalties against your firm for violation of public works prevailing wage requirements?	YES____ NO____
11. Has your firm been assessed penalties for violation of public works prevailing wage requirements by the DLSE (Labor Commissioner)?	YES____ NO____

12. Does your firm have any pending complaints or investigations by a regulatory authority?	YES____ NO____

I, the undersigned, certify and declare that I have read and understood the questionnaire. I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Date _____ Signature _____

END OF SECTION

SECTION 00170

BIDDER'S SIGNATURE AND AUTHORITY

Bidder to complete and submit the appropriate signature and authority format for the legal entity submitting the bid.

BIDDER IS AN INDIVIDUAL

Legal Name: _____

Signature: _____

Address:

Physical Address: _____

Mailing address: _____

BIDDER IS A CORPORATION

Corporation Name: _____

Corporation Address:

Physical Address: _____

Mailing address: _____

State of Incorporation: _____

Bidder's Signature: _____

Signer's Title: _____

A certified copy of the bylaws or a resolution of the Board of Directors of the corporation shall be furnished showing the authority of the officer or agent signing the bid to execute Contracts on behalf of the corporation.

BIDDER IS A PARTNERSHIP

Partnership Name: _____

General Partners
in the Partnership: _____

_____

_____

Partnership Address:

Physical Address: _____

_____

Mailing address: _____

_____

If any/all of the General Partners are a Corporation:

Firm Name	State of Incorporation	Address	Person Authorized to Sign on Behalf of the Corporation

Bidder's Signature: _____

Signer's Title: _____

Firm Signing on Behalf
of the Partnership: _____

A certified copy of the bylaws or a resolution of the Board of Directors of the corporation shall be furnished showing the authority of the officer or agent signing the bid to execute Contracts on behalf of the corporation.

BIDDER IS A JOINT VENTURE

Joint Venture Name: _____

Partners in the
Joint Venture: _____

_____

_____

Joint Venture Address:

Physical Address: _____

_____

Mailing Address: _____

_____

If any/all of the Partners are a Corporation:

Firm Name	State of Incorporation	Address	Person Authorized to Sign on Behalf of the Corporation

Bidder's Signature: _____

Signer's Title: _____

Firm Signing on Behalf
of the Joint Venture: _____

A certified copy of the resolution or agreement shall be furnished showing the authority of the officer or agent signing the bid to execute Contracts on behalf of the Joint Venture.

END OF SECTION

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SECTION 00180

STATEMENT ACKNOWLEDGING PENAL AND CIVIL PENALTIES CONCERNING THE CONTRACTORS' LICENSING LAWS

[Business & Professions Code § 7028.15]
[Public Contract Code § 20103.5]

I, the undersigned, certify that I am aware of the following provisions of California law and that I, or the entity on whose behalf this certification is given, hold a currently valid California contractor's license as set forth below:

Business & Professions Code § 7028.15:

(a) It is a misdemeanor for any person to submit a bid to a public agency in order to engage in the business or act in the capacity of a contractor within this state without having a license therefor, except in any of the following cases:

(1) The person is particularly exempted from this chapter.
(2) The bid is submitted on a state project governed by Section 10164 of the Public Contract Code or on any local agency project governed by Section 20104 [now § 20103.5] of the Public Contract Code.

(b) If a person has been previously convicted of the offense described in this section, the court shall impose a fine of 20 percent of the price of the contract under which the unlicensed person performed contracting work, or four thousand five hundred dollars ($4,500), whichever is greater, or imprisonment in the county jail for not less than 10 days nor more than six months, or both.

In the event the person performing the contracting work has agreed to furnish materials and labor on an hourly basis, "the price of the contract" for the purposes of this subdivision means the aggregate sum of the cost of materials and labor furnished and the cost of completing the work to be performed.

(c) This section shall not apply to a joint venture license, as required by Section 7029.1. However, at the time of making a bid as a joint venture, each person submitting the bid shall be subject to this section with respect to his or her individual licensure.

(d) This section shall not affect the right or ability of a licensed architect, land surveyor, or registered professional engineer to form joint ventures with licensed contractors to render services within the scope of their respective practices.

(e) Unless one of the foregoing exceptions applies, a bid submitted to a public agency by a contractor who is not licensed in accordance with this chapter shall be considered nonresponsive and shall be rejected by the public agency. Unless one of the foregoing

exceptions applies, a local public agency shall, before awarding a contract or issuing a purchase order, verify that the contractor was properly licensed when the contractor submitted the bid. Notwithstanding any other provision of law, unless one of the foregoing exceptions applies, the registrar may issue a citation to any public officer or employee of a public entity who knowingly awards a contract or issues a purchase order to a contractor who is not licensed pursuant to this chapter. The amount of civil penalties, appeal, and finality of such citations shall be subject to Sections 7028.7 to 7028.13, inclusive. Any contract awarded to, or any purchase order issued to, a contractor who is not licensed pursuant to this chapter is void.

(f) Any compliance or noncompliance with subdivision (e) of this section, as added by Chapter 863 of the Statues of 1989, shall not invalidate any contract or bid awarded by a public agency during which time that subdivision was in effect.

(g) A public employee or officer shall not be subject to a citation pursuant to this section if the public employee, officer, or employing agency made an inquiry to the board for the purposes of verifying the license status of any person or contractor and the board failed to respond to the inquiry within three business days. For purposes of this section, a telephone response by the board shall be deemed sufficient.

Public Contract Code § 20103.5:

In all contracts subject to this part where federal funds are involved, no bid submitted shall be invalidated by the failure of the bidder to be licensed in accordance with the laws of this state. However, at the time the contract is awarded, the contractor shall be properly licensed in accordance with the laws of this state. The first payment for work or material under any contract shall not be made unless and until the Registrar of Contractors verifies to the agency that the records of the Contractors' State License Board indicate that the contractor was properly licensed at the time the contract was awarded. Any bidder or contractor not so licensed shall be subject to all legal penalties imposed by law, including, but not limited to, any appropriate disciplinary action by the Contractors' State License Board. The agency shall include a statement to that effect in the standard form of pre-qualification questionnaire and financial statement. Failure of the bidder to obtain proper and adequate licensing for an award of a contract shall constitute a failure to execute the contract and shall result in the forfeiture of the security of the bidder.

License No.: _____ Class: _____ Expiration Date: _____

Date _____ Signature _____

END OF SECTION

SECTION 00190

INSURANCE ACKNOWLEDGMENT

I have reviewed the City of Angels' insurance requirements and I am aware of the types and amounts of insurance coverages that are required. I am also aware that my insurance company is required to use the Certificate of Insurance Form, and General Liability Special Endorsement, Automobile Liability Special Endorsement, and Workers' Compensation and Employer's Liability Special Endorsement Forms, provided herein. I have reviewed the City of Angels' insurance requirements with my insurance carrier and I will be able to provide the required insurance coverages on the specified forms if awarded this project.

Bidder's Signature _____

Date _____

END OF SECTION

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SECTION 00300

BID FORM

DATE: _____

1. Enter Into Agreement

The undersigned, as bidder, declares that we have received and examined the Contract Documents entitled Wastewater treatment Plant Biosolids Handling Improvements Project, and will contract with the City, on the form of Agreement provided herewith, to do everything required for the fulfillment of the Contract Document for the construction of the Wastewater Treatment Plant Biosolids Handling Improvements Project at the prices and on the terms and conditions herein contained.

2. Bidder Accepts

Bidder accepts all of the terms and conditions of the Invitation to Bid and Instructions to Bidders, including, without limitation, those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for the period specified for Notice of Award after the day of Bid opening. Bidder will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bidding Requirements within 10 days after the date of City's Notice of Award.

3. Bidder's Representations

In submitting this Bid, Bidder represents, as more fully set forth in the Agreement, that:

a. Bidder has examined and carefully studied the Bidding Documents and the Addenda.

   We acknowledge that the following addenda numbers have been received and have been examined as part of the Contract Documents.

Addenda No.	Date Received	Initials
_____	_____	_____
_____	_____	_____
_____	_____	_____

b. Bidder has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance and furnishing of the Work.

c. Bidder is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.

d. Bidder acknowledges that City and Design Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Bidding Documents with respect to existing underground facilities at or contiguous to the site.

e. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by Bidder and safety precautions and programs incident thereto.

   Bidder does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the times, price and other terms and conditions of the Contract Documents.

f. Bidder is aware of the general nature of Work to be performed by City and others at the site that relates to Work for which this Bid is submitted as indicated in the Contract Documents.

g. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.

h. Bidder has given City written notice of all conflicts, errors, ambiguities or discrepancies in the Contract Documents and the written resolution thereof by Engineer is acceptable to Bidder, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.

   Where conflicts, errors, ambiguities or discrepancies have been discovered in or between Contract Documents and/or other related documents, and where said conflicts, etc., have not been resolved through the interpretations or clarifications by Engineer as described in the Instructions to Bidders, because of insufficient time or otherwise, Bidder has included in the Bid the greater quantity or better quality of Work, or compliance with the more stringent requirement resulting in a greater cost.

i. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over City.

Bid Prices

Bidder will complete the Work in accordance with the Contract Documents for the following prices(s):

BID SCHEDULE

BID ITEMS

Bid Item	Description	Unit	Approx. Quantity	Unit Price	Extended Price
1	Mobilization/Demobilization	LS	1		
2	Site Clearing	LS	1		
3	Site Grading	LS	1		
4	Sheeting, Shoring, and Bracing	LS	1		
5	Construction of Paved Biosolids Handling Area	LS	1		
6	Site Drainage Improvements	LS	1		
TOTAL BID ITEMS 1-6					$_____

TOTAL BID (ITEMS 1-6) WRITTEN OUT _____

_____

4. Attached Documents

By initialing below, we acknowledge that the following are attached hereto and made a part of this bid.

Bidder Initials	Section	Title
	00160	Bidder Questionnaire
	00170	Bidder's Signature and Authority
	00180	Statement Acknowledging Penal and Civil Penalties Concerning the Contractor's Licensing Laws
	00190	Insurance Acknowledgement
	00300	Bid Form
	00400	Bid Bond Affidavit
	00410	Bid Guaranty Bond
	00420	Certification of Bidder's Experience and Qualifications
	00430	Proposed Subcontractors
	00450	Site Visit Affidavit
	00480	Non-Collusion Affidavit to be Executed by Bidder and Submitted with Bid
	00490	Department of Industrial Relations and SB 854 Compliance Affidavit

5. Completion

We agree, if our bid is accepted and a Contract for Performance of the Work is entered into with the City, to so plan work and to prosecute it with such diligence that the work shall be completed within the time stipulated.

If our bid is accepted, we agree to sign the Agreement without qualifications and to furnish the performance and payment bonds and the required evidences of insurance within 10 calendar days after receiving written Notice of Award of the Contract.

Attached is a bid guaranty bond as required**.**

_____
Name of Bidder

6. Contractor's License and Address for Communications

The undersigned certifies that the undersigned holds California Contractor's License, Class _____, number _____, expiration date _____.

_____
Name of Bidder

_____
Signature of Bidder

_____
Title of Signator

_____
Address of Bidder

_____ _____
Witness

_____ _____
Title of Witness State of Incorporation

_____
Phone Number

_____
Fax Number

****END OF SECTION****

SECTION 00400

BID BOND AFFIDAVIT

Accompanying this proposal is _____ *(Note: Insert the words "Cash", "Cashier's Check", "Certified Check", or "Bidder's Bond" as the case may be)* in an amount equal to at least ten percent (10%) of the total of the bid amount.

The undersigned further agrees that in case of default in executing the required contract together with the necessary bonds within the period of time provided by the Proposal Requirements, the proceeds of the security accompanying this proposal shall become the property of the City of Angels, and this proposal and the acceptance thereof may be considered null and void.

Name, address, and telephone number of surety company and agent who will provide the required bonds for this contract:

_____

_____

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

_____
Bidder's Signature

_____
Bidder's Title

_____
Business Address

_____
Date

END OF SECTION

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SECTION 00410

BID GUARANTY BOND

The attached form shall be turned in with the bid as the Bid Guaranty Bond with the form signed and notarized by the surety. Alternately, the bidder may submit the following forms of bidder's security:

a. Cash
b. A cashier's check made payable to the City.
c. A certified check made payable to the City.

If a bid guaranty bond is submitted on a form other than that provided herein, then the alternate bid guaranty bond must meet all the requirements of the form provided herein. If the alternate bid guaranty bond is not acceptable to the City, then the bid may be subject to rejection. The City shall be the sole judge as to whether the alternate bid guaranty bond form is acceptable.

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WE, _____ AS PRINCIPAL, AND _____ AS SURETY, are held and firmly bound unto the City of Angels in the penal sum of 10 PERCENT OF THE TOTAL AMOUNT OF THE BID of the Principal above named, submitted by said Principal to the City of Angels for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made to the City of Angels to which said bid was submitted, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents, in no case shall the liability of the surety hereunder exceed the sum of $_____.

THE CONDITION OF THIS OBLIGATION IS SUCH

THAT WHEREAS, the Principal has submitted the above-mentioned bid to the City of Angels, aforesaid, for certain construction specifically described as follows, for which bids are to be opened at _____.

FOR: Wastewater Treatment Plant Biosolids Handling Project

NOW, THEREFORE, if the aforesaid Principal is awarded the contract and, within the time and manner required under the specifications, after the prescribed forms are presented for signature, the Principal enters into a written contract in the prescribed form, in accordance with the bid, and files two bonds with the City of Angels, one to guarantee faithful performance, and the other to guarantee payment for labor and materials as required by law, and provide certificate of insurance coverage required by the contract documents, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect, and the surety shall pay said penal sum to the City of Angels on demand.

IN WITNESS WHEREOF, we have hereunto set our hand on this _____ day of _____, 20_____.

Title of Signator (seal)	Title of Signator (seal)
Signature of Principal	Signature of Surety
	Best Rating: _____
Address	Address

Note: Signatures of those executing for the surety must be properly acknowledged.

END OF SECTION

SECTION 00420

CERTIFICATION OF BIDDER'S EXPERIENCE AND QUALIFICATIONS

1.00 QUALIFICATIONS

By signing in the area indicated below, the Bidder acknowledges and certifies the following:

A. The Bidder – at the time of bidding, award, and throughout the period of the contract – shall be licensed under the provisions of Chapter 9, Division 3, of the Business and Professions Code of the State of California, to do the type of work contemplated in the contract documents. In accordance with Public Contract Code Section 20103.5, any Bidder not so licensed shall be subject to all legal penalties imposed by law, including, but not limited to, any appropriate disciplinary action by the Contractor's State License Board.

B. The Bidder is skilled and regularly engaged in the general class and type of work called for in the contract documents.

C. The Bidder is competent, knowledgeable, and has special skills required for the nature, extent, and inherent conditions of the work to be performed.

D. The Bidder acknowledges that there may be certain peculiar and inherent conditions existent in the construction of the particular facilities which may create, during the construction program, unusual or peculiar unsafe conditions hazardous to persons and property. Bidder expressly acknowledges that it is aware of such peculiar risks and that it has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the construction work with respect to such hazards.

2.00 EXPERIENCE

To be considered for award, Bidder, as a company, shall have substantially completed within the last three (3) years, at least three (3) separate grading, paving, and underground piping projects at municipal facilities with a minimum construction value of $100,000 per project.

The Bidder shall submit a summary of project experience and qualifications with the bid documents including the following information for each project: Project Name, Owner, Square Feet of Pavement Constructed, Construction Cost, Construction Change Orders (number/total dollars), Owner's Representative, Owner's Telephone Number, and Date of Substantial Completion.

1. Project Name: _____

   Owner: _____

   Square Feet of Pavement Constructed: _____

   Construction Cost: _____

   Construction Change Orders, number/total dollars: _____

   Owner's Representative: _____

   Owner's Telephone No.: (____)_____

   Date of Substantial Completion: _____

2. Project Name: _____

   Owner: _____

   Square Feet of Pavement Constructed: _____

   Construction Cost: _____

   Construction Change Orders, number/total dollars: _____

   Owner's Representative: _____

   Owner's Telephone No.: (____)_____

   Date of Substantial Completion: _____

3. Project Name: _____

   Owner: _____

   Square Feet of Pavement Constructed: _____

   Construction Cost: _____

   Construction Change Orders, number/total dollars: _____

   Owner's Representative: _____

   Owner's Telephone No.: (____)_____

   Date of Substantial Completion: _____

Signed this _____ day of _____, 20____.

_____
Name of Bidder

_____
Contractor's License No.

_____
Expiration Date

_____
Signature of Bidder

_____
Title of Signator

*** END OF SECTION ***

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SECTION 00430

PROPOSED SUBCONTRACTORS

Pursuant to California Public Contracting Code, Section 4100 et. seq., the following list gives the name, business address, and portion of work (description of work to be done) for each subcontractor that will be used in the work if the bidder is awarded the Contract. (Additional supporting data may be attached to this page. Each page shall be sequentially numbered and headed "Proposed Subcontractors" and shall be signed.)

Business Name and Address	Description of Work	Contractor's License No.	DIR Registration No.	% of Work	Status[1]

Name of Bidder

[1] Status M = Minority Owned Business Enterprise.
W = Women Owned Business Enterprise.

*** END OF SECTION ***

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SECTION 00450

SITE VISIT AFFIDAVIT

NAME OF PROJECT: Wastewater Treatment Plant Biosolids Handling Improvements Project

State of California

County of _____

_____, being first duly sworn, deposes
(Printed Name of Contractor's Authorized Representative)

he or she is

_____ of _____,
(Title of Representative) (Bidder's Name)

the party making the bid, has visited the Site of the Work as described in the Contract Documents and has examined and familiarized themselves with the existing conditions, as well as all other conditions relating to the construction which will be performed. The submitting of a bid shall be considered an acknowledgement on the part of the Bidder of familiarity with conditions at the site of Work. The Bidder further acknowledges that the site examination has provided adequate and sufficient information related to existing conditions which may affect cost, progress or performance of the Work.

Signed this _____ day of _____, 20____.

_____
Authorized Signature

*** END OF SECTION ***

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SECTION 00480

NON-COLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

State of California)
) ss.
County of)

_____, being first duly sworn, deposes and say that he or she is of _____ the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, business entity, business combination, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that 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, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that 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, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

_____
Signature

_____
Name of Bidder

_____
Title

_____
Date

Subscribed and sworn to before me this
_____day of _____, 20____.

_____
Signature of Notary Public in and for
the County of _____,
State of California.

*** END OF SECTION ***

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SECTION 00490

DEPARTMENT OF INDUSTRIAL RELATIONS AND SB 854 COMPLIANCE AFFIDAVIT

In accordance with California Labor Code as amended through Senate Bill (SB) 854, prior to commence of the Contract, all Contractors are required to register and maintain active registration throughout the duration of the contract with the California Department of Industrial Relations (DIR). This project is subject to compliance monitoring and enforcement by the DIR. For information regarding registration, please go to:

www.dir.ca.gov

I, the Bidder, certify that:

> I am aware of the provisions of SB 854 and subsequent DIR regulations which require Contractors/Vendors to comply with all labor compliance requirements including, but not limited to, prevailing wage requirements, Labor Code Sections 1725.5, 1771.1(a), 1774-1776, 1777.5, 1813, 1815, Public Works Contractor Registration Program, Electronic Certified Payroll Records to Labor Commissioner, and other requirements described in the DIR website. I will comply with such provisions before commencing the performance of the work of this contract and maintain compliance throughout the completion of said contract.

Signature	Date
Print Name	Business Name
Title	CSLB License Number
	DIR Registration Number

END OF SECTION

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SECTION 00500

CONSTRUCTION SERVICES AGREEMENT BY AND BETWEEN THE CITY OF ANGELS AND _____

Project No. __-___

[Project Name]

THIS CONSTRUCTION SERVICES AGREEMENT (the "Agreement") is entered into by and between the CITY OF ANGELS, a California municipal corporation ("City"), and _____, a _____ ("Contractor"), on this ____ day of _____ 20__ (the "Effective Date"). City and Contractor may be collectively referred to herein as the "Parties" or individually as "Party." There are no other parties to this Agreement.

RECITALS

A. City seeks a duly qualified and licensed firm experienced in the construction of _____ (the "Project").

B. The Project involves the expenditure of funds in excess of $5,000 and constitutes a "public project" pursuant to Public Contract Code section 20161.

C. Contractor has made a proposal to City to provide construction services, a copy of which is attached and incorporated hereto as **Exhibit A** (the "Services").

D. City has determined it is necessary and desirable to employ the services of Contractor to perform construction work on the Project.

E. City has taken appropriate proceedings to authorize construction of the Project and execution of this contract pursuant to Public Contract Code section 20160 et seq.; specifically, on _____, 20___, at a duly noticed meeting of the City Council of the City of Angels Camp, this contract for the construction of the improvements hereinafter described was awarded to Contractor as the lowest responsive and responsible bidder for said improvements.

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

AGREEMENT

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

i. Notice to Bidders;
ii. Contractor's Bid or Proposal accepted by City;

iii. General Conditions, Supplementary Conditions, and Special Provisions of the City of Angels for [Project Name];
iv. Plans and detailed drawings prepared for this Project and approved by City ("Project Plans");
v. All bonds and insurance required by the Contract Documents;
vi. Any and all supplemental agreements amending, decreasing, or extending the work contemplated or which may be required to complete the work in a substantial and acceptable manner; and
vii. The current edition of the City of Angels Camp Standard Specifications and Drawings.

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

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

3. Scope of Work.

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

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

invalidate the Contract nor relieve Contractor of any liability or other obligations under the Contract. Any requirement of notice of changes in the scope of work to Contractor's surety shall be the responsibility of Contractor.

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

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

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

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

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

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

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

5. Time for Performance. The time fixed for the commencement of work under the Contract is within ten (10) working days after the Notice to Proceed has been issued. The work on this project, including all punch list items, shall be completed on or before the expiration of

_____ (_____) working days (the "Completion Date") beginning on the first day of work or no later than the tenth day after the Notice to Proceed has been issued.

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

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

i. Additional working days will be awarded where the amount of time is mutually agreed upon by Contractor and the City Engineer; or

ii. Additional working days will be awarded where Contractor is prevented from completing any part of the work identified on the critical path and:

1. where the delay is caused by acts of public enemy, fire, floods, tsunamis, earthquakes, epidemics, quarantine restrictions, strikes, labor disputes, shortage of materials and freight embargos, provided that Contractor shall notify Engineer in writing of the causes of delay within fifteen (15) days from the beginning of that delay; or

2. where the delay is caused by actions beyond the control of Contractor; or

3. where the delay is caused by actions or failure to act by the City Engineer.

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

(b) *Excusable Delays.* Contractor shall not be in breach of the Contract in the event that performance of Services is temporarily interrupted or discontinued due to a "Force Majeure" event which is defined as: riots, wars, sabotage, civil disturbances, insurrections, pandemic, epidemic, or explosions; natural disasters, such as floods, earthquakes, landslides, and fires; strikes, lockouts, and other labor disturbances; or other catastrophic events, which are beyond the reasonable control of Contractor. Force Majeure does not include Contractor's financial inability to perform, Contractor's failure to obtain any necessary permits or licenses from other governmental agencies, or

Contractor's failure to obtain the right to use the facilities of any public utility where such failure is due solely to the acts or omissions of Contractor. If Contractor's performance of the Services is delayed by an excusable delay, the Completion Date shall be extended for such reasonable time as determined by the City Engineer. Extensions in time must be requested by Contractor within fifteen (15) calendar days of the excusable delay in order to receive consideration.

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

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

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

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

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

iii. The City Council, by resolution, may suspend the Contract until the cause of inability to perform is removed for a period of not to exceed sixty (60) days.

   If the Contract is not canceled, and the inability of Contractor to perform continues without fault on Contractor's part, beyond the time during which the Contract may have been suspended, as herein above provided, the City Council may further suspend the Contract, or either Party hereto may, without incurring

any liability, elect to declare the Contract terminated upon the ground of impossibility of performance. In the event City declares this agreement terminated, such declaration shall be authorized by the City Council by resolution, and Contractor shall be notified in writing thereof within five (5) days after the adoption of such resolution. Upon such termination, Contractor shall be entitled to proportionate compensation at the Contract Price for such portion of the Contract as may have been performed; or

iv. City may terminate the Contract, in which case Contractor shall be entitled to proportionate compensation at the agreed rate for such portion of the Contract as may have been performed. Such termination shall be authorized by resolution of the City Council. Notice thereof shall be forthwith given in writing to Contractor, and the Contract shall be terminated upon receipt by Contractor of such notice.

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

(d) *Delay Damages.* In the event Contractor, for any reason, fails to perform the Services to the satisfaction of the City Engineer by the Completion Date, City may, in accordance with Section 7203 of the Public Contract Code, in lieu of any other of its rights authorized by Section 6 of this agreement, deduct from payments or credits due Contractor after such breach a sum equal to _____ Dollars ($_____.00) for each calendar day beyond the Completion Date. This deduction shall not be considered a penalty but shall be considered as delay damages. The aforementioned rate of deduction is an amount agreed to by the Parties as reasonably representing additional construction engineering costs incurred by City if Contractor fails to complete the Services by the Completion Date. However, any deduction assessed as delay damages shall not relieve Contractor from liability for any damages or costs resulting from delays to other contractors on the project or other projects caused by a failure of the assessed Contractor to complete the Services by the Completion Date. Due account shall be taken of any time extensions granted to Contractor by City. Permitting Contractor to continue work beyond the Completion Date shall not operate as a waiver on the part of City of any of its rights under the Contract nor shall it relieve Contractor from liability for any damages or costs resulting from delays to other contractors on the project or other projects caused by a failure of the assessed Contractor to complete the Services by the Completion Date.

6. Termination.

(a) *Option of City to Terminate Contract for Failure to Complete Services.* If a Party should fail to perform any of its obligations hereunder within the time and in the manner herein provided, or otherwise violates any of the terms of the Contract (the "Defaulting Party"), the other Party shall give notice to the Defaulting Party and allow the Defaulting Party ten (10) days to correct such deficiency. If the Defaulting Party does not correct such deficiency, the other Party may immediately terminate the Contract by giving written notice of such termination, stating the reason for such

termination. In such event, Contractor shall be entitled to receive payment for all Services satisfactorily rendered until such termination, provided, however, there shall be deducted from such amount the amount of damage, if any, sustained by virtue of any breach of the Contract by Contractor, including Delay Damages. If payment under the Contract is based upon a lump sum in total or by individual task, payment for Services satisfactorily rendered shall be an amount which bears the same ratio to the total fees specified in this Agreement as the Services satisfactorily rendered hereunder by Contractor to the total services otherwise required to be performed for such total fee, provided, however, that there shall be deducted from such amount the amount of damage, if any sustained by City by virtue of any breach of the Contract by Contractor. Upon termination, Contractor shall deliver copies of all Work Product, as defined in Section 19 of this Agreement, to City. If District terminates the Contract before Contractor commences any Services hereunder, City shall not be obligated to make any payment to Contractor.

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

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

8. Compensation: City shall make payments to Contractor in accordance with the provisions of Section 9 of the General Conditions in legally executed and regularly issued warrants of City,

drawn on the appropriate fund or funds as required by law and order of the City Council thereof. Contractor shall be administered a progress payment approximately every thirty (30) calendar days from the time work begins according to the payment schedule furnished by the City Engineer at the time work begins. Contractor shall provide access at all reasonable times to all reports, contract records, contract documents, contract files, and personnel necessary to audit and verify Contractor's charges to City under this Contract.

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

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

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

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

9. Disputes Pertaining to Payment for Work: Should any dispute arise respecting the true value of any work performed, of any work omitted, or of any extra work which Contractor may be required to do, or respecting the size of any payment to Contractor during the performance of the Contract, such dispute shall be decided by the City Engineer, and the decision of the latter shall be

final and conclusive. The Parties agree to comply with the claims resolution procedures set forth in Public Contract Code section 9204 when applicable.

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

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

(c) *Nonbinding Mediation.* Any disputed portion of the claim, as identified by Contractor in writing, shall be submitted to nonbinding mediation, with the Parties sharing the associated costs equally. The Parties shall mutually agree to a mediator within ten (10) business days after the disputed portion of the claim has been identified in writing. If the Parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each Party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject judicial review pursuant to Section 23 of this Agreement.

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

10. Permits and Care of Work: Contractor shall, at Contractor's expense, obtain all necessary permits and licenses for the construction of each improvement, give all necessary notices and pay all fees and taxes required by law, except those City fees set forth in Section 1 of the Special Provisions. Contractor has examined the Project site and is familiar with its topography and condition, location of property lines, easements, building lines, and other physical factors and limitations affecting the performance of the Contract. Contractor, at Contractor's expense, shall obtain any permission

necessary for any operations conducted off the property owned or controlled by City. Contractor shall be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance.

11. Public Works and Payment of Prevailing Wage:

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

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

(b) *Wages & Hours of Employment*: In the performance of the Services under the Contract, eight (8) hours shall be the maximum hours of labor on any calendar day, and the minimum wages of compensation of persons performing labor in the execution of this agreement shall be the current prevailing scale of wages determined by DIR for the community. Contractor shall forfeit as penalty Twenty-five and no/100ths Dollars ($25.00) to be paid to City for each workman employed in the execution of the Contract by Contractor or its subcontractor(s), for each calendar day during which any workman is required or permitted to labor more than eight (8) hours, in violation of provisions of Labor Code section 1810 et seq. Contractor shall post prevailing wage rates at the Project no later than the first day Contractor commences performance of the Services under the Contract.

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

13. Inspection and Testing by City: Contractor shall at all times maintain proper facilities and provide safe access for inspection by City to all parts of the work performed on the Project and to the shops wherein the work is in preparation. Contractor shall notify City with sufficient time in advance of the manufacture of production materials to be supplied by Contractor under the Contract in order for City to arrange for mill or factory inspection and testing of same. Any

materials shipped by Contractor from factory prior to having satisfactorily passed such testing and inspection by City's representative or prior to the receipt of notice from such representative that such testing and inspection will not be required shall not be incorporated on the Project. Contractor shall also furnish to City, in triplicate, certified copies of all factory and mill test reports upon request.

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

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

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

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

16. Bonds: Concurrently with the execution hereof, Contractor shall furnish, on the forms provided herein as **Exhibits D and E**, respectively, corporate surety bonds to the benefit of City, issued by a surety company acceptable to City and authorized and admitted to do business in the state of California, as follows:

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

contain a provision that the surety thereon waives the provisions of Sections 2819 and 2845 of the Civil Code.

(b) *Payment Bond.* In an amount equal to at least one hundred percent (100%) of the Contract Price as security for the payment of all persons performing labor and furnishing materials in connection with the Contract. The bond shall be in accordance with the provisions of Sections 3225, 3226, and 3247 through 3252, inclusive, of the Civil Code and Section 13020 of the Unemployment Insurance Code of California. Said bond shall also contain a provision that the surety thereon waives the provisions of Sections 2819 and 2845 of the Civil Code.

The surety companies shall familiarize themselves with all provisions and conditions of the Contract. It is understood and agreed that the surety or sureties waive the right of special notification of any modification or alterations, omissions or reductions, extra or additional work, extensions of time, or any other act or acts by City or its authorized agents under the terms of this Contract and failure to so notify the surety or sureties of such changes shall in no way relieve the surety or sureties of their obligations under the Contract.

17. Indemnification:

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

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

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

approved. Contractor shall procure and maintain for the duration of the Contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Services hereunder by Contractor, its agents, representatives, employees or subcontractors. Failure to maintain or renew coverage or to provide evidence of renewal may constitute a material breach of the Contract. Any available insurance proceeds in excess of the specified minimum limits and coverage shall be available to City.

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

(1) City, its elective and appointive boards, officers, agents, employees, and volunteers are to be covered as additional insureds with respect to liability arising out of work or operations performed by or on behalf of Contractor, including materials, parts or equipment furnished in connection with such work or operations, which coverage shall be maintained in effect for at least three (3) years following the completion of the work specified in the Contract. General liability coverage can be provided in the form of an endorsement to Contractor's insurance (at least as broad as CG 20 10 for ongoing operations and CG 20 37 for products/completed operations), or as a separate Owners and Contractors Protective Liability policy providing both ongoing operations and completed operations coverage.

(2) For any claims related to the Project, Contractor's insurance coverage shall be primary insurance as respects City and any insurance or self-insurance maintained by City shall be excess of Contractor's insurance and shall not contribute with it.

(3) In the event of cancellation, non-renewal, or material change that reduces or restricts the insurance coverage afforded to City under the Contract, the insurer, broker/producer, or Contractor shall provide City with thirty (30) days' prior written notice of such cancellation, non-renewal, or material change.

(4) Coverage shall not extend to any indemnity coverage for the active negligence of the additional insured in any case where an agreement to indemnify the additional insured would be invalid under Subdivision (b) of Section 2782 of the Civil Code.

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

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

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

(e) *Contractors Pollution Insurance.* Pollution Coverage shall be provided on a Contractors Pollution Liability form, or other form acceptable to City, providing coverage for liability arising out of sudden, accidental, and gradual pollution and remediation. The policy limit shall be no less than One Million Dollars ($1,000,000) per claim. All activities contemplated in the Contract shall be specifically scheduled on the policy as "covered operations." The policy shall provide coverage for the hauling of waste from the Project site to the final disposal location, including non-owned disposal sites.

(f) *Professional Liability Insurance.* When applicable, Contractor shall maintain professional liability insurance that insures against professional errors and omissions that may be made in performing the Services to be rendered in connection with the Contract, in the minimum amount of One Million Dollars ($1,000,000) per claim and in the aggregate. Any policy inception date, continuity date, or retroactive date must be before the effective date of this Agreement, and Contractor agrees to maintain continuous coverage through a period no less than three (3) years after completion of the services required by the Contract.

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

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

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

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

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

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

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

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

When the Contract is terminated, Contractor agrees to return to City all documents, drawings, photographs, and other written or graphic material, however produced, that it received from City or

City's Agents, in connection with the performance of its Services under the Contract. All materials shall be returned in the same condition as received.

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

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

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

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

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

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

Notice of the demand for arbitration shall be filed in writing with the other Party. The demand for arbitration shall be made within a reasonable time after the claim, dispute, or other matter in question has arisen, and in no event shall it be made after the date when institution of legal or

equitable proceedings based on such claim, dispute, or other matter in question would be barred by the applicable statute of limitations.

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

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

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

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

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

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

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

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

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

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

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

If to City:	**City of Angels** **Attn: City Administrator** **200 Monte Verde Street, Suite B** **Angels Camp, CA 95222**
With courtesy copies to:	**Churchwell White LLP** **Attn: Douglas L. White, City Attorney** **1414 K Street, 3rd Floor** **Sacramento, CA 95814**
If to Contractor:	_____ _____ _____
If to Contractor's Sureties:	_____ _____ _____ _____

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

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

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

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

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

communications between itself, its employees, and its subcontracts as being communications which are within the attorney-client privilege.

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

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

33. Assignment: No Party to the Contract shall assign, transfer, or otherwise dispose of this Agreement in whole or in party to any individual, firm, or corporation without the prior written consent of the other Party. Subject to the foregoing provisions, the Contract shall be binding upon, and inure to the benefit of, the respective successors and assigns of the Parties hereto.

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

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

36. Venue: Venue for all legal proceedings shall be in the Superior Court of California, in and for the County of Calaveras.

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

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

39. Mandatory and Permissive: "Shall" and "will" and "agrees" are mandatory. "May" and "can" are permissive.

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

41. Attorney's Fees and Costs: Except as expressly provided for in Sections 9 and 23 of this Agreement, if any action at law or in equity, including action for declaratory relief, is brought to enforce or interpret the provisions of the Contract, the prevailing Party shall be entitled to reasonable attorney's fees and costs, which may be set by the court in the same action or in a separate action brought for that purpose, in addition to any other relief to which such Party may be entitled.

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

[*Signatures on Following Page*]

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

CONTRACTOR

By: _____

_____
Print Name

Federal Tax ID or Social Security No:

_____

DIR Registration Number:

_____

Attach Contractor's Seal Here

CITY OF ANGELS, a municipal corporation

By: _____
Melissa Eads, City Administrator

Date: _____

APPROVED AS TO FORM:

By: _____
Douglas L. White, City Attorney

EXHIBIT A
CONTRACTOR'S PROPOSAL FOR SERVICES

EXHIBIT B
PAYMENT BY FORCE ACCOUNT

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

A. Labor. Labor payment is full compensation for the cost of labor used in the direct performance of the work plus a 35 percent (35%) markup, as set forth below, and consistent with California Labor Code section 1770 et seq. Force account labor payment consists of:

1. Employer payment to the worker for:

    1.1 Basic hourly wage
    1.2 Health and welfare
    1.3 Pension
    1.4 Vacation
    1.5 Training
    1.6 Other State and federal recognized fringe benefit payments

2. Labor surcharge percentage in *Labor Surcharge and Equipment Rental Rates* current during the work paid at force account for:

    2.1 Workers' compensation insurance
    2.2 Social security
    2.3 Medicare
    2.4 Federal unemployment insurance
    2.5 State unemployment insurance
    2.6 State training taxes

3. Subsistence and travel allowances paid to the workers

4. Employer payment to supervisors, if authorized

The 35 percent (35%) markup consists of payment for all overhead costs related to labor but not designated as costs of labor used in the direct performance of the work including:

(a) Home office overhead
(b) Field office overhead
(c) Bond costs
(d) Profit
(e) Labor liability insurance
(f) Other fixed or administrative costs that are not costs of labor used in the direct performance of the work

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

1. A 15 percent markup is added;

2. Supplier discounts are subtracted whether the Contractor takes them or not;

3. If the City Engineer believes the material purchase prices are excessive, City pays the lowest current wholesale price for a similar material quantity;

4. If Contractor procured the materials from a source Contractor wholly or partially own, the determined cost is based on the lower of the:

   4.1 Price paid by the purchaser for similar materials from that source on Contract items; and
   4.2 Current wholesale price for those materials;

5 If Contractor does not submit a material cost record within thirty (30) days of billing, the determined cost is based on the lowest wholesale price:

   5.1 During that period
   5.2 In the quantities used

C. Equipment Rental. Equipment rental payment is full compensation for:

1. Rental equipment costs, including moving rental equipment to and from the change order work site using its own power.

2. Transport equipment costs for rental equipment that cannot be transported economically using its own power. No payment is made during transport for the transported equipment.

3. 15 percent markup.

If Contractor wants to return the equipment to a location other than its original location, the payment to move the equipment must not exceed the cost of returning the equipment to its original

location. If Contractor uses the equipment for work other than work paid by force account, the transportation cost is included in the other work.

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

The City Engineer determines rental costs:

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

    1.1. By classifying equipment using manufacturer's ratings and manufacturer-approved changes.
    1.2. Current during the work paid by force account.
    1.3. Regardless of equipment ownership but City uses the rental document rates or minimum rental cost terms if:
        1.3.1. Rented from equipment business Contractor does not own.
        1.3.2. The Labor Surcharge and Equipment Rental Rates hourly rate is $10.00 per hour or less.

2. Using rates established by the City Engineer for equipment not listed in *Labor Surcharge and Equipment Rental Rates*. Contractor may submit cost information that helps the City Engineer establish the rental rate but City uses the rental document rates or minimum rental cost terms if:

    2.1. Rented from equipment business Contractor does not own.
    2.2. The City Engineer establishes a rate of $10.00 per hour or less.

3. Using rates for transport equipment not exceeding the hourly rates charged by established haulers.

Equipment rental rates include the cost of:

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

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

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

1. Contractor submits a request to use rented equipment

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

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

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

2. To load and unload equipment

3. Equipment is operated to perform work paid by force account and:

   3.1. Hourly rates are paid in 1/2-hour increments
   3.2. Daily rates are paid in 1/2-day increments

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

The minimum total time paid is:

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

If daily rates are recorded, equipment:

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

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

Equipment Rental Hours

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

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

1. To move the equipment to the location of work paid by force account plus an equal amount of time to return the equipment to its source when the work paid by force account is completed

2. To load and unload equipment

3. Equipment is operated to perform work paid by force account

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

The above markups shall constitute full compensation for all home office overhead, field office overhead, bond costs, profit, labor liability insurance, and other fixed or administrative costs that are not costs specifically designated as cost or equipment rental as stated above. The total payment made as provided above shall be deemed to be the actual cost of the work and shall constitute full compensation therefor.

When extra work to be paid for on a force account basis is performed by a subcontractor, an additional markup of 10 percent (10%) will be added to the total cost of that extra work including all markups specified in this Section. The additional 10 percent (10%) markup shall reimburse Contractor for additional administrative costs, and no other additional payment will be made by reason of performance of the extra work by a subcontractor.

END OF SECTION

SECTION 00610

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the **City of Angels Camp,** State of California, has awarded to _____, hereinafter designated as the "Principal," a contract for **Project No. __-___, "_____";** and,

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

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

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

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

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

[*Signatures on Following Page*]

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

(Corporate Seal) **Principal** _____

By _____

Title _____

(Attach Notarial Acknowledgment)

(Corporate Seal) **Surety** _____

Address _____

Phone No.: ( )_____ Fax No.: ( ) _____

By _____
Attorneys-in-Fact

Title _____

(Attach Notarial Acknowledgment)

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

(Seal) **Witness** _____

Approved as to form:

_____
Risk Manager

END OF SECTION

SECTION 00620

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the **City of Angels Camp**, a municipal corporation, has awarded to _____, hereinafter designated as the "Principal", a contract for **Project No**. __-___, **"_____"**; and

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

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

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

This bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under Section 3138 of the Civil Code of the State of California so as to give a right of action to them or their assigns in any suit brought upon this bond.

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

[*Signatures on Following Page*]

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

(Corporate Seal) **Principal** _____

By _____

Title _____

(Attach Notarial Acknowledgment)

(Corporate Seal) **Surety** _____

Address _____

Phone No.: ( )_____ Fax No.: ( ) _____

By _____
Attorneys-in-Fact

Title _____

(Attach Notarial Acknowledgment)

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

(Seal) **Witness** _____

Approved as to form:

_____
Risk Manager

*** END OF SECTION ***

SECTION 00650

WORKERS' COMPENSATION INSURANCE CERTIFICATION

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

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

Signed: _____ Date: _____

_____
(Typed or Printed Name)

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

_____

_____

_____

Business Phone: ( ) _____

END OF SECTION

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STANDARD
GENERAL CONDITIONS
OF THE
CONSTRUCTION CONTRACT

CITY OF ANGELS

These General Conditions are based in part on

EJCDC C-700 (2002 Copyrighted Edition)

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GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in these General Conditions or in other Contract Documents, the terms listed below have the meanings indicated which are applicable to both the singular and plural thereof. Said terms are generally capitalized or written in italics, but not always. When used in a context consistent with the definition of a listed-defined term, the term shall have a meaning as defined below whether capitalized or italicized or otherwise.

1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids, which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*--The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.

3. *Application for Payment*--The form acceptable to Construction Manager which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. *Bid*--The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

6. *Bidder*--The individual or entity who submits a Bid directly to Owner.

7. *Bidding Documents*--The Bidding Requirements and the proposed Contract Documents (including all Addenda).

8. *Bidding Requirements*--The Advertisement or Invitation to Bid, Instructions to Bidders, bid security of acceptable form, if any, and the Bid Form with any supplements.

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

10. *Claim*--A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*--The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*-- Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

13. *Contract Price*--The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*--The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any, (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Construction Manager's written recommendation of final payment.

15. *Contractor*--The individual or entity with whom Owner has entered into the Agreement.

16. *Cost of the Work*--See Paragraph 11.01.A for definition.

17. *Drawings*--That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

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

19. *Engineer*--The individual or entity named as such in the Agreement.

20. *Field Order*--A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

21. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

22. *Hazardous Environmental Condition*--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

23. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

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

25. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

26. *Milestone*--A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*--The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.

28. *Notice to Proceed*--A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.

29. *Owner*--The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.

30. *PCBs*--Polychlorinated biphenyls.

31. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

32. *Progress Schedule*--A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

33. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

34. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

35. *Radioactive Material*--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

36. *Related Entity* -- An officer, director, partner, employee, agent, consultant, or subcontractor.

37. *Resident Project Representative*--The authorized representative of Construction Manager who may be assigned to the Site or any part thereof.

38. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

39. *Schedule of Submittals*--A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

40. *Schedule of Values*--A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

41. *Shop Drawings*--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.

42. *Site*--Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.

43. *Specifications*--That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.

44. *Subcontractor*--An individual or entity having a direct contract with Contractor or with any other

Subcontractor for the performance of a part of the Work at the Site.

45. *Substantial Completion*--The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Construction Manager, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be safely and conveniently utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

46. *Successful Bidder*--The Bidder submitting a responsive Bid to whom Owner makes an award.

47. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

48. *Supplier*--A manufacturer, fabricator, supplier, distributor, material man, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or any Subcontractor.

49. *Underground Facilities*--All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

50. *Unit Price Work*--Work to be paid for on the basis of unit prices.

51. *Work*--The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

52. *Work Change Directive*--A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Construction Manager ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

53. *Construction Manager*--The individual or entity retained by the Owner to perform construction quality assurance and contract administration functions not involving reviews and interpretations with respect to design intent. The Construction Manager is a representative of the Owner, either an employee or consultant, employed to act as advisor to the Owner in construction matters related to the Contract.

1.02 *Terminology*

A. The following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following meaning.

B. *Intent of Certain Terms or Adjectives*

1. The Contract Documents include the terms "as allowed," "as approved," "as ordered", "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer or Construction Manager. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer or Construction Manager as to the Work. It is intended that such exercise of professional judgment, action or determination will be solely to evaluate, in general, the Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer or Construction Manager any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day*

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective*

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

a. does not conform to the Contract Documents, or

b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents, or

c. has been damaged prior to –Construction Manager's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide, Supply*

1. The word "Furnish" or the word "Install" or the word "Perform" or the word "Provide" or the word "Supply," or any combination or similar directive or usage thereof, shall mean FURNISHING AND INCORPORATING IN THE WORK including all necessary labor, materials, equipment, and everything necessary to perform the Work indicated, unless specifically limited in the context used.

F. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 - PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement.

2.04 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Construction Manager for timely review**:**

1. a preliminary Progress Schedule; indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Construction Manager and Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

2.07 *Initial Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Construction Manager, and others as appropriate will be held to review for acceptability to Construction Manager as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Construction Manager if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Construction Manager responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work nor interfere with or

relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Construction Manager and Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Construction Manager as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

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

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

C. Clarifications and interpretations with respect to the design intent of the Contract Documents shall be issued by Engineer through the Construction Manager, and clarifications and interpretations with respect to administrative matters shall be issued by the Construction Manager as provided in Article 9.

D. The Specifications may vary in form, format and style. Some specification sections are written in varying degrees of streamlined or declarative style and some sections may be relatively narrative by comparison. Omissions of such words and phrases as "the Contractor shall," "in conformity with," "as shown," or "as specified" are intentional in streamlined sections. Omitted words and phrases shall be supplied by inference. Similar types of provisions may appear in various parts of a section or articles within a part depending on the format of the section. The Contractor shall not take advantage of any variation of form, format or style in making claims for extra Work.

E. The cross referencing of specification sections under the subparagraph heading "Related Sections include but are not necessarily limited to:" and elsewhere within each specification section is provided as an aid and convenience to the Contractor. The Contractor shall not rely on the cross referencing provided and shall be responsible to coordinate the entire work under the Contract Documents and provide a complete Project whether or not the cross referencing is provided in each section or whether or not the cross referencing is complete.

3.02 *Reference Standards*

A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of Owner, Contractor, Engineer or Construction Manager, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer or Construction Manager, or any of their Related Entities, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. Reporting Discrepancies

1. *Contractor's Review of Contract Documents Before Starting Work*: Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Construction Manager any conflict, error, ambiguity, or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Engineer through Construction Manager before proceeding with any Work affected thereby.

2. *Contractor's Review of Contract Documents During Performance of Work*: If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, Contractor shall promptly report it to Construction Manager in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

3. Contractor shall not be liable to Owner, Construction Manager or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor knew or reasonably should have known thereof.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;

2. Engineer's approval of a Shop Drawing or Sample; (Subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification of matters of design intent issued through the Construction Manager, and Construction Managers written interpretation or clarification of administrative matters.

3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier or other individual or entity performing or furnishing all of the Work under a direct or indirect contract with Contractor, shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Engineer's consultants, including electronic media editions; or

2. reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adoption by Engineer.

B. The prohibition of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

A. Copies of data furnished by Owner or Engineer to Contractor or Contractor to Owner or Engineer that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.

C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to

agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

1. Where easement lines are shown on the Contract Drawings they shall be considered as shown in their final location unless stipulated otherwise in the Supplementary Conditions.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that Engineer has used in preparing the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Construction Manager in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Construction Manager's and Engineer's Review*: After receipt of written notice as required by Paragraph 4.03.A, Construction Manager will promptly review the pertinent condition with Engineer as appropriate, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor and Engineer) of Construction Manager's findings and conclusions.

C. Possible Price and Times Adjustments

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and

b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.

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

a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

c. Contractor failed to give the written notice as required by Paragraph 4.03.A.

3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, Owner, Engineer and Construction Manager, and any of their Related Entities shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a. reviewing and checking all such information and data,

b. locating all Underground Facilities shown or indicated in the Contract Documents,

c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction, and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

3. Pursuant to Government Code Section 4216-4216.9, the Contractor shall notify the appropriate regional notification center of all excavations as required under Government Code sections 4216 to 4216.9. The Contractor shall contact Underground Service Alert at 1-800-642-2444 for the location of subsurface installations. Contractor shall furnish to the Construction Manager written documentation of its contact(s) with Underground Service Alert within two (2) days after such contact(s).

4. At least two (2) days before performing any excavation work, the Contractor shall request the utility owners to mark or otherwise indicate the location of their service. Contractor shall furnish to the Construction Manager written documentation of its contact(s) with utility owners requesting them to mark or otherwise indicate the location of their respective facilities within three (3) days after such contact(s).

5. It shall be the Contractor's responsibility to determine the exact location and depth of all utilities, including service connections, which have been marked by the respective owners and which Contractor believes may affect or be affected by Contractor's operations. If no pay item is provided in the Contract for this work, full compensation for such work shall be considered as included in the prices bid for other items of work.

B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Construction Manager. Construction Manager will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Construction Manager concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable

adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05. In accordance with Government Code Section 4215 the Contractor shall not be assessed liquidated damages for delay in completion of the project, when such delay is caused by the failure of the Owner or utility company to provide for the removal or relocation of facilities for which they are the responsible party

3. When the General Requirements, Specifications, or Construction Drawings indicate that a utility is to be relocated, altered or constructed by others, the Owner will conduct all negotiations with the utility company and the work will be done at no cost to the Contractor.

4. Temporary or permanent service, relocation or alteration of utilities desired by the Contractor for its own convenience shall be the Contractor's responsibility and it shall make arrangements and bear all costs.

5. Except where the owner of a damaged utility has advised that it intends to repair the damage through its own forces or forces that it will retain or has retained, Contractor shall, within 24 hours of receipt from the Owner of notice to commence correction of damage, notify the Construction Manager in writing if Contractor intends to repair the damage. During nights and weekends when work is not in progress, Owner may give such notice by telephone or by facsimile transmission to the Contractor's facsimile number and such notice will be immediately effective. The Contractor's failure to provide timely written notification that it intends to repair the damage shall be deemed its agreement that the Owner may repair the damage at Contractor's expense without further notice and without prejudice to any other remedy available to Owner. In such event, the Contractor may observe the Work if this can be done without in any way delaying the progress thereof, but may not contest any element of the expense of repair or the lack of further notice. This provision is in addition to any other remedy, including the remedy provided in 13.09, Owner May Correct Defective Work

4.05 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Construction Manager's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Construction Manager whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by licensed land surveyor registered in the state of California.

4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Construction Manager

(and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Construction Manager concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any.

E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered to Contractor written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, Engineer and Construction Manager, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner , Engineer and Construction Manager, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 - BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.

B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent must be accompanied by a certified copy of the agent's authority to act.

C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the

jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

A. Contractor shall deliver to Owner, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.

B. Owner shall deliver to Contractor, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

5.04 *Contractor's Liability Insurance*

A. Contractor shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or

b. by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insured (subject to any customary exclusion regarding professional liability) Owner, Engineer and Construction Manager, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Contract Documents or required by Laws or Regulations, whichever is greater;

3. include completed operations insurance;

4. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);

6. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment.

a. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

8. With respect to all insurance required by this paragraph 5.04., Contractor agrees to waive all rights of subrogation against Owner, Engineer and Construction Manager, and each additional insured identified in the Supplemental Conditions.

5.05 *Owner's Liability Insurance*

A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, Engineer and Construction Manager, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, collapse, explosion, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, (other than caused by flood) and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, Engineer and Construction Manager with 30 days written notice to each other additional insured.

B. Contractor shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, Engineer and Construction Manager, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured and will contain waiver provisions in accordance with Paragraph 5.07.

D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 *Waiver of Rights*

A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, Engineer and Construction Manager, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. Owner and Contractor waive all rights against

each other and their respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, Engineer and Construction Manager, and all other individuals or entities identified in the Supplementary Conditions to be listed as insured or additional insured (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, Engineer and Construction Manager, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, Engineer or Construction Manager, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.

B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

1. All insurance required by the Contract Documents, or by laws or regulations shall remain in full force and effect on all phases of the Work, whether or not the Work is occupied or utilized by Owner, until all Work

included in the agreement has been completed and final payment has been made.

2. Nothing contained in the insurance requirements shall be construed as limiting the extent of Contractor's responsibility for payment of damages resulting from Contractor's, subcontractors' or suppliers' operations under the Contract. Contractor agrees that Contractor alone shall be completely responsible for procuring and maintaining full insurance coverage as provided herein or as may be otherwise required by the Contract Documents. Any approval by Owner or Construction Manager shall not operate to the contrary.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. Means or methods of work suggested by the Owner, the Construction Manager, or the Engineer to the Contractor, but not specified or required, if adopted or followed by the Contractor in whole or in part, shall be used at the risk and responsibility of the Contractor. The Owner, Construction Manager, or the Engineer assume no responsibility therefor, and in no way will be held liable for any defects in the Work which may result from or be caused by use of such plan or method of Work.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Construction Manager except under extraordinary circumstances. The superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor. All communications given to or received from the superintendent shall be binding on Contractor.

6.02 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. In the absence of any Federal, state or local laws, regulations or covenants, the Contractor may conduct its performance of the Work at the Contractor's sole discretion, except that the cost of any overtime pay or other expense incurred by the Owner for Resident Project Representative, Owner's Representative and construction observation services, occasioned by the conduct of Work on Saturday, Sunday, any legal holiday, or as overtime on any regular work day, shall be reimbursed to the Owner by the Contractor. Contractor shall provide to Construction Manager 72-hour written notice of intent to work outside of regular working hours .

C. Prevailing Wage

1. In accordance with Section 1770 of the Labor Code, the Owner has ascertained and does hereby specify that the prevailing wage rates shall be those provided in Article 00100-22.00, WAGE RATES**.** The said rates shall include all employer payments that are required by Section 1773.1 of the Labor Code. The Owner will furnish to the Contractor, upon request, a copy of such prevailing rates. It shall be the duty of the Contractor to post a copy of such prevailing wages at the job site.

2. For each worker paid less than the stipulated rate in the execution of the Contract by the Contractor, or any subcontractor under it, in violation of the provisions of the Labor Code, and in particular, Section 1770 to Section 1780, inclusive, the Contractor shall be subject to the provisions and penalties of Section 1775 of the Labor Code. In addition to said penalty, and pursuant to said Section 1775, the difference between such stipulated prevailing wage rates and the amounts paid to each worker for each calendar day, or portion thereof, for which each worker was paid less than the stipulated prevailing rate shall be paid to each worker by the Contractor.

3. The wage rates set forth are the minimum that may be paid by the Contractor. Nothing herein contained shall be construed as preventing the Contractor from paying more than the minimum set forth.

4. No extra compensation whatever shall be allowed by the Owner due to the inability of the Contractor to hire labor at the minimum rate nor for any necessity for payment by the Contractor for subsistence, travel time, overtime, or other added compensation, all of which possibilities are elements to be considered and ascertained to the Contractor's own satisfaction in preparing the bid.

5. If it becomes necessary to employ a craft other than those listed in the prevailing rates, the Contractor shall notify the Owner immediately and the Owner will obtain the additional prevailing rate from the Director of the Department of Industrial Relations and the rate thus determined shall be applicable as a minimum at the time of initial employment.

6. The Contractor shall pay travel and subsistence payments to workers needed to execute the work as such travel and subsistence payments are defined in the applicable collective bargaining agreement filed with the Department of Industrial Relations pursuant to Labor Code Section 1773.8.

7. Owner and Contractor stipulate that Labor Code Section 1775 will be complied with.

8. The Owner will consider the type of work performed by classification traditionally employed to perform said work in Stanislaus County when determining appropriate craft, classification or type of worker under Section 1733.2 of the California Labor Code.

9. Not Used.

10. Certified Payrolls - In accordance with Section 1776 of the Labor Code, each Contractor and subcontractor shall keep an accurate payroll record, showing the name, address, social security number, work classification, straight time, and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by the Contractor or the subcontractor in connection with the project.

11. The payroll records shall be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:

12. A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or its authorized representative on request.

13. A certified copy of all payroll records shall be made available for inspection or furnished upon request to a representative of the Owner, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations.

14. A certified copy of all payroll records shall be made available upon request by the public in accordance with Section 1776 of the Labor Code.

15. The Contractor is responsible for its and its subcontractors' compliance with the provisions of Section 1776 of the Labor Code.

16. Overtime Requirements - The Contractor shall forfeit, as a penalty to the Owner, the penalty as provided in Section 1813 of the Labor Code for each worker employed in the execution of the Contract by the Contractor, or any subcontractor under the Contractor, for each day during which such worker is required or permitted to work more than eight (8) hours in any one day and forty (40) hours in any one 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 a day and forty (40) hours during 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 a half (1.5) times the basic rate of pay as provided for in Section 1815 of the Labor Code.

17. Apprentice and Trainee - Attention is directed to the provisions in Section 1777.5 of the Labor Code and in accordance with the regulations of the California Apprenticeship Council concerning the employment of apprentices by the Contractor or any subcontractor under the Contractor.

18. Section 1777.5 requires the Contractor or subcontractors employing tradespersons in any apprenticeable occupation to apply to the joint apprenticeship committee nearest the site of the project that administers the apprenticeship program in that trade for a certificate of approval. The Contractor and subcontractors are required to submit contract award information to the applicable joint apprenticeship committee. As provided for in Section 1777.5 of the Labor Code, the Contractor is required to make contributions to funds established for the administration of apprenticeship programs.

19. It shall be the responsibility of the Contractor to abide by the provisions of Section 1777.5 of the Labor Code and to require all subcontractors employed by or contracting with the Contractor to abide by said provisions. The Contractor shall furnish the Owner any and all evidence of compliance with this code section when requested by the Owner.

20. For failure to comply with Section 1777.5 of the Labor Code, the Contractor shall be subject to the penalties in Section 1777.7 of the Labor Code. The provisions of this paragraph apply only to the extent not preempted by Federal law.

21. Workers' Compensation Insurance - The Contractor is required to secure the payment of compensation to its employees in accordance with the provisions of Sections 1860 and 3700 of the Labor Code and Paragraph 00820-2.40, Workers' Compensation Insurance.

6.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals

necessary for the performance, testing, start-up, and completion of the Work.

1. Where the Work requires equipment be furnished, due to the lack of standardization of equipment as produced by the various manufacturers, it may become necessary to make minor modifications in the structures, buildings, piping, mechanical work, electrical work, accessories, controls, or other work, to accommodate the particular equipment offered. Contractor's bid price for any equipment offered shall include the cost of making any necessary changes subject to the approval of Construction Manager.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer or Construction Manager, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

1. Materials and equipment, if furnished by the Owner, will be made available as designated in the General Requirements. The cost of unloading, hauling and handling, and placing Owner-furnished materials and equipment shall be considered as included in the price bid for the Contract item involving such Owner-furnished material.

2. Contractor shall inspect and assure itself of the amount and soundness of such materials and equipment.

3. The Contractor will be held responsible for all materials and equipment furnished to it and received by it, and shall pay all demurrage and storage charges. Owner-furnished materials and equipment lost or damaged from any cause whatsoever shall be replaced by the Contractor. The Contractor will be liable to the Owner for the cost of replacing Owner-furnished material and equipment and such costs may be deducted from any moneys due or to become due the Contractor.

D. All items of standard equipment shall be the latest model at the time of bid, unless otherwise specified.

6.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Construction Manager for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and "Or-Equals"*

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

1. *"Or-Equal" Items:* If in Engineer's sole dicretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that:

1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole,

3) it has a proven record of performance and availability of responsive service; and

b. Contractor certifies that, if approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times, and

2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items

a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. Contractor shall submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Construction Manager from anyone other than Contractor.

c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented in the General Requirements and as Engineer may decide is appropriate under the circumstances.

d. Contractor shall make written application to Construction Manager for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

1) shall certify that the proposed substitute item will:

a) perform adequately the functions and achieve the results called for by the general design,

b) be similar in substance to that specified, and

c) be suited to the same use as that specified;

2) will state:

a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time;

b) whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and

c) whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;

3) will identify:

a) all variations of the proposed substitute item from that specified , and

b) available engineering, sales, maintenance, repair, and replacement services;

4) and shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change,

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

E. *Engineer's Cost Reimbursement*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the charges of Engineer for making changes in the Contract Documents (or in the

provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

C. Contractor shall be fully responsible to Owner, Engineer, and Construction Manager for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner, Engineer or Construction Manager and any such Subcontractor, Supplier or other individual or entity, nor

2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Construction Manager and Engineer through Contractor.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner, Construction Manager and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Construction Manager and Engineer,, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of Owner or Engineer its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner, Construction Manager and Engineer, and the officers, directors, partners, employees, agents, consultants and

subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner, Construction Manager nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

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

6.11 *Use of Site and Other Areas*

A. Limitation on Use of Site and Other Areas

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner, Construction Manager and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Construction Manager for reference, and shall be current at the time of Contractor's submission of Application for Payment as a condition precedent for Construction Manager's recommendation of payment. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Construction Manager for Owner. Contractor shall include accurate locations for buried and imbedded items.

6.13 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

1. At least two (2) days before performing any excavation work or other work that could damage existing improvements within, or adjacent to, the Work area, the Contractor shall notify the owners of properties adjacent to the Work area of intended commencement of such Work and request that such owners mark or otherwise indicate the location of underground improvements of which they are aware or other improvements not readily apparent from visual inspection of the adjacent property, such as survey points and utility service installations not owned by the appropriate utility. The Contractor shall also give two (2) days' notice to occupants or owners of adjacent property to permit them to salvage or relocate plants, trees, fences, sprinklers, and other improvements within the right-of-way that are designated for removal or would be destroyed because of the Work. Contractor shall furnish to the Construction Manager written documentation of its contact(s) with property owners (1) requesting them to mark or otherwise indicate the location of their respective facilities, and (2) notifying them to salvage or relocate landscaping or improvements within or adjacent to the Work area within two (2) days after such contact(s).

2. It shall be the Contractor's responsibility to determine the exact location (including depth for underground improvements) and to document the existing condition of all existing improvements which are not designated for removal (e.g., curbs, sidewalks, survey points, fences, walls, signs, utility installations, pavements, structures, etc.) which the Contractor believes may affect or be affected by Contractor's operations.

3. In the event that existing improvements are found that have not been identified in the Contract Documents or indicated by the respective property owner, or are found to exist in a substantially different location than so indicated, the Contractor shall (1) immediately notify the Construction Manager thereof in writing, and (2) take steps to avoid damaging such improvements, including ascertaining their exact location if not yet known.

C. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner, Construction Manager or Engineer , or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

1. The Contractor shall immediately notify the Construction Manager and the property owner of any damage to any existing improvements that have not been designated to be removed. The Contractor shall be responsible for the cost of repairing or restoring all existing improvements which are not designated for removal (e.g., curbs, sidewalks, survey points, fences, walls, signs, utility installations, pavements, structures, etc.) and are damaged or removed as a result of its operations. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension.

2. The Contractor shall protect from damage all landscaping (e.g., trees, lawns, shrubbery, etc.) adjacent to the Work area or within the Work area that have not been designated to be removed. The Contractor shall immediately notify the Construction Manager and the property owner of any damage to any such landscaping which is not designated for removal. The Contractor shall be responsible for the cost of restoring or replacing such landscaping in as nearly the original conditions and location as it is reasonably possible. Lawns shall be re-seeded and covered with suitable mulch.

3. Except where an owner of damaged improvements or landscaping has advised that he or she intends to repair the damage himself or through forces that he or she will retain or has retained, Contractor shall, within 24 hours of receipt from the Owner of notice to commence correction of damage, notify the Construction Manager in writing if Contractor intends to repair the damage. During nights and weekends when work is not in progress, Owner may give such notice by telephone or by facsimile transmission to the Contractor's facsimile number designated and such notice will be immediately effective. The Contractor's failure to provide timely written notification that it intends to repair the damage shall be deemed its agreement that the Owner may repair the damage at Contractor's expense without further notice and without prejudice to any other remedy available to Owner. In such event, the Contractor may observe the Work if this can be done without in any way delaying the progress thereof, but may not contest any element of the expense of repair or the lack of further notice. This provision is in addition to any other remedy, including the remedy provided in 13.09, Owner May Correct Defective Work

D. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Construction Manager has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

E. The Contractor shall establish, implement, and maintain a Written injury prevention program as required by Labor Code Section 6401.7. This written program shall be submitted to the Construction Manager within five (5) days of Notice to Proceed. The Contractor's injury prevention program will not be reviewed for approval**.** Before proceeding with any construction work, the Contractor shall take the necessary action to comply with all provisions for safety and accident prevention. The Contractor shall develop and maintain for the duration of this Contract, a safety program that will effectively incorporate and implement all required safety provisions. The Contractor shall appoint an employee as safety supervisor who is qualified and authorized to supervise and enforce compliance with the safety program. The Contractor, as a part of its safety program, shall maintain at its office or other well-known place at the Site, safety equipment applicable to the Work as prescribed by the aforementioned authorities, all items necessary for giving first aid to the injured, and shall establish the procedure for the immediate removal to a hospital or a doctor's care of persons who may be injured on the jobsite.

1. In accordance with the provisions of Section 6705 of the Labor Code, the Contractor shall submit, in advance of excavation 5 feet or more in depth, detailed plans showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from hazard of caving ground during such excavation. If such plans vary from the shoring system standards set forth in the Construction Safety Orders in Title 8, California Code of Regulations, the plans shall be prepared and signed by a registered civil or structural engineer. Shoring, bracing, sloping, or other protective system shall not be less effective than required by the California Construction Safety orders. The Contractor shall designate in writing to the Construction Manager the "competent person" with the authority and responsibilities designated in the Construction Safety Orders.

2. If death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to both the Construction Manager and the Owner. In addition, the Contractor must promptly report in writing to the Construction Manager all accidents whatsoever arising out of, or in connection with, the performance of the Work whether on, or adjacent to, the Site, giving full details and statements of witnesses. The Contractor shall make all reports as are, or may be, required by any authority having jurisdiction, and permit all safety inspections of the work being performed under this Contract.

3. If a claim is made by anyone against the Contractor or any subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the Construction Manager, giving full details of the claim.

6.14 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Construction Manager prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

B. If Contractor fails to take appropriate action in an emergency, the Owner also reserves the right to perform any portion of the work that threatens the safety or health of the public or Owner, and the safety of the work or any property or equipment. In the event the Owner performs work in an emergency, an appropriate Change Order shall be issued unilaterally deducting from the payments then or thereafter due the Contractor the cost for performing such Work, including compensation for the Engineer's, the Construction Manager's, and Owner's additional services made necessary by such emergency

6.17 *Shop Drawings and Samples*

A. Contractor shall submit required Shop Drawings and Samples to Engineer for review and approval in accordance with the acceptable Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. Shop Drawings

a. Submit number of copies specified in the General Requirements.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

c. Shop Drawings submitted as herein provided by Contractor and reviewed by Engineer for conformance with the design concept shall be executed in conformity with the Contract Documents unless otherwise required by Owner.

d. When Shop Drawings are submitted for the purpose of showing the installation in greater detail, their review shall not excuse Contractor from requirements shown on the drawings and Specifications.

e. For-Information-Only submittals upon which the Engineer is not expected to conduct review or take responsive action may be so identified in the Contract Documents.

2. *Samples:* Contractor shall also submit required Samples to Engineer for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals.

a. Submit number of Samples specified in the Specifications.

b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. Submittal Procedures

1. Before submitting each Shop Drawing or Sample, Contractor shall have determined and verified:

a. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

b. the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and

d. shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations, that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawing's or Sample Submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation; otherwise Contractor will not be relieved of the responsibility of executing the Work in accordance with the Contract Documents, even though such Shop Drawings or Samples have been otherwise reviewed.

a. If a Shop Drawing or Sample, as submitted, indicates a variation from the Contract Requirements as set forth in the Contract Documents and Engineer finds same to be in the interest of Owner and to be so minor as not to involve a change in the Contract Price or time for performance, Engineer may approve the Shop Drawings or Samples; provided however, such departure is slight in nature and does not affect the design concept of the Work.

4. Contractor shall submit all Shop Drawings and Samples sufficiently in advance of construction requirements to allow ample time for checking, correcting, resubmitting and rechecking and to avoid any delay in progress of the Work.

5. Shop Drawings and Sample submittals not conforming to requirements of this paragraph 6.17D and Section 01340 will be returned to Contractor without action for resubmittal and the resulting delay shall be entirely the responsibility of Contractor.

D. Engineer's Review

1. Engineer will provide timely review of required Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

4. Engineer's check and review of Shop Drawings and Samples, Standard Specifications and descriptive literature submitted by Contractor will be only for general conformance with design concept, except as otherwise provided, and shall not be construed as:

a. permitting any departure from the Contract Requirements;

b. relieving Contractor of the responsibility for any error in details, dimensions or otherwise that may exist in such submittals;

c. constituting a blanket approval of dimensions, quantities, or details of the material or equipment shown; or

d. approving departures from additional details or instructions previously furnished by Engineer. Such check or review shall not relieve Contractor of the full responsibility of meeting all of the requirements of the Contract Documents.

E. Resubmittal Procedures

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Construction Manager and Engineer, and their Related Entities, shall be entitled to rely on representation of Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Construction Manager and Engineer;

2. recommendation by Construction Manager or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Construction Manager or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;

5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;

6. any inspection, test, or approval by others; or

7. any correction of defective Work by Owner.

6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner, Construction Manager and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to 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 but only to the extent caused by any act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .

B. In any and all claims against Owner or Engineer or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Construction Manager and Engineer and their respective officers, directors, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the permanent Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

B. If professional design services or certifications by a design professional related to permanent systems, materials or equipment incorporated into the Work are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 - OTHER WORK AT THE SITE

7.01 *Related Work at Site*

A. Owner may perform other work related to the Project at the Site with Owner's employees, or via other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to Contractor prior to starting any such other work; and

2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.

B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of Construction Manager and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Construction Manager in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;

2. the specific matters to be covered by such authority and responsibility will be itemized; and

3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.

B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's actions or inactions.

C. Contractor shall be liable to Owner and any other contractor for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's action or inactions.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Construction Manager.

8.02 *Replacement of Construction Manager or Engineer*

A. In case of termination of the employment of either Construction Manager or Engineer, Owner shall appoint a Construction Manager or engineer to whom Contractor makes no reasonable objection, whose status under the

Contract Documents shall be that of the former Construction Manager or Engineer.

8.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

A. Owner's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by Engineer in preparing the Contract Documents.

8.06 *Insurance*

A. Owner's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility in respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

A. If and to the extent Owner has agreed to furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents, Owner's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 – CONSTRUCTION MANAGER'S AND ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

A. Construction Manager and Engineer will be Owner's representatives during the construction period. The duties and responsibilities and the limitations of authority of Construction Manager and Engineer as Owner's representatives during construction are set forth in the Contract Documents and will not be changed without written consent of Owner, Construction Manager and Engineer.

9.02 *Visits to Site*

A. Engineer may make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will endeavor to guard Owner against defective Work.

B. Construction Manager will make visits to the Site at intervals appropriate to the various stages of construction as Construction Manager deems necessary in order to observe the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Construction Manager, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Construction Manager will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Construction Manager's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Construction Manager will keep Owner

informed of the progress of the Work, and will endeavor to guard Owner against defective Work.

C. Engineer's and Construction Manager's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Construction Manager's Project Representative*

A. If Owner and Construction Manager agree, Construction Manager will furnish a Resident Project Representative to assist Construction Manager in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Construction Manager's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

B. Construction Manager's Resident Project Representative shall not authorize any deviation from the Contract Documents or substitutions of materials or equipment.

9.04 *Authorized Variations in Work*

A. Construction Manager or Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

A. Construction Manager will have authority to reject Work which Construction Manager or Engineer believes to be defective, or that Construction Manager or Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Construction Manager will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

B. The acceptance at any time of materials or equipment by or on behalf of Owner shall not be a bar to future rejection if they are subsequently found to be defective, inferior in quality, or not equal to the material or equipment specified, or are not as represented to Construction Manager, Engineer or Owner.

9.06 *Shop Drawings, Change Orders and Payments*

A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.

C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

D. In connection with Construction Manager's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

A. Construction Manager will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Construction Manager will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Construction Manager's written decision thereon will be final and binding (except as modified by Construction Manager to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will be the initial interpreter of the requirements of the Contract Documents with respect to matters of design intent. Construction Manager will be the initial interpreter of the requirements of the Contract Documents with respect to administrative matters and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to

Construction Manager in writing within 30 days of the event giving rise to the question.

B. Construction Manager or Engineer through Construction Manager will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believe that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Construction Manager's or Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

C. Construction Manager's or Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

D. When functioning as interpreter and judge under this Paragraph 9.08, Construction Manager and Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Construction Manager's and Engineer's Authority and Responsibilities*

A. Neither Construction Manager's and Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Construction Manager or Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Construction Manager or Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Construction Manager or Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Construction Manager and Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Construction Manager and Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Construction Manager and Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Construction Manager's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to, the Resident Project Representative, if any, and assistants, if any.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

1. Change Proposal Request

a. When Owner requests Contractor to present a proposal to accomplish a change in the Work, the request will be made in the form of a Change Proposal Request (CPR) prepared by Construction Manager. The CPR will describe the change and request Contractor to propose a cost and Contract Price and/or Contract Time change. Contractor will propose cost and/or time changes, if any, sign the CPR and return it to Construction Manager. If requested by Owner or Construction Manager, Contractor shall provide an itemized breakdown of the cost of the change. Construction Manager will make recommendations to Owner concerning acceptance. If the CPR is approved by Owner, the CPR will be included in a Change Order. Contractor is not authorized to proceed with a change contained in a CPR until the Change Order is properly signed and issued.

b. When the Contractor desires to propose changes to the Work, it may initiate a CPR in the same form as provided in Paragraph 10.01A.1.a. and submit the CPR to the Construction Manager for the Engineer's review and recommendation.

B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.B.

10.03 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders recommended by Construction Manager covering:

1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Construction Manager or by Engineer through Construction Manager pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 *Notification to Surety*

A. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any bond to be given to a surety, the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

A. *Construction Manager's Decision Required*: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Construction Manager for decision. A decision by Construction Manager shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Construction Manager and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Construction Manager and the other party to the Contract within 60 days after the start of such event (unless Construction Manager allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Construction Manager and the claimant within 30 days after receipt of the claimant's last submittal (unless Construction Manager allows additional time).

C. *Construction Manager's Action*: Construction Manager will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:

1. deny the Claim in whole or in part,

2. approve the Claim, or

3. notify the parties that the Construction Manager is unable to resolve the Claim if, in the Construction Manager's sole discretion, it would be inappropriate for the Construction Manager to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.

D. In the event that Construction Manager does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

E. Construction Manager's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.

F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 - COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work, or the reasonable cost that would have been incurred in the case of deleted Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in Paragraph 11.01.B.

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, training, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above. For Change Order pricing, the Labor Surcharge (social security contributions, unemployment excise, and payroll taxes) shall be 27 percent of the sum of the wages, vacation, and fringe benefits (workers' compensation, training, health and retirement benefits, sick leave, bonuses, and holiday pay).

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Construction Manager, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Construction Manager, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes

other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expresses, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain. For Change Order pricing, bonds and insurance shall be 1 percent of the Change Order value for both additive and credit changes that are above the original Contract value and 0 percent of the Change Order value for both additive and credit changes that are below the original Contract value.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A and 11.01.B.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Construction Manager an itemized cost breakdown together with supporting data.

11.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Construction Manager.

B. Cash Allowances

1. Contractor agrees that:

a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

b. Contractor's costs for unloading and handling on the Site, labor, installation , overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. Contingency Allowance

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Construction Manger to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Construction Manager subject to the provisions of Paragraph 9.07.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item. Work described in the Contract Documents, or reasonably inferred as required for a functionally complete installation, but not identified in the listing of unit price items shall be considered incidental to unit price work listed and the cost of incidental work included as a part of the unit price.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the total cost of a particular item of Unit Price Work amounts to 10 percent or more of the Contract Price at time of Notice of Award and the variation in the quantity of that particular item of Unit Price Work performed by Contractor differs by more than 25 percent from the estimated quantity of such item indicated in the Agreement; and if there is no corresponding adjustment with respect to any other item of Work; and if Contractor believes that Contractor has incurred additional expense as a result thereof; or if Owner believes that the quantity variation entitles Owner to an adjustment in the unit price, either Owner or Contractor may make a claim for an adjustment in the Contract Price in accordance with Article 11 if the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed.; and

2. there is no corresponding adjustment with respect any other item of Work; and

3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Construction Manager and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum including overhead and profit not necessarily in accordance with Paragraph 12.01.C.2, and shall include the cost of any secondary impacts that are foreseeable at the time of pricing the cost of extra Work; or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (either by estimate before the work is performed or force account) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and

11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the reasonable cost that would have been incurred to perform the Work plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Construction Manager and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

C. No extension of the Contract Time will be allowed for additional Work or for claimed delay unless the additional Work contemplated or claimed delay is shown to be on the critical path of the Project's schedule of construction or Contractor can show by Critical Path Method analysis how the additional Work or claimed delay adversely affects the critical path.

12.03 *Delays*

A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

B. If Owner, Construction Manager, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be in accordance with Paragraph 12.02 C., and shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

D. Owner, Construction Manager, Engineer and the Related Entities of each of them shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

A. Owner, Construction Manager, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspecting, and testing. Contractor shall provide them proper and safe conditions for such access and advise them

of Contractor's Site safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

A. Contractor shall give Construction Manager timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;

2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in said Paragraph 13.04.C; and

3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Construction Manager's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Construction Manager.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Construction Manager, it must, if requested by Construction Manager, be uncovered for observation.

F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Construction Manager timely notice of Contractor's intention to cover the same and Construction Manager has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

A. If any Work is covered contrary to the written request of Construction Manager, it must, if requested by Construction Manager, be uncovered for Construction Manager's observation and replaced at Contractor's expense.

B. If Construction Manager considers it necessary or advisable that covered Work be observed by Construction Manager or inspected or tested by others, Contractor, at Construction Manager's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Construction Manager may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); or Owner shall be entitled to accept defective Work in accordance paragraph 13.08 in which case Contractor shall still be responsible for all costs associated with exposing, observing, and testing the defective Work. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.

D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

A. Promptly after receipt of notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by

Construction Manager, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. repair such defective land or areas; or

2. correct such defective Work; or

3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and

4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

A. If (prior to Construction Manager's recommendation of final payment), instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Construction Manager as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Construction Manager's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Construction Manager to correct defective Work or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which

Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, Construction Manager and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Construction Manager. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. Applications for Payments

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Construction Manager for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. Retention - The Owner will deduct from each progress payment and retain as part security, ten (10) percent of the amount earned until the final payment.

4. Pursuant to Public Contract Code Section 22300, for moneys earned by the Contractor and withheld by the Owner to ensure the performance of the Contract, the Contractor, may, at their option, choose to substitute securities meeting the requirements of said Section 22300. In the event the Contractor wishes to choose this option, the Contractor shall enter into an escrow agreement with the Owner and the escrow agent, a qualified bank to be acceptable to the Owner, in the form of the agreement included in the project specifications. The costs of such escrow shall be paid by the Contractor. The securities to be deposited in said escrow account shall be equivalent, in fair market value, to the amount to be withheld as performance retention. The securities shall be held in accordance with the provisions of Public Contract Code Section 22300, and the implementing agreement.

5. Contractor shall have the obligation of ensuring that such securities deposited are sufficient so as to maintain, in total fair market value, an amount equal to the cash amount of the sums to be withheld under the Contract. If, upon written notice from the Owner, or from the appropriate escrow agent, indicating that the fair market value of the securities has dropped below the dollar amount of moneys to be withheld by the Owner to ensure performance, Contractor shall, within five days of the date of such notice, post additional securities as necessary to ensure that the total fair market value of all such securities held by the Owner, or in escrow, is equivalent to the amount of money to be withheld by the Owner under the Contract.

6. Any Contractor wishing to exercise this option shall give notice in writing to Owner, and shall thereafter execute an escrow agreement in the form of the form included with these Contract Documents

7. Materials, as used herein, shall be considered to be those items that are fabricated and manufactured goods and equipment. Only those materials for which the Contractor can transfer clear title to the Owner will be qualified for partial payment. The Contractor may request payment of seventy-five (75) percent of the actual net cost

of these materials, not to exceed fifty (50) percent of the total adjusted line item extension as found in the bid schedule.

8. To receive partial payment for materials and equipment delivered to the Site, but not incorporated in the Work, it shall be necessary for the Contractor to submit to the Construction Manager a list of such materials, at least seven (7) days prior to submitting the monthly estimate of amount earned for work completed. At the Construction Manager's sole discretion, the Construction Manager will approve items for which partial payment is to be made subject to the following:

a. Only equipment or materials that have received favorable review of shop drawings will qualify.

b. Eligible equipment or materials must be delivered and properly stored, protected, and maintained in a manner favorably reviewed by the Construction Manager, at the job site or at a bonded warehouse.

c. The Contractor's actual net cost for the materials must be supported by invoices of suppliers, or other documentation requested by the Construction Manager.

d. Materials or equipment delivered to the Site less than thirty (30) days prior to their scheduled incorporation in the Work shall not qualify.

e. Final payment shall be made only for materials actually incorporated in the Work. Upon acceptance of the Work, all materials remaining for which advance payments had been made shall revert to the Contractor, unless otherwise agreed, and partial payments made for these items shall be deducted from the final payment for the Work.

f. Partial payments for materials and equipment on hand shall not be deemed to be final payment for the material nor relieve the Contractor of its obligations under the Contract.

g. Partial payments for materials and equipment on hand shall be subject to retention in accordance with the Contract Documents

9. After receipt of the last progress payment, but prior to acceptance of the Work by the Owner, the Contractor shall send a letter to the Construction Manager. The letter, pursuant to California Public Contract Code Section 7 100, shall state that acceptance of the final payment described below shall operate as and shall be, a release to the Owner, the Construction Manager, the Designer, and their duly authorized agents, from all claim of and/or liability to the Contract arising by virtue of the Contract related to those amounts. Disputed Contract claims in stated amounts previously filed as provided in Paragraph 00700-7.03b, Claims, may be specifically excluded by the Contractor from the operation of the release.

B. *Review of Applications*

1. Construction Manager will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Construction Manager's recommendation of any payment requested in an Application for Payment will constitute a representation by Construction Manager to Owner, based on Construction Manager's observations on the Site of the executed Work as an experienced and qualified design professional and on Construction Manager's review of the Application for Payment and the accompanying data and schedules, that to the best of Construction Manager's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and to any other qualifications stated in the recommendation); and

c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Construction Manager's responsibility to observe the Work.

3. By recommending any such payment Construction Manager will not thereby be deemed to have represented that:

a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Construction Manager in the Contract Documents; or

b. that there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Construction Manager's review of Contractor's Work for the purposes of recommending payments nor Construction Manager's recommendation of any payment, including final payment, will impose responsibility on Construction Manager:

a. to supervise, direct, or control the Work, or

b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or

e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Construction Manager may refuse to recommend the whole or any part of any payment if, in Construction Manager's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Construction Manager may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Construction Manager's opinion to protect Owner from loss because:

a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;

b. the Contract Price has been reduced by Change Orders;

c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or

d. Construction Manager has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. *Payment Becomes Due*

1. Ten days after presentation of the Application for Payment to Owner with Construction Manager's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor. Payment will be made by the Owner to the Contractor in accordance with Owner's normal accounts payable procedure.

D. *Reduction in Payment*

1. Owner may refuse to make payment of the full amount recommended by Construction Manager because:

a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;

b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

c. there are other items entitling Owner to a set-off against the amount recommended; or

d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.

2. If Owner refuses to make payment of the full amount recommended by Construction Manager, Owner will give Contractor immediate written notice (with a copy to Construction Manager) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor corrects to Owner's satisfaction the reasons for such action.

3. If it is subsequently determined that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1.

14.03 *Contractor's Warranty of Title*

A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Construction Manager in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Construction Manager issue a certificate of Substantial Completion.

B. Promptly after Contractor's notification, Owner, Contractor, and Construction Manager shall make an inspection of the Work to determine the status of completion. If Construction Manager does not consider the

Work substantially complete, Construction Manager will notify Contractor in writing giving the reasons therefor.

C. If Construction Manager considers the Work substantially complete, Construction Manager will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Construction Manager as to any provisions of the certificate or attached list. If, after considering such objections, Construction Manager concludes that the Work is not substantially complete, Construction Manager will within 14 days after submission of the tentative certificate to Owner notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Construction Manager considers the Work substantially complete, Construction Manager will within said 14 days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Construction Manager believes justified after consideration of any objections from Owner.

D. At the time of delivery of the tentative certificate of Substantial Completion, Construction Manager will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Construction Manager in writing prior to Construction Manager's issuing the definitive certificate of Substantial Completion, Construction Manager's aforesaid recommendation will be binding on Owner and Contractor until final payment.

E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to complete or correct items on the tentative list.

14.05 *Partial Utilization*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions.

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor will certify to Owner and Engineer that such part of the Work is substantially complete and request Construction Manager to issue a certificate of Substantial Completion for that part of the Work.

2. Contractor at any time may notify Owner and Construction Manager in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Construction Manager to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Construction Manager shall make an inspection of that part of the Work to determine its status of completion. If Construction Manager does not consider that part of the Work to be substantially complete, Construction Manager will notify Owner and Contractor in writing giving the reasons therefor. If Construction Manager considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Construction Manager will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. Application for Final Payment

1. After Contractor has, in the opinion of Construction Manager, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.7;

b. consent of the surety, if any, to final payment;

c. a list of all Claims against Owner that Contractor believes are unsettled; and

d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner or Owner's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Construction Manager's Review of Application and Acceptance

1. If, on the basis of Construction Manager's observation of the Work during construction and final inspection, and Construction Manager's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Construction Manager is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Construction Manager will, within ten days after receipt of the final Application for Payment, indicate in writing Construction Manager's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Construction Manager will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Construction Manager will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due

1. Forty-five days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Construction Manager, less any sum Owner is entitled to set off against Construction Manager's recommendation, including but not limited to liquidated damages, will become due and , will be paid by Owner to Contractor.

14.08 *Final Completion Delayed*

A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Construction Manager so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Construction Manager, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Construction Manager with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);

2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;

3. Contractor's disregard of the authority of Construction Manager or Engineer; or

4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in Paragraph 15.02A. occur, Owner will provide written notice to Contractor and Surety to arrange a conference with Contractor and Surety to address Contractor's failure to perform the Work. Conference shall be held not later than 15 days, after receipt of notice.

1. If the Owner, the Contractor, and the Surety do not agree to allow the Contractor to proceed to perform the Construction Contract, the Owner may, to the extent permitted by Laws and Regulations, declare a Contractor Default and formally terminate the Contractor's right to complete the Contract. Contractor Default shall not be declared earlier than 20 days after the Contractor and Surety have received notice of conference to address Contractor's failure to perform the Work.

2. If Contractor's services are terminated, Surety shall be obligated to take over and perform the Work. If Surety does not commence performance thereof within 15 consecutive calendar days after date of an additional written notice demanding Surety's performance of its obligations, then Owner, without process or action at law, may take over any portion of the Work and complete it as described below.

a. If Owner completes the Work, Owner may exclude Contractor and Surety from the site and take possession of the Work and of all tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by Contractor and Surety (without liability to Contractor and Surety for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which Owner has paid Contractor or Surety but which are stored elsewhere, and finish the Work as Owner may deem expedient.

3. Whether Owner or Surety completes the Work, Contractor shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses and damages sustained by Owner arising out of or resulting from completing the Work, such excess will be paid to Contractor. If such claims, costs, losses and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and when so approved by Engineer incorporated in a Change Order, provided that when exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

4. Neither Owner, Engineer, nor any of their respective consultants, agents, officers, directors or employees shall be in any way liable or accountable to Contractor or Surety for the method by which the completion of the said Work, or any portion thereof, may be accomplished or for the price paid therefor.

5. Owner, notwithstanding the method used in completing the Contract, shall not forfeit the right to recover damages from Contractor or Surety for Contractor's failure to timely complete the entire Contract. Contractor shall not be entitled to any claim for damages on account of the method used by Owner in completing the Contract.

6. Maintenance of the Work shall continue to be Contractor's and Surety's responsibilities as provided for in the bond requirements of the Contract Documents or any special guarantees provided for under the Contract Documents or any other obligations otherwise prescribed by law.

C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph Owner shall not be required to obtain the lowest price for the Work performed.

D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds

diligently to cure such failure within no more than 30 days of receipt of said notice.

E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.

F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B, and 15.02.C.

15.03 *Owner May Terminate For Convenience*

A. Upon seven days written notice to Contractor, Construction Manager and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Construction Manager fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Construction Manager, and provided Owner or Construction Manager do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Construction Manager has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Construction Manager, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 - DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Either Owner or Contractor may request mediation of any Claim submitted to Construction Manager for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions, or

2. agrees with the other party to submit the Claim to another dispute resolution process, or

3. gives written notice to the other party of their intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 - MISCELLANEOUS

17.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

B. No action or failure to act by the Owner, the Engineer, or the Construction Manager 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, except as may be specifically agreed in writing.

17.04 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

A. This Contract is to be governed by the law of the state of California.

17.06 *Headings*

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

17.07 *Penalty for Collusion*

A. If, at any time, it is found that the person, firm, or corporation to whom the Contract has been awarded has, in presenting any bid or bids, colluded with any other party or parties, then the Contract shall be null and void, and the Contractor and its sureties shall be liable for loss or damage which the Owner may suffer thereby, and the Owner may advertise for new bids for said Work.

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SECTION 00805

SUPPLEMENTARY CONDITIONS

1.01 SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend and supplement Section 00700, GENERAL CONDITIONS, and other provisions of the contract documents as indicated below. All provisions of the General Conditions that are amended or supplemented remain in full force and effect as so amended or supplemented. All provisions of the General Conditions which are not so amended or supplemented remain in full force and effect.

1.02 DEFINED TERMS

The terms used in these Supplementary Conditions which are defined in the General Conditions have the meaning assigned to them in the General Conditions.

1.03 AMENDMENTS AND SUPPLEMENTS

The following are instructions that amend or supplement specific paragraphs in the General Conditions and other contract documents:

A. **Paragraph 00700-3.03.B.2:**

Add the following paragraph:

Where conflicts exist among the Contract Documents and/or any reference specifications, such conflicts shall be clarified according to the following order, the first ranked taking precedence over the lower ranked:

1. Amendments, Change Orders or other modifications to the Contract Documents, as executed by the City in accordance with the requirements of the Contract Documents.
2. Agreement
3. Supplementary Conditions
4. General Conditions
5. Division 01 Documents
6. Plans and Technical Specifications
7. Notice Inviting Bids and Information to Bidders
8. Contract Payment Bond
9. Performance Bond
10. Any provisions required by law or valid regulations to be inserted in this contract, whether actually inserted or not
11. Appendices (photographs, data contained in reports, and other information).

Additional rules of interpretation:

1. Written numbers over figures, unless obviously incorrect.
2. Figured dimensions over scaled dimensions.
3. Large-scale drawings over small-scale drawings.
4. Any conflict between a bill or list of materials shown in the Contract Documents and the actual quantities required to complete the Work required by Contract Documents, will be resolved in favor of the actual quantities, date (i.e., the most recent document), and if the dates are the same or not determinable, then in favor of Specifications.

B. **Paragraph 00700-4.05B:**

Add the following paragraph:

Monument Preservation:

1. Contractor shall comply with the Professional Land Surveyors' Act – Business & Professions Code, Section 8771(b) regarding referencing, preserving, and reconstructing monuments, whether or not the monuments are shown on the plans.

2. Before beginning any construction on the Project, the following tasks must be accomplished by or under the direction of a licensed land surveyor licensed in the State of California:

   a. Conduct records research to identify horizontal and vertical control monuments, prepare and submit a map to the City of the monuments within the Project site. The map will identify if a monument is in a well, covered, or obliterated.

   b. Locate and reference monuments. A preconstruction corner record or record of survey of the references shall be filed with the County Surveyor. The City shall receive a copy of the submitted corner or record of survey documents.

3. Before the certificate of completion for the Project is issued by the City, the following tasks must be accomplished by or under the direction of a licensed land surveyor licensed in the State of California:

   a. Monuments shall be reset in the surface of the new construction in a monument box by California Concrete Pipe, Frame No. A-578 and Cover No. A-580.

   b. Monuments wells shall be raised to the new surface elevation.

   c. For section corners, quarter section corners, or center quarter section corners located in unimproved areas, the monuments shall be reset by placing heavily galvanized iron pipe or galvanized iron stake not less than 2-inches in diameter, minimum 3 ft long and 1 ft below the surface.

d. File ether a post-construction corner record or a record of survey with the County Surveyor for the reset monuments. The City shall receive a copy of the submitted corner record or record of survey documents.

D. **Paragraph 00700-6.11.A.4:**

Add the following paragraph:

All Contractor activities shall be coordinated with the City Public Works Staff. Contractor operations shall not interfere with City activities or City operations of the wastewater treatment plant.

1.04 **PARAGRAPH DELETIONS**

The following paragraphs/articles in the General Conditions are deleted:

A. Paragraph 00700-3.04 *Amending and Supplementing Contract Documents*

B. Paragraph 00700-3.05 *Reuse of Documents*

C. Paragraph 00700-5.01 *Performance, Payment, and Other Bonds*

D. Paragraph 00700-5.02 *Licensed Sureties and Insurers*

E. Paragraph 00700-5.03 *Certificates of Insurance*

F. Paragraph 00700-5.04 *Contractor's Liability Insurance*

G. Paragraph 00700-5.05 *Owner's Liability Insurance*

H. Paragraph 00700-5.06 *Property Insurance*

I. Paragraph 00700-6.01 *Supervision and Superintendence*

J. Paragraph 00700-6.02 *Labor: Working Hours*

K. Paragraph 00700-6.08 *Permits*

L. Paragraph 00700-6.09 *Laws and Regulations*

M. Paragraph 00700-6.10 *Taxes*

N. Paragraph 00700-6.12 *Record Documents*

O. Paragraph 00700-6.20 *Indemnification*

P. Paragraph 00700-8.08 *Inspections, Tests, and Approvals*

Q. 00700-ARTICLE 12 CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

R. Paragraph 00700-14.02 *Progress Payments*

S. Paragraph 00700-15.01 *Owners May Suspend Work*

T. Paragraph 00700-15.02 *Owner May Terminate for Cause*

U. Paragraph 00700-15.03 *Owner May Terminate for Convenience*

V. 00700-ARTICLE 16 DISPUTE RESOLUTION

W. Paragraph 00700-17.01 *Giving Notice*

X. Paragraph 00700-17.05 *Controlling Law*

END OF SECTION

CITY OF ANGELS
WASTEWATER TREATMENT PLANT
BIOSOLIDS HANDLING IMPROVEMENTS PROJECT

Division 1 – General Requirements

Section 01010	Location and Summary of Work
Section 01015	Contract Time
Section 01050	Field Engineering
Section 01060	Safety and Health
Section 01065	Water Pollution Control
Section 01070	Environmental Stewardship
Section 01200	Project Meetings
Section 01300	Submittals
Section 01310	Construction Schedule and Reports
Section 01700	Contract Closeout

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SECTION 01010

LOCATION AND SUMMARY OF WORK

PART 1 - GENERAL

1.01 GENERAL

This section consists of a description of the items of work included and the location of the work.

1.02 PROJECT LOCATION

Work associated with this project shall take place generally at the City of Angels Wastewater Treatment Plant, 2990 Centennial Road, Angels Camp, CA 95222. The Contractor's access to the wastewater treatment plant will be limited to the biosolids storage and supplemental drying area and the equalization basin.

1.03 COOPERATION

The Contractor shall conduct work in a manner that will not impair the essential function of treatment, disposal, and reuse of recycled water at the City of Angels Wastewater Treatment Plant and dewatering, handling, supplemental drying, storage, and off-hauling of biosolids.

The Contractor shall be prepared to cooperate fully with the City to avoid disruptions. Contractor staging within the Project shall be limited to the area shown on the Plans and shall not disrupt circulation of City vehicles. Contractor ingress/egress to the sites shall be coordinated and scheduled with City Public Works staff. The Contractor shall cooperate fully with other City contractors.

1.04 GENERAL REQUIREMENTS

The Contractor shall observe the following general requirements:

A. Contractor access to the site shall be limited to the hours of 7:00 am to 3:30 p.m., Monday through Friday. Work outside of the normal working hours should be scheduled 72 hours in advance, subject to City approval.

B. Only where specifically indicated, City forces will be responsible for removing facilities from service, including draining and subsequent cleaning. In all other instances, the Contractor shall be responsible for draining existing piping, equipment, tanks, or structures, where required.

C. The Contractor shall provide all necessary temporary pumps, piping, electrical wiring, controls and labor during and subsequent to all shutdown activities as required. Pumps and

upstream water levels shall be continuously monitored by the Contractor during all temporary pumping operations to insure against process upsets, flooding, and bypassing. Where required, the Contractor shall operate long-term bypass piping and pumping facilities to facilitate construction and to maintain continuous operation of treatment facilities.

D. The Contractor shall maintain adequate access to the treatment facilities, temporary piping systems, utilities, and equipment during construction to allow continued operation and maintenance by City personnel and other City contractors to take place including hauling offsite of biosolids.

E. Under no circumstances shall anyone other than a representative of the City open or close any valve or gate within the wastewater treatment plant. Requests for valve or gate operation shall be made to the City at least forty-eight (48) hours in advance, and the Contractor shall make satisfactory preparation for the planned work to minimize the interruption time.

1.05 WORK INCLUDED AS BID ITEMS

The work under the bid items of this contract consists of the following project elements:

1. Mobilization/Demobilization

Mobilization shall consist of the preparatory work and operations, including but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the project site; for the establishment of the Contractor's offices, buildings, security fencing, and other facilities necessary for work on the project; water pollution control; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project site.

Demobilization shall include, upon substantial completion of the contracted work, the removal of all signs, construction trailers, storage trailers and bins, temporary fencing, garbage, construction debris, equipment, utility services not scheduled to remain, portable toilet facilities, and all excess construction material not included and paid for within other bid items. Work shall also include the repair, restoration and/or replacement of facilities damaged by the Contractor and/or subcontractors and suppliers, including driveways, parking areas, streets, pipelines, and landscaping, and the submittal of Record Drawings. Work area shall be policed clean and restored to original condition or better as further shown on the plans.

Payment for Mobilization/Demobilization shall not exceed 75% of the bid amount upon completion of the mobilization process with the remainder to be paid at completion of demobilization for the Project.

2. Site Clearing

Work under this item shall include all labor, materials, equipment, and incidentals needed to clear the area proposed for grading/paving including the removal of obstructions such as brush, logs, stumps, roots, heavy sod, rocks, broken or old concrete and pavement, debris, piping, and structures as required for completion of the work

The contract price for Site Clearing shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for accomplishing all the work as specified herein.

3. Site Grading

Work under this item shall include all labor, materials, equipment, and incidentals needed to grade the site to the elevations shown including cut, fill, compaction to the specified relative density, import, and export activities as required. Fill materials furnished shall meet the specified requirements. Material that is removed and is not incorporated in the work shall be disposed of on-site as directed by the City.

The contract price for Site Grading shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for accomplishing all the work as specified herein.

4. Sheeting, Shoring, and Bracing

Work under this item shall include the design, fabrication, installation, maintenance, and removal of all necessary sheeting, shoring, and bracing, or equivalent method, for the protection of life and limb in trenches and open excavation.

The contract price for Sheeting, Shoring, and Bracing shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for accomplishing all the work as specified herein.

5. Construction of Paved Biosolids Handling Area

Work under this item shall include all labor, materials, equipment, and incidentals needed to furnish, place, and compact Class 2 aggregate base and AC pavement to the thickness specified for the Biosolids Handling Area. Work shall also include the placement of City-furnished K-rail where shown and as directed.

The contract price for Construction of Paved Biosolids Handling Area shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for accomplishing all the work as specified herein.

6. Site Drainage Improvements

Work under this item shall include all labor, materials, equipment, and incidentals needed to construct drainage improvements including ditches, storm drain piping, and catch basins as shown on the plans.

The contract price for Site Drainage Improvements shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for accomplishing all the work as specified herein.

END OF SECTION

SECTION 01015

CONTRACT TIME

PART 1 - GENERAL

1.01 COMPLETION DATE SCHEDULE

Time for final completion: 90 calendar days.

1.02 SCHEDULE

The following schedule contains specific dates which shall be adhered to and are the last acceptable date unless modified in writing between the City and the Contractor. Specific dates, as used herein, shall mean Working days after the date of the notice to proceed. For the period of time that any portion of the project remains unfinished after the time fixed for completion by these specific dates, with the exception of final completion, the Contractor shall pay to the City the amount of liquidated damages set forth in Section 00500, AGREEMENT. As required by Section 01310, CONSTRUCTION SCHEDULES AND REPORTS, the Contractor shall furnish to the City an acceptable construction schedule to complete the various portions of the project within the time allowed by the specific dates. The Contractor's construction schedule shall reflect the entire contract time defined in this section. Substantial completion as delineated below is defined in Section 00700, GENERAL CONDITIONS.

Specific Activity	Calendar Days from Receipt of Notice to Proceed
Substantial Completion	75
Final Completion	90

END OF SECTION

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SECTION 01050

FIELD ENGINEERING

PART 1 - GENERAL

1.01 CONSTRUCTION STAKING

A. General

The Contractor shall protect in place all City or County benchmarks or monuments. Any damaged or destroyed benchmarks or monuments shall be replaced by a California licensed surveyor at the Contractor's expense.

Reference benchmarks and base lines on the plans. From the information provided, the Contractor shall develop and make such additional surveys as are needed for construction, such as control lines, slope stakes, batter boards, stakes for pipe locations and other working points, lines, and elevations. Survey work shall be performed under the supervision of a licensed land surveyor or registered civil engineer in the State of California. Prior to starting construction, the Contractor shall submit to the City in accordance with Section 01300, SUBMITTALS, the frequency, information, and format of survey stakes and other construction control to be used for the Project.

B. Datum

The plane of reference for elevations used in the plans and specifications shall be mean sea level (MSL). Elevations below the plane of reference are designated as "minus" (-) elevations.

C. Horizontal and Vertical Control

From the base line and temporary bench mark described herein and the existing structures, the Contractor shall complete the layout of the work and shall be responsible for all measurements that may be required for execution of the work to the location and limit marks prescribed in the specifications or on the plans, subject to such modifications as the City may require to meet changed conditions or as a result of necessary modifications to the contract work.

D. Contractor's Layout

The Contractor shall furnish at his own expense, such stakes, equipment, tools, materials, and all labor as required in laying out any parts of the work from the base line and bench marks shown on the plans. It shall be the responsibility of the Contractor to maintain and preserve all base line stakes and other marks until authorized to remove them; and, if such stakes or other marks are destroyed by the Contractor, or through his negligence, prior to

their authorized removal, they may be replaced at the direction of the City and the expense of replacement shall be borne by the Contractor and will be deducted from any amounts due or to become due to the Contractor.

The City may require that work be suspended at any time when location and limit marks established by the Contractor are not reasonably adequate to permit convenient checking of the work.

END OF SECTION

SECTION 01060

SAFETY AND HEALTH

1.01 GENERAL

Portions of the existing wastewater treatment plant are exposed to wastewater of varying degrees of treatment. The Contractor certifies that he is experienced and qualified to anticipate and meet the safety and health requirements of this project. Workmen involved in construction may be exposed to disease-producing organisms in wastewater, chemicals, and ultraviolet light. The Contractor shall require his personnel to observe proper hygienic and safety precautions.

Solvents, gasoline, and other hazardous materials may enter the plant with incoming sewage and, therefore, certain areas are hazardous to open flame, sparks, or unventilated occupancy. The Contractor shall take measures to assure his personnel observe proper safety precautions when working in these areas.

2.01 SAFETY AND HEALTH REGULATIONS

The Contractor shall comply with Safety and Health Regulations for Construction, promulgated by the Secretary of Labor under Section 107 of the Contract Work Hours and Safety Standards Acts, as set forth in Title 29, Code of Federal Regulations (CFR). Copies of these regulations may be obtained from Labor Building, 14th and Constitution Avenue NW, Washington, DC 20013.

The Contractor shall also comply with the provisions of the Federal and State of California Occupational Safety and Health Act (OSHA), as amended.

END OF SECTION

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SECTION 01065

WATER POLLUTION CONTROL

PART 1 - GENERAL

1.01 REQUIREMENTS

The Contractor shall be responsible for all costs associated with Water Pollution Control (WPC), and the proper use and applications of the facilities to comply with the applicable storm water requirements of the City, Calaveras County, the State of California, and the United States. This item shall be included in the bid under mobilization/demobilization. The City does not pay for equipment, labor, permit fees or any other costs associated with WPC beyond those included in the associated bid item. The City may correct the deficiency and deduct the cost of correcting the deficiency from payment if the Contractor fails to correct the deficiency by the agreed date or before the onset of precipitation.

1.02 SCOPE

This section includes general specifications for preventing, controlling, and abating water pollution in streams, waterways, Equalization Basin, and other bodies of water.

1.03 GENERAL

The Contractor shall comply with the State Water Resources Control Board (SWRCB) Order No. 2013-0001-DWQ, NPDES General Permit No. CAS000004 (MS4 General Permit), and Order No. 2009-0009- DWQ NPDES General Permit No. CAS0000024 (Construction General Permit), as amended by NPDES permit 2012-0006-DWQ, for projects in excess of 1 acre in disturbance area.

A Water Pollution Control Plan (WCPC) can be either a SWPPP or an erosion and sediment control plan (ESCP). In general projects that are larger than 5 acers or projects between 1 acre and 5 acres that are not exempt, the Contractor must apply for a NOI under the Construction General Permit (CGP) and a SWPPP is required. Projects that are between 1 and 5 acres that are exempt or projects that are less than one acre, the Contractor shall prepare an ESCP.

Projects that disturb one acre or more of soil or disturb less than one acre but are part of a larger common plan or development or sale are subject to the CGP in addition to the construction site storm water runoff control ordinance.

The Contractor shall prepare and submit a Water Pollution Control Plan (WCPC) for the City's review and written approval. WCPC will not be approved unless it contains appropriate site-specific construction site BMPs that meet the minimum requirements of the

City. Any revisions to the erosion and sediment control plan shall be reviewed and approved by the City prior to implementation by the Contractor.

If the Project requires a SWPPP, the Contractor shall apply for a permit under the CGP. The City will file a NOI for the Project. The Contractor shall submit all necessary documents and complete the required form on the State Water Resources Control Board, Storm Water Multiple Application and Report Tracking System (SMARTS):

https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp

After completing the application on SMARTS, the Contractor shall notify the City to certify the application. Note, the application requires the QSD to enter their name and QSD number. The City shall not responsible for delays resulting from incomplete application process.

The erosion and sediment control plan shall include the rationale used for selecting BMPs including supporting soil loss calculations, if necessary.

The SWPPP developed pursuant to the CGP may substitute for the ESCP for projects where a SWPPP is developed. SWPPP or ESCP shall be prepared by a California certified QSD. Implementation shall occur under the supervision of a California-certified QSP. Any modification of the SWPPP or ESCP prior to or during construction shall be reviewed and approved by the QSD in responsible charge The WPC manager must be a California certified Qualified SWPPP Practitioner (QSP) certified through the California SWRCB. The Contractor shall assign one WPC manager to implement the WPCP for the project.

A. **Summary**

Information on forms, reports, and other documents can be found in the following manuals:

1. CalTrans Storm Water Handbooks available at: http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm

2. California Stormwater Quality Association (CASQA) Stormwater Best Management Practice (BMP) Handbooks available at: http://www.cabmphandbooks.com/

Do not start job site activities until:

1. The Water Pollution Control Plan (WPCP) is approved.

2. WPCP review requirements have been fulfilled. If the RWQCB requires time for review, allow 21 business days for the review.

If the Contractor operates a Contractor-support facility, protect stormwater systems or receiving waters from the discharge of potential pollutants by using water pollution control practices.

Contractor-support facilities include:

1. Staging areas
2. Storage yards for equipment and materials
3. Mobile operations
4. Batch plants for PCC and HMA
5. Crushing plants for rock and aggregate
6. Other facilities installed for the Contractor's convenience, such as haul roads

Discharges from manufacturing facilities, such as batch plants and crushing plants, must comply with the general waste discharge requirements for Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, issued by the SWRCB for "Discharge of Storm Water Associated with Industrial Activities Excluding Construction Activities" and referred to herein as "General Industrial Permit."

If the Contractor operates a crushing plant to produce rock or aggregate, obtain coverage under the General Industrial Permit. The Contractor must be covered under the General Industrial Permit for crushing plants located:

1. Outside of the job site
2. Within the job site that serve one or more contracts

If the Contractor obtains or disposes of material at a non-commercially operated borrow or disposal site, prevent water pollution due to erosion at the site during and after completion of the Contractor's activities. Upon completion of the Contractor's work, leave the site in a condition such that water will not collect or stand therein.

The City does not pay for water pollution control practices at Contractor-support facilities and non-commercially operated borrow or disposal sites.

B. **Submittals**

The WPC submittals shall conform to the requirements set forth in Section 13-1.01C, SUBMITTALS, of the Caltrans Standard Specifications. The Contractor shall be responsible for all costs associated with the preparation and delivery of WPC submittals to comply with these specifications, the Standard Specifications, and with all applicable storm water requirements of the City, Calaveras County, the State of California, and United States.

C. **Quality Control and Assurance**

The Water Pollution Control (WPC) quality control and assurance (QA/QC) shall conform to the requirements set forth in Section 13-1.01D, QUALITY CONTROL AND ASSURANCE, of the Caltrans Standard Specifications, the CASQA Handbook, except as modified herein, and the SWRCB Order No. 2013-0001-DWQ and Order No. 2009-0009-DWQ, as applicable. The Contractor shall be responsible for all costs associated with the implementation of the QA/QC of WPC submittals to comply with these Provisions, the Standard Specifications, and with all applicable storm water requirements of the City, Calaveras County, the State of California, and United States.

PART 2 - PRODUCTS

2.01 MATERIALS

The WPC materials shall conform to the requirements set forth in Section 13-1.02, MATERIALS, of the Caltrans Standard Specifications, except as modified herein, and the SWRCB NPDES Permit 2013-0001-DWQ and Order No. 2009-0009- DWQ, as applicable.

PART 3 - EXECUTION

3.01 CONSTRUCTION

The WPC construction shall conform to the requirements set forth in Section 13-1.03, CONSTRUCTION, of the Caltrans Standard Specifications. The Contractor shall:

1. Install facilities and devices used for water pollution control practices before performing work activities.

2. Install soil stabilization materials for water pollution control practices in all work areas that are inactive or before storm events.

3. Repair or replace water pollution control practices within 24 hours of discovering any damage, unless a longer period is approved.

The City will not pay for the cleanup, repair, removal, disposal, or replacements of water pollution control practices due to improper installation or the Contractor's negligence.

The Contractor may request changes to the water pollution control work or the City may order changes to water pollution control work. Changes may include additional or new water pollution control practices. Additional water pollution control work may be paid for as extra work in accordance with Section 00700, GENERAL CONDITIONS.

The Contractor shall retain a printed copy of the approved WPCP at the job site and make available during site visits at the request of the City, County or State.

The Contractor shall monitor the National Weather Service's forecast on a daily basis. Monitoring and inspection shall be conducted in conformance with Section 13-1.03B and 13-1.03C of the Caltrans Standard Specifications, except as modified herein, and the SWRCB NPDES Permit 2013-0001-DWQ and Order No. 2009-0009- DWQ, as applicable. All inspection documentation shall be maintained at the site and made available by the Contractor at the request of the City, County or State.

Whenever the Contractor or the City identifies a deficiency in the implementation of the approved WPCP, correct the deficiency:

1. Immediately, unless a later date is approved

2. Before precipitation occurs

The City may correct the deficiency and deduct the cost of correcting the deficiency from payment if the Contractor fails to correct the deficiency by the agreed date or before the onset of precipitation.

3.02 JOB SITE MANAGEMENT

The Contractor shall perform appropriate job site management, including spill prevention and control, material management, waste management, non-stormwater management, and dewatering activities. The Contractor shall implement effective handling, storage, usage, and disposal practices to control material pollution and manage waste and non-stormwater at the job site before they come in contact with storm drain systems and receiving waters.

Job site management shall conform to the requirements set forth in Section 13-4, JOB SITE MANAGEMENT, of the Caltrans Standard Specifications and the CASQA Handbook. Linear sediment barriers must comply with Section 13-10, TEMPORARY LINEAR SEDIMENT BARRIERS of the Caltrans Standard Specifications.

The Contractor shall be maintain and provide all submittals in accordance with Section 13-4.01B Submittals of the Caltrans Standard Specifications. The Contractor shall maintain all records on site, and provide a copy at the request of the City, County or State.

Stockpiling materials; storing pile-driving equipment and liquid waste containers; washing vehicles and equipment in outside areas; and fueling and maintaining vehicles and equipment activities must be performed at safe distance, such that no illicit discharge may occur, from concentrated flows of stormwater, drainage courses, and inlets, unless otherwise authorized by the City.

The Contractor shall be responsible for all costs associated with the performing job site management, and the proper use and applications of the facilities to comply with the applicable storm water requirements of the City, Calaveras County, the State of California,

and the United States. This item shall be included in the bid under mobilization/ demobilization. The City does not pay for job site management.

3.03 TEMPORARY SOIL STABILIZATION

The use, submittals, materials and construction of temporary soil stabilization shall conform to the requirements set forth in Section 13-5, TEMPORARY SOIL STABILIZATION, of the Caltrans Standard Specifications and the CASQA Handbook. The Contractor shall be responsible for all costs associated with performing job site management to comply these Provisions, the Standard Specifications, and with all applicable storm water requirements of the City, Calaveras County, the State of California, and United States.

The City will designate the areas to receive soil stabilization materials by directing the placement of stakes or other suitable markers in increments of 1 acre or less.

The Contractor shall be responsible for all costs associated with the installation, maintenance, relocation, or removal of temporary stabilization measures, and the proper use and applications of the facilities to comply with the applicable storm water requirements of the City, Calaveras County, the State of California, and the United States. This item shall be included in the bid under mobilization/demobilization. The City does not pay for installing, relocating, maintaining, or removing temporary soil stabilization.

3.04 TEMPORARY SEDIMENT CONTROL

The use, submittals, materials and construction of temporary sediment controls, excluding temporary linear sediment barriers, shall conform to the requirements set forth in Section 13-6, TEMPORARY SEDIMENT CONTROL, of the Caltrans Standard Specifications. Install, relocate, and remove control measures as needed to comply with all applicable regulations.

The Contractor shall be responsible for all costs associated with the installation, maintenance, relocation, or removal of temporary sediment control measures, and the proper use and applications of the facilities to comply with the applicable storm water requirements of the City, Calaveras County, the State of California, and the United States. This item shall be included in the bid under mobilization/demobilization. The City does not pay for installing, relocating, maintaining, or removing temporary sediment controls.

3.05 TEMPORARY TRACKING CONTROL

The use, submittals, materials and construction of temporary linear sediment barriers shall conform to the requirements set forth in Section 13-7, TEMPORARY TRACKING CONTROL, of the Caltrans Standard Specifications and the CASQA Handbook. Install, relocate and remove facilities as needed to comply with all applicable regulations.

The Contractor shall retain and submit records of street sweeping activities, including sweeping times, sweeping locations, and the quantity of disposed sweeping waste. Records shall be maintained on-site and made available to the City, County or State upon request.

The Contractor shall be responsible for all costs associated with the installation, maintenance, relocation, or removal of temporary tracking control measures, and the proper use and applications of the facilities to comply with the applicable storm water requirements of the City, Calaveras County, the State of California, and the United States. This item shall be included in the bid under mobilization/demobilization. The City does not pay for installing, relocating, maintaining, or removing temporary tracking controls.

3.06 TEMPORARY CONCRETE WASHOUTS

The use, submittals, materials and construction of temporary linear sediment barriers shall conform to the requirements set forth in Section 13-9, TEMPORARY CONCRETE WASHOUTS, of the Caltrans Standard Specifications and the CASQA Handbook.

Install, relocate or remove portable temporary concrete washout or bins as needed for concrete work. Remove and dispose of concrete waste within 2 business days after a concrete washout becomes filled. Dispose of concrete waste material from a concrete washout at a plant licensed to receive solid concrete waste, liquid concrete waste, or both. Secure portable temporary concrete washout or bin to prevent spilling of concrete waste material whenever it is being relocated or transported within the job site. Whenever any spilled material is observed, clean up the spilled material and place it back into the concrete washout unit. The City does not pay for installing, relocating or removing a portable temporary concrete washout or bin.

The Contractor shall be responsible for all costs associated with the installation, maintenance, relocation, or removal of temporary concrete washouts, and the proper use and applications of the facilities to comply with the applicable storm water requirements of the City, Calaveras County, the State of California, and the United States. This item shall be included in the bid under mobilization/demobilization. The City does not pay for installing, relocating, maintaining, or removing temporary concrete washouts.

3.07 TEMPORARY LINEAR SEDIMENT BARRIERS

The use, submittals, materials and construction of temporary linear sediment barriers shall conform to the requirements set forth in Section 13-10, TEMPORARY LINEAR SEDIMENT BARRIERS, of the Caltrans Standard Specifications and the CASQA Handbook. Install, relocate and remove facilities as needed to comply with all applicable regulations.

The Contractor shall be responsible for all costs associated with the installation, maintenance, relocation, or removal of temporary linear sediment barriers, and the proper use and applications of the facilities to comply with the applicable storm water requirements of the City, Calaveras County, the State of California, and the United States. This item shall be included in the bid under mobilization/demobilization. The City does not pay for installing, relocating, maintaining, or removing temporary linear sediment barriers.

END OF SECTION

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SECTION 01070

ENVIRONMENTAL STEWARDSHIP

PART 1 - GENERAL

1.01 SCOPE

This section includes general specifications for environmental compliance and environmental resource management.

1.02 REGULATOR REQUIREMENTS

A. **Air Quality**

Section 14-9, AIR QUALITY, of the Caltrans Standard Specifications includes specifications relating to air quality.

B. **Air Pollution Control**

Comply with air pollution control rules, regulations, ordinances, and statutes that apply to work performed under the Contract, including air pollution control rules, regulations, ordinances, and statutes provided in Govt Code § 11017 (Pub Cont Code § 10231). Do not burn material to be disposed of.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.01 NOISE AND VIBRATION

Do not operate construction equipment or run the equipment engines from 6:00 p.m. to 7:00 a.m., or on Saturdays or Sundays, except where authorized by the City or to operate equipment within the project limits during these hours to service construction equipment

If authorized to work during these times, do not exceed 86 dBA LMax at 50 feet from the job site activities.

Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.

3.02 CONSTRUCTION RELATED EXHAUST EMISSIONS

To reduce impacts for construction-related exhaust emissions, the Contractor shall utilize off-road construction fleets that can achieve fleet average emissions equal to or cleaner than Tier II emission standards, as set forth in Section 2423 of the California Code of Regulations and Part 89 of Title 40 Code of Federal Regulations. Achievement can be accomplished through any combination of uncontrolled engines and engines complying with Tier II and above engine standards.

END OF SECTION

SECTION 01200

PROJECT MEETINGS

PART 1 - GENERAL

1.01 PRECONSTRUCTION MEETING

A preconstruction meeting will be held within ten calendar days of Award of the Contract. The purpose of the meeting will be to discuss the various requirements of the specifications and the Contractor's responsibilities with regard to maintaining plant operations, process control, schedule, submittals, and safety. The Contractor shall not commence construction work until after the preconstruction meeting and issuance of a Notice to Proceed.

1.02 MONTHLY STATUS MEETINGS

Regular monthly construction progress meetings shall be held throughout the construction period from the time the Contractor begins work until the acceptance of the work by the City. The City, Superintendent, and representatives of the City will attend the meeting. The Contractor shall be represented by his designated construction manager and superintendent, and representative of any major subcontractor whose work will be discussed at the meeting.

The purpose of the meeting shall be as follows:

A. Review of progress of the work during the preceding month and the job to date for compliance with the approved construction schedule as described in Section 01310, CONSTRUCTION SCHEDULE AND REPORTS.

B. Discuss work and coordination of activities that will be required for the completion of all work scheduled for the following month.

C. Discuss additional measures required to bring the progress of the work into compliance with the approved schedule if required to satisfy the provisions of the contract.

D. Review status of submittals, change orders, directives, and equipment delivery dates.

E. Any additional items of concern to the City.

1.03 WEEKLY MEETINGS

The Contractor's superintendent shall meet with the City at the beginning of each week to discuss the activities scheduled for the following week and the compliance of the work with the schedule established at the previous monthly status meeting.

1.04 **ADDITIONAL MEETINGS**

Additional meetings with the City, Engineer, and the Contractor will be called by the City to resolve disputes on various items of work on the project, including, but not limited to, progress payments, design omissions or conflicts, and changes in work and/or schedule.

END OF SECTION

SECTION 01300

SUBMITTALS

PART 1 - GENERAL

1.01 GENERAL

Where required by the specifications, the Contractor shall submit descriptive information that will enable determination of whether the Contractor's proposed materials, equipment, or methods of work are in general conformance to the design concept and in compliance with the plans and specifications. The information to be submitted shall consist of drawings, specifications, descriptive data, certificates, samples, test results and such other information, all as specifically required in the specifications. In some instances, specified submittal information describes some, but not all, features of the material equipment, or method of work. Features not requiring submittals shall be as specified.

As described in Section 00700, GENERAL CONDITIONS, submittal review shall be only for general conformance with the design concept and general compliance with the information given in the contract documents. It shall not include review of quantities, dimensions, weights or gages, fabrication processes, construction safety precautions, all of which are the sole responsibility of the Contractor. Review of a specific item shall not indicate acceptance of an assembly of which the item is a component. The City shall not be required to review and shall not be responsible for any deviations from the contract documents not clearly noted by the Contractor, nor shall the City be required to review partial submissions or those for which submissions for correlated items have not been received.

1.02 CONTRACTOR'S RESPONSIBILITIES

The Contractor shall be responsible for the accuracy and completeness of the information contained in each submittal and shall assure that the material, equipment, or method of work shall be described in the submittal. The Contractor shall verify that all features of all products conform to the requirements of the specifications and plans. The Contractor shall insure that there is no conflict with other submittals and shall notify the City in each case where his submittal may affect the work of the City or others. The Contractor shall insure coordination of submittals among the related crafts and subcontractors.

Immediately following Award of the Contract, the Contractor shall review the plans and specifications and shall prepare a list of all submittals anticipated on the project and shall submit this list to the City. Items not on the list but requiring review shall be added to the list as requested by the City at any time during the construction.

1.03 TRANSMITTAL PROCEDURE

A. General

Submittals regarding material and equipment shall be accompanied by a transmittal form. A separate form shall be used for each specific item, class of material, equipment, and for items specified in separate, discrete sections. Submittals for various items shall be made with a single form when the items taken together constitute a manufacturer's package or are so functionally related that expediency indicates checking or review of the group or package as a whole.

A unique number, sequentially assigned, shall be noted on the transmittal form accompanying each item submitted. Submittal numbers shall have the following format: "XXX-YYYYY-ZZ"; where "XXX" is the sequential number assigned by the Contractor, "YYYYY" is the specification section number covered by the submittal, and "ZZ" is the sequential number of the submittal ("01" for the first submittal, "02" for the second submittal, etc.). Resubmittals shall have the same submittal number format; where "XXX" is the originally assigned submittal number.

Submittal 25-11350-02, for example, would be the second submittal (first re-submittal) of submittal 25 covering Section 11350.

B. Deviation from Contract

If the Contractor proposes to provide material, equipment, or method of work that deviates from the contract documents, he/she shall indicate so on the transmittal form accompanying the submittal copies. Deviations from the contract documents may result in a "credit" to the City.

C. Submittal Completeness

Submittals that do not contain all the information required to be submitted, including deviations, are not acceptable and will be returned without review.

D. Requests for Substitution

If the offered substitution necessitates changes to or coordination with other portions of the work, the data submitted shall include drawings and details showing such changes. Contractor agrees to perform these changes as part of the substitution of material or equipment at no additional cost to the City. Within 30 calendar days after receipt of the offer of substitution, the Engineer will review the material submitted by the Contractor and advise the City and Contractor of objections, if any, to the proposed substitution or if further information is required. Upon notification by the City, the Contractor shall either provide material or equipment that complies with project specifications or furnish requested additional information. While the City might not take any objections to the proposed substitution, such action shall not relieve the Contractor from responsibility for the efficiency, sufficiency, quality and performance of the substitute material or equipment, in

the same manner and degree as the material and equipment specified by name. Any cost differential associated with a substitution shall be reflected in the offer and the contract documents shall be modified by a change order.

1.04 REVIEW PROCEDURE

When the contract documents require a submittal, the Contractor shall submit copies of the specified information as follows unless otherwise specified:

A. One reproducible original of all the submitted information. When individual sheets in the submittal exceed 8 1/2" x 11", a sepia shall be submitted.

B. Six copies of all the submitted information.

C. Submittals shall be delivered or mailed to:

Dave Richard, PE
On-Call City Engineer, Water/Wastewater
Dewberry | Drake Haglan
10060 White Rock Road, Suite 200
Rancho Cordova, CA 95670
drichard@dewberry.com

Unless otherwise specified, within five calendar days after receipt of the submittal, the submittal shall be reviewed and three copies of the marked-up reproducible original shall be returned to the Contractor. The reproducible original shall be retained by the City. The returned submittal shall indicate one of the following actions:

1. If the review indicates that the material, equipment, or work method is in general conformance with the design concept and complies with the drawings and specifications, submittal copies will be marked "NO EXCEPTIONS TAKEN." In this event, the Contractor may begin to implement the work method or incorporate the material or equipment covered by the submittal.

2. If the review indicates limited corrections are required, copies will be marked "MAKE CORRECTIONS NOTED." The Contractor may begin implementing the work method or incorporating the material and equipment covered by the submittal in accordance with the noted corrections. Where submittal information will be incorporated in operation and maintenance information, a corrected copy shall be provided.

3. If the review reveals that the submittal is insufficient or contains incorrect data, copies will be marked "REVISE AND RESUBMIT." Except at his own risk, the Contractor shall not undertake work covered by this submittal until it has been revised, resubmitted and returned marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED."

4. If the review indicates that the material, equipment, or work method is not in general conformance with the design concept or in compliance with the drawings and specifications, copies of the submittal will be marked "REJECTED". Submittals with deviations that have not been identified clearly may be rejected. Except at his own risk, the Contractor shall not undertake the work covered by such submittals until a new submittal is made and returned marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED".

   Following the initial review, two "resubmittals" will be allowed by the City prior to a "back charge" for engineering review and administration costs being incurred by the Contractor. The "back charge" will be deducted from any amounts due the Contractor.

1.05 EFFECT OF REVIEW OF CONTRACTOR'S SUBMITTALS

Review of drawings, methods of work, or information regarding materials or equipment the Contractor proposes to provide shall not relieve the Contractor of his responsibility for errors therein and shall not be regarded as an assumption of risks or liability by the City, or by any officer or employee thereof, or by any engineering firm conducting such review on behalf of the City, and the Contractor shall have no claim under the contract on account of the failure, or partial failure, of the method of work, material, or equipment so reviewed. A mark of "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED" shall mean that the City has no objection to the Contractor, upon his own responsibility, using the plan or method of work proposed, or providing the materials or equipment proposed.

END OF SECTION

SECTION 01310

CONSTRUCTION SCHEDULES AND REPORTS

PART 1 – GENERAL

1.01 REQUIREMENTS

The Construction Schedule for this Project will also be referred to as the Critical Path Method (CPM) schedule.

The Contractor shall provide an electronic copy on CD media for the Baseline Schedule and all monthly updates to accompany hard copies of the schedule and tabular reports.

The Contractor shall provide with its schedule a procedural outline of the system shutdowns and proposed tie-in procedures, which shall be subject to the favorable review of the City.

Construction schedules shall be submitted in Primavera Project Planner format.

1.02 RESPONSIBLE SCHEDULING PERSON

Within five days from award of the Contract, the Contractor shall submit to the City the name of the person responsible for the preparation, maintenance, updating and revision of all schedules. This person must have authority to act on behalf of the Contractor, have at least five years verifiable experience in the preparation and updating of complex construction schedules for projects of similar type, size and complexity. They must be proficient in the use of Primavera Project Planner. In the event the Contractor does not have an employee with this required scheduling experience and expertise, as determined by the City, the Contractor will be required to employ a qualified CPM consultant who regularly performs these services and who in the opinion of the City possesses the qualifications required to perform CPM Scheduling for this Project. The City reserves the right to remove the scheduler from the Project if found to be incompetent.

1.03 PRELIMINARY PROGRESS SCHEDULE

A. Within five days after receipt of Notice to Proceed or Preconstruction Conference, whichever occurs first, the Contractor shall submit in accordance with Section 01300, SUBMITTALS, five copies of a Preliminary Progress Schedule in the form of an arrow or precedence diagram covering the following project phases and activities:

1. Procurement and Submittals, including shop drawings and fabrication and delivery of key and long lead time procurement items.

    a. The Contractor's submittal information shall show intended submittal dates and shall include, as a minimum, the maximum allowable review period as specified.

b. The information shall provide sufficient durations for administration, fabrication and transportation to produce realistic delivery dates for the procurement items.

2. Submittal of requests for shutdowns and anticipated shutdown periods.

3. All activities planned for the first 90 days in the execution of the Work.

4. The approach to scheduling the remaining activities or phases of the Work shall be represented by at least one summary activity for each major phase or activity. The total duration of the summary activities shall equal the Contract Time.

5. Approximate duration for each summary activity representing the Contractor's best estimate for the work the summary activity represents.

B. The Preliminary Progress Schedule shall describe the activities to be accomplished and their dependency subject to all requirements under these Construction Schedule provisions, as appropriate. The Preliminary Progress Schedule will be used temporarily to record and monitor the progress of the Work until the Baseline Schedule, specified hereinafter, has been completely developed and favorably reviewed. Recorded data on the Preliminary Progress Schedule shall be incorporated into the Baseline Schedule during the first schedule update.

C. The City shall review the schedule and provide any comments, provide favorable review of the schedule, or request a meeting to review the schedule with the Contractor within fourteen days of receipt of the schedule. If requested, the Contractor shall participate in a review and evaluation of the schedule with the City. Any revisions necessary as a result of this review shall be resubmitted for review by the City within five days.

1.04 BASELINE SCHEDULE

A. Baseline Schedule Submittal

The CPM Baseline Schedule submitted under this Specification shall show completion of the project within the required contract completion date and any milestone(s) or seasonal timeline requirements. The Contractor shall submit an acceptable Baseline CPM Schedule to the City within thirty days after the receipt of the Notice to Proceed. Subsequent revisions to said CPM schedule shall be submitted as set forth hereinafter. The Contractor shall produce and provide five complete Baseline CPM Schedules on 11-inch by 17-inch sheets. The network logic diagram shall be clear and legible. Critical activities shall be indicated in red color on both schedules. The schedule is to recognize all legal Holidays observed by the City during construction. These would include the following Holidays: New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the day after Thanksgiving and Christmas Day.

The City shall review the schedule and provide any comments to the schedule, provide favorable review of the schedule, or request a meeting to review the schedule with the Contractor within seven days of receipt of the schedule. If requested, the Contractor shall

participate in a review of the Baseline CPM Schedule with the City. Any revisions necessary as a result of this review shall be resubmitted for review by the Engineer within three days. When completed, the reviewed schedule shall then be the schedule to be used by the Contractor for planning, organizing, and directing the Work, and for reporting progress. If the Contractor thereafter desires to make significant changes in its method of operating and scheduling, the Contractor shall notify the City in writing stating the reasons for the change.

Acceptance of the Baseline Schedule by the City is a condition precedent to making progress payments under Article 14, Payments to Contractor, of Section 00700, GENERAL CONDITIONS.

To the extent that the favorably reviewed initial Baseline CPM Schedule, or revisions thereto, indicate anything not jointly agreed upon, it shall be deemed to be not favorably reviewed by the City. Any omission of work from the detailed Baseline CPM Schedule, otherwise required for Contract compliance, will not excuse the Contractor from completing such work within any applicable completion date.

B. **Network Logic Diagram**

The diagrams shall show elements of the project in detail and an entire project summary. Diagrams shall show the order and interdependence of all activities and sequence in which the work is to be accomplished as planned by the Contractor and its subcontractors. The basic concept of a network analysis diagram shall be followed to show how the start of a given activity is dependent on the completion of preceding activities and its completion restricts the start of following activities. Network logic diagrams shall be time-scaled and based upon the early start of all activities.

The graphic network diagram shall include for each activity, the description, activity number, the estimated duration in workdays, and all activity relationship lines. The network diagram shall be drawn for the early start and early finish of all activities.

C. **Tabular Reports**

The following information shall be furnished as a minimum for each activity;

1. Preceding and succeeding activities
2. Activity description and number
3. Estimated duration of activities
4. Earliest start date (by calendar date)
5. Earliest finish date (by calendar date)
6. Actual start date (by calendar date)
7. Actual finish date (by calendar date)
8. Latest start date (by calendar date)
9. Latest finish date (by calendar date)
10. Float
11. Percentage of activity completed
12. Activity constraints

The schedule reports shall include a calendar in workdays, a report sorted by early start, a report sorted by total float, a report sorted by activity listing all constraints and a logic table report sorted by work item which indicates the complete preceding and succeeding logic ties.

D. **Durations**

Durations shall be in working days and shall not exceed ten workdays, except for submittal and delivery items. Where the duration of continuous work exceeds ten workdays, work items in the Construction Schedule shall be subdivided by location, approximate stationing or other sub-element of the work. For example, constructing a concrete structure should be broken down into forming tasks, pouring tasks, rebar tasks, stripping tasks, curing times, patching/finishing tasks, etc.

E. **Network Activities**

Detailed network activities shall include:

1. The submittal and approval of samples and equipment, fabrication of special material and equipment and their installation and testing.

2. The critical path shall be shown on all reports and on the graphic network logic diagram. The activities, which constitute the critical path, shall be identified. Critical path shall be calculated using P3 without using P3's resource leveling function.

3. Progress milestone events or other significant stages of completion, as defined in Section 01010, LOCATION AND SUMMARY OF WORK. System shutdown and tie-in dates must be specifically and conspicuously identified and included on the schedule.

4. The lead-time required for testing, inspection and other procedures required prior to acceptance of the work.

5. The activity numbers shall be grouped by work area, trade and subcontractor to provide logical summary activities.

6. All activities of the City that affect progress and required contract dates for completion of all parts of the work. The selection and number of activities shall be subject to favorable review by the City.

F. **Float**

"Total Float" or "Float" shall be defined as the difference between the early finish and late finish dates for an activity.

On the CPM schedule, the Contractor shall delineate the specified contract duration and identify the planned completion of the Work as the final finish milestone. The time period

between these two dates, if any, shall be considered Contract float. Float shall be calculated using P3 without using P3's resource leveling function.

Float in any activity, milestone completion date, or contract completion date shall be considered a resource available to both the City and the Contractor. Neither the City nor the Contractor has ownership of the float. Float is for the benefit of the Project. Acceptance of the Contractor's Baseline CPM Schedule, monthly updates or revised schedule, when based on less time than the maximum time allowed for milestone(s) or Contract completion does not serve to change any contract duration, nor serve as a waiver of the Contractor's nor the City's right to utilize the full amount of time specified in the Contract, unless so modified in a Contract Change Order.

1.05 WEATHER CONDITIONS

Seasonal weather conditions shall be considered in the planning and scheduling of work influenced by high or low ambient temperatures or precipitation to ensure the completion of the Work within the Contract Time.

1.06 UPDATES

A. Submittal Period

The Contractor shall submit at monthly intervals a report of the actual construction progress. Each monthly report shall cover a period of approximately thirty days. The monthly reports shall be submitted within five days of the end of the reporting period, which shall be as agreed upon by the City and Contractor.

The Contractor shall produce and provide five complete sets each of the schedule on 11-inch by 17-inch sheets. The schedule shall be clear and legible. Critical activities shall be indicated in red color. Progress bars shall be conspicuously identified by color other than red, black or white.

Progress payments may be withheld if monthly schedule updates are not provided in a timely manner, as determined by the City, as provided for in Section 00700, GENERAL CONDITIONS.

B. All Monthly Updates

All monthly updates shall include as a minimum:

1. Tabulation reports for the following sorts:

    a. Preceding and succeeding activities
    b. Activity description and number
    c. Estimated duration of activities
    d. Earliest start date (by calendar date)
    e. Earliest finish date (by calendar date)

f. Actual start date (by calendar date)
g. Actual finish date (by calendar date)
h. Latest start date (by calendar date)
i. Latest finish date (by calendar date)
j. Float
k. Percentage of activity completed
l. Activity constraints

2. Narrative and Tabular Report - The report shall show the activities or portions of activities actually started or completed during the reporting period. The report shall state the percentage of the work actually completed and scheduled, the remaining duration, and the progress along the critical path in terms of days ahead or behind the allowable dates as of the report date. Any changes made by the Contractor to the schedule, including activity numbers, durations, constraints and activity descriptions, shall be listed in a detailed report which describes the reason for each.

C. **Delayed Schedule Updates**

If, in the opinion of the City, the project is behind schedule, the monthly report shall include a revised network logic diagram and/or tabular reports showing the Contractor's proposed revised schedule. The schedule shall be revised under the conditions defined in Part 1.06E, Schedule Revisions. An analysis of the effect that the delay has on progress along other paths shall also be included in the report. The Contractor shall also submit a narrative report with each updated analysis which shall include but not be limited to, a description of current and anticipated problem areas, delaying factors and their impact, and an explanation of corrective actions taken or proposed.

D. **Schedule Review**

Once each month, on a date mutually agreed upon, but no later than ten days after the submittal of the monthly update specified herein, a jobsite meeting will be held to review the Construction Schedule, job progress and the monthly update, or the City will provide written comments on the monthly update.

E. **Schedule Revisions**

The conditions under which the City will require revisions of the Construction Schedule include the following:

1. When delay in completion of any work item or sequence of work items results in an estimated extension of project completion by either fifteen working days or by five percent (5%) of the remaining duration of time to complete the Contract, whichever is less.

2. When delays in submittals or deliveries make re-planning or rescheduling of the work necessary.

3. When the schedule does not represent actual prosecution and progress of the work.

4. When there is any change to the sequence of activities, the completion date for major portions of the work, or changes occur which affect the critical path.

5. When Contract modification necessitates schedule revision.

The revised Construction Schedule for any condition listed above shall show:

1. How the Contractor intends to return to schedule.

2. How the Contractor intends to avoid falling behind schedule on future activities.

The City may require the Contractor to add to its plant, equipment, or construction forces as well as increase the working hours if operations fall behind schedule at any time during the construction period.

1.04 WEEKLY ACTIVITIES PLAN

On the last working day of every week the Contractor shall submit to the City five Contractor's Plan of Activities for the next three weeks and with the prior week as-built. The Plan of Activities shall describe the activity and location of the activity and include the Activity number as provided in the Construction Schedule.

END SECTION

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SECTION 01700

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 CLEANING OF SITE

The Contractor shall not allow the site of the work to become littered with trash and waste material but shall maintain the site in its normal neat and orderly condition throughout the construction period.

On or before the completion of the work including punch list acceptance by the City, the Contractor shall remove rubbish of all kinds from the jobsite and any of the grounds which he has occupied and leave them in first-class condition to the satisfaction of the City. Pavement shall be swept and/or flushed to remove any spilled soil or aggregate base material after placement. Pipes, drainage inlets, and streets used by the Contractor or contaminated by his operations shall be cleaned thoroughly to the satisfaction of the City.

PART 2 - RECORD DRAWINGS

2.01 GENERAL

The Contractor shall maintain one set of record drawings at the site at all times as a true, complete and accurate record of the work. The drawings shall consist of one set of full-size prints of the contract drawings marked up to reflect all changes that have been made during the course of the work and other supplementary information. The record drawings shall be updated weekly and be available for inspection by the City at all times. Progress payments may be withheld if the drawings are not kept current as provided for in the Section 00700, GENERAL CONDITIONS.

Record drawings shall be stored during the contract period in the Contractor's field office apart from the documents used for construction in suitable files or racks. The record drawings shall be maintained in a clean, dry legible condition and in good order until delivered to the City at the completion of the work. Record drawings shall not be used for construction purposes.

The contract record drawings and supplementary information shall record all deviations in construction, especially pipe and conduit locations and deviations caused by change orders, field clarifications, requests for clarification and addenda. Revisions shall be indicated in a neat and legible manner. Each document shall be clearly labeled "RECORD DOCUMENT."

2.02 INFORMATION TO BE RETAINED ON THE RECORD DRAWINGS

As a minimum, the following kinds of information shall be entered on the record drawings:

A. Locations of work buried under or outside each building, such as plumbing, piping, and electrical lines and conduits.

B. Locations of all items, not necessarily concealed, which vary from the plans.

C. Deviations from the sizes, locations and other features of installations shown in the plans.

D. Locations of underground work, points of connection with existing utilities, changes in direction, valves, manholes, catch basins, capped stubouts, invert elevations, etc.

2.03 ADDITIONAL CONTRACT RECORD INFORMATION

In addition to the marked-up set of plans, the Contractor shall also maintain a contract record file of additional drawings and information necessary for clarification. These include, but are not limited to:

A. Field instructions (directives and field orders) issued by the City.

B. Contract change orders.

END OF SECTION

CITY OF ANGELS
WASTEWATER TREATMENT PLANT
BIOSOLIDS HANDLING IMPROVEMENTS PROJECT

Division 2 – Site Work

Section 02100	Site Preparation
Section 02160	Excavation Support Systems
Section 02200	Earthwork
Section 02510	Asphalt Concrete Paving

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SECTION 02100

SITE PREPARATION

PART 1 - GENERAL

1.01 SCOPE

This section specifies site preparation which consists of clearing, grubbing, demolition, and disposal of materials.

1.02 REFERENCES

The publications referred to hereinafter form a part of these specifications to the extent referenced. The publications are referred to in the text by the basic designation only. The latest edition of referenced publications in effect at the time of the bid shall govern. In case of conflict between the requirements of this section and the listed standards, the requirements of this section shall prevail.

State of California, Department of Transportation (CALTRANS) Publications

CALTRANS	*Standard Specifications, State of California Business and Transportation Agency, Department of Transportation*

1. Caltrans Standard Specifications: Whenever this specification is referenced, the following is understood.

   a. All references to statistical testing are deleted.

   b. Whenever a discrepancy occurs between the Standard Specifications and this specification, it is understood that this specification governs.

   c. All references to measurement and payment are deleted.

1.03 JOB CONDITIONS

A. **Existing Conditions**

The area proposed for the biosolids handling improvements has been used for stockpiling of spoils materials from previous construction activities. Security fencing and locked gates are in place and restricted access must be maintained throughout construction. The Contractor shall determine the actual condition of the site as it affects this portion of work.

B. **Photographs**

Prior to disturbing any area of the project site, the Contractor shall take sufficient photographs and video footage of each area that will be disturbed during construction, documenting pre-construction conditions. The same views shall be re-photographed upon completion of construction activities on any section of the project, and submitted with Contractor's application for payment for work on the section. Pre-construction photography shall document the pre-construction condition of existing landscaped areas, trees and plants, fences, streets, sidewalks, drives, and in general, any area that will be disturbed before commencing work. Photographs shall be prepared and submitted in accordance with Section 11-3, PRECONSTRUCTION PHOTOGRAPHS, of the Caltrans Standard Specifications. A copy of each videotape shall be provided to the City, along with a log describing the address, date, and viewing orientation of each tape segment. Acceptable photographs and videotapes shall be submitted prior to disturbing any area of the project.

C. **Protection**

Site preparation shall not damage structures, landscaping or vegetation adjacent to the site. The Contractor shall repair, or replace any damaged property. To the maximum extent practicable, dust generated during construction activities shall be minimized as specified in Section 10 of the Caltrans Standard Specifications. Submit a dust control plan to the City for approval in accordance with Section 01300, SUBMITTALS. The dust control plan shall meet the requirements of APCD Rules 8011-8081 to limit visible dust emissions to 20% opacity or less.

During the performance of the Work required by these Specifications or any operations appurtenant thereto, whether on right-of-way provided by the City or elsewhere, furnish all labor, equipment, materials, and means required, and carry out proper and efficient measures wherever and as often as necessary to reduce the dust nuisance, and to prevent dust or dirt which has originated from construction operations from damaging landscaping, existing streets, cultivated fields, and dwellings, or causing a nuisance to persons. Water sprinkling shall not be used for dust control when it creates mud or flooding on public streets or right of way. The street area adjacent to open cut excavation work shall be cleaned at the end of each work shift and as necessary throughout the work day to control dust. The Contractor will be held liable for any damage resulting from dust originating from his operations under these specifications on City right-of-way or elsewhere.

The cost of sprinkling, street cleaning, or of other methods of controlling dust shall be included in the prices bid in the schedule for the other items of work.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 GENERAL

The Contractor shall notify the City when site preparation is complete. Further work shall not be started until the conditions defined herein are satisfied.

3.02 PERFORMANCE

A. Clearing and Grubbing

Unless otherwise specified, the Contractor shall remove obstructions such as brush, trees, logs, stumps, roots, heavy sod, vegetation, rock, stones larger than 6 inches in any dimension, broken or old concrete and pavement, debris, piping and structures where the completion of the work require their removal. In general, the depth of stripping shall be 4-6 in. over the majority of the site except where noted. Material that is removed and is not to be incorporated in the work shall be disposed of onsite as directed by the City.

B. Leveling/Smoothing

After grubbing operations are completed, the clearing and grubbing area shall be leveled/smoothed so that the surface is left without obvious holes (from tree and root removals), ridges or mounds. The project area after the leveling/smoothing operations are completed shall not have any exposed objectionable of deleterious materials and the surface slopes shall not have mounds or depressions in excess of 1 ft when measured with a 20 ft long straight edge.

C. Demolition and Removal

1. Pavement: When portions of asphalt pavements and concrete pads are to be removed and later construction is to be connected, edges shall be sawcut, on a neat line at right angles to the curb face.

2. Salvage: City has the right to salvage any items scheduled for removal. The Contractor shall notify the City four weeks prior to any salvage or demolition work to determine the disposition of items to be removed. The City will mark items to be salvaged. Such items shall be properly disconnected, removed from their foundations, cleaned, and stored at a location on the site as indicated by the City.

D. Utility Interference

Where existing utilities interfere with the prosecution of the work, the Contractor shall relocate them in accordance with Section 00700, GENERAL CONDITIONS.

E. **Protection**

The Contractor shall provide protection devices, including barricades, fencing, warning signs, lights and other items necessary to ensure the security of, and safety within, the project site during this phase of the work.

F. **Cleanup**

Remove and transport debris, rubbish, and excess material from the site in a manner that will prevent spillage on streets or adjacent areas. Clean up spillage from streets and adjacent areas. Comply with Federal, State, and local hauling disposal regulations. Cleanup shall be an ongoing activity throughout the contract period. The Contractor shall retain the City-designated solid waste firm for trash removal services.

G. **Disposal of Materials**

All materials removed from clearing and grubbing including trees and roots shall become the property of the Contractor unless designated by the City and shall be removed from the project site as directed by the City.

END OF SECTION

SECTION 02160

EXCAVATION SUPPORT SYSTEMS

PART 1 - GENERAL

1.01 SCOPE

Construction of portions of the project will require the design and installation of adequate shoring by the Contractor. This section specifies requirements for sheeting, shoring, and bracing of trenches and excavations greater than 5 ft in depth.

1.02 QUALITY ASSURANCE

A. References

The publications referred to hereinafter form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only. The latest edition of referenced publications in effect at the time of the bid shall govern. In case of conflict between the requirements of this section and the listed standards, the requirements of this section shall prevail.

CAL OSHA	*State of California Construction Safety Orders* *California State Labor Code*

B. Design Requirements

The Contractor shall design sheeting, shoring, and bracing in accordance with Article 6 of CAL OSHA and the California State Labor Code. The standards of design referred to in the Labor Code shall be those of CAL OSHA. The shoring procedure designed by the Contractor shall be suitable for the site subsurface conditions and project operational constraints. Shoring, bracing, and underpinning systems shall be designed by a professional engineer registered in the State of California. Shoring shall be designed to resist earth pressures exerted by the retained soil plus any applicable surcharge loading, such as construction equipment and stockpiles.

Horizontal strutting below the barrel of a pipe and the use of pipe as a support are not acceptable.

1.03 SUBMITTALS

The Contractor shall submit to the City information required by Section 6705 of the California State Labor Code including specific soil parameters assumed in shoring design and anticipated deflections. The Contractor shall also submit information in accordance with Section 01300, SUBMITTALS to substantiate compliance with this specification.

PART 2 - PRODUCTS

Not used

PART 3 - EXECUTION

3.01 GENERAL

The construction of sheeting, shoring, and bracing shall not disturb the state of soil adjacent to the trench and below the excavation bottom.

3.02 SEQUENCE

Trench excavation shall not be started until the design for trench support has been accepted by the City. Shoring shall be removed as excavations are backfilled.

END OF SECTION

SECTION 02200

EARTHWORK

PART 1 - GENERAL

1.01 SCOPE

This section specifies requirements for rough and finish grading, and cut and fill operations.

1.02 QUALITY ASSURANCE

A. Reference Standards

The publications referred to hereinafter form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only. The latest edition of referenced publications in effect at the time of the bid shall govern, except where a specific date or edition is given below. In case of conflict between the requirements of this section and the listed standards, the requirements of this section shall prevail.

American Society for Testing and Materials (ASTM) Publications:

ASTM C117	*Material Finer Than 75-Micrometer (No. 200) Sieve in Mineral Aggregates by Washing*
ASTM C136	*Sieve Analysis of Fine and Coarse Aggregates*
ASTM D75	*Practices of Sampling Aggregates*
ASTM D1556	*Density of Soil in Place by the Sand-Cone Method*
ASTM D1557	*Moisture Density Relations of Soils and Soil-Aggregate Mixtures Using 10 lb. (4.54-kg) Rammer and 18-in. (457-mm) Drop*
ASTM D1682	*Breaking Load and Elongation of Textile Fabrics*
ASTM D2487	*Classification of Soils for Engineering Purposes*
ASTM D2922	*Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)*
ASTM D3017	*Moisture Content of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)*
ASTM D3787	*Bursting Strength of Knitted Goods; Constant Rate-of Traverse (CRT), Ball Burst Test*

ASTM D4318 *Liquid Limit, Plastic Limit, and Plasticity Index of Soils*

State of California, Department of Transportation (Caltrans) Publications:

Caltrans *Standard Specifications, State of California Business and Transportation Agency, Department of Transportation, Latest Edition (English units)*

Standard Specifications: Whenever this specification is referenced, the following is understood.

a. All references to statistical testing are deleted.
b. Whenever a discrepancy occurs between the Standard Specifications and this specification, it is understood that this specification governs.
c. All references to measurement and payment are deleted.

B. **Tests**

The City will take samples and perform moisture content, gradation, compaction, and density tests during placement of fill and backfill materials to check compliance with these specifications. The Contractor shall remove surface material at locations designated by the City and provide such assistance as necessary for sampling and testing. The City may direct the Contractor to construct inspection trenches in compacted or consolidated fill and backfill to determine that the Contractor has complied with these specifications.

Tests will be made by the City in accordance with the following:

Test	Standard Procedure
Moisture content	ASTM D3017
Density in-place	ASTM D1556 or ASTM D2922
Moisture-density relationships	ASTM D1557
Gradation	ASTM C136
Plasticity	ASTM D4318
Organic Content	ASTM D1557

The Contractor may, at his discretion take additional samples of insitu fill and backfill to monitor his progress. Sampling and testing performed by the Contractor shall be done at the Contractor's sole expense.

Tests will be conducted as the work progresses.

C. **Final Acceptance of Fill and Backfill**

Final acceptance of fill and backfill will be based on tests made on samples of material taken from the completed and compacted course. All testing for final acceptance shall be performed by the City.

D. **Rejection of Fill and Backfill**

If tests conducted by the Contractor or the City indicate that the material does not meet specification requirements, material placement will be terminated until corrective measures are taken. Material which does not conform to the specification requirements and is placed in the work shall be removed and replaced at the Contractor's sole expense.

1.03 DEFINITIONS

A. **Backfill**

Material used in refilling a cut, trench, or other excavation, placed at a specified degree of compaction.

B. **Bedding**

A dense, well-graded aggregate mixture of sand, gravel, or crushed stone (mixed individually, in combination with each other, or with on-site soil as specified) placed on a subgrade below the pipe to provide a suitable foundation for pipe.

C. **Bedrock**

Bedrock consists of solid geologic formations underlying unconsolidated surface materials.

D. **Class 3 Slope Protection**

Class 3 aggregate base as specified in Section 26 of the *Standard Specifications*.

E. **Colluvium**

Unconsolidated surficial soils overlying bedrock.

F. **Compaction**

The process of mechanically stabilizing a material by increasing its density at a controlled moisture condition. "Degree of Compaction" is expressed as a percentage of the maximum density obtained by the test procedure described in ASTM D1557 for general soil types abbreviated in this specification, for example as "XX% ASTM D1557 maximum density" or "XX% compaction."

G. **Competent Material**

Competent material shall be defined as material that is suitable for supporting the intended loads. Determination of competent material will be done by a representative of the City, employed by the City to inspect construction. Factors in determining competent material

include the degree of fracturing, hardness, bearing capacity, and any other factors that affect the suitability of the soil

H. **Deep Rip**

Breaking up of consolidated soil layers near ground surface by pulling steel shanks through the ground.

I. **Excavation**

The removal of soil to obtain a specified depth or elevation.

J. **Fill**

Specified material placed at a specified degree of compaction and moisture content to obtain an indicated grade or elevation.

K. **Initial Backfill**

Backfill from the bottom of the pipe to 6-in. above the top of the pipe.

L. **Lift**

Layer (or course) of soil placed on top of a previously prepared or placed soil in a fill or embankment.

M. **Optimum Moisture Content**

Optimum moisture content shall be determined in accordance with ASTM D1557. Field moisture content shall be determined on the basis of the fraction of material passing the ¾-in. sieve.

N. **Rock**

Rock is defined as material that cannot be ripped with a caterpillar tractor (D-9) and single ripper.

Where trenching is necessary and a caterpillar tractor ripper cannot reach into the excavation, rock shall be defined as material that cannot be excavated with a track mounted 235 Caterpillar backhoe with narrow bucket and teeth.

The City shall make the determination as to whether material is classified as rock.

O. **Structural Backfill**

Material used in refilling a cut or other excavation between undisturbed sides of the excavation and below grade walls.

P. **Structural Foundation Fill**

Material used in refilling the area below the structural foundation and the base of the excavation.

Q. **Subgrade**

The uppermost layer of material (sometimes in situ soil or rock) graded or otherwise prepared for supporting the addition of base material, fill material, or structural foundation materials.

R. **Subsequent Backfill**

Backfill from 6-in. above the pipe to the top of the trench or subgrade surface for paving materials.

S. **Unstable Material**

Material in the trench bottom which lacks firmness to maintain alignment and prevent joints from separating in the pipe, conduit, or appurtenant structure during backfilling. This may be material otherwise identified as satisfactory which has been disturbed or saturated.

T. **Unsuitable Material**

Existing in-place soil, unstable material, substandard fill or backfill material, or other material designated by the City as having insufficient strength characteristics or stability to carry intended loads in fill or embankment without excessive consolidation or loss of stability. As a minimum, materials classified as PT, OH, or OL by ASTM D2487 are unsuitable. Also, material containing refuse, large rocks, debris, and other material which could cause backfill not to compact shall be considered unsuitable.

U. **Unyielding Material**

Rock, rib, ridge, rock protrusion, or solid with cobbles in the trench bottom requiring a covering of finer grain material or special bedding to avoid bridging in the pipe or conduit.

1.04 SUBMITTALS

Submittals shall be made in accordance with Section 01300, SUBMITTALS, for the following:

1. Test results, certifications, and source for all imported earthwork materials (engineered fill, drain rock, crushed rock, etc.). See requirements below.

2. Manufacturer's literature and recommended installation instruction for geotextile fabric.

3. A copy of this specification section, with addenda updates, and all referenced sections, with addenda updates, with each paragraph, check marked to show specification compliance or marked to show deviation.

All imported materials specified in this section are subject to the following requirements:

1. All tests necessary for the Contractor to locate an acceptable source of imported material shall be made by the Contractor. Certification that the material conforms to the specification requirements, along with copies of the test results from a qualified commercial testing laboratory, shall be submitted to the City for approval at least 14 days before material is required for use.

2. All material samples required for material certification shall be furnished by the Contractor at the Contractor's sole expense. Samples shall be representative and be clearly marked to show the source of the material and the intended use on the project. Sampling of the material source shall be done by the Contractor in accordance with ASTM D75. Notify the City at least 24 hours prior to sampling. The City may, at their option, observe the sampling procedures. Tentative acceptance of the material source shall be based on an inspection of the source by the City and/or the certified test results submitted by the Contractor to the City at their discretion. No imported materials shall be delivered to the site until the proposed source and materials tests have been tentatively accepted in writing by the City. Final acceptance will be based on tests made on samples of material taken from the completed and compacted course. All testing for final acceptance shall be performed by the City.

3. Gradation tests by the Contractor shall be made on samples taken at the place of production prior to shipment. Test results shall be forwarded to the City within 48 hours after sampling.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Engineered Fill

Select excavated native, import, or borrow material free from roots, organic matter, trash, debris, rocks larger than 3-in., and other deleterious materials and meeting the following minimum requirements:

Liquid Limit	<0
Plasticity Index	<12
Percent Passing 3-in. Sieve	100%
Percent Passing No. 200 Sieve	15-40%
Organic Content (By Weight)	0%

B. **Sand**

Bedding material shall be a select granular material free from organic matter and of such size and gradation that the specified compaction can be readily attained. As a minimum, materials shall have a sand equivalent value of not less than 30 (California Test Method 217) and shall conform to the following gradation:

U.S. standard sieve size	Percent by weight passing
¾-in.	100
No. 4	35-100
No. 30	20-100

C. **Bedding Material**

Bedding material shall be sand as specified in this section.

D. **Initial Backfill**

Initial backfill shall conform to specifications for bedding material for this contract.

E. **Subsequent Backfill Material**

Subsequent backfill material shall be Class 2 aggregate base material conforming to Section 26 of the Standard Specifications. Aggregate shall conform to grading requirements for ¾-in. maximum grading.

F. **Drain Rock**

Natural gravel, crushed gravel, or crushed rock, free from dirt, clay balls, roots, and organic material and conforming to Section 68 of the Standard Specifications, Class 2 and the following washed sieve gradation as determined by ASTM Cl 17 and ASTM Cl 36.

Sieve Size	Percent Passing by Weight
1 in.	100
3/4 in.	90-100
3/8 in.	40-100
No. 4	25-40

Sieve Size	Percent Passing by Weight
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

G. **Crushed Rock**

Crushed rock shall conform to the following gradation:

Sieve Size	Percent Passing by Weight
1 1/2 in.	87-100
3/4 in.	45-90
No. 4	20-50
No. 30	6-29
No. 200	0-12

Crushed rock material shall be composed of hard, durable, sound pieces having a specific gravity of not less than 2.60.

H. **Riprap**

Riprap for slope protection shall conform with Section 72 of the *Standard Specifications*, Facing Class.

PART 3 - EXECUTION

3.01 GENERAL

A. **Control of Water**

The Contractor shall keep excavations free from water during construction. The static water level shall be drawn down a minimum of 2 ft below the bottom of excavations to maintain the undisturbed state of natural soils and allow the placement of any fill to the specified density. Disposal of water shall not damage property or create a public nuisance. The Contractor shall have on hand pumping equipment and machinery in good working condition for emergencies and shall have workers available for its operation. Dewatering systems shall operate continuously until backfill has been completed to 1 ft above the normal static groundwater level. The location of the Contractor's dewatering discharge shall be approved by the City.

Groundwater shall be controlled to prevent softening of the bottom of excavations, or formation of "quick" conditions. Dewatering systems shall not remove natural soils.

Release of groundwater to its static level shall be controlled to prevent disturbance of the natural foundation soils or compacted fill and to prevent flotation or movement of structures of pipelines.

Dewatering piping which crosses existing roads shall be buried.

Contractor shall be responsible for constructing and maintaining a temporary desilting basin to allow the water removed from trenches to pass through prior to discharge.

B. **Shoring and Sheeting**

Shore and sheet excavations over 5 ft in depth in accordance with Section 02160, EXCAVATION SUPPORT SYSTEMS.

C. **Hauling**

When hauling is done over highways or city streets, the loads shall be trimmed and the vehicle shelf areas shall be cleaned after each loading. The loads shall be watered after trimming to eliminate dust. All streets shall be swept clean daily where dirt and debris result from the Contractor's operation.

D. **Maintenance of Roadways**

All earthwork operations shall be performed in a manner which does not disrupt the continuous flow of traffic on existing roadways without prior approval of the City.

E. **Control of Erosion**

The Contractor shall maintain earthwork surfaces true and smooth and protected from erosion. Where erosion occurs, the Contractor shall provide fill or shall excavate as necessary to return earthwork surfaces to the grade and finish specified.

F. **Surplus Material**

Unless otherwise specified, surplus excavated material shall remain the property of the City and shall be disposed of on-site by the Contractor as directed by the City.

Material shall not be stockpiled to a depth greater than 5 ft above the finished grade within 25 ft of any excavation or structure. The Contractor shall maintain stability of all stockpiled materials.

The Contractor shall satisfy himself that there is sufficient material available for the completion of the work before disposing of any material inside or outside the site. Shortage

of material, caused by premature disposal of any material by the Contractor, shall be replaced by the Contractor at his expense.

G. **Hazardous Waste**

Contractor shall promptly notify the City in writing, of any subsurface material that Contractor believes is hazardous, as defined in Section 25117 of the Health and Safety Code.

Upon discovery, material is to remain undisturbed until an investigation can be made by the City.

3.02 EXCAVATION AND FILL – GENERAL EARTHWORK

A. **Excavation**

Excavation shall be to the elevations and dimensions indicated in the plans. Notify the City immediately in writing in the event that it becomes necessary to remove hard, soft, weak, or wet material to a depth greater than indicated.

Soil disturbed or weakened by the Contractor's operations and soils permitted to soften from exposure to weather shall be excavated to firm foundation and refilled with engineered fill material compacted as specified in Paragraph 3.05, Compaction. All work of this nature will be at the Contractor's expense.

B. **Overexcavation**

Where the undisturbed condition of existing soils is inadequate for support of the planned construction, the City will direct the Contractor to overexcavate to adequate supporting soils. The excavated space shall be filled to the specified elevation with engineered fill compacted as specified in Paragraph 3.05, Compaction.

C. **Filling Operations**

1. Subgrade for Engineered Fill

All areas to receive engineered fill shall be prepared as specified herein.

For subgrades composed of undisturbed bedrock which is also classified as competent material, the subgrade shall be left undisturbed.

For subgrades not composed of competent bedrock, the surface to receive engineered fill shall be scarified to a depth of 8-in., moisture conditioned, and compacted as specified in Paragraph 3.05, Compaction.

2. Proof-Rolling

Unless otherwise directed in writing by the City proof-roll all subgrade surfaces, except undisturbed bedrock, prior to constructing engineered fill. Use a half-loaded dump truck or similar heavy-wheeled vehicle acceptable to the City to detect soft or loose zones. Notify the City prior to commencement of proof-rolling. If soft or loose zones are found, excavate the soft or loose material to a depth directed by the City, then fill and compact as specified for engineered fill.

3. Construction of Engineered Fill

Construct engineered fill to lines and cross sections shown. Deposit fill material in lifts not exceeding 8-in. in loose depth, moisture condition, and compact as specified in Paragraph 3.05, Compaction.

No fill shall be placed during weather conditions which will alter the moisture content of the fill materials sufficiently to make adequate compaction impossible. After placing operations have been stopped because of adverse weather conditions, no additional fill material shall be placed until the last layer compacted has been checked and found to be compacted to the specified densities.

Excessively over-optimum (wet) soil conditions are likely to be encountered if earthwork is conducted in the winter, spring, or early summer. If these conditions are encountered, the Contractor shall take measures to bring the moisture content to the level specified in Paragraph 3.05, Compaction, for proper compaction. Examples of steps the Contractor shall take are:

1. Frequent spreading and mixing during warm dry weather;

2. Mixing with drier materials;

3. Removal and replacement with drier materials;

4. Mixing with a lime, lime-flyash, or cement product; or

5. Bridging with aggregate, geotextile stabilization fabric, or both.

Any method employed by the Contractor shall first be approved by the City.

Care should be taken during fill placement to prevent and/or correct any unstable or "pumping" subgrade conditions. Such conditions could develop with a combination of factors, including overly moist soils, heavy construction, equipment, or frequent movement of equipment. If an unstable or "pumping" condition should develop as determined by the City, the affected soils shall be removed and replaced or aerated and allowed to stabilize prior to further work in the area. Furthermore, when, in the judgment of the City, sufficient compaction effort has not been used or where the field

density tests indicate that the required compaction or moisture content has not been obtained, the fill shall be reworked and recompacted as needed to obtain a stable fill at the required density and moisture content prior to placing additional fill materials.

The Contractor shall be responsible for the maintenance and protection of all embankments and fills made during the contract period and shall bear the expense of replacing any portion which has been displaced due to carelessness, negligent work, erosion or failure to take proper precautions.

3.03 SLOPE PROTECTION

Install riprap in accordance with Section 72 of the *Standard Specifications*, Method B Placement.

3.04 COMPACTION

Compact each layer or lift of material specified so that the in-place density tested is not less than the percentage of maximum density identified herein per ASTM D1557. Compaction shall be accomplished by mechanical equipment such as tamping rollers, sheepsfoot rollers, pneumatic tire rollers, vibrating rollers, or other mechanized tampers suitable for the work. Compaction of materials by ponding and jetting is prohibited.

Compaction methods and equipment used are subject to approval by the City.

Material	Compaction % of ASTM D1557 Maximum Density	Moisture Content
Subgrade for Fill	90	0-3% over optimum
Subgrade for Pavement	95	0-3% over optimum
Engineered Fill	95	0-3% over optimum

3.05 FINISH GRADING

Finished surfaces shall be smooth, compacted and free from irregularities.

Finished grade shall be to the line and grade shown on the plans with allowance for aggregate road base, so that the specified thickness can be applied to attain the finished grade. Finished grade shall be within a tolerance of plus or minus 0.10 ft.

END OF SECTION

SECTION 02510

ASPHALT CONCRETE PAVING

PART 1 – GENERAL

1.01 SCOPE

This section specifies the work necessary to furnish and install asphalt concrete pavement consisting of aggregate base, asphaltic concrete, liquid asphalt and associated materials where shown on the plans.

In areas where pavement has been removed or damaged due to construction activities, pavement shall be replaced. Any existing paving that has subsided, cracked, or been damaged by heavy equipment shall be replaced by the Contractor as directed by the City at Contractor's expense.

1.02 QUALITY ASSURANCE

A. **References**

The publications referred to hereinafter form a part of these specifications to the extent referenced. The publications are referred to in the text by the basic designation only. The latest edition of referenced publications in effect at the time of the bid shall govern. In case of conflict between the requirements of this section and the listed standards, the requirements of this section shall prevail.

American Society for Testing and Materials (ASTM) Publications

ASTM D1557	*Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10 lb (4.54 kg) Rammer and 18 Inch (457-mm) Drop*

US Department of Commerce Standard (PS)

PS20	*American Softwood Lumber Standard*

State of California, Department of Transportation (Caltrans) Publications

Standard Specifications, State of California Business and Transportation Agency, Department of Transportation

1. State Standard Specifications: Whenever this specification is referenced, the following is understood.

    a. All references to statistical testing are deleted.

b. Whenever a discrepancy occurs between the *Standard Specifications* and this specification, it is understood that this specification governs.

c. All references to measurement and payment are deleted.

B. **Testing**

Testing will be conducted by the City to determine compliance with the specified degree of compaction and moisture content. The City shall pay for testing costs.

1.03 **SUBMITTALS**

The Contractor shall submit information in accordance with Section 01300, SUBMITTALS, to substantiate compliance with this specification. In addition, the following specific information shall be submitted.

A. **Samples**

Representative samples of acceptable materials proposed for use in the mix shall be furnished for testing.

B. **Manufacturer's Certificate**

A manufacturer's certification for asphalt products.

C. **Mix Design**

An asphalt concrete mix design by an independent qualified laboratory.

PART 2 – PRODUCTS

2.01 **ROAD PAVEMENT**

A. **Aggregates**

The grading and proportioning of aggregates shall be such that the combined mineral aggregate conforms to the specified requirements.

1. Aggregates for base course shall conform to Section 26 of the *Standard Specifications*, Class 2, for 3/4 in. maximum size gradation.

2. Aggregate for asphaltic concrete shall conform to Section 39 of the *Standard Specifications*, Type B for individual test result conforming to 1/2 in. maximum size gradation, medium.

B. **Asphaltic Materials**

1. Asphalt Cement: Section 92 of the *Standard Specifications*, Grade PG 64-10.

2. Asphaltic Emulsion: Section 94 of the *Standard Specifications*, SS1 or SS1h.

PART 3 – EXECUTION

3.01 PROTECTION

Concrete walls, walks, curbs and bases, and other improvements adjacent to the operations shall be protected. Contractor shall be responsible for damage caused by construction activities and shall replace existing concrete walls, walks, curbs and bases, and other improvements in kind. Building and other surfaces shall be covered with paper or other protection, where required.

3.02 BASE COURSE

A. **Requirements**

Place aggregate base in accordance with requirements of Section 26 of the *Standard Specifications* and to the thickness shown. Grade and compact to at least 95% of maximum density ASTM D1557 Method D.

B. **Maintenance**

Maintain the base course until the asphaltic pavement is in place. Maintenance shall include drainage, rolling, shaping, and water as necessary to maintain the course in proper condition. Maintain sufficient moisture at the surface to prevent a dusty condition by light sprinkling with water.

C. **Finish Surface**

Surface tolerance shall comply with Section 26 of the *Standard Specifications*. The finish surface of base course, when tested for uniformity of slope, shall not deviate at any point more than 3/8 in. from bottom of a 10 ft straight edge laid in any direction. When base course is constructed in more than one layer, specified smoothness requirements shall apply to top surface.

D. **Weed Control**

One day before the application or placement of bituminous material on the subgrade, the surface shall be sterilized with herbicide. Apply chemical at the rate of 4-lbs/100 ft^2. Apply to the surface dry or as a solution. If applied dry, add water to the surface at a rate of 4-gal/100 ft^2. If applied as solution, dissolve chemical at the rate of 1 lb/gal of water and spray on at the rate of 4 gal of solution per 100 ft^2.

E. **Prime Coat**

Prior to the application of the asphaltic concrete, apply a bituminous prime coat of liquid asphalt on the prepared compacted base at the rate of 0.25 gal/yd^2 in accordance with Sections 39 and 93 of the *Standard Specifications*. Apply liquid asphalt by pressure distributors. Allow sufficient time before placing the asphalt concrete to permit the prime coat asphalt to penetrate the prepared compacted base.

F. **Paint Binder**

Apply asphaltic emulsion to the existing pavement surfaces in accordance with Sections 39 and 94 of the *Standard Specifications*.

3.03 ASPHALT CONCRETE

A. **Requirements**

The bituminous concrete shall consist of mineral aggregate, uniformly mixed with bituminous material in a central plant in accordance with Section 39 of the *Standard Specifications*. The mixing plant and construction equipment shall conform to the requirements of Section 39 of the *Standard Specifications*.

The percentage of asphalt cement binder in the road pavement shall be between 5% and 7%.

B. **Weather Limitations**

Asphalt concrete shall be placed only when the atmospheric temperature is above 50°F.

C. **Placing**

Deliver bituminous mixtures to the roadbed at temperatures specified in Section 39 of the *Standard Specifications*. Spread in accordance with Section 39 of the *Standard Specifications*. Cover all loads with tarpaulin or other material during transportation.

D. **Compaction**

Initial or breakdown rolling and the final rolling of the uppermost layer of the asphalt concrete shall be in accordance with Section 39 of the *Standard Specifications*. Compaction by vehicular traffic shall not be permitted.

E. **Joining Pavement**

Carefully make joints between old and new pavement or between successive days' work in such manner as to insure a continuous bond between old and new sections of the course. Expose and clean edges of existing pavement. Cut edge to straight, vertical surfaces. Paint all joints with a uniform coat of paint binder before the fresh mixture is placed. Prepare joints in the new pavement in accordance with Section 39 of the *Standard Specifications*.

F. **Bond Coat**

Provide a bond coat of bitumen between courses per *Standard Specifications*, Section 39, applied uniformly at a rate of 0.10 gal/yd^2.

G. **Protection of Pavement**

After final rolling, no vehicular traffic of any kind shall be permitted on the pavement until it has cooled and hardened and in no case less than six hours.

H. **Drainage**

Asphalt concrete placed within 3 ft of all structures shall be sloped a minimum of 2% to drain water away from structures unless otherwise shown on the plans.

END OF SECTION

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CITY OF ANGELS
WASTEWATER TREATMENT PLANT
BIOSOLIDS HANDING IMPROVEMENTS PROJECT

Division 15 – Piping

Section 15060	Piping Systems
Section 15068	Ductile Iron Pipe

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SECTION 15060

PIPING SYSTEMS

PART 1 – GENERAL

1.01 SCOPE

The Contractor shall furnish, install, and place into successful operation all piping systems specified herein this Section 15060, PIPING SYSTEMS, and as shown on the plans. A piping system shall include all the pipes, fittings, closure pieces, supports, bolts, nuts, gaskets, jointing materials, and appurtenances as shown and specified.

1.02 QUALITY ASSURANCE

A. References

The publications referred to hereinafter form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only. The latest edition of referenced publications in effect at the time of the bid shall govern. In case of conflict between the requirements of this section and the listed standards, the requirements of this section shall prevail.

International Code Conference (ICC) Publications:

UPC	*Uniform Plumbing Code*

American National Standards Institute /National Sanitation Foundation (ANSI/NSF) Standards:

ANSI/NSF Standard 61	*Drinking Water System Components - Health Effects*

American Water Works Association (AWWA) Publications:

AWWA C651	*Disinfecting Water Mains*

Health and Safety Code (HCS):

HSC Section 116875	*Lead Pipes, Plumbing, and Solder*

1.03 SUBMITTALS

The Contractor shall submit information in accordance with Section 01300, SUBMITTALS, to substantiate compliance with this specification. In addition, the following specific information shall be submitted.

A. Shop Drawings

Detailed, dimensioned piping layout and support shop drawings to scale for all piping systems, including specific locations of all anchors, supports, braces and instrument taps.

Piping layout and support drawings shall be submitted for information only in accordance with Section 01300, SUBMITTALS a minimum of 6 weeks prior to construction.

B. Manufacturer's Data

1. Manufacturer's data and catalog information for all piping system components including:

    a. Pipe material identified with ASTM or other conformance standard.

    b. Flanges, fittings, connections, gaskets.

    c. Valves and appurtenances.

2. Manufacturer's catalog information, pressure rating and materials of construction for mechanical joint restraints.

1.04 DEFINITIONS

Terms used in Section 15060, PIPING SYSTEMS and elsewhere in Division 15 are defined as follows:

1. Pressure Terms:

    a. Maximum: The greatest continuous pressure at which the piping system operates.

    b. Test: The hydrostatic pressure used to determine system acceptance.

2. Piping Exposure Terms:

    a. Buried: Pipe, which may be insulated, that is located below grade and in contact with backfill material; or pipe, which may be insulated, that is located below grade and is concrete encased.

    b. Not Buried: Pipe that does not meet the definition of buried pipe.

PART 2 – PRODUCTS

2.01 PIPING MATERIALS

Unless otherwise specified in the particular piping sections, piping materials including pipe, gaskets, fittings, connections, and joint assemblies, lining and coatings, shall be provided from those listed on the Piping System Specification sheets. Piping materials shall conform to detailed specifications for each type of pipe and piping appurtenances specified in other sections of Division 15. Pipe connection types shall also be provided where shown on the plans and where specified in Division 15.

To assure uniformity and compatibility of piping components, fittings and couplings for grooved end piping systems shall be furnished by the same manufacturer.

All products in contact with potable water shall be: 1) NSF/ANSI Standard 61 certified in compliance with California Code of Regulations, Title 22, Section 64591; and, 2) lead-free in compliance with California Health and Safety Code Section 116875.

2.02 DIELECTRIC ISOLATION

A. General

All buried metallic piping shall be dielectrically isolated from all other metal piping, hangers, brackets, steel reinforcing and all other metal structures. All piping shall be dielectrically isolated from piping or other materials constructed from dissimilar metals.

B. Flange Insulators

Flange dielectric insulation sets shall contain full faced gaskets, full length sleeves, and double insulating washers or as specifically indicated on the plans. Insulation material for the flange insulation sets shall be phenolic resin and flange faced gaskets shall be neoprene faced phenolic resin. All insulating materials shall be of a type designated by the manufacturer as suitable for use at the operating and test pressures specified in piping system specification sheets at the end of this section.

C. Wall Penetrations

All penetrations through reinforced concrete walls shall be constructed to prevent metal to metal contact between the pipe and reinforcing steel in the wall. Details shall be as shown on the plans.

D. **Insulating Unions**

Insulating unions shall meet Fed. Spec. WW-U-532, Class 1 requirements for dimensional, strength, and pressure requirements. Insulation barrier shall limit galvanic current to 1% of the short circuit current in a corresponding metallic joint. The insulating material shall be impervious to water. Each connector shall match the type of material to which it connects.

E. **Pipe Supports**

Any pipe hangers, supports, brackets and saddles installed on the buried side of dielectric insulators on the protected pipe shall be dielectrically isolated from the pipe by insertion of dielectric insulating material between the hanger and the pipe.

PART 3 – EXECUTION

3.01 INSTALLATION

A. **Location**

Piping shall be installed as specified except for adjustments to avoid structural and other features and shall be coordinated with electrical construction. Unless specifically shown otherwise on the plans, minimum depth of cover for buried pipe shall be 36 inches over the top of the pipe.

B. **Piping Sizes**

Where the size of piping is not specified, the Contractor shall provide piping of the sizes required by UPC. Unless specified otherwise, small piping (less than 1 inch in diameter) required for services not described by UPC shall be 1/2 inch.

C. **Anchorage for Buried Piping**

All plugs, caps, tees and bends in buried pressure piping systems shall be anchored by means of reaction backing or restrained joints as specified in the individual piping sections. Concrete thrust blocks shall be as shown on the plans or as specified in the specifications.

D. **Bedding and Backfill**

Bedding and backfill for buried piping shall be as specified in Section 02200, EARTHWORK and as shown on the plans. Piping shall be buried as specified in Part 3.01A, Location of this section. Depth shall be adjusted to avoid other utilities.

E. **Not Buried to Buried or Encased Piping Material Transitions**

Wherever a pipe 2 inches in diameter and larger passes from concrete encasement or structure wall to earth, a flexible sleeve type pipe coupling, or a push-on bell and spigot, shall be installed within 2 feet of the concrete. Particular care shall be taken to ensure a full support of the pipe in the earth between and beyond the joints.

Buried or encased pipe shall pass through wall or floor penetration before making buried or encased to not buried piping transition. Where required for resistance to pressure, sleeve type couplings and bell and spigot joints shall be restrained as specified in the individual piping sections.

3.02 CLEANING

A. **General**

Piping systems shall be thoroughly cleaned prior to testing, flushing and connection to operating, control, regulating or instrumentation equipment.

B. **Liquid Systems**

Pipe system cleaning shall take place as the system is constructed and shall be a multiple step process.

First each piece of pipe, fitting, valve, or appurtenance shall be visibly checked for the presence of dirt, debris and contaminants before it is attached to the piping system. If dirt, debris or contaminants are present, they shall be removed prior to incorporation of the piece of pipe, fitting, valve, or appurtenance into the system.

Second, the piping system shall be swabbed. Swabbing shall consist of pulling a tight fitting cleaning ball or swab through the pipe as the pipe system is assembled. The Contractor shall take care to prevent dirt, debris, or contaminants from entering clean portions of the pipe system. If such materials enter the pipe system, the pipe system shall be re-swabbed at the Contractor's expense.

3.03 TESTING

A. **General**

All piping systems shall be tested following installation and cleaning. Testing shall occur prior to the application of insulation to exposed piping, prior to flushing, and prior to operation of any kind. No test shall commence until the pipeline is completely cleaned to the satisfaction of the City.

At the Contractor's option, pipe systems may be tested in segments between convenient isolation points such as valves, structures and equipment. However, in addition to such testing, a final pressure test of the complete pipe system shall be conducted.

B. **Liquid Systems – Gravity Conveyance**

1. General: Leakage tests shall be completed after pipelines have been cleaned of obstructions and inspected by the City.

2. Section Leakage Test: Each section of pipeline shall be tested by closing the lower end of the pipe to be tested and the inlet pipe of the upper manhole with stoppers and then filling the pipe and manhole with water to a level 5 feet above the crown of the open pipe in the upper manhole or, if groundwater is present, 6 feet above the section's average adjacent groundwater level. The line shall be filled at least 48 hours prior to testing and shall be tested for 6 hours minimum, maintaining the specified head by measured additions of water. The sum of these additions shall be the measured leakage for the test period. The allowable leakage shall be:

   a. 18 inch diameter and larger: 0.02 gallons per hour per inch diameter per 100 feet of buried pipe.

   b. Less than 18 inch diameter: 0.08 gallons per hour per inch diameter per 100 feet of buried pipe.

C. **Drains**

Drain systems, operating at atmospheric pressure shall be tested in accordance with UPC. Drains operating under hydrostatic pressure or pumped drain systems shall be tested as specified in this section.

3.04 FLUSHING

A. **General**

Following completion of pipe system cleaning as specified in Paragraph 3.02, Cleaning, and testing as specified in Paragraph 3.03, Testing, pipe systems for liquids shall be flushed with clean water. Pipe systems shall be flushed only after they are completely constructed. Where minor exceptions to this requirement are necessary, they are expressly noted on the plans.

Temporary screens as specified below shall be installed prior to flushing to protect equipment.

B. **Liquid System Piping**

All liquid system piping shall be flushed using means that will produce the specified volume and velocity of flushing water. The actual means and methods used shall be the Contractor's sole responsibility subject to review by the City as described below.

Flushing shall be considered complete for a given pipe when all the following conditions have been met:

1. Velocity of flow has been achieved for the minimum duration or volume of flush water specified in the approved flushing plan.

2. Water exiting the flushed pipe (when visible) is clear and free of debris in the opinion of the City.

3. Temporary screens, where specified, are clean after at least 15 minutes of operation.

C. **Temporary Screens**

Upon completion of the cleaning and testing, and prior to operation, the Contractor shall connect the piping systems to related process equipment. Temporary screens shall be inserted in the following locations as a minimum:

1. Suction inlet of all pumps, compressors and blowers.

2. Inlet and outlet of all pipe systems between tanks without isolation gates.

Temporary screens shall be sized in accordance with the following table.

Pump suction or piping size, inches	Maximum screen opening, inches
0 – 1	1/16
1 1/4 - 3	1/4
3 1/2 - 6	1/2
Over 6	1

Temporary screens having a maximum screening opening of 1/16 inch shall be inserted in pipelines at the suction of compressors and blowers.

All temporary screens shall be provided with locator tabs which remain visible from the outside when the screens are in place.

3.05 PIPING SYSTEM SPECIFICATION SHEETS (PIPESPEC)

Piping and valves are specified on individual Piping System Specification sheets (PIPESPEC).

PIPING SYSTEM SPECIFICATION				
SERVICE: STORM DRAIN				SYMBOL: **SD**
FLUID: WATER				
PRESSURE (PSIG)			TEMPERATURE (°F)	
WORK: 5	MAX: 10	TEST: 25	NORMAL: 60	MAX: 100
TEST MEDIUM: WATER		TEST DURATION: 120 minutes		

PIPE AND FITTING SPECIFICATION, UNLESS INDICATED OTHERWISE ON PLANS			
SIZE	EXPOSURE	PIPE	FITTINGS
12"	Buried	Ductile iron per Section 15068; AWWA C150, cement mortar lined, asphaltic coated, polyethylene wrapped, push-on joints.	Ductile iron per Section 15068; AWWA C110 or C153, cement mortar lined, asphaltic coated, polyethylene wrapped, with push-on joints

GENERAL VALVE SPECIFICATIONS, UNLESS OTHERWISE SPECIFIED IN VALVE SCHEDULE				
SIZE	EXPOSURE	DUTY	SPECIFICATION	OPERATOR

REMARKS:

END OF SECTION

SECTION 15068

DUCTILE IRON PIPE

PART 1 - GENERAL

1.01 SCOPE

This section specifies ductile iron pipe, ductile or gray iron fittings, connections, linings, and coatings.

1.02 REFERENCES

The publications referred to hereinafter form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only. The latest edition of referenced publications in effect at the time of the bid shall govern, except where a specific date or edition is given below. In case of conflict between the requirements of this section and the listed standards, the requirements of this section shall prevail.

American National Standards Institute (ANSI) Publications:

ANSI A21.5	*Polyethylene Encasement for Ductile Iron Pipe Systems*
ANSI A21.11	*Rubber-Gasketed Joints for Ductile Iron Pressure Pipe and Fittings*
ANSI B1.1	*Unified Inch Screw Threads (UN and UNR Thread Form)*
ANSI Bl.20.1	*Pipe Threads, General Purpose (Inch)*
ANSI B16.1	*Cast Iron Pipe Flanges and Flanged Fittings*
ANSI B16.5	*Pipe Flanges and Flanged Fittings*
ANSI B18.2.1	*Square and Hex Bolts and Screws Inch Series*
ANSI B18.2.2	*Square and Hex Nuts*
ANSI B31.1	*Power Piping*

American Society of Testing Materials (ASTM) Publication:

ASTM A716	*Ductile Iron Culvert Pipe*

American Water Works Association (AWWA) Publications:

AWWA C104	*Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water*
AWWA C105	*Polyethylene Encasement for Ductile-Iron Pipe Systems*
AWWA C110	*Ductile-Iron and Gray-Iron Fittings, 3 In. Through 48 In. (75 mm Through 1200 mm), for Water and Other Liquids*
AWWA C111	*Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings*
AWWA C115	*Flanged Ductile-Iron Pipe With Threaded Flanges*
AWWA C116	*Protective Fusion-Bonded Epoxy Coatings for Interior and Exterior Surfaces of Ductile-Iron and Gray-Iron Fittings for Water Supply Service*
AWWA C150	*Thickness Design of Ductile-Iron Pipe*
AWWA C151	*Ductile-Iron Pipe, Centrifugally Cast, for Water or Other Liquids*
AWWA C205	*Cement-Mortar Protective Lining and Coating for Steel Water Pipe - 4 In. and Larger - Shop Applied*
AWWA C600	*Installation of Ductile-Iron Water Mains and Their Appurtenances*
AWWA C606	*Grooved and Shouldered Joints*
AWWA M11	*Steel Pipe*

National Association of Pipe Fabricators (NAPF)

NAPF 500-03	*Surface Preparation Standard for Ductile Iron Pipe and Fittings Receiving Special External Coatings and/or Special Internal Linings*

1.03 **SUBMITTALS**

The Contractor shall submit information in accordance with Section 01300, SUBMITTALS, to substantiate compliance with this specification. In addition, the following specific information shall be submitted.

A. **Shop Drawings**

Shop drawings of special fittings and manifolds.

Alignment drawings (Contractor's layout drawings) with deviations from the plans clearly noted.

B. **Manufacturer's Data**

Manufacturer's name and catalog number.

C. **Certificates**

Certification that each length of pipe has been tested physically for ductility and has satisfactorily passed such tests.

Certifications specified in the following documents, as applicable:

AWWA C151, paragraph 51-4.2
ASTM A716, paragraph 4.2
AWWA C110, paragraph 10-4.3
AWWA C111, paragraph 11-5.1
AWWA C115, paragraph 15-4.2

D. **Specification Compliance**

A copy of this specification section, with addenda updates, and all referenced sections, with addenda updates, with each paragraph check marked to show specification compliance or marked to show deviation.

A copy of the portion of Section 01300, SUBMITTALS that applies to this submittal shall be neatly and clearly marked by a check mark or circled indicating it has been reviewed and, as a minimum, complies with each requirement outlined or marked to show any deviation.

1.04 **DEFINITIONS**

Where cast iron pipe is specified, the term and symbol shall mean ductile iron pipe.

Terms used in Section 15060, PIPING SYSTEMS and elsewhere in Division 15 are defined as follows:

1. Pressure Terms:

   a. Maximum: The greatest continuous pressure at which the piping system operates.

b. Test: The hydrostatic pressure used to determine system acceptance.

2. Piping Exposure Terms:

a. Buried: Pipe, which may be insulated, that is located below grade and in contact with backfill material; or pipe, which may be insulated, that is located below grade and is concrete encased.

b. Not Buried: Pipe that does not meet the definition of buried pipe.

PART 2 - PRODUCTS

2.01 GENERAL

Pipe design, materials and manufacture shall comply with the following documents:

Item	Document
Thickness design	AWWA C150, Class 53 minimum
Manufacturing requirements	
Water or other liquid	AWWA C151
Gravity service pipe	ASTM A716
Joints	
Rubber gasket	AWWA C111
Threaded flange	AWWA C115
Fittings	AWWA C110, C115, C606
Cement mortar lining	AWWA C104
Polyethylene encasement	AWWA C105
Epoxy coating	Section 09800, PAINTING AND SPECIAL COATING SYSTEMS

Pipe class (wall thickness) shall be the minimum specified below.

Pipe	Class
3-12 inch diameter	350
14-18 inch diameter	300
Grooved end 4-16 inch diameter	53
Grooved end 18 inch diameter	54
Grooved end 20 inch diameter	55
Grooved end 24-36 inch diameter	56
Flanged end	53

2.02 FITTINGS

Fittings shall conform to AWWA C110 (or C153), AWWA C116, and AWWA C606. For pipe types not described in the table above, the pipe shall be Class 53. Ends shall be flanged, mechanical joint or push-on to suit the conditions shown on the plans. Gray cast iron fittings may be substituted for ductile iron fittings provided they conform to the specified requirements. Long radius elbows shall be provided where specified, in Section 15060, PIPING SYSTEMS.

2.03 CONNECTIONS

A. Flange Assemblies

1. Flanges: Unless otherwise specified, flanges shall be ductile iron and shall be threaded-on flanges conforming to ANSI/AWWA A21.15/C115 or cast-on flanges conforming to ANSI/AWWA A21.10/C110. Bolt circle and bolt holes shall match those of ANSI B16.1, Class 125 flanges and ANSI B16.5, Class 150 flanges. Where specified, flanges shall be threaded-on or cast-on flanges conforming to ANSI B16.1, Class 250.

2. Flange Gaskets: Gaskets designated in Section 15060, PIPING SYSTEMS shall be as follows:

    a. EPDM: ethylene-propylene-diene-terpolymer.

    b. Neoprene: neoprene.

    c. Nitrile: nitrile (Buna N).

    d. Neoprene CI: neoprene with cloth insert.

    e. Neoprene, oil resistant: neoprene with oil-resisting characteristics.

    f. TFE: non-creeping tetrafluoroethylene (TFE) with insert filler.

g. Compressed gasketing consisting of organic fibers (Kevlar), fillers and styrene butadiene rubber (SBR) binder.

h. TFE bonded EPDM: TFE bonded to EPDM in full-face gasket having concentric-convex molded rings.

Gaskets for plain faced flanges shall be the ring or full face type conforming to AWWA C115 Appendix A. Thickness for gaskets shall be 1/8 inch. Unless otherwise specified, gaskets for raised face flanges shall match the raised face and shall be 1/16 inch thick for pipe 3-1/2 inches and less in diameter and 1/8 inch thick for pipe 4 inches and larger.

3. Bolts: Not buried flange assembly bolts shall be SAE Grade 5, ANSI B18.2.1 hexagon head carbon steel machine bolts with ANSI B18.2.2 hot pressed heavy hexagon nuts. Threads shall be ANSI Bl.1, standard coarse thread series; bolts shall be Class 2A, nuts shall be Class 2B. Bolt length shall conform to ANSI B16.5. Flange assembly bolts and nuts for submerged or buried service shall be type 316 stainless steel regardless of any other protective coating.

4. Insulating Flange Set: Insulating flange joints shall have 1/6-inch thick plastic, full length bolt sleeves, with 1/8-inch thick insulating washers and flat washer for each flange bolt.

B. **Push-On and Mechanical Joints**

1. General: The plain ends of push-on pipe and mechanical joint pipe shall be marked with paint to show the required depth of penetration for making the joint.

2. Push-On and Mechanical Joint Gaskets: Gasket stock shall be a synthetic rubber compound in which the elastomer is SBR. The compound shall contain not less than 50 percent by volume neoprene and shall be free from factice, reclaimed rubber and other deleterious substances. Gaskets shall, in addition, comply with AWWA C111.

C. **Mechanically Restrained Joints**

Specially modified push-on or mechanical joints shall be provided on all ductile iron pipe where specified in Section 15060, PIPING SYSTEMS or noted on the plans or where unbalanced forces require thrust restraint. Restrained joints shall be rated for a water working pressure of not less than 175 psi with a minimum 2:1 safety factor. Mechanically restrained joints shall be designed to allow separation of the joint after installation. Internal restraints are not acceptable.

1. Restrained Push-On Joints: Restrained push-on joints shall conform to AWWA C111. Restrained push-on joints shall be capable of deflection, after assembly, in a loaded condition.

Joint restraints shall be constructed of ductile iron and shall be U.S. Pipe TR FLEX, American (LOK-Ring, Flexring), or equal.

2. Restrained Mechanical Joints: Restrained mechanical joints shall utilize pipe and fittings having mechanical joint bells conforming to ANSI/AWWA C110/A21.10. Restraint shall be provided by either a welded-on retainer ring or lugs which impart multiple wedging action against the pipe. Restrained mechanical joints shall be Pacific States Mechanical Lock Joint, EBAA Iron Series 1100 Megalug, or approved equal. Mechanical joint with set screws shall not be used.

3. Coating: Mechanical joint restraints shall be coated with System M per Section 09800, PAINTING AND SPECIAL COATING SYSTEMS.

D. **Sleeve-Type Couplings**

Sleeve-Type Couplings shall be ductile iron construction. Standard couplings shall be Powerseal 3501, Smith-Blair 411 or equal. Flanged coupling adapters shall be Powerseal 3521, Smith-Blair or equal. Insulated couplings shall be fabricated steel, Powerseal 3539, Smith-Blair 416, or equal. Gaskets shall be as specified in Section 15060, PIPING SYSTEMS and AWWA C606.

Where restrained joints are required by Section 15060, PIPING SYSTEMS or shown on the plans. Where flexible restraint is required couplings shall be EBAA Iron Mega-Coupling Series 3800, American Joint restrained gland, or equal. The restrained coupling shall be designed for the test pressure specified in Section 15060, PIPING SYSTEMS. Buried or submerged fasteners shall be Type 316 stainless steel.

E. **Restrained Expansion Joints**

The restrained expansion joints shall consist of a single-arched inner tube, body, and outer cover, and shall have flanged ends and control rods. The cover and tube material shall be neoprene. The expansion joints shall include a molded integral flange that joins the body at a true 90 degree angle. Flanges shall be drilled to ASNI B16.5, Class 150. The expansion joint shall fit snug against the mating pipe flange without voids. The expansion joint must be suitable for the conditions, temperature, and pressures associated with the project. The control rods shall comply with the guidelines as set forth in Appendix C of the Fluid Sealing Association's Rubber Expansion Joint Division Technical Handbook (Sixth Edition). The control unit assembly shall be designed for an allowable stress of 65 percent of material yield for each rod and plate. The restrained expansion joint shall be Proco Series 230, Redflex J-1, or approved equal.

2.04 PIPE LINING

A. Epoxy Lining

Where specified, pipe (including butt ends) and fittings shall be epoxy lined with not less than 10 mils of epoxy. Surfaces shall be prepared in accordance with NAPF 500-03, and the lining applied as recommended by the manufacturer.

Epoxy lining shall be Pittsburgh Paint 97-Line DTR, or equal.

B. Ceramic Epoxy Lining

Where specified, pipe (including butt ends) and fittings shall be ceramic epoxy lined with a nominal dry film thickness of minimum 40 mils of ceramic epoxy. The material shall be an amine cured novalac epoxy containing at least 20 percent by volume of ceramic quartz pigment. Surface shall be solvent cleaned using the guideline in NAPF 500-03-01 solvent cleaning, and abrasive blasted using compressed air nozzles with sand or grit abrasive media. The lining shall be applied and tested as recommended by the manufacturer. Six inches back from the end of spigot shall be coated with 6 mil nominal, 10 mil maximum joint compound.

Ceramic epoxy lining material and joint compound shall be Induron Protecto 401, or equal.

C. Glass Lining

Where specified, pipe and fittings shall be glass lined with a vitreous material to a minimum thickness of 10 mils as measured in accordance with the SSPC "Paint Application Specification No. 2" using a magnetic-type film thickness gage such as a PosiTester by KTA-Tator, Pittsburgh, PA, or equal. Glass lining shall provide continuous coverage as tested by a Tinker and Rasor Model M1 nondestructive type holiday detector, K-D Bird Dog, or equal low voltage holiday detector. The unit shall operate at less than 75 volts. Voids shall be cause for rejection. Glass-lined pipe shall be prefabricated. Field cut pieces will only be allowed if no damage occurs to the glass lining. Ends shall be coated.

Pipe and fittings shall have all internal welds ground smooth and any voids or slag holes ground out, rewelded and ground smooth.

Ductile or cast iron pipe shall be bored, machined, or grit blasted to remove any voids, protrusions or surface irregularities to obtain a smooth continuous surface for glass lining. Pipe shall be at least Class 53 on diameters of 6 inches or greater except for pipe to be bored or machined which shall be of a suitable wall thickness to assure boring or machining will not impair minimum wall thickness required for Class 53. Four-inch pipe shall be Class 56. Fittings shall be ground or grit blasted to remove any voids, protrusions or surface irregularities.

Glass lining shall be Ferrock MEH-32, Vitco SG-14, or equal.

D. **Cement Mortar Lining**

Cement mortar lining shall be as specified in AWWA C104. Thickness of the cement mortar lining shall be as specified in Table 1 of AWWA C205.

Fittings and specials larger than 24 inches, not fabricated from centrifugally lined straight sections, shall require 2-inch by 4-inch by 13-gage self-furring wire mesh reinforcement for hand-applied lining.

2.05 PIPE COATINGS

A. **Epoxy Coating**

Where specified in Section 09800, PAINTING AND SPECIAL COATING SYSTEMS provide epoxy coating of pipes.

Refer to Section 09800, PAINTING AND SPECIAL COATING SYSTEMS for installation of epoxy coatings.

B. **Polyethylene Encasement**

All buried pipe and fittings shall be wrapped with polyethylene film in tube form as specified in AWWA C105. Minimum thickness of the polyethylene film shall be 8 mil.

C. **Fusion Epoxy Coating for fittings**

1. Unless specified otherwise, all fittings shall be fusion epoxy coated in accordance with AWWA C116.

2. Field welds, connections and otherwise damaged areas shall be coated and patched according to the manufacturer's instructions with 3M Scotchkote 312.

3. Fusion epoxy coating shall be 3M Scotchkote 206N, or equal.

D. **Above Ground Ductile Iron Pipe**

Above grade pipe shall not have an asphaltic coating. Above grade pipe shall be factory primed with a printer suitable for later top coat on site. Manufacturer of primer coat shall be Induron PE-54 Epoxy Primer or equal. Surface preparation and application shall conform to supplier's recommendation.

2.06 COATINGS FOR COUPLINGS

Couplings for all installations shall be fusion bonded epoxy per AWWA C116.

PART 3 - EXECUTION

3.01 PIPE INSTALLATION

A. General

Piping runs shown on the plans shall be followed as closely as possible. Proposed deviations shall be submitted in accordance with Section 01300, SUBMITTALS.

Pipe shall be installed in accordance with AWWA C600.

Support and anchorage shall be provided as shown on the plans and specified in Section 15140, PIPING SUPPORTS.

3.02 FITTING INSTALLATION

Fittings shall be installed in accordance with the manufacturer's recommendations.

3.03 LINING INSTALLATION

All linings shall be installed and patched in accordance with the manufacturer's instructions.

3.04 COATING INSTALLATION

A. Couplings

Unless otherwise specified, couplings for buried installation shall be coated and patched as specified in Section 09800, PAINTING AND SPECIAL COATING SYSTEMS and coating manufacturer's instructions.

B. Epoxy Coating

Epoxy coatings shall be installed in accordance with Section 09800, PAINTING AND SPECIAL COATING SYSTEMS and the coating manufacturer's instructions.

C. **Polyethylene Encasement**

Polyethylene encasement shall be provided where specified in Section 15060, PIPING SYSTEMS. Installation of polyethylene shall be as specified in AWWA C105, ANSI A21.5, Section 5-4.2.1 and these specifications. Pipe, fittings, valves and couplings shall be wrapped. Fittings that require concrete backing shall be wrapped prior to placing the concrete.

The polyethylene tube seams and overlaps shall be wrapped and held in place by means of a 2-inch wide plastic backed adhesive tape. The tape shall be Polyken No. 900 (polyethylene), Scotchwrap No. 50 (polyvinyl), or equal. The tape shall be such that the adhesive shall bond securely to both metal surfaces and polyethylene film.

3.05 ACCEPTANCE TESTING

Pipelines shall be tested in accordance with Paragraph 15060-3.03B. The Contractor shall conduct the tests in the presence of the City.

END OF SECTION

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