Redwood Community Action Agency

2020 Martin Slough Habitat Enhancement Project

Construction Documents

May 2020

GHD Project #: 11145257

Prepared for: Redwood Community Action Agency
904 G Street
Eureka, California

Prepared by: Steven Allen, P.E.
GHD Inc.
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2020 Martin Slough Habitat Enhancement Project
Construction Documents
GHD Project #: 11145257
ADVERTISEMENT FOR BIDS
2020 Martin Slough Habitat Enhancement Project

Redwood Community Action Agency
Owner

904 G Street
Eureka, California 95501
Address

A conditional or qualified bid will not be accepted if it modifies the Plans or Specifications or method of work. A non-mandatory pre-bid site meeting will not be held, but contractors can conduct their own site visit on May 26, 2020 from 9 AM to 3PM at Eureka Municipal Golf Course, 4750 Fairway Drive, Eureka, CA 95503. See map and detailed instructions in Information for Bidders.

The work consists of the furnishing of all labor, equipment, and supervision for restoration of the 2020 Phase of the Martin Slough Habitat Enhancement Project. The work generally includes excavation, sediment hauling, native backfill, installation of golf cart bridges, and placement of a salinity barrier and large wood habitat structures.

RCAA will accept electronically submitted bids for its Martin Slough Habitat Enhancement Project ("Project"), by or before June 16th, at 4:00 p.m. Pacific Daylight Time, via email in the manner set forth in the Information to Bidders, at which time the bids will be opened and the results will be posted on RCAA’s website at: http://www.naturalresourceservices.org/projects

The plans, specifications, bid forms and contract documents for the Project, and any addenda thereto ("Contract Documents") may be downloaded from RCAA’s website located at: http://www.naturalresourceservices.org/projects or by contacting dagan.short@ghd.com. A printed copy of the Contract Documents are not available. Contact dagan.short@ghd.com for additional options to obtain electronic copies.

Each proposal must be submitted on the prescribed form and accompanied by a certified check or Bid Bond in an amount of not less than 10 percent of the amount bid. Successful bidders will be required to furnish both a Payment Bond and Performance Bond in the full amount of the Contract Price.

In accordance with Public Contract Code Section 10263 and with concurrence of the project funding agencies, the Contractor may be allowed to substitute securities for monies normally withheld by the owner to insure performance under this contract.

This is a Public Works Project funded with Federal and CA State funds.

In accordance with the provisions of section 1720 et seq. of the Labor Code, the Division of Labor Standards and Research has determined the general prevailing rates or wages and employer payments for health and welfare, pension, vacation, travel time, and subsistence pay as provided for in section 1773.8. These wages are set forth in the General Prevailing Wage Rates for this project, and are available for review at the office of GHD Inc., 718 Third Street, Eureka, California and available from the California Department of Industrial Relations’ Internet web site at http://www.dir.ca.gov/DLSR/PWD. Contractor will be required to comply with any changes in these wage rates as they are updated by the State government during the course of the job at no cost to the Owner.

It shall be mandatory upon the Contractor herein and upon any Subcontractor to pay not less than the said specified rates to all laborers, workers and mechanics employed by them in the execution of the Agreement pursuant to CA Labor Code 1774.
Attention is directed to the provisions in section 1777.5 and sections 1777.6 of the Labor Code concerning the requirement to employ apprentices by the Contractor or any Subcontractor under it.

The Contractor shall comply with and shall cause his subcontractors to comply with all laws and regulations governing the contractor’s and subcontractor’s performance on this project including, but not limited to: anti-discrimination laws, workers’ compensation laws, and prevailing wage laws as set forth in CA Labor Code, Sections 1720-1861 et seq. and licensing laws, as well as Federal Labor Standards set forth in the Davis-Bacon Act (40 USC 276(a-a5), the Copeland “Anti-Kickback” Act (40 USC 276©; and the Contract Work Hours and Safety Standards Act (CWHSSA) (40 USC 327-333). The contractor is required to include the prevailing wage language in all subcontracts pursuant to CA Labor Code 1775(E)(b)(1). The Contractor shall post, at appropriate conspicuous points on the site of the Project, a schedule showing all the determined general prevailing wage rates.

The Contractor agrees to comply with Labor Code Section 1775 (Payment of the Prevailing Wage Rates) and Labor Code 1776 (keeping accurate records) and Labor Code 1777.5, placing responsibility for compliance with the statutory requirements for all apprenticeable occupations on the prime contractor. The Contractor shall comply with the requirements imposed by the California Labor Code Sections 1720 through 1861 regarding public works projects and prevailing wage laws and sections 16000-16800 of the CA Code of Regulations.

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

Holiday and overtime work when permitted by law shall be paid for at a rate of at least one and one-half times the above specified rate of per diem wages, unless otherwise specified.

Contractors and any Subcontractors shall be assessed penalties for violating the following labor codes; CA Labor Code 1813 for overtime, 1775 for underpayment of the prevailing wage, and 1776 for inaccurate or incomplete payroll records.

The Contractor shall be responsible for submitting certified payroll records in accordance with Labor Code 1776 and submit copies to Redwood Community Action Agency (RCAA).

No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) 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 (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

The federal wage determination for this Project is CA 20200004.

By: Val Martinez, Executive Director RCAA

Dated: May 15, 2020
PART 1: BIDDING REQUIREMENTS
INFORMATION FOR BIDDERS

Each Bid Proposal must be signed and submitted to GHD, using the form provided in the Contract Documents, by or before the date and time set forth in the Notice Inviting Bids, or as amended by subsequent addendum, via email to dagan.short@ghd.com. The Bid Proposal and all required forms and attachments must be included in the email as PDF scanned attachments. The subject line of the email must include the Project title and bidder’s registration number with the California Department of Industrial Relations (“DIR”) for bidding on public works contracts (Labor Code §§ 1725.5 and 1771.1), as follows:

“Bid Proposal for Martin Slough Habitat Enhancement Project 2020; DIR Reg. No. [insert DIR registration number]”

RCAA will provide an electronic read receipt to each bidder showing the date and time the submission was received. Late submissions will not be considered. RCAA reserves the right to postpone the date or time for receiving or opening bids.

A non-mandatory pre-bid site meeting will not be held, but contractors can conduct their own site visit on May 26th, 2020 between 9 AM to 3 PM at Eureka Municipal Golf Course, 4750 Fairway Drive, Eureka, CA 95503 Eureka, CA (see map below). Contractors must call golf course superintendent, Don Roller, at least 48 hours in advance to schedule a site visit at 707-834-0204. In accordance with Humboldt County Health guidelines, the non-mandatory site visit will follow social distancing guidelines.

All bids must be made on the required bid form. All blank spaces for bid prices must be filled in, in ink or typewritten, and the bid form must be fully completed and executed when submitted. Only one copy of the bid form is required.
Awards will be made to the lowest, responsive, responsible BIDDER in accordance to the requirements on the bid form. One of the requirements for being deemed responsive and responsible is that the bidder must meet all of the minimum qualification requirements set forth in the Bidder’s Qualification Summary.

The Redwood Community Action Agency (RCAA) (herein called the "Owner"), may waive any informalities or minor defects or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered.

No bidder may withdraw a bid within 60 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period; the time may be extended by mutual agreement between the Owner and the bidder.

Bid Protest. Any bid protest must be in writing and received by the Owner at GHD Inc., 718 Third Street, Eureka, California 95501 before 5:00 p.m. no later than two (2) working days following bid opening (the “Bid Protest Deadline”) and must comply with the following requirements below.

Only a bidder who has actually submitted a Bid Proposal is eligible to submit a bid protest against another bidder. Subcontractors are not eligible to submit bid protests. A bidder may not rely on the bid protest submitted by another bidder, but must timely pursue its own protest.

The bid protest must contain a complete statement of the basis for the protest and all supporting documentation. Material submitted after the Bid Protest Deadline will not be considered. The protest must refer to the specific portion or portions of the Contract Documents upon which the protest is based. The protest must include the name, address and telephone number of the person representing the protesting bidder if different from the protesting bidder.

A copy of the protest and all supporting documents must also be transmitted by fax or by e-mail, by or before the Bid Protest Deadline, to the protested bidder and any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest.

The protested bidder may submit a written response to the protest, provided the response is received by Owner before 5:00 p.m., within two (2) working days after the Bid Protest Deadline or after receipt of the bid protest, whichever is sooner (the “Response Deadline”). The response must include all supporting documentation. Material submitted after the Response Deadline will not be considered. The response must include the name, address and telephone number of the person representing the protested bidder if different from the protested bidder.

A copy of the response and all supporting documents must also be transmitted by fax or by e-mail, by or before the Bid Protest Deadline, to the protested bidder and any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest.

The procedure and time limits set forth in this section are mandatory and are the bidder’s sole and exclusive remedy in the event of bid protest. The bidder’s failure to comply with these procedures shall constitute a waiver of any right to further pursue a bid protest, including filing a Government Code Claim or initiation of legal proceedings.

Bidders must satisfy themselves of the accuracy of the estimated quantities in the bid schedule by examination of the site and a review of the Plans and Specifications including addenda. After bids have been submitted, the bidder shall not assert that there was a misunderstanding concerning the quantities of work or of the nature of the work to be done.

Each bid must be accompanied by a bid bond payable to the Owner, for ten percent of the total amount of the bid. As soon as the bid prices have been compared, the Owner will return the bonds of all except the three lowest responsible bidders. When the Agreement is executed, the bonds of the two remaining unsuccessful bidders will be returned. The bid bond of the successful bidder(s) will be retained until the
payment bond and performance bond have been executed and approved, after which it will be returned. A certified check may be used in lieu of a bid bond.

A performance bond and a payment bond, each in the amount of 100 percent of the contract price, with a corporate surety approved by the Owner and in favor of the RCAA, SCC, CDFW, and CNRA EEMP will be required for the faithful performance of the contract.

Attorneys-in-fact who sign bid bonds or payment bonds and performance bonds must file with each bond a certified and effective dated copy of their power of attorney.

The party to whom the contract is awarded will be required to execute the Agreement and obtain the performance bond and payment bond within **fourteen (7) calendar days** from the date when Notice of Award is delivered to the bidder. The Notice of Award shall be accompanied by the necessary Agreement and bond forms. In case of failure of the bidder to execute the Agreement, the Owner may at his option consider the bidder in default, in which case the bid bond accompanying the proposal shall become the property of the Owner.

The Owner, within thirty (30) calendar days of receipt of an acceptable performance bond, payment bond and Agreement signed by the party to whom the Agreement was awarded shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the Owner not execute the Agreement within such period, the bidder may submit a written notice to withdraw his signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the Owner.

The Notice to Proceed shall be issued within thirty (30) days of the execution of the Agreement by the Owner. Should there be reasons why the Notice to Proceed cannot be issued within such period, the time may be extended by mutual agreement between the Owner and Contractor.

In essence, the owner will strive to expedite all review processes that it is responsible for, as set forth above in an attempt to issue the Notice to Proceed by **July 10, 2020** or as soon thereafter as reasonable.

If the Notice to Proceed has not been issued within the thirty (30) day period or within the period mutually agreed upon, the Contractor may terminate the Agreement without further liability on the part of either party.

**Working days shall be Monday through Friday, 7AM to 7PM Pacific Standard Time. Work on Saturday and Holidays shall be limited to 9AM to 6PM Pacific Standard Time.**

The Owner may make such investigations as deemed necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the Agreement and to complete the work contemplated therein. As a minimum, the bidder must meet all the requirements set forth in the Bidder’s Qualification Summary.

A conditional or qualified bid will not be accepted if it modifies the Plans or Specifications or method of work.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout. The Bidder is cautioned to familiarize himself/herself with all applicable permits associated with this project.

Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates in the county, or counties, in which the work is to be done have been determined by the Director of the Department of Industrial Relations, State of California. These wages are set forth in the General Prevailing Wage Rates for this project, and are available for review at the California Department of Industrial Relations’ Internet web site
at http://www.dir.ca.gov/DLSR/PWD. Contractor will be required to comply with any changes in these wage rates as they are updated by the State government at no cost to the Owner.

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

The Contract Documents under which it is proposed to execute the work consist of the Plans, Specifications, Pollution Prevention and Monitoring Plan (PPMP), and all material bound herewith. These Contract Documents are intended to be mutually cooperative and to provide all details reasonably required for the execution of the proposed work. Any person contemplating the submission of a proposal shall have thoroughly examined all of the various parts of these Documents, and should there be any doubt as to the meaning or intent of said Contract Documents, the Bidder should request of the Engineer, in writing at least six working days prior to bid opening, an interpretation thereof. Any interpretation or change in said Contract Documents will be made only in writing, in the form of addenda to the Documents and will be furnished to all Bidders receiving a set of the Documents, who shall submit, or indicate receipt of all addenda with their proposals. The Owner will not be responsible for any other explanation or interpretations of said Documents.

Questions regarding the Plans and Specifications shall be submitted via email to dagan.short@ghd.com and received by 5 PM Friday, May 29th, 2020. Replies to such inquiries will be in the form of addendum or clarification that will be emailed to all plan holders. Requests for clarification regarding various portions of the Plans may also be directed to:

Dagan Short at GHD Inc., telephone (707) 443-8326, dagan.short@GHD.com

Hard copies of contract plans and specifications will not be available.

The Contract Documents are assembled, arranged, and titled generally in conformance with the 16-division format suggested by the Construction Specifications Institute (CSI). Minor variations to the CSI format may be used herein to suit Owner requirements or to better adapt the Documents to particular types of projects.

Portions of these Contract Documents may contain standard preprinted material. The Bidder’s attention is called to the Conditions of the contract which may modify and add to the preprinted material contained herein.

Sentences in the Contract Documents which are phrased in mandatory language, but which include no explicit reference to the party who has responsibility for performing the mandated duty, shall be interpreted as imposing responsibility for performance of the duty described on the Contractor. For example, a directive that “the site shall be kept clean” would impose the duty of keeping the site clean on the Contractor.

Where the Proposal for the work is to be submitted on a unit price basis, unit prices will be accepted on all items of work set forth in the Proposal, except those designated to be paid for as a lump sum. The estimate of quantities of work to be done is tabulated in the Proposal and, although stated with as much accuracy as possible, is approximate only and is assumed solely for the basis of calculation upon which the award of Contract shall be made. Payment to the Contractor will be made on the measurement of the work actually performed by the Contractor as specified on the Contract Documents. The Owner reserves the right to increase or diminish the amount of any class of work as may be deemed necessary.
When the Proposal for the work is to be submitted on a lump sum basis, a single lump sum price shall be submitted in the appropriate place. The total amount to be paid the Contractor shall be the amount of the lump sum in the Proposal, as adjusted for additions or deletions resulting from changes in construction. After award of Contract, the Contractor will be required to break down the lump sum Proposal into unit prices for the various portions to be completed. This breakdown of unit prices shall be submitted to the owner prior to submittal of any payment request.

All blank spaces in the Proposal form must be filled in, in ink, in both words and figures where required. No changes shall be made in the phraseology of the forms. Written amounts shall govern in cases of discrepancy between the amounts stated in writing and the amounts stated in figures. In case of discrepancy between unit prices and totals, unit prices will prevail.

Any Proposal shall be deemed informal which contains omissions, erasures, alterations, or additions of any kind, or prices uncalled for, or in which any of the prices are obviously unbalanced, or which in any manner shall fail to conform to the conditions of the published Advertisement for Bid.

The Bidder shall sign his Proposal in the blank space provided therefore. If Bidder is a corporation, the legal name of the corporation shall be set forth above, together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If Bidder is a co-partnership, the true name of the firm shall be set forth above, together with the signature of the partner or partners authorized to sign contracts in behalf of the co-partnership. If signature is by an agent, other than an officer of a corporation or a member of a partnership, a Power of Attorney must be on file with the Owner prior to opening of Proposals or submitted with the Proposal, otherwise the Proposal will be regarded as not properly authorized.

State and local sales and use taxes, as required by the laws and statutes of the State and its political subdivisions, shall be paid by the Contractor. Prices quoted in the Proposal shall include sales tax unless provision is made in the Proposal form to separately itemize the tax.

Any Bidder may modify his bid by electronic or written communication at any time prior to the scheduled closing time for receipt of bids, provided such communication is received by the Owner prior to the closing time. The Bidder is responsible for verifying prior to the bid opening that such modification was received by the Owner. The electronic or written communication should not reveal the bid price but should state the addition or subtraction or other modification so that the final prices or terms will not be known by the Owner until the sealed bid is opened.

Each Bidder must inform himself of the conditions relating to the execution of the work, and it is assumed that he will inspect the site, subsurface conditions, weather, variations of soil moisture and workability with rainfall, and make himself thoroughly familiar with all the Contract Documents. The bidder should check with local contractors regarding local site, surface, subsurface and material conditions and variability. Failure to do so will not relieve the successful Bidder of his obligation to enter into a contract and complete the contemplated work in strict accordance with the Contract Documents. The Bidder's attention is called to the General Conditions and Supplementary Conditions of the Contract Documents in regards to the Bidder's obligation to verify for himself and to his complete satisfaction all information concerning site and subsurface conditions, and Notice requirements.

Each Bidder shall inform himself of, and the Bidder awarded a contract shall comply with, State and local laws, statutes, and ordinances relative to the execution of the work. This requirement includes, but is not limited to, applicable regulations concerning employment of labor, protection of public and employee safety and health, environmental protection, the protection of natural resources, fire protection, burning and non-burning requirements, permits, fees, and similar subjects.

**DIR Registration.** No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) or be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) 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)]. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

This project is funded through the following sources:

1. CA Department of Fish and Wildlife (CDFW – Prop 1)
2. State Coastal Conservancy (SCC – Prop 1)
3. CA Natural Resources Agency Environmental Enhancement and Mitigation Program (EEMP)

The Contractor shall comply with all requirements associated with these funding programs.
BIDDERS' CHECKLIST

This checklist has been prepared and furnished to aid bidders in including all necessary supporting information with their bid. Bidders’ submittals should include, but are not limited to the following:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PAGE</th>
<th>CHECKED</th>
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</thead>
<tbody>
<tr>
<td>1. Proposal (Bid &amp; Bid Schedule)</td>
<td></td>
<td>B-8</td>
</tr>
<tr>
<td>2. Bidder’s Questionnaire</td>
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<td>B-9</td>
</tr>
<tr>
<td>3. Bid Summary &amp; Acknowledgement of Addenda</td>
<td></td>
<td>B-11</td>
</tr>
<tr>
<td>4. Authority to Sign Bid Proposal (if applicable)</td>
<td></td>
<td>(Attach to Bid Bond)</td>
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<tr>
<td>5. List of Subcontractors (Subcontractor Details)</td>
<td></td>
<td>B-13</td>
</tr>
<tr>
<td>6. Bid Bond</td>
<td></td>
<td>B-14</td>
</tr>
<tr>
<td>7. Equal Employment Opportunity Certification</td>
<td></td>
<td>B-16</td>
</tr>
<tr>
<td>8. Non Collusion Affidavit</td>
<td></td>
<td>B-17</td>
</tr>
<tr>
<td>9. Power of Attorney (Attach to Bid Bond)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Debarment and Suspension Certification</td>
<td></td>
<td>D-12</td>
</tr>
</tbody>
</table>
BID

Proposal of ____________________________________________________________

(hereinafter called "Bidder"). organized and existing under the laws of the State of ____________________________, doing business as ________________________________.

To the Redwood Community Action Agency (hereinafter called "Owner").

In compliance with your Advertisement for Bids, Bidder hereby proposes to perform all work for the construction of the

2020 Martin Slough Habitat Enhancement Project

in strict accordance with the Contract Documents, within the time set forth therein, and at the prices stated below.

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 corrected 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 amounts quoted, the individual items amounts shall govern and the corrected total shall be deemed to be the amount bid.

By submission of this bid, each bidder certifies, and in the case of a joint bid, each party certifies as to his own organization, that his bid has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this bid with any other bidder or with any competitor.

Bidder hereby agrees to commence work under this Contract on or before a date to be specified in the Notice to Proceed and to fully complete the project and pay the liquidated damages as provided in Articles III and IV of the General Conditions.

Bidder agrees to perform all the work described in the Contract Documents for the following unit prices or lump sum.

NOTE: Bids shall include sales tax and all other applicable taxes and fees.
BIDDER’S QUESTIONNAIRE

2020 Martin Slough Habitat Enhancement Project

Submission of a completed Bidder’s Questionnaire with the sealed bid is required for the above-referenced project (“Project”). Owner may use the completed Questionnaire to evaluate the Bidder’s qualifications for this Project. The Questionnaire must be filled out completely, accurately, and legibly. Any errors, omissions, or misrepresentations in completion of the Questionnaire may be grounds for rejection of the bid or termination of a Contract awarded pursuant to the bid.

Part 1: General Information

Contractor Name: ___________________________________ (“Contractor”)

Check One: _____ Corporation
            _____ Partnership
            _____ Sole Proprietorship
            _____ Joint Venture of: ________________________
            _____ Other: ________________________________

Address: ____________________________________________

Phone: _______________________________________________

Fax: __________________________________________________

Owner of Company: _____________________________________

Contact Person: _________________________________________

Contractor’s License Number(s): ___________________________

Part 2: Contractor Experience

1. How many years has Contractor been in business under its present business name?
   ____________________________________________________

2. Has Contractor completed projects similar in type and size to this Project as a general contractor?
   ____________________________________________________

3. Has Contractor ever been disqualified on grounds that it is not responsible? If yes, provide additional information on a separate sheet of paper regarding the disqualification, including the name and address of the agency or owner of the subject project, the type and size of the project, the reasons that Contractor was disqualified as not responsible, and the month and year in which the disqualification occurred. Circle one: YES  NO

4. Has Contractor ever been terminated from a construction project, either as a general contractor or as a subcontractor? If yes, provide additional information on a separate sheet of paper regarding the termination, including the name and address of the agency or owner of the subject project, the type and size of the project, whether Contractor was under contract as a general contractor or a subcontractor, the
reasons that Contractor was terminated, and the month and year in which the termination occurred. Circle one: YES NO

5. Provide information about Contractor’s past projects performed as general contractor as follows:

5.1 Six (6) most recently completed public works projects within the last three (3) years;

5.2 Three (3) largest completed projects within the last three (3) years; and

5.3 Any project which is similar to this Project.

6. Use separate sheets of paper provide all of the following information for each project identified in response to the above three categories:

6.1 Project Name
6.2 Location
6.3 Owner
6.4 Owner Contact (name and current phone number)
6.5 Architect or Engineer Name
6.6 Architect or Engineer Contact (name and current phone number)
6.7 Construction Manager (name and current phone number)
6.8 Description of Project, Scope of Work Performed
6.9 Initial Contract Value (at time of bid award)
6.10 Final Cost of Construction (including change orders)
6.11 Original Scheduled Completion Date
6.12 Time Extensions Granted (number of days)
6.13 Actual Date of Completion
6.14 Number and amount of Stop Notices or Mechanic’s Liens filed
6.15 Amount of liquidated damages assessed against Contractor
6.16 Nature and resolution of any claim, lawsuit, and/or arbitration between Contractor and the Owner

Part 3: Verification

In signing this document, I, the undersigned, declare that I am duly authorized to sign and submit this Bidder’s Questionnaire on behalf of the named Contractor, and that all responses and information set forth in this Bidder's Questionnaire and accompanying attachments are, to the best of my knowledge, true, accurate and complete as of the date of submission. I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Signature: ____________________ Date: ____________________

By [name, title]: ______________________________________________________________

For [name of Contractor]: _____________________________________________________
## Bid Schedule A

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Base Bid: Item Description</th>
<th>QTY.</th>
<th>UNIT</th>
<th>Unit Price Bid</th>
<th>Total Bid for Line Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mobilization/Demobilization</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Water Management, Dust/Erosion Control and Environmental Protection</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sediment Excavation, Grading, and Remaining Items</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Sediment Offhaul and Disposal at White Slough</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Bridges</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Large Wood Structures</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Base Bid Schedule A (Add Items 1 through 6)

## Bid Schedule B

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Bid Alternate B: Item Description</th>
<th>QTY.</th>
<th>UNIT</th>
<th>Unit Price Bid</th>
<th>Total Bid for Line Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sediment Offhaul and Disposal</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Bid Alternate Schedule B (Add Items 1 through 1)

## Bid Schedule C

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Additive Bid Alternate C: Item Description</th>
<th>QTY.</th>
<th>UNIT</th>
<th>Unit Price Bid</th>
<th>Total Bid for Line Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mobilization/Demobilization</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Water Management, Dust/Erosion Control and Environmental Protection</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sediment Excavation, Grading, and Remaining Items</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Sediment Offhaul and Disposal</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Bridges</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
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<tr>
<td>6</td>
<td>Large Wood Structures</td>
<td>1</td>
<td>LS</td>
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</table>

Total Additive Bid Schedule C (Add Items 1 through 6)

Awards will be made to the lowest, responsive, responsible, BIDDER. The low bidder shall be determined based on the sum of all three Bid Schedules. Depending on the bids and the availability of funds, the Owner may award some or all of the Additive Bid Items, or the Owner may choose not to award any or all items.
Additional bid items may be added prior to award or as a change order during the project and the bid amounts shown here shall be the agreed upon contract amount for the work.

It is further understood and agreed that the RCAA reserves the right to eliminate any section of this proposal from the Contract without claim of the Contractor for profits lost.

Submitted By (Company) _______________________________ Date____________________
Name (Written)_______________________________ Signature__________________________
Receipt of the following Addenda is acknowledged:

____________________________________________________________________________

The representations made herein are made under penalty of perjury.

Respectfully submitted:

Signature _______________________________ Title _______________________________
License Number _______________________________ Date ______________________________
License Expiration Date _______________________________
SUBCONTRACTOR DETAILS

The bidder certifies that:

A. ___ I do not intend to subcontract any work on this project.
B. ___ I do intend to subcontract portions of the work on this project.

NOTE: The bidder shall check box A or box B. If the bidder does not check a box, it will be deemed that he has checked box A.

If awarded the Contract, the bidder proposes to employ the following subcontractors who will perform work or labor or render service to the bidder in or about the work in an amount in excess of one-half of one percent (0.5%) of the total amount of Bidder's proposal. Listing of sub-contractors is mandatory under Sections 4100-4108 of the California Government Code. If no subcontract work is proposed, except within the one-half of one percent (0.5%) limit set forth, the Bidder shall so state.

<table>
<thead>
<tr>
<th>NAME &amp; ADDRESS OF SUBCONTRACTOR</th>
<th>DESCRIPTION OF WORK TO BE SUBCONTRACTED</th>
<th>SUBCONTRACTOR'S CALIF. LIC. NO./DIR NO.</th>
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<tr>
<td>If Contractor is using subcontracts to meet Bidder's Qualifications, provide written explanation here:</td>
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</tbody>
</table>
BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,

________________________________________________________as Principal, and

________________________________________________________, as Surety, are hereby held and firmly bound unto

Redwood Community Action Agency as Owner, in the penal sum of ___________________________for
the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed this ____ day of ______________, 2020.

The Condition of the above obligation is such that whereas the Principal has submitted to Redwood
Community Action Agency a certain bid, attached hereto and hereby made a part hereof to enter into a
contract in writing, for the:

2020 Martin Slough Habitat Enhancement Project

NOW, THEREFORE,

(a) If said bid shall be rejected, or

(b) If said bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said Bid), and shall furnish a bond for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said bid,

then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.
The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

SEAL:

________________________________________
Principal
By:______________________________________
Title:____________________________________

_____________________________________
Surety
By:______________________________________
Title:____________________________________

IMPORTANT - Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

NOTE: Bidder shall provide current "Power of Attorney" for Attorney-in-fact who signs Bid Bond.
EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

The bidder ____________________________________________________, proposed subcontractor ____________________________________________, hereby certifies that he has______, has not___, participated in a previous contract or subcontract subject to the equal opportunity clauses, as required by Executive Orders 10925, 11114, or 11246, and that, where required, he has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President’s Committee on Equal Employment Opportunity, all reports due under the applicable filling requirements.

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts, which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of $10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.
NONCOLLUSION AFFIDAVIT
(to be executed by bidder and submitted with bid)

The undersigned declares:

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

Dated: ________________(date) By: ________________

Title: ________________
DRUG FREE WORKPLACE

By submitting a bid, the Bidder asserts that they are in compliance with California’s Drug Free Workplace Act of 1990 and that they will provide a drug-free workplace by doing all of the following:

- Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited in the person’s or organization’s workplace and specifying the actions that will be taken against employees for violations of the prohibition.

Establishing a drug-free awareness program to inform employees about all of the following:
The dangers of drug abuse in the workplace.

- The person’s or organization’s policy of maintaining a drug-free workplace.
- Any available drug counseling, rehabilitation and employee assistance programs.
- The penalties that may be imposed upon employees for drug abuse violations.
- Requiring that each employee engaged in the performance of the contract or grant be given a copy of the statement required by subdivision (a) of the act and that, as a condition of employment on the contract or grant, the employee agrees to abide by the terms of the statement.
PART 2: CONTRACT FORMS
CONTRACT AGREEMENT

THIS AGREEMENT, MADE THIS ___________ day of __________, 2020, by and between Redwood Community Action Agency (RCAA), hereinafter called "Owner," and _______________, doing business as (an individual), or (a partnership), or (a corporation), hereinafter called "Contractor."

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The Contractor will commence and complete the construction of project as defined in the Contract Documents.

2. The Contractor will furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the project described herein.

3. The Contractor will commence the work required by the Contract Documents within 5 calendar days after the date of the Notice to Proceed and will complete the same within the time provided in Section B-35 of the General Conditions, unless the period for completion is extended otherwise by the Contract Documents.

4. The Contractor agrees to perform all of the work described in the Contract Documents and comply with terms therein for the sum shown in the Bid Schedule and as amended by approved change order.

5. The Contract Documents consist of the Bidding Requirements, Contract Forms, Conditions of the Contract, the Specifications, and the Plans, including all modifications thereof incorporated into the documents before their execution, and including all other requirements incorporated by specific reference thereto. These form the Contract.

6. The Owner will pay to the Contractor in the manner and at such times as set forth in the General Conditions such amounts as required by the Contract Documents.

7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

8. The general prevailing rates of per diem wages shall be paid by the Contractor.

9. DIR Registration. No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) or be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) 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)]. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

10. In response to Labor Code section 1773.3, the PWC-100 form has been completed by the awarding agency and provided to the Department of Industrial Relations within five days of the award. This form allows contractors and subcontractors to upload electronic certified payroll records to the Labor Commissioner (required for all projects awarded on or after April 1, 2015).
IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in quadruplicate, each of which shall be deemed an original on the date first above written.

ATTEST:

(seal)

__________________________
Notary Public

Redwood Community Action Agency
Owner

By __________________________
Val Martinez, Executive Director
As authorized by RCAA

__________________________
Contractor (Seal)

By __________________________

License No.:________________________
Expiration:________________________
DIR No.:________________________
PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That

__________________________________________________________
(Name of Contractor)

__________________________________________________________
(Address of Contractor)

a ________________________________, hereinafter called Principal, and
(Corporation, Partnership, or Individual)

__________________________________________________________
(Name of Surety)

__________________________________________________________
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

Redwood Community Action Agency

904 G Street Eureka, CA 95501

(Address of Owner)

hereinafter called Owner, in the penal sum of

__________________________________________________________ Dollars, in lawful money of the United States, for

the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly

and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain

contract with the Owner, dated ______ day of __________________, 2020, a copy of which is hereto

attached and made a part hereof for the installation of:

___________________________________________________________________________________________

NOW, THEREFORE, If the Principal shall well, truly and faithfully perform its duties, all the undertaking,
covenants, terms, conditions, and agreements of said contract during the original term thereof, and any
extensions thereof which may be granted by the Owner, with or without notice to the Surety and during
one year (minimum) guaranty period, and if he shall satisfy all claims and demands incurred under such
contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may
suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense
which the Owner may incur in making good any default, then this obligation shall be void; otherwise to
remain in full force and effect.

PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no
change, extension of time, alteration or addition to the terms of the Contract or to the work to be
performed thereunder of the Specifications accompanying the same shall in any wise affect its obligation
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.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in 4 counterparts, each one of which shall be deemed an original, this _____ day of __________________, 2020.

ATTEST: ____________________________________________

______________________________ (Principal)

______________________________ (Principal) Secretary

(SEAL)

By______________________________

______________________________ (Address)

Witness as to Principal

______________________________ (Address)

ATTEST: ____________________________________________

______________________________ (Surety)

By______________________________

______________________________ Attorney-in-Fact

______________________________ (Address)

Witness as to Surety

______________________________

______________________________ (Address)

Witness as to Surety

______________________________

______________________________ (Address)

ATTEST: ____________________________________________

______________________________ (Surety)

By______________________________

______________________________ Attorney-in-Fact

______________________________ (Address)

Witness as to Surety

______________________________

______________________________ (Address)

Witness as to Surety

______________________________

______________________________ (Address)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute Bond.

IMPORTANT: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.
PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that

________________________________________________________________
(Name of Contractor)
________________________________________________________________
(Address of Contractor)

a _________________________________________________, hereinafter
(Corporation, Partnership, or Individual)
called Principal, and _______________________________________________
(Name of Surety)
________________________________________________________________
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto:

The Redwood Community Action Agency

________________________________________________________________
(Address of Owner)

hereinafter called Owner, in the penal sum of ________________________________

________________________________________ Dollars ($________________) in lawful money of the
United States, for the payment of which sum well and truly to be made, we bind ourselves, successors,
and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain
contract with the Owner, dated _____ day of _____________, 2020, a copy of which is hereto attached
and made a part hereof for the construction of:

2020 Martin Slough Habitat Enhancement Project

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, subcontractors,
and corporations furnishing materials for or performing labor in the prosecution of the work provided for in
such contract, and any authorized extension or modification thereof, including all amounts due for
materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed
or used in connection with the construction of such work, and all insurance premiums of said work, and
for all wages and fringe benefits of labor, performed in such work, whether by subcontractor or otherwise,
then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety for value received hereby stipulated and agrees that no
change, extension of time, alteration or addition to the terms of the contract or to the work to be
performed thereunder or the specifications accompanying the same shall in any wise affect its obligation
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.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the
right of any beneficiary hereunder, whose claim may be unsatisfied.
IN WITNESS WHEREOF, this instrument is executed in 4 counterparts, each one of which shall be deemed an original, this ______ day of ________________, 2020.

ATTEST:

__________________________________________  Principal

(Principal) Secretary  By________________________________________

__________________________________________  Address

Witness as to Principal

__________________________________________  Address

ATTEST:

__________________________________________  Surety

By________________________________________

Witness as to Surety  Attorney-in-Fact

__________________________________________  Address

ADDRESS

__________________________

Witness as to Principal

__________________________

Witness as to Surety

__________________________

NOTE: Date of bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute bond.

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.
NOTICE OF AWARD

TO: ____________________
    ____________________
    ____________________

PROJECT Description:

2020 Martin Slough Habitat Enhancement Project

The OWNER has considered the BID submitted by you for the above described WORK in response to its Advertisement for BIDS dated ______________ and Information for BIDDERS.

You are hereby notified that your BID for the Bid Schedule has been accepted for items in the amount of $______________________________

You are required by the Information for BIDDERS to execute the Agreement and furnish the required Contractor's certificates of insurance within fourteen (14) calendar days from the date this Notice is received by you.

If you fail to execute said Agreement and to furnish said INSURANCE within fourteen (14) calendar days from the date of receipt of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER'S acceptance of your BID as abandoned and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER within two (2) calendar days.

Dated this ___________ day of ________, 2020

Owner _______ Redwood Community Action Agency

By ___________________________________ Title ____________________________

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged by:

________________________________________

This the ___________ day of _____________________________, 20__.

By __________________________ Title ____________________________
NOTICE TO PROCEED

TO:_____________________________ DATE: July 10, 2020
_____________________________ PROJECT: 2020 Martin Slough Habitat Enhancement Project

You are hereby notified to commence work in accordance with the Agreement on or after July 13, 2020, and you are to complete the work within 94 consecutive days thereafter. The date of completion of all work is therefore October 15, 2020.

Redwood Community Action Agency
Owner

By _______________________
Val Martinez, Executive Director

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged by _________________ this the _____ day of_______________, 2020.

By_____________________________
CONTRACTOR’S CERTIFICATE REGARDING WORKMEN’S COMPENSATION

Labor Code Section 3700,

"Every employer except the State and all political subdivisions or institutions thereof, shall secure the payment of compensation in one or more of the following ways:

(a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.

(b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees."

I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for workmen’s compensation or to undertake self-insurance in accordance with the provisions before commencing the performance of the work of this contract.

By __________________________
Title __________________________
Date __________________________

(In accordance with Article 5 (commencing at Section 1860, Chapter 1, Part 7, Division 2, of the Labor Code, the above certificate must be signed and filed with the awarding body prior to performing any work under this contract).}
PART 3: FEDERAL GRANTS

SPECIAL PROVISIONS
Supplemental Contract Requirements


FEDERAL TERMS AND CONDITIONS - During the performance of the contract, the Contractor must agree to comply with all applicable Federal laws and regulations described in Appendix II to Part 200 of the CFR, including but not limited to the following:

(A) Breach of contract – See applicable General Contract section

(B) Termination for Cause and Convenience – See applicable General Contract section

(C) Equal Employment Opportunity – Contracts are subject to Executive Order 11246 which prohibits employment discrimination by Federal contractors and subcontractors and federally-assisted construction contractors and subcontractors. Bidders must complete and submit the attached "Equal Employment Opportunity Certification" with their bid.

During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

3. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and
the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

(D) Davis/Bacon Prevailing Wages and Copeland Anti-Kickback Act – Per 29 C.F.R. § 5.5(a)

Davis Bacon Prevailing Wages

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed,
without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work
in more than one classification may be compensated at the rate specified for each classification for the
time actually worked therein: Provided, That the employer's payroll records accurately set forth the
time spent in each classification in which work is performed. The wage determination (including any
additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-
Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the
site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers,
which is not listed in the wage determination and which is to be employed under the contract shall be
classified in conformance with the wage determination. The contracting officer shall approve an
additional classification and wage rate and fringe benefits therefore only when the following criteria
have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the
wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to
the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or
their representatives, and the contracting officer agree on the classification and wage rate (including
the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent
by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards
Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized
representative, will approve, modify, or disapprove every additional classification action within 30 days
of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day
period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their
representatives, and the contracting officer do not agree on the proposed classification and wage rate
(including the amount designated for fringe benefits, where appropriate), the contracting officer shall
refer the questions, including the views of all interested parties and the recommendation of the
contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour
Administrator, or an authorized representative, will issue a determination within 30 days of receipt and
so advise the contracting officer or will notify the contracting officer within the 30-day period that
additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs
1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under
this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics
includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the
benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly
cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may
consider as part of the wages of any laborer or mechanic the amount of any costs reasonably
anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the
Secretary of Labor has found, upon the written request of the contractor, that the applicable standards
of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. **Withholding**

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. **Payrolls and basic records**

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.
(2) Each payroll submitted shall be accompanied by a “Statement of Compliance,” signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the “Statement of Compliance” required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing
work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.
d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).


Compliance with the Copeland “Anti-Kickback”

(1) Contractor. The contractor shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this contract.

(2) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clause above and such other clauses as the FEMA may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these contract clauses.

(3) Breach. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a contractor and subcontractor as provided in 29 C.F.R. §5.12.
(E) Contract Work Hours and Safety Standards Act

Compliance with the Contract Work Hours and Safety Standards Act.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The RCAA shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

(F) Rights to Inventions made under Contract – Not applicable to this contract

(G) Clean Air Act and Federal Waters Pollution Control Act

Clean Air Act

(1) The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
(2) The contractor agrees to report each violation to the RCAA and understands and agrees that the RCAA will, in turn, report each violation as required to assure notification to the (name of recipient), Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

(3) The contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with Federal assistance provided by FEMA.

Federal Water Pollution Control Act

(1) The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.

(2) The contractor agrees to report each violation to the RCAA and understands and agrees that the RCAA will, in turn, report each violation as required to assure notification to the appropriate Environmental Protection Agency Regional Office.

(3) The contractor agrees to include these requirements in each subcontract exceeding $150,000 financed in whole or in part with Federal assistance provided by FEMA.

(H) Energy Efficiency - The Contractor shall comply with the mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C.6201).

(I) Debarment and Suspension - Any contractor/subcontractor who is ineligible to perform work on a public works project pursuant to Labor Code Sections 1777.1 or 1777.7 or is currently on the governmentwide "Excluded Parties List System" in the System for Award Management (SAM) is prohibited from performing work on this Project. Bidders must complete and submit the attached "Debarment and Suspension Certification" with their bid.

Debarment and Suspension

(1) This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such the contractor is required to verify that none of the contractor, its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

(2) The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

(3) This certification is a material representation of fact relied upon by the RCAA. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to (name of state agency serving as recipient and name of subrecipient), the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
(4) The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

(J) **Byrd Anti-Lobbying Amendment** - Bidders must complete and submit the attached “Byrd Anti-Lobbying Amendment Compliance and Certification” with their bid.


Contractors shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

(K) **Procurement of recovered materials**

(1) In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired:

(i) Competitively within a timeframe providing for compliance with the contract performance schedule;

(ii) Meeting contract performance requirements; or

(iii) At a reasonable price.

(2) Information about this requirement, along with the list of EPA-designate items, is available at EPA’s Comprehensive Procurement Guidelines web site, [https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program](https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program).

(L) **Additional Requirements**

**Access to Records**

(1) The contractor agrees to provide RCAA, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

(2) The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
(3) The contractor agrees to provide the Grant Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the Contract.

BYRD ANTI-LOBBYING AMENDMENT COMPLIANCE AND CERTIFICATION

The undersigned [Contractor] certifies, to the best of his or her knowledge, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form- LLL, “Disclosure Form to Report Lobbying” in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The Contractor, ___________________________________________________________, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801 et seq., apply to this certification and disclosure, if any.

______________________________________________________________
Signature of Contractor’s Authorized Official

______________________________________________________________
Name and Title of Contractor’s Authorized Official

______________________________________________________________
Date
DEBARTMENT AND SUSPENSION CERTIFICATION

The undersigned [Contractor] certifies, to the best of its knowledge and belief, that:

The Offeror and/or any of its Principals:

– Are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

– Have not, within a three year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; and

– Are not presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.

The Offeror has not, within a three year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

"Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER SECTION 1001, TITLE 18, UNITED STATES CODE.

The Offeror shall provide immediate written notice to the RCAA if, at any time prior to subcontract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the RCAA may render the Offeror nonresponsible.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the RCAA, the RCAA may terminate the contract resulting from this solicitation for default.
Signature of Contractor’s Authorized Official

Name and Title of Contractor’s Authorized Official

Company Name

Date
PART 4: CONDITIONS OF THE CONTRACT
SECTION A: DEFINITIONS AND TERMS

A-1  General

Wherever the following abbreviations and terms, or pronouns in place of them, are used in these Conditions and other Contract Documents of which these Conditions are a part, the intent and meaning shall be interpreted as provided below.

A-2  Abbreviations

The following abbreviations may be used in the Contract Documents:

AA  Aluminum Association
AASHO  American Association of State Highway Officials
ABMA  American Boiler Manufacturer's Association
ACI  The American Concrete Institute
AGA  American Gas Association
AGC  Associated General Contractors
AGMA  American Gear Manufacturer's Association
AI  The Asphalt Institute
AIA  American Institute of Engineers
AISC  American Institute of Steel Construction
AISI  American Iron and Steel Institute
ALSC  American Lumber Standards Committee
ANSI  American National Standards Institute, Inc.
API  American Petroleum Institute
APWA  American Public Works Association
AREA  American Railway Engineering Association
ASCE  American Society of Civil Engineers
ASME  American Society of Mechanical Engineers
ASTM  American Society for Testing and Materials
AWPA  American Wood Preservers' Association
AWS  American Welding Society
AWWA  American Water Works Association
BHMA  Builders Hardware Manufacturers Association
CCMTC  California Concrete Masonry Technical Committee
CRSI  Concrete Reinforcement Steel Institute
DFPA  Douglas Fir Plywood Association
ETL  Electrical Testing Laboratory
FS  Federal Specification
ICBO  International Conference of Building Officials
IEEE  The Institute of Electrical and Electronics Engineers
IES  Illuminating Engineering Society
IPCEA  Insulated Power Cable Engineers Association
MBMA  Metal Building Manufacturer's Association
MSS  Manufacturers Standardization Society of the Valve and Fitting Industry Standards
NBFU  National Board of Fire Underwriters
NBS  National Buildings Standards
NEC  National Electrical Code
NEMA  National Electrical Manufacturers Association
A-3 Definitions

(a) **Acceptance** - The formal written acceptance by the RCAA of the entire Contract which has been completed in all respects in accordance with the Specifications and any approved modifications.

(b) **Addenda** - Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the Contract Documents, Drawings and Specifications by additions, deletions, clarifications or corrections.

(c) **As Approved** - The words "as approved" unless otherwise qualified, shall be understood to be followed by the words "by the Engineer."

(d) **Bid** - The offer of the bidder for the work when made out and submitted on the prescribed bid form, properly signed and guaranteed. A Bid is also known as a Proposal.

(e) **Bid Bond** - The cash, cashier's check, certified check, or bidder's bond accompanying the bid submitted by the bidder, as a guarantee that the bidder will enter into a Contract with the RCAA for the performance of work herein described.

(f) **Bidder** - Any individual, firm, partnership or corporation submitting a bid for the work contemplated, and acting directly or through a duly authorized representative.

(g) **Change Orders** - A written order to the Contractor authorizing an addition, deletion, or revision in the work within the general scope of the Contract Documents or authorizing adjustment in the Contract price or Contract time.

(h) **City** - City of Eureka

(i) **Claim** - A separate demand by the Contractor for (i) a time extension, (ii) payment of money or damages arising from work done by or on behalf of the Contractor pursuant to the Contract for a public work and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (iii) an amount the payment of which is disputed by the RCAA.
(j) **Contract** - The written agreement covering the performance of the work and the furnishing of labor, materials, tools and equipment in the construction of the work. The Contract shall include all Contract Documents and supplemental agreements amending or extending the work contemplated which may be required to complete the work in a substantial and acceptable manner. Supplemental agreements are written agreements covering alterations, amendments or extensions to the Contract and include Addenda and Contract Change Orders.

(k) **Contract Documents** - The Contract Documents are any or all of the documents listed in Article I of the Contract.

(l) **Contract Price** - Total monies payable to the Contractor under the terms and conditions of the Contract Documents.

(m) **Contract Time** - The numbers of days stated in the Contract Documents for the completion of work.

(n) **Contractor** - The person or persons, firm, partnership or corporation or other entity who has entered into the Contract with the RCAA to perform the work.

(o) **Contract Drawings** - "Contract Drawings" or "drawings" means and includes (i) all drawings which have been prepared on behalf of the RCAA and which are included in the Contract Documents and all modifying drawings issued by addenda thereto; (ii) all drawings submitted pursuant to the terms of the Contract by the Contractor with his proposal and by the Contractor to the RCAA during the progress of the work when accepted by the Engineer. Except where a specific type of drawing is indicated, the terms "Drawings" and "Plans" are used interchangeably throughout the Contract Documents and the Plans are Drawings as defined above.

(p) **County** - County of Humboldt, California.

(q) **Date of Execution of the Contract** - The date on which the Contract is signed by the RCAA's authorized representative.

(r) **Datum** - The figures given in the Specifications or upon the drawings after the word "Elevation" or an abbreviation of it, shall mean NAVD 88 datum, unless noted otherwise.

(s) **Days** - Unless otherwise designated, days as used in the Contract Documents shall mean calendar days.

(t) **Engineer or Construction Manager** - Wherever in these documents the word "Engineer" or "Construction Manager" appears, it shall be understood to mean GHD Inc. (formerly Winzler & Kelly). The Engineer/Construction Manager will have final authority as regards to contract administration, field inspection, and related items.

(u) **Field Order** - A written order effecting a change in the Work not involving an adjustment in the Contract Price or an extension of Contract Time, issued by the Engineer to the Contractor during construction.

(v) **His** - "His" shall include "her" and "its".

(w) **Install** - "Install" wherever and in whatever manner used shall mean the installation, complete in place of an item.

(x) **Notice of Award** - The written notice of the acceptance of the Bid from the RCAA to the successful Bidder.
(y) **Notice to Proceed** - Written communication issued by the RCAA to the Contractor authorizing him to proceed with the work and establishing the date of commencement of the work.

(z) **Or Equal** - The terms "or equal" or "approved equal" shall be understood to indicate that the "equal" product be the same or better than the product named in function, performance, reliability, quality and general configuration. Determination of equality in reference to the project design requirement will be made by the Engineer.

(aa) **Plans or Drawings** - The term "Plans or Drawings" refers to the official Plans, profiles, cross sections, elevations, details, and other working drawings and supplementary drawings, or reproductions thereof, signed by the Engineer, which show the location, character, dimensions, and details of the work to be performed. Plans may either be bound in the same book as the balance of the Contract Documents or bound in separate sets, and are a part of the Contract Documents, regardless of the method of binding.

(bb) **Project** - The undertaking performed as provided by the Contract Documents.

(cc) **Provide** - "Provide" wherever and in whatever manner used shall be understood to mean furnish and install.

(dd) **Project Geotechnical Engineer** – as designated by RCAA.

(ee) **Resident Project Representative** - Authorized representative of the Engineer who is assigned to the Project or any part thereof.

(ff) **RCAA** - The REDWOOD COMMUNITY ACTION AGENCY, may also be referred to as the Owner or RCAA.

(gg) **RCAA Project Representative** - The authorized representative of the RCAA who is assigned to the project site or any part thereof.

(hh) **Service of Notice** - Any notice from one party to the other under the Contract shall be in writing and shall be dated and signed by the party giving such notice or by a duly authorized representative thereof. Any such notice shall not be effective for any purpose whatsoever unless service in the following manner:

(i) If the notice is given to the RCAA by personal delivery thereof, the RCAA’S Project Representative or by depositing the notice in the U.S. mail, enclosed in a sealed envelope addressed to RCAA, 904 G Street, Eureka California 95501 postage prepaid, by certified mail return receipt requested.

(ii) If the notice is given to the Contractor, by personal delivery to the Contractor or its duly authorized representative at the project site or by depositing in the U.S. mail, enclosed in a sealed envelope address to the Contractor on the Contract Form, postage prepaid, by certified mail, return receipt requested.

(iii) If the notice is given to the surety or any other person, by personal delivery to such surety or other person by personal delivery to such surety or other person by depositing in the U.S. mail, enclosed in a sealed envelope, addressed to the surety or other person at the address of such surety or other person last communicated to the party giving the notice, postage prepaid, by certified mail return receipt requested.

(jj) **Shall or Will** – “Shall,” or “Will,” whenever used to stipulate anything, means shall or will be done or be performed by either the Contractor or the RCAA and means that the Contractor or the RCAA has thereby entered into a covenant with the other party to do or perform the same.
(jj) **Shop Drawing** - All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the Contractor, a subcontractor, manufacturer, supplier or distributor, which illustrate how specific portions of the Work shall be fabricated or installed.

(kk) **Shown** – “Shown” “indicated” “detailed” and words of like import, wherever and in whatever manner used, with or without reference to the drawings, means shown, indicated or detailed on the drawings or plans.

(ll) **Specifications** - A part of the Contract Documents consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship, including the General Conditions and Supplemental General Conditions.

(mm) **Specified** – “Specified" “described” or “noted" wherever and in whatever manner used, means as specified, described or noted in the Contract Documents.

(nn) **Subcontractors** - The term "Subcontractor", as employed herein, includes only those having a direct contract with the Contractor and it includes one who furnishes material worked to a special design according to the plans or specifications of this work, but does not include one who merely furnishes material not so worked and would be considered a supplier only.

(oo) **Substantial Completion** - That date as certified by the Engineer when the construction of the Project or a specified part thereof is sufficiently completed, in accordance with the Contract Documents, so that the Project or specified part can be utilized for the purposes for which it is intended.

The Engineer may, at its sole discretion, issue a written notice of substantial completion for the purpose of establishing the starting date for specific equipment guarantees, and to establish the date that the RCAA will assume the responsibility for the cost of operating such equipment. Said notice shall not be considered as final acceptance of any portion of the work or relieve the Contractor from completing the remaining work within the specified time and in full compliance with the Contract Documents.

(pp) **Sufficient** – “Sufficient" “necessary" or “proper” “acceptable” “satisfactory" “desirable” and words of like import, wherever and in whatever manner used, with or without reference to the Engineer, means sufficient, necessary, proper, acceptable, satisfactory and desirable in the judgment of the Engineer.

(qq) **Supplementary Conditions** - Modifications to General Conditions required by a Federal Agency for participation in the PROJECT and approved by the Agency in writing prior to inclusion in the Contract Documents, or such requirements that may be imposed by applicable State laws.

References to “Supplemental General Conditions” in the General Conditions and elsewhere in the Contract Documents shall be construed to read “Supplementary Conditions”

(rr) **Supplier** - Any person or organization who supplies materials or equipment for the Work, including that fabricated to a special design, but who does not perform labor at the site.

(ss) **Time Limits** - All time limits stated in the Contract Documents are of the essence of the Contract.

(tt) **Work** - All the work specified, indicated, shown or contemplated in the Contract to construct the improvements, including all alterations, amendments or extensions thereto made by Contract Change Order or other written orders of the Engineer.

(uu) **Written Notice** - “Written Notice” shall be deemed to have been duly served when delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom
it is intended, or if delivered at or sent by registered mail to the last business address known to it who
gives the notice.

(vv) Whenever in the Specifications or upon the drawings the words DIRECTED, REQUIRED,
PERMITTED, ORDERED, DESIGNATED, PRESCRIBED, or words of like import are used, it shall be
understood that the direction, requirement, permission, order, designation or prescription of the Engineer
is intended, and similarly the words APPROVED, ACCEPTABLE, SATISFACTORY, or words of like
import, shall mean approved or acceptable to, or satisfactory to the Engineer, unless otherwise expressly
stated.
SECTION B: GENERAL CONDITIONS

ARTICLE I. SCOPE OF WORK

B-1 Intent of Contract Documents

The intent of the Contract Documents is to prescribe the details for the construction and completion of the work which the Contractor undertakes to perform in accordance with the terms of the Contract. Where the Specifications and plans describe portions of the work in general terms, but not in complete detail, it is understood that only the best general practice is to prevail and that only materials and workmanship of the first quality are to be used. Unless otherwise specified, the Contractor shall furnish all labor, materials, tools, equipment and incidentals and do all the work involved in performing the Contract in a satisfactory and workmanlike manner, ready for use occupancy or operation by the RCAA.

The technical provisions are presented in sections for convenience. However, this presentation does not necessarily delineate trades or limits of responsibility. All sections of the Specifications and plans are interdependent and applicable to the project as a whole.

The Contract Documents are complementary, and what is called for in any one shall be as binding as if called for in all.

Anything shown on the drawings and not mentioned in the specifications or mentioned in the specifications and not shown on the drawings shall have the same effect as if shown or mentioned respectively in both. Any work shown on one drawing shall be construed to be shown in all drawings and the Contractor will coordinate the work and the drawings. If any portion of the Contract Documents shall be in conflict with any other portion, the various documents comprising the Contract Documents shall govern in the following order of precedence: The RCAA-Contractor Contract; the Bid; any Supplementary or Special Conditions; The condition of all permits; Instructions to Bidders; the General Conditions; the Specifications; the Drawings. Technical Specifications take priority over general Specifications and detail Drawings take precedence over general Drawings. As between schedules and information given on Drawings, the Schedules shall govern. As between figures given on Drawings and the scales measurements, the figures shall govern. As between large-scale Drawings and small-scale Drawings, the larger scale shall govern. Any conflict or inconsistency between or in the drawings shall be submitted to the Engineer through the RCAA'S Project Representative or Resident Project Representative in writing. Work done by the Contractor after his discovery of such discrepancies, inconsistencies or ambiguities shall be done at the Contractor's own risk.

B-2 Contractor's Understanding

It is understood and agreed that the Contractor has, by careful examination, satisfied itself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the work, all permit conditions and requirements, the general and local conditions, and all other matters which can in any way affect the work under this Contract. No verbal agreement or conversation with any officer, agent or employee of the RCAA, either before or after the execution of this Contract, shall affect or modify any of the terms or obligations herein contained.

B-3 Changes in the Work

The RCAA may, at any time, by written order make changes in the work including but not limited to: (a) changes in the specifications on drawings; (b) changes in the sequence, method or manner of performance of the work; (c) changes in the owner-furnished facilities, equipment, materials, services or
site; or (d) changes directing acceleration of the work. If such changes cause an increase or decrease in the Contractor's cost of, or time required for, performance of the Contract an equitable adjustment will be made and the Contract modified in writing accordingly.

Such modification will be in the form of a Contract Change Order which will set forth the work to be done or the method by which the change and cost adjustment, if any, will be determined, and the time of completion of the work.

The compensation to be paid for any extra work or change shall be determined in one or more of the following ways or at RCAA's sole election:

A. By unit prices previously approved (unit prices previously approved shall be used in all cases for similar units unless mutually agreed that for some reason they are not applicable);

B. By estimate and acceptance of an agreed upon lump sum; or

C. On a time and materials basis involving the actual necessary expenses and other services necessary to complete the work. In addition, there shall be added an amount to be agreed upon but not to exceed fifteen (15) percent of the actual necessary expense to cover other costs that are not covered under labor, equipment, materials, and subcontractors. In the events that items (a) and (b) above are not applicable, then this latter method (c) shall be used. Markup by subcontractors on their work shall no exceed fifteen percent. Contractor's markup on subcontractor's work shall not exceed five (5) percent.

The Contractor shall keep full and complete records of the actual cost of such work in the form and manner prescribed by the Engineer and shall permit the Engineer to have access to such records as may be necessary to assist in the determination of the compensation payable for such work.

The Engineer also may at any time by issuing a Field Order make changes in the details of the Work. The Contractor shall proceed with the performance of any change in the work so ordered by the Engineer unless the Contractor believes that such Field Order entitles it to a change in the Contract Price or Time, or both in which event the Contractor shall give the Engineer written notice thereof within seven (7) days after the receipt of the ordered change. The Contractor shall not execute such changes pending the receipt of an executed change order or further instruction from the RCAA.

If the Contractor is delayed in completing by reason of any change made pursuant to this section, the time for completion of the work shall be extended by change order for a period agreed to, commensurate with such delay. The Contractor shall not be subjected to any claim for liquidated damages for this period of time, but the Contractor shall have no claim for any other compensation for any such delay.

B-4 Procedures and Allowable Costs on Changes

(a) All changes which affect the cost or time of the construction of the project must be authorized by means of a Change Order. The Change Order will include extra work, work for which quantities have been altered from those shown in the bidding schedule, as well as decreases or increases in the quantities of installed units which are different than those shown in the bidding schedule because of final measurements. All changes should be recorded on a Change Order as they occur. Each Change Order must contain complete and detailed justification for all items addressed by the Change Order.

(b) If the change in or addition to the work will result in an increase in the contract sum, the RCAA shall have the right to require the performance thereof in any of the following ways, at RCAA's sole election:
(i) By unit prices previously approved (unit prices previously approved shall be used in all cases for similar units unless mutually agreed that for some reason they are not applicable);

(ii) By estimate and acceptance of an agreed upon lump sum; or

(iii) On a time and materials basis involving the actual necessary expenses and other services necessary to complete the work. In addition, there shall be added an amount to be agreed upon but not to exceed fifteen (15%) percent of the actual necessary expense to cover other costs that are not covered under labor, equipment, materials, and subcontractors. In the events that items (a) and (b) above are not applicable, then this latter method (c) shall be used. Markup by subcontractors on their work shall not exceed fifteen percent. Contractor’s markup on subcontractor’s work shall not exceed five percent (5%).

(c) If the RCAA elects to have the Change in the Work performed on a lump sum basis, such election shall be based on a lump sum proposal which shall be submitted by the contractor within ten (10) days of the RCAA’s request therefore. Request for a lump sum proposal shall not be deemed an election to have the work performed on a lump sum basis. The Contractor's proposal shall be itemized and segregated by labor and materials for the various components of the change (no aggregate labor total will be acceptable) and shall be accompanied by signed proposals of any subcontractors which will perform any portion of the change, and of any persons who will furnish materials or equipment for incorporation therein. The proposal shall also include the contractor’s estimate of the time required to perform said changes or additional work.

The portion of the proposal relating to labor, whether by the Contractor's forces or the forces of any of its Subcontractors, may include reasonably anticipated gross wages of Job Site labor, including foremen, who will be directly involved in the Change in the Work (for such time as they will be so involved), plus payroll costs (including premium costs of overtime labor, if overtime is anticipated, social security, Federal or State unemployment insurance taxes and fringe benefits required by collective bargaining agreements entered into by the Contractor or any such Subcontractor in connection with such labor) and up to fifteen percent (15%) of such anticipated gross wages, but not payroll costs as overhead and profit for the Contractor or any such Subcontractor, as applicable (such overhead and profit to include all supervision except foremen.)

The portion of the proposal relating to materials may include the reasonably anticipated direct costs to the Contractor or to any of its Subcontractors of materials to be purchased for incorporation in the Change in the Work, plus transportation and applicable sales or use taxes and up to fifteen percent (15%) of such anticipated gross wages, but not payroll costs, as overhead and profit for the Contractor or any such Subcontractor, as applicable (such overhead and profit to include all supervision except foremen.)

The portion of the proposal relating to materials may include the reasonably anticipated direct costs to the Contractor or to any of its Subcontractors of materials to be purchased for incorporation in the Change in the Work, plus transportation and applicable sales or use taxes and up to fifteen percent (15%) of said direct material costs as indirect costs for the Contractor or any such subcontractor (such indirect costs shall include all small tools), and may further include the Contractor's and any of its Subcontractors' reasonably anticipated rental costs in connection with the Change in the Work (either actual rates or discounted local published rates), plus up to five percent (5%) commission for the Contractor or any such subcontractors, as applicable. If any of the items included in the lump sum proposal are covered by unit prices contained in the contract document, the RCAA may, if it requires the Change in the Work to be performed on a lump sum basis, elect to use these unit prices in lieu of the similar items included in the lump sum proposal in which event an appropriate deduction will be made in lump sum amount. No overhead and profit shall be applied to any unit prices.

The lump sum proposal may include up to five percent (5%) of the amount which the Contractor will pay to any of its Subcontractors for the Change in the Work as a commission to the Contractor.
(d) In the event that the Contractor fails to submit its proposal within the designated period, the Engineer may direct the Contractor to proceed with the Change or Addition to the Work and the Contractor shall so proceed. The Engineer shall determine the reasonable costs and time to perform the Work in question, which determination when approved by RCAA shall be final and binding upon the Contractor.

(e) In the event that the parties are unable to agree as to the reasonable costs and time to perform the change in or addition to the work based upon the Contractor’s proposal and the Engineer and RCAA do not elect to have the change in the work performed on a time and material basis, the Engineer and RCAA shall make a determination of the reasonable cost and time to perform the change in the work, based upon their own estimates, the Contractor’s submission or combination thereof. A Change Order shall be issued for the amount of costs and time determined by the Engineer and the RCAA and shall become binding upon the Contractor unless the Contractor submits its protest in writing to the RCAA within thirty (30) days of the issuance of the Change Order. The RCAA has the right to direct the Contractor in writing to perform the Change in the Work which is the subject of the Change Order. Failure of the parties to reach agreement regarding the costs and time of the performing the Change in the Work and/or any pending protest shall not relieve the Contractor from performing the Change in the work promptly and expeditiously.

(f) If the RCAA elects to have the Change in the Work performed on a time and material basis, the same shall be performed, whether by the Contractor’s forces or the forces of any of its Subcontractors or Sub-subcontractors, at actual costs to the entity or entities performing the Change in the Work (without any charge for administration, clerical expense, supervision or superintendence of any nature whatsoever, including foremen, or the costs, use or rental of tools or plant), plus fifteen percent (15%) to cover other costs that are not covered under labor, equipment, materials, and subcontractors (except that this fifteen percent (15%) shall not be applied against any payroll costs, defined herein with respect to lump sum proposals). If the entity or entities actually performing the work are Subcontractors or Sub-subcontractors, the Contractor shall be allowed five percent (5%) of the total charge of the performing entity or entities (including mark-up) as Contractor’s commission. No mark-ups shall be allowed hereunder. The Contractor shall submit to the RCAA daily work and material tickets, to include the identification number assigned to the Change in the Work, the location and description of the Change in the Work, the classification of labor employed (and names and social security numbers), the material used, the equipment rented (not tools) and such other evidence of cost as the RCAA may require. The RCAA may require authentication of all time and material tickets and invoices by persons designated by the RCAA for such purpose. The failure of the Contractor to secure any required authentication shall, if the RCAA elects to treat it as such, constitute a waiver by the Contractor of any claim for the cost of that portion of the Change in the Work covered by a non-authenticated ticket or invoice; provided, however, that the authentication of any such ticket or invoice by the RCAA shall not constitute an acknowledgment by the RCAA that the items thereon were reasonably required for the Change in the Work.

(g) No Additional percentage for actual necessary expense to cover other costs that are not covered under labor, equipment, materials, and subcontractors will be paid by the RCAA on account of a Change in the Work except as specifically provided in this Section B-4. The additional percentage or commission as allowed under this paragraph, shall be deemed to include all costs and expenses which the Contractor or any of its Subcontractors may incur in the performance of the Change in the Work and which are not otherwise specifically recoverable by them pursuant to this paragraph.

(h) The Contractor shall not be entitled to any amount for indirect costs, damages or expenses of any nature, including, but not limited to, so-called “impact” costs, labor inefficiency, wage, material or other escalations beyond the prices upon which the proposal is based and to which the parties have agreed pursuant to the provisions of this section, and which the Contractor, its Subcontractors and Sub-subcontractors or any other person may incur as a result of delays, interferences, suspensions, changes in sequence or the like, for whatever cause, whether reasonable or unreasonable, foreseeable or unforeseeable, or avoidable or unavoidable, arising from the performance of any and all changes in the work performed pursuant to this section. It is understood and agreed that the Contractor’s sole and exclusive remedy in such event shall be recovery of its direct costs as compensable hereunder and an
extension of the time of the Contract, but only in accordance with the provisions of the Contract Documents.

The Contractor agrees that it shall not be entitled to claim damages for anticipated profits on any portion of work that may be deleted. The amount of any adjustment for work deleted shall be estimated at the time deletion of work is ordered and the estimated adjustment will be deducted for the subsequent monthly pay estimates.

The RCAA reserves the right to contract with any person or firm other than the Contractor for any or all extra work.

**B-5 Unilateral Change in or Addition to the Work**

Notwithstanding the above, the RCAA, directly or through the Engineer, may direct the Contractor in writing to perform changes in or additions to the scope of the contract. The Contractor shall perform such work and the parties shall proceed pursuant to the provisions of Section B-4.

**B-6 Differing Site Conditions**

The Contractor shall promptly, and before the following conditions are disturbed, notify the RCAA in writing of any:

(a) Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25118 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; or

(b) Subsurface or latent physical conditions at the site differing from those indicated in the Contract Documents; or

(c) Unknown conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

The Engineer shall thereupon promptly investigate the conditions. If the Engineer finds that they do involve hazardous waste, or do materially differ and cause any decrease or increase in the Contractor’s cost or time of performance, it will issue a change order as appropriate. Any increase or decrease in the cost of the work or the time for performance shall be adjusted in the manner provided herein for adjustments as to extra and/or additional work and changes. The procedures applicable to claims per extra costs shall then apply.

Contractor shall expect wet soil conditions and encountering deleterious materials that do not constitute a change.

**B-7. Claims for Extra Costs**

(a) The plans for work show the conditions as they are supposed or believed by the Engineer to exist, but it is neither intended nor to be inferred that the conditions as shown thereon constitute a representation by the RCAA or its officers that such conditions are universally existent nor shall the RCAA or any of its officers or representatives be liable for any loss sustained by the Contractor as a result of any variance between conditions as shown on the Plans and alternate conditions revealed during the progress of the Work, or otherwise.
(b) The RCAA assumes no responsibility for any representations made by any of its officers or agents during or prior to the execution of this Contract, unless (1) such representations are expressly stated in the Contract, and (2) the Contract expressly provides that the responsibility therefore is assumed by the RCAA.

(c) It is hereby mutually agreed that the Contractor shall not be entitled to the payment of any additional compensation for any cause, including any act, or failure to act, by the Engineer or the RCAA, or the happening of any event, thing or occurrence, unless the Contractor shall have given the Engineer due written notice of potential claims as hereinafter specified.

(d) The written notice of potential claims shall set forth the reasons for which the Contractor believes additional compensation will or may be due, the nature of the costs involved, and, insofar as possible, the amount of the potential claim. Except as provided in Section B-6, the notice as above required shall be given to the Engineer at least 48 hours prior to the time that the Contractor commences performance of the work giving rise to the potential claim for additional compensation. If such notice is not given, the Contractor shall be barred from making any such claim for extra compensation.

(e) The Contractor may submit a claim to the Engineer concerning any matter for which a protest under Section B-3 or a notice of potential claim is filed within sixty (60) days following the submission of said protest or notice, unless, due to the nature of the claim or the uncompleted state of the work, it is impracticable to determine the amount or the extent of the claim within such period, in which case a claim may be submitted at the earliest time thereafter that such determination can be made, but in no event later than the final release by the Contractor provided for in Section B-72. The claims shall set forth clearly and in detail, for each item of additional compensation claimed, the reasons for the claim, reference to applicable provisions of the Specifications, the nature and the amount of the cost involved, the computations used in determining such costs, and all pertinent factual data. The Contractor shall maintain complete and accurate records of the cost or any portion of the work for which additional compensation is claimed, and shall provide the Engineer with copies thereof, as required.

(f) The Engineer will, within a reasonable time after submission of the Contractor's claim, make decisions in writing on all claims of the Contractor. All such decisions of the Engineer shall be final unless the Contractor shall within ten (10) days after receipt of the Engineer's decision, file with the Engineer a written protest, stating clearly and in detail the basis thereof. Such protest will be forwarded promptly by the Engineer to the RCAA, which will issue a decision upon each such protest, and the RCAA's decision will be final. Pending such decision, the Contractor shall proceed with its work in accordance with the determination or instructions of the Engineer. It is hereby agreed that the Contractor's failure to protest the Engineer's determination or instructions, within ten (10) days from and after the Engineer's determinations or instructions, shall constitute a waiver by the Contractor of all its rights to further protest, judicial or otherwise.

(g) It is the intention of this Section that the differences between the parties, arising under and by virtue of the Contract, be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible or other appropriate action promptly taken. The Contractor hereby agrees that it shall have no right to additional compensation for any claim that may be based on any act, failure to act, event, thing or occurrence for which no written notice of potential claim as herein required was timely filed.

(h) In the event of an emergency endangering life or property, the Contractor shall act as stated in Section B-62 herein, and after execution of the emergency work shall present an accounting of labor, materials and equipment in connection therewith. The procedure for any payment that may be due for emergency work will be as specified in Section B-3 herein.

B-8 Disputes
Except as otherwise specifically provided in the Contract Documents, the Engineer will initially decide all claims of the Contractor and all disputes arising under and by virtue of the Contract. Such claim or dispute will be processed and decided by the Engineer as soon as practicable after its submission and the submission or availability of any additional information necessary to its decision. If the Contractor is dissatisfied with the Engineer’s decision, the Contractor may, within 15 days from the date of the Engineer’s decision, follow the procedures set forth in Section B-55. If the Contractor fails to follow the procedures set forth in Section B-55 within the 15 day period, then the Engineer’s decision shall be final, conclusive and binding on the Contractor.

**B-9 Guarantee**

(a) In addition to warranties, representations and guarantees stated elsewhere in the Contract Documents, the Contractor unconditionally guarantees all materials and workmanship furnished hereunder, and agrees to replace at its sole cost and expense, and to the satisfaction of the Engineer and the RCAA, any and all materials which may be defective or improperly installed.

(b) The Contractor shall repair or replace to the satisfaction of the Engineer any or all such work that may prove defective in workmanship or materials, ordinary wear and tear excepted, together with any other work which may be damaged or displaced in so doing.

(c) In the event of failure to comply with the above stated conditions within a reasonable time, the RCAA is authorized to have the defect repaired and made good at the expense of the Contractor who will pay the costs and charges therefore immediately upon demand, including any reasonable management and administrative costs, and engineering, legal and other consultant fees incurred to enforce this section.

(d) The signing of the Contract by the Contractor shall constitute execution of the above guarantees. Except as otherwise provided in this Contract, the guarantees and warranties shall remain in effect through the one-year maintenance warranty period specified in the Faithful Performance Bond.
ARTICLE II. CONTROL OF WORK

B-10 Authority of the Engineer

(a) The Engineer is the representative of the RCAA and has full authority to interpret the Contract Documents, to conduct the construction review and inspection of the Contractor's performance, and to decide questions which arise during the course of the work and its decisions on these matters shall be final and conclusive. The Engineer has the authority to reject all work and materials which do not conform to the Contract Documents, regulatory permits, and has the authority to stop the work whenever such stoppage may be necessary to insure the proper execution of the Contract.

(b) If at any time the Contractor's work force, tools, plant or equipment appear to the Engineer to be insufficient or inappropriate to secure the required quality of work or the proper rate of progress, the Engineer may order the Contractor to increase their efficiency, improve their professional and/or workmanship character, to augment their number or to substitute other personnel, new tools, plant or equipment, as the case may be, and the Contractor shall comply with such order.

Neither the failure of the Engineer to demand such increase of efficiency, number, or improvement, nor the compliance by the Contractor with the demand, shall relieve the Contractor of its obligation to provide quality work at the rate of progress necessary to complete the work within the specified time.

(c) The Engineer shall have the authority to make minor changes in the work, not involving extra costs, and not inconsistent with the purposes of the work.

(d) Any order given by the Engineer, not otherwise required by the Contract Documents to be in writing shall, on request of the Contractor, be given or confirmed by the Engineer in writing.

(e) Whenever work, methods of procedure, or any other matters are made subject to direction or approval, such direction or approval will be given by the Engineer.

(f) The Engineer shall not be responsible for the construction means, controls techniques, sequences procedures or construction safety.

(g) It is expressly agreed and understood that GHD will have no liability whatsoever resulting from the obligations entered into under the Contract; that the RCAA must look solely to the Contractor for the furnishing of the work; that the Contractor must look solely to the RCAA for payment; and that the RCAA and the Contractor must look solely to each other for the enforcement of any claims or liabilities arising under or by reason of the Contract.
B-11 Drawings

(a) Drawings furnished herewith are for bidding purposes. The Engineer will furnish the Contractor additional copies of the Contract Documents and full-size plans. Additional copies may be obtained by paying the actual cost of reproduction. The Contractor shall have no claim for excusable delay on account of the failure of the Engineer to deliver such drawings unless the Engineer shall have failed to deliver the same within two weeks after receipt of written demand therefore from the Contractor. The Contractor shall keep one copy of said drawings, in good order, available to the Engineer and its representatives, and convenient to the working site. The Contractor shall maintain on the job site and make available to the Engineer on request, one current full-sized marked-up set of design drawings which accurately indicate all variations in the completed work that differ from the design information shown on the plans. If the Contractor, in the course of the work, finds any discrepancy between the drawings and the physical condition of the locality, or any errors or omissions in the drawings, or in the layout as given by points and instructions, it shall be the Contractor's duty to inform the Engineer in writing, and the Engineer will promptly verify the same. Any work done after such discovery, until authorized, will be done at the Contractor's risk. All drawings, Specifications, and copies thereof furnished by the Engineer are the property of the Engineer and shall not be reused on other work and, with the exception of the signed Contract sets, are to be returned to the Engineer, on request, at the completion of the work. All models are the property of the RCAA. The Contractor may be furnished additional instructions and detail drawings by the Engineer as necessary to carry out the work required by the Contract Documents.

The additional drawings and instructions thus supplied, will become part of the Contract Documents. The Contractor shall carry out the Work in accordance with the additional detail drawings and instructions.

(b) The drawings shall be supplemented by such shop drawings prepared by the Contractor as are necessary to adequately control the work. No changes shall be made by the Contractor in any shop drawings after they have been reviewed by the Engineer.

(c) Shop drawings for any structure shall include, but not be limited to: stress sheets, anchor bolt layouts, shop details, and erection plans, which shall be reviewed and accepted by the Engineer before any such work is performed.

(d) Contractor agrees that shop drawings processed by the Engineer are not Contract Change Orders; that the purpose of shop drawings submitted by the Contractor is to demonstrate to the Engineer that the Contractor understands the design concept, that it demonstrates its understanding by indicating which equipment and material it intends to furnish and by detailing the fabrication methods it intends to use.

(e) It is expressly understood, however, that favorable review of the Contractor's shop drawings shall not relieve the Contractor of any responsibility for accuracy of dimensions and details, or for mutual agreements of dimensions and details. It is mutually agreed that the Contractor shall be responsible for agreement and conformity of its shop drawings with the Specifications. Contractor further agrees that if deviations, discrepancies or conflicts between shop drawings and Specifications are discovered either prior to or after shop drawings are processed by the Engineer, the Specifications shall control and shall be followed.

(f) Unless otherwise stated, the Engineer shall have thirty (30) days from the date of receipt of shop drawings for review.

(g) Full compensation for furnishing all shop drawings shall be considered as included in the prices paid for the Contract items of work to which such drawings relate and no additional compensation will be allowed therefore. Any cost related to the Engineer's review of any particular set of shop drawings more than twice, due to incompleteness or unacceptability, shall be borne by the Contractor, and the RCAA reserves the right to withhold such costs from payments due the Contractor.
(h) When submitted for the Engineer's review, Shop Drawings shall bear the Contractor's certification that he has reviewed, checked and approved the Shop Drawings and that they are in conformance with the requirements of the Contract Documents.

(i) That Portion of the Work requiring a Shop Drawing or sample submission shall not begin until the Shop Drawing or submission has been approved by the Engineer. A copy of each approved Shop Drawing and each approved sample shall be kept in good order by the Contractor at the site and shall be available to the Engineer.

(j) Acceptance by the Engineer of any drawing, method of work, or any information regarding materials and equipment the Contractor proposes to furnish shall not relieve the Contractor of his responsibility for any errors therein and shall not be regarded as an assumption of risks or liability by the Engineer or RCAA, or any officer or employee thereof, and the Contractor shall have no claim under the Contract on account of the failure or partial failure or inefficiency or insufficiency of any plan or method or work or material and equipment so accepted. Such acceptance shall be considered to mean merely that the Engineer has no objection to the Contractor using, upon his own full responsibility, the plan or method of work proposed, or furnishing the materials and equipment proposed.

B-13 Permits and Regulations

Permits, licenses, and easements of a temporary or permanent nature, necessary for the execution of the work shall be secured and paid for by the Contractor, except as noted in Section B-32, and herein.

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as shown on the plans and described in the Specifications. It shall promptly notify the Engineer in writing of any specification at variance therewith and any necessary changes shall be adjusted as provided in the Contract for changes in the work. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules, and regulations and without such notice to the Engineer, it shall bear all costs arising therefrom.

Permit conditions are include in the appendices of the Specifications.

B-14 Conformity with Contract Documents and Allowable Deviations

Work and materials shall conform to the lines, grades, cross sections, dimensions and material requirements, including tolerances, shown on Contract Documents. Although measurement, sampling, and testing may be considered evidence as to such conformity, the Engineer shall be the sole judge as to whether the work or materials deviate from the Specifications and plans, and its decision as to any allowable deviations therefrom shall be final and conclusive.

Whenever a material, article or piece of equipment is identified on the Drawings or Specifications by reference to brand name or catalogue number, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The Contractor may recommend the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the Contract Documents by reference to brand name or catalogue number, and if, in the opinion of the Engineer, such material, article, or piece of equipment is of equal substance and function to that specified, the Engineer may approve its substitution and use by the Contractor. Any cost differential shall be deductible from the Contract Price and the Contract Documents shall be appropriately modified by Change Order. The Contractor warrants that if substitutes are approved, no major changes in the function or general design of the Project will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the Contractor without a change in the Contract Price or Contract Time.
B-15 Coordination and Interpretation of Contract Documents

(a) The Contract Documents are complementary and a requirement occurring in one is as binding as though occurring in all.

(b) In the event of conflict between the plans and the Technical Specifications, the Technical Specifications shall govern, except that, where items are shown on the plans and are not specifically included in the Technical Specifications, the plans shall govern.

(c) Should it appear that the work to be done or any of the matters relative thereto are not sufficiently detailed or explained in the Specifications and plans, the Contractor shall apply to the Engineer for such further explanations as may be necessary and shall conform to them as part of the Contract. In the event of any doubt or question arising respecting the true meaning of the Specifications and plans, reference shall be made to the Engineer, whose decision thereon shall be final and conclusive.

(d) In the event of any discrepancy between any plans and the figures written thereon, the figures shall be taken as correct. Detailed drawings shall prevail over general drawings.

(e) Any reference made in these Specifications or on the plans to any Specification, standard, method, or publication of any scientific or technical society or other organization shall, in the absence of a specific designation to the contrary, be understood to refer to the Specification, standard, method, or publication in effect as of the date that the work is advertised for Bids.

B-16 Subcontracts

(a) The attention of the Contractor is directed to the provisions of Public Contract Code sections 4100-4113, regarding subcontracting and said provisions are by this reference incorporated herein and made a part hereof.

(b) Each Subcontract shall contain a suitable provision for the suspension or termination thereof should the work be suspended or terminated or should the Subcontractor neglect or fail to conform to every provision of the Contract Documents insofar as such provisions are relevant. No Subcontractor or supplier will be recognized as such, and all persons engaged in work will be considered as employees of the Contractor, and the Contractor will be held responsible for their work, which shall be subject to the provisions of the Contract Documents. The Contractor shall be fully responsible to the RCAA for the acts or omissions of its Subcontractors and of the persons either directly or indirectly employed by him. Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the RCAA. If a legal action, including arbitration and litigation, against the RCAA is initiated by a Subcontractor or Supplier, the Contractor shall reimburse the RCAA for the amount of legal, engineering and all other expenses incurred by the RCAA in defending itself in said action. A copy of each subcontract must be provided to RCAA.

(d) The RCAA and the Engineer reserve the right to approve all subcontractors. Such approval shall be a consideration to the awarding of the Contract and unless notification to the contrary is given to the Contractor prior to the signing of the Contract, the list of subcontractors which is submitted with its proposal will be deemed to be acceptable.

B-17 Cooperation of Contractors

(a) Should construction be under way by other forces or by other Contractors within or adjacent to the limits of the work specified or should work of any other nature be under way by other
forces within or adjacent to said limits, the Contractor shall cooperate with all such other contractors or other forces to the end that any delay or hindrance to their work will be avoided. The right is reserved to perform other or additional work at or near the site (including material sources) at any time, by the use of other forces.

(b) When two or more contractors are employed on related or adjacent work, each shall conduct its operation in such a manner as not to cause any unnecessary delay or hindrance to the other. Each contractor shall be responsible to the other for all damage to work, to persons or property caused to the other by its operations, and for loss caused the other due to its unnecessary delays or failure to finish the work within the time specified for completion.

B-18 Superintendence

(a) The Contractor shall designate in writing before starting work an individual as authorized representative who shall have the authority to represent and act for the Contractor. This authorized representative shall be present at the site of the work at all times while work is actually in progress on the Contract. When work is not in progress and during periods when work is suspended, arrangements acceptable to the Engineer shall be made for any emergency work which may be required.

(b) The Contractor is solely responsible, at all times, for the superintendence of the work and for its safety and progress.

(c) Whenever the Contractor or its authorized representative is not present on any particular part of the work where it may be desired to give direction, orders will be given by the Engineer, which shall be received and obeyed by the superintendent or foreman who may have charge of the particular work in reference to which the orders are given.

(d) Any order given by the Engineer, not otherwise required by the Specifications to be in writing, will on request of the Contractor, be given or confirmed by the Engineer in writing.

B-19 Inspection of Work

(a) Unless otherwise provided, all equipment, materials, and work shall be subject to inspection and testing by the Engineer. The Engineer will observe the progress and quality of the work and determine, in general, if the work is proceeding in accordance with the intent of the Contract Documents. It shall not be required to make comprehensive or continuous inspections to check the quality of the work, and it shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the work. Visits and observations made by the Engineer shall not relieve the Contractor of its obligation to conduct comprehensive inspections of the work and to furnish proper materials, labor, equipment and tools, and perform acceptable work, and to provide adequate safety precautions, in conformance with the intent of the Contract.

(b) Whenever the Contractor varies the period during which work is carried on each day, it shall give due notice to the Engineer so that proper inspection may be provided. Any work done in the absence of the Engineer shall be subject to rejection. Proper facilities for safe access for inspection to all parts of the work shall at all times be maintained for the necessary use of the Engineer and other agents of the RCAA, and agents of the Federal, State, or local governments at all reasonable hours for inspection by such agencies to ascertain compliance with laws and regulations.

(c) One or more inspectors may be assigned to observe the work and to act in matters of construction under this Contract. It is understood that inspectors shall have the power to issue instructions and make decisions within the limitations of the authority of the Engineer. Such inspection
shall not relieve the Contractor of its obligation to conduct comprehensive inspections of the work, to furnish proper materials, labor, equipment and tools, and perform acceptable work, and to provide adequate safety precautions in conformance with the intent of the Contract.

(d) The Engineer and its representatives and the RCAA and its Representative shall at all times have access to the work wherever it is in preparation or progress, and the Contractor shall provide safe and convenient facilities for such access and for inspection. If the Specifications, the Engineer’s instructions, laws, ordinances, or any public authority require any material, equipment or work to be specifically tested or approved, the Contractor shall give the Engineer timely notice of its readiness for inspection, and if the inspection is by an authority other than the RCAA, of the time fixed for inspection. Inspections by the Engineer will be made promptly and, where practicable, at the source of supply.

(e) Work performed without inspection may be required to be removed and replaced under proper inspection and the entire cost of removal and replacing, including the cost of RCAA-furnished materials used in the work, shall be borne by the Contractor, regardless of whether or not the work exposed is found to be defective. Examination of questioned work, other than that installed without inspection, may be ordered by the Engineer and, if so ordered, the work must be uncovered by Contractor. If such work is found to be in accordance with the Contract Documents, the RCAA will pay the cost of re-examination and replacement. If such work is found to be not in accordance with the Contract Documents, the Contractor shall pay such cost unless it can show that the defect in the work was caused by another Contractor, and in that event the RCAA will pay such costs.

(f) The inspection of the work shall not relieve the Contractor of its obligation to fulfill the Contract as herein prescribed, or in any way alter the standard of performance provided by the Contractor, and defective work shall be made good and unusable materials may be rejected, notwithstanding that such work and materials have been previously overlooked by the Engineer and accepted or estimated for payment. If the work or any part thereof shall be found defective, Contractor shall, within ten (10) calendar days, make good such defect in a manner satisfactory to the Engineer. If the Contractor shall fail or neglect to make ordered repairs of defective work or to remove the condemned materials from the work within ten (10) calendar days after direction by the Engineer in writing, the RCAA may make the ordered repairs, or remove the condemned materials, and deduct the cost thereof from any monies due the Contractor.

(g) The Contractor shall furnish promptly without additional charge all facilities, labor and materials reasonably needed by the Engineer for performing all inspection and tests. Contractor shall be charged with any additional cost of inspection when material and workmanship are not ready at the time specified by the Contractor for its inspection.

(h) Where any part of the work is being done under an encroachment permit or building permit, or is subject to Federal, State, County or RCAA codes, laws, ordinances, rules or regulations, representatives of the government agency shall have full access to the work and shall be allowed to make any inspection or tests in accordance with such permits, codes, laws, ordinances, rules, or regulations. If advance notice of the readiness of the work for inspection by the governing agency is required, the Contractor shall furnish such notice to the appropriate agency.

(i) The Engineer may inspect the production of the material, or the manufacture of products at the source of supply. Plant inspection, however, will not be undertaken until the Engineer is assured of the cooperation and assistance of both the Contractor and the material producer. The Engineer or its authorized representative shall have free entry at all times to such parts of the plant as concerns the manufacture or production of the materials. Adequate facilities shall be furnished free of charge to make the necessary inspection. The RCAA assumes no obligation to inspect materials at the source of supply.

(j) Forty-eight hours prior to work being accomplished, the Contractor will notify the Engineer of the proposed working hours to accomplish the work for that day. Overtime and shift work may be established as a regular procedure by the Contract and with the written permission of the Engineer. Such permission may be revoked at any time. No work other than overtime and shift work established as
a regular procedure shall be done between the hours of 6 p.m. and 7 a.m., nor on Saturdays, Sundays, or legal holidays, except such work as is necessary for the proper care and protection of the work already performed or except in case of an emergency.

All costs for the overtime inspection, including those occurring as a result of overtime and shift work established as a regular procedure, shall be paid for by the Contractor. Overtime inspection shall include inspection required during holidays, Sundays, and any weekday between the hours of 6 p.m. and 7 a.m. Such costs will include, but will not necessarily be limited to, engineering, inspection, general supervision and other expenses which are directly chargeable to the overtime work. All such charges shall be deducted by the RCAA from payment due the Contractor.

(k) A pre-final inspection of the Work will be made by the RCAA and the Engineer. This inspection shall be made as soon as practical after Contractor has notified the RCAA in writing that the Work is ready for this inspection. The pre-final inspection shall be made prior to acceptance of any portion of the work as being substantially complete and prior to filing the Notice of Completion.

A final inspection of all the work will be made by the RCAA, Engineer, and Contractor.

**B-20 Tests**

The RCAA shall witness all tests specified or required by the Technical Specifications. The responsibility for payment for these tests is also outlined in the Technical Specifications. The Engineer will require such tests as it deems necessary to determine the quality of work or compliance with Contract Documents. The Contractor shall furnish promptly without additional charge all facilities, labor, and material reasonably required for performing safe and convenient tests as may be required by the Engineer. All tests by the Engineer will be performed in such a manner as will not unnecessarily delay the work. The Contractor shall not be required to reimburse the RCAA for tests performed by the RCAA or Engineer. If samples of materials are submitted which fail to pass the specified tests, the Contractor shall pay for all subsequent tests.

**B-21 Removal of Rejected and Unauthorized Work and Materials**

(a) All work or materials which have been rejected shall be remedied, or removed and replaced by the Contractor in an acceptable manner and no compensation will be allowed it for such removal, replacement, or remedial work.

(b) Any work done beyond the lines and grades shown on the plans or established by the Engineer or any extra work done without written authority will be considered as unauthorized work and will not be paid for. Upon order of the Engineer, unauthorized work shall be remedied, removed, or replaced at the Contractor’s expense.

(c) Upon failure of the Contractor to comply with any order of the Engineer made under this Section, the RCAA may cause rejected or unauthorized work to be remedied, removed or replaced, and may deduct the costs therefore from any monies due or to become due the Contractor.

(d) If following the installation of any equipment furnished hereunder, defects requiring correction by the Contractor are found, the RCAA shall have the right to operate such unsatisfactory equipment and make reasonable use thereof until the equipment can be shut down for correction of defects without injury to the RCAA.
B-22 Deductions for Uncorrected Work

If the Engineer deems it inexpedient to correct work damaged or not done in accordance with the Contract, an equitable deduction from the Contract price shall be made therefore, and such sum may be withheld by RCAA from Contractor’s payment.

B-23 Equipment and Plants

(a) Only equipment and plants suitable to produce the quality of work and materials required will be permitted to operate on the project.

(b) Plants will be designed and constructed in accordance with general practice for such equipment and shall be of sufficient capacity to insure the production of sufficient material to carry the work to completion within the time limit.

(c) The Contractor shall provide adequate and suitable equipment and plants to meet the above requirements, and when ordered by the Engineer, shall remove unsuitable equipment from the work and discontinue the operation of unsatisfactory plants.

(d) The Contractor shall identify each piece of its equipment, other than hand tools, by means of an identifying number plainly stenciled or stamped on the equipment at a conspicuous location, and shall furnish to the Engineer a list giving the description of each piece of equipment and its identifying number. In addition, the make, model number and empty gross weight of each unit of compacting equipment shall be plainly stamped or stenciled in a conspicuous place on the unit. The gross weight shall be either the manufacturer’s rated weight or the scale weight.

(e) In the case of termination of this Contract before completion from any cause whatever, the Contractor, if notified to do so by the RCAA, shall promptly remove any part or all of its equipment and supplies from the property of the RCAA. If the Contractor fails to do so, the RCAA shall have the right to remove such equipment and supplies at the expense of the Contractor.

B-24 Character of Worker

The Contractor shall employ only competent subcontractors or skillful workers to do the work. If any Subcontractor, or person employed by the Contractor or any Subcontractor shall fail or refuse to carry out the directions of the RCAA or its agents or shall appear to the RCAA or its agents to be incompetent or to act in a disorderly or improper manner, it shall be removed from the project work immediately on the requisition of the RCAA or its agents, and such person shall not again be employed on the work. Such discharge shall not be the basis for any claim for compensation or damages against the RCAA, or any of its officers or agents.

B-25 Separate Contracts

The RCAA reserves the right to let other contracts in connection with this work. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate its work with the other contractor’s work.

If any part of the Contractor’s work depends for proper execution or results upon the work of any other contractor, the Contractor shall inspect and promptly report to the Engineer any defects in such work that render it unsuitable for such proper execution and results. The Contractor’s failure to inspect and report shall constitute an acceptance of the other contractor’s work as fit and proper for the reception
of its work, except as to defects which may develop in the other contractor's work after the execution of its work.

To insure the proper execution of its subsequent work, the Contractor shall measure work already in place and shall at once report to the Engineer any discrepancy between the executed work and the drawings.

The RCAA may perform additional Work related to the Project by himself, or he may let other Contracts containing provisions similar to these. The Contractor will afford the other Contractors who are parties to such Contracts (or the RCAA, if he is performing the additional Work himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of Work and shall properly connect and coordinate his Work with theirs.

If the performance of additional Work by other Contractors or the RCAA is not noted in the Contract Documents prior to the execution of the Contract, written notice thereof shall be given to the Contractor prior to starting any such additional Work. If the Contractor believes that the performance of such additional Work by the RCAA or others involves him in additional expense or entitles him to an extension of the Contract Time, he may make a claim therefore as provided in Part 3, Article 1, Section B-7 of this Contract.

### B-26 Materials, Services and Facilities

(a) Unless otherwise specifically stated in the Contract Documents, the Contractor shall furnish all materials, labor, tools, equipment, water, light, power, sanitary facilities, transportation, supervision, temporary construction of any nature on all of the facilities necessary for the execution and completion of the work. Unless otherwise specified, all materials shall be new and shall be manufactured, handled, and installed in a workmanlike manner to insure completion of the work in accordance with the Contract Documents. The Contractor shall, upon request of the Engineer, furnish satisfactory evidence as to the kind and quality of materials.

(b) Where materials are to be furnished by the RCAA, the type, size, quantity and location at which they are available will be stated in the Contract Documents.

(c) Manufacturers' warranties, guarantees, instruction sheets and parts listed, which are furnished with certain articles or materials incorporated in the work, shall be delivered to the Engineer before acceptance of the Contract.

Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.

Materials, supplies and equipment shall be in accordance with samples submitted by the Contractor and approved by the Engineer.

Materials, supplies or equipment to be incorporated into the Work shall not be purchased by the Contractor or the subcontractor subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

The completed work shall include all necessary permanent safety devices, such as machinery guards and similar ordinary safety items required by the State and Federal (OSHA) industrial safety authorities and applicable local and national codes. Further, any features of the work subject to such safety regulations shall be fabricated, furnished, and installed in compliance with these requirements. Prior to performing Work specified herein, the Contractor shall request an inspection by a State Industrial Safety representative for the purpose of determining that the facilities provided are in compliance with the State and Federal safety requirements. Any facilities which are deemed necessary by official response following the above safety inspection shall be added or corrected as required as a part of the Contract.
work. However, no payment will be made to the Contractor for such changes or additions to equipment furnished under this Contract since it is a requirement of these Specifications that such equipment be manufactured or fabricated in such a manner as to be in conformance with all Federal, State, and local safety requirements. The Contractor shall notify all manufacturers, equipment suppliers, and subcontractors of the provisions of this article.

In approving equipment for installation in the project, the RCAA and Engineer assume no responsibility for injury or claims resulting from failure of the equipment to comply with applicable National, State, and local safety codes or requirements, or the safety requirements of a recognized agency, or failure due to faulty design concepts, or defective workmanship and materials.

All materials incorporated into the job shall be new, especially purchased for the project unless otherwise specified or agreed in writing. Unless otherwise noted, any equipment offered shall be current modifications which have been in successful regular operation under comparable conditions for a period sufficient to determine the reliability of the product. This time requirement, however, does not apply to minor details nor to thoroughly demonstrated improvements in design or in materials of construction.

Whenever the Contractor shall furnish materials or manufactured articles or shall do work for which no detailed specifications are set forth, the materials or manufactured articles shall be of the best grade in quality and workmanship obtainable in the market from firms of established good reputation, or, if not ordinarily carried in stock, shall conform to the usual standards of first-class materials or articles of the kind required with due consideration of the use to which they are to be put. In general, the work performed shall be in full conformity and harmony with the intent to secure the best standard of construction and equipment of the work as a whole or in part.

**B-27 Storage of Materials**

Materials shall be so stored as to ensure the preservation of their quality and fitness for the Work. When considered necessary, they shall be placed on wooden platforms or other hard, clean surfaces, and not on the ground, and they shall be placed under cover. Stored materials shall be located so as to facilitate prompt inspection. Private property shall not be used for storage purposes without the written permission of the owner or lessee.

Because of Permit constraints on use of areas directly adjacent to the constructing project, contractor shall provide off-site areas for storing equipment and material if he deems such areas as being inadequate to execute the work.

Electrical equipment, devices, and motors shall be placed in dry and warm storage as approved by the Engineer.

All equipment and materials which are not to be painted (such as aluminum and stainless steel) and all factory finished or coated equipment and materials which are not to be painted, that are installed prior to completion of adjacent work, shall be completely covered and protected.

Articles or materials to be incorporated in the work shall be stored in such a manner as to insure the preservation of their quality and fitness for the work, and to facilitate inspection.

**B-28 Trade Names and Alternatives**

For convenience in designation in the Specifications and plans, certain articles or materials to be incorporated in the work may be designated under a trade name or the name of a manufacturer and its catalog information. The use of an alternative article or material which is of equal quality and of the required characteristics for the purpose intended will be permitted, subject to the following requirements:
(1) The burden of proof as to the quality and suitability of alternatives shall be upon the Contractor and it shall furnish all information necessary as required by the Engineer. The Engineer shall be the sole judge as to the quality and suitability of alternative articles or materials and its decision shall be final.

(2) Whenever the Specifications and Plans permit the substitution of a similar or equivalent material or article, no tests or action relating to the approval of such substitute material or article will be made until the request for substitution is made in writing by the Contractor accompanied by complete data as to the equality of the material or article proposed. Such request by the Contractor must be made within thirty-five (35) days after award of Contract.

B-29 Certificate of Compliance

(a) A Certificate of Compliance shall be furnished prior to the use of any materials on the project, unless otherwise noted in the technical specifications. In addition, when so authorized in the Specifications, the Engineer may permit the use of certain materials or assemblies prior to sampling and testing if accompanied by a Certificate of Compliance. The Certificate shall be signed by the manufacturer of the material or the manufacturer of assembled materials and shall state that the materials involved comply in all respects with the requirements of the Contract. A Certificate of Compliance shall be furnished with each lot of material delivered to the work and the lot so certified shall be clearly identified in the Certificate.

(b) All materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The fact that material is used on the basis of a Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material in the work which conforms to the requirements of the Contract Documents and any such material not conforming to such requirements will be subject to rejection whether in place or not.

(c) The RCAA reserves the right to refuse to permit the use of material on the basis of a Certificate of Compliance.

(d) The form of the Certificate of Compliance and its disposition shall be as directed by the Engineer.

B-30 Assignment

The Contractor shall not assign the Contract or sublet it as a whole or in part without the prior written consent of the RCAA, nor shall the Contractor assign any monies due, or to become due to it hereafter, without the prior written consent of the RCAA.

B-31 Use of Completed Portions, Right to Operate Unsatisfactory Equipment or Facilities

(a) The RCAA may, at any time, and from time to time, during the performance of the work, enter the work site for the purpose of installing any necessary work by the RCAA labor or other contracts, and for any other purpose in connection with the installation of facilities. In doing so, the RCAA shall endeavor not to interfere with the Contractor and the Contractor shall not interfere with other work being done by or on behalf of the RCAA.

(b) If, prior to completion and final acceptance of all the work, the RCAA takes possession of any structure or facility (whether completed or otherwise) comprising a portion of the work with the intent to retain possession thereof (as distinguished from temporary possession contemplating the return to the Contractor), then, while the RCAA is in possession of the same, the Contractor shall be relieved of liability for loss or damage to such structure other than that resulting from the Contractor's fault or negligence. Such taking of possession by the RCAA's shall not relieve the Contractor from any provisions of this
Contract respecting such structure, other than to the extent specified in the preceding sentence, nor constitute a final acceptance of such structure or facility.

(c) If, following installation of any equipment or facilities furnished by the Contractor, defects requiring correction by the Contractor are found, the RCAA shall have the right to operate such unsatisfactory equipment or facilities and make reasonable use thereof until the equipment or facilities can be shut down for correction of defects without injury to the RCAA.

B-32 Lands for Work, Right-of-Way Construction Roads

(a) The RCAA will provide the lands, easements, rights-of-way, and/or encroachment permits necessary or other rights to enter and work on lands necessary for the performance of the work, however the Contractor will be responsible for obtaining a County encroachment permit. Other permits and licenses are addressed by sections B-13 and B-49. Should the Contractor find it advantageous to use any additional land for any purpose whatever, the Contractor shall provide for the use of such land at its expense. The Engineer shall be furnished with a copy of written agreements or otherwise be notified in writing of additional working space which is acquired. Nothing herein contained and nothing marked on the plans shall be interpreted as giving the Contractor exclusive occupancy of the territory provided by the RCAA. When two or more contracts are being executed at one time on the same or adjacent land in such a manner that work on one contract may interfere with that on another, the Engineer shall decide which contractor shall cease work, and which shall continue, or whether the work on both contracts shall progress at the same time and in what manner, and the decision of the Engineer shall be final and binding. When the territory of one contract is the necessary or convenient means of access for the performance of another contract, such privilege of access or any other reasonable privilege may be granted by the Engineer to the contractor so desiring, to the extent, amount, in the manner, and at the time permitted. No such decision as to the method or time of conducting the work or the use of territory shall be the basis of any claim for delay or damage.

(b) Lands, easements or rights-of-way to be furnished by the RCAA for construction operations will be specifically shown on the Plans.

(c) The Contractor shall maintain all roads necessary to reach the various parts of the work and for the transportation thereto of construction material and personnel. The cost of maintaining such roads shall be borne by the Contractor.

(d) Certain areas of access are limited by permits and require mats or matting for their use. Such mats may be of wood, metal or combination of appropriate geotechnical fabric with gravel overlay. However, at project conclusion all mats must be removed and the surface restored to its original condition. The rocked construction entrances shall remain in place unless noted otherwise on the plans.

B-33 RCAA's Right to Audit and Preservation of Records

(a) The Contractor shall maintain books, records and accounts of all costs in accordance with generally accepted accounting principles and practices. The RCAA, the Bureau of State Audits, Comptroller General of the United States, and their authorized representatives shall have the right to review and copy any records and supporting documentation pertaining to the performance of this agreement and to interview staff related to the performance of this agreement. Furthermore, the RCAA or its designated representatives shall have the right to audit the books, records and accounts of the Contractor under any of the following conditions:

(1) The Contract is terminated for any reason in accordance with the provisions of the Contract Documents in order to arrive at equitable termination costs;

(2) In the event of a disagreement between the Contractor and the RCAA over the amount due the Contractor under the terms of the Contract;
(3) To check or substantiate any amounts invoiced or paid which are required to reflect the costs of the Contractor, or the Contractor’s efficiency or effectiveness under this Contract or in connection with extras, changes, claims, additions, backcharges, or others, as may be provided for in this contract; and/or

(4) If it becomes necessary to determine the RCAA’s rights and the Contractor’s obligations under the Contract or to ascertain facts relative to any claim against the Contractor which may result in a charge against the RCAA;

(5) To determine any difference in cost occasioned by a permissible substitution;

(6) For any other reason in the RCAA’s sole judgment.

(b) If any of the conditions stated in paragraph B-33(a) are satisfied, Contractor shall provide the RCAA (or its representatives), unlimited, reasonable access during working hours to the Contractor's books and records under the conditions stated above. The RCAA's audit rights shall be liberally construed in the RCAA's favor.

(c) The Contractor, from the effective date of final payment or termination hereunder, shall preserve and make available to the RCAA for a period of three (3) years thereafter, at all reasonable times at the office of the Contractor (but without any charge to the RCAA), all its books, records, documents, photographs, micro-photographs, and other evidence bearing on the costs and expenses of the Contractor under this Contract and relating to the work hereunder.

(d) The RCAA will make all payments required of it under this Contract subject to audit, under circumstances stated above, which audit may be performed at the RCAA's option, either during the Contract time period or during the record retention time period. Regardless of authorization, approval or acceptance, signatures or letters which are given by the RCAA and are part of the RCAA's control systems or are requested by the Contractor, the payments made under this Contract shall not constitute a waiver or agreement by the RCAA that it accepts as correct the billings, invoices or other charges on which the payments are based. If the RCAA's audit produces a claim against the Contractor, the RCAA may pursue all its legal remedies even though it has made all or part of the payments required by this Contract.

(e) If any audit by the RCAA or its representative discloses an underpayment by the RCAA pursuant to the terms of the Contract Documents, the RCAA shall have the duty to pay any amount found by the audit to be owed to the Contractor. If such audit discloses an overpayment, the Contractor shall have the obligation to reimburse the RCAA for the amount of the overpayment. The RCAA's right to claim reimbursement from the Contractor of any overpayment shall not be terminated or waived until three years after the completion of the RCAA's audit or upon the termination of audit rights under subparagraph B-33(f), whichever date is later. The obligation of the Contractor to make reimbursements hereunder shall not terminate except as provided by law.

(f) The RCAA's right to audit and the preservation of records shall terminate at the end of three (3) years after the date final payment is made or termination of the Contract. The Contractor shall include this "Right to Audit and Preservation of Records" clause in all subcontracts issued by it shall require the same to be inserted by all lower tier Subcontractors in their subcontracts, for any portion of the work. Should Contractor fail to include this clause in any such contract or lower tier contract, or otherwise fail to insure the RCAA's rights hereunder, Contractor shall be liable to the RCAA for all costs, expenses and attorney's fees which the RCAA may have to incur obtaining or attempting to obtain an audit or inspection of or the restoration of records which otherwise have been available to the RCAA from said persons under this clause. Such audit may be conducted by the RCAA or its authorized representative.
ARTICLE III. PROGRESS AND COMPLETION OF WORK

B-34 Progress Schedule

The Contractor shall submit to the RCAA such schedules of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data, where applicable, as are required by the Contract Documents for the Work to be performed.

Prior to the first partial payment estimate, the Contractor shall submit construction progress schedules showing the order in which it proposes to carry on the Work, including dates at which it will start the various parts of the WORK, estimated date of completion of each part and as applicable:

- The dates at which special detail drawings will be required; and
- Respective dates for submission of Shop Drawings, the beginning of manufacture, the testing and the installation of materials, supplies, and equipment.
- The Contractor shall also submit a schedule of payments that it anticipates it will earn during the course of the Work.

The progress schedules shall be submitted regularly and shall cover a time period satisfactory to the Engineer. The Contractor shall also forward to the Engineer, with the request for progress payment each month, a summary report of the progress of the various parts of the Work under the Contract in the shops and in the field, stating the existing status, rate of progress, estimated time of completion, and cause of delay, if any. If the work is behind the submitted schedule, the Contractor shall submit in writing a plan acceptable to the RCAA and Engineer for bringing the Work up to schedule.

B-35 Commencement and Progress of the Work and Time of Completion

Prior to the start of construction, the RCAA will conduct a preconstruction conference. At the conference, the RCAA will review the planned development with the Engineer, Contractor, and other interested parties. Items to be reviewed include materials, equipment, rights-of-way, schedules and all arrangements for prosecuting the Work in accordance with the various permits. Funding for this agreement carries with it the requirement for a Labor Compliance Program to assure that the prevailing wage provisions of the Labor Code are being met. The pre-construction conference will also include an overview of fair labor requirements and distribution of documents.

The Contractor shall begin work after receiving a Notice to Proceed and shall diligently prosecute the work to completion as described in the benchmark schedule in the plans. Engineer shall have the right to specify the locations where Contractor shall start and proceed with the work. It is the interest of the RCAA to issue to Notice to Proceed by July 10, 2020.

B-36 Suspension of Work

(a) The Engineer may at any time, by notice in writing to the Contractor, suspend any part of the work for such period of time as may be necessary to prevent improper execution of the work on the project by the Contractor, its Subcontractors or agents, and the Contractor shall have no claim for damages or additional compensation on account of any such suspension.
(b) The RCAA may at any time suspend any part or all of the work upon ten (10) days written notice to the Contractor, who shall thereupon discontinue all work suspended except for all operations to prevent loss or damage to work already executed as may be directed by the Engineer. In the event a part of the work is suspended, the Contractor, if the suspension is not through its fault or the fault of its Subcontractors or agents, shall be paid on the same basis as Extra Work for costs of work performed in accordance with such orders of the Engineer during such suspension, provided that this shall not include any cost pertaining to work not suspended by said notice. Work shall be resumed by the Contractor after such suspension on written notice from the RCAA. In the event of suspension of the entire work by the RCAA, the Contractor, if the suspension is not through fault of the Contractor or the fault of its Subcontractors or agents, shall be paid the sum of $0 for each calendar day during which the entire work shall have been suspended. Said sum is hereby mutually agreed upon as fixed and liquidated damages in full settlement of all costs and expenses, losses and damages resulting to the Contractor from such suspension. Work shall be resumed by the Contractor after such suspension on written notice from the RCAA.

(c) In the event of any suspension of the work in whole or in part under subsection (b) above, the Contractor shall be entitled to an extension of time wherein to complete the work to the extent of the delay caused the Contractor thereby.

(d) In the event the entire work shall be suspended by order of the RCAA, as hereinabove provided, and shall remain so suspended for a period of sixty (60) consecutive days, through no fault of the Contractor, and notice to resume the work shall not have been served on the Contractor as hereinabove provided, Contractor may, at its option, by written notice to the RCAA, terminate the Contract in the same manner as if the termination had been initiated by the RCAA, and the RCAA shall have no claim for damages because of such termination of the Contract.

(e) If, through no act or fault of the Contractor, the Work is suspended for a period of more than ninety (90) days by the RCAA or under an order of Court or other public authority, or the Engineer fails to act on any request for payment within one-hundred and twenty (120) days after it is submitted, or the RCAA fails to pay the Contractor substantially the sum approved by the Engineer or any final award by arbitration or litigation within one-hundred and twenty (120) days of its approval and presentation, then the Contractor may, after ten (10) days from delivery of a written notice to the RCAA and the Engineer, terminate the Contract and recover from the RCAA payment for all Work executed and all expenses sustained.

In addition and in lieu of terminating the Contract, if the Engineer has failed to act on a request for payment or if the RCAA has failed to make any payment as aforesaid, the Contractor may upon ten (10) days written notice to the RCAA and the Engineer stop the Work until he has been paid all amounts then due, in which event and upon resumption of the Work, Change Orders shall be issued for adjusting the Contract Price or extending the Contract Time or both to compensate for the costs and delays attributable to the stoppage of the Work.

If the performance of all or any portion of the Work is suspended, delayed, or interrupted as a result of a failure of the RCAA or Engineer to act within the time specified in the Contract Documents, or if no time is specified, within a reasonable time, an adjustment in the Contract Price or an extension of the Contract Time, or both, shall be made by Change Order to compensate the Contractor for the costs and delays necessarily caused by the failure of the RCAA or Engineer.

If the Contractor intends to file a claim for additional compensation for a delay caused by the RCAA or Engineer at a particular time, he shall file a Notice of Claim with the RCAA within 7 days of the beginning of the occurrence. The Notice of Claim shall be in duplicate, in writing, and shall state the circumstances and the reasons for the Claim, but need not state the amount. No Claim for additional compensation will be considered unless a Notice of Claim has been filed with the RCAA within the time and in the manner stated above. Contractor's failure to file a claim shall constitute a waiver.
B-37 Termination For Default - Damages For Delay - Timely Extension

(a) The Contractor shall at all times employ such force, plant, materials, and tools as will be sufficient, in the opinion of the Engineer, to prosecute the work at not less than the rates fixed under the terms of the Contract and to complete the work or any part thereof within the time limits fixed therein. If the Contractor refuses or fails to prosecute the work, or any separable part thereof, with such diligence as will ensure the completion within the time specified in the Contract, or any extension thereof, or fails to complete said work within such time, the RCAA may, after giving ten (10) days written notice to the Contractor, terminate its right to proceed with the work or such part of the work as to which there has been delay.

(b) The Contractor's right to proceed shall not be so terminated nor the Contractor charged with resulting damage if:

(1) The delay in the completion of the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to Acts of God, acts of the public enemy, acts of the RCAA, acts of another contractor in the performance of a Contract with the RCAA, fires, floods, excluding site flooding due to groundwater, epidemics, quarantine restrictions, unusually severe weather, as determined by the Engineer; and

(2) The Contractor shall, within 48 hours of the start of the occurrence, give notice to the RCAA of the cause of the potential delay and an estimate of the possible time extension involved. The Contractor, within seven (7) days from the beginning of any such delay (unless the Engineer grants further period of time before the date of final payment under the Contract), notifies the Engineer in writing of the causes of delay and requests an extension of time.

The Engineer shall ascertain the facts and the extent of the delay and extend the time for completing the work when, in its judgment, the findings of fact justify such an extension, and its findings of fact shall be final and conclusive on the parties.

(c) A request for an extension of time, or the granting of an extension of time, shall not constitute a basis for any claim against the RCAA for additional compensation or damages unless caused by the RCAA or another contractor employed by the RCAA.

(d) If the 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 for the Contractor on account of its insolvency and not be discharged within ten (10) days after its appointment, or if the Contractor should fail to make prompt payments to subcontractors or suppliers, or should it persistently disregard laws, ordinances, or the instructions of the Engineer, or otherwise commit a substantial violation of any provisions of the Contract, the RCAA may, after giving ten (10) days written notice to the Contractor, terminate the Contract and the Contractor's right to proceed with the work.

(e) No extension of time will be considered for time lost due to weather conditions normal to the area. Unusual weather conditions, if determined by the Engineer to be of a severity that could not be predicted, may be considered as cause for an extension of Contract completion time.

(f) Delays in delivery of equipment or material purchased by the Contractor or his subcontractors shall not be considered as a just cause for delay. The Contractor shall be fully responsible for the timely ordering, scheduling, expediting delivery, and installation of all equipment and materials.

(g) The rights and remedies of the RCAA provided in this section are in addition to any of the rights and remedies provided by law or under this Contract.

(h) In addition to the RCAA's rights under this section, if at any time before completion of the work under the Contract, it shall be determined by the RCAA that reasons beyond the control of the
parties hereto render it impossible or against the interests of the RCAA to complete the work, or if the work shall be stopped by an injunction of a court of competent jurisdiction or by order of any competent authority, the RCAA may, upon ten (10) days written notice to the Contractor, discontinue the work and terminate the Contract. Upon service of such notice of termination, the Contractor shall discontinue the work in such manner, sequence, and at such times as the Engineer may direct. The Contractor shall have no claim for damages for such discontinuance or termination, nor any claim for anticipated profits on the work thus dispensed with, nor any other claim except for the work actually performed up to the time of discontinuance, including any extra work ordered by the Engineer to be done, nor for any claim for liquidated damages in accordance with the provisions of Section B-39.

**B-38 Rights of RCAA Upon Termination**

(a) In the event the right of the Contractor to proceed with the work, or any portion thereof, has been terminated because of the fault of the Contractor and the Contractor has been given ten (10) days notice to cure such fault and has not done so, the RCAA may take over the work and prosecute the same to completion by contract or any other method the RCAA deems expedient, and may take possession of and utilize in completing the work such materials, appliances, equipment and plant as may be on the site of the work and necessary therefore. Whether or not the Contractor’s right to proceed with the work is terminated, it and its sureties shall be liable for all damages including costs of managerial and administrative services, engineering, legal and other consultant fees, sustained or incurred by the RCAA in enforcing the provisions of Section B-37 and in completing or causing to complete the Contract work.

Upon termination the Contractor shall not be entitled to receive any further payment until the work is finished. If upon completion of the work the total cost to the RCAA, including engineering, legal and other consultant fees, costs of managerial and administrative services, construction costs, and liquidated damages shall be less than the amount which would have been paid if the work had been completed by the Contractor in accordance with the terms of the Contract, then the difference shall be paid to the Contractor in the same manner as the final payment under the Contract. If the total cost incurred by the RCAA on account of termination of the Contract and subsequent completion of the work by the RCAA by whatever method the RCAA may deem expedient shall exceed said amount which the Contractor would otherwise have been paid, the Contractor and its sureties shall be liable to the RCAA for the full amount of such excess expense.

(b) The rights and remedies of the RCAA provided in this section are in addition to any of the rights and remedies provided by the law or under this Contract.

**B-39 Failure to Complete the Work in the Time Agreed Upon - Liquidated Damages**

(a) **Liquidated Damages** - It is agreed by the parties to the Contract that time is of the essence; and that in case all the work is not completed before or upon the expiration of the time limit as set in the Bid, Contract and Progress Schedule, or within any time extensions that may have been granted, damage will be sustained by the RCAA; and that it may be impracticable to determine the actual amount of damage by reason of such delay; and it is, therefore, agreed that the Contractor shall pay to the RCAA as damages the amount of $1,500.00 per day for each and every day's delay in finishing the work by **October 15, 2020**. The parties expressly agree that this liquidated damage clause is reasonable under the circumstances existing at the time the Contract was made. They shall have the right to deduct the amount of liquidated damages from any money due or to become due the Contractor.

(b) In addition, the RCAA shall have the right to charge to the Contractor and to deduct from the final or progress payments for the work the actual cost to the RCAA of legal, engineering, inspection, superintendence, and other expenses, which are directly chargeable to the Contract and which accrue during the period of such delay, except that the cost of final inspection and preparation of the final estimate shall not be included in the charges.
(c) **Exclusions** - Notwithstanding the provisions of subsection (a), the Contractor shall not be liable for liquidated damages or delays caused by the removal or relocation of utilities when such removal or relocation is the responsibility of the RCAA or the owner of the utility under Government Code Section 4215.

**B-40 Clean-up**

During the progress of the work, the Contractor shall maintain the site and related structures and equipment in a clean, orderly condition and free from unsightly accumulation of rubbish. Upon completion of work and before the final estimate is submitted, the Contractor shall at its own cost and expense remove from the vicinity of the work all plants, buildings, rubbish, unused work materials, concrete forms, and temporary bridging and other like materials, belonging to it or used under its direction during the construction, and in the event of its failure to do so, the same may be removed by the RCAA after ten (10) calendar days notice to the Contractor, such removal to be at the expense of the Contractor. Where the construction has crossed yards or driveways, they shall be restored by the Contractor to the complete satisfaction of the Engineer, at the Contractor's expense.
ARTICLE IV. LEGAL RELATIONS AND RESPONSIBILITY

B-41 Compliance with Laws - Permits, Regulations, Taxes

Contractor is an independent contractor and shall at its sole cost and expense comply with all laws, rules, ordinances and regulations of all governing bodies having jurisdiction over the work, obtain all necessary permits and licenses therefore, pay all manufacturers’ taxes, sales taxes, use taxes, processing taxes, and all Federal and state taxes, insurance and contributions for social security and unemployment which are measured by wages, salaries or any remuneration paid to Contractor’s employees, whether levied under existing or subsequently enacted laws, rules or regulations. Contractor shall also pay all property tax assessments on materials or equipment used until acceptance by the RCAA. If any discrepancy or inconsistency is discovered in the Plans or Specifications, or in this Contract in relation to any such law, rule, ordinance, regulation, order or decree, the Contractor shall forthwith report the same to the Engineer in writing. It shall also protect and indemnify the RCAA, the Engineer, and all of the RCAA’s officers, agents, and servants against any claim or liability arising from or based upon the violation of any such law, rule, ordinance, regulation, order or decree, whether by the Contractor itself or by its employees. Particular attention is called to the following:

(1) Without limitation, materials furnished and performance by Contractor hereunder shall comply with Safety Orders of the Division of Industrial Safety, State of California, Federal Safety regulations of the Bureau of Labor, Department of Labor; and any other applicable Federal regulations.

(2) The Contractor, upon request, shall furnish evidence satisfactory to the RCAA and Engineer that any or all of the foregoing obligations have been or are being fulfilled. The Contractor warrants to the RCAA that it is licensed by all applicable governmental bodies to perform this Contract and will remain so licensed throughout the progress of the work, and that it has, and will have, throughout the progress of the work, the necessary experience, skill and financial resources to enable it to perform this Contract.

(3) Project permits will be provided to the awarded contractor. The permit conditions have been included in the appendices of these specifications.

B-42 Prevailing Wage

(a) This is a Public Works Project funded with CA State funds (Proposition 84, 1E, 40, and 1). Therefore CA State prevailing wage rates are required on this project. See Federal Provisions for federal prevailing wage requirements.

(b) In accordance with the provisions of section 1720 et seq. of the Labor Code, the Division of Labor Standards and Research has determined the general prevailing rates or wages and employer payments for health and welfare, pension, vacation, travel time, and subsistence pay as provided for in section 1773.8. Prior to each pay period, the Contractor shall review the General Prevailing Wage Rates applicable to this project and verify that the correct wage rates are being paid. The most current wage rates are available from the California Department of Industrial Relations’ Internet web site at http://www.dir.ca.gov/DLSR/PWD. Contractor will be required to comply with any changes in these wage rates as they are updated by the State government during the course of the job at no cost to the Owner.

(c) It is mandatory upon the Contractor herein and upon any Subcontractor to pay not less than the said specified rates to all laborers, workers and mechanics employed by them in the execution of the Agreement pursuant to CA Labor Code 1774.

(d) Attention is directed to the provisions in section 1777.5 and sections 1777.6 of the Labor Code concerning the requirement to employ apprentices by the Contractor or any Subcontractor under it.
The Contractor shall comply with and shall cause his subcontractors to comply with all laws and regulations governing the contractor’s and subcontractor’s performance on this project including, but not limited to: anti-discrimination laws, workers’ compensation laws, and prevailing wage laws as set forth in CA Labor Code, Sections 1720-1861 et seq. and licensing laws, as well as Federal Labor Standards set forth in the Davis-Bacon Act (40 USC 276(a-a5), the Copeland “Anti-Kickback” Act (40 USC 276©, and the Contract Work Hours and Safety Standards Act (CWHSSA) (40 USC 327-333). The contractor is required to include the prevailing wage language in all subcontracts pursuant to CA Labor Code 1775(E)(b)(1). The Contractor shall post, at appropriate conspicuous points on the site of the Project, a schedule showing all the determined general prevailing wage rates.

The Contractor agrees to comply with Labor Code Section 1775 (Payment of the Prevailing Wage Rates) and Labor Code 1776 (keeping accurate records) and Labor Code 1777.5, placing responsibility for compliance with the statutory requirements for all apprenticeable occupations on the prime contractor. The Contractor shall comply with the requirements imposed by the California Labor Code Sections 1720 through 1861 regarding public works projects and prevailing wage laws and sections 16000-16800 of the CA Code of Regulations.

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

Holiday and overtime work when permitted by law shall be paid for at a rate of at least one and one-half times the above specified rate of per diem wages, unless otherwise specified.

The Contractor shall forfeit as penalty to the RCAA the sum of fifty dollars ($50) for each calendar day or portion thereof for each worker (whether employed by the Contractor or Subcontractor) for violating the following labor codes; CA Labor Code 1813 for overtime, 1775 for underpayment of the prevailing wage, and 1776 for inaccurate or incomplete payroll records.

Per Labor Code Section 1776, the Contractor and subcontractors shall maintain and furnish to the RCAA’s Labor Compliance Officer at designated times, a certified copy of each weekly payroll containing a statement of compliance signed under the penalty of perjury. The RCAA will audit payroll records to verify compliance and will withhold contract payments when payroll records are delinquent or inadequate. Withheld contract payments shall be equal to the amount of underpayment and applicable penalties when, after investigation, it is established that underpayment has occurred.

The RCAA will not recognize any claims for additional compensation because of the payment of the wages set forth in the Contract Documents. The possibility of wage increases during the course of the job is one of the elements to be considered by the Contractor in determining its proposal, and will not under any circumstances be considered as the basis of a claim against the RCAA or the Engineer.

The Contractor shall at all times keep posted at the jobsite current wage rates in effect for this Work in addition to other required employee notifications or postings.

**B-43 Labor Discrimination and Labor Compliance**

Attention is directed to Section 1735 of the Labor Code, which reads as follows:

No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, or sex of such persons, except as provided in Section 12940 of the Government Code, and every Contractor for public works violating
this section is subject to all the penalties imposed for a violation of this chapter.

(a) Pursuant to Labor Code section 1771.4, the Contract for this Project, if awarded on or after January 15, 2015, is subject to compliance monitoring and enforcement by the California Department of Industrial Relations.

(b) On each job site that is subject to compliance monitoring and enforcement by the Department of Industrial Relations under this subchapter, the prime contractor shall post a Notice containing the following language:

(c) “This public works project is subject to monitoring and investigative activities by the Compliance Monitoring Unit (CMU) of the Division of Labor Standards Enforcement, Department of Industrial Relations, State of California. This Notice is intended to provide information to all workers employed in the execution of the contract for public work and to all contractors and other persons having access to the job site to enable the CMU to ensure compliance with and enforcement of prevailing wage laws on public works projects.

(d) “The prevailing wage laws require that all workers be paid at least the minimum hourly wage as determined by the Director of Industrial Relations for the specific classification (or type of work) performed by workers on the project. These rates are listed on a separate job site posting of minimum prevailing rates required to be maintained by the public entity which awarded the public works contract. Complaints concerning nonpayment of the required minimum wage rates to workers on this project may be filed with the CMU at any office of the Division of Labor Standards Enforcement (DLSE).

(e) Local Office Telephone Number: 1-844-522-6734

(f) “Complaints should be filed in writing immediately upon discovery of any violations of the prevailing wage laws due to the short period of time following the completion of the project that the CMU may take legal action against those responsible.

(g) “Complaints should contain details about the violations alleged (for example, wrong rate paid, not all hours paid, overtime rate not paid for hours worked in excess of 8 per day or 40 per week, etc) as well as the name of the employer, the public entity which awarded the public works contract, and the location and name of the project.

(h) “For general information concerning the prevailing wage laws and how to file a complaint concerning any violation of these prevailing wage laws, you may contact any DLSE office. Complaint forms are also available at the Department of Industrial Relations website found at www.dir.ca.gov/dlse/PublicWorks.html.”

B-44 Eight-Hour Day Limitation

(a) In accordance with the provisions of the Labor Code, and in particular, Sections 1810 to 1815 thereof, inclusive, eight hours labor shall constitute a day’s work, and no worker, in the employ of said Contractor, or any Subcontractor, doing or contracting to do any part of the work contemplated by this Contract, shall be required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of those provisions; provided that subject to Labor Code Section 1815, a worker may perform work in excess of either eight (8) hours per day or forty (40) hours during any one week upon compensation for all hours worked in excess of eight (8) hours per day or forty (40) hours during any one week at not less than the rate of compensation required by Labor Code Section 1815.

(b) The Contractor and each Subcontractor shall also keep an accurate record showing the names, addresses, social security numbers, work classifications, 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 and by the Subcontractor in connection with the work specified herein, which record shall be open at all reasonable hours to the inspection of the RCAA, State and Federal officers and agents; and it is hereby further agreed that, except as provided in (a) above, the Contractor shall forfeit as a penalty to the RCAA the sum of fifty dollars ($50) for each worker employed in the performance of this Contract by it or by any Subcontractor under it for each calendar day during which such worker is required or permitted to labor more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of Sections 1810 through 1815.

**B-45 Compliance with State Requirements for Employment of Apprentices**

The Contractor's attention is directed to Section 1777.5 through 1777.2 of the Labor Code; provisions of those Sections pertaining to employment of registered apprentices are hereby incorporated by reference into these Specifications. As applicable, the Contractor or any Subcontractor employed by it in the performance of the Contract work shall take such actions as necessary to comply with the provisions of Section 1777.5.

**B-46 Underground Utilities**

In accordance with Government Code Section 4215, the Contractor shall be compensated for the costs of locating, repairing damage not due to the failure of the Contractor to exercise reasonable care, and removing or relocating existing main or trunkline utility facilities not indicated in the Contract Plans and Specifications with reasonable accuracy, and for the equipment on the project necessarily idled during such work; provided that the Contractor shall first notify the Engineer before commencing work on locating, repairing damage to, removing or relocating such utilities.

**B-47 Water Pollution**

The Contractor shall exercise every reasonable precaution to protect streams, lakes, reservoirs, and canals from pollution with fuels, oils, bitumens, calcium chloride, and other harmful materials and shall conduct and schedule its operations so as to avoid or minimize muddying and silting of said streams, lakes, reservoirs, and canals. Care shall be exercised to preserve vegetation beyond the limits of construction disturbance. The Contractor shall comply with Section 5650 of the California Fish and Wildlife Code and all other applicable statutes and regulations relating to the prevention and abatement of water pollution.

**B-48 Payment of Taxes**

The Contract prices paid for the work shall include full compensation for all taxes which the Contractor is required to pay, whether imposed by Federal, State, or local governments.

**B-49 Permits and Licenses**

Except as otherwise provided in this Contract, the Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incident to the lawful prosecution of the work.
B-50 Patents

The Contractor shall pay all applicable royalties and license fees and assume all costs arising from the use of patented materials, equipment and devices. The Contractor shall defend all suits or claims for infringement of any patent rights and save the RCAA and Engineer and their duly authorized representatives harmless from loss on account thereof, except that the RCAA shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified; however if the Contractor has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the Engineer.

B-51 Public Convenience

(a) This section defines the Contractor's responsibility with regard to convenience of the public and public traffic in connection with its operations.

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

(c) Unless otherwise provided in the Contract Documents, all public traffic shall be permitted to pass through the work with as little inconvenience and delay as possible.

(d) Spillage resulting from hauling operations along or across any publicly traveled way shall be removed immediately by the Contractor at its expense.

(e) Construction operations shall be conducted in such a manner as to cause as little inconvenience as possible to abutting property owners.

(f) Convenient access to driveways, houses and buildings along the line of the work shall be maintained and temporary approaches to crossings or intersecting highways shall be provided and kept in good condition. When the abutting property owner's access across the right-of-way line is to be eliminated, or to be replaced under the Contract by other access facilities, the existing access shall not be closed until the replacement access facilities are usable.

(g) Water shall be supplied if ordered by the Engineer for the alleviation or prevention of dust nuisance as provided in the Contract Documents.

(h) In order to expedite the passage of public traffic through or around the work and where ordered by the Engineer, the Contractor shall install signs, lights, flares, barricades, and other facilities for the sole convenience and direction of public traffic. Also, where directed by the Engineer, the Contractor shall provide and station competent flagpersons whose sole duties shall consist of directing the movement of public traffic through or around the work. The cost of furnishing and installing such signs, lights, flares, barricades, and other facilities, and the cost of providing and stationing such flagpersons, all for the convenience and direction of public traffic, will be considered as included in the Contract price and no additional compensation will be allowed.

(i) Flagpersons and guards, while assigned to traffic control, shall perform their duties and shall be provided with the necessary equipment in accordance with the current "Instructions to Flagmen" of the California Department of Transportation. The equipment shall be furnished and kept clean and in good repair by the Contractor at its expense.


B-52  Safety

(a) General - The Contractor shall be solely and completely responsible for the conditions of the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours. Safety provisions shall conform to all applicable Federal, State, and local laws, ordinances, and codes, and to the rules and regulations established by the California Division of Industrial Safety, and to other rules of law applicable to the work.

(b) The services of the Engineer in conducting construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's work methods, equipment, bracing or scaffolding or safety measures, in, on, or near the construction site, and shall not be construed as supervision of the actual construction nor make the Engineer or the RCAA responsible for providing a safe place for the performance of work by the Contractor, subcontractors, or suppliers; or for access, visits, use work, travel or occupancy by any person.

(c) The Contractor shall carefully instruct all personnel working in potentially hazardous work areas as to the potential dangers and shall provide such necessary safety equipment and instruction as is necessary to prevent injury and damage to property. The Contractor shall appoint for the duration of this Contract, a qualified supervisor employee to develop and/or supervise the Contractor's job safety program that will effectively implement the safety provisions of the above agencies.

The Contractor, as a part of his safety program, shall maintain at its office or other well-known place at the job site, safety equipment applicable to the Work as prescribed by the aforementioned authorities, all articles 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 (including employees) who may be injured on the job site.

If death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to both the Engineer and the RCAA and to all authorities the Contractor is required to report to. In addition, the Contractor must promptly report in writing to the Engineer all accidents whatsoever arising out of, or in connection with, the performance of the Work whether on, or adjacent to, the site, giving full details and statements of witnesses.

If any 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 Engineer, giving full details of the claim.

(c) All work and materials shall be in strict accordance with all applicable State, Federal and local laws, rules, regulations, and codes.

(d) Nothing in this Contract is to be construed to permit work not conforming to governing law. When Contract Documents differ from governing law, the Contractor shall furnish and install the higher standards called for without extra charge. All equipment furnished shall be grounded and provided with guards and protection as required by safety codes. Where vapor-tight or explosion-proof electrical installation is required by law, this shall be provided.

(e) Shoring and Trench Safety Plan - Attention is directed to Section 832 of the Civil Code of the State of California relating to lateral and subjacent support, and the Contractor shall comply with this law. This is a requirement of the Contractor and by submitting to the RCAA or their representative, does not relieve the contractor of their responsibility for all aspects of site safety.

(f) Trenching and Worker Protection - In accordance with Section 6705 of the State Labor Code, the Contractor shall submit to the RCAA specific plans to show details of provisions for worker protection from caving ground. Not less than thirty (30) days before beginning excavation for any trench or trenches five (5) feet or more in depth required under this Contract, the Contractor shall furnish to the Engineer working drawings of its trench safety plan. The trench safety plan working drawings shall be
detailed plans showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground. If such plan varies from the shoring system standards established by the Construction Safety Orders of the California Department of Industrial Relations or the Federal Safety and Health Regulations for Construction of the Occupational Safety and Health Administration, Department of Labor, the plan shall be prepared by a registered civil or structural engineer. In no event shall the Contractor use a shoring, sloping, or protective system less effective than that required by said Construction Safety Orders, or less effective than that required by said Federal Safety and Health Regulations for Construction. The RCAA and their representatives shall receive the Contractor’s Plan, but shall not review the plan for adequacy or compliance with state and federal requirements. It is the Contractor’s responsibility to fully comply with state and federal safety requirements at all times during the job. Submission of this plan in no way relieves the Contractor from the requirement to maintain safety in all operations performed by it or its Subcontractors.

(g) Hazardous Wastes and Unforeseen Conditions - In accordance with Section 7104 of the State Public Contract Code, if the work contemplated hereunder involves digging trenches or other excavations that extend deeper than four feet below the surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the RCAA, in writing, of any: (i) material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; (ii) Subsurface or latent physical conditions at the site differing from those indicated; or (iii) unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract. The RCAA shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the Work shall issue a change order under the procedures described herein. In the event that a dispute arises between the RCAA and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any scheduled completion date provided for herein, but shall proceed with all Work to be performed hereunder. The Contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between the RCAA and Contractor.

(h) The Contractor shall perform all Work in a fire-safe manner. He shall supply and maintain onsite adequate fire fighting equipment capable of extinguishing incipient fires. The Contractor shall comply with applicable federal, state, and local fire prevention regulations and where the regulations do not cover, with applicable parts of the National Fire Prevention Standard for “Safeguarding Building Construction Operations,” (NFPA No. 241).

B-53 Protection of Person and Property

(a) The Contractor shall take whatever precautions are necessary to prevent damage to all existing improvements, including above ground and underground utilities, trees, shrubbery that is not specifically shown to be removed, fences, signs, mailboxes, survey markers and monuments, buildings, structures, the RCAA's property, adjacent property, and any other improvements or facilities within or adjacent to the work. If such improvements or property are injured or damaged by reason of the Contractor's operations, they shall be replaced or restored, at the Contractor's expense, to a condition at least as good as the condition they were in prior to the start of the Contractor's operations.

(b) The Contractor shall adopt all practical means to minimize interference to traffic and public inconvenience, discomfort or damage. The Contractor shall protect against injury any pipes, conduits or other structures, crossing the trenching or encountered in the work and shall be responsible for any injury done to such pipes or structures, or damage to property resulting therefrom. The Contractor shall support or replace any such structures without delay and without any additional compensation to the entire satisfaction of the Engineer. All obstructions to traffic shall be guarded by barriers illuminated at
night. The Contractor shall be responsible for all damage to persons and property directly or indirectly caused by its operations and, under all circumstances, the Contractor must comply with the laws and regulations of the County and the State of California relative to safety of persons and property and the interruption of traffic and the convenience of the public within the respective jurisdictions.

(c) The Contractor is cautioned that it must replace all improvements in rights-of-way and within the public streets to a condition equal to what existed prior to the Contractor’s entry onto the job.

(d) Type and time of construction required at any road subject to interference by Contract work will be determined by those authorities responsible for maintenance of said road. It shall be the responsibility of the Contractor to determine the nature and extent of all such requirements, including provision of temporary detours as required; however, the construction right-of-way obtained by the RCAA at affected roadways will be adequate for provision of all required detours. As required at any road crossing, the Contractor shall provide all necessary flag persons, guardrails, barricades, signals, warning signs and lighting to provide for the safety of existing roads and detours. Immediately after the need for temporary detours ceases, or when directed, the Contractor shall remove such detours and perform all necessary cleanup work, including replacement of fences, and removal of pavement. Included shall be all necessary replacement of existing roadway appurtenances, grading work, soil stabilization and dust control measures, as required and directed. The cost of all work specified under this Section shall be borne by the Contractor.

(e) The Contractor shall examine all bridges, culverts, and other structures over which it will move its materials and equipment, and before using them, it shall properly strengthen such structures where necessary. The Contractor shall be responsible for any and all injury or damage to such structures caused by reason of its operations.

B-54 Responsibility for Repair of Facilities

All public or private facilities, including but not limited structures, telephone cables, roadways, parking lots, private drives, levees and embankments disturbed during construction of the work shall be repaired and/or replaced by the Contractor to match facilities existing prior to construction. In addition, the Contractor shall be responsible for any settlement damage to such facilities or adjoining areas for a period of one year after acceptance of such required facilities.

The Contractor’s attention is directed to the many water services and sewer laterals crossing the road. It is the Contractor’s responsibility to protect these laterals and repair damage. RCAA crews are not available to repair water services disturbed by construction.

B-55 Resolution of Construction Claims

(a) For any claim arising under this contract, the following procedures will apply:

(1) The claim must be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the day of final payment. Nothing in this subsection is intended to extend the time limit or supersede notice requirements for the filing of claims as set forth elsewhere in this contract.

(b) The Contractor shall proceed with the work in accordance with the plans and specifications and determinations and instructions of the RCAA Engineer during the resolution of any claims disputes.
B-56  **RCAA’s Repair**

In the event the Contractor refuses or neglects to make good any loss or damage for which the Contractor is responsible under this Contract, the RCAA may itself, or by the employment of others, make good any such loss or damage, and the cost and expense of doing so, including any reasonable engineering, legal and other consultant fees, and any costs of administrative and managerial services, shall be charged to the Contractor. Such costs and expenses may be deducted by the RCAA from claims for payment made by the Contractor for work completed or remaining to be completed.

B-57  **Antitrust Claim Assignment**

In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to this contract, the Contractor and all subcontractors shall offer and agree to assign to the RCAA all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services or materials pursuant to the public works contract or subcontract. This assignment shall be made and become effective at the time the RCAA tenders final payment to the Contractor, without further acknowledgement by the parties.

B-58  **Waiver of Right to Rescind For Material Breach**

The Contractor agrees that it can be adequately compensated by money damages for any breach of this Contract which may be committed by the RCAA and hereby agrees that no default, act, or omission of the RCAA or the Engineer, except for failure to make progress payments as a required by Section B-68, shall constitute a material breach of the Contract entitling the Contractor to cancel or rescind the provisions of this Contract or (unless the RCAA shall so consent or direct in writing) to suspend or abandon performance of all or any part of the work. The Contractor hereby waives any and all rights and remedies to which it might otherwise be or become entitled, save only its right to money damages.

B-59  **Contractor’s License Notice**

CONTRACTORS ARE REQUIRED BY LAW TO BE LICENSED AND REGULATED BY THE CONTRACTORS’ STATE LICENSE BOARD WHICH HAS JURISDICTION TO INVESTIGATE COMPLAINTS AGAINST CONTRACTORS OF A COMPLAINT IF FILED WITHIN THREE (3) YEARS OF THE DATE OF THE ALLEGED VIOLATION. ANY QUESTIONS CONCERNING A CONTRACTOR MAY BE REFERRED TO THE REGISTRAR, CONTRACTORS’ STATE LICENSE BOARD, 9835 GOETHE ROAD, SACRAMENTO, CALIFORNIA. MAILING ADDRESS: P.O. BOX 26000, SACRAMENTO, CALIFORNIA 95826.
ARTICLE V. INSURANCE AND LIABILITY

B-60 Insurance

(a) Neither the Contractor nor any Subcontractors shall commence any work until all required insurance has been obtained at their own expense. Such insurance must have the approval of the RCAA as to limit, form, and amount, and shall be placed with insurers with a current A.M. Best's rating of no less than A:VII.

(b) Any insurance bearing on adequacy of performance shall be maintained after completion of the project for the full guarantee period.

(c) Prior to execution of the Contract, the Contractor shall furnish the RCAA with original endorsements effecting coverage for all policies required by the Contract. The Contractor shall not permit any Subcontractor identified in the Designation of Subcontractors form to commence work on this project until such Subcontractor has furnished the RCAA with original endorsements effecting coverage for all insurance policies required by the Contract. The endorsements shall be signed by a person authorized by the insurer to bind coverage on its behalf. The endorsements are to be on forms provided by the RCAA. As an alternative to the RCAA's forms, the Contractor's insurer may, subject to the approval of the RCAA, provide complete, certified copies of all required insurance policies, including endorsements affecting the coverage required by this paragraph. The Contractor agrees to furnish one copy of each policy to the RCAA, and additional copies as requested in writing, certified by an authorized representative of the insurer.

(d) All of the Contractor's policies shall contain an endorsement providing that written notice shall be given, return receipt requested to RCAA and State Coastal Conservancy at least sixty (60) calendar days prior to termination, cancellation, or reduction of coverage in the policy.

(e) Any policy or policies of insurance that the Contractor elects to carry as insurance against loss or damage to its construction equipment and tools shall include a provision therein providing a waiver of the insurer's right to subrogation against the RCAA and the Engineer.

(f) The requirements as to the types, limits, and the RCAA's approval of insurance coverage to be maintained by the Contractor are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Contractor under the Contract.

(g) In addition to any other remedy the RCAA may have, if the Contractor or any of the subcontractors fails to maintain the insurance coverage as required in this Section, the RCAA may obtain such insurance coverage as is not being maintained, in form and amount substantially the same as required herein, and the RCAA may deduct the cost of such insurance from any amounts due or which may become due the Contractor under this Contract.

(h) The Contractor and all subcontractors shall, at their expense, maintain in effect at all times during the performance or work under the Contract not less than the following coverage and limits of insurance, which shall be maintained with insurers and under forms of policy satisfactory to the RCAA. The maintenance by the Contractor and all subcontractors of the following coverage and limits of insurance is a material element of this Contract. The failure of the Contractor or any subcontractor to maintain or renew coverage or to provide evidence of renewal may be treated by the RCAA as a material breach of this contract.

(1) Worker's Compensation and Employer's Liability Insurance.

(i) Worker's Compensation - Insurance to protect the Contractor or subcontractor from all claims under Worker's Compensation and Employer's Liability Acts, including Longshoremen's and Harbor Worker's Act. Such coverage shall be maintained, in type and amount, in
strict compliance with all applicable State and Federal statutes and regulations. The Contractor shall execute a certificate in compliance with Labor Code Section 1861.

(2) Claims Against RCAA - If an injury occurs to any employee of the Contractor or any of the subcontractors for which the employee or its dependents, in the event of its death, may be entitled to compensation from the RCAA under the provisions of the said Acts, or for which compensation is claimed from the RCAA, there will be retained out of the sums due the Contractor under this Contract, an amount sufficient to cover such compensation as fixed by said Acts, until such compensation is paid or it is determined that no compensation is due. If the RCAA is required to pay such compensation, the amount so paid will be deducted and retained from such sums due, or to become due the Contractor.

(3) Comprehensive General and Automobile Liability Insurance - The insurance shall include, but shall not be limited to, protection against claims arising from death, bodily or personal injury, or damage to property resulting from actions, failures to act, operations or equipment of the insured, or by its employees, agents, consultants, or by anyone directly or indirectly employed by the insured. Insurance shall be written with a limit of liability not less than $2,000,000 for all damages arising out of bodily injury, including death, at any time resulting therefrom, sustained by any one person in any one accident; and a limit of liability of not less than $2,000,000 aggregate for any damages sustained by two or more persons in any one accident. Insurance shall be written with a limit of liability of not less than $500,000 for all property damage sustained by one person in any one accident; and a limit of liability not less than $500,000 aggregate for any such property damage sustained by two or more persons in any one accident. Any deductibles must be declared to and approved by the RCAA. At the option of the RCAA, either: the insurer shall reduce or eliminate such deductibles as respects the entity, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

The comprehensive general and automobile liability insurance coverage shall also include the following:

(i) Provision or endorsement naming the RCAA, State, its officers, agents, and employees, volunteers, GHD, USFWS, the landowners labeled on the Site Plan sheets from the Drawings, and their consultants, and each of their officers, employees, and agents, each as additional insured in regards to liability arising out of the performance of any work under the Contract including activities related to automobiles leased, hired, borrowed or owned and for work or operations including materials, parts or equipment, and providing that such insurance is primary insurance as respects the interest of the RCAA and Engineer and that any other insurance maintained by the RCAA and Engineer is excess and not contributing insurance with the insurance required hereunder.

(ii) "Cross Liability" or "Severability of Interest" clause.

(iii) Broad Form Property Damage, Personal Injury, Contractual Liability, Protective Liability Completed Operations coverages and elimination of any exclusion regarding loss or damage to property caused by explosion or resulting from collapse of buildings or structures or damage to property underground, commonly referred to by insurers as the "XCU" hazards.

(iv) Provision or endorsement stating that such insurance, subject to all of its other terms and conditions, applies to the liability assumed by the Contractor under the Contract, including, without limitation, that set forth in Section B-61, Indemnity and Litigation Costs.

(v) Provision or endorsement stating that any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the RCAA, its officers, officials, employees, or volunteers.

(vi) The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

(4) Builder's Risk or Installation Floater "All-Risk" Insurance

Not required for this contract.
B-61 Indemnity and Litigation Cost

(a) Promptly upon execution of the Contract, the Contractor specifically obligates itself and hereby agrees to protect, hold free and harmless, defend and indemnify the RCAA, GHD, volunteers, State, its officers, agents, employees, and consultants, and each of their officers, officials, employees and agents, from and against any and all liability, penalties, costs, losses, damages, expenses, causes of action, claims or judgments, including without limitation attorneys’ fees and other costs of litigation, which arise out of or are in any way connected with the Contractor's, or its subcontractors’ or suppliers’, performance of work under this Contract or failure to comply with any of the obligations contained in the Contract. This indemnity shall include the duty to defend indemnitees as set forth in civil code section 2778 and/or under other legal basis. This indemnification shall imply no reciprocal right of the Contractor in any action on the contract pursuant to California Civil Code section 1717 or section 1717.5. To the extent legally permissible, this indemnity and hold harmless agreement by the Contractor shall apply to any acts or omissions, whether active or passive, on the part of the Contractor or its agents, employees, representatives, or Subcontractor's agents, employees and representatives, resulting in liability, irrespective of whether or not any acts or omissions of the parties to be indemnified hereunder may also have been a contributing factor to the liability, except such loss or damage which was caused by the active negligence, sole negligence or willful misconduct of the RCAA.

(b) In any and all claims against the RCAA or the Engineer and its consultants, and each of their officers, employees and agents by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under this Section shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under Worker’s Compensation statutes, disability benefit statutes or other employee benefit statutes.

B-62 Protection of Work

(a) The Contractor shall be responsible for the care of all work until completion and final acceptance; and the Contractor shall, at its own expense replace damaged or lost material and repair damaged parts of the work or the same may be done at the Contractor's expense by the RCAA and the Contractor and its sureties shall be liable therefore. The Contractor shall make its own provisions for properly storing and protecting all material and equipment against theft, injury, or damage from any and all causes. Damaged material and equipment shall not be used in the work. The Contractor shall take all risks from floods and casualties except as provided by law, and shall make no charge for the restoration of such portions of the work as may be destroyed or damaged by flood or other casualties or because of danger from flood or other casualties or for delays from such causes. The Contractor may, however, be allowed a reasonable extension of time on account of such delays, subject to the conditions hereinbefore specified. The Contractor shall not be responsible for the cost, in excess of five percent (5%) of the contracted amount, of repairing or restoring damage to the work, if the damage was proximately caused by an earthquake in excess of a magnitude of 3.5 on the Richter Scale or by tidal waves; provided that the work damaged was built in accordance with accepted and applicable building standards, and the plans and specifications of the RCAA.

(b) The Contractor shall effectively secure and protect adjacent property and structures, livestock, crops, and other vegetation. If applicable, the Contractor shall open fences on or crossing the right-of-way and install temporary gates of sound construction thereon so as to prevent the escape of livestock. Adjacent fence posts shall be adequately braced to prevent the sagging or slackening of the wire. Before such fences are opened, the Contractor shall notify the owner or tenant of the property and, where practicable, the opening of the fence shall be in accordance with the wishes of said owner or tenant. The Contractor shall be responsible that no loss or inconvenience shall accrue to the owner or tenant by virtue of its fences having been opened or the gate not having been either shut or attended at all times. Where special types of fences are encountered, the Contractor shall install temporary gates made of similar materials and of suitable quality to serve the purposes of the original fences. In all cases
where the Contractor removes fences to obtain work room, it shall provide and install temporary fencing as required, and on completion of construction shall restore the original fence to the satisfaction of the Engineer. All costs of providing, maintaining and restoring gates and fencing shall be borne by the Contractor. It shall provide and maintain all passageways, guard fences, lights and other facilities for protection required by public authority or local conditions.

(c) The Contractor shall use extreme care during construction to prevent damage from dust to crops, livestock, milk production and adjacent property. The Contractor, at its own expense, shall provide adequate dust control for the right-of-way and take other preventive measures as directed by the Engineer.

(d) The Contractor shall be responsible for all damage to any property resulting from trespass by the Contractor or its employees in the course of their employment, whether such trespass was committed with or without the consent or knowledge of the Contractor.

(e) The Contractor shall see that the work site is kept drained and free of all ground water and any other water which may impede the progress or execution of the Contract work.

(f) The Contractor shall be responsible for any damage caused by drainage or water runoff from construction areas and from construction plant areas. In an emergency affecting the safety of life, or of the work, or of adjoining property, the Contractor, without special instruction or authorization from the Engineer, is hereby permitted to act at the Contractor's discretion to prevent such threatened loss or injury, and it shall so act without appeal if so instructed or authorized. Any compensation claimed by the Contractor on account of emergency work shall be determined as specified under Section B-3. Should the Engineer deem an emergency condition to exist, the Contractor shall immediately do those things and take those steps ordered by the Engineer. The decision of the Engineer in this respect shall be final and conclusive. Any claims for compensation made by the Contractor on account of emergency work shall be determined as specified under Section B-3.

(g) Except as provided by Government Code Section 4215, the Contractor shall be responsible for the removal, relocation and protection of all public and private utilities, including irrigation facilities in the nature of utilities, located on the site of the construction project if and to the extent that the same are identified in the Contract Documents, and the Contractor shall not be entitled to any extension of time or claim for damages for extra compensation in connection therewith. If and to the extent that such utilities or facilities are not identified in the Contract Documents, as between the Contractor and the RCAA, the RCAA will be responsible for the cost of their removal, relocation or protection, as the case may be, but the Contractor shall perform any such work in conformance with applicable provisions of Sections B-3 and B-4, if so directed by the Engineer and in such situation the Contractor shall not be responsible for delay in completion of the project caused by the failure of the RCAA or the owner of the utility to provide for such removal or relocation. If the Contractor, while performing the Contract, discovers utility or irrigation facilities not identified by the RCAA in the Contract Documents, it shall immediately notify the Engineer in writing.

(h) Subject to the provisions of this Section, where the work to be performed under the Contract crosses or otherwise interferes with existing streams, watercourses, canals, farm ditches, pipelines, drainage channels, or water supplies, the Contractor shall provide for such watercourse or pipelines and shall perform such construction during the progress of the work so that no damage will result to either public or private interests, and the Contractor shall be liable for all damage that may result from failure to so provide during the progress of the work.

B-63 No Personal Liability
Neither the RCAA, GHD nor any of their other officers, agents, or employees nor any other public office shall be personally responsible for any liability arising under the Contract, except such obligations as are specifically set forth herein.
ARTICLE VI. MEASUREMENT AND PAYMENT

B-64 Measurement of Quantities

Where the Contract provides for payment on a lump sum price basis, the Contractor shall submit a price breakdown to the Engineer immediately after award of the Contract. The price breakdown as agreed upon between the Contractor and the Engineer shall be used for preparing future estimates for partial payments to the Contractor and shall list the major items of Work and a price for each item. Overhead and other general costs and profit shall be prorated to each item so that the total of all items equals the lump sum price. The price breakdown shall be subject to the approval of the Engineer and Contractor may be required to verify the prices for any or all items. Where the Contract provides for payment on a unit price basis, the quantities of work performed will be computed by the Engineer on the basis of measurements taken by the Engineer.

Whenever the estimated quantities of work to be done and materials to be furnished under this contract are shown in any of the documents including the Proposal, they are given for use in comparing bids and the right is especially reserved, except as herein or otherwise specifically limited, to increase or diminish them as may be deemed reasonably necessary or desirable by the RCAA to complete the work contemplated by this contract and such increase or diminution shall in no way violate this Contract, nor shall any such increase or diminution give cause for claims, liability for damage or adjustment to the Contract time bid price.

B-65 Scope of Payment

(a) The Contractor shall accept the compensation provided in the Contract as full payment for furnishing all labor, materials, tools, equipment, and incidentals necessary to the completed work and for performing all work contemplated and embraced under the Contract; also for loss or damage arising from the nature of the work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the work until the acceptance by the RCAA and for all risks of every description connected with the prosecution of the work, also for all expenses incurred in consequence of the suspension or discontinuance of the work as provided in the Contract; and for completing the work according to the specifications and plans. Neither the payment of any estimate nor of any retained percentage shall relieve the Contractor of any obligation to make good any defective work or material.

(b) No compensation will be made in any case for loss of anticipated profits. Increased or decreased work involving supplemental agreements will be paid for as provided in such agreements.

B-66 Progress Estimate

At least ten (10) days before each progress payment falls due (but not more often than once a month), the Contractor will submit to the Engineer a partial payment estimate filled out and signed by the Contractor covering the work performed during the period covered by the partial pay estimate and supported by such data as the Engineer may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the work but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the RCAA, as will establish the RCAA’S title to the material, and equipment and protect its interest therein, including, applicable insurance. The Engineer will within seven (7) days after receipt of each partial payment estimate either recommend payment to the RCAA or return the estimate to the Contractor indicating in writing its reasons for refusing to approve payment. In the latter case, the Contractor may make the necessary corrections and resubmit the partial pay estimate.
Payroll certification forms provided by the Contractor and fully executed shall be filed with the Engineer at the time of submission of each partial payment estimate and also when the claim for final payment is submitted. Wage Report forms shall be completed and submitted as set forth in Parts 4 and 5.

**B-67 Progress Payments**

(a) The Contractor is made aware that this contract is funded in whole or in part through an agreement with the California Department of Fish and Wildlife (CDFW), State Coastal Conservancy (SCC), and/or the California Natural Resources Agency Environmental Enhancement and Mitigation Program (EEMP). These project funders pay in arrears for work completed.

(b) The RCAA and funders will review all partial payments upon receipt of an undisputed, properly submitted progress estimate from the Contractor, recommended by the Engineer.

(c) Any payment request determined not to be a proper payment request suitable for payment shall be returned to the Contractor as soon as practicable but not later than thirty (30) days after receipt. A request returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the payment request is not proper.

(d) The RCAA will pay the Contractor ninety-five percent (95%) of the amount of each progress estimate within thirty (30) days of receiving payment from the project funder. Contractor should allow for sixty (60) to ninety (90) days after the date of approval of the progress estimate by the funder, before receiving payment (depending on date submitted).

(e) When, in the judgment of the Engineer, the work is not proceeding in accordance with the provisions of the Contract, or when in its judgment the total amount of the work done since the last estimate amounts to less than $1,000, no pay estimate will be prepared and no progress payment will be made.

(f) No progress estimate or payment shall be considered to be an approval or acceptance of any work, materials, or equipment. Estimated amounts and values of work done and materials and equipment furnished will be conformed with actual amounts and values as they become available in subsequent progress estimates, progress payments and the final estimate and payment. All estimates and payments will be subject to correction in subsequent progress estimates and payments and the final estimate and payment.

(g) The RCAA requires that any payments due to subcontractors for a portion of the work satisfactory completed shall be made by Contractor to subcontractors within fifteen (15) days of RCAA’s payment to Contractor. Failure to make such payments in a timely fashion may result in the RCAA issuing future progress payments by joint check to the Contractor and subcontractors.

(h) It is mutually agreed between the parties to the Contract that no payments made under the Contract, including progress payments and the final payment, shall be evidence of the performance of the Contract, either wholly or in part, and no payment shall be construed to be an acceptance of any defective or incomplete work or improper materials.

**B-68 Retention Proceeds; Withholdings; Disbursements**

Notwithstanding other requirements of these General Conditions, Section 7107 of the Contract Code shall govern as to retention proceeds; withholding and ultimate disbursement of funds.
B-69  Liens and Stop Notices

The Contractor agrees to keep the work, the site of the Work and all monies held by the RCAA free and clear of all liens and stop notices related to labor and materials furnished in connection with the Work, if permitted by law. Furthermore, the Contractor waives any right it may have to file any type of lien or stop notice in connection with the Work. Notwithstanding anything to the contrary contained in the Contract documents, if any such lien or stop notice is filed or there is evidence to believe that lien or stop notice may be filed at any time during the progress of the Work or within the duration of this Contract, the RCAA may refuse to make any payment otherwise due the Contractor or may withhold any payment due the Contractor a sum sufficient in the opinion of the RCAA to pay all obligations and expenses necessary to satisfy such lien or stop notice. The RCAA may withhold such payment unless or until the Contractor, within ten days after demand therefore by the RCAA, shall furnish satisfactory evidence that the indebtedness and any lien or stop notice in respect thereof has been satisfied, discharged and released of record, or that the Contractor has legally caused such lien or stop notice to be released of record pending the resolution of any dispute between the Contractor and any person or persons filing such lien or stop notice. If the Contractor shall fail to furnish such satisfactory evidence within ten days of the demand therefore, the RCAA may discharge such indebtedness and deduct the amount thereof, together with any and all losses, costs, damages and attorney’s fees suffered or incurred by the RCAA from any sum payable to the Contractor under the Contract documents, including but not limited to final payment and retained percentage. This Section shall be specifically included in all Subcontracts and purchase orders entered into by the Contractor.

B-70  Final Acceptance and Date of Completion

Whenever the Contractor shall deem all work under this Contract to have been completed in accordance therewith, it shall so notify the Engineer in writing, and the Engineer shall promptly ascertain whether the work has been satisfactorily completed and, if not, shall advise the Contractor in detail and in writing of any additional work required. When all the provisions of the Contract have been fully complied with to the satisfaction of the Engineer, it shall proceed with all reasonable diligence to determine accurately the total value of all work performed by the Contractor at the prices set forth in the Contract or fixed by Change Orders, and the total value of all extra work, all in accordance with the Contract. The Engineer will then certify to said final estimate and to the completion of the work, and will file copies thereof with the RCAA and the Contractor. The date of completion shall be the date upon which the RCAA makes its formal written acceptance of the work.

B-71  Final Payment

Within ten (10) days after the date of completion, the RCAA will file in the Office of the County Recorder, a Notice of Completion of the work herein agreed to be done by the Contractor. On the expiration of thirty-five (35) days after the recordation of such Notice of Completion the difference between said final estimate and all payments theretofore made to the Contractor shall be due and payable to the Contractor within 120 days upon receipt of funding by RCAA from funding agencies and subject to any requirements concerning the furnishings of a maintenance bond, and excepting only such sum or sums as may be withheld or deducted in accordance with the provisions of this Contract. All prior certifications upon which partial payments may have been made, being merely estimates, shall be subject to correction in the final certificate.

B-72  Final Release

Final payment to the Contractor in accordance with the final estimate is contingent upon the Contractor furnishing the RCAA with a signed written release of all claims against the RCAA arising by virtue of the Contract. Disputed Contract claims in stated amounts may be specifically excluded by the Contractor from the operation of the release. The release shall be in substantially the following form:
WAIVER AND RELEASE UPON FINAL PAYMENT

The undersigned has been paid in full by the RCAA for all labor, services, equipment and material furnished to the RCAA on the _______________________________ Improvements located at ________________, California, and does hereby waive and release the RCAA, its officers, agents, and employees, from all claims and liability to the Contractor arising out of, or in any way connected with, the Contract, except for the disputed contract claims specified below:

Notice of disputed claim        Amount of Claim

$__________________________________________________________________________

Dated:__________________________  ______________________________ (Name of Contractor)

By:_____________________________  __________________________ (Title)

Any payment, however, final or otherwise shall not release the Contractor or its sureties from obligations under the Contract Documents or Performance and Payment Bonds.

B-73  Right to Withhold Payments

(a) In addition to all other rights and remedies of the RCAA hereunder and by virtue of the law, the RCAA may withhold or nullify the whole or any part of any partial or final payment to such extent as may reasonably be necessary to protect the RCAA from loss on account of:

1. Defective work not remedied, irrespective of when any such work be found to be defective;

2. Claims or liens filed or reasonable evidence indicating probable filing of claims or liens including, but not limited to claims under Sections 1775, 1776, or 1777.7 of the Labor Code;

3. Failure of the Contractor to make payments properly for labor, materials, equipment, or other facilities, or to subcontractors and/or suppliers;

4. A reasonable doubt that the work can be completed for the balance then unearned;

5. A reasonable doubt that the Contractor will complete the work within the agreed time limits;

6. Costs to the RCAA resulting from failure of the Contractor to complete the work within the proper time; or

7. Damage to work or property;

8. Damage to another Contractor.

(9) Performance of work in violation of the Terms of the Contract Documents.

(10) Where work on unit items is substantially complete, but lacks cleanup and/or other corrections ordered by the Engineer, amounts shall be deducted from the unit prices in partial payment estimates to amply cover such cleanup and correction.

(11) Failure to file required Equal Opportunity and Affirmative Action forms.

(b) Whenever the RCAA shall, in accordance herewith, withhold any monies otherwise due the Contractor, written notice of the amount withheld and the reasons therefore will be given the Contractor. After the Contractor has corrected the enumerated deficiencies, the RCAA will promptly pay to the Contractor the amount so withheld. When monies are withheld to protect the RCAA against claims or liens of mechanics, materialmen, Subcontractors, etc., the RCAA may at its discretion permit the Contractor to deliver a surety bond in terms and amount satisfactory to the RCAA, indemnifying the RCAA against any loss or expense, and upon acceptance thereof by the RCAA, the RCAA shall release to the Contractor monies so withheld.

B-74 Waiver of Interest

The RCAA shall have no obligation to pay and the Contractor hereby waives the right to recover interest with regard to monies which the RCAA is required to withhold by reason of judgment, order, statute or judicial process.

B-75 Satisfaction of Claims and Liens

Neither the final payment nor any part of the retained percentage shall become due until the Contractor, if required, shall deliver to the RCAA, a complete release of all liens and claims arising out of this Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as it has knowledge or information the releases and receipts include all the labor and material for which a lien or claim could be filed; but the Contractor may, if any Subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Engineer, to indemnify the RCAA against any lien or claim. If any lien or claim remains unsatisfied after all payments are made, the Contractor shall refund to the RCAA all monies that the latter may be compelled to pay in discharging such a lien, or claim, including all costs and reasonable attorney's fees.

B-76 Ownership of Documents and Other Work Products

Documents and work products produced under this agreement shall be the property of the Project Funders per the requirements of the contract between the Project Funders and the RCAA.
PART 5: TECHNICAL SPECIFICATIONS
# PART 5 – TECHNICAL SPECIFICATIONS

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PART 1 GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

A. General:

1. The Contract Documents describe the Work to be performed under this Contract which includes, but is not limited to, furnishing all tools, equipment, materials, supplies, and manufactured articles for the Project. It shall also include the furnishing of all transportation and services, including fuel, power, water, and essential communications necessary for the performance of all labor, work, or other operations required for the performance of the Contract in accordance with the Contract Documents.

2. The Contractor should carefully review all sections of the Specifications in order to completely understand the Work and all constraints including schedule, environmental, permit and material requirements.

3. Contractor is encouraged to proceed in an orderly and expeditious manner based on the constraints shown on the Drawings and described in the Specifications. All Work is to be constructed in strict accordance with the Contract Drawings and Specifications and subject to the terms and conditions of the Contract.

B. The Contractor shall completely review, be familiar with and adhere to the terms of all permits and agency approvals for this project. Appendix A to these Specifications contain a summary of many, but not all, of the most significant permit conditions that need to be actively complied with by Contractor. The Owner will be providing the Contractor copies of permits, certifications, or authorizations from the following agencies including, but not limited to: California Department of Fish and Wildlife; U.S. Army Corps of Engineers; California Regional Water Quality Control Board; the U.S. Fish and Wildlife Service; National Marine Fisheries Service; State Lands, California Coastal Commission; and Humboldt County Building Department. Copies of all permits are available from the Owner and will remain at the project site throughout the duration of construction.

C. Contractor shall obtain all other necessary permits and comply with them and all other applicable Local, State, and Federal laws and regulations.

1. Compliance with City and County permits: Contractor is responsible for obtaining and compiling with any relevant City and County Encroachment permits needed for the proposed construction activities, including, but not limited to, traffic and encroachment permits related to the delivery and hauling of construction equipment and materials, and traffic control measures. The Contractor must follow all pertinent Caltrans requirements for hauling large vehicles or equipment to the project site. To determine requirements for the specific vehicles to be used, see the web site at <http://www.dot.ca.gov/hg/traffops/permits>, if a county road is used for heavy equipment transport or wide loads, pertinent clearances with the Humboldt County Department of Public Works must be obtained.
D. Location of the Work:

1. The project is located within Humboldt County and primarily within the City of Eureka. A Vicinity Map is provided on the cover sheet of the drawings that illustrate the location of the project and a secondary sediment disposal site. The design drawings provide primary sediment disposal areas within the project limits, and a secondary off-site disposal site, and information regarding the limits of the project and its topography.

E. Technical Data and Other Reports:

1. Geotechnical and Engineering Geologic Report for the Martin Slough Habitat Enhancement Project prepared by SHN Consulting Engineers and Geologists, Inc (May 2013) contains geotechnical evaluation of site conditions and recommendations. Copies of this report are available for review upon request.

2. Electronic Data: Upon request and subject to signing a release of liability, the following computer generated data will be provided:

   a. Existing and Finished Ground Surface Models provided in a 2016 Autodesk Civil3D drawing file or as XML data or as determined appropriate by RCAA.

3. 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. Except for such reliance on such “technical data,” Contractor may not rely upon or make any claim against RCAA, GHD, or any of their Related Entities with respect to:

   a. 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

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

   c. Any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions, or information.

F. Contractor’s Duties:

1. Except as specifically noted, provide and pay for:

   a. Labor, materials, and equipment.

   b. Tools, construction equipment, and machinery.

   c. Water and utilities required for construction.

   d. All other facilities and services necessary for proper execution and completion of Work.

2. Pay legally required sales, consumer, and use taxes.
3. Conform to the requirements of the project permits.

4. Secure and pay for, as necessary for proper execution and completion of the Work, all other applicable permits and licenses.

5. Give required notices.

6. Comply with codes, ordinances, rules, regulations, orders and other legal requirements of public authorities, which bear on performance of the Work.

7. Promptly submit written notice to Construction Manager of observed variance of Contract Documents from legal requirements.

8. If any Subcontractor or person employed by the Contractor shall appear to the Construction Manager to be incompetent or to act in a disorderly or improper manner, he shall be discharged immediately on the requisition of the Construction Manager, and such person shall not again be employed on the Work.

9. The Contractor is responsible for providing the following submittals by **July 6, 2020**:
   - Slough Dewatering and Diversion Plan;
   - Pollution Prevention and Monitoring Plan (PPMP);
   - Hazardous Materials Spill Prevention Control and Countermeasure Plan; and
   - Temporary Access Plan.

10. The Contractor is responsible for providing construction staking and surveying as required for the job. The Owner will provide available control point information and an electronic file of the finished design surface and alignments as needed for the purpose of construction staking.

### 1.02 CONTRACT DESCRIPTION

**A. General:**

1. All Work is contained in this Contract. The limits of Work are shown in the Contract Drawings and described in these Specifications. It will be the Contractor's responsibility to coordinate their activities to resolve conflicts.

2. All risk of loss, damage or diminution to the Work shall rest with Contractor until final acceptance of the Work by the Owner.

3. The design drawings provide the sediment disposal areas on site at the golf course which is the Primary Disposal Site. The majority of sediment disposal will be offsite either at the secondary off-site disposal site at White Slough shown on the plans or at a separate Contractor provided location. The secondary off-site disposal site may or may not be able to accept all off-hauled material in 2020; this site is not expected to accept any material in 2021. Therefore the Contractor is to locate a separate disposal location for all remaining sediment that needs to be off hauled.

4. Work upstream of the salinity barrier is anticipated to be constructed after June 15, 2021 and before October 15 2021. This work is covered in a separate bid schedule.
B. Work conducted includes, but is not limited to:

1. Installation of signage and temporary stormwater Best Management Practices (BMPs);
2. Installation of temporary construction access routes, entrances, and equipment and material handling/storage areas;
3. Install fish screens, cofferdams, and water bypass system to dewater the construction site;
4. Excavation of channels and ponds;
5. Grading to meet design intent;
6. Off-hauling excess or unsuitable materials to an appropriate off-site location;
7. Install golf cart bridge crossings;
8. Install salinity barrier;
9. Construct large wood deflectors, habitat and other wood structures;
10. Remove temporary access roads as directed;
11. Rip and harrow disturbed areas;
12. Clean up site and demobilize.

1.03 SPECIAL CONSTRUCTION REQUIREMENTS

A. General:

1. The excavation is predominantly on City of Eureka property as well as other project components. The Contractor will be required to coordinate their schedule with the Construction Manager personnel to ensure a minimum of interruptions to private property owners. Should field conditions or property owners warrant the postponement of the excavation of a portion of a particular reach, as determined by the Construction Manager, the Contractor shall be prepared to resume work at an alternative location along the channel corridor as field conditions and property owners permit and shall not be claimed as a delay by the Contractor.

2. A proposed construction sequence is presented below. THIS PROJECT IS HIGHLY SENSITIVE TO TIMING CONSTRAINTS RELATED TO SPECIAL STATUS SPECIES, ASSOCIATED PERMIT CONDITIONS AND PHYSICAL CONDITIONS. The phasing/sequencing of most construction elements will be constrained by construction schedules stipulated by special status species in terms of construction windows and clearance and monitoring requirements, and requirements in environmental permits. Tide and weather conditions will also affect project scheduling.

3. Biological restrictions: Prior to start of construction, the Construction Manager will arrange for a qualified biologist to give Contractor’s staff a presentation regarding special status species and restrictions required in terms of construction start
clearance surveys, and construction monitoring. Because of the high number of special status species that occur in the area, most, if not all, elements may not be implemented until after certain dates and after construction clearance surveys by a qualified biologist have been performed and completed.

4. Prior to start of construction, a qualified biologist under the direction of the Construction Manager must complete a check for presence of sensitive aquatic, avian and terrestrial species within construction areas. In certain instances, only one clearance survey may be required. In other instances, particularly in certain areas where special status species are sighted or known to occur, surveys to clear the site may be required on a more frequent basis. Once the site has been cleared, the Construction Manager will authorize the Contractor to begin work.

5. Required clearance surveys: if special status species are located during clearance surveys, the Contactor shall stop work immediately and notify the Construction Manager. If possible, a Biologist under direction of the Construction Manager will conduct seining or trapping to relocate the species a safe distance away from the construction activities and out of the work limit line. However, in some instances, a buffer zone may need to be established in which no work would be conducted within some specified distance from the species' location. Further required actions could include, but are not limited to: 1) temporary delay in construction while species are relocated by qualified biologists; or 2) delay of construction until predetermined date after breeding season with no construction occurring within a buffer zone around the area where species were found. Owner and their representatives are not liable for such delays.

6. Scheduling of required clearance surveys: The Contractor will be required to provide a construction schedule. On a weekly basis, the Contractor and Construction Manager will meet and discuss the status of the project and updates to schedules. Clearance surveys will be scheduled with the basis of this revised weekly schedule. The Contractor will not be allowed to start construction in specific areas until clearance surveys have been performed and authorization is given by the Construction Manager. It is the responsibility of the Contractor to provide the Construction Manager an updated schedule that allows for adequate time to schedule the clearance surveys required.

7. All in-stream construction activities within Martin Slough, including channel excavation, shall be completed by October 15, unless written authorization from the regulatory agencies and RCAA is received to extend the work period. Contractor shall not begin any work in the channel without prior approval of Construction Manager. In the event of rain, Contractor shall suspend all work until Construction Manager provides approval to resume work.

8. Minimal sediment from Martin Slough may be disposed of at the Primary Disposal site in the locations shown on the plans. Sediment placed onsite will be top soil as available, with clays and other less desirable soils removed from site. The contractors responsibility for disposing material at the Primary Disposal Site includes but is not limited to:

a. Fill to a max of 3 feet.

b. 4H:1V maximum slope to meet grade.

c. Provide positive drainage with no ponding.
d. Installation and maintenance of stabilized construction entrances and other temporary stormwater BMP’s.

e. Transport of soil.

f. Spreading of soil.

g. Dust suppression.

h. Sweeping access roadways, implementing wind erosion control measures and other sediment and erosion control practices.

i. Refer to Section 31 20 00 Earthwork

9. Work windows specified in the various project permit conditions may conflict within one another therefore the most restrictive windows shall be exercised and as shown in the schedule on the plans.

10. The Contractor shall have all project work completed by the required regulatory dates. The Owner is not liable for any expenses that this regulatory-driven change in schedule that may incur.

1.04 PROPOSED CONSTRUCTION SEQUENCE

A. Specific Sequence and Constraints:

1. The Contractor shall note that only certain constraints are addressed in this section. All Work, whether or not addressed here, shall be governed by applicable parts of this section, and schedules and procedures further submitted for approval.

2. The first order of business is submission of submittals. Complete submittals for all items to be incorporated into the Work shall be made no later than seven (5) calendar days following receipt of Notice of Award unless noted otherwise in these specifications.

3. The Contractor shall include all Work described in this section in the construction schedule. The sequence and constraints identified in this section shall be followed in the construction of the Work. However, alternatives to these sequences and constraints may be submitted by the Contractor for review by the Owner.

4. Specific Sequencing constraints include:

a. The pre-construction conference described in this Section shall be coordinated to accommodate attendance by representatives of the Owner and the City of Eureka.

b. Contractor shall anticipate weekly construction progress meetings with Owner staff to review work progress and issues (see Section 01 33 00).

c. Contractor shall notify City of Eureka Fire Department of any construction activity that may affect traffic and potentially impact emergency vehicle and fire apparatus access. Additionally, Contractor shall notify the City of Eureka and Humboldt County Sheriff Departments of any life safety concerns.
d. Stockpiling of excavated soils that are potentially contaminated is not allowed. If hazardous materials are encountered, contractor to remove contaminated material from the site and dispose of it at an approved disposal site subject to the approval by the Construction Manager.

e. Any temporary stockpiles shall be removed from within the limits of disturbance by October 15th.
1.05 CONTRACT METHOD

A. The contractor shall include the requirements of the general conditions of the contract as a part of all of its subcontract agreements.

B. All work as identified and described in the construction drawings and Specifications. In the case that there are discrepancies between Drawings and Specifications, Specifications take precedence over drawings.

1.06 UNDERGROUND FACILITIES

A. The Contractor and all of its Officers, employees, agents, representatives, and other personnel; Subcontractors; and other persons for whom Contractor is responsible, shall cooperate with Client and other contractors, if any, to ensure that the Project is properly performed on schedule. Contractor shall cooperate with any other contractors and coordinate its Work with the work of such other contractor(s), if any that could affect the Work/Project and Contractor shall proceed in such manner so as not to interfere or delay the progress of the Project as a whole. Contractor shall not be responsible for delays in its Work caused by other contractors.

B. During the progress of the Work, RCAA shall have the right to require Contractor’s personnel involved with the Work/Project to attend meetings at the Site personally, telephonically, or electronically to discuss the Work/Project.

C. If any part of the Work depends upon the work or results of work of any other contractor(s) for proper execution, Contractor shall inspect and promptly report in writing to RCAA any substandard work of such other contractor that renders it unsuitable for such proper execution or results. Failure of Contractor to do so shall constitute its acceptance of the other contractors’ work as fit and proper for the reception of its Work, except as to non-compliance which may develop in the other contractors’ work after the execution of its Work.

D. In cases of disagreement or disputes between Contractor and other contractor(s) that could delay or interfere with its Work due to their failure to cooperate that cannot be resolved between Contractor and the others involved, RCAA shall be given prompt notice specifying in detail the disagreement or dispute. In such cases, RCAA shall have the right to determine the proper method of coordinating the Work/Project, and RCAA’s decisions in this regard shall be final, binding and conclusive. Contractor shall not be responsible for damages due to delay(s) caused by other contractor(s).

E. The Contractor shall exercise care in all excavations to avoid damage to existing underground facilities. This shall include potholing and hand digging in those areas where underground facilities are known to exist until they have been sufficiently located to avoid damage to the facilities.

F. Prior to fabrication of any materials, the Contractor shall verify the locations and elevations of existing underground facilities which the Contractor is connecting to.

G. The Contractor shall exercise care in maintaining those pipes, valves, and appurtenances to be abandoned and/or removed which are required for the continuing operation of the existing facilities until such time as they can be abandoned. The Contractor shall exercise extreme caution in working in any area adjacent to existing underground pipes. It is essential that the existing utilities be maintained in service until the new Work is ready for full-time operation and is placed in service.

H. No additional compensation shall be provided to the Contractor for compliance with the provisions of this section for the damage and repair of such facilities due to the lack of care.
1.06 PROJECT MEETINGS

A. Section 01 30 00 - Administrative Requirements: Preconstruction Meeting, Progress Meetings, and Close Out Meetings.

1.07 PROJECT APPROACH PLAN

A. Contractor shall submit for review and approval a Project Approach Plan that shall summarize the contractor’s approach to completing the earthwork operations of the project. The intent of the Plan is to demonstrate how the Contractor will approach and quantify the work to be completed and demonstrate compliance with the plans and specifications. This submittal covers several technical specifications as well as the plans and it is the Contractor’s responsibility to understand the requirements of the contract, and how the plans and specifications relate to one another and to this submittal.

B. The Contractor’s Project Approach Plan shall be provided as a submittal as a first order of business prior to mobilization. The plan shall be kept up to date during the project and shall be revised as necessary as the project progresses. The plan shall be reviewed at the regular construction progress meetings.

C. The Contractor’s Project Approach Plan should briefly and clearly describe the Contractor’s proposed approach to conduct the following work.

1. Earthwork and Sediment Hauling Operations
   a. Describe the sequencing to excavate the channel and meander.
   b. Describe how the Contractor will document finish grades suitable for generating Contractor provided Record Drawings.

2. Demobilization and Site Cleanup
   a. Describe the strategy for demobilization at the conclusion of the job including cleanup, removal of temporary facilities, and other work associated with job closeout.

PART 2 PRODUCTS [NOT USED]

PART 3 EXECUTION [NOT USED]

END OF SECTION 01 11 00
SECTION 01 14 19

USE OF SITE

PART 1 GENERAL

1.01 DESCRIPTION

A. Related Requirements specified elsewhere:
   1. Section 31 20 00 - Earthwork

1.02 INFORMATION OF ON SITE CONDITIONS

A. Information obtained by the Construction Manager regarding site conditions, subsurface information, and existing facilities, and similar data are shown on the Plans and are from the information made available by the Owner. Exact location and completeness are not guaranteed.

B. Construction activities is limited to the limits of disturbance and the sediment disposal areas shown on drawings.

1.03 CONTRACTOR'S RESPONSIBILITIES

A. The Owner has entered into agreements with all property owners within the project limits of disturbance and the sediment disposal area. These agreements allow the Contractor’s use of these areas in accordance to the plans and specifications. The Contractor is responsible to execute the work within these areas in accordance to the plans and specifications including hauling the excavated sediment to the designated disposal area.

B. If additional areas beyond the limits of disturbance and sediment disposal areas shown on the plans are desired by the Contractor to execute the work, the Contractor shall first receive authorization from the Construction Manager. Contractor shall obtain all necessary permissions and approvals for use of these areas and shall submit a signed statement from the property owner granting permission and holding the Owner harmless from any and all damages that may result from the Contractor's use of the site.

C. The Contractor shall satisfy their self as to the nature and location of the work, the general and local conditions, particularly those bearing upon availability of transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads, work in sensitive environment and uncertainties of weather, tidal variations, or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment facilities needed preliminary to and during the prosecution of the work and all other matters which can in any way affect the work or the cost thereof under this contract.

D. The Contractor further shall satisfy their self as to the character, quality, and quantity of materials to be encountered from inspecting the site, any exploratory work done by the Owner, as well as from information presented by the Plans and Specifications made a part of this contract. Any failure by the Contractor to acquaint himself with all the available information available as part of the Bid Documents or referenced in the Bid Documents will not relieve him from responsibility for properly estimating the difficulty or cost of successfully performing the work.
E. The Contractor shall note that construction areas and construction entrance require heavy truck and equipment operations, which may cause damage. The Contractor shall restore these areas back to pre-project conditions or better. Damage caused by Contractor’s operations shall be repaired by the Contractor at no additional cost to the Owner or property owner.

F. The Contractor shall note that many of the existing roads and streets proposed needed to off-haul sediment to the disposal area are rural in character and that heavy truck and equipment operations may cause roadway damage in excess of normal usage. Damage caused to the streets by Contractor’s operations shall be repaired by the Contractor at no additional cost to the Owner.

G. The Contractor shall be responsible for erosion control and installation and maintenance of appropriate stormwater Best Management Practices during construction.

1.04 USE OF CONSTRUCTION SITE, HAUL ROUTES AND SEDIMENT DISPOSAL SITE

A. The Contractor shall:

1. Conduct all operations with the least possible obstruction and inconvenience to the public and adjacent landowners.

2. Have under construction no greater length or amount of work than can be continuously and vigorously prosecuted properly with due regards to the rights of the public.

3. To the extent possible, finish each section before beginning work on the next.

4. Be cognizant of other construction projects within the vicinity that may create traffic delays to trucks transporting fill material between the Project and offsite disposal sites.

5. Assume full responsibility for protection and safekeeping of products stored on premises.

B. Manage construction worker parking and access to avoid impeding access for emergency vehicles and local area residents.

C. Protect the rights of abutting property owners by:

1. Planning and conducting construction operations so that the least inconvenience as possible is caused to abutting property owners;

2. Prohibit access of staff and subcontractors to properties abutting the project site, except as approved in writing by the Construction Manager.

D. Access to Private Properties:

1. No public road closure is expected for the Project. Contractor shall maintain access for local vehicular and pedestrian traffic to private properties along the main access road to the project site.

E. The Contractor shall be responsible for providing adequate safeguards, safety devices, and protective equipment, and for taking any other needed actions to protect the life,
health, and safety of the public, and to protect property in connection with the performance of the work covered by the Contract.

F. The Contractor shall stage materials and equipment in designated staging and stockpile areas as shown on the plans.

G. Staging in permitted areas shall be at the Contractor’s risk. Owner or their representatives shall not be held liable for any damage to or loss of materials or equipment located within these areas or at any location on the project site(s).

H. Access to worksite: Contractor and Contractor’s employees and subcontractors shall use access routes as indicated on project plans.

I. After demobilization, Contractor shall repair any damage to existing roads and property to pre-existing conditions or better.

J. The Contractor shall remediate temporary haul roads as directed by RCAA and the City of Eureka at the conclusion of use through blading, ripping or otherwise removing ruts and de-compaction. The Construction Manager reserves the right to require the Contractor to repair damage where haul roads were constructed. Restore access roads and staging areas as directed to pre-existing conditions or better.

K. Construction access routes and equipment staging areas shall be limited within the project disturbance areas to the extent feasible and as shown on the plans. Construction activities shall be prohibited from unnecessarily disturbing aquatic habitat. Disturbance such as excavation, filling or dewatering of any existing ditches, channels and other ponded water areas shall occur only after the area has been seined and cleared by the biologist.

L. Hauling Restrictions:

1. Comply with all legal load restrictions in the hauling of materials. Delivery and haulage access, including contractor mobilization and demobilization, will be scheduled to minimize impacts on traffic on area roadways.

2. Do not load structure, roadway or roadway shoulder with weight that will endanger or render unusable any structures or roadways or underground utilities.

M. Parking and Traffic Regulations:

1. Persons involved in construction operations shall comply with parking and traffic regulations for use of County/State streets, as enforced by County/State authorities, except for other arrangements as may be agreed to between Contractor and County authorities and approved by the Construction Manager.

N. Existing Improvements in Streets:

1. Existing street signs, electroliers, traffic signals, fire hydrants, underground valves and meter boxes, manholes, trees and other items occurring in streets adjacent to the site shall be left undisturbed, unobstructed, and easily accessible at all times during construction, except as otherwise indicated or agreed to between Contractor and County authorities.
O. Covering, moving, trimming, or altering trees and other vegetation, which may become necessary shall be done only with consent of and in cooperation with County and City authorities having jurisdiction. Contractor shall pay costs, which may be incurred.

P. Construction Camp: Establishment of a camp within the project property will not be permitted.

Q. Residence trailers will not be allowed within the project site, or designated staging and stockpiling areas, except for security purposes as approved by the Construction Manager.

1.05 PROTECTION OF NATURAL FEATURES

A. Avoid impacts to vegetation outside the limits of construction disturbance. Prior to any construction, the Contractor shall demarcate the limits of construction disturbance. No access or construction permitted outside of the designated work / access zones without prior approval from the Construction Manager.

B. Confine all operations to limits shown for the project. Prevent damage to natural surroundings. Restore damaged areas, repairing or replacing damaged trees and plants, at no additional expense to the Owner.

C. Do not remove, injure, or destroy trees or other plants without prior approval of the Construction Manager. Consult with the Construction Manager and remove agreed upon roots and branches that interfere with construction. All pruning of canopy or cutting of roots will be done under the supervision of the Construction Manager or their representative, and shall be done as set forth by the National Arborist Association or the International Society of Arboriculture.

D. Water quality of all creeks must be maintained through the implementation of a Pollution Prevention Monitoring Plan (PPMP) that includes measures for controlling erosion, minimizing sediment into the streams, and preventing fuel spills.

E. As specified in Section 01 57 00, the Contractor shall take all preventative measures to protect the staging areas from contamination due to oil or fuel spills or any other contaminants. The Contractor will submit to the Construction Manager for approval a Spill Prevention and Response Plan. Any leaks or spills which occur on the project site shall be fully removed from the project site. If contamination occurs, the Contractor shall immediately notify the Construction Manager, and decontaminate the area to the satisfaction of the Construction Manager, prior to further improvement or further construction activities in general.

F. All staging and laydown areas disturbed by the Contractor or construction or construction related activities shall be restored to their pre-existing state or in accordance with these Specifications.

1.06 PROTECTION OF PROPERTY AND LANDSCAPE

A. Preserve public and private property, and protect monuments established for the purpose of perpetuating horizontal, vertical, cadastral, or boundary control. When necessary to destroy a monument, reestablish the monument according to applicable state statute or
by the direction of the Construction Manager. The Contractor shall notify the Construction Manager of any monument that may need to be destroyed. If the Construction Manager determines that the destruction of the monument is unavoidable, Construction Manager will arrange for resetting the monument and associated costs. If a monument is destroyed by the Contractor’s negligence or without the Construction Manager’s approval the Contractor shall pay for resetting the monument.

B. Do not excavate, remove, damage, alter or deface any archeological or paleontological remains or specimens. Control the actions of employees and subcontractors on the project to ensure that protected sites are not disturbed or damaged. Should any of these items be encountered, suspend operations at the discovery site, notify the Construction Manager and continue operations in other areas. The Construction Manager will inform the Contractor when operations may resume at the discovery site.

C. Existing Utilities:

1. Contractor shall be responsible for locating and preventing damage to known utilities or utility support structures. If damage occurs to utilities, Contractor shall repair utility at no additional expense to Owner.

D. Protect utilities from construction operations: 48 hours before beginning work in an area, the Contractor shall notify Underground Service Alert (USA), at 1-800-227-2600, to determine locations of existing utilities. Cooperate with utility owners to expedite the relocation or adjustment of their utilities to minimize interruption of service and duplication of work.

E. If the work requires removing or relocating a utility, the contract will assign the task to the Contractor or the utility owner. When this task is assigned to the utility owner and work is not complete before the Contractor begins work, the Contractor shall immediately notify the Construction Manager in writing.

F. Any authorized agent of the Owner or utility owners may enter the site to repair, rearrange, alter, or connect their equipment. The Contractor shall cooperate with such efforts and shall avoid creating delays or hindrances to those doing the work. As needed, the Contractor shall arrange to coordinate work schedules.

G. If utility services are interrupted as a result of damage by the construction, immediately notify the utility owner, the Construction Manager, and other proper authorities. Cooperate with them until service is restored. Do not work around fire hydrants until provisions for continued service are made and approved by the local fire authority.

H. The Contractor shall protect private or public property on or in the vicinity of the work site. The Contractor shall ensure that it is not removed, damaged, destroyed, or prevented from being used unless the contract so specifies.

I. Fencing: The Contractor shall maintain existing fencing to remain and install temporary fencing at deemed necessary to maintain a safe worksite and to preserve livestock, pasture, or property when working through or adjacent to private property.

J. Livestock and Gate Control: Contractor shall follow all Construction Manager’s instructions regarding gate closure. Contractor is liable for all damages resulting from any and all improper gate closure instructions.

PART 2 PRODUCTS [NOT USED]
Redwood Community Action Agency
2020 Martin Slough Habitat Enhancement Project

PART 3 Execution [NOT USED]

END OF SECTION 01 14 19
SECTION 01 15 00
MEASUREMENT AND PAYMENT

ITEM 1 GENERAL

.01 GENERAL

A. Unless otherwise specified in other individual sections of these specifications, quantities of work shall be determined from measurements or dimensions in horizontal planes.

B. Units of measurement shall be in accordance with U.S. Standard Measures.

C. See General Conditions for special provisions related to progress payments and payment schedule to the contractor.

D. The measurement and payment items are listed below:

1. Any other work shown on the plans and not specifically mentioned/described in the following bid items will be paid under Bid Schedule A, Bid Item No. 1.

2. The payments to the Contractor are based on the following items. It is the intent that the scope of the description of the following items encompasses the entire scope of the work as shown on the plans and described in the specifications. The bid amounts shall be for complete in place installations.

3. Unit prices paid will be those shown on the Bid Schedule regardless of the quantity installed.

E. The Bid Amounts for each Bid Item will be used for comparative bid analysis. The Bid amounts will also form the basis of monthly progress payments. Each Lump Sum bid amount will undergo further breakdown as described later in this section. Unit prices for any unit price bid items will be the basis for monthly progress payment determinations and for any changes related to that Work item. Bid items are not intended to be exclusive descriptions of work categories and the Contractor shall determine and include in its pricing all materials, labor, and equipment necessary to complete each Bid Item (work phase) as shown and specified.

F. Bid Schedules A and B applies to the work performed from the downstream extent of work up to and including the installation of the salinity barrier. Bid Schedule A Item 4 for sediment offhaul and disposal, includes sediment offhaul to the secondary off-site disposal site at White Slough as shown on the plans.

G. In case White Slough cannot accept the off hauled material, Bid Schedule B is an alternate bid schedule to cover the difference in price for the Contractor to off haul and dispose of the sediment in a separate Contractor provided disposal location. Bid Schedule A will be awarded with the contract, and Alternate Bid Schedule B will be awarded if White Slough cannot accept the off hauled material. The Contractor provided disposal location may be more convenient and less expensive than Bid Schedule A Item 4 or may be further away and more expensive than Bid Schedule A Item 4. Therefore the Alternate Bid Schedule B Item 1 will be an additive alternate if a positive number is shown on the bid schedule or a deductive alternate if a negative number is shown on the bid schedule.
H. Bid Schedule C applies to all work performed upstream of the salinity barrier which is anticipated to be constructed after June 15, 2021 and before October 15, 2021. Bid Schedule C Item 4 for sediment offhaul and disposal, includes sediment offhaul to the Contractor provided disposal location.

BID SCHEDULE A

ITEM 1 MOBILIZATION/DEMOBILIZATION

Measurement for this item shall be on a LUMP SUM basis. Payment shall correspond to percent complete as confirmed by the Construction Manager and described in this bid item below. This Work covers all Contractor costs and effort associated with mobilizing equipment, materials, and labor to the project site as well as demobilization of same for the base bid schedule. The incremental mobilization/demobilization costs associated with any alternate bid items will be covered in those items, if awarded. Items covered by this item include, but are not limited to, bonds, insurance, contracting and administrative and permitting costs, equipment mobilization to the work areas, temporary facilities and utilities, construction entrances, punch list items, repairs of damaged property, site cleanup, final site restoration, road repairs and project maintenance and warranty.

1. This Bid Item also covers all Contractor costs and effort associated with providing traffic control measures as described in these Specifications, the Plans, and Contractor obtained encroachment permit. Items covered by this include, but are not limited to, labor, materials, equipment, and other expenses for complete traffic control throughout the length of the project including times when the Contractor is not working on site. Included are notifications, road closures and detours, flaggers as necessary, and all other materials and equipment needed to temporarily control traffic throughout the project.

2. This Bid Item also covers the development of the Project Approach Plan submittal. The Project Approach Plan will define the overall approach the contractor proposes to take to complete the work associated with the contract documents. It also includes any revisions based on owner or agency comments.

3. When 10 percent of the total original Contract amount is earned from bid items, excluding amounts paid for materials on hand, 50 percent of the amount of the bid price for mobilization/demobilization will be paid for mobilization/demobilization. Upon completion of all Work on the project, payment of the balance of the bid amount for mobilization/demobilization will be paid.

4. Any other work shown on the plans and not specifically mentioned/described in the following bid items is included in and will be paid under mobilization/demobilization.

ITEM 2 WATER MANAGEMENT, DUST/EROSION CONTROL AND ENVIRONMENTAL PROTECTION

Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to construct and manage facilities and work associated with water meeting permit requirements including control, diversion and disposal of water. Items covered by this include, but are not limited to, cooperation with project biologists, installation and maintenance of fish screens, cofferdams, silt fences and curtains before cofferdams, diversion piping, dewatering pumps, hoses and tanks, dewatering bags, sediment filter bags and disposal of water. This item also includes maintenance and removal of water management system. This item also includes routine dust suppression, installation and maintenance of existing...
construction entrances, tire cleaning stations as needed to prevent tracking, and cleaning of public roads. This work covers all Contractor costs and effort associated with obtaining construction water from approved sources, applying water to prevent fugitive dust, and as needed routine street sweeping/vacuuming on public roads to comply with project permits. This item covers all Contractor costs and effort associated with providing erosion/sediment control BMPs, complying with the Pollution Prevention Monitoring Plan (PPMP) and performing all necessary inspections and adjustments to the BMPs to comply with the PPMP and compliance with all applicable local, regional and federal laws, protection of cultural and historic resources, and all other environmental protection measures shall be considered incidental to this item and includes all erosion control items necessary to comply with the PPMP which are not covered under Bid Item No. 3 and 4.

ITEM 3. SEDIMENT EXCAVATION, GRADING, AND REMAINING ITEMS
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to complete the sediment excavation, on-site sediment spreading, site grading, rock placement, installation of the salinity barrier, utility and/or irrigation line repairs or replacement, temporary haul roads, placing rock on designated haul roads, removal of designated haul roads, and all needed decompaction efforts in accordance to the requirements as shown on the plans and as described in the specifications. This Bid Item also includes all finished grading of the project area as required to achieve the required finished lines and grades within grading limits. The quantity under this bid item shall be the total project excavated material minus the native backfill used for other bid items.

ITEM 4. SEDIMENT OFFHAUL AND DISPOSAL AT WHITE SLOUGH
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment, street sweeping, installation of BMPs for stormwater control, dust suppression, and supervision necessary to complete off-site disposal to White Slough meeting requirements as shown on the plans and as described in the specifications.

ITEM 5. BRIDGES
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to complete the removal and installation of the Golf Course Bridges as necessary and in accordance to the plans and specifications.

ITEM 6. LARGE WOOD STRUCTURES
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to complete the construction of all the log structures. This includes furnishing the materials to the project site, construction of the large wood structures, and related work required to provide a complete finished structure in place necessary to meet the intent as shown on the plans and as required by the specifications.

BID SCHEDULE B

ITEM 1. SEDIMENT OFFHAUL AND DISPOSAL
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment, permitting, dump fees, street sweeping, installation of BMPs for stormwater control, dust suppression, and supervision necessary to complete off-site disposal to secondary Contractor identified off-site disposal site(s). This alternate Contractor identified disposal site(s) will be utilized if the White Slough disposal site is not available for the excess sediment needing to be removed from the project area. Payment shall include all effort and related fees for the Contractor to identify a suitable, legal, permitted site for soil disposal, meeting all requirements as described in the
specifications, disposing and stabilizing the materials, and providing a signed certification along with the signature from the legal property owner stating they willfully take full responsibility for the delivered materials, accept all delivered materials as-is, and agree to take full responsibility for all aspects of the disposal of materials on the subject property, and agree to indemnify and hold harmless the City, RCAA, GHD, and all related parties associated with the project.

BID SCHEDULE C

ITEM 1. MOBILIZATION/DEMOBILIZATION
Measurement for this item shall be on a LUMP SUM basis. Payment shall correspond to percent complete as confirmed by the Construction Manager and described in this bid item below. This Work covers all Contractor costs and effort associated with mobilizing equipment, materials, and labor to the project site as well as demobilization of same for the additive bid schedule. The incremental mobilization/demobilization costs associated with the base bid and alternate bid items will be covered in those items, if awarded. Items covered by this item include, but are not limited to, bonds, insurance, contracting and administrative and permitting costs, equipment mobilization to the work areas, temporary facilities and utilities, construction entrances, punch list items, repairs of damaged property, site cleanup, final site restoration, road repairs and project maintenance and warranty.

5. This Bid Item also covers all Contractor costs and effort associated with providing traffic control measures as described in these Specifications, the Plans, and Contractor obtained encroachment permit. Items covered by this include, but are not limited to, labor, materials, equipment, and other expenses for complete traffic control throughout the length of the project including times when the Contractor is not working on site. Included are notifications, road closures and detours, flaggers as necessary, and all other materials and equipment needed to temporarily control traffic throughout the project.

6. This Bid Item also covers the development of the Project Approach Plan submittal. The Project Approach Plan will define the overall approach the contractor proposes to take to complete the work associated with the contract documents. It also includes any revisions based on owner or agency comments.

7. When 10 percent of the total original Contract amount is earned from bid items, excluding amounts paid for materials on hand, 50 percent of the amount of the bid price for mobilization/demobilization will be paid for mobilization/demobilization. Upon completion of all Work on the project, payment of the balance of the bid amount for mobilization/demobilization will be paid.

8. Any other work shown on the plans and not specifically mentioned/described in the following bid items will be paid under mobilization/demobilization.

ITEM 2. WATER MANAGEMENT, DUST/EROSION CONTROL AND ENVIRONMENTAL PROTECTION
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to construct and manage facilities and work associated with water meeting permit requirements including control, diversion and disposal of water. Items covered by this include, but are not limited to, cooperation with project biologists, installation and maintenance of fish screens, cofferdams, silt fences and curtains before cofferdams diversion piping, dewatering pumps, hoses and tanks, dewatering bags, sediment filter bags and disposal of water. This item also includes maintenance and removal of water management system. This item also includes routine dust suppression, installation and maintenance of existing construction entrances, tire cleaning stations as needed to prevent tracking, and cleaning.
of public roads. This work covers all Contractor costs and effort associated with obtaining construction water from approved sources, applying water to prevent fugitive dust, and as needed routine street sweeping/vacuuming on public roads to comply with project permits. This item covers all Contractor costs and effort associated with providing erosion/sediment control BMPs, complying with the Pollution Prevention Monitoring Plan (PPMP) and performing all necessary inspections and adjustments to the BMPs to comply with the PPMP and compliance with all applicable local, regional and federal laws, protection of cultural and historic resources, and all other environmental protection measures shall be considered incidental to this item and includes all erosion control items necessary to comply with the PPMP which are not covered under Bid Item No. 3 and 4. This bid item applies to the contractor’s operations at the construction site.

ITEM 3. SEDIMENT EXCAVATION, GRADING, AND REMAINING ITEMS
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to complete the sediment excavation, on-site sediment spreading, site grading, rock placement, installation of the salinity barrier and temporary rock grade control structure, utility and/or irrigation line repairs or replacement, temporary haul roads, placing rock on designated haul roads, removal of designated haul roads, and all needed decompaction efforts in accordance to the requirements as shown on the plans and as described in the specifications. This Bid Item also includes all finished grading of the project area as required to achieve the required finished lines and grades within grading limits. The quantity under this bid item shall be the total project excavated material minus the native backfill used for other bid items.

ITEM 4. SEDIMENT OFFHAUL AND DISPOSAL
Measurement for this item shall be on a LUMP SUM basis. Payment shall include all effort and related fees for the Contractor to identify a suitable, legal, permitted site for offsite soil disposal, meeting all requirements as described in the specifications, disposing and stabilizing the materials, and providing a signed certification along with the signature from the legal property owner stating they willfully take full responsibility for the delivered materials, accept all delivered materials as-is, take full responsibility for all aspects of the disposal of materials on the subject property, and agree to indemnify and hold harmless the City, RCAA, GHD, and all related parties associated with the project.

ITEM 5. BRIDGES
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to complete the removal and installation of the Golf Course Bridges as necessary and in accordance to the plans and specifications.

ITEM 6. LARGE WOOD STRUCTURES
Measurement for this item shall be on a LUMP SUM basis. Payment shall include full compensation for all materials, labor, equipment and supervision necessary to complete the construction of all the log structures. This includes furnishing the materials to the project site, construction of the large wood structures, and related work required to provide a complete finished structure in place necessary to meet the intent as shown on the plans and as required by the specifications.

The three (3) Bid Schedules shall be invoiced separately.

ITEM 1    PRODUCTS [NOT USED]
ITEM 1    EXECUTION [NOT USED]
END OF SECTION 01 15 00
SECTION 01 30 00
ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Coordination and project conditions
B. Field Construction Managing
C. Pre-bid meeting
D. Preconstruction meeting
E. Progress meetings
F. Environmental compliance training

1.02 MEASUREMENT AND PAYMENT
A. Refer to Section 01 15 00 Measurement and Payment.

1.03 COORDINATION AND PROJECT CONDITIONS
A. Coordinate scheduling, submittals, and Work of various sections of Project to ensure efficient and orderly sequence of installation of construction elements.

1.04 FIELD CONSTRUCTION MANAGER
A. The Contractor will provide construction staking services.
B. Protect survey control points prior to starting site Work; preserve permanent reference points during construction.
C. Promptly report to Construction Manager loss or destruction of reference point or relocation required because of changes in grades or other reasons.
D. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Construction Manager.

1.05 PRE-BID MEETING
A. A non-mandatory pre-bid site meeting will not be held, but contractors can conduct their own site visit on May 26th, 2020 between 9 AM to 3 PM at Eureka Municipal Golf Course, 4750 Fairway Drive, Eureka, CA 95503 Eureka, CA (see map below). Contractors must call golf course superintendent, Don Roller, at least 48 hours in advance to schedule a site visit at 707-834-0204. In accordance with Humboldt County Health guidelines, the non-mandatory site visit will follow social distancing guidelines.

1.06 PRECONSTRUCTION MEETING
A. Construction Manager will schedule meeting after Notice of Award.
B. Prior to the commencement of Work at the site, a Preconstruction meeting will be held at a mutually agreed time and place.

C. Unless previously submitted to the Construction Manager, the Contractor shall bring to the conference three (3) copies of each of the following:

1. Draft Construction Schedule.
2. Procurement schedule of major equipment and materials and items requiring long lead time.
3. Submittal schedule.
4. Substitution Requests per Section 01300, "Administrative Requirements."
5. Letter of Responsibility designating emergency contacts for the Contractor after business hours (3 copies).

D. The purpose of the meeting is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established.

E. The Construction Manager will preside at the Preconstruction Meeting and will arrange for keeping the minutes and distributing the minutes to all persons in attendance.

F. Agenda (Tentative):

1. Notice to Proceed date.
2. Contractor’s tentative schedules.
3. Submission of list of Subcontractors, list of products, schedule of values, and progress schedule.
4. Critical work sequencing.
6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
7. Scheduling.
8. Major equipment deliveries and priorities.
9. Use of premises by Owner and Contractor.
10. Environmental compliance.
11. Owner's requirements and occupancy.
12. Site Safety Contractor’s assignments for safety and first aid.
13. Construction facilities and controls provided by Owner.
14. Temporary utilities provided by Owner.
15. Application for payment procedures.

1.07 PROGRESS MEETINGS

A. The Construction Manager shall schedule, arrange and conduct progress meetings. These meetings shall be conducted once per week, or as mutually agreed by Contractor and Owner, and shall be attended by the Contractor’s superintendent and representatives of key Subcontractors, utilities, and others, who are active in the execution of the Work. The purpose of these meetings shall be to review the Contractor’s schedule provided in accordance with this Section, resolve conflicts, and in general, coordinate and expedite the execution of the Work.

B. Construction Manager will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings and record the meeting minutes.

C. Attendance Required: Job superintendent, key subcontractors, Owner, Construction Manager, as appropriate to agenda topics for each meeting.

D. Agenda (Tentative):
   1. Review and acceptance of minutes of previous meeting.
   2. Review of Work progress.
   3. Field observations, problems, and decisions.
   4. Site Safety.
   5. Environmental compliance.
   9. Maintenance of progress schedule.
   10. Corrective measures to regain projected schedules.
   11. Planned progress during succeeding work period.
   12. Coordination of projected progress.
   14. Effect of proposed changes on progress schedule and coordination.
      a. Progress Payment.
      b. Change Orders.
c. Claims.

15. Other business relating to Work.

E. Record minutes and distribute copies within two days after meeting to participants, with one copy each to Construction Manager, Owner, and those affected by decisions made.

1.08 ENVIRONMENTAL COMPLIANCE TRAINING

A. All personnel working on site will be required to participate in a short briefing by the Construction Manager and qualified biologist about the presence of federally and state-listed bird, fish, amphibian, reptile, mammalian, and Plant species at the site, 2) non disturbance areas; 3) construction windows and effects on sequencing of work; 4) buffers between construction activities and breeding/nesting areas; and 5) pre-construction and construction clearance surveys and construction monitoring requirements prior to initiating and continuing work in construction work areas, including the potential necessity for trapping or seining and relocation; 6) Need to halt work if potential special status species located by Contractor or representative and notify the Construction Manager before proceeding with work; 7) Requirements for minimizing other environmental impacts, including noise, traffic, etc.; and 8) The possible presence of archaeological or cultural resources and need to halt work if suspected archaeological or historic resources are found and notify the Construction Manager before proceeding with work.

B. Contractor shall ensure that all on-site workers and contractors understand and agree to observe the standards for work outlined in project permits.

PART 2 PRODUCTS [NOT USED]

PART 3 EXECUTION [NOT USED]

END OF SECTION 01 30 00
SECTION 01 33 00
SUBMITTAL PROCEDURES

PART 1   GENERAL

1.01 SECTION INCLUDES

A. Submittal procedures.
B. Construction progress schedules.
C. Product data & shop drawings.
D. Test reports.
E. Certificates.

1.02 MEASUREMENT AND PAYMENT

A. Measurement and payment for this item shall be included in the Bid Item to which it relates. No additional measurement or payment will be included for the requirements of this section.

1.03 SUBMITTAL PROCEDURES

A. Submit on Submittal Form with information similar to the attached.
B. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.
C. Identify Project, Contractor, Subcontractor and supplier; pertinent drawing and detail number, and specification section number, appropriate to submittal.
D. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with requirements of the Work and Contract Documents.
E. Schedule submittals to expedite Project, and deliver to Construction Manager.
F. For each submittal for review, allow fourteen (14) calendar days excluding delivery time to and from Contractor.
G. Identify variations from Contract Documents and product or system limitations which may be detrimental to successful performance of completed Work.
H. When revised for resubmission, clearly identify changes made since previous submission.
I. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.
1.04 CONSTRUCTION PROGRESS SCHEDULES

A. Submit initial schedules within ten (10) calendar days after date of Notice to Proceed. After review, resubmit required revised data within ten (10) calendar days.

B. Submit revised Progress Schedules with each Application for Payment.

C. Distribute copies of reviewed schedules to Project site file, Subcontractors, suppliers, and other concerned parties.

D. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.

E. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities.

F. Indicate estimated percentage of completion for each item of Work at each submission.

G. Revisions To Schedules:
   1. Indicate progress of each activity to date of submittal, and projected completion date of each activity.
   2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.

1.05 PRODUCT DATA AND SHOP DRAWINGS

A. Product Data and Shop Drawings: Submit to Construction Manager for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.

B. Submit a single reproducible copy or email an electronic version of the submittal to the Construction Manager.

C. Mark submittal to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.

1.06 TEST REPORTS

A. Submit for Construction Manager's knowledge as contract administrator.

B. Submit test reports for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

1.07 CERTIFICATES

A. When specified in individual specification sections, submit certification by manufacturer, installation/application subcontractor, or Contractor to Construction Manager, in quantities specified for Product Data.

B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Construction Manager.

1.08 REQUESTS FOR SUBMITTALS

A. Contractor is directed to each Specification section for required submittals, however, the anticipated Submittals shall consist of, but is not necessarily limited to the following:

<table>
<thead>
<tr>
<th>Section</th>
<th>Submittal Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 11 00</td>
<td>Project Approach Plan</td>
</tr>
<tr>
<td>01 30 00</td>
<td>Draft Construction Schedule (3 copies)</td>
</tr>
<tr>
<td>01 30 00</td>
<td>Submittal Schedule (3 copies)</td>
</tr>
<tr>
<td>01 30 00</td>
<td>Substitution Requests (3 copies)</td>
</tr>
<tr>
<td>01 30 00</td>
<td>Letter of Responsibility (3 copies)</td>
</tr>
<tr>
<td>01 50 00</td>
<td>Refuse Disposal and Recycling Plan (Martin Slough Project Site)</td>
</tr>
<tr>
<td>01 55 50</td>
<td>Temporary Traffic Management Plan (Martin Slough Project Site)</td>
</tr>
<tr>
<td>01 55 50</td>
<td>County Encroachment Permit (Martin Slough Project Site)</td>
</tr>
<tr>
<td>01 57 00</td>
<td>Spill Prevention and Response Plan (Martin Slough Project Site and Disposal Site)</td>
</tr>
<tr>
<td>01 57 00</td>
<td>Water Management Plan (Martin Slough Project Site)</td>
</tr>
<tr>
<td>01 57 00</td>
<td>Tire Tracking Control Plan (Martin Slough Project Site and Disposal Site)</td>
</tr>
<tr>
<td>01 57 00</td>
<td>Dust Prevention Plan (Martin Slough Project Site and Disposal Site)</td>
</tr>
<tr>
<td>01 77 00</td>
<td>Record Drawings</td>
</tr>
</tbody>
</table>

PART 2 PRODUCTS [NOT USED]

PART 3 EXECUTION [NOT USED]

END OF SECTION 01 33 00
SHOP DRAWING/MATERIAL REVIEW REQUEST

INSTRUCTION: Complete this form and attach to each specific Shop Drawing Submittal.

1. Contract Name___________________________________________________________
2. Submission No.___________________________________________________________
   Submittal: 3. New _________   4. Resubmittal _________
5. Date of this submittal______________________________________________________
6. Date of receipt by Construction Manager____________________________________
7. Previous Submission No. (if any)____________________________________________
8. Contractor______________________________________________________________
9. Submitted by (signature and date)

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification Section and Item Paragraph Nos.</th>
<th>12. Description of Material (Name, Type, Model, Catalog No., Mfg., Etc.)</th>
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13. Comment:
Include all drawing titles and numbers, specific information not on drawings, information coming later, etc.

For Use of Construction Manager Only:
14. Action taken* ___________________________________________________________
15. Review by (signature and date)

*See review stamp on individual items.
**SUBMITTAL TRANSMITTAL**

**PROJECT:**
Redwood Community Action Agency
2020 Martin Slough Habitat Enhancement
Project

**CONTRACTOR:**

---

**SPECIFICATIONS SECTION:**

**SUBMITTAL No.:**

**DRAWING REF. NO.:**

**SUBCONTRACTOR/SUPPLIER:**

**DATE:**

**PAGE NO.:**

**CC:**

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### TRANSMITTAL RECORD

<table>
<thead>
<tr>
<th>TRANSMITTAL RECORD</th>
<th>DATE SENT</th>
<th>DATE REC'D</th>
<th>QUANTITY</th>
<th>REVIEW CODES</th>
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<tbody>
<tr>
<td>CONTRACTOR TO OWNER'S REP</td>
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<td>1 REVIEWED, NO EXCEPTIONS</td>
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<td>OWNER'S REP TO CONTRACTOR</td>
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<td>2 MAKE CORRECTIONS NOTED</td>
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<td>3 REVISE AS NOTED, RESUBMIT</td>
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<td>4 REJECTED, RESUBMIT AS SPECIFIED</td>
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<td>5 CANCELLED</td>
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### REVIEW ACTION:

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### DRAWING/ITEM DATED DESCRIPTION

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### OWNER'S REP'S REMARKS:

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**NOTE:** Notations do not authorize changes to contract sum or time. If you are authorized to proceed with the work identified in this submittal, it is assumed that no change in the contract amount or completion date is required. If a change in the work affecting your contract amount or completion date is involved, notify the Owner's Representative immediately.
SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1  GENERAL

1.01  SECTION INCLUDES

A.  Public Utilities

   1.  Agencies Affected
   2.  Notification Requirements
   3.  Contractor Responsibility

B.  Temporary Utilities

   1.  Temporary electricity
   2.  Temporary sanitary facilities

C.  Existing Utilities and Improvements

   1.  General
   2.  Underground Utilities Indicated
   3.  Underground Utilities not Indicated
   4.  Approval of Repairs
   5.  Maintain in Service

D.  Temporary Field Office and Storage Facility

E.  Vehicular Access

F.  Parking

G.  Progress Cleaning and Waste Removal

H.  Barriers

I.  Security

J.  Construction Water

K.  Removal of utilities, facilities, and controls
1.02 RELATED SECTIONS
A. Section 01 33 00 – Submittal Procedures

1.03 MEASUREMENT AND PAYMENT
A. Refer to Section 01 15 00 Measurement and Payment.

1.04 SUBMITTAL REQUIREMENTS
A. Section 01 33 00 - Submittal Procedures
B. Refuse Disposal and Recycling Plan
1. Within five (5) working days of Award of Contract, Contractor shall prepare and submit a Refuse Disposal and Recycling Plan. The Plan shall include:
   a. A list of materials that could be recycled during the course of the Contract. This list should name the material, recycling methods, and/or proposed disposal location.
   b. Anticipated approach for collection, stockpiling, and disposal of materials.
   c. List of potential disposal and recycling locations.

1.05 PUBLIC UTILITIES
A. Agencies Affected
1. Electrical: Pacific Gas & Electric. It should be noted that where a structure is known to receive service does not have overhead service then underground service shall be assumed to exist.
2. Gas: Natural Gas and Delivered Propane
3. Telephone Service: AT&T. It should be noted that where service to a structure is known to receive service does not have overhead service then underground service shall be assumed to exist.
4. Potable Water Service:
   a. The City of Eureka has jurisdiction over potable water usage within the project area.
   b. Also, Individual owner provided water (See 1.14.A, this Section)
5. Drainage: Humboldt County Department of Public Works has jurisdiction over drainage in County ROW.
6. Sewer Service:
   a. City of Eureka
B. Notification Requirements
1. Prior to any excavation in the vicinity of any existing underground facilities, including all water, sewer, storm drain, gas, or other pipelines; all buried electric power, communications, or television cables; all traffic signal and street lighting facilities; and all roadway; the Contractor shall notify the respective authorities representing the owners or agencies responsible for such facilities not less than three (3) work days nor more than seven (7) work days prior to excavation.

2. Notify USA at (800) 227-2600 at least three (3) work days, but no more than fourteen (14) work days, prior to such excavation.

C. Contractor Responsibility

1. The Contractor shall anticipate water, sewer, electrical, communication, drainage and telephone services. It may be expected that there will be variation in location from that as shown on the Plans to the actual location. Contractor responsible for verifying actual location in the field after pre-marking by the various utilities affected.

2. No extra payment will be allowed for the removal, replacement, repair, or possible increased cost caused by inadvertent or planned interception and breaking of underground obstructions which may exist.

3. It should be understood that the various utilities are indicated on the Plans to show only the approximate location and must be verified in the field by the Contractor. The various utility agencies will cooperate with the Contractor to endeavor to familiarize him with all known underground utilities obstructions, but this will not relieve the Contractor from full responsibility in anticipating and locating their actual location.

4. The Contractor, in conjunction with the affected utility company(s), shall pothole and establish the horizontal and vertical locations of all utilities shown on the Plans and marked in the field. This may be done on an area-by-area basis, but shall be accomplished at least five working days in advance of the date of construction within such area. Any discrepancies (horizontal and/or vertical) between the locations of utilities found by the potholing operation than that shown on the Plans shall be brought to the Construction Manager’s attention immediately. Potholing shall be required at the connection to existing facilities prior to the shop drawing submittals.

1.06 TEMPORARY UTILITIES

A. Temporary Electricity

1. Owner supplied temporary electricity is not available.

2. Contractor shall provide such temporary electrical facilities as necessary for Work, to supply temporary lighting for work operations and temporary power for portable power driven tools. Contractor will pay cost of energy used and is responsible for all necessary permits, permissions, code and regulatory compliance associated with such use.

3. Before temporary electrical facilities are installed either by utility company or Contractor, the exact location of such facilities shall be approved by the Construction Manager. It is essential that Contractor locate facilities so as not to interfere with construction equipment, materials handling or storage, traffic areas, later project construction or site development, other contracts, or subsequent work.
B. Temporary Sanitary Facilities

1. Provide and maintain required facilities and enclosures sufficient to accommodate Contractor and Subcontractor personnel at locations easily accessible from work. Provide facilities at time of project mobilization and at location approved by the Construction Manager.

2. Contractor is responsible for cleaning, maintenance, security, placement and removal of facilities.

1.07 EXISTING UTILITIES AND IMPROVEMENTS

A. General

1. The Contractor shall protect all underground utilities and other improvements that may be impaired during construction operations. It shall be the Contractor’s responsibility to ascertain the actual location of all existing utilities and other improvements that will be encountered in its construction operations, and to see that such utilities or other improvements are adequately protected from damage due to such operations. The Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.

2. In case it shall be necessary to move the property of any public utility or franchise holder, such utility company or franchise holder will, upon request of the Contractor, be notified by the Owner to move such property. Time of relocation of the utility by the utility company is not a responsibility of the Owner. When utility lines that are to be removed are encountered within the area of operations, the Contractor shall notify the Construction Manager a sufficient time in advance for the necessary measures to be taken to prevent interruption of service.

3. Where the proper completion of the Work requires the temporary or permanent removal and/or relocation of an existing utility or other improvement that is indicated, the Contractor shall remove and, without unnecessary delay, temporarily replace or relocate such utility or improvement in a manner satisfactory to the Construction Manager and the Owner. In all cases of such temporary removal or relocation, restoration to former location shall be accomplished by the Contractor in a manner that will restore or replace the utility or improvement as nearly as possible to its former location and to equal or better condition as found prior to removal.

B. Right of Access

1. The right is reserved to the Owner, regulatory agencies, City and County staff, private property owners to enter at any time upon any public street, alley, right-of-way, or easement for the purpose of making changes in their property when necessary during the performance of the Work of this Contract.
C. Underground Utilities Indicated
   1. Existing utility lines that are indicated or the locations of which are made known to the Contractor prior to excavation and that are to be retained, and all utility lines that are constructed during excavation operations shall be protected from damage during excavation and backfilling, and if damaged, shall be immediately repaired or replaced by the Contractor.

D. Underground Utilities not indicated
   1. In the event that the Contractor damages any existing utility lines that are not indicated or the locations of which are not made known to the Contractor prior to excavation, a written report there-of shall be made by the Contractor to the Owner.
   2. All costs of locating, repairing damage not due to failure of the Contractor to exercise reasonable care, and removing or relocating such utility facilities not shown in the Contract documents with reasonable accuracy, and for equipment on the project which was actually working on that portion of the Work which was interrupted or idled during such Work will be paid for as extra Work.

E. Approval of Repairs
   1. All repairs to a damaged utility or improvement are subject to inspection and approval by an authorized representative of the utility or improvement Owner before being concealed by backfill or other Work. Contractor to schedule with Owner for the inspection and shall notify the Construction Manager of the schedule and place of the inspection a minimum of three (3) calendar days prior to inspection.

F. Maintain In Service
   1. All power and telephone or the communication cable ducts, gas and water mains, sewer lines, storm drain lines, poles, and overhead power and communication wires and cables encountered along the corridor of Work shall remain continuously in service during all the operations under the Contract, unless other arrangements satisfactory to the Construction Manager are made with the Owner of said pipelines, duct, main, sewer, storm drain, pole, or wire or cable. The Contractor shall be responsible for and shall repair all damage due to its operations, and the provisions of this section shall not be abated even in the event such damage occurs after backfilling or is not discovered until after completion of the backfilling.

G. Site Irrigation Line Control
   1. In coordination with Owner, the Contractor may choose to exercise irrigation line control at the site to protect the system or avoid the sprinklers being active during work. The Contractor will be responsible to ensure that irrigation controls are in active position prior to completing work each day. Site irrigation must be allowed to operate during hours prior to arrival of site or Contractor employees. Irrigation lines that are shut off during the day to allow for work, must be turn back on after each days work.

1.08 TEMPORARY FIELD OFFICE AND STORAGE FACILITY

A. Jobsite trailers, offices, additional parking, fuel storage and small equipment storage may be located within the Staging area shown on the plans or area subject to the approval of the Construction Manager.
1.09 VEHICULAR ACCESS

A. Provide unimpeded access for Owner vehicles.
B. Provide means of removing mud from vehicle wheels before entering streets.
C. Use existing on-site roads for construction traffic.
D. Reasonable precautions shall be taken to prevent the entry of unauthorized vehicles into the corridor and application areas during non-work hours.

1.10 PARKING

A. Arrange for temporary surface parking areas in staging/stockpiling areas to accommodate construction personnel.
B. Use of existing on-site driveways used for construction traffic is NOT permitted, unless authorized by the Construction Manager.
C. Tracked vehicles not allowed on paved areas.
D. Maintenance
   1. Maintain traffic and parking areas in sound condition free of excavated material, construction equipment, products, and mud.
   2. Maintain existing areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain surface course and drainage in original, or specified, condition.
E. Removal, Repair
   1. Remove temporary materials and construction at Substantial Completion per plan or as directed by Construction Manager.
   2. Repair existing facilities damaged by use, to original condition.

1.11 PROGRESS CLEANING AND WASTE REMOVAL

A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition.
B. Collect and remove waste materials, debris, and rubbish from site weekly and dispose off-site.

1.12 SIGNS

A. At all times during construction, Contractor shall install and maintain precautionary signage or warning buoys upstream and downstream of the project areas in order to provide adequate warning notices to recreational users of the potential safety hazards associated with project construction.

1.13 BARRIERS
A. Provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations. Access to adjacent ranches/dairies shall not be restricted or denied at any time.

B. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.14 SECURITY

A. Security Program

1. Protect Work, existing premises and operations from theft, vandalism, and unauthorized entry.

2. Initiate program in cooperation with existing property owners.

3. Maintain program throughout construction period until Owner acceptance precludes need for Contractor security.

B. Entry Control

1. Restrict entrance of unauthorized persons and vehicles into active construction area.

2. Owner will control entrance of persons and vehicles related to Owner operations.

1.15 CONSTRUCTION WATER

A. The Owner has identified the following potential water sources for use during construction. Additional sources may be available and subject to review and approval by the Construction Manager. The Contractor shall make arrangements for water required for construction and sediment delivery, and furnish all necessary equipment, labor, materials and owner compensation as needed. All water sources, including those listed below shall be approved by the Construction Manager prior to use. All water used within the project and sediment disposal area shall be non-saline unless authorized by the Construction Manager.

<table>
<thead>
<tr>
<th>Optional Sources</th>
<th>Contact (Owner)</th>
<th>Available Volume</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Nuisance water encountered during excavation</td>
<td>NA</td>
<td>Undefined</td>
<td>This water shall be tested by the Contractor weekly or at an interval specified by the Construction Manager to demonstrate non-saline conditions. Water withdrawal shall comply with project permits.</td>
</tr>
<tr>
<td>2 Other unidentified sources</td>
<td>TBD</td>
<td>TBD</td>
<td>To be approved by Construction Manager</td>
</tr>
</tbody>
</table>

1.16 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. Remove temporary utilities, equipment, facilities, materials, prior to Substantial Completion inspection.

B. Clean and repair damage caused by installation or use of temporary work.
C. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 PRODUCTS [NOT USED]

PART 3 EXECUTION

3.01 HOUSEKEEPING

A. The Contractor shall keep project site neat, orderly, and in a safe condition at all times.

B. The Contractor shall provide enough containers for collecting construction debris and construction materials to be recycled.

C. The Contractor shall cover or wet down dry materials and rubbish when necessary to prevent blowing dust.

D. The Contractor shall keep volatile wastes in covered containers.

E. The Contractor shall use excavated material as soon as possible.

F. The Contractor shall place construction debris in refuse containers at least daily.

G. The Contractor shall contain stockpiled soil/material in a neat and orderly fashion and prevent from eroding or migrating into any water bodies. The Contractor shall use silt fencing or similar, if necessary.

H. The Contractor shall keep all construction equipment and construction materials, including stock-piles, out of road-side drainages.

END OF SECTION 01 50 00
SECTION 01 55 50
TEMPORARY TRAFFIC CONTROL SYSTEMS

PART 1 GENERAL

1.01 THE REQUIREMENT

A. The Contractor shall provide all materials, equipment, and labor necessary to furnish, place, and maintain all temporary traffic control systems, including construction and maintenance area traffic control devices and flaggers as required to perform the Work in accordance with this Section, and all other appurtenant Work, complete in place, as shown on the Contract Drawings and as specified herein.

B. The contractor is responsible for obtaining all traffic and encroachment permits related to the delivery and hauling of construction equipment and materials, and traffic control measures and devices. The contractor must follow all pertinent state and local requirements for transporting large vehicles and equipment to the project site.

C. The contractor is responsible for temporary placement, maintenance and removal of temporary traffic control devices and signs in accordance to these plans and the approved traffic management plan. If signs are placed in the County right-of-way (row), the contractor shall be responsible for applying for and securing the necessary encroachment permit(s) and paying all associated fees. If signs are to be placed on private property, the contractor shall receive permission from the construction manager and property owner prior to placement.

D. Work Specified in this Section

1. Review of proposed Work areas to determine temporary traffic control requirements.
2. Verification of temporary traffic controls with the Construction Manager prior to implementation.
3. Maintenance of traffic control during the Work.
4. Monitoring traffic control during the Work to determine necessary changes required to maintain adequacy.
5. Maintenance of traffic control during non-work hours to maintain adequacy.

1.02 MEASUREMENT AND PAYMENT

A. Refer to Section 01 15 00 Measurement and Payment.

1.03 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. General Provisions, Section B-51 – Public Convenience.

B. Humboldt County Public Works Encroachment Permit Application.

C. State of California, Department of Transportation (Caltrans) Specifications and Standards
1. Standard Specifications
   a. Section 7 Legal Relations and Responsibility
   b. Section 12 Construction Area Traffic Control Devices


D. Commercial Standards

1. State of California, Division of Industrial Safety, Department of Industrial Relations.
2. Safety Orders of the Division of Industrial Safety, Department of Industrial Relations of the State of California, current edition.

1.04 SUBMITTALS

A. In addition to the submittal requirements of Section 01 33 00 “Submittal Procedures,” the Contractor shall provide the following at least ten (10) working days prior to any work in or on public roadways or private right-of-ways and shall meet with the approval of the Construction Manager:

1. Prior to receiving a notice to proceed, the contractor shall provide a Temporary Traffic Management Plan for review and approval by the Construction Manager and the Owner if the proposed temporary traffic management measures differ from plans the specifications. The Temporary Traffic Management Plan shall conform to the provisions on the plans, these specifications, the County and CalTrans encroachment permit provisions and shall be a living document, subject to modification and updated as project conditions change. If changes are made to the traffic plan, Contractor shall submit and allow 10 working days for plan review and approval by the construction manager and the county. The traffic plan shall be specific to the proposed activities that will occur on the existing roads:

   a. Traffic plan shall be developed and implemented in accordance to the latest edition of the California manual on uniform traffic control devices (MUTCD) and all other pertinent state and local requirements. The traffic plan shall include, but is not limited to, the proposed average daily traffic (ADT), duration of work, haul routes, sign placement, and frequency of on-site meetings to be performed to review and update the traffic plan.

   b. Locations of all encroachments and excavations.

   c. Plans for protection of the public from construction-related hazards.

   d. Lane closures and traffic routing including consideration of construction-related trucking routes.

   e. Hauling routes for approval by the Construction Manager and Owner.

   f. Lane closure markings, barricade locations, and sign locations showing the necessary signing, methods of delineation and channelization and reference to the appropriate Caltrans standards and California MUTCD details for all affected roads.
g. Dimensions of lanes affected by traffic control that will be open to traffic.

h. Dimensions and locations of signs and cone tapers.
i. Identification of side streets and driveways affected by construction and show how they will be handled.
j. Detail of how public transit will be handled through the construction area.
k. Time periods of lane closures and detours.

2. No work except for installation of project identification signs will be allowed to commence prior to approval of the Traffic Plan.

3. A "Letter of Responsibility," on company letterhead, indicating the names and telephone numbers of at least three different persons who shall be available to be contacted in case of emergency at any time during the life of the contract. Said persons must have decision-making authority within the company.

PART 2 PRODUCTS

2.01 GENERAL

A. All construction area stationary and portable sign panels, lights, barricades, and traffic control devices shall be the product of a commercial sign or safety device manufacturer conforming to the requirements of Section 12, "Temporary Traffic Control" of the Caltrans Standard Specifications, unless otherwise specified in this Section, shown on the Drawings, and/or as directed by the Construction Manager.

PART 3 EXECUTION

3.01 GENERAL

A. No work shall commence until traffic control signing has been approved by the Construction Manager and the encroachment permit issued by the County.

B. The Contractor shall take all necessary precautions for the protection of the Work and the safety of its employees and the public. Traffic shall be maintained through the construction or maintenance zone in accordance with Sections 7-1.08, 7-1.09 and 12 of the Caltrans Standard Specifications and Sections 01 10 00 “Summary of Work.”

C. Field changes to traffic control plans shall be approved by the Construction Manager prior to installation.

D. The Contractor shall provide all appropriate traffic control measures in accordance with this Section prior to start of construction in the public right-of-way or in any area adjacent to the street right-of-way where public safety is affected.

E. All construction area signs, lights, barricades, and traffic control devices shall be furnished, installed, maintained, and removed in conformance with the latest edition of the California MUTCD. Additional or alternate signs may only be used when specifically authorized by the Construction Manager.
F. The Contractor shall monitor traffic and safety conditions and maintain adequate traffic control measures during both work and non-work hours in order to maintain compliance with the requirements of this Section.

G. If a hazardous condition is observed and the Construction Manager notifies the Contractor either directly or by telephone, the Contractor shall correct the condition immediately. If the Contractor fails to correct the hazardous condition immediately, the Owner reserves the right to call in a local contractor to perform the necessary work needed to improve public safety. The cost incurred shall be billed to the Contractor. Should the Construction Manager point out any inadequacy of warning and protective measures, such action on the part of the Construction Manager shall not relieve the Contractor from responsibility for public safety nor abrogate his obligation to furnish and pay for these devices.

H. All construction area signs, lights, barricades, and temporary traffic control devices shall be completely removed from the roadway when not in use. Locations and methods of storing traffic control equipment adjacent to the roadway between interrupted use shall require prior approval of the Construction Manager.

I. Unless noted otherwise on the plans, the Contractor shall completely remove all temporary signs, striping and/or delineators and restore the pavement, as necessary, upon removal or relocation of any temporary traffic controls or detours constructed as part of the Work.

J. Temporary traffic control measures shall be in effect only during work hours. Normal traffic routing shall be reestablished at the end of each workday.

K. Contractor shall conduct his operation as to offer the least possible obstruction and inconvenience to the public, and he shall have under construction no greater amount of work than he can prosecute properly with due respect to the rights of the public. Contractor shall provide personal advance notice to each affected resident or business informing him of impending work and provide ample time to remove vehicles and estimated time of driveway closure. This shall be accomplished by delivering a notice to all houses or businesses to be affected by the impending work. The notice shall be typed and signed by the contractor or his designated superintendent. The format and contents of the notice shall be approved by the Construction Manager prior to commencement of the Work.

L. Construction operations shall be conducted in such a manner as to cause as little inconvenience as possible to abutting property owners. Convenient access to driveways, houses, and buildings along the line of the work shall be maintained, and temporary approaches to crossings or intersecting roads shall be provided and kept in good condition.

M. Whenever the Contractor’s operations create a condition hazardous to the public, furnish, erect, and maintain such fences, barricades, lights, signs and other devices as are necessary to prevent accidents or damage or injury to the public.

N. Should the Contractor appear to be neglectful or negligent in furnishing warning and protective measures as above specified, the Construction Manager may direct attention to the existence of hazard, and the necessary warning and protective measures shall be furnished and installed by the Contractor at his expense, without cost to the Owner. Should the Construction Manager point out any inadequacy of warning and protective measures, such action on the part of the Construction Manager shall not relieve the Contractor from responsibility for public safety nor abrogate his obligation to furnish and pay for these devices.

O. Under no circumstances shall access to businesses or residences be held up more than fifteen (15) minutes at any one time. The Contractor may coordinate with property and business owners to schedule work so that longer delays do not adversely affect residents or...
business owners to their satisfaction. In addition, Contractor shall give personal notice to all affected property owners as specified in paragraph M, hereinbefore. Before closing any street to through traffic, Contractor shall obtain prior approval from the Construction Manager seven (7) calendar days in advance of closure. Contractor shall at all times provide access to public facilities such as schools, etc. and make provisions for passage of emergency vehicles.

P. The Contractor shall keep the Eureka Fire Department informed regarding the closure of any traveled way. At a minimum, the Contractor shall call the Eureka Fire Department, daily to report any traveled way closure. This requirement applies immediately upon closure for that day and again immediately after removal of the closure. For closures over multiple days, the daily notification still applies. This requirement does not apply for single lane closures on multiple lane local streets.

3.02 USE OF PUBLIC ROAD RIGHT OF WAY

A. The contractor will be responsible for repair of any damage to roads resulting from the construction and hauling activities. The post-project road conditions shall meet or exceed pre-project conditions and, if necessary, be repaired by the Contractor to the satisfaction of the Construction Manager at contractor's expense. The Construction Manager will video document the roads within the project area prior to commencement.

B. All fueling, equipment maintenance, staging and construction management shall be located outside the county road right of way. No construction materials (construction trailers, storage containers, equipment, etc.) shall be allowed within the County right of way.

C. Site visibility must be maintained at the construction entrances in conformance with County code.

D. Temporary lane closure traffic control to be consistent w/ lane closure for low volume, two lane roads per current edition of Caltrans manual of traffic controls and in conformance with the project specifications.

E. Trucks leaving the construction and sediment disposal areas shall have tires free of sediment to prevent/minimize sediment from being tracked onto public roadways.

F. All public roads and bridges impacted by the construction activities shall be cleared of all sediment and debris on a daily basis or as directed by the Construction Manager.

G. All active construction areas, application areas and gravel roads shall be watered at a rate sufficient to keep soil moist and prevent wind-blown dust.

H. All trucks hauling soil, sand, and other loose materials shall be covered, or all trucks shall be required to maintain at least 2 feet of freeboard, or shall have adequate moisture content to prevent dust, or utilize some other methods that prevents generation of fugitive dust.

I. Traffic speeds on unpaved roads shall be limited to 10 miles per hour or less if posted, or as directed by the Construction Manager.

END OF SECTION 01 55 50
SECTION 01 57 00

ENVIRONMENTAL REQUIREMENTS AND WATER MANAGEMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Water Management (Dewatering and Clear Water Diversion)

B. Permit Compliance

C. Spill Prevention

D. Dust Control

E. Related Sections

1. Section 01 33 00 – Submittal Procedures

2. Appendix A – Permit Conditions

1.02 MEASUREMENT AND PAYMENT

A. Refer to Section 01 15 00 Measurement and Payment.

1.03 SUBMITTAL REQUIREMENTS

A. Section 01 33 00 – Submittal Procedures

B. Water Management Plan

The Contractor shall submit a Water Management Plan within five (5) working days of Award to Contract. The Plan shall describe, in detail, the Contractor’s approach to control water during construction activities. The Plan shall cover both clear water diversion and dewatering, which should be described separately.

1. Clear Water Diversion

a. The Contractor shall be responsible for final design, installation, piping, pumps, electrical, fish screens, ditches and erosion control measures. The Water Management Plan shall present the result of the design effort and the anticipated execution of the work.

b. During instream construction activities that could increase turbidity levels in receiving waters, the Construction Manager will conduct sampling downstream of the activity to monitor compliance. Contractor shall modify techniques as needed to remain in compliance with State requirements.

c. The Water Management Plan shall include a description of how creeks flows will be manage during seasonal baseflow and unseasonably high flow events, as well as control of tidal waters.

2. Dewatering
a. Shallow groundwater exists beneath the project site. The Contractor shall anticipate encountering groundwater during excavation activities. This water, and other water that enters the construction area is referred to as nuisance water. The Contractor must manage nuisance water in order to conduct construction activities and comply with project permits.

b. The existing tide gate structure on the downstream end of the project site may be used to control tidal waters from entering the channel excavation or for nuisance water from exiting the site.

c. The upstream cofferdam location has been shown on the plans.

d. The Contractor shall be responsible for final design, installation, maintenance and removal of all dewatering systems including cofferdams.

e. The Contractor is required to meet the surface water discharge limit requirements listed below and outlined by the Regional Water Quality Control Board. The Construction Manager will conduct sampling downstream of the discharge location to monitoring compliance.

f. The Contractor is required to dewater construction areas to provide for proper excavation and filling. Although dewatering methods are left to the discretion of the Contractor, the Dewatering Plan needs to be approved by the Construction Manager prior to beginning and construction work. Water pumped from typical channel excavations is likely to contain suspended sediments or other materials, and may not be discharged directly to surface waters. Sediment controls shall be provided to remove sediments generated during the dewatering activities, pumped water shall be discharged in conformance with all applicable laws and permit requirements.

g. Potential Dewatering discharge areas include:

- Any surface water within the existing Martin Slough channel between the upstream cofferdam and existing tide gate structure may be pumped, prior to channel excavation, downstream to the receiving Martin Slough/Swain Slough if the Regional Water Quality Control Board limitations are not exceeded and subject to prior approval by the Construction Manager.

- Non-saline groundwater/nuisance water encountered during channel excavation shall be pumped through a sediment bag filter and infiltrated within adjacent pastures of the project site and/or used for dust suppression over open graded areas, access roads where discharge waters will not impede any construction activities and subject to approval by the Construction Manager.

h. Because dewatering may occur in areas that have special status species, the Contractor will need to work with the Construction Manager and Aquatic Biologist to develop dewatering plan approaches that will allow appropriate time for surveys and relocation efforts or to develop alternatives for dewatering that would reduce the amount of “take” of a special status species.

i. The Water Management Plan shall include, but not be limited to, the methods used, schedule of operation, description of equipment such as
C. Spill Prevention and Response Plan

1. Prior to beginning of work and within five (5) working days after date of the Award of Contract, the Contractor shall prepare and submit for approval by the Construction Manager, a Spill Prevention and Response Plan to regulate the use of hazardous and toxic materials, such as fuels and lubricants for construction equipment. The Construction Manager will review, approve, and oversee implementation of the Spill Prevention and Response Plan.

2. The Contractor’s Spill Prevention and Response Plan must include: 1) spill cleanup procedures; 2) worker training; and 3) impact avoidance measures.

3. As part of the Plan, the Contractor shall indicate fueling areas for equipment and shall be a minimum of 100 feet away from coastal waters unless the Contractor receives written permission from the Construction Manager.

D. Tire Tracking Control Plan

1. The Contractor shall provide a Tire Tracking Control Plan for all trucks and construction equipment, which enter and leave the construction site and sediment disposal area during the project. Prior to any construction activities, the Contractor shall prepare and submit to the Construction Manager for review and approval.

2. The Contractor shall provide means of removing sand, mud, vegetation, rhizomes/roots, and seeds from vehicle wheels and under carriage before entering and exiting the construction site onto County roadways through installation of stable rock construction entrances, steel grates, tire cleaning stations and routine street sweeping/vacuuming and as necessary to maintain the roads free of sediment.

3. Roads utilized as part of the project shall be monitored by the Contractor on a daily basis for sediment tracking and other materials due to construction activities, and swept in a timely manner, as needed to prevent suspension of material which has a tendency to become airborne, or that could wash off into waterways. Roads shall be left clean at the end of each working day; cleaning operations shall not create water runoff or dust.

4. The plan shall include the location, size, maintenance and removal of such controls and designated monitoring periods and personnel to minimize sediment tracking onto roads.

E. Dust Prevention Plan

1. The Contractor shall provide a Dust Prevention Plan for all construction and sediment delivery activities that have the potential to generate visible dust. Activities including, but not limited to grubbing, stripping, excavation, hauling, travel on gravel roads, and sediment delivery at the disposal area. Prior to any construction activities, the Contractor shall prepare and submit to the Construction Manager for review and approval.
2. At a minimum, the submittal shall include the water source(s), proposed spray/application methods, frequency of watering, location, possible tarping of haul trucks, designated monitoring periods and personnel to prevent visible dust in accordance to these specifications and project permits.

1.04 GENERAL PROJECT-WIDE MEASURES

A. Contractor shall comply with all provisions of any federal, state and local permits necessary to complete the project.

B. The Contractor, Contractor’s staff and Contractor’s subcontractors shall be fully informed of the requirements of the project permits and environmental regulatory documents as well as rules, regulations, and conditions that may govern the Contractor’s operations in the project area and shall conduct the work accordingly. The Contractor shall comply with all project permit and environmental regulatory document requirements. The Contractor is responsible to conduct the work in accordance with all project permits and environmental documents. Work windows specified in the various project permit conditions may conflict within one another, therefore the most restrictive windows shall be exercised and as shown in the schedule on the plans.

C. It is the responsibility of the Contractor to verify that the Owner has obtained all necessary federal and state permits. The Contractor is responsible for securing all City, County, and California Department of Transportation permits, copies of which must be provided to the Construction Manager prior to construction start. Contractor will maintain a copy of all permits at the Project site.

D. The Contractor shall comply with all other permit conditions, including construction windows, restrictions on work approach related to special status species and archaeologically significant resource areas, buffer zones related to special status species, pre-construction and construction clearance surveys, daily site clearances, and construction monitoring.

E. All personnel working on site will be required to participate in a short briefing by Construction Manager and qualified biologist about 1) the presence of federally and state-listed bird, fish, amphibian, reptile, mammalian, and Plant species at the site, 2) avoidance areas; 3) construction windows and effects on sequencing of work; 4) buffers between construction activities and breeding/nesting areas; and 5) pre-construction and construction clearance surveys and construction monitoring requirements prior to initiating and continuing work in construction work areas, including the potential necessity for trapping or seining and relocation; 6) Need to halt work if potential special status species located by Contractor or representative and notify Construction Manager before proceeding with work; 7) Requirements for minimizing other environmental impacts, including noise, traffic, etc.; and 8) The possible presence of archaeological or cultural resources and need to halt work if suspected archaeological or historic resources are found and notify the Construction Manager before proceeding with work.

F. Contractor shall ensure that all on-site workers and contractors understand and agree to observe the standards for work outlined in project permits.

G. Procedures regarding Encountering Human Remains. Human remains may be encountered. If human graves or remains are encountered, the following measures shall be implemented:

1. The Contractor will halt the work in the vicinity.

2. The County Coroner will be notified. At the same time, a qualified archaeologist will be contacted to evaluate the situation.
3. The Construction Manager will be notified.

4. If human remains are of Native American origin, the Coroner will notify the Native American Heritage Commission within 24 hours of identification (916) 653 – 4082

H. Procedures regarding Agricultural and Cultural Sensitive Resources: Surface surveys have not detected cultural materials within the limits of planned excavation. However if any items of potential cultural or archeological significance are encountered during excavation operations, construction within this area shall be halted immediately, and the Contractor shall notify the archeologist/Construction Manager. The Contractor is advised that if any archaeological findings are discovered during construction that the monitor or archaeologist has the authority to slow or stop construction activities as they deem necessary.

I. Avoidance of Impacts to Nesting Birds:

1. All construction related disturbance will not occur until area is cleared of nesting birds and contractor shall not claim delay. Surveys are not required after August 15th.

2. If surveys identify active nests, the Contractor shall cooperate with the Construction Manager and the appropriate exclusion zones are implemented around the nests and maintained until nesting has completed.

3. Scheduling of required clearance surveys: At the start of construction, the contractor will be required to provide an updated construction schedule. On a weekly basis, the contractor, Construction Manager, and biologist will meet and discuss the status of the project and updates to schedules. Clearance surveys will be scheduled with the basis of this revised weekly schedule. The contractor will not be allowed to start construction until all the approved clearance surveys have been performed. It is the responsibility of the contractor to provide the biologist an updated schedule that allows for adequate time to schedule the clearance surveyor surveys required.

PART 2 PRODUCTS [NOT USED]

PART 3 EXECUTION

3.01 CLEAR WATER DIVERSION

A. In scheduling diversion and dewatering activities, the Contractor shall notify the Construction Manager ten (10) working days prior to any planned diversion activity. The Contractor will ensure the Biologist has adequate time for clearance surveys, monitoring, and relocation of native aquatic vertebrates and large invertebrates to nearby suitable habitat prior to implementation of construction. If relocation is necessary and allowable under permit conditions, the Contractor will preliminarily schedule a qualified biologists based on the construction schedule or updated construction schedules. Should the Contractor wish to proceed with diversion ahead of the timeline given in the updated schedule and without 10-day notice, the Construction Manager reserve the right to deny permission to proceed until the appropriate surveys can be done.

B. Silt fences and or silt curtains will be deployed in the vicinity of the coffer dams and at excavation of sloughs at culvert installation and removal areas to prevent any sediment from flowing into the creek of wetted channels.

C. Cofferdams shall be constructed of non-polluting materials including sand bags, water bags, concrete ecology blocks, rock, native soil with appropriate erosion/sediment control measures and/or plastic tarp.
D. Clear water diversions consist of a system of structures and measures to intercept clear surface water runoff upstream of the project site and transport it around the work area to a downstream discharge location with minimal degradation to water quality. Structures commonly used in clear water diversion systems include: cofferdams, berms/dikes, diversion ditches, diversion swales and/or pipes, sumps, fish screens, slope drains, rock, gravel bags, wood, plastic sheeting, sheet piles/cofferdams, filter fabric, and flumes. Contractor shall furnish all materials needed for the installation, operation and removal of the system.

E. In design, installation and maintenance of clear water diversion systems, Contractor shall comply with all other project permits and the project PPMP.

F. Contractor shall be responsible for applying for and obtaining county encroachment permits necessary for the installation and maintenance of clear water diversion system.


3.02 DEWATERING

A. Dewatering locations must be approved by the Construction Manager or located in accordance to the Dewatering Plan. Dewatering stations should be established consisting of a large screened drum, container, or similar structure that prohibits fish and vegetation from being entrained in the diversion pipe/hose. The screening size and mechanism shall be approved by the Construction Manager and the aquatic biologist prior to installation and use. Screens at the suction end of all dewatering pump intakes are required to be equipped with a maximum screen size of 3/32-inch opening mesh screen or size meeting CDFW and NOAA criteria, whichever is smaller. Screens shall be regularly checked and cleaned of debris to permit free flow of water. All work areas to be dewatered shall be cleared by the aquatic biologist prior to installation of ditch diversion station structures/equipment. The Contractor is not allowed to make modifications to the ditch bank or bed during installation and use of the ditch water diversion stations without prior authorization from Construction Manager. Contractor shall provide the necessary pumps to extract water from ditches to water trucks.

B. Measures to reduce potential impacts, such as screening pump intake areas, will be maintained by Contractor on a daily basis to ensure proper operation. Dewatering shall continue throughout excavation activities. The Contractor shall coordinate with the Construction Manager prior to initiating dewatering activities so the site can undergo any necessary environmental clearance.

C. Temporary dewatering structures and activities are anticipated over the life of the construction project. Any areas affected by dewatering structures/activities will be returned to pre-project condition by Contractor as part of project close-out.

D. Contractor shall design pump intakes and outlets to minimize turbidity and the potential to wash contaminants into adjacent creeks or wetlands.

E. A dewatering structure should be sized to allow water to flow through any outlet filtering media without overflowing the structure. An energy dissipater may be needed to prevent erosion at the outlet.

F. Any turbid water pumped by Contractor from the work site itself, to maintain it in a dewatered state, shall be disposed of in an approved location, water truck, sediment settling tank, or equivalent, where it will not drain directly into any stream channel or tidal waters. The turbidity control methods need to be approved by the Construction Manager prior to implementation.
During excavation, in lieu of excavating in the wet, the Contractor may want to dewater the channel, generating turbid water. One potential dewatering approach is to direct turbid water via a detention and sediment control system in a downstream direction. The turbidity conveyance system needs to be sized to promote low velocity flow, the settling of solids, and stay confined to the boundaries of the excavation. Water may be discharged into the receiving waters of Martin Slough if the NCRWQC 401 and PPMP regulations are not exceeded.

The Contractor shall refuel pumps in areas a minimum of 100 feet away from coastal waters and where approved by the Construction Manager. The Contractor shall place fuel absorbent mats under pumps while refueling.

Once construction is completed, the dewatering facilities are to be removed by the Contractor. Sediment control devices, including perimeter erosion controls, are to remain in place until all disturbed areas are stabilized in accordance with the PPMP and the Construction Manager approves their removal.

At the start of channel excavation, the Contractor is to install a cofferdam at the downstream end of the project reach to eliminate tidal water exchange up the river channel. Coffer dams shall be installed during low tides and should span the width of the active channel. As excavation progresses, Contractor shall install additional cofferdams throughout project reach as needed to best manage and minimize construction dewatering.

**AIR QUALITY AND DUST CONTROL**

A. The Contractor shall adhere to all project permits and shall utilize BMPs to minimize fugitive dust generation and assure compliance with North Coast Unified Air Quality Management District Rule 104 Section 4.0 regarding the control of fugitive dust.

B. Unimproved access or unpaved haul roads, material stock piles, excavated and graded areas, and areas of exposed soil on the construction site shall be sprinkled with water or otherwise treated to fully suppress dust when and where dust becomes a problem. Sources of water for dust control are provided above.

C. At the discretion of the Construction Manager, grading and construction may be prohibited during periods of high winds (>15 mph), which have the potential to result in the generation of windblown dust and sediment not reasonably controllable with standard watering techniques.

D. When not in use or unattended, construction equipment and vehicles will be shut down, locked up, and not left idling.

E. Contractor shall be required to minimize idling time to 5 minutes for all trucks and maintain properly tuned equipment.

F. Equipment and vehicles shall also be tuned and maintained in accordance with manufacturers' specifications to avoid excessive emissions.

G. All equipment shall operate with factory-equipped mufflers.

H. Water active earthwork areas and staging areas as needed for dust control. All active construction areas and sediment application areas shall be watered at a rate sufficient to keep soil moist and prevent formation of wind-blown dust.
I. Exposed stockpiles of dirt, sand, and similar material shall be enclosed, covered, and/or watered daily, or treated with approved non-toxic soil binders as necessary to prevent generation of fugitive dust.

J. Contractor shall use water trucks or spray from hoses to control dust created by outdoor work operations during entire period of the Contract as directed by Construction Manager and stipulated in Specifications; Contractor shall satisfactorily control dust created by operations to the satisfaction of the Construction Manager.

END OF SECTION 01 57 00
SECTION 01 71 23.16
CONSTRUCTION SURVEYING

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Qualified services.
B. Lines and grades.
C. Survey of layout and performance.
D. Surveying accuracy and tolerances in setting survey stakes.

1.02 MEASUREMENT AND PAYMENT
A. Refer to Section 01 15 00 Measurement and Payment.

1.03 QUALIFIED SERVICES
A. Surveying services and field engineering services shall be performed under the direct supervision of a professional land surveyor or civil engineer currently licensed or registered in the State of California. A civil Construction Manager providing field surveying shall have been registered prior to 1982 or have a current professional land surveyors license in the State of California.

1.04 LINES AND GRADES
A. Only such primary control lines, monuments, and bench marks will be set by the Construction Manager as the Construction Manager determines to be necessary to control establishment of the lines and grades required for completion of the Work. In general, these will consist of the primary horizontal and vertical control points indicated on the Contract Drawings. Work points shall be established by the Contractor for all major structures and creek alignments.
B. Contractor must independently verify the primary horizontal and vertical control and inform Construction Manager of any significant differences between published values and found values within 30 days of Notice to Proceed.
C. Primary control monuments currently on site shall be carefully preserved by the Contractor. In case such monuments are destroyed or damaged, they will be replaced at the Construction Manager's earliest convenience. The Contractor will be charged for the cost of replacing or restoring monuments destroyed or damaged by the Contractor's operations. This charge will be deducted from any monies due or to become due to the Contractor.
D. The Contractor shall temporarily suspend work at such points and for such reasonable times as the Construction Manager may require for resetting monuments, and the Contractor will not be entitled to any additional compensation or extension of time therefore.
E. All other stakes or markers required to establish the lines and grades required for the completion of the Work shall be the responsibility of the Contractor.
1.05 SURVEYS FOR LAYOUT AND PERFORMANCE

A. Surveying Requirements: Perform all surveys for layout and performance of the Work, reduce the field notes, and make all calculations and drawings necessary to carry out such work. The Contractor shall check the relative positions of all monuments and benchmarks to be used and shall report any damaged or out-of-position monuments to the Construction Manager at once. The Contractor shall check such relative positions each time the Contractor uses such monument or benchmark.

B. Datum: The Contractor shall be responsible for correctly locating all lines and grades and for performing all measuring as required for the construction and completion of the Work from established reference points and information is shown on the Contract Drawings.

C. Equipment and Personnel: The Contractor's instruments and other survey equipment shall be accurate, suitable for the surveys required in accordance with recognized professional standards, and in proper condition and adjustment at all times.

D. Field Notes and Records: Furnish the original pages of all survey records to the Construction Manager at intervals required by the Construction Manager. Furnish each field notebook to the Construction Manager when filled or completed.

E. Use by the Construction Manager: The Construction Manager may at any time use line and grade points and markers established by the Contractor. The Contractor's surveys are a part of the work and may be checked by the Construction Manager at any time. The Contractor shall be responsible for any lines, grades, or measurements, which do not comply with specified or proper tolerances, or which are otherwise defective, and for any resultant defects in the work. The Contractor shall conduct resurveys or check surveys to correct errors indicated by review of the field notebooks or by check surveys performed by the Construction Manager.

F. The Contractor shall start work only after staking for the affected work is accepted by the Construction Manager.

G. The construction survey and staking work may be spot-checked by the Construction Manager for accuracy, and unacceptable portions of work may be rejected. The Contractor shall resurvey rejected work, and correct work that is not within the tolerances specified above. Acceptance of the construction staking does not relieve the Contractor of responsibility for correcting errors discovered during the work and for bearing all additional costs associated with the error.

H. The Contractor shall remove and dispose of all flagging, lath, stakes, and other staking material after the project is complete unless the Construction Manager specifies otherwise.

I. The Contractor shall perform all survey, staking, recording of data, and calculations as necessary to construct the project Construction Survey and Staking Tolerances from the initial layout to final completion. Reset stakes as many times as necessary to construct the work.
1.06 SURVEYING ACCURACY AND TOLERANCES IN SETTING SURVEY STAKES

A. Surveying Accuracy: Control traverse field surveys and computations, including surveys of main control lines to determine horizontal and vertical alignment of major channel components, shall be done to maximum 0.5 inch or better accuracy.

B. Tolerances: The tolerances generally applicable in setting survey stakes shall be as set forth above. Such tolerances shall not supersede stricter tolerances required by the Contract Drawings or Specifications, and shall not otherwise relieve the Contractor of responsibility for measurements in compliance therewith.

PART 2 PRODUCTS [NOT USED]

PART 3 EXECUTION [NOT USED]

END OF SECTION 01 71 23.16
SECTION 01 77 00
CLOSEOUT PROCEDURES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Requirements preparatory to final inspection.

B. Final inspection.

C. Acceptance of the Work and final payment.

1.02 RELATED SECTIONS

A. See General Contract

1.03 Measurement and Payment

A. Refer to Section 01 15 00 Measurement and Payment.

1.04 REQUIREMENTS PREPARATORY TO FINAL INSPECTION

A. The Contractor shall request a preliminary final inspection to determine the state of completion of the Work.

B. The request shall be made in writing, addressed to the Construction Manager, at least seven calendar days in advance of the requested date of the preliminary inspection.

C. The Construction Manager will perform the preliminary inspection within three days of the requested date.

D. Prior to the requested date of the preliminary inspection, the Contractor shall perform or provide the following, as applicable:

1. Temporary facilities, except as may be required for punch list work, shall be removed from the site.

2. The site and all applicable appurtenances and improvements shall be cleaned as specified in these specifications.

3. Record drawings and specifications shall be completed and submitted to the Construction Manager as specified below.

4. Guaranties and warranties shall be submitted to the Construction Manager, as specified in the General Conditions and various sections of the Specifications.

E. The Contractor shall be represented by its principal superintendent and such Subcontractors and Suppliers as may be necessary to answer the questions of the Owner inspection team.

F. Certain elements of the Work may be scheduled separately at appointed times in order to
keep the preliminary inspection more focused and the number of persons in the Owner inspection team to a minimum.

G. From the information gathered from this inspection, the Construction Manager will prepare a punch list of work to be performed, corrected, or completed.

H. All work on the punch list shall be completed by the Contractor prior to requesting the final inspection.

1.05 SUBMITTALS

A. The Contractor shall provide the Construction Manager with Project Record Drawings in hard copy, consisting of clear and legible delineations and notations on existing design sheets.

B. Guarantees and Bonds

C. Spare parts and material

D. Closeout Reports

PART 2 PRODUCTS [NOT USED]

PART 3 EXECUTION

3.01 SITE CLEANUP

A. Before scheduling the final inspection, the Contractor shall remove all tools, equipment, surplus materials, construction debris, and rubbish. The Contractor shall replace or refinish fencing, gates, or other infrastructure that are damaged due to work of this contract to previous condition as directed by the Construction Manager. At time of final inspection, the project sites shall be thoroughly clean and ready for use.

B. All access roads utilized during construction shall be rehabilitated as necessary to pre-project conditions, or as directed by the Construction Manager. All access road rehabilitation work needs to be approved by the Construction Manager prior to implementation.

3.02 PROJECT RECORD DRAWINGS

A. The Contractor shall maintain one complete full-size set of contract drawings and one full-size set of vendor-supplied drawings. The Contractor shall clearly mark changes, deletions, and additions using the following drafting standards to show actual construction conditions. The Contractor shall show additions in red, deletions in green and special instructions in blue.

B. The Contractor shall keep record drawings current and make record drawings available to the Construction Manager for inspection at the time of progress payment requests. If project record drawings are not current, the Construction Manager may retain the progress payment.

C. On completion of the total project, the Contractor shall submit complete record drawings and include all shop drawings, sketches, and additional drawings that are to be included in the final set, with clear instructions showing the location of these drawings.
3.03 CLOSEOUT SUBMITTALS

A. The Contractor shall submit the following materials to the Construction Manager before final inspection request:

1. Project Record Drawings: As specified above.

2. Guarantees and Bonds: As specified in individual sections.

B. Completion of Work Final Reports. The following will be provided by the Owner’s representative:

1. Final Reports: Upon completion of the permitted rough grading work and at the final completion of the work, final reports and drawings and supplements thereto are required for engineered grading, or when professional inspection is performed for regular grading, as applicable.

2. Final Reports: Upon completion of the permitted rough grading work and at the final Notification of Completion. The permit tee shall notify the building official when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all erosion-control measures have been completed in accordance with the final approved grading plan, and the required reports have been submitted.

3.04 FINAL INSPECTION

A. When all requirements of the above prepared punch list have been completed, the Contractor shall request the final inspection to determine eligibility for issuance of the Certificate of Completion.

B. The request shall be made in writing, addressed to the Construction Manager, at least seven calendar days in advance of the requested date of the final inspection.

C. The Contractor shall be represented by its principal superintendent and such Subcontractors and Suppliers as may be necessary to verify the completion of the Work including punch list items.

D. Depending on the extensiveness of the punch list items, certain elements of the Work may be scheduled separately for final inspection at appointed times.

3.05 ACCEPTANCE OF THE WORK AND FINAL PAYMENT

A. The Construction Manager will accept the Work upon completion of completion punch list items.

B. Acceptance of the Work will be made in accordance with the General Conditions, Final Inspection and Acceptance of All or a Portion of the Work, of the General Conditions. Final payment will be made in accordance with the Final Payment section of the General Conditions.

END OF SECTION 01 77 00
SECTION 02 27 00
EROSION CONTROL AND WATER QUALITY COMPLIANCE

PART 1 GENERAL

1.01 GENERAL
A. The work of this section consists of furnishing and installing temporary erosion and sediment control measures necessary to prevent, control and abate water, mud, and erosion damage to public and private property as a result of the construction project.
B. Implementing measures to prevent storm water pollution during construction activities, in accordance with federal, state, and local regulations, and in accordance with the Pollution Prevention Monitoring Plan (PPMP) prepared for this project.
C. Minimize the extent of all ground disturbing activities and avoid work in any drainage channels if at all feasible.
D. Heavy equipment shall be placed outside of drainage channels except when absolutely necessary to perform the work.
E. Upon completion of construction activities, natural drainage shall be restored and re-contoured as nearly as practicable to pre-project conditions, and shall match adjacent natural channel contours.

1.02 RELATED SECTIONS
A. Related work specified in other sections:
   1. Section 31 20 00 – Earthwork
   2. Section 01 57 00 – Environment Requirements and Water Management

1.03 MEASUREMENT AND PAYMENT
A. Refer to Section 01 15 00 Measurement and Payment.

1.04 SUBMITTALS
A. Mill Certificate or Affidavit. A mill certificate or affidavit shall be provided attesting that the fabric and factory seams meet chemical, physical, and manufacturing requirements specified below.

1.05 REFERENCES
A. Pollution Prevention Monitoring Plan (PPMP)
B. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.
C. American Society for Testing and Materials (ASTM)


1.06 EROSION AND SEDIMENT CONTROLS

A. The controls and measures required by the Contractor are described but not limited to below.

1. Structural Practices: Structural practices shall be implemented to divert flows from exposed soils, temporarily store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Structural practices shall be implemented in a timely manner during the construction process to minimize erosion and sediment runoff. Structural practices shall include the following devices.

a. Silt Fences. The Contractor shall provide silt fences as a temporary structural practice to minimize erosion and sediment runoff. Silt fences shall be properly placed and installed to effectively retain sediment immediately after completing each phase of work where erosion would occur in the form of sheet and hill erosion (e.g. clearing and grubbing, trench excavation, backfilling, and grading). Silt fences shall be installed in the locations as directed by the Construction Manager. Final removal of silt fence barriers shall be upon approval by the Construction Manager.

b. Fiber Roles (sediment logs or wattles): Contractor shall provide fiber roles as temporary structural practice to minimize erosion and sediment runoff. Fiber roles shall be properly placed and installed to effectively retain sediment immediately after completing each phase of work (e.g., clearing and grubbing, trench excavation, backfill, and grading) in each independent runoff area (e.g., after clearing and grubbing in an area between a ridge and drain, fiber roles shall be placed as work progresses; fiber roles shall be removed/replaced/relocated as needed for work to progress in the drainage area). Final removal of fiber role barriers shall be upon approval by the Construction Manager. Fiber Roles shall be installed in accordance to the Plans, PPMP and as directed by the Construction Manager.

c. Seed and Mulch: To be furnished and installed by RCAA

1.07 POLLUTION PREVENTION MONITORING PLAN (PPMP)

A. A Pollution Prevention Monitoring Plan (PPMP) has be developed for this project.

B. The Contractor will be responsible to comply with the regulations and implement the BMPs presented in the PPMP. The Contractor is responsible for complying with the requirements of the PPMP including but not limited to: implementation and maintenance of BMPs, performing
inspections and correcting any deficiencies identified by the Construction Manager or the SWRCB at the Contractors expense. In addition, the Contractor shall (at Contractors expense) update the PPMP to reflect modifications to stormwater control measures made in response to a change in design, construction, operation, or maintenance at the construction site that has or could have a significant effect on the discharge of pollutants from the project site that has not been previously addressed in the PPMP. This work is necessary to control water pollution, soil erosion and siltation through the use of BMPs specified in the PPMP.

C. The PPMP must remain on site for the full duration of the work. The Contractor shall review and abide by the instructions contained in the PPMP. The Contractor shall adjust BMPs to maintain in compliance. The Contractor shall be liable for any fines issued to the project or to the Owner by the SWRCB for noncompliance. The contractor shall hold the Owner harmless for any fines or sanctions caused by the Contractor's actions or inactions regarding compliance with the permit or erosion control provisions of the Contract Documents and PPMP.

PART 2 PRODUCTS

2.01 PER THE PPMP

2.02 SILT FENCES

A. Ultraviolet stabilized woven polypropylene face. The filter fabric shall meet the following requirements:

<table>
<thead>
<tr>
<th>Physical Property</th>
<th>Test Procedure</th>
<th>Required Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grab Tensile</td>
<td>ASTM D 4632</td>
<td>160 lbs. min.</td>
</tr>
<tr>
<td>Elongation (%)</td>
<td>ASTM D 1682</td>
<td>25 % max.</td>
</tr>
<tr>
<td>Mullen Burst Strength, psi, min.</td>
<td>ASTM D 3876</td>
<td>350</td>
</tr>
<tr>
<td>Equivalent Opening Size, max.</td>
<td>US Standard Sieve</td>
<td>30-70</td>
</tr>
<tr>
<td>Ultraviolet Radiation Resistance, %</td>
<td>ASTM D 4355</td>
<td>70</td>
</tr>
<tr>
<td>Strength Retention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight oz./sq. yd.</td>
<td>ASTM D 3776</td>
<td>4</td>
</tr>
</tbody>
</table>

B. Mill Certificate or Affidavit. A mill certificate or affidavit shall be provided attesting that the fabric and factory seams meet chemical, physical, and manufacturing requirements specified above.

C. The Contractor may use either wooden stakes or steel posts for silt fence construction. See plans for size.

2.03 FIBER ROLES (SEDIMENT LOGS OR WATTLES)

A. Composed of biodegradable materials.

B. The Contractor shall use wooden stakes for fiber role installation. Wooden stakes utilized for fiber role installation, shall have a minimum cross section of 1 inch by 2 inches, or as suggested by the fiber role manufacturer.
3.01 PER THE PPMP

3.02 SPECIAL CONSTRUCTION REQUIREMENTS

A. It is the responsibility of the Contractor to minimize erosion and prevent the transport of sediment to the adjacent stream and sensitive areas.

B. At a minimum, the Contractor shall employ best management practices (BMPs) as described in the PPMP.

C. If discrepancies occur between these specifications, plans, PPMP, material referenced herein or manufacturers’ recommendations, then the most protective shall apply.

D. It is the responsibility of the Contractor to fix any erosion, sediment, pollution, & waste control deficiencies identified by the Construction Manager.

E. Other selected disturbed earth areas shall be treated using appropriate erosion control measures per plans, specifications and PPMP.

F. Additional erosion/sediment BMPs beyond what is shown on the plans and PPMP may be required to comply with project permits and it shall be the responsibility of the contractor to implement additional BMPs as needed and as directed by the construction manager at no additional expense to the Owner.

G. Changes to the PPMP may be made to respond to field conditions. Changes shall be noted on the plan when made.

H. Contractor shall comply with the project Pollution Prevention Monitoring Plan (PPMP) as required to ensure that water quality in the Martin Slough and tributaries is not degraded during construction activities and until the disturbed areas are stabilized and erosion potential is minimized. The PPMP details erosion and sediment BMPs that will be implemented to prevent entry of storm water runoff into the excavation site, entrainment of excavated contaminated materials leaving the site, and entry of polluted storm water runoff into coastal waters during transportation and storage of excavated materials. BMPs that the Contractor shall implement as part of the PPMP include:

1. Preservation of existing vegetation shall occur to the maximum extent practicable.

2. Cofferdams or other temporary fish barriers/water control structures shall be placed in the channel during low tide, and shall only be removed during low tide (if possible), after work is completed.

3. Because cofferdams shall be installed and the channel will be dewatered prior to excavation after fish removal efforts have been completed, equipment shall not be operated directly within tidal waters or stream channels of flowing streams.

4. Appropriate energy dissipation devises will be utilized to reduce or prevent erosion at discharge end of dewatering activity.

5. Silt fences and or turbidity curtains shall be deployed as necessary during installation of selected cofferdams and pursuant to the PPMP.

6. Sediment sources shall be controlled using materials and methods specified in the PPMP.
7. Erosion control may include seeding, mulching, erosion control blankets, plastic coverings, and geotextiles that shall be implemented after completion of construction activities and pursuant to the PPMP.

8. Stockpiled material will be covered or watered to eliminate excessive dust, as necessary.

9. Fiber rolls or similar products will be utilized in appropriate locations to reduce sediment runoff from disturbed soils, as necessary.

10. Excess water shall be pumped into the surrounding fields to prevent sediment-laden water from entering the stream channel.

11. Appropriate energy dissipation devices shall be utilized to reduce or prevent erosion at dewatering pipes/hose outfalls.

12. Turbidity and pH monitoring (as required in the monitoring plan of the PPMP and the NCRWQCB 401 Water Quality Certification) will be conducted by the Construction Manager in the Martin Slough during channel activities and throughout the site stabilization period to ensure that water quality is not being degraded. Turbid water shall be contained and prevented from being transported in amounts that are deleterious to fish, or in amounts that could violate state pollution laws. Silt fences or water diversion structures shall be used to contain sediment. If sediment is not being contained adequately, as determined by visual observation, the activity shall cease.

13. Construction materials, debris, and waste will not be placed or stored where it can enter into or be washed by rainfall into waters of the U.S./State.

14. Appropriate vehicle storage, fueling, maintenance and cleaning areas shall be designated and maintained to prevent discharge of pollutants. Upland areas will be used for equipment refueling. If equipment must be washed, washing shall occur where wash water cannot flow into wetlands or waters of the U.S./States.

15. Operators of heavy equipment, vehicles, and construction work will be instructed to avoid sensitive habitat/resource areas. To ensure construction occurs in the designated areas and does not impact environmentally sensitive areas, the boundaries of the work area shall be fenced or marked with flagging by the Contractor.

16. Equipment when not in use shall be stored outside of the slough channel and outside areas of tidal influence.

17. All construction equipment will be maintained to prevent leaks of fuels, lubricants or other fluids into the slough. Service and refueling procedures will not be conducted where there is potential for fuel spills to seep or wash into the slough.

18. Stationary equipment such as motors, pumps, generators, compressors, and welders, located within a dry portion of the stream channel or adjacent to the stream channel shall be positioned over drip pans. The Contractor shall have spill containment materials located at the site, with operators trained in spill control procedures.

19. Extreme caution will be used when handling and/or storing chemicals and hazardous wastes (e.g., fuel and hydraulic fluid) near waterways, and any and all applicable laws and regulations will be followed. Appropriate materials shall be on site to
prevent and manage spills. Contractor shall comply with the PPMP, Emergency Spill Plan and Emergency Spill Response Plan and other relevant permit conditions.

20. Covered and secured storage areas for potentially toxic materials shall be provided. All hazardous material containers should be placed in secondary containment.

21. All construction vehicles or equipment shall be checked and maintained daily to prevent leaks of fuels and/or lubricants.

22. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, oil or petroleum products, other organic material or earthen material from any construction related activity shall be allowed to enter into the active Martin Slough or be placed where it may be washed by rainfall into the Martin Slough or any waterways.

23. Soil and material stockpiles shall be properly protected to minimize sediment and pollutant transport from the construction site.

24. If, at any time, an unauthorized discharge of debris to surface water occurs, or any water quality problem arises, the associated project activities shall cease immediately until adequate BMPs are implemented, including stopping work. The regional water board will be notified by the construction manager promptly and in no case more than 24 hours after the unauthorized discharge or water quality problem arises.

25. The plans may not cover all the situations that arise during construction due to unanticipated field conditions. Variations may be made to the plan in the field subject to the approval of or at the direction of the Construction Manager.

26. Prior to final acceptance all areas of the site will be vegetated or permanently stabilized and all temporary sediment control measures shall be removed.

3.03 INSTALLATION OF SILT FENCES

A. Silt fences shall extend a minimum of 16 inches above the ground surface and shall not exceed 34 inches above the ground surface. Filter fabric shall be from a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are unavoidable, filter fabric shall be spliced together at a support post, with a minimum 6-inch overlap, and securely sealed. A trench shall be excavated approximately 4 inches wide and 4 inches deep on the upslope side of the location of the silt fence. The 4-inch by 4-inch trench shall be backfilled and the soil compacted over the filter fabric. Silt fences shall be removed upon approval by the Construction Manager.

B. Maximum spacing for post supports shall be 6 feet on center. Posts shall be buried 12 inches minimum and shall not exceed 36 inches above the ground surface.

3.04 INSTALLATION OF FIBER ROLES (SEDIMENT LOGS OR WATTLES)

A. Fine grade the subgrade by hand, dressing where necessary to remove local deviations and to remove larger stones or debris that will inhibit intimate contact of the fiber roll with the subgrade. Prior to roll installation, contour a concave key trench 2 to 4 inches deep along the proposed installation route. Soil excavated in trenching should be placed on the uphill or flow side of the roll to prevent water from undercutting the roll.
B. Place fiber rolls into the key trench and stake on both sides of the roll within 6 feet of each end. Spacing for stakes shall be 3 to 5 feet. Stakes are typically driven in on alternating sides of the roll. Stakes shall be buried 12 inches minimum.

C. When more than one fiber roll is placed in a row, the rows should be abutted securely to one another to provide a tight joint, not overlapped. Fiber rolls shall be placed in a single row, lengthwise on the contour, with ends of adjacent roles tightly abutting one another.

3.05 MAINTENANCE

A. The Contractor shall maintain the temporary and permanent vegetation, erosion and sediment control measures, and other protective measures in good and effective operating condition by performing routine inspections to determine condition and effectiveness, by restoration of destroyed vegetative cover, and by repair of erosion and sediment control measures and other protective measures. The following procedures shall be followed to maintain the protective measures.

1. Silt Fence Maintenance. Silt fences shall be inspected in accordance with paragraph INSPECTIONS. Any required repairs shall be made promptly. Close attention shall be paid to the repair of damaged silt fence resulting from end runs and undercutting. Should the fabric on a silt fence decompose or become ineffective, and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits shall be removed when deposits reach one-third of the height of the barrier. When a silt fence is no longer required, it shall be removed. The immediate area occupied by the fence and any sediment deposits shall be shaped to an acceptable grade. The areas disturbed by this shaping shall be re-vegetated.

2. Fiber Roll Maintenance. Fiber roll barriers shall be inspected in accordance with paragraph INSPECTIONS. Close attention shall be paid to the repair of damaged rolls, end runs and undercutting beneath rolls. Necessary repairs to barriers or replacement of rolls shall be accomplished promptly. Sediment deposits shall be removed when deposits reach one-half of the height of the barrier. Roll rows used to retain sediment shall be turned uphill at each end of each row. When a fiber roll barrier is no longer required, it shall be removed. The immediate area occupied by the roll and any sediment deposits shall be shaped to an acceptable grade. The areas disturbed by this shaping shall be re-vegetated.

3.06 INSPECTIONS AND ACCEPTANCE

A. General. The Contractor shall inspect disturbed areas of the construction site, areas used for storage of materials that are exposed to precipitation that have not been finally stabilized, stabilization practices, structural practices, other controls, and area where vehicles exit the site, at least once every seven (7) calendar days, within two (2) calendar days of forecasted rains, and within 24 hours of the end of any storm that produces 0.5 inches or more rainfall at the site and in accordance to the PPMP.

B. Inspection Details. Disturbed areas and areas used for material storage that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Discharge locations or points shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles exit the site shall be inspected for evidence of offsite sediment tracking.

C. Inspection Reports. As required per the PPMP.
D. Acceptance: Final stabilization as defined by the PPMP and acceptance by the State Water Resources Control Board.

END OF SECTION 02 27 00
SECTION 03 10 00

CONCRETE FORMWORK

PART 1: GENERAL

1.01 SUMMARY

A. Section includes:
   1. Design, furnishing, erection and removal of forms
   2. Design, furnishing, erection and removal of shoring and bracing of formwork
   3. Setting of embedded items

B. Furnish all labor, materials, equipment and incidentals required and design, install and remove formwork for cast-in-place concrete as shown on the Drawings and as specified herein.

C. Secure to forms as required or set for embedment as required, all miscellaneous metal items, sleeves, reglets, anchor bolts, inserts and other items furnished under other Sections and required to be cast into concrete.

1.02 RELATED SECTIONS

Related work specified in other sections:

A. Section 03 30 00 – Cast-in-Place Concrete

1.03 REFERENCE CODES AND STANDARDS

The following Standards apply:

A. American Concrete Institute (ACI)
   1. ACI 301 - Specifications for Structural Concrete for Buildings
   2. ACI 318 - Building Code Requirements for Reinforced Concrete
   3. ACI 347 - Guide to Formwork for Concrete

B. American Plywood Association (APA)
   1. Material grades and designations as specified

C. Where reference is made to one of the above standards, the revision in effect at the time of bid opening shall apply.

1.04 SUBMITTALS

Submit the following in accordance with 01 33 00 Submittal Procedures:

A. Submit to the Owner, shop drawings and product data showing materials of construction and details of installation for:
   1. Form release agent
   2. Form ties
   3. Bond breakers
   4. Location and sequence of the concrete placements.

1.05 SYSTEM DESCRIPTION

A. Structural design responsibility: All forms and shoring shall be designed at the Contractor's expense by a professional civil engineer registered in the State of California. Formwork shall be
designed and erected in accordance with the requirements of ACI 301 and ACI 318 and as recommended in ACI 347 and shall comply with all applicable regulations and codes. The design shall consider any special requirements due to the use of plasticized and/or retarded set concrete. All forms shall be designed for the static head of plastic concrete.

PART 2: PRODUCTS

2.01 GENERAL

A. The usage of a manufacturer's name and model or catalog number is for the purpose of establishing the standard of quality and general configurations required.

2.02 MATERIALS

A. Forms for cast-in-place concrete shall be made of wood, metal, or other approved material. Wood forms for the project shall be new and unused. Construct wood forms of sound lumber or plywood of suitable dimensions and free from knotholes and loose knots. Where used for exposed surfaces, dress and match boards. Sand plywood smooth and fit adjacent panels with tight joints. Metal forms may be used when approved by the Owner. All forms shall be designed and constructed to provide a flat, uniform concrete surface requiring minimal finishing or repairs.

B. Wall Forms

1. Forms for all exposed exterior and interior concrete walls shall be new and unused "Plyform" exterior grade plywood panels manufactured in compliance with the APA and bearing the trademark of that group, or equal acceptable to the Owner. Provide B grade or better veneer on all faces to be placed against concrete during forming.

2. Forms shall be constructed of materials and in a manner that will result in rigid forms with sufficient strength to withstand, without noticeable deflection, movement, or leakage, the high hydraulic pressures resulting from rapid filling of forms and heavy high frequency vibration of the concrete. Deflection in formwork shall be limited to 1/360 of each component span. Form joints shall be laid out in a uniform pattern or as indicated on the Drawings.

3. All joints or gaps in forms shall be taped, gasketed, plugged, and/or caulked with an approved material so that the joint will remain watertight and will withstand placing pressures without bulging outward or creating surface patterns.

4. Forms for circular structures shall conform to the circular shape of the structure. Straight panels may be substituted for circular panels if the straight panels do not exceed 2-ft in width nor deflect more that 3-1/2 degrees per joint, not conflict with specific notes on the Drawings.

2.03 ACCESSORIES

A. Form Release Agent

1. Coat all forming surfaces in contact with concrete, which will not be painted, using an effective, non-staining, non-residual, water based, bond-breaking form coating unless otherwise noted.

B. Form Ties

1. Form ties encased in concrete other than those specified in the following paragraphs shall be designed so that, after removal of the projecting part, no metal shall remain within 1-1/2-in of the face of the concrete. The part of the tie to be removed shall be at least 1/2-in diameter or be provided with a wood or metal cone at least 1/2-in diameter and 1-1/2-in long. Form ties in concrete exposed to view shall be the cone-washer type.

2. Form ties for exposed exterior and interior walls shall be as specified in the preceding paragraph except that the cones shall be of approved wood or plastic.

3. Flat bar ties for panel forms shall have plastic or rubber inserts having a minimum depth
of 1-1/2-in and sufficient dimensions to permit proper patching of the tie hole.

4. Ties for liquid containment structures shall have an integral waterstop that is tightly welded to the tie.

5. Common wire shall not be used for form ties.

6. Alternate form ties consisting of tapered through-bolts at least 1-in in diameter at smallest end or through-bolts that utilize a removable tapered sleeve of the same minimum size may be used at the Contractor's option. Obtain Owner's acceptance of system and spacing of ties prior to ordering or purchase of forming. The Contractor shall be responsible for water tightness of the form ties and any repairs needed.

C. Form Joint Sealers: For joints between form panels, use resilient foam rubber strips, non-hardening plastic tape caulking compound free of oil, or waterproof pressure-sensitive plastic tape of eight (8) mil thickness and two (2) inch (50mm) width. For form tie holes, use rubber plugs, plastic caulking compound or Owner approved equal.

PART 3: EXECUTION

3.01 GENERAL

A. Forms shall be used for all cast-in-place concrete including sides of footings except for pipe and conduit encasements where concrete may be placed directly against the side of the trench. Forms shall be constructed and placed so that the resulting concrete will be of the shape, lines, dimensions and appearance indicated on the Drawings.

B. Molding, bevels, or other types of chamfer strips shall be placed to produce blockouts, rustications, or chamfers as shown on the Drawings or as specified herein. Chamfer strips shall be provided at horizontal and vertical projecting corners to produce a 3/4-in chamfer. Rectangular or trapezoidal moldings shall be placed in locations requiring sealants where specified or shown on the Drawings. Sizes of moldings shall conform to the sealants manufacturer's recommendations.

C. Forms shall be sufficiently rigid to withstand construction loads and vibration and to prevent displacement or sagging between supports. Construct forms so that the concrete will not be damaged by their removal. The Contractor shall be entirely responsible for the adequacy of the forming system.

D. Where the Owner authorizes reuse of form material, all form surfaces in contact with concrete shall be thoroughly cleaned, all damaged places repaired, all projecting nails withdrawn and all protrusions smoothed. Reuse of wooden forms for other than rough finish will not be permitted.

E. Pipe embedment and metal items used to support pipe penetrations shall have a minimum clearance of 2 inches from reinforcing steel bars.

F. Coat forms with specified coating material prior to placement of reinforcing steel; DO NOT allow coating to contact reinforcing bars.

3.02 FORM TOLERANCES

A. Forms shall be surfaced, designed and constructed in accordance with the recommendations of ACI 347 and shall meet the following additional requirements for the specified finishes.

B. Formed Surface Exposed to View: Edges of all form panels in contact with concrete shall be flush within 1/32-in and forms for plane surfaces shall be such that the concrete will be plane within 1/16-in in 4-ft. Forms shall be tight to prevent the passage of mortar, water and grout. The maximum deviation of the finish wall surface at any point shall not exceed 1/4-in from the
intended surface as shown on the Drawings. Form panels shall be arranged symmetrically and in an orderly manner to minimize the number of seams.

C. Formed surfaces not exposed to view or buried shall meet requirements of Class "C" Surface in ACI 347.

D. Formed rough surfaces including mass concrete, pipe encasement, electrical duct encasement and other similar installations shall have no minimum requirements for surface smoothness and surface deflections. The overall dimensions of the concrete shall be plus or minus 1-in.

3.03 FORM PREPARATION

A. Wood forms in contact with concrete, which is not to be painted, shall be coated with an effective release agent prior to form installation.

B. Steel forms shall be thoroughly cleaned and mill scale and other ferrous deposits shall be sandblasted or otherwise removed from the contact surface for all forms, except those utilized for surfaces receiving a rough finish. All forms shall have the contact surfaces coated with a release agent unless the concrete contact surface is to be painted.

3.04 REMOVAL OF FORMS

A. The Contractor shall be responsible for all damage resulting from removal of forms. Forms and shoring for structural slabs or beams shall remain in place in accordance with ACI 301 and ACI 347.

B. Do not remove forms or bracing until concrete has attained sufficient strength to support its own weight and imposed construction and permanent loads. The minimum time limits for form removal are as follows:
   1. Slabs: 24 hours
   2. Walls: 7 days
   3. Suspended slabs: 28 days

C. Any damage to the work resulting from early removal of forms or early imposed loading shall be corrected at no additional expense to the Owner.

D. Remove formwork progressively and in accordance with code requirements.

3.05 EMBEDDED PIPING AND ROUGH HARDWARE

A. Required openings for the passage of pipes, conduits, necessary pipe sleeves, anchors, or other required inserts shall be properly and accurately installed. Openings shall be reinforced as indicated and required. Conduits and pipes shall be located so as not to reduce the strength of the construction.

3.06 FIELD QUALITY

A. Embedded Items. Prior to placement of concrete within the forms, Contractor shall certify that all embedded items within the forms and affected by the pour are properly located and braced. This certification shall be provided to the Owner in advance of placing concrete.

B. Inspection of Forms. After the forms are completed and before concrete is placed, forms shall be inspected by the Contractor who shall certify to the Owner that they are clean, true to line and grade and have adequate support and strength.
C. Control During Concrete Placement. Workers shall be assigned to check forms during concrete placement and to promptly seal all mortar leaks and to correct all form movement and misalignment.

PART 4: INSPECTION AND TESTING

4.01 FIELD INSPECTION

A. The Owner shall be notified when the forms are complete and ready for inspection at least 24 hours prior to the proposed concrete placement.

B. Failure of the forms to comply with the requirements specified herein or to produce concrete complying with requirements of this Section shall be grounds for rejection of that portion of the concrete work. Rejected work shall be repaired or replaced as directed by the Owner at no additional cost to the Owner. Such repair or replacement shall be subject to the requirements of this Section.

***END OF SECTION***
PART 1: GENERAL

1.01 SUMMARY

This Section includes the following:

1. Formwork
2. Reinforcement
3. Accessories
4. Cast-in-place concrete
5. Finishing and curing

1.02 RELATED SECTIONS

Related work specified in other sections:

A. Section 03 10 00 – Concrete Formwork

1.03 REFERENCE CODES AND STANDARDS

The following Standards apply:

A. ACI 301 – Specifications for Structural Concrete for Buildings
B. ACI 318 - Building Code Requirements for Reinforced Concrete
C. ACI 350 – Code Requirements for Environmental Engineering Concrete Structures

1.04 SUBMITTALS

Submit the following in accordance with Section 01 33 00 Submittal Procedures:

A. Shop Drawings:
1. Indicate reinforcement sizes, spacings, locations, and quantities, bending and cutting schedules, supporting and spacing devices.
2. Indicate pour sequence, including construction joint locations.

B. Product Data: Indicate the following for all admixtures, curing materials, curing compounds, and anchors:
1. Catalog cut sheets
2. Technical Data
3. Storage Requirements
4. Product life
5. Recommended dosage
6. Temperature considerations
7. Material Safety Data Sheets (MSDS Sheets)
8. Conformity to ASTM standards
9. Installation Instructions

C. Material Data: Indicate the following for all concrete materials, including cement and aggregate:
1. Test Reports
2. Conformity to ASTM standards

D. Design Data: Submit the following for all mix designs:
   1. Formulation of concrete proposed, including constituent quantities per cubic yard, water cement ratio, concrete slump, type and manufacturer of cement.
   2. Results of trial batches including standard deviation data, based on statistical record, and the water cement ratio curve based on laboratory tests. Give average cylinder strength test results at 28 days for laboratory concrete mix design. Provide results of 7 and 14 day tests if available.

E. Proposed Procedures for Curing Concrete and Methods and Procedures for:
   1. Cold weather concreting
   2. Hot weather concreting

F. Concrete batch delivery tickets.

1.05 QUALITY ASSURANCE

A. Construct and erect concrete formwork in accordance with ACI 318 and ACI 347.

B. Perform concrete reinforcing work in accordance with ACI 301, ACI 318, ACI 315, and ACI 350.

C. Perform cast-in-place concrete work in accordance with ACI 301, ACI 318, ACI 315, and ACI 350.

D. Only one source of cement and aggregates shall be used on any one structure. Concrete shall be uniform in color and appearance.

E. Well in advance of placing concrete, the Contractor shall discuss with the Engineer the sources of individual materials and batched concrete proposed for use. Contractor shall discuss placement methods and curing, and the Contractor shall propose methods of hot and cold weather concreting as required.

F. If, during the progress of the work, it is impossible to secure concrete of the required workability and strength with the materials being furnished, the Engineer may order such changes in proportions or materials, or both, as may be necessary to secure the desired properties. All changes so ordered shall be made at the Contractor's expense.

G. If, during the progress of the work, the materials from the sources originally accepted change in characteristics, the Contractor shall, at his/her expense, make new acceptance tests of aggregates and establish new design mixes. Such testing and design shall be accomplished with the assistance of a certified, independent testing laboratory acceptable to the Engineer.

H. Reinforced concrete shall comply with ACI 318, the recommendations of ACI 350R and other stated requirements, codes and standards.

I. All field-testing and inspection services required will be provided by the Owner. The cost of such work, except as specifically stated otherwise, will be paid for by the Owner. Methods of testing will comply with the latest applicable ASTM methods.

J. Samples of constituents and of concrete as-placed will be subjected to laboratory tests. All materials incorporated in the work shall conform to accepted samples.
PART 2: PRODUCTS

2.01 ACCESSORIES

A. Epoxy: Hilti HIT-RE 500-SD epoxy or approved equal.

2.02 REINFORCEMENT MATERIALS

A. Reinforcing Steel: ASTM A615/A615M, 60-ksi yield grade, deformed billet bars, uncoated finish.

B. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for support of reinforcing; plastic tipped or non-corroding for supports in slabs forming finished ceilings or where supports are exposed to weather.

C. Fabricate concrete reinforcement in accordance with ACI 318.

2.03 CONCRETE MATERIALS

A. Cement: ASTM C150, Normal-Type I or II Portland type.

B. Fine and Coarse Aggregates: ASTM C33, maximum size: 1 inch.

C. Water: Clean and not detrimental to concrete.


E. Non-shrink Grout: Premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.

F. Sheet Curing Materials: ASTM C171, waterproof paper, polyethylene film or white burlap-polyethylene sheeting.

G. Liquid Curing Compound: ASTM C309 Type 1-D (clear or translucent with fugitive dye) containing no wax, paraffin, or oil.

2.04 CONCRETE MIX

A. Mix and deliver concrete in accordance with ASTM C94/C94M, Option C.

B. Select proportions for concrete in accordance with ACI 318 by trail mixtures.

C. Furnish concrete of the following strength:
   1. Structural Concrete Walls and Slabs (all concrete unless noted otherwise)
      a. Compressive strength 4,000 psi (28 day).
      b. Water-Cement ratio (maximum): 0.45
      c. Air Content: 3% plus or minus 1.5 percent
      d. Slump: 3-5 inches
   2. Miscellaneous Concrete
      a. Compressive strength 3,000 psi (28 day).
      b. Water-Cement ratio (maximum): 0.45
      c. Air Content: 3% plus or minus 1.5 percent
      d. Slump: 3-5 inches

D. Select admixture proportions for normal weight concrete in accordance with ACI 318.
E. Add air-entraining agent to concrete mix for concrete work exposed to exterior.

PART 3: EXECUTION

3.01 MIXING AND TRANSPORTING

A. Concrete shall be ready-mixed concrete. No hand-mixing will be permitted. Clean each transit mix truck drum and reverse drum rotation before the truck proceeds under the batching plant. Equip each transit-mix truck with a continuous, nonreversible, revolution counter showing the number of revolutions at mixing speeds.

B. Ready-mix concrete shall be transported to the site in watertight agitator or mixer trucks loaded not in excess of their rated capacities as stated on the name plate.

C. Keep the water tank valve on each transit truck locked at all times. Any addition of water must be approved by the Engineer. Added water shall be incorporated by additional mixing of at least 35 revolutions. All added water shall be metered and the amount of water added shall be shown on each delivery ticket.

D. All central plant and rolling stock equipment and methods shall comply with ACI 318, ACI 304R and ASTM C94.

E. Select equipment of size and design to ensure continuous flow of concrete at the delivery end. Metal or metal-lined non-aluminum discharge chutes shall be used and shall have slopes not exceeding 1 vertical to 2 horizontal and not less than 1 vertical to 3 horizontal. Chutes more than 20-ft long and chutes not meeting slope requirements may be used if concrete is discharged into a hopper before distribution.

F. Retempering of concrete or mortar, which has partially hardened (that is, mixing with or without additional cement, aggregate, or water) will not be permitted.

G. Handle concrete from mixer to placement as quickly as practicable while providing concrete of required quality in the placement area. Dispatch trucks from the batching plant so they arrive at the work site just before the concrete is required, thus avoiding excessive mixing of concrete.

H. Furnish a delivery ticket for ready mixed concrete to the Engineer as each truck arrives. Each ticket shall provide a printed record of the weight of cement and each aggregate as batched individually. Use the type of indicator that returns for zero punch or returns to zero after a batch is discharged. Clearly indicate the weight of fine and coarse aggregate, cement and water in each batch, the quantity delivered, the time any water is added, and the numerical sequence of the delivery. Show the time of day batched and time of discharge from the truck. Indicate the number of revolutions of transit mix truck.

I. Temperature and Mixing Time Control
   1. In cold weather, maintain the as-mixed temperature of the concrete and concrete temperatures at the time of placement in the forms.
   2. If water or aggregate has been heated, combine water with aggregate in the mixer before cement is added. Do not add cement to mixtures of water and aggregate when the temperature of the mixture is greater than 90 degrees F.
   3. In hot weather, cool ingredients before mixing to maintain temperature of the concrete below the maximum placing temperature of 90 degrees F. If necessary, substitute well-crushed ice for all or part of the mixing water.
   4. The maximum time interval between the addition of mixing water and/or cement to the batch and the placing of concrete in the forms shall not exceed the following:

MAXIMUM TIME TO DISCHARGE OF CONCRETE
3.02 CONCRETE APPEARANCE

A. Concrete mix showing either poor cohesion or poor coating of the coarse aggregate with paste shall be remixed. If this does not correct the condition, the concrete shall be rejected. If the slump is within the allowable limit, but excessive bleeding, poor workability, or poor finishability are observed, changes in the concrete mix shall be obtained only by adjusting one or more of the following:

B. The gradation of aggregate.

C. The proportion of fine and coarse aggregate.

D. The percentage of entrained air, within the allowable limits.

E. Concrete for the work shall provide a homogeneous structure which, when hardened, will have the required strength, durability and appearance. Mixtures and workmanship shall be such that concrete surfaces, when exposed, will require no finishing. When concrete surfaces are stripped, the concrete when viewed in good lighting from 10-ft away shall be pleasing in appearance, and at 20-ft shall show no visible defects.

3.03 INSERTS, EMBEDDED COMPONENTS, AND OPENINGS

A. Provide formed openings where required for work to be embedded in and passing through concrete members.

B. Coordinate work of other sections in forming and setting openings, slots, recesses, chases, sleeves, bolts, anchors, and other inserts.

C. Install concrete accessories straight, level, and plumb.

3.04 REINFORCEMENT PLACEMENT

A. Place reinforcement, supported and secured against displacement.

B. Ensure reinforcing is clean, free of loose scale, dirt, or other foreign coatings.

C. Space reinforcement bars with minimum clear spacing ACI 318 or as indicated on drawings.
   1. Where bars are indicated in multiple layers, place upper bars directly above lower bars.

D. Maintain concrete cover around reinforcement in accordance with ACI 318 or as indicated on drawings.

3.05 PLACING CONCRETE

A. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent.
B. Place concrete continuously between predetermined expansion, control and construction joints. Do not break or interrupt successive pours creating cold joints.
   1. Expansion and control joints shown on plans.
   2. Contractor to submit construction joint location during submittal process.

C. Where new concrete is doweled to existing work, drill holes in existing concrete, and epoxy per manufacturer’s recommendations.

D. Screed slabs-on-grade level.

3.06 FORM REMOVAL
A. See section 03 10 00 – Concrete Formwork

3.07 CURING AND PROTECTION
A. Immediately after placement, protect concrete from premature drying.

B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete for not less than 7 days. Curing methods to be used are as follows:
   1. Water Curing:
      a. Formed concrete surfaces: Keep absorbent wood forms wet until they are removed. Keep forms on for a minimum of 7 days.
      b. Unformed concrete surfaces: Ponding, continuous fogging, or continuous sprinkling.
   2. Sheet Curing: Application of mats or fabric kept continuously wet or application of sheet materials conforming to ASTM C171.
   3. Liquid Membrane Curing: Apply over the entire concrete surface except surfaces to receive additional concrete.

C. Backfill behind concrete walls shall not occur until concrete has reached its 28-day strength.

3.08 CONCRETE pH REDUCER
A. If within 45 days of casting concrete, if creek water will be in contact with concrete surfaces, those surfaces shall have the following applied to reduce the pH levels:
   1. Concrete pH reducer by EnviroSafe Manufacturing Corp. or approved equal shall be applied per the manufacturer’s recommendations.

3.09 PATCHING
A. As soon as the forms have been stripped and the concrete surfaces exposed, fins and other projections shall be removed; recesses left by the removal of form ties shall be filled; and surface defects, which do not impair structural strength, shall be repaired. Clean all exposed concrete surfaces and adjoining work stained by leakage of concrete.

B. Immediately after removal of forms, remove plugs and break off metal ties as required by Section 03 10 00 Concrete Formwork. Holes are then to be promptly filled upon stripping as follows: Moisten the hole with water, followed by a 1/16-in brush coat of neat cement slurry mixed to the consistency of a heavy paste. Immediately plug the hole with a 1 to 1.5 mixture of cement and concrete sand mixed slightly damp to the touch (just short of “balling”). Hammer the grout into the hole until dense, and an excess of paste appears on the surface in the form of a spiderweb. Trowel smooth with heavy pressure. Avoid burnishing.
C. When patching exposed surfaces, the same source of cement and sand as used in the parent concrete shall be employed. Adjust color if necessary by addition of proper amounts of white cement. Rub lightly with a fine Carborundum stone at an age of 1 to 5 days if necessary to bring the surface down with the parent concrete. Do not damage or stain the surrounding parent concrete. Wash thoroughly to remove all rubbed matter.

3.10 REPAIRS

A. It is the intent of this Section to require quality work including adequate forming, proper mixture and placement of concrete and curing so completed concrete surfaces will require no patching.

B. Defective concrete and honeycombed areas as determined by the Engineer shall be repaired as follows:
   1. Remove honeycomb and defective concrete to sound concrete and 1-inch minimum depth. The sides of all removal and repair areas should be square.
   2. Patch small areas by first applying an epoxy bonding agent and then packing the void with nonshrink grout. Finish flush with the surrounding concrete.
   3. If concrete removal results in cavities exceeding 3 inches in depth and 1 square foot in area, first apply an epoxy-bonding agent. Then pack the void with 4,500-psi concrete with 2-inch maximum aggregate size. Form surfaces as required to prevent sagging. Finish flush with the surrounding concrete.

3.11 ERECTION TOLERANCES

A. Install reinforcement within tolerances required by ACI 318.

3.12 DEFECTIVE CONCRETE

A. Should the strengths shown by the test specimens made and tested in compliance with the previous provisions fall below the values given in Section 2.04, the Engineer shall have the right to require changes in proportions outlined to apply to the remainder of the work. Furthermore, the Engineer shall have the right to require additional curing on those portions of the structure represented by the test specimens, which failed. The cost of such additional curing shall be at the Contractor's expense. In the event that such additional curing does not give the strength required, as evidenced by core and/or load tests, the Engineer shall have the right to require strengthening or replacement of those portions of the structure, which fail to develop the required strength. The cost of all such core borings and/or load tests and any strengthening or concrete replacement required because strengths of test specimens are below that specified, shall be entirely at the expense of the Contractor. In such cases of failure to meet strength requirements, the Contractor and Engineer shall confer to determine what adjustment, if any, can be made in compliance with Sections titled "Strength" and "Failure to Meet Strength Requirements" of ASTM C94. The "purchaser" referred to in ASTM C94 is the Contractor in this Section.

B. When the tests on control specimens of concrete fall below the required strength, the Engineer will permit check tests for strengths to be made by means of typical cores drilled from the structure in compliance with ASTM C42 and C39. In case of failure of the cores, the Engineer, in addition to other recourses, may require, at the Contractor's expense, load tests on any one of the slabs, beams, piles, caps, and columns in which such concrete was used. Test need not be made until concrete has aged 60 days.

C. Should the strength of test cylinders fall below 60 percent of the required minimum 28-day strength, the concrete shall be rejected and shall be removed and replaced.
PART 4: TESTING

4.01 FIELD QUALITY CONTROL

A. Field inspection and testing will be performed by the Owner’s Representative in accordance with ACI 318. Provide free access to Work and corporate with Owner’s Representative.

B. Reinforcement Inspection:
1. Inspect for correct materials, fabrication, sizes, locations, spacing, concrete cover, and splicing.

C. Concrete Inspections:
1. Continuous Placement Inspection: Inspect for proper installation procedures.
2. Periodic Curing Inspection: Inspect for specified curing temperatures and procedures.

D. Strength Test Samples:
1. Sampling Procedures: ASTM C172
3. Sample concrete and make one set of three cylinders for every 75 cu yds. or less of each class of concrete placed each day and for every 5,000 sf of surface area for slabs and walls.
4. When volume of concrete for any class of concrete would provide less than 5 sets of cylinders, take samples from five randomly selected batches, or from every batch when less than 5 batches are used.
5. Make one additional cylinder during cold weather concreting, and field cure.

E. Field Testing:
1. Slump: Measure slump for each compressive strength concrete sample per ASTM C143. If the slump is greater than the specified range, the concrete shall be rejected.
2. Air Content: Measure air content in air entrained concrete for each compressive strength concrete sample by the pressure method complying with ASTM C231 or by the volumetric method complying with ASTM 173.

F. Cylinder Compressive Strength Testing:
1. Test Method: ASTM C39/C39M.
2. Test Acceptance: In accordance with ACI 318.
3. Test one cylinder at 7 days.
4. Test two cylinders at 28 days.

***END OF SECTION***
SECTION 05 50 00
METAL FABRICATIONS

PART 1: GENERAL

1.01 SUMMARY

A. Section includes shop fabricated metal items:
   1. Bridge support beams and miscellaneous attachments
   2. Anchor bolts
   3. Metal embeddings in concrete

1.02 RELATED SECTIONS

Related work specified in other sections:

B. Section 03 30 00 - Cast-In-Place Concrete
C. Section 05 52 00 - Metal Railings

1.03 REFERENCE CODES AND STANDARDS

The following Standards apply:

D. ASTM International:
   5. ASTM A307 - Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.
   7. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.

E. American Welding Society:
   1. AWS D1.1 - Structural Welding Code - Steel.

F. National Ornamental & Miscellaneous Metals Association:
   1. NOMMA Guideline 1 - Joint Finishes.

1.04 SUBMITTALS

Submit the following in accordance with Section 01 33 00 Submittal Procedures:

A. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where
applicable. Indicate welded connections using standard AWS A2.0 welding symbols. Indicate net weld lengths.

B. Samples: Submit galvanized steel samples illustrating factory finishes.

C. Welders Certificates: Certify welders employed on the Work, verifying AWS qualification within previous 12 months.

1.05 QUALITY ASSURANCE

A. Finish joints in accordance with NOMMA Guideline 1.

B. Maintain one copy of each of the above quality assurance documents on site.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Accept metal fabrications on site in labeled shipments. Inspect for damage.

B. Protect metal fabrications from damage by exposure to weather.

C. Protect all galvanized and painted materials prior to installation, avoiding direct contact with the ground.

1.07 FIELD MEASUREMENTS

A. Verify field measurements are as indicated on shop drawings.

PART 2: PRODUCTS

2.01 MATERIALS - STEEL

A. Structural W-Shapes: ASTM A992/A992M, Grade 50.

B. Channels and Angles: ASTM A36/A36M.

C. HSS Shapes: ASTM A500/A500M.

D. Steel Bars and Plates: ASTM A36/A36M.

E. Bolts: ASTM A325N.
   1. Finish: Hot dipped galvanized, UNO

F. Anchor Rods: ASTM F1554; Grade 105, weldable.
   1. Shape: Straight.
   2. Furnish with nut and washer; hot dipped galvanized, UNO

G. Nuts: ASTM A563 heavy hex type.
   1. Finish: Hot dipped galvanized, UNO

H. Washers: ASTM F436; Type 1.
   1. Finish: Hot dipped galvanized, UNO

I. Welding Materials: AWS D1.1; type required for materials being welded.

J. Touch-Up Primer for Galvanized Surfaces: SSPC Paint 20 Type I Inorganic.
2.02 BRIDGE SUPPORT BEAMS

A. Material per section 2.01. All steel to be hot-dipped galvanized.

2.03 STEEL PLATE

A. Material per section 2.01. All steel to be hot-dipped galvanized.

2.04 FABRICATION

A. Fit and shop assemble items in largest practical sections, for delivery to site.
B. Fabricate items with joints tightly fitted and secured.
C. Continuously seal joined members by continuous welds.
D. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
E. Exposed Mechanical Fastenings: Flush countersunk screws or bolts; unobtrusively located, consistent with design of component, except where specifically noted otherwise.
F. Exposed meaning fasteners in areas subject to operator working environment.
G. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

2.05 FACTORY-APPLIED FINISHES - STEEL

A. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.
B. Do not prime surfaces in direct contact with concrete or where field welding is required.
C. Prime paint items with one coat except where galvanizing is specified.
D. Galvanizing: ASTM A123/A123M; hot dip galvanize after fabrication.
   1. Weld slab to be removed by blast cleaning prior to galvanizing.
E. Galvanizing for Fasteners, Connectors, and Anchors:
   1. Hot-Dipped Galvanizing: ASTM A153/A153M.
   2. Mechanical Galvanizing: ASTM B695; Class 50 minimum.

2.06 FABRICATION TOLERANCES

A. Squareness: 1/8 inch maximum difference in diagonal measurements.
B. Maximum Offset Between Faces: 1/16 inch.
C. Maximum Misalignment of Adjacent Members: 1/16 inch.
D. Maximum Bow: 1/8 inch in 48 inches.
E. Maximum Deviation From Plane: 1/16 inch in 48 inches.
PART 3: EXECUTION

3.01 EXAMINATION
A. Verify field conditions are acceptable and are ready to receive Work.

3.02 PREPARATION
A. Clean and strip primed steel items to bare metal where site welding is required.
B. Supply steel items required to be cast into concrete with setting templates to appropriate sections.

3.03 INSTALLATION
A. Install items plumb and level, accurately fitted, free from distortion or defects.
B. Make provisions for erection stresses. Install temporary bracing to maintain alignment, until permanent bracing and attachments are installed.
C. Field weld components indicated on shop drawings.
D. Perform field welding in accordance with AWS D1.1, AWS D1.2 and AWS D1.6
E. Obtain District’s approval prior to site cutting or making adjustments not scheduled.
F. After erection, touch up welds, abrasions, and damaged finishes with prime paint or galvanizing repair paint to match shop finishes.
G. Install access panels flush with floor surface.

3.04 ERECTION TOLERANCES
A. Maximum Variation from Plumb: 1/4 inch per story or for every 12 ft in height whichever is greater, non-cumulative.
B. Maximum Offset From Alignment: 1/4 inch.

PART 4: TESTING

4.01 FIELD QUALITY CONTROL
A. Field inspection will be performed by the District’s Representative.
B. Cast-in-place anchor bolt and other embeds shall be inspected prior to casting.
C. Welding: Inspect welds in accordance with:

END OF SECTION
SECTION 05 52 00

METAL RAILINGS

PART 1: GENERAL

1.01 SUMMARY

A. Section includes:
   1. Galvanized steel pipe tube railings
   2. Balusters
   3. Fittings
   4. Handrails

1.02 RELATED SECTIONS

Related work specified in other sections:

A. Section 03 30 00 - Cast-in-Place Concrete
B. Section 05 50 00 - Metal Fabrications

1.03 REFERENCE CODES AND STANDARDS

The following Standards apply:

A. ASTM International:

B. National Ornamental & Miscellaneous Metals Association:
   1. NOMMA Guideline 1 - Joint Finishes.

C. SSPC: The Society for Protective Coatings:
   1. SSPC Paint 20 - Zinc-Rich Coating, Type I - Inorganic and Type II - Organic.

1.04 SUBMITTALS

Submit the following in accordance with Submittals and Section 01 33 00 Submittal Procedures:

A. Shop Drawings: Indicate profiles, sizes, connection attachments, anchorage, size and type of fasteners, and accessories.
B. Product Data: Catalog data and design information assembly and installed instructions and maintenance information.

1.05 QUALITY ASSURANCE

A. Prepare calculations under direct supervision of a professional civil or structural engineer experienced in the design of this work and licensed in the State of California.
B. Finish joints in accordance with NOMMA Guideline 1.
C. Maintain one copy of each of the above quality assurance reference documents on site.
1.06 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

PART 2: PRODUCTS

2.01 STEEL RAILING SYSTEM COMPONENTS

A. Tubing: ASTM A513, Type 5, minimum 50 ksi yield strength.
B. Exposed Fasteners: Flush countersunk screws or bolts; consistent with design of railing.
C. Galvanizing: ASTM A123/A123M; hot dip galvanize after fabrication.

2.02 FABRICATION

A. Fit and shop assemble components in largest practical sizes for delivery to site.
B. Fabricate components with joints tightly fitted and secured. Furnish spigots and sleeves to accommodate site assembly and installation.
C. Exposed Mechanical Fastenings: Flush countersunk screws or bolts; unobtrusively located; consistent with design of component, except where specifically noted otherwise.
D. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.
E. Continuously seal joined pieces by continuous welds. Drill condensate drainage holes at bottom of members at locations not encouraging water intrusion.
F. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
G. Accurately form components to suit stairs and landings, to each other and to building structure.
H. Accommodate for expansion and contraction of members and structure movement without damage to connections or members.

PART 3: EXECUTION

3.01 EXAMINATION

A. Verify field conditions are acceptable and are ready to receive work.
B. Verify concealed blocking and reinforcement is installed and correctly located to receive wall mounted handrails.

3.02 PREPARATION

A. Supply items required to be cast into concrete with setting templates, to appropriate sections.

3.03 INSTALLATION

A. Install components plumb and level, accurately fitted, free from distortion or defects.
B. Anchor railings to structure with anchors, where required.
C. Field weld anchors as indicated on shop drawings. Touch-up welds with primer. Grind welds smooth.

D. Conceal bolts and screws whenever possible. Where not concealed, use flush countersunk fastenings.

E. Install Work in accordance with State of California standards.

3.04 ERECTION TOLERANCES

A. Section 01 40 00 - Quality Control.

B. Maximum Variation From Plumb: 1/4 inch.

C. Maximum Offset From Alignment: 1/4 inch.


PART 4: TESTING [NOT USED]

END OF SECTION
SECTION 06 13 13

LOG STRUCTURES

PART 1   GENERAL

1.01   GENERAL

A. This work includes the Contractor selecting appropriate logs, hauling to the installation site, construction of the log structure, area cleanup and restoration, and related work required to provide a complete finished structure in place and as directed by the Construction Manager.

B. Imported logs shall be provided by the Contractor.

C. Minimize the extent of all ground-disturbing activities and avoid Work in any drainage channels if at all feasible.

D. Heavy equipment shall be placed outside of drainage channels except when absolutely necessary to perform the Work.

E. Upon completion of construction activities, natural drainage shall be restored and re-contoured as nearly as practicable to pre-project conditions, and shall match adjacent natural channel contours.

F. Unless noted otherwise on the plans, all unused logs shall remain in the current stockpile locations.

G. Where wood type for log structures is specified as conifer, the wood shall be Douglas fir or Redwood.

1.02   RELATED WORK SPECIFIED IN OTHER SECTIONS:

A. Section 31 20 00   Earthwork

1.03   MEASUREMENT AND PAYMENT

A. Refer to Section 01 15 00 Measurement and Payment.

1.04   SUBMITTALS

A. Manufacture’s specifications and operating loads for equivalent soil anchor and appurtenance substitutes if Manta Ray anchors are not used.

1.05   WOOD STRUCTURES

B. Wood structures of the types below shall be installed at the locations specified.

1.   Log Weir

2.   Log Cover Structure
3. Root Wad Habitat Structure

C. Wood structure anchoring of the types below shall be installed as specified:
   1. Log to Log Anchoring
   2. Rebar Friction Anchoring
   3. Soil Anchoring

PART 2 PRODUCTS

2.01 LOG WEIR
   A. Inlet Log Weirs shall consist of one (1) Weir Log, one (1) Footer Log, and two (2) Training Logs and two (2) Pile Logs.
   B. Logs shall be Douglas fir or redwood.
   C. Pile Logs shall have bark removed below embedment level.
   D. Rebar Friction Anchoring and Log to Log Anchoring shall conform to Contract Documents.
   E. Log length identified on plans shall not be accomplished with joining of multiple logs.
   F. Log diameters specified on plan shall be the average diameter. Log diameters at the log ends may vary +/- 6 inches from specified diameter.

2.02 LOG COVER STRUCTURE
   A. Log Cover Structures shall consist of three (3) Cover Logs, and three (3) Pile Logs.
   B. Logs shall be Douglas fir or redwood logs and stockpiled on-site.
   C. Log diameters specified on plan shall be the average diameter. Log diameters at the log ends may vary +/- 6 inches from specified diameter.
   D. Log length identified on plans shall not be accomplished with joining of multiple logs.
   E. Rebar Friction Anchoring shall conform to Contract Documents.

2.03 ROOT WAD HABITAT STRUCTURE
   A. Habitat Structures shall consist of root wads.
   B. Root wads shall be Douglas fir, redwood, spruce, or cedar.
   C. Soil Anchoring shall conform to Contract Documents.

2.04 REBAR FRICTION ANCHORS
   A. Threaded rebar, washer and hex-nuts shall be galvanized steel. Galvanized all-thread may be substituted for threaded rebar.
B. Threaded rebar shall be a minimum of 1-inch thick and shall have a corresponding bolt. Washer Plates shall be min 3-1/2 x 3-1/2-inch x 3/8 or 5/16-inch thick.

2.05 SOIL ANCHORING

A. Threaded rebar, washer and hex-nuts shall be galvanized steel. Galvanized all-thread may be substituted for threaded rebar.

B. Threaded rebar shall be a minimum of 1-inch thick and shall have a corresponding bolt. Washer Plates shall be min 3-1/2 x 3-1/2-inch x 3/8 or 5/16-inch thick.

C. Soil Anchors shall consist of an Earth Anchor Manta Ray MR-2 anchor or approved equivalent, a galvanized steel 3.5 feet long 5/8-inch diameter Anchor Rod, and galvanized steel a 5/8-inch singleye thimbleye. Couples shall be galvanized. Cable shall be min ½-inch galvanized steel wire rope. Wire rope clamps shall be 1/2-inch galvanized dropforged steel.

PART 3 EXECUTION

3.01 LOG WEIR

A. Log Weirs shall be installed prior to seed application.

B. Excavate trench to meet specified line and grade for the Footer Log and Weir Logs.

C. Drive Pile Log in location specified at specified rake angle and embedment. If necessary, cut pile tip to form a wedge to facilitate installation. Cut tip shall not be included in the required depth of embedment. An augured pilot hole may be used to facilitate driving of Pile Logs. Pilot hole shall be at least 8 inches smaller than the Pile Log diameter to ensure adequate skin friction is obtained.

D. Place Footer Log, and Weir Log. Weir Log shall contact the Pile Log at the location and elevation specified.

E. Anchor logs where specified with specified anchoring method.

F. Place Training Log, by driving into bank or trenching as necessary, to contact Weir and Pile Log where specified. Anchor as specified.

G. Backfill trench with native material, filling all voids and compacting to approximately 90 percent relative density.

H. After installation, cut top of pile to specified height.

3.02 LOG COVER STRUCTURE

A. Log Cover Structures shall be installed prior to seed application.

B. Place 3 Cover Logs to determine Pile spacing and location.

C. Drive Pile Log in location specified at specified rake angle and embedment. If necessary, cut wedge on pile tip to facilitate installation. Cut tip shall not be included in the required depth of embedment. An augured pilot hole may be used to facilitate driving of Pile Logs. Pilot hole shall be at least 8 inches smaller than the Pile Log diameter to ensure adequate skin friction is obtained.
D. Place 3 Cover Logs at the location and elevation specified to contact Pile Logs.

E. Anchor logs where specified with specified anchoring method.

F. Backfill with brush and vegetation as specified in the Contract Documents.

G. After installation, cut top of pile to specified height.

3.03 ROOT WAD HABITAT STRUCTURE

A. Root Wad shall be installed prior to seed application.

B. Excavate trench to meet specified burial depth.

C. Anchor Root Wad logs where specified with specified anchoring method.

D. Backfill trench with native material, filling all voids and compacting to approximately 90 percent relative density. It is not necessary to backfill the channel bottom around the root fan.

3.04 LOG-TO-LOG ANCHORING

A. Log to Log Anchoring shall be installed where specified.

B. Rebar shall be inserted through the center of the logs and bolted on both ends. Rebar, washer, and nut shall be fully recessed within the log.

C. Anchor shall be located within 2 to 3 feet from the end of the log, unless otherwise specified.

D. To minimize movement of logs, anchoring shall be installed such that connections are tight.

E. After installation, the bolted ends of the rebar shall be mushroomed to prevent the connection from loosening.

3.05 REBAR FRICTION ANCHORING

A. Rebar Friction Anchoring shall be installed where specified.

B. Rebar shall be inserted through the center of the log to the embedment specified and bolted on the exposed end. Rebar, washer, and nut, shall be fully recessed within the log.

C. Anchor shall be located within 2 to 3 feet from the end of the log, unless otherwise specified.

D. To minimize movement of logs, anchoring shall be installed such that connections are tight.

E. After installation, the bolted end of the rebar shall be mushroomed to prevent the connection from loosening.

3.06 SOIL ANCHORING

A. Soil Anchoring shall be installed where specified.

B. Rebar shall be inserted through the center of the log and bolted on both ends.

C. On the side of the log where a Soil Anchor is specified, a washer shall be placed on both
sides of the cable loop and bolted. Recessing of the rebar, cable and nut shall not be performed where a Soil Anchor is specified.

D. Soil Anchor shall be installed and load-locked according to the manufacturer’s specifications. Each anchor shall be load tested and shall remain in place with a minimum of 4,000 pounds of loading.

E. Where a soil anchor is not specified, rebar, washer, and nut, shall be fully recessed within the log.

F. Rebar and Anchor shall be located a within 2 to 3 feet from the end of the log, unless otherwise specified.

G. To minimize movement of logs, anchoring shall be installed such that cable and connections are tight.

H. After installation, the bolted ends of the rebar shall be mushroomed to prevent the nut from loosening.

END OF SECTION 06 13 13
SECTION 31 05 16

ROCK

PART 1  GENERAL

1.01  DESCRIPTION
   A. Rock is to be placed at the locations shown on the plans.

1.02  MEASUREMENT AND PAYMENT
   A. Refer to Section 01 15 00 Measurement and Payment.

PART 2  REFERENCES

A. ASTM International:
      Aggregates.
   2. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics
      of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)).
   3. ASTM D2487 - Standard Classification of Soils for Engineering Purposes (Unified
      Soil Classification System).
   4. Caltrans Standard Specifications Section 72

PART 3  SUBMITTALS

A. Refer to section 01 33 00 submittal procedures.

PART 4  PRODUCTS

2.01  GRADE CONTROL ROCK
   A. Rock from the existing grade control may be reused and shall be free of residual soil.
   B. Additional rock may be required.
   C. All rock shall be rigid and resistant to erosion.
   D. Rocks with diameters greater than 8 inches shall be uneven and rough in appearance.
   E. Rocks with diameter less than 8 inches shall be angular/crushed.
   F. Rock shall conform to the material specifications in Section 72 of the Caltrans Standard
      Specifications.
2020 Martin Slough Habitat Enhancement Project

G. The rock shall conform to the gradation shown on the Drawings.

2.02 ROCK FOR CONSTRUCTION ENTRANCES, ACCESS ROADS, GRADE CONTROL AND LIVESTOCK CULVERT CROSSINGS

A. Rock size and gradation per Drawings.

PART 5 EXECUTION

3.01 EXCAVATION

A. Excavation shall occur in order to achieve the desired thickness and finished grades.

B. The subgrade surfaces on which the rock, bedding,-filter, or geotextile is to be placed shall be cleared and graded prior to placement of bedding, geotextile, or rock.

C. Subgrade shall be compacted to minimum 85% relative compaction or as noted on the plans.

D. When fill to subgrade lines is required, it shall consist of approved materials and shall conform to the requirements of Section 31 20 00 earthwork.

3.02 STOCKPILING

A. Stockpile materials on site at locations indicated in the Contract Drawings.

B. Stockpile in sufficient quantities to meet Project schedule and requirements.

C. Separate different aggregate materials with dividers or stockpile individually to prevent mixing.

3.03 ROCK PLACEMENT

A. Rock shall be placed in general accordance to Section 72 of the Caltrans Standard Specifications.

B. Rock with diameters greater than 12 inches (large rock) shall be placed individually to have a 3-point bearing on underlying rocks and at the discretion of the Construction Manager.

C. All rock less than 12 inches shall be mixed prior to be being placed within the channel. This mixture shall be placed within the channel such that the voids between large rocks are filled.

D. The rock shall be placed in such a manner as to avoid displacement of the underlying materials.

E. Place rock in maximum 1-foot lifts where some rocks extend above each lift.

F. Compact the rock by mechanical tamping and fill voids with smaller material until no voids are visible.

G. No rock shall extend above the finish grade by more than 1/3 of its diameter.
3.04 FILTER LAYERS OR BEDDING

A. When specified, the filter, bedding, or geotextile beneath the rock shall be placed on the prepared subgrade. Compaction of filter layers or bedding will not be required, but the surface of such material shall be finished reasonably free of mounds, dips, or windrows.

3.05 STOCKPILE CLEANUP

A. Remove stockpile, leave area in clean and neat condition. Scarify ground to a depth of 6 inches and naturalize the stockpile site surface to pre-construction conditions.

END OF SECTION 31 05 16
SECTION 31 20 00

EARTHWORK

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes: excavation, trenching, backfilling, compaction, and grading necessary or required for the construction of the work as covered by these Specifications and indicated on the Drawings.

1.02 RELATED SECTIONS:

A. Section 01 33 00 – Submittal Procedures
B. Section 01 11 00 – Summary of Work
C. Section 01 14 19 – Use of Site

1.03 MEASUREMENT AND PAYMENT

A. Refer to Section 01 15 00 Measurement and Payment.

1.04 REFERENCES


B. California Standard Specifications – 2010

1.05 SUBMITTALS

A. Submit in accordance with Section 01 33 00 Submittal Procedures.

B. Submit the following:

1. Samples and Test Results: Furnish, without additional cost to the Owner, such quantities of import materials as may be required for test purposes. Cooperate with the Construction Manager and furnish necessary facilities for sampling and testing of all materials and workmanship. Submit test results from Contractor’s Quality Control Laboratory for import materials. Tests shall be performed within 60 days of the submission. All material furnished and all work performed shall be subject to rigid inspection, and no material shall be delivered to the site until it has been favorably reviewed by the Construction Manager, or used in the construction work until it has been inspected in the field by the Construction Manager.

3. Offsite Disposal Plan: Submit an offsite disposal plan showing location of disposal area, hauling routes, and a signed certification along with the signature from the legal property owner stating they willfully take full responsibility for the delivered materials, accept all delivered materials as-is, take full responsibility for all aspects of the disposal of materials on the subject property, and agree to indemnify and hold harmless the City, RCAA, GHD, and all related parties associated with the project.

4. Preconstruction Submittals.
   A. Sheeting and Shoring Plan;
   B. Dewatering Plan;

1.06 QUALITY ASSURANCE
   A. Shoring and Sheeting Plan. Submit drawings and calculations, certified by a registered professional Engineer authorized to practice in California, describing the methods for shoring and sheeting of excavations. Drawings shall include material sizes and types, arrangement of members, and the sequence and method of installation and removal. Calculations shall include data and references used. The Engineer will review submitted calculations and drawings for General Compliance and layout. The design of these facilities is the sole responsibility of the Contractor.
   B. Before beginning construction activities, such as grading, excavation, trenching, or filling, in any part of the project site, Contractor shall install temporary structures to guide runoff away from the work area and to capture eroded material before it reaches natural watercourses. The measures shall be in accordance with reviewed and approved Water Management Plan and Pollution Prevention Monitoring Plan (PPMP).
   C. Contractor shall arrange construction activities to minimize erosion to the maximum practical extent. Clearing, excavation, and grading shall be limited to those areas of the project site necessary for construction. Contractor shall minimize the area that is exposed and unprotected.
   D. Contractor shall clearly mark and delineate the limits of work activities and Limits of Disturbance. Contractor shall not allow equipment to operate outside the limits of work or to disturb protected areas, except as already noted in specifications.
   E. Qualifications of work force:
      1. Provide sufficient skilled work force and supervisors who shall be present at all times during execution of this portion of the work and who shall be thoroughly familiar with the type of construction involved and the materials and techniques specified.

1.07 COMPACTION TESTING
   A. The Construction Manager may engage a qualified compaction-testing laboratory to perform field tests and inspections to verify the Contractor’s compaction effort meet the compaction requirements of plans and specifications. Relative compaction tests will be made at locations determined by the Construction Manager. When tests indicate that the specified compaction has not been achieved, that portion of the Work shall be reworked until the required density has been attained.
B. The Contractor shall make all necessary excavations for compaction tests. Costs of excavating, backfilling, and compacting in connection with compaction testing shall be borne by the Contractor. Excavations for compaction tests shall be backfilled with native backfill and compacted to the specified density. Tests for compliance with Specifications, as determined by the Construction Manager, and as required in the specifications, will be made and paid for by the Owner. The Contractor shall be required to pay for all required repeat tests in that area until the required results are obtained and including all associated incurred costs AND in areas where the Contractor inadvertently over-excavates beyond the finished grades shown on the plans.

C. All compaction shall be by mechanical means unless the Contractor can demonstrate other means that will accomplish required compaction to the satisfaction of the Owner. Compaction equipment shall be of suitable type and adequate to obtain the densities specified and approved. Compaction equipment shall be operated in strict accordance with the manufacturer's instructions and recommendations. Equipment shall be maintained in such condition that it will deliver the manufacturer's rated compactive effort.

D. Testing Methods:

1. In-place Density: ASTM D1556 or D2167
2. ASTM D-698, Procedure A

1.08 PRESERVATION OF PROPERTY

A. Where construction is to be performed in the vicinity of trees and shrubbery, the work shall be carried on in a manner which will cause minimum damage.

B. Existing power and telephone lines, fences, pipelines or other conduits, embankments, and structures in the vicinity of the work shall be supported and protected from injury by the Contractor during the construction and until the completion of the work.

C. All damage shall be immediately reported to the Construction Manager who will file a report so that penalties may be determined.

D. The Contractor shall remove all temporary stockpiles by October 15th, scarify to a minimum of 6 inches and rehabilitate the stockpile/staging areas and leaving it in clean and neat condition.

1.09 EXPLOSIVES

A. The Contractor shall not use explosives of any kind on the premises.

1.10 GRADES, LINES, LEVELS, AND PERMANENT MARKERS

A. Staking:

1. The Contractor is responsible for providing all surveying and staking for laying out the earthworks at the site based on bench marks shown on the plans and in accordance to the specification section 01 71 23.16 Construction Survey Staking.

B. Responsibility for correctness:

1. Contractor will be held responsible for the correctness of the layout and for establishing the location of possible buried utility lines. In the event there is any
conflict between actual conditions and the drawings, Contractor shall notify the 
Construction Manager immediately and shall not proceed with the work until 
directed by the Construction Manager.

C. Preservation of markers:

1. All stakes, boundary lines, corner markers, bench marks or survey markers, etc., 
which have been or may be established in any part of the site, shall be carefully 
preserved and respected by the Contractor and shall be restored at the 
Contractor's expense if lost or destroyed as a result of his operations.

1.11 ACCURACY OF DATA

A. Site data given herein and on the drawings are as exact as could be secured, but their 
absolute accuracy cannot be guaranteed. Exact locations, distances, elevations, etc., 
shall be finally governed by field conditions and the Construction Manager's instructions.

B. The Contractor shall promptly, and before such condition is disturbed, notify the 
Construction Manager in writing of soil or subsurface conditions, which differ materially 
from those conditions shown in the Contract Documents or in the records of 
investigations of soil or subsurface conditions referred to above. The Construction 
Manager shall promptly investigate the conditions. If he/she finds the conditions 
materially different from those which reasonably should have been anticipated on the 
basis of a careful consideration of said records of investigations, logs of borings and 
examination of the site, and finds that said conditions will cause an increase or decrease 
in the cost of, and/or the time required for performance of the Contract, he/she will, after 
approval by the OWNER, modify the Contract Terms in writing to provide for an equitable 
adjustment in cost and/or time of performance.

C. A thorough attempt has been made to show the type, location, and number of all utilities, 
however, no guarantee is made as to the location and number of such utilities. The 
Contractor shall repair all utilities damaged in the progress of his work. The Contractor 
shall notify all owners of utilities of commencement of and sufficiently in advance to have 
the utilities mark the location of their facilities. The Contractor shall be prepared at all 
times with labor, equipment, and materials to make repairs on damaged mains or utilities.

1.12 ADDITIONAL SAFETY RESPONSIBILITIES

A. The Contractor shall be responsible for ensuring such measures: (1) comply fully with 29 
CFR Part 1926 OSHA Subpart P Excavations and Trenches requirements, (2) provide 
necessary support to the sides of excavations, (3) provide safe access to the 
Construction Manager’s sampling and testing within the excavation, (4) provide safe 
access for backfill, compaction, and compaction testings, and (5) otherwise maintain 
excavations in a safe manner that shall not endanger property, life, health, or the project 
schedule. All earthwork shall be performed in strict accordance with applicable law, 
including local ordinances and applicable OSHA requirements.

1.13 SPECIAL CONSTRUCTION REQUIREMENTS

A. Materials excavated from the Martin Slough channel are anticipated to be primarily silty 
fine sands (SM) and sandy silts (ML) with minor amounts of clay (CL), poorly graded 
sand (SP), and poorly graded fine gravels (GP), SHN 2013.
B. Contractor should anticipate the potential for soft, saturated soils and/or poor performance of soils under repeat vehicle traffic and heavy loads. Specialized equipment and/or dewatering may be necessary for Contractor to work within the saturated soils.

C. Repeated vibration and/or high loads may lead to pumping of the native fine sand/silt soils resulting in the saturation of surficial soils. Contractor should expect soft saturated subgrades under roadways and other surface improvements. See project Geotechnical Report, available upon request from the Construction Manager.

PART 2 PRODUCTS

2.01 SOIL AND OTHER MATERIALS

A. On Site Generated Materials

   a. Fill for onsite use (Native Backfill): non-saline, satisfactory soil materials free of vegetation, woody debris, and deleterious materials and as approved by the Construction Manager.

B. Pipe Bedding, Cover, Backfill, and Trench Stabilization Material

   a. Pipe Bedding, Cover, and Trench Stabilization Material: per plans and shall conform to the Caltrans Standard Specifications

PART 3 EXECUTION

3.01 OVERVIEW

A. Contractor is responsible for excavating sediment, hauling to specified application areas and placing in windrows in accordance to the plans and these specifications.

3.02 EXAMINATION

A. Verification of Conditions: Prior to commencement of site grading work the Contractor shall notify the Construction Manager that the site has been cleared. The Construction Manager shall have sufficient time to review the site. Site grading shall not commence until the Construction Manager has completed review of the site and the Construction Manager has given approval to proceed.

3.03 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, freezing temperatures or frost, and other hazards created by earthwork operations. Provide protective insulating materials as necessary.

B. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and roadways.

C. Prevent surface water and ground water from entering excavations, from ponding on prepared sub grades, and from flooding Project site and surrounding area.
D. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.

3.04 CONTROL OF WATER

A. The Contractor shall be responsible for furnishing temporary drainage facilities to convey and dispose of surface water falling on or passing over the site. This work shall be accomplished in accordance with the provisions of Section 01 57 00.

3.05 EXISTING UTILITIES

A. The known existing utilities are shown on the Drawings in their approximate location. The Contractor shall exercise care in avoiding damage to all utilities, as he will be held responsible for their repair if damaged. There is no guarantee that all utilities or obstructions are shown, or that locations indicated are accurate. Utilities are piping, conduits, wire, cable, ducts, manholes, pull boxes and the like, located at the project site and adjoining said site.

B. Excavations around underground electrical ducts and conduits shall be performed using extreme caution to prevent injury to workers or damage to electrical ducts or conduits. Similar precautions shall be exercised around gas lines, telephone and television cables.

3.06 PRIMARY SITE ACCESS

A. Within one (1) week of the Notice to Proceed and after obtaining an approved Encroachment Permit from the County, Contractor shall initiate improvements to the primary site access locations as indicated on Plans. Establishing and maintaining construction entrances is a priority as all equipment and worker access and off-hauling of material shall occur only through the construction entrances shown on the plans; no off-hauling of demolition material or excavated soil may occur along any other access without prior written consent of the Construction Manager.

B. Contractor shall not import any fill material without receiving prior approval from the Construction Manager. No asphalt containing materials shall be imported to the site. Thus, no recycled aggregate is permitted.

C. The Owner and their representatives are not liable for any delays that result from regulatory-driven changes in the construction entrance access design and/or County encroachment permit.

3.07 TEMPORARY CONSTRUCTION ACCESS AND HAUL ROUTES

A. Surface soil throughout much of the channel corridor may yield under the weight of medium and heavy-duty earthmoving equipment. Thus, Contractor may need to create or improve temporary construction access routes through the project area. Potential access route design alternatives include the following as provided in the Geotechnical Report:

1. A mat-based system: a base layer of medium weight non-woven geogrid, overlain by crushed rock or equivalent strength gravel, overlain by a medium grade, interlocking geogrid mat.

2. A geocell system: a base layer of medium weight woven filter fabric, overlain by geocells filled with granular material such as course sand or river-run gravel (not to exceed 2.5"), overlain by crushed rock.
B. All temporary construction access roads shall be removed and native ground scarified to a minimum of 6 inches and restored back to pre-project conditions and to the satisfaction of the Construction Manager.

3.08 GRADING, EXCAVATION, AND TRENCHING

A. Perform all excavation of every description, regardless of the type, nature, or condition of material encountered, as specified, shown, or required to accomplish the construction. Material for fill, backfill, or for protection of excavations from surface drainage shall be neatly placed and kept shaped so as to cause no interference with public travel.

B. The Contractor shall be responsible for meeting the finish grades as shown on the plans.

C. All areas covered by the project, including excavated and filled areas and adjacent transition areas, shall be uniformly graded so those finished surfaces are at the elevations established by the plans.

D. In some instances, the existing Martin Slough channel and other low areas adjacent to the channel may become disconnected by the new grading. At the direction of the Construction Manager, the Contractor shall grade a connection channel to those lower areas to allow drainage and connectivity.

E. Cut the channel and floodplain accurately to the grades shown. Take care not to over-excavate and backfill excessive excavation to grade. Trim all roots, stumps, rock and other foreign matter from the sides and bottom of the ditches.

F. Correct areas that have been over excavated by placing backfill in lifts no greater than 12 inches in thickness and compacting as material allows or as specified or as directed by the Construction Manager.

G. Prevent displacement or loose soil from falling into excavation; maintain soil stability.

H. Protect structures, utilities and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth operations.

I. Temporary cut slopes – maximum slope of temporary cut slopes shall be determined by the Geotechnical Report.

J. Groundwater may be encountered within the planned excavation depth, including utility trenches. Dewatering may be necessary to accomplish required excavations.

K. Due to the potential for slope failure associated with surcharges loads and/or vibrations from the vehicle traffic, high traffic and/or high load construction roads, stored materials, excavated soils, and other similar loads should be sited outside of the projection of a 4H:1V slope, as measured from the base of the slope.

L. Notify the Construction Manager of unexpected subsurface conditions.

M. Compact bottom of utility trenches to a firm and unyielding surface, as specified or as directed by Construction Manager.

3.09 BACKFILLING AND COMPACTION

A. The placement of fills to achieve the finished grades shall be done under the supervision of the Construction Manager.
B. Compact subgrade as necessary to support density requirements of subsequent layers of fill.

C. Fill in lifts allowing time for material tester to test each lift for compaction.

D. Each lift shall not exceed 1-foot unless otherwise indicated or as directed by the Construction Manager.

E. All areas to receive fills shall be uniformly moisture conditioned as required to obtain the required compaction.

F. Add water to the backfill material or dry the material as necessary to achieve specified compaction density of each layer of backfill being compacted. Employ such means as may be necessary to secure a uniform moisture content throughout the material of each lift being compacted.

G. After the material has been moisture conditioned, compact each lift with crawler-type tractors weighing not less than 20,000 pounds, shall exert a unit tread pressure of not less than 6 psi, and shall be operated at a speed not to exceed 3 miles per hour.

   a. Sheepsfoot Compactor: Shall make a minimum of 4 passes on each lift or until adequate compaction is achieved as determined by the Construction Manager.

   b. Excavator: Shall make a minimum of 6 passes on each lift or until adequate compaction is achieved as determined by the Construction Manager.

H. If the backfill material becomes saturated from rains or any other source because it was not compacted to the specified density or was not backfilled and compacted to surface grade, through negligence or otherwise, remove the faulty material and replace it with suitable material compacted to the specified density. No additional payment will be made for doing such work or removal and replacement.

I. Recompaclion: Where, in the judgment of the Construction Manager, the moisture content is not suitable or insufficient compaction has been obtained, the fill shall be reconditioned and/or recompaclcd to the specified density prior to placing any additional fill material. The Contractor shall be responsible for placing and compacting approved fill material in accordance with these specifications. If the Contractor fails to meet the compaction requirements, he/she shall reduce his rate of haul, furnish additional spreading, moisture conditioning and/or compacting equipment or make any other adjustments necessary to produce a satisfactory compacted fill.

J. Heavy compaction equipment shall not be operated within two feet of any structure. Hand directed tampers or plate vibrators shall be used on areas not accessible to heavy compaction equipment. Fills compacted in this manner shall be placed in layer not greater than four inches in thickness before compaction, and shall meet the same density requirements as adjacent areas.

K. After the placement of the native backfill, the surface areas shall be left constructed and trimmed to conform to the lines, grades, and cross sections shown on the plans. The surface area shall be graded to provide surface drainage to flow to desired locations.

3.10 WATER FOR COMPACTION

A. See Temporary Facilities and Controls specification for optional water sources.
B. Water shall be clean and free of oil, acids, salts, and other deleterious substances and suitable for agricultural purposes. Furnish as required from source approved by Construction Manager, and as specified in these specifications.

C. Water shall be applied by means of pressure-type distributors or pipe lines equipped with a spray system or hoses with nozzles that will ensure a uniform application of water.

3.11 SUPPORT OF EXCAVATIONS

A. All necessary measures to protect excavations and adjacent improvements from running, caving, boiling, settling, or sliding soil resulting from the groundwater table and the nature of the soil excavated.

3.12 FINISH GRADING

A. Except where shown otherwise in the Drawings, restore the finish grade to the original contours and to the original drainage patterns. Grade surfaces to drain away from structures.

B. Upon completion of grading and prior to seed and mulch application (which is to be completed by RCAA), soil preparation shall occur in accordance to the soil preparation section below.

C. Earthwork tolerances shall conform to the following:

<table>
<thead>
<tr>
<th>Description of Earthwork Feature</th>
<th>Tolerance (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel</td>
<td>Horizontal</td>
</tr>
<tr>
<td></td>
<td>0.5</td>
</tr>
</tbody>
</table>

D. Excessive passes of finish grading equipment that would compact seeding areas shall be avoided. Where equipment access routes are required, the sequence of construction activities shall be coordinated to only allow equipment access prior to preparation of soils. Upon completion of soil preparation activities, no further vehicular traffic will be allowed other than equipment required for seeding or planting. If equipment access should become necessary, the access route shall be disked and fine graded again prior to seeding to eliminate any resulting soil compaction.

3.13 SOIL PREPARATION

A. Timing

1. Work in this SECTION shall not commence until:

a. All earthwork has been completed and approved by the construction manager.

B. Layout

1. Soil preparation shall occur in all graded areas except for the bottom of the Martin Slough channel, and any additional areas disturbed by construction (including non-paved access, staging, stockpiling, and haul routes).
2. Contractor shall coordinate with the RCAA to confirm the limits of soil preparation.

C. Soil Preparation

1. Contractor shall review soil preparation areas for presence of rock, debris, chemicals, or other harmful substances and notify the RCAA if such conditions are observed.

2. Contractor shall prepare the soil as follows prior to RCAA seed application:
   a. Scarify mechanically to a depth of two (2) inches using a harrow, lightweight ring-roller/cultipacker or by hand methods, and as approved by the Construction Manager and/or RCAA.
   b. In areas where excessive compaction has occurred such as haul routes and staging areas, at the discretion of the Construction Manager, the Contractor shall disk, till, or rip to a depth of twelve (12) inches and then smooth with a cultipacker, harrow, or track-walk. In sloped areas, equipment track marks shall be oriented parallel to slope contours and shall have a relative compaction less than ninety (90) percent.

3.14 FIELD QUALITY CONTROL

A. If, in the opinion of the Construction Manager, required compaction is not being achieved, Contractor will provide reimbursement for re-testing. The Construction Manager shall determine the number and location of tests required. The Contractor shall furnish a backhoe and operator upon request to the testing laboratory, at no cost to the Owner.

B. Perform additional compacting effort or re-work as required until compaction meets or exceeds requirements.

C. Ensure excavations are safe for testing personnel.

3.15 PROTECTION

A. The Contractor shall prevent erosion of freshly graded areas during construction and until such time as a permanent drainage and erosion control measures have been installed.

B. Earthwork operations shall be conducted so as to prevent windblown dust and dirt from interfering with the surrounding normal operations. Contractor shall assume liability for all claims related to windblown dust and dirt. Water shall be applied in conformance with applicable provisions of Section 17 of the State Standard Specifications and with Section 1590 (e) of CAL/OSHA, Title 8, and PPMP.

3.16 SETTLEMENT

A. Any settlement in excess of Geotechnical Report findings, in backfill, fill, or in structures built over the backfill or fill, which may occur within the guarantee period specified in the General Conditions will be considered to be caused by improper compaction methods and shall be corrected at the Contractor's expense. Any structures damaged by settlement shall be restored to their original condition by the Contractor at no cost to the OWNER.

3.17 DISPOSAL OF EXCAVATED MATERIAL
A. Soil disposal on non-designated areas is not permitted.

END OF SECTION 31 20 00
PART 7: PPMP
Martin Slough Enhancement Project
Pollution Prevention and Monitoring Plan

Construction Phasing and Earthwork Volumes

Project construction will be phased over multiple construction field seasons. Each season may last up to 120 days, the duration to be determined by funding availability and logistics of minimizing impacts and revenue losses to the golf course. Replacement of the tide gate structure was completed in the first construction season (Phase 1). Excavation of the new slough channel up to approximately Station 8+60, Marsh Plain A, and the southeast tributary on the NRLT property are scheduled for Phase 2, expected to be implemented in the Summer of 2017. Phase 4 would also occur in 2017. Pond G and the north fork project will be completed in Phase 3. Currently sufficient funding has been secured to complete the main channel up to approximately Station 30+50, the southeast tributary on the NRLT property, and pond C in Phases 2 and 4 (2017). Ponds D, E, and F would occur in the upstream direction in subsequent construction seasons, projected as Phases 4, 5, and 6 (see Attachment E Cut and Fill Volumes by Project Phase and Location, for construction phasing). In consideration of comments received from the California Department of Fish and Wildlife and the National Marine Fisheries Service regarding the need to maintain habitat for juvenile coho salmon similar to that provided now by the Hole 17 pond (i.e., tidally-influenced but primarily freshwater), enhancement of Pond G will occur as soon as funding is available. This way, the new habitat may be observed and fish utilization can be monitored before introducing the full muted tide, which will turn Pond E seasonally brackish. Enhancement of Pond G is intended to replace the fresh water habitat currently provided by Pond E. Enhancing Pond G will ensure that the project area will provide an equal or greater amount of freshwater habitat with the updated tide gates and with full muted tide introduced.

Sediment excavated from the channel and ponds will be used onsite to raise adjoining ground elevations, repair the Swain Slough berm, and hauled off-site to White Slough or another appropriate location for beneficial reuse for sea level rise adaptation. Attachment E contains the earthwork cuts and fills for the project based on the 100% Design Plans and divided into anticipated construction phases two through six.

Potential off-site reuse areas include spreading on nearby agricultural lands and re-use at White Slough in the Humboldt Bay National Wildlife Refuge (HBNWR), another wetlands enhancement project in the Humboldt Bay area, or another appropriate location. The USFWS has a failing dike around White Slough, which if it fails, will expose the Highway 101 Hookton Overpass to wave action and erosion. HBNWR is seeking fill to help with sea level rise adaptation by raising the level of the subsided land behind the dike so it will be high salt marsh rather than open water, thus creating a buffer between the open water and wave action and the overpass.
Construction Techniques and Temporary Disturbance

The primary excavation methods that will likely be utilized include track-mounted excavators, scrapers, and bull-dozers. Excavated material will be loaded into either belly- or end-dump trucks and hauled to the reuse areas. The contractor may choose to use track trucks to transport excavated material (spoils) to either an on-site re-use location or to a stockpile location from which larger street-legal trucks will be loaded for transport to its final destination. It will be the responsibility of the contractor to ensure the haul trucks are street legal and that local speed and weight limits are obeyed. The Contractor will also be responsible for developing and submitting for review by the Construction Manager a Traffic Control Plan prior to construction commencement. Hauling the excavated material from the project area to reuse sites will require a fleet of dump trucks operating continuously during the excavation activities. Table 1 shows the range of project construction equipment estimates for any given construction season.

Table 1. Estimates of Equipment Needed for Project Construction

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Estimated Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excavators</td>
<td>1-5</td>
</tr>
<tr>
<td>Scrapers</td>
<td>1-5</td>
</tr>
<tr>
<td>Dozers</td>
<td>1-5</td>
</tr>
<tr>
<td>Loaders</td>
<td>2-4</td>
</tr>
<tr>
<td>Dump Trucks</td>
<td>2-10</td>
</tr>
<tr>
<td>Small Tractors</td>
<td>1-3</td>
</tr>
<tr>
<td>Compactors</td>
<td>1-3</td>
</tr>
<tr>
<td>Graders</td>
<td>1-2</td>
</tr>
<tr>
<td>Water Trucks</td>
<td>1-3</td>
</tr>
<tr>
<td>Small Crane</td>
<td>1</td>
</tr>
</tbody>
</table>

Temporary construction areas will be needed to stage equipment, store material, and transport material. Temporary construction areas will be located within locations already identified as permanent impacted areas such as excavation areas or areas within close proximity as depicted on the 100% Design Plans, Attachment A. Temporary construction activities outside permanent impact areas will be limited to temporary construction buffers, haul routes, material and equipment staging/stockpiling areas, and temporary egress/ingress areas adjoining City and County Roads and as shown on the 100% Design Plans and on the Project Elements and Area of Disturbance Maps, Attachment B. Areas identified as temporary construction areas will be restored to pre-construction conditions once construction is complete. Temporary haul roads and other high traffic areas will be de-compacted and restored back to pre-construction soil densities. Restoration of temporary construction disturbance areas will be specified in the final specifications.

Temporary Haul Roads

The construction of temporary haul roads may be required to transport excavated materials from the channel corridor to City, County, and State Roads depending upon the final re-use areas. Haul roads will also provide stable working and staging areas for excavation and loading.
activities. Haul road construction will depend on subgrade suitability, the size of the transport equipment to be used, the intensity of use, excavation/reuse locations, and identification of sensitive habitats and species. Temporary haul road construction could include proof-rolling native subgrade to provide a non-yielding surface or placement of crushed rock or river-run gravel over woven or non-woven geotextile fabric and geo-grid. Locations of anticipated temporary haul roads will be within the limits of temporary construction disturbance as depicted on the 100% Design Plans and the Project Elements and Area of Disturbance Maps.

Construction Erosion and Sediment Control BMPs

During construction, Best Management Practices (BMPs), for controlling soil erosion and the discharge of construction-related contaminants, will be developed and monitored for successful implementation. The contractor will be responsible for performing erosion and sediment control in accordance with the latest edition of chapter 33 of the California Building Code, applicable Humboldt County Regulations, and Section 20 of the Caltrans Standard Specifications. BMPs that will be implemented as part of the PPMP are listed below. In addition, a complete list of erosion, sediment, pollution, and waste control notes can be found on page G-003 of the 100% Design Plans, Attachment C.

- Cofferdams or other temporary fish barriers/water control structures will be placed in the channel during low tide, and will only be removed during low tide (if possible), after work is completed.

- Because cofferdams will be installed and the channel will be dewatered prior to excavation, equipment will not be operated directly within tidal waters or stream channels of flowing streams, after fish removal efforts have been completed.

- Silt fences and or silt curtains will be deployed in the vicinity of the cofferdams and at excavation of sloughs at culvert installation and removal areas to prevent any sediment from flowing into the creek or wetted channels. If the silt fences are not adequately containing sediment, construction activity will cease until remedial measures are implemented that prevent sediment from entering the waters below.

- Sediment sources will be controlled using fiber rolls, straw, filter fabric, sediment basins, and/or check dams that will be installed prior to or during grading activities and removed once the site has stabilized.

- Erosion control may include seeding, mulching, erosion control blankets, plastic coverings, and geotextiles that will be implemented after completion of construction activities.

- Excess water will be pumped into the surrounding fields to prevent sediment-laden water from entering the stream channel. If necessary, shallow-temporary-receiving basins (settling basins) will be excavated to receive and hold construction site water and allow it to percolate into the soil to avoid introduction of silty or turbid water into Martin Slough. Sod will be skimmed off the settling basin and temporarily stockpiled, as will soil from the basin, until the basin is no longer needed, at which time the soil
will be replaced into the basin and the sod will be re-planted. The MTRs will be taken out of operation during excavation to prevent tide water from entering Martin Slough and active work areas. This will reduce the amount of water in the work areas and the volume of water that will need to be evacuated from the construction site and discharged onto fields or into settling basins.

- Appropriate energy dissipation devices will be utilized to reduce or prevent erosion at discharge end of dewatering activity.

- Turbidity monitoring will be conducted in Martin Slough throughout the site stabilization period to ensure that water quality is not being degraded. Turbid water will be contained and prevented from being transported in amounts that are deleterious to fish, or in amounts that could violate state pollution laws. Silt fences or water diversion structures will be used to contain sediment. If sediment is not being contained adequately, as determined by visual observation, the activity will cease until remedial actions to correct the problem are implemented.

- Construction materials, debris, and waste will not be placed or stored where it can enter into or be washed by rainfall into waters of the U.S./State.

- Upland areas will be used for equipment refueling. If equipment must be washed, washing will occur where wash water cannot flow into wetlands or waters of the U.S./State.

- Operators of heavy equipment, vehicles, and construction work will be instructed to avoid sensitive habitat areas. To ensure construction occurs in the designated areas and does not impact environmentally sensitive areas, the boundaries of the work area will be delineated with temporary fencing or marked with flagging.

- Equipment, when not in use, will be stored outside of the slough channel and above high tide elevations.

- All construction equipment will be maintained to prevent leaks of fuels, lubricants, or other fluids into the slough. Service and refueling procedures will not be conducted where there is potential for fuel spills to seep or wash into the slough.

- Extreme caution will be used when handling and/or storing chemicals and hazardous wastes (e.g., fuel and hydraulic fluid) near waterways, and any and all applicable laws and regulations will be followed. Appropriate materials will be on site to prevent and manage spills.

- All trash and waste items generated by construction or crew activities will be properly contained and removed from the project area.

- After work is completed, project staff will be on site to ensure that the area is re-contoured as per approved specifications. If necessary, restoration work (including
revegetation and soil stabilization) will be performed in conformance with the Revegetation and Pollution Prevention and Monitoring Plan specifications.

**Monitoring**

All monitoring will be conducted in accordance with the Martin Slough Monitoring Plan, Attachment D. The Martin Slough Enhancement Project Monitoring Plan (Monitoring Plan or Plan) sets forth simple, cost effective methods for evaluating the degree to which the Martin Slough project progressively meets its intended physical, hydrologic, and biological goals during the initial five years of the project. The Monitoring Plan incorporates ongoing *pre-construction* monitoring activities, summarizes the *construction monitoring* that will occur during the project’s build phase, and then focuses on *post-construction* monitoring.

The essential purpose of monitoring activities is to raise a warning flag if the project’s enhancement design components or the current course of management actions are not working so that corrective actions and adaptive management may be applied while cost-effective and time sensitive solutions are still available. Conversely, good monitoring can also demonstrate that the current design and management approaches are working and provide evidence for the continuation of current management. In addition, implementation of the Monitoring Plan will demonstrate ongoing permit compliance and, it is anticipated, a trajectory of incremental project success as the project meets various annual performance criteria described in the plan which cumulatively lead to attaining final success criteria. Finally, the results of thorough project evaluation through implementation of this Plan will help this project to provide information about sound design or fatal flaws, effective or ineffective management techniques to other projects, land managers, restoration designers, and practitioners conducting similar estuarine restoration efforts in and around Humboldt Bay.

The goal of construction monitoring is to ensure that the project has been built according the approved project plans and has complied with the temporary impact mitigations set forth in the project’s Biological Assessment, Mitigated Negative Declaration, and project permits. Construction compliance monitoring will be implemented during the active construction period in accordance with the Martin Slough Enhancement Project Compliance Monitoring Plan, the Pollution Prevention and Monitoring Plan (PPMP), and regulatory agency permit conditions which have been incorporated into the project’s mitigation measures.

The end-product of construction monitoring is the “as-built” plan set which sets the “time zero” baseline conditions upon which fulfillment of mitigations for permanent impacts and all other project goals will be weighed.
Table 2. Martin Slough Enhancement: Construction Compliance Monitoring

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Goal</th>
<th>Method</th>
<th>Schedule</th>
<th>Performance Criteria</th>
<th>Success Criteria</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Compliance</td>
<td>Affirm that the project has been built according to the approved project plans and specifications</td>
<td>Inspections and checklist</td>
<td>Weekly</td>
<td>All design elements built/install ed within engineering tolerances</td>
<td>Channel bottom elevations within 1.0 ft. of design elevations</td>
<td>RCAA</td>
</tr>
<tr>
<td>PPMP Compliance</td>
<td>Document that the temporary storm-water impacts have been fully mitigated</td>
<td>Inspections and BMP checklist</td>
<td>Pre-, during, and post-construction as per PPMP Schedule (to be determined)</td>
<td>All BMPs installed and maintained</td>
<td>No discharge of pollutants into waters</td>
<td>RCAA</td>
</tr>
<tr>
<td>As-built Plan (structural)</td>
<td>Compare historic topography to post-construction topo. Document the post-construction “time-zero”</td>
<td>Produce as-built plan set (plan view, X-sec, profile drawings)</td>
<td>Within 120 days of completion of hard construction</td>
<td>As-built plan set complete</td>
<td>Plan made available to agencies and monitors</td>
<td>RCAA</td>
</tr>
<tr>
<td>As-built Plan (Revegetation)</td>
<td>Document the post-planting Year 1 condition</td>
<td>Final reveg plan (species, # plants, location, areas)</td>
<td>Within 30 days of vegetation installation</td>
<td>As-built plan set complete</td>
<td>Plan made available to agencies and monitors</td>
<td>RCAA</td>
</tr>
</tbody>
</table>

Construction monitoring will also document information collected during construction relevant to long-term monitoring which may include but not be limited to the following:

- Any construction-related pollutant contamination or spills on site that could affect water quality, soils, or revegetation.
- Turbidity readings in excess of PPMP allowances (to be determined)
- Native plants salvaged or transplanted during construction
- Fish (species and number) captured and relocated during channel dewatering activities
- A map of construction photo-point locations if different from those in this monitoring plan

Pressure transducers for tidal stage will be installed in at least three locations in the lower project area of Martin Slough in late February 2017. These will collect data on dissolved oxygen, temperature, and salinity throughout the life of the project.
Approved Permits

U.S. Fish and Wildlife Service, Compliance with Section 7 of the Endangered Species Act

National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Compliance with Section 7 of the Endangered Species Act

Army Corp of Engineers, Section 404 of the Clean Water Act

California Department of Fish and Wildlife, Lake and Streambed Alteration Agreement

North Coast Regional Water Quality Control Board, Water Quality 401 Certification

California Coastal Commission Coastal Development Permit

CalTrans Encroachment Permit (TR-0100)