

## GENERAL SPECIFICATIONS

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## **SECTION 1    TERMS AND DEFINITIONS**

### **1-1    GENERAL**

Whenever the following terms, titles, or abbreviations are used in these Specifications, or in any document or instrument where these Specifications govern, the intent and meaning shall be as herein defined. Working titles having a masculine gender, such as "workman" and "journeyman" and the pronoun "he," are utilized in the Specifications for the sake of brevity, and are intended to refer to persons of either gender.

### **1-2    ABBREVIATIONS**

AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
AB	Aggregate Base
AC	Asphalt Concrete
ACI	American Concrete Institute
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
APA	American Plywood Association
ASA	American Standards Association
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWG	American Wire Gage
AWS	American Welding Society
AWWA	American Water Works Association
BMP	Best Management Practice
Cal-OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CBC	California Building Code
CFR	Code of Federal Regulations
CICP	Construction Incentive Change Proposal
CIH	Certified Industrial Hygienist
CIP	Cast-In-Place
CL	Centerline
CMU	Concrete Masonry Unit
CPM	Critical Path Method
CRM	Crumb Rubber Modifier
CSI	Construction Specifications Institute
CY	Cubic Yards
DEWR	Daily Extra Work Report
DBE	Disadvantaged Business Enterprise

DI	Drop Inlet
EA	Each
ESCP	Erosion and Sediment Control Program
EP	Edge of Pavement
F	Fahrenheit
FHWA	Federal Highway Administration
FS	Federal Specifications
ICC	International Code Council
Inv	Invert
ISA	International Society of Arboriculture
ISO	Insurance Services Office
ITE	Institute of Transportation Engineers
LB	Pound
LF	Linear Feet
LS	Lump Sum
MUTCD	Manual on Uniform Traffic Control Devices - latest California version
NBFU	National Board of Fire Underwriters
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NPDES	National Pollution Discharge Elimination System
NPT	National Pipe Thread Taper
NSF	National Sanitation Foundation
OSHA	Occupational Safety and Health Act
PCC	Portland Cement Concrete
PSI	Pounds Per Square Inch
PSIG	Pounds per square inch, gauge
QA	Quality Assurance
QC	Quality Control
RSP	Rock Slope Protection
RWQCB	Regional Water Quality Control Board
SD	Storm Drain
SDS	Safety Data Sheets
SF	Square Foot/Feet
SS	Sanitary Sewer
STA	Station
SWPPP	Storm Water Pollution Prevention Plan
TIA	Time Impact Analysis
Title 8	Title 8 (Construction Safety Orders) of the California Code of Regulations
Title 19	Title 19 (Public Safety) of the California Code of Regulations
Title 24	Title 24 (Building Standards) of the California Code of Regulations

TOC	Top of Curb
Typ.	Typical
UL	Underwriters' Laboratories, Inc.
UBC	Uniform Building Code (latest edition adopted by Agency)
USBR	United States Bureau of Reclamation
UMC	Uniform Mechanical Code (latest edition adopted by Agency)
UPC	Uniform Plumbing Code (latest edition adopted by Agency)
U.S.C.	United States Code
WCLA	West Coast Lumbermen's Association
WIC	Woodwork Institute of California
WPCP	Water Pollution Control Program

### 1-3 DEFINITIONS

**Agency** – Shall mean the Sacramento Area Flood Control Agency (SAFCA), a joint powers authority established pursuant to the laws of the State of California, acting through its authorized representatives.

**Allowance** – An amount of money set aside under the Contract for a special purpose identified in the Contract. See Section 8-2.05, "Allowances."

**Architect and/or Consulting Engineer** – A person or persons, firm, partnership, joint venture, corporation, or combination thereof or authorized representative thereof, acting in the capacity of consultant to the Agency. The Architect or Consulting Engineer shall issue directions to the Contractor only through the Agency. When the Specifications require that approval be obtained from the Architect or Consulting Engineer, such approval shall be requested from and be given by the Agency.

**Asphalt Concrete, or AC** – Is the same as "Hot Mix Asphalt" or "HMA."

**Asphalt Rubber Hot Mix or ARHM** – Is the same as "Rubberized Hot Mix Asphalt" or "RHMA."

**As Shown, Etc.** – Where "as shown," "as latest indicated," "as detailed," or words of similar import are used, the reference is to the Contract unless specifically stated otherwise. Where "as directed," "as permitted," "approved," or words of similar import are used, they shall mean the direction, permission, or approval of the Agency.

**As-built Drawings** – Shall mean "Record Drawings."

**Bid** – When submitted on the prescribed bid form, properly signed and guaranteed, the Bid constitutes the offer of the Bidder to complete the Work at the price shown on the Bidder's bid form.

**Bidder** – Any person, persons, firm, partnership, joint venture, corporation, or combination thereof, submitting a Bid for the Work, acting directly or through a duly authorized representative.

**Bid Documents** – The sum of the documents that comprise the Bid by a Bidder to perform the Work.

**Bid Opening** – The event conducted by the Agency during which the sealed Proposals submitted by Bidders to perform the Work are opened and publicly read.

**Board of Supervisors** – The Board of Supervisors of the County of Sacramento, a political subdivision of the State of California, or the Board of Supervisors of the County of Sutter, a political subdivision of the State of California, depending on whose jurisdictional area the Work, or portion of the Work, is in. Also referred to as "County Board."

**Board of Directors** – The Board of Directors of the Sacramento Area Flood Control Agency. Also referred to as “Board.”

**Calendar Day** – Every day shown on the calendar including weekends and legal holidays. When the Contract Time is stated in Calendar Days, every day will be charged toward the Contract Time. See Section 7-17 for the sole exception.

**Contract** – The written agreement signed by the Agency and the Contractor covering the Work and the furnishing of labor, materials, tools, and equipment in the construction of the Work. The Contract shall include the Notice to Contractors, Addendums, Bid and all attachments thereto, Plans, General Specifications, Special Provisions, Technical Specifications, contract bonds, and any project-specific specifications or documents; also any and all supplemental agreements amending or extending the Work contemplated and 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 Contract Change Orders.

**Contract Change Order** – A Contract amendment approved by the Agency or by the Board that includes, but is not limited to, alterations, deviations, additions to, or deletions from, the Contract which are required for the proper completion of the Work. A single Contract Change Order may address one or more contract changes.

**Contract Completion Date** – Contract Time as may be adjusted by additional days granted for unavoidable delays.

**Contract Documents** – The documents that describe the Work to be performed, including the Notice to Contractors, Addendums, Bid and all attachments thereto, Plans, General Specifications, Special Provisions, Technical Specifications, contract bonds, and any project-specific specifications or documents; and all supplemental agreements covering alterations, amendments, or extensions to the Contract, including, but not limited to, Field Instructions or other written directives, responses to Requests for Information, and Contract Change Orders. Also reference Section 4-1, "Intent of Contract Documents", of these Specifications.

**Contractor** – The person or persons, firm, partnership, joint venture, corporation, or combination thereof, private or municipal, who (that) has (have) entered into a Contract, as defined in these Specifications, with the Agency. Also referred to as Prime Contractor.

**Contract Time** – The time stated in the Contract for completion of the Work. The Contract Time may be a single allotment of time, milestones, or a group of times or milestones specific to portions of the Work, or a combination of the two, or a specified completion date.

**County** – The County of Sacramento, a political subdivision of the State of California, or the County of Sutter, a political subdivision of the State of California, depending on whose jurisdictional area the Work, or portion of the Work, is in.

**Engineer** – The Director of Engineering of the Sacramento Area Flood Control Agency, acting personally or through agents or assistants duly authorized by the Engineer.

**Estimated Quantities** – The list of items of work and the estimated quantities associated with the Work. The Estimated Quantities provide the basis for the Bid.

**Final Completion** – Completion of all of the Work including work directed by Field Instructions, written directives, or Contract Change Orders, punchlists, correcting defective work and submittal of O&M manuals, as-built drawings and test reports. Also reference Section 7-22, "Final Acceptance and Notice of Completion", of these Specifications.

**Inspector** – The person or persons authorized to act as agent(s) for the Agency in the inspection of the Work.



**Legal Holidays** – For purposes of Agency construction contracts, the following days are recognized as “legal holidays” by the Agency:

New Year’s Day	January First
Martin Luther King, Jr. Day	Third Monday in January
President’s Day	Third Monday in February
Memorial Day	Last Monday in May
Independence Day	July Fourth
Labor Day	First Monday in September
Veteran’s Day	November Eleventh
Thanksgiving Day	Fourth Thursday in November
Thanksgiving Friday	Friday after Thanksgiving
Christmas	December Twenty-fifth

**Notice To Contractors** – The written notice whereby interested parties are informed of the date, location, and time of the Bid Opening of a proposed Agency Project and the terms and conditions of submitting Bids to perform the Work. Also, Notice to Bidders, Invitation to Bid.

**Notice To Proceed** – The written authorization by the Agency to the Contractor specifying the date the Work may begin and any conditions regarding the beginning of all or a portion of the Work.

**Plans** – The plans, drawings, profiles, cross sections, details, Working Drawings, and Supplemental Drawings, or reproductions thereof, approved by the Agency, which show the locations, character, dimensions, and details of the Work.

**Project** – Means the Work.

**Proposal** – Means “Bid.”

**Record Drawings** – Drawings prepared by the Contractor that document changes to, additions to, or deductions from the Plans, and which represent the Work as constructed, including existing utilities found during construction of the Work. See Section 11-3, "Record Drawings," of these Specifications.

**Sacramento County Standard Specifications** – The version of the County of Sacramento Standard Specifications for Construction, in effect at the date of the Notice to Contractors. The General Specifications (Section 1 through Section 12) of the Sacramento County Standard Specifications shall not apply to this Contract. The remaining sections of the Sacramento County Standard Specifications shall apply only to: (1) work conducted within Sacramento County rights of way, (2) the extent they are referenced by this Contract, and (3) the extent that they are not specifically modified by the Special Provisions and Technical Provisions included in this Contract.

**Sacramento City Standard Specifications** – The version of the City of Sacramento Standard Specifications for Construction, in effect at the date of the Notice to Contractors. The General Specifications (Section 1 through Section 9) of the Sacramento City Standard Specifications shall not apply to this Contract. The remaining sections of the Sacramento City Standard Specifications shall apply only to: (1) work conducted within Sacramento City rights of way, (2) the extent they are referenced by this Contract, and (3) the extent that they are not specifically modified by the Special Provisions and Technical Provisions included in this Contract.

**Schedule of Values** – A statement furnished by the Contractor to the Agency reflecting the portions of the Total Contract Price allotted for the various parts of the Work for each work activity contained on the project schedule. Unless otherwise indicated in the Specifications, the total of the Schedule of Values shall equal the full cost of the Work, including all labor, material, equipment, overhead, and profit. For lump sum contracts or lump sum bid items, the Schedule of Values is the basis for reviewing the Contractor's application for progress payments.

**Special Provisions** – The Special Provisions are specific clauses setting forth conditions or requirements peculiar to the Work and supplementary to the Standard Construction Specifications.

**Standard Construction Specifications** – The directions, provisions, and requirements contained herein. When the term "Standard Specifications" or "these Specifications" is used, it means the provisions as set forth herein, together with any amendments or revisions that may be set forth in the Special Provisions and the Technical Provisions. The Standard Specifications are comprised of the "General Specifications."

**Standard Drawings** – The Standard Drawings of the Agency, which are incorporated into the Standard Construction Specifications, and made a part of the Plans by reference to one or more specific Standard Drawings.

**State** – The State of California.

**State Standard Specifications** – The version of the State of California Standard Specifications for Construction of Local Streets and Roads, issued by the California Department of Transportation (Caltrans), in effect at the time of Notice to Contractors, unless otherwise noted. The General Specifications (Section 1 through Section 12) of the State Specifications shall not apply to this Contract, unless specifically referenced. The remaining sections of the State Specifications shall apply only to: (1) work conducted within Caltrans rights of way, (2) the extent they are referenced by this Contract, and (3) the extent that they are not specifically modified by the Special Provisions and Technical Provisions included in this Contract.

**State Standard Plans** – The version of the State of California Standard Plans for Construction of Local Streets and Roads, issued by the California Department of Transportation, in effect at the time of Notice to Contractors, unless otherwise noted.

**Subcontractor** – A properly licensed party under contract to and responsible to the Contractor for performing a specified part of the Work; or a properly licensed party under contract and responsible to a Subcontractor of the Contractor. Includes all lower tiers Subcontractors.

**Supplemental Drawing** – Supplemental Drawings define the Plans or Specifications in greater detail by providing additional information that may have not been specifically or clearly shown or called out on the Plans or in the Specifications.

**Sutter County Standard Specifications** – The version of the County of Sutter Standard Specifications for Construction, in effect at the date of the Notice to Contractors. The General Specifications of the Sutter County Standard Specifications shall not apply to this Contract. The remaining sections of the Sutter County Standard Specifications shall apply only to: (1) work conducted within Sutter County rights of way, (2) the extent they are referenced by this Contract, and (3) the extent that they are not specifically modified by the Special Provisions and Technical Provisions included in this Contract.

**Technical Provisions** – The provisions of the Specifications that describe the technical aspects of the Work, including the Technical Specifications and all technical references contained therein.

**Total Contract Price** – The total price for the Work as bid by the Contractor, including any additions or subtractions made via Contract Change Orders.

**Work** – All actions which the Contractor is contractually required to do as specified, indicated, shown, reasonably inferred, or fairly implied in the Contract to construct the Work, including all alterations,

amendments, or extensions made by Contract Change Order or other written orders or directives of the Agency. Unless specified otherwise in the Contract, the Work includes furnishing all materials, supplies, equipment, tools, labor, transportation, supervision, and all incidentals necessary to complete the Work.

**Working Day** – Any day except: (a) Saturdays, Sundays, and legal holidays; (b) days on which the Contractor is specifically required by the Special Provisions or by law to suspend construction operations; or (c) days on which the Contractor is prevented from proceeding with the current controlling operation or operations of the Work for at least five (5) hours per day due to inclement weather, or conditions resulting immediately therefrom. See Section 7-8.06, "Lane and Road Closures during the November/December Holiday Season," of these Specifications regarding Contract Time during the November-December holiday season.

**Working Drawing** – Working Drawings detail a particular item of work and the manner in which it is to be accomplished or performed. Working Drawings are prepared by the Contractor as a submittal or a portion of a submittal and may be specifically requested by the Agency or required in the Contract or a Field Instruction or other written directive.

**Written Directive** - Directives from the Agency including emails, letters, Field Instructions and RFI responses.

## **SECTION 2 BID REQUIREMENTS AND CONDITIONS**

### **2-1 BID FORM**

The Agency will furnish to each prospective Bidder, at a cost stipulated in the Notice to Contractors, a bid form which, when properly completed and executed, must be submitted as the Bidder's Bid for the Work. All Bids must be submitted on the Agency-furnished bid form to be valid and accepted. Bids that are not submitted on the Agency-furnished bid form will be rejected. The completed bid form shall be in English and legible, and shall be properly signed in longhand by the Bidder, if an individual, by a member of a partnership, by an officer of a corporation authorized to sign contracts on behalf of the corporation, or by an agent of the Bidder. If submitted by a corporation, the Bid shall show the name of the state under the laws of which the corporation is chartered or organized.

The Bid shall be made on the bid form in clearly legible figures as follows:

#### **2-1.01 Unit Price Bid**

Where the bid for an item of work is to be submitted on a unit price basis, the Bidder shall bid a unit price as total compensation for completion of one unit of the work described under that item. This price shall be multiplied by the Estimated Quantity included in the bid form to derive a total bid price for that item. The total amount bid for a unit price contract shall be entered on the space provided on the bid form as a grand total of all individual items.

The Estimated Quantities included on the bid form are approximate and are only included in the bid form as a basis for comparison of Bids. The Agency does not, expressly or by implication, represent or agree that the actual amount of work will equal the approximate Estimated Quantities. Payment will be made for the actual quantity of Work performed in accordance with the Contract. The Agency reserves the right to increase or decrease the amount of any class or portion of the Work, or to omit portions of the Work, as may be deemed necessary or advisable in the sole discretion of the Agency. For compensation for alterations in quantities of work, including deviations greater than twenty-five (25) percent, see Section 9-8.02, "Payment for Changes – Unit Prices," of these Specifications.

#### **2-1.02 Lump Sum Bid**

Where the bid for an item of work is to be submitted on a "Lump Sum" or "Job" basis, a single lump-sum price shall be submitted in the appropriate place on the bid form. Items bid on a lump-sum basis shall result in a complete structure, operating plant, or system, in satisfactory working condition with respect to the functional purposes of the installation, as described in the Contract, and no extra compensation will be paid for anything omitted but reasonably and fairly implied.

#### **2-1.03 Allowances**

Where specific allowance items have been entered on the bid form by the Agency, the total amount entered on the bid form shall be included in the Total Bid Price. However, the total amount to be paid for the Work included in the Allowance shall be the amount of the Allowance actually utilized in the course of completing the Work.

### **2-2 PREPARATION AND SUBMISSION OF BIDS**

By submission of a Bid, the Bidder acknowledges that the Bidder has examined the job site and Bid documents and that the Bidder understands and accepts the nature and location of the Work, the general and local conditions to be encountered, conditions of the site, the character, quality and scope of work to be performed, the availability of labor, electric power, water, the character, quality, and quantity of surface and subsurface (as identified in the Bid documents or as are readily predictable by an observant person) materials or obstacles on the site, the quantity and type of materials and equipment to be furnished, and all requirements of the Contract or other matters which can affect the Work or the cost. Any failure of a Bidder to become acquainted with all of the available information concerning conditions

will not relieve the Bidder from the responsibility for properly estimating the difficulties or cost of the Work. The Bidder agrees to inform the Agency of any errors or oversights by the Agency it perceives in the Bid documents prior to submission of its Bid.

The Bidder declares by the submission of its Bid that his or her Bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the Bid is genuine and not collusive or sham; that the Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived or agreed with any bidder or anyone else to put in a sham bid or to refrain from bidding; that the Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Bid price of the Bidder or any other bidder, or to fix any overhead, profit, or cost element of the Bid price or of that of any other bidder; that all statements contained in the Bid are true; and, further, that the Bidder has not directly or indirectly submitted his or her Bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, 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.

Bid prices shall include everything necessary for the completion of the Work and fulfillment of the Contract, including but not limited to, furnishing all materials, equipment, tools, excavation sheeting, bracing and supports, plant, labor and services, except as may be provided otherwise in the Contract. Bid prices shall include labor and material escalation and all Federal, State, and local taxes, and all other fees and costs not expressly paid for by the Agency as stated in the Special Provisions or Technical Specifications.

Each Bidder must include with the Bid a completed, signed, Non-Collusion Agreement in accordance with Section 7106 of the Public Contract Code. The required form is included in the Bid Form.

If the estimated Contract amount, as indicated in the Notice to Contractors, is \$1,000,000.00 or more, the Bidder shall include with the Bid a completed, signed Iran Contracting Act Disclosure Form in accordance with Sections 2202-2208 of the Public Contract Code. The required form is included in the Bid Form.

The Bid and required documents shall be submitted in a single envelope or box that has been sealed with glue, tape, or in a similar manner so as to be closed against indiscriminate inspection of the contents. The Bidder shall plainly mark, in English, the exterior of the envelope or box with the project name, Contract number, and bid date, as indicated in the Notice to Contractors or addenda to the Notice to Contractors.

Bids submitted in envelopes or boxes that are not properly marked will be rejected.

## **2-3 EXAMINATIONS OF PLANS, SPECIFICATIONS, AND SITE OF WORK**

The Bidder shall examine carefully the site of the proposed Work and the Plans, Specifications, and Bid Documents, and shall be satisfied as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered. The submission of a Bid shall be conclusive evidence that the Bidder is satisfied through the Bidder's own investigation as to the conditions to be encountered; the character, quality, quantity and scope of work to be performed; and the materials and equipment to be furnished.

If material discrepancies or apparent material errors are found in the Plans and Specifications prior to the date of bid opening, an Addendum may be issued (see Section 2-9, "Addenda," in this Section of these Specifications). Otherwise, in figuring the Work, Bidders shall consider that any discrepancies or conflict between Plans and Specifications will be governed by Section 4-1, "Intent of Contract Documents."

## **2-4 SUBSURFACE CONDITIONS**

Where investigations of subsurface conditions have been made by the Agency with respect to subsurface conditions, utilities, foundation, or other structural designs, and that information is shown in the Plans, it represents only a statement by the Agency as to the character of materials which have actually been encountered by the Agency's investigation. This information is only included for the convenience of Bidders.

Investigations of subsurface conditions are made for the purpose of design only. The Agency assumes no responsibility with respect to the sufficiency or accuracy of borings or of the log of test borings or other preliminary investigations or of the interpretation thereof. There is no guaranty, either expressed or implied, that the conditions indicated are representative of those existing throughout the Work, or any part of it, or that unanticipated conditions may not occur. When a log of test borings is included in the Plans, it is expressly understood and agreed that said log of test borings does not constitute a part of the Contract. The log of test borings represents only an opinion of the Agency as to the character of the materials to be encountered, and is included in the Plans only for the convenience of the Bidders. Making information available to Bidders is not to be construed in any way as a waiver of the provisions of the first paragraph of this Section, and Bidders must satisfy themselves through their own investigations as to conditions to be encountered.

Unusual site conditions are defined in Section 7104 of the Public Contract code and Section 7-6, "Unusual Site Conditions," of these Specifications.

## **2-5 CONTRACTORS/SUBCONTRACTORS REQUIRED TO BE LICENSED**

The Bidder must hold a valid State Contractor License under the provisions of Chapter 9, Division 3, of the Business and Professions Code to do the type of work contemplated in the project, and shall be skilled and regularly engaged in the general class or type of work called for under the contract. The specific type of license required will be indicated in the "Notice to Contractors." Unless specified otherwise in the Special Provisions, the Bidder shall indicate the license number and class in the space provided for that purpose on the Bid Form.

All subcontractors engaged to perform portions of the Work shall be licensed under the provisions of Chapter 9, Division 3, of the Business and Professions Code to do the type of work for which they are subcontracted, and shall be skilled and regularly engaged in the general class or type of work called for under their subcontracts. If requested by the Agency, subcontractors' license numbers that have not been provided pursuant to Section 2-8 below shall be provided to the Agency within 24 hours of the requests.

Attention is also directed to the provisions of Public Contract Code Section 20103.5, which addresses Contractor licensing requirements. The Agency may not award the Contract if it cannot be verified that the low Bidder is an appropriately licensed Contractor at the time of Contract award.

## **2-6 COMPETENCY OF BIDDERS**

It is the intention of the Agency to award a Contract only to a Bidder who furnishes satisfactory evidence that the Bidder has the requisite experience and ability, and has sufficient capital, facilities, and plant to enable the Contractor to prosecute the Work successfully and promptly, and to complete the Work within the time stated in the Contract.

If required by the Notice to Contractors, Special Provisions or shown on the Bid Form, a statement of experience and business standing, together with that of all subcontractors that were designated in the Bid, shall be submitted on an Agency-provided form with the Bid, or if so specified shall be submitted by the three (3) apparent low Bidders within seven (7) days after the opening of Bids, as specified in the Notice to Contractors, Special Provisions or the Bid Form. To determine the experience of a Bidder, any relevant evidence will be considered that will demonstrate that the Bidder, or personnel, has satisfactorily performed other contracts of similar nature and magnitude or difficulty.

## **2-7 JOINT VENTURE BIDS**

If two or more prospective Bidders desire to bid jointly as a joint venture on a single project, the joint venture Bid must be accompanied by a notarized copy of a valid license issued to the joint venture by the Contractor's State License Board. If a copy of the joint venture license is not filed with the Bid, the Bid will be rejected.

## **2-8 SUBCONTRACTORS**

### **2-8.01 Percentage of Work to be Performed by Contractor**

Unless noted otherwise in the Special Provisions, the Contractor shall perform, with the Contractor's own organization and with workers under the Contractor's immediate supervision, work of a value not less than fifty (50) percent of the value of the original Total Contract Price less "Specialty Items." "Specialty Items" may be performed by subcontract and the cost of any "Specialty Items" so performed may be deducted from the original Total Contract Price before computing the amount of work required to be performed by the Contractor. Where an entire item is subcontracted, the value of work subcontracted will be based on the Contract item bid price. When a portion of an item is subcontracted, the value of work subcontracted will be based on the estimated percentage of the contract item bid price, determined from information submitted by the Contractor on the DESIGNATION OF SUBCONTRACTORS table included with the Bid, subject to approval by the Agency. "Contractor's own organization" means only workers employed and paid directly by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Employees or equipment of a subcontractor, assignee, or agent of the prime contractor are not part of the Contractor's operation. Only the value of work performed by firms licensed by the California Department of Consumer Affairs Contractors State License Board shall be utilized in calculating the value of work performed by the Contractor versus the value of work performed by subcontractors.

### **2-8.02 Designation of Subcontractors**

In accordance with the Subletting and Subcontracting Fair Practices Act, of the Public Contract Code, Section 4100 et seq., each Bidder shall list in the bid form:

- The name, the location of the place of business, and California contractor license number of each subcontractor whom the Bidder proposes to perform work or labor or render service to the prime Contractor in or about the construction of the Work, or a subcontractor licensed by the State of California who, under subcontract to the prime Contractor, is proposed by the Bidder to specially fabricate and install a portion of the Work according to detailed drawings contained in the Contract, in an amount in excess of one-half of one (0.5) percent of the Total Bid or, in the case of a Bid for the construction of streets or highways, including bridges, in excess of one-half of one (0.5) percent of the Bidder's Total Bid or ten thousand dollars (\$10,000), whichever is greater.
- The portion of the Work (type of work and percentage if not one hundred [100] percent) that will be done by each subcontractor. The Bidder shall list only one subcontractor for each portion as is defined by the Bidder in the Bid.

If a Bidder fails to specify a subcontractor for any portion of the Work to be performed under the Contract (or specifies more than one subcontractor for the same work), the Bidder agrees that the Bidder is fully qualified and shall perform that portion of the Work. If after the award of the Contract, the Contractor subcontracts any portion of the Work, except as provided in Section 4107 or 4109 of the Act, the Contractor shall be subject to the penalties specified in Sections 4110 and 4111 of the Act, and the Agency may refer the violation to the Contractors State Licensing Board.

A listed subcontractor shall perform with the subcontractor's own organization and with workers under the subcontractor's immediate supervision, work of a value of not less than seventy-five (75) percent of the value of each item of work for which the subcontractor is listed.

Pursuant to Public Contract Code Section 6109, a Contractor may not perform work with a subcontractor who is ineligible to perform work on public works projects pursuant to Labor Code Sections 1777.1 and 1777.7.

The Contractor shall include provisions in every Subcontract that the Contract between the Contractor and the Agency is part of the Subcontract, and that all terms and provisions of the Contract are incorporated in the Subcontract. Copies of all Subcontracts shall be provided to the Agency within two (2) working days of a written request. The use of Subcontractors does not release the Contractor from the Contract or relieve the Contractor of responsibility for the Subcontractor's work.

## **2-9     ADDENDA**

The correction of any material discrepancies in, or material additions to/omissions from, the Plans, Specifications, or other Contract document, or any interpretation thereof, during the bidding period will be made only by an Addendum issued by the Agency. A copy of each Addendum issued by the Agency will be mailed or delivered to each plan holder listed on the Agency plan holder list. Addenda become a part of the Contract upon issuance. Any interpretation or explanation not included in an addenda will not be considered binding.

## **2-10    ASSIGNMENT OF ANTITRUST ACTIONS**

The Bidder is required to comply with Public Contract Code Section 7103.5(b), which states:

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

## **2-11    BID GUARANTEE**

The Bid shall be accompanied by a Bid Guarantee in the form of cash, a certified check, a cashier's check, or a bidder's bond provided by a surety company authorized to do business in the State of California and listed in the current Federal Department of Treasury Circular 570. The Bid Guarantee shall be executed by an admitted surety insurer in favor of the Agency. The total amount of the Bid Guarantee shall be not less than ten (10) percent of the Base Bid amount. No Bid will be considered unless accompanied by a Bid Guarantee.

The Agency is authorized to forfeit as necessary sums of such Bid Guarantee as specified in Section 3-8 of these Specifications.

## **2-12    WITHDRAWAL OF BID**

A Bid may be withdrawn at any time prior to the hour fixed in the Notice to Contractors for the submission of Bids by a written request of the Bidder filed with the Agency at the location where the Bid was submitted. The withdrawal of a Bid will not prejudice the right of a Bidder to file a new Bid within the time prescribed.



## **2-13 PUBLIC OPENING OF BIDS**

Bids will be opened and read publicly at the time and place indicated in the Bid Form or in a subsequent Addendum. Bidders or their authorized representatives and other interested parties are invited to be present.

## **2-14 REJECTION OF BIDS**

The Agency reserves the right to reject any and all Bids. The Agency reserves the right to waive inconsequential irregularities in a Bid and to make an award in the best interest of the Agency. However, Bids containing omissions, illegible figures, alterations, conditions, or additions not called for shall be rejected.

## **2-15 RELIEF OF BIDDERS**

Attention is directed to Public Contract Code Sections 5100 through 5107, concerning relief of Bidders and in particular to the requirement therein that if the Bidder claims a material mistake was made in its Bid, the Bidder shall give the Agency written notice within five (5) days after the opening of the Bids (excluding Saturdays, Sundays, or legal holidays) of the alleged mistake, explaining in the notice in detail how the mistake occurred.

## **2-16 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT OR SUSPENSION, AND OTHER RESPONSIBILITY MATTERS**

By submittal of a bid pursuant to the Notice to Contractors for this contract, the Bidder certifies, to the best of its knowledge and belief, that:

1. The Bidder and/or any of its Principals:
  - a. Are not presently debarred, suspended, proposed for debarment or suspension, or declared ineligible for award of the contract by any Federal, State, or local agency.
  - b. 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, tax evasion, or receiving stolen property.
  - c. Are not presently indicted for, or otherwise criminally or civilly charged by a government entity with, commission of any of the offenses enumerated in item b. above.
  - d. The Bidder has not, within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal, State, or local agency.
2. "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).
3. This Certification Concerns 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.
4. The Bidder shall provide immediate written notice to the Agency if, at any time prior to contract award, the Bidder learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5. A certification that any of the items in Paragraph 2-16-1 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 Bidder's responsibility. Failure of the Bidder to furnish a certification or provide such additional information as requested by the Agency may render the Bidder nonresponsible or nonresponsive.
6. 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 2-16-1 of this provision. The knowledge and information of a Bidder is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
7. The certification in Paragraph 2-16-1 of this provision is a material representation of fact upon which reliance will be placed when making the award, if and when made. If it is later determined that the Bidder knowingly rendered an erroneous certification, in addition to other remedies available to the Agency, the Agency may terminate the contract resulting from this solicitation for default.

## **2-17 CONTRACTORS/SUBCONTRACTORS REQUIRED TO BE REGISTERED**

The Bidder and each of its subcontractors shall be 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 shall be awarded a contract for public work on a public works project unless that contractor or subcontractor is registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. The Bidder shall provide the registration number(s) received from the Department of Industrial Relations for itself and each of its listed subcontractors in the space provided for that purpose on the Bid Form. If requested by the Agency, the registration numbers of subcontractors that have not been listed pursuant to Section 2-8 above shall be provided to the Agency within 24 hours of the requests.

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

### **3-1      TIME OF AWARD**

The award, if made, is expected to be made within thirty (30) Calendar Days after the Bid Opening. Bids shall remain open for forty-five (45) Calendar Days after the opening of bids. If the lowest responsive, responsible Bidder refuses or fails to execute the Contract, the Agency may award the Contract to the second lowest responsive, responsible Bidder. Should a protest be filed, the specified time period within which the award of the Contract may be made shall be extended the amount of time it takes for the Agency to resolve the protest. The specified period of time within which the award of the Contract may be made may be subject to extension for further periods as agreed upon in writing by the Agency and the Bidder(s).

### **3-2      CONSIDERATION OF BIDS**

After the Bids have been opened and read, they will be checked for accuracy and compliance with the Specifications.

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

If the Bid is missing the unit price for a unit price bid item or a lump sum price for a lump sum bid item, then it will be deemed incomplete and the Bid will be rejected as non-responsive.

After the Agency has made any necessary corrections in mathematical errors appearing on the face of the Bid, all Bids will be compared based on the corrected bid forms.

### **3-3      AWARD OF CONTRACT**

The award of the Contract, if the Contract is to be awarded, will be to the lowest responsive, responsible Bidder. In addition to price in determining the lowest responsive, responsible Bidder, consideration will be given to:

- The ability, capacity and skill of the Bidder to perform the Work.
- The ability of the Bidder to perform the Work within the time specified, without delay.
- The ability of the Bidder to perform the Work in a safe manner.
- The character, integrity, reputation, judgment, experience and efficiency of the Bidder.
- The quality of the Bidder's performance on previous work with the Agency.

If an alternate or alternates are selected by the Agency, award will be based on the lowest total price for the sum of the base bid price plus the bid prices of the selected alternate or alternates.

Alternates will be taken in order from a list of those items, depending on available funds as identified in the bid solicitation.

#### **3-3.01    Notice of Intent to Award**

After the Agency has fully reviewed the bid documents, corrected mathematical errors as provided for in Section 3-2 Consideration of Bids and identified the lowest responsive, responsible Bidder, the Agency will issue a Notice of Intent to Award to all bidders.

Protests must be filed in writing to the County of Sacramento, Department of General Services, Contract and Purchasing Division, at the address where the bids were submitted, within five (5) Working Days

after the Agency issues the Notice of Intent to Award. Protests received after the five (5) Working Day deadline will not be considered by the Agency. A copy of the protest shall be submitted (electronic or hard copy) to the Agency contact designated in the Notice of Intent to Award on the same day that the protest is submitted to the Contract and Purchasing Division.

### **3-4 PERFORMANCE, PAYMENT, AND MAINTENANCE BONDS**

The format of the Performance and Payment Bonds, and Maintenance Bond when required, shall be those forms contained in these Specifications.

As part of the execution of the Contract, the successful Bidder shall furnish the following corporate surety bonds to the benefit of the Agency. Bonds shall be executed by a surety company authorized to do business in the State of California and listed in the current Federal Department of Treasury Circular 570. When the amount to be paid to the Contractor is based upon units of work to be performed or items to be provided, the term "Total Contract Price" as used below for the purpose of posting Performance and Payment Bonds shall be computed on the basis of the unit price bid multiplied by the Estimated Quantities of work to be performed.

#### **3-4.01 Performance Bond**

The Performance Bond, to guarantee the performance of all covenants and stipulations of the Contract, shall be in the form provided by the Agency and shall be in a sum not less than one hundred (100) percent of the original Total Contract Price as set forth in the Contract.

#### **3-4.02 Payment Bond**

The Payment Bond, to guarantee the payment of wages and of bills contracted for materials, supplies, or equipment used in the performance of the Contract, shall be in the form provided by the Agency and shall be in a sum not less than one hundred (100) percent of the original Total Contract Price as set forth in the Contract.

#### **3-4.03 Term of Payment and Performance Bonds**

The Contractor shall secure a Performance Bond and a Payment Bond throughout the term of the Contract until completion and Final Acceptance of construction of the Work. The Warranty Period under the Performance Bond shall be for a period of one (1) year from the date of Final Acceptance of construction of the Work.

#### **3-4.04 Maintenance Bond**

When the Contract includes a maintenance period exceeding one year, during the term of the maintenance period the Contractor shall secure Maintenance Bond(s), in a form provided by the Agency, to guarantee warranty and maintenance of the Work. The Contractor may provide Maintenance Bonds that are renewable annually. The penal sum for the Maintenance Bond shall be in a sum not less than fifty (50) percent of the original Total Contract Price as set forth in the Contract.

### **3-5 NOTIFICATION OF SURETY COMPANIES**

The surety company shall be familiar with all the provisions and conditions of the Contract. It is understood and agreed that the surety company waives notice of change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or to the specifications accompanying the same, or any other act or acts by the Agency or the Agency's authorized agents under the terms of the Contract; and failure to so notify the surety company of changes shall in no way relieve the surety company of its obligations under the Contract.

### **3-6 RETURN OF BID GUARANTEES**

After Bids have been received and reviewed by the Agency, Bid Guarantees will be returned to the respective Bidders except those submitted by the three lowest responsive, responsible Bidders.

Bid Guarantees for Bids not to be further considered in executing the Contract will be returned within ten (10) days after the award of the Contract. The Bid Guarantees of the three lowest responsive, responsible Bidders will be returned, except as noted otherwise in Section 3-8, "Failure to Execute Contract," of these Specifications, within ten (10) days after the successful Bidder has filed satisfactory bonds and proof of insurance as specified and the Bidder and the Agency have executed the Contract.

If all Bids are rejected and no award is made, all Bid Guarantees will be returned within ten (10) days of the decision of the Board to not award the Contract.

### **3-7 EXECUTION OF CONTRACT**

Upon the approval from the Agency's governing Board to award the Contract to the lowest responsive and responsible bidder, the Contract shall be signed by the successful Bidder and returned to the Agency, together with the Performance Bond, Payment Bond and certificates of insurance within ten (10) calendar days of the Bidder's receipt of the documents. Receipt by the Agency of the signed documents from the Contractor constitutes "execution" of the Contract. Insurance certificates shall be signed by a person authorized by the insurer to bind coverage on its behalf and shall be accompanied by copies of all endorsements required by Section 3-9, "Insurance," of these Specifications. When requested by the Agency, the successful bidder shall furnish complete, certified copies of all required insurance policies, including endorsements specifically required by Section 3-9, "Insurance". After execution by the Agency, one copy of the Contract, bonds, and certificates of insurance will be returned to the Contractor.

### **3-8 FAILURE TO EXECUTE CONTRACT**

If the Bidder to whom the Contract is awarded fails to execute the Contract and file acceptable bonds and insurance certificates as provided herein within ten (10) calendar days from the time the Contract forms are received by the Bidder, the award may be annulled and the Bidder's Bid Guarantee forfeited to the Agency up to the full amount of the Bidder's Bid Guarantee. At the Agency's discretion, the Contract may then be awarded to the next lowest responsive, responsible Bidder.

If the Agency awards the Contract to the second lowest responsive, responsible Bidder, the lowest responsive, responsible Bidder's Bid Guarantee shall be applied by the Agency to the difference between the lowest Bid and the Bid of the second lowest responsive, responsible Bidder.

On refusal or failure of the second lowest responsive, responsible Bidder to execute the Contract, the Agency may award it to the third lowest responsive, responsible Bidder. If the Agency awards the Contract to the third lowest responsive, responsible Bidder, in addition to application of the lowest Bidder's Bid Guarantee as aforesaid, the second lowest responsive, responsible Bidder's Bid Guarantee shall be applied by the Agency to the difference between the Bid of the second lowest responsive, responsible Bidder and the Bid of the third lowest responsive, responsible Bidder.

Additionally, any forfeited Bid Guarantee shall be applied as necessary to reimburse for the costs incurred for failure of the successful Bidder(s) to enter into a contract. The surplus, if any, will be returned to the defaulting Bidder(s), if a check or cash is used, or credited to the surety on the Bidder's Bond, if a bond is used.

The amount of the Bid Guarantee shall not be deemed to constitute a penalty or liquidated damages. The Agency is not precluded by a Bid Guarantee from recovering from the defaulting Bidder damages in excess of the amount of said Bid Guarantee.

### **3-9 INSURANCE**

The Contractor shall procure, maintain, and keep in force at all times during the term of the Contract, at the Contractor's sole expense, the following minimum required insurance policies and limits which are intended for the protection of the Agency and the public. The Contractor's obligations for loss or damage arising out of the Contractor's work are in no way limited by the types or amounts of insurance set forth herein. In specifying minimum insurance requirements herein, the Agency does not assert that the

required minimum insurance is adequate to protect the Contractor. The Contractor is solely responsible to inform itself of the types and amounts of insurance it may need beyond these requirements to protect itself from loss, damage or liability. It is the sole responsibility of the Contractor to notify its insurance advisor or insurance carrier(s) regarding coverage, limits and forms specified in this Section.

The Agency reserves the right to modify the required minimum insurance coverages and limits depending on the scope and hazards of the Work.

Where a specific ISO form is referenced in these Specifications or the Contractor utilizes "a form or policy language as broad in scope and coverage" to satisfy the insurance requirements required herein, the Contractor must use the most recently approved State edition or revision of the form(s) or policy language to satisfy the insurance requirements.

### **3-9.01 General Liability**

Commercial General Liability insurance including, but not limited to, protection for claims of bodily injury and property damage, personal and advertising injury, contractual, and products and completed operations. Coverage must be at least as broad as "Insurance Services Office (ISO) Commercial General Liability Coverage Form CG 0001" (Occurrence Form) or a form as broad in scope and coverage. The limits of liability must be not less than:

Each Occurrence	Five Million Dollars (\$5,000,000)
Personal & Advertising Injury	One Million Dollars (\$1,000,000)
Products and Completed Operations Aggregate	Five Million Dollars (\$5,000,000)
General Aggregate	Five Million Dollars (\$5,000,000)

The Contractor's Commercial General Liability policy must contain the following provisions:

The Agency and the additional agencies and entities identified in the Special Provisions, their governing Boards, officers, directors, officials, employees, authorized agents and authorized volunteers (collectively, "Additional Insureds") must be included as Additional Insureds as respects liability caused, in whole or in part, by the acts or omissions of the Contractor, or the acts or omissions of those acting on behalf of the Contractor; or premises owned, occupied or used by the Contractor in conjunction with the Work. The required additional insured status of Agency may be satisfied by the following:

- A. Use of ISO Form CG 2010 11 85, if commercially available, – Additional Insured – Owners, Lessees, Or Contractors – Scheduled Person or Organization (or a form or policy language as broad in scope and coverage); or
- B. Use of ISO Form CG 2038 04 13 – Additional Insured – Owners, Lessees, Or Contractors – Automatic Status for Other Parties When Required in Written Construction Agreement (or a form or policy language as broad in scope and coverage); or
- C. Use of ISO Form CG 2033 04 13 – Additional Insured – Owners, Lessees, Or Contractors – Automatic Status When Required in Construction Agreement with You (or a form or policy language as broad in scope and coverage); or
- D. Use of CG 20 10 (all editions other than 11 85) – Additional Insured – Owners, Lessees, Or Contractors – Scheduled Person or Organization

### **3-9.01 A Additional Insured – Completed Operations**

Any issuance of an additional insured form other than ISO Form CG 2010 11 85 (which automatically includes Completed Operations for Additional Insureds) must also require issuance of an endorsement to add Completed Operations for the Additional Insureds. Contractor may utilize ISO Form CG 20 37 04 13

– Additional Insured – Owners, Lessees, Or Contractors – Completed Operations (or a form or policy language as broad in scope and coverage).

### **3-9.01 B Additional Insured – Protocols**

Any issuance of CG 20 10 (any edition) or a comparable form must utilize the following protocol:

Scheduled Name must be: All entities or persons as required by contract

Scheduled Locations must be: All locations as required by contract

And

Any issuance of CG 20 37 04 13 or a comparable form must utilize the following protocol:

Scheduled Name must be: All entities or persons as required by contract

Scheduled Locations must be: All locations as required by contract.

### **3-9.01 C General Aggregate Limits**

The Contractor's Commercial General Liability insurance policy must include an endorsement or policy language stating that any General Aggregate limits must apply separately to the Work using ISO CG 25 03 05 09 (or a form or policy language as broad in scope and coverage).

### **3-9.01 D Waiver of Subrogation**

The Contractor's Commercial General Liability policy must include a waiver of subrogation in favor of the Additional Insureds. Such waiver of subrogation must be on ISO Form CG 24 04 10 93 – Waiver of Transfer of Rights of Recovery Against Others to Us (or a form or policy language as broad in scope and coverage).

### **3-9.01 E Primary Insurance**

The Contractor's Commercial General Liability policy must contain an endorsement using ISO Form CG 20 01 04 14 (or a form or policy language as broad in scope and coverage) that for any claims related to this Contract, the Contractor's insurance coverage must be primary insurance as respects the Agency and the additional agencies and entities identified in the Special Provisions, their governing Boards, officers, directors, officials, employees, authorized agents and authorized volunteers (Additional Insureds). Any insurance or self-insurance maintained by the Additional Insureds must be excess of the Contractor's insurance, whether the Contractor's insurance is self-insurance, a primary Commercial General Liability policy, excess or umbrella policy, or a combination thereof, and must not contribute with it.

### **3-9.01 F Separation of Insured**

The Contractor's Commercial General Liability policy must 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.

### **3-9.01 G Insurance Proceeds**

If the Contractor maintains higher limits than the minimums shown above, whether on a primary or excess basis, the Agency requires and must be entitled to coverage with the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverages shall be available to the Agency.

### **3-9.01 H Extension of Completed Operations**

The Contractor must maintain the required Commercial General Liability policy, including Completed Operations, at not less than the required minimum limits, for not less than two (2) years after Final Acceptance of the Work. The Contractor must furnish the Agency with original certificates and copies of required amendatory endorsements, or original certificates and copies of the applicable insurance policy language effecting coverage required by this contract; or a combination thereof, for the required two (2)

years.

### **3-9.01 I Contractual Limitations**

The Contractor is expressly prohibited from using either ISO or manuscript endorsements that are intended to remove or restrict contractual coverage for an Additional Insured, or an indemnitee in a hold harmless agreement, under the Contractor's Commercial General Liability policy. Such endorsements include, but are not limited to, ISO CG 21 39 10 93 and CG 24 26 04 13; or later approved State editions or revisions.

### **3-9.01 J Additional Insured Requirements for Sub-Contractors**

The Contractor must require each of its subcontractors, at every tier, to include the Agency and the additional agencies and entities identified in the Special Provisions, their governing Boards, officers, directors, officials, employees, authorized agents and authorized volunteers as Additional Insureds. Where commercially available, the Contractor must require its subcontractors to use ISO Form CG 20 38 04 13 – Additional Insured – Owners, Lessees, Or Contractors – Automatic Status for Other Parties When Required in Written Construction Agreement (or a form or policy language as broad in scope and coverage). If not commercially available, any other additional insured form or policy language may be used by subcontractors, subject to the Contractor's approval.

The Contractor must also require each of its subcontractors, at every tier, to include the Agency and the additional agencies and entities identified in the Special Provisions, their governing Boards, officers, directors, officials, employees, authorized agents and authorized volunteers as Additional Insureds for Completed Operations utilizing an ISO form, if commercially available, or other form or policy language as broad in scope and coverage.

It is the express duty of the Contractor that it verify that its subcontractors, at every tier, have endorsed their respective Commercial General Liability policies to comply with this section to include the Agency and the additional agencies and entities identified in the Special Provisions, their governing Boards, officers, directors, officials, employees, authorized agents and authorized volunteers as Additional Insureds, including Completed Operations, and in compliance with the protocols as required herein.

Failure of the Contractor to obtain additional insured status for the Agency and the additional agencies and entities identified in the Special Provisions, their governing Boards, officers, directors, officials, employees, authorized agents and authorized volunteers by its subcontractors, at every tier, shall be considered a material breach of the Contract.

### **3-9.02 Automobile Liability**

Automobile Liability insurance providing protection for bodily injury and property damage arising out of ownership, operation, maintenance, or use of owned, hired, and non-owned automobiles. Coverage must be at least as broad as ISO Business Auto Coverage Form CA 0001 (or a form or policy language as broad in scope and coverage), symbol 1 (any auto), if commercially available. Use of any symbols other than symbol 1 for liability for corporate/business owned vehicles must be declared to and approved by the Agency in writing. If there are no owned or leased vehicles, symbols 8 and 9 for non-owned and hired autos must apply.

The Contractor's Commercial Automobile Liability policy must include the Agency and the additional agencies and entities identified in the Special Provisions, their governing Boards, officers, directors, officials, employees, authorized agents and authorized volunteers as indemnitees and additional (designated) insureds as required by the Contract.



The minimum limits of liability must not be less than:

Corporate/business owned:	
Vehicle Type and Weight	Minimum Limits
Private passenger	\$1,000,000 Combined Single Limit
Light or medium rated trucks	\$2,000,000 Combined Single Limit
Heavy, extra-heavy or tractor trailer	\$5,000,000 Combined Single Limit*

\*Note: Commercial Auto Policies do not allow application of limits by vehicle. If the Contractor will utilize any heavy, extra-heavy, or tractor trailer vehicles on the Work, then the minimum \$5,000,000 must be required regardless of the number or mix of vehicles. A Commercial Auto Policy with \$1,000,000 Combined Single Limit and an Excess or Umbrella Policy with not less than \$4,000,000 Each Occurrence will satisfy the \$5,000,000 requirement.

If there are no corporate/business owned vehicles, then personal automobile insurance requirements apply to any individually owned personal vehicles used by the Contractor on the Project.

The limits of liability for personal automobile insurance must not be less than:

Individually owned vehicles: \$300,000 Combined Single Limit or, if split limits are used, \$100,000 per person, \$300,000 each accident, \$100,000 property damage.

### **3-9.03 Workers' Compensation**

Workers' Compensation insurance shall be provided, with coverage as required by the State of California (unless the Contractor is a qualified self-insurer with the State of California), and Employers' Liability coverage. The minimum limits of Employers' Liability are:

Each Accident	One Million Dollars (\$1,000,000)
Disease Each Employee	One Million Dollars (\$1,000,000)
Disease Policy Limit	One Million Dollars (\$1,000,000)

The Workers' Compensation policy required hereunder must be endorsed to state that the Workers' Compensation carrier waives its right of subrogation against the Agency and the additional agencies and entities identified in the Special Provisions, their governing Boards, officers, directors, officials, employees, authorized agents and authorized volunteers. In the event the Contractor is self-insured, the Contractor must furnish a Certificate of Permission to Self-Insure by the Department of Industrial Relations Administration of Self-Insurance, Sacramento.

### **3-9.04 Excess or Umbrella Liability**

The contractor is granted the option of arranging the required coverages and limits under a single policy or by a combination of underlying policies with the balance provided by an Excess or Umbrella liability policy equal to the total Per Occurrence and Aggregate limits required on the Commercial General Liability policy and the Combined Single Limit on the Commercial Automobile Liability policy.

The Agency and the additional agencies and entities identified in the Special Provisions, as Additional Insureds, require and must be entitled to coverage for the higher limits maintained by the Contractor on any Excess or Umbrella policy. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverages must be available to the Agency and the Additional Insureds before the Agency's and the Additional Insureds' available self-insurance, primary insurance or excess insurance must be called upon to protect the Additional Insureds.

### **3-9.05 Contractor's Equipment**

The Contractor, and each of its Subcontractors, must separately insure its own equipment for loss and damage. The Contractor's Property and Inland Marine policies, and including every Subcontractor at every tier, must include, or be endorsed to include, a waiver of subrogation for the benefit of the Agency, its governing Board, officers, directors, officials, employees, and authorized agents and volunteers which might arise by reason of damage to the Contractor's or Subcontractor's property or equipment (owned, leased, hired or borrowed) in connection with work performed under this Contract by the Contractor or any Subcontractor at any tier.

### **3-9.06 Railroad Protective Liability**

When stated as a requirement in the Special Provisions, the Contractor must procure, maintain, and keep in force at all times during the term of the Contract, at the Contractor's sole expense, Railroad Protective Liability insurance, and other related coverages with limits of liability as set forth in the Special Provisions.

### **3-9.07 Builder's Risk Insurance**

When required by the Special Provisions, the Contractor shall procure, maintain, and keep in force at all times during the term of the Contract and until the date of transfer of the insurable interest to and acceptance by the Agency, at the Contractor's sole expense, Builder's Risk insurance with limits of liability not less than one hundred (100) percent of the contract value of the work. Valuation shall include the cost of materials and the cost of labor to install materials. The Contractor shall utilize the separate bid item for providing the cost of the specified Builder's Risk insurance, which is included in the Bid Form.

1. Coverage shall be written on a loss limit basis without application of coinsurance and shall cover the project sites and adjacent property against all risks of physical loss or damage on a replacement cost basis and shall include:
  - a. Land movement and flood.
  - b. Loss that ensues from design error, defective materials, or faulty workmanship.
  - c. Mechanical breakdown or electrical damage including testing, magnetic disturbance and changes in temperature or humidity disturbance, and changes in temperature or humidity.

The property covered shall include the Work, including any materials, equipment, or other items to be incorporated therein while the same are located at the construction site, stored off site, while in transit or at the place of manufacture. The policy shall contain a provision that both the interests of the Agency and the Contractor are covered and that any loss shall be payable to the Agency and the Contractor as their interests may appear.

When stated as a requirement in the Special Provisions, Builder's Risk insurance shall include Delay in Opening coverage with limits of liability, and for the period of time, as set forth in the Special Provisions. Coverage shall include debt service, expense, loss of earnings or rental income or other loss incurred by the Agency, without deduction, due to the failure of the project being completed on schedule.

2. The maximum deductible for land movement and flood allowable under this policy shall be five (5) percent of replacement value at the time loss or one hundred thousand dollars (\$100,000), whichever is less, per occurrence and in the aggregate. The maximum deductible for all other perils allowable under this policy shall be ten thousand dollars (\$10,000). All deductibles shall be borne solely by the Contractor, and the Agency shall not be responsible to pay any deductible, in whole or in part.
3. The Agency and the Contractor waive all rights against each other and against all other contractors for loss or damage to the extent reimbursed by Builder's Risk insurance or any other

property or equipment insurance applicable to the Work, except such rights as they may have to the proceeds of such insurance. If the policies of insurance referred to in this section require an endorsement or consent of the insurance company to provide for continued coverage where there is a waiver of subrogation, the owners of such policies will cause them to be so endorsed to obtain such consent.

4. If not covered by Builder's Risk insurance or any other property or equipment insurance required by this Contract, the Contractor shall procure, maintain, and keep in force at all times during the term of the Contract, at the Contractor's sole expense, property insurance for portions of the Contractor's work and/or equipment to be incorporated therein stored offsite or in transit.

### **3-9.08 Contractor's Pollution Liability Insurance**

The Contractor must procure, maintain, and keep in force at all times during the term of the Contract, at the Contractor's sole expense, Contractor's Pollution Liability (CPL) insurance which provides coverage for liability arising from the sudden and accidental release of pollution on the project site or transportation of pollutants from or to the project site. The CPL must provide coverage for:

1. Insuring all of the services the Contractor provides in the normal course of operations under the Contract. Partial operations coverage is unacceptable.
2. Bodily injury, sickness, disease, sustained by any person, including death.
3. Property damage includes physical injury to or destruction of tangible property including the resulting loss of use thereof; clean-up costs, and the loss of use of tangible property that has not been physically injured or destroyed including diminution of value and Natural Resources damages.
4. Defense costs including costs, charges and expenses incurred in the investigation, adjustment or defense of claims.
5. Contractual liability coverage, e.g. coverage for liability assumed by the named insured under a written contract or agreement.
6. The full scope of the Contractor's operations as described within the scope of the Work.
7. The policy must provide coverage for third-party claims arising from owned and non-owned disposal sites utilized in the performance of this Contract.
8. This coverage can be provided on either claims made or occurrence based policy form.
9. The policy must insure contractual liability, be Primary and Non Contributory and name Agency and the Additional Insureds as additional insureds.

The Contractor's CPL insurance shall be in the amount of not less than one million dollars (\$1,000,000) per claim (or pollution incident) and two million (\$2,000,000) aggregate

The Contractor or its subcontractors, if involved with the removal of asbestos or lead, the removal/replacement of underground tanks, or use of toxic chemicals and substances, must purchase and thereafter maintain CPL insurance in the amount of not less than five million dollars (\$5,000,000) per claim (or pollution incident) and five million (\$5,000,000) aggregate.

If the CPL coverage is written on a claims-made form, the following provisions apply:

1. The "Retro Date" must be shown, and must be on or before the date of the Contract or the beginning of the Work.
2. Contractor must maintain the required CPL policy at not less than the required minimum limits, for not less than one (1) year after Final Acceptance of the Work.

3. If coverage is cancelled or non-renewed, and not replaced with another claims-made policy form with a "Retro Date" prior to the Contract effective date, the Contractor must purchase "extended reporting" coverage for a minimum of one (1) year after Final Acceptance of the Work.

### **3-9.09 Liability Insurance For Water Based Construction**

For contracts constructed in whole or in part using barges or other vessels, in addition to the General Liability coverage specified above for non-marine liability exposures, the Contractor shall maintain Protection and Indemnity coverage (including a Tower's Liability endorsement and *Jones Act endorsement* [covering injury to a vessel's seamen]) for marine liability. To provide insurance coverage over the construction operations and completed operations, the "specialty contracting exclusion" of the Protection and Indemnity policy shall be deleted. The limit of liability shall be ten million dollars (\$10,000,000).

In addition to the Worker's Compensation and Employers' Liability specified above, the Contractor shall maintain coverage for Longshore and Harbor Worker's Compensation Act Coverage Endorsement. The Longshore endorsement covers workers on (or near) navigable waters but excludes the crew of a ship. The Jones Act endorsement covers the master and crew.

The Contractor shall maintain property (inland marine) coverage for the equipment used on the project (at actual cash value or replacement cost) and have the insurance carrier providing the coverage waive its rights of subrogation against the Agency.

### **3-9.10 Other Provisions**

1. The Contractor must maintain all insurance coverages and limits in place at all times and provide the Agency with evidence of each policy's renewal within ten (10) Calendar Days after its anniversary date. The Contractor is required by this Agreement to immediately notify Agency if it receives a communication from its insurance carrier or agent that any required insurance is to be canceled, non-renewed, reduced in scope or limits (excepting reduction of limits due to claims) or otherwise materially changed. The Contractor must provide evidence that such cancelled or non-renewed or otherwise materially changed insurance has been replaced or its cancellation notice withdrawn without any interruption in coverage, scope or limits. If commercially available, each insurance policy must state that coverage must not be cancelled by the Contractor or its insurer, reduced in scope of coverage or limits (excepting reduction by claims), non-renewed, or otherwise materially changed unless the insurer(s) provide thirty (30) Calendar Days written notice to the Agency prior to such change. Ten (10) Calendar Days prior written notice must be given to the Agency in the event of cancellation due to nonpayment of premium.
2. Failure to maintain required insurance in force shall be considered a material breach of the Agreement.
3. All of the Contractor's insurance coverage, except as noted below, must be placed with insurance companies with a current A.M. Best rating of at least A-:VII and admitted to write insurance in California. Any use of a non-admitted insurer must be disclosed and must require Agency approval in writing, which approval will not be unreasonably withheld.

Exceptions:

- a. Underwriters at Lloyd's of London, which are not rated by A.M. Best.
- b. Workers' Compensation which is provided through a State Compensation Insurance Fund or a qualified self-insurer for Workers' Compensation under California law.

4. The Contractor must sign and file with the Agency the following certification prior to commencing performance of the work of the Contract:

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

Said certification is included in the Contract, and signature and return of the Contract will constitute signing and filing of the said certification.

5. The Agency, at its discretion, may require new types of insurance coverage or increase the limits of insurance coverage required hereunder at any time during the term of the Contract by giving thirty (30) Calendar Days written notice to the Contractor. Contractor must immediately procure such insurance or increase the limits of coverage and provide certificates of insurance, including copies of all required endorsements, to the Agency within thirty (30) Calendar Days of receipt of the Agency’s request. Agency’s requirements will be reasonable but will be imposed to assure protection from and against the kind and extent of risks that exist at the time a change in insurance is required. Any claim by the Contractor that the Agency’s insurance changes result in higher costs will be subject to review and approval by Agency, whose approval will not be unreasonably withheld.
6. All required insurance coverage herein shall be subject to the approval of the Agency, but any acceptance of insurance certificates and endorsements by the Agency will in no way limit or relieve the Contractor of its duties and responsibilities in this Contract.
7. If the Contractor fails to procure or maintain insurance as required by this Section and any Special Provisions, or fails to furnish the Agency with proof of such insurance, the Agency, at its discretion, may procure any or all such insurance. Premiums for such insurance procured by the Agency shall be deducted and retained from any sums due the Contractor under the Contract. Failure of the Agency to obtain such insurance will in no way relieve the Contractor from any of the Contractor’s responsibilities under the Contract. Any failure of the Contractor to maintain any item of the required insurance will be considered a material breach of the Contract.
8. The making of progress payments to the Contractor shall not be construed as relieving the Contractor of responsibility for loss or damage, or destruction occurring prior to Final Acceptance by the Agency.
9. The Agency is authorized to execute amendments and waivers, with or without conditions, to the insurance requirements of the Contract. The Agency will provide such amendments or waivers in writing to the Contractor.
10. Contractor is responsible for the acts and omissions of all its subcontractors, at every tier, and shall require all its subcontractors to maintain adequate levels of insurance, including required endorsements and policy coverages, as stated herein.
11. The failure of the Agency to enforce in a timely manner any of the provisions of this Section shall not act as a waiver to enforcement of any of these provisions at any time during the term of the Contract.

### **3-9.11 Deductibles and Self-Insured Retention**

Any deductible or self-insured retention that applies to Commercial General Liability or Automobile Liability must be declared to the Agency. Any deductibles or self-insured retention in excess of \$100,000 must be declared to and accepted by Agency in writing. Contractor has the option to provide by separate letter the amount of its General Liability, Automobile Liability, and, if applicable, CPL deductible or self-

insured retention to Agency's Risk Management Office for Agency's confidential review and acceptance prior to the execution of this Agreement. Agency reserves the right to require Contractor to substantiate its ability to maintain a deductible or self-insured retention in excess of \$100,000 through furnishing appropriate financial reports. All deductibles or self-insured retentions shall be borne solely by the Contractor, and the Agency will not be responsible to pay any deductible or self-insured retention, in whole or in part.

### **3-9.12 Verification of Coverage**

The Contractor must furnish the Agency with original certificates and copies of required amendatory endorsements, or original certificates and copies of the applicable insurance policy language effecting coverage required by these Specifications; or a combination thereof. The Agency reserves the right to require that the Contractor also provide a copy of the declarations page and a copy of the schedule of forms and endorsements of each policy of insurance required hereunder. The Agency also reserves the right to require that the Contractor, through its broker, provide explanatory memoranda regarding coverages, endorsements, policy language, or limits as required hereunder. All required verifications of coverage are to be received and approved by the Agency before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The Agency reserves the right to require complete copies of all required insurance policies, including endorsements, required by these Specifications, at any time. If the Contractor utilizes proprietary coverage forms or endorsements, the Contractor has the option of having its broker provide explanatory memoranda confirming coverage and limits as required hereunder.

The Agency may approve self-insurance programs in lieu of required policies of insurance if, in the opinion of the Agency, the interest of the Agency and the public is adequately protected.

### **3-9.13 Notification of Claim or Lawsuit**

If any claim for damages is filed with the Contractor or if any lawsuit is instituted against the Contractor that arises out of or is in any way connected to the Contractor's performance under the Contract, and in any way, directly or indirectly, contingently or otherwise, affects or might reasonably affect the Agency, the Contractor shall give prompt and timely (within thirty (30) Calendar Days following the date of receipt of a claim or ten (10) Calendar Days following the date of service of process of a lawsuit) written notice thereof to Agency.

## **3-10 ESCROW BID DOCUMENTS**

If noted in the Special Provisions, the three low bidders shall submit one copy of all documentary information generated in preparation of bid prices for this project. This material is hereinafter referred to as Escrow Bid Documents (EBDs).

The successful Bidder agrees, as a condition of award of the Contract, that the EBDs constitute the only complete documentary information used in preparation of his bid. No other bid preparation information will be considered in resolving disputes.

Nothing in the EBDs changes or modifies the terms or conditions of the Contract.

### **3-10.01 Ownership**

The EBDs are and will always remain the property of the Contractor subject only to joint review by the Agency and the Contractor, except as provided for herein.

The Agency stipulates and expressly acknowledges that the EBDs, as defined herein, constitute trade secrets. This acknowledgment is based on the Agency's express understanding that the information contained in the EBDs is not known outside the Contractor's business, is known only to a limited extent and only by a limited number of employees of the Contractor, is safeguarded while in the Contractor's possession, and is extremely valuable to competitors by virtue of it reflecting the Contractor's contemplated techniques of construction.

The Agency acknowledges that EBDs and the information contained therein are made available to the Agency only because the action is an express prerequisite to award of the Contract. The Agency acknowledges that the EBDs include a compilation of information used in the Contractor's business, intended to give the Contractor an opportunity to obtain an advantage over competitors who do not know of or use the contents of the documentation. The Agency agrees to safeguard the EBDs and all information contained therein to the fullest extent permitted by law.

### **3-10.02 Purpose**

EBDs will be used to assist in the negotiation of price adjustments and variations and in the settlement of disputes, claims and other controversies. They will not be used for pre-award evaluation of the Contractor's anticipated methods of construction or to assess the Contractor's qualifications for performing the Work.

### **3-10.03 Format and Contents**

EBDs may be submitted in the Bidder's usual cost estimating format. It is not intended that extra work be required in preparing the bid, but the EBDs must be adequate to enable complete and proper understanding and proper interpretation for their intended use. The EBDs must be in the English language only.

The EBDs must clearly itemize the estimated costs of performing the work of each item contained in the Bid Schedule. Items should be separated into sub-items as required to present a complete and detailed cost estimate and allow a detailed cost review. The EBDs must include all quantity take-offs, crews, equipment, calculations of rates of production and progress, copies of quotations from sub-Contractors and suppliers, and memoranda, narratives, consultants reports, add/deduct sheets and all other information used by the Contractor to arrive at the prices contained in the bid. Estimated costs must be broken down into the Contractor's usual estimate categories such as direct labor, repair labor, equipment operation, equipment ownership, expendable materials, permanent material and subcontract costs as appropriate. Plant and equipment and indirect costs should be detailed in the Contractor's usual format. The Contractor's allocation of plant and equipment, indirect costs, contingencies, mark-up and other items to each bid item must be clearly indicated.

The EBDs must clearly show in calculations, text, or both, the relationship between baseline indications presented in the Contract Documents and assumptions that form the basis for the Contractor's means, methods, equipment selection, rates of production, and costs.

All costs must be identified. For bid items with an extended amount less than \$10,000, estimated unit costs are acceptable without a detailed cost estimate, provided that labor, equipment, materials and subcontracts, as applicable, are included and indirect costs, contingencies, and mark-up, as applicable, are allocated.

Bid Documents provided by Agency should not be included in the EBDs unless needed to comply with the above requirements.

### **3-10.04 Submittal**

The three lowest Bidders shall submit the EBDs in a sealed container (e.g., sealed envelope, box or carton sealed with tape, locked strongbox, etc.), and the container must be clearly marked on the outside with the Bidder's name, date of submittal, project name, Contract number, and the words "Escrow Bid Documents". The EBDs shall be submitted by 4:00 PM on the first Monday following the Bid Opening to:

Sacramento County Department of General Services  
Contract and Purchasing Services Division  
9660 Ecology Lane  
Sacramento, CA 95827

The EBDs must be accompanied by the "Bid Documentation Certification", signed by an individual authorized by the Bidder to execute the Bid, stating that the material in the Escrow Bid Documentation constitutes all the documentary information used in the preparation of the Bid and that he or she has personally examined the contents of the EBDs container and has found that the documents in the container are complete.

#### **"Escrow Bid Document Certification"**

The undersigned hereby certifies that the bid documentation contained herein constitutes all the information used in preparation of the Bid and that I have personally examined these contents and have found that this bid documentation is complete.

Signature:

Print Name:

Title:

Firm:

Date::

Prior to award of the contract, the EBDs will be examined, organized and inventoried by representatives of the Agency, together with members of the Contractor's staff who are knowledgeable in how the bid was prepared. This examination is to ensure that the EBDs are authentic, legible, and complete. It will not include review of and will not constitute approval of proposed construction methods, estimating assumptions, or interpretations of the contract documents. Examination will not alter any condition(s) or term(s) of the Contract.

If all documentation required in the "Format and Contents" section hereof has not been included in the original submittal, additional documentation must be submitted, at the Agency's discretion, prior to award of the Contract. The detailed breakdown of estimated costs must be reconciled and revised, if appropriate, by agreement between the Contractor and Agency before making the award.

Timely submission of the complete EBDs is an essential element of the low Bidder's responsibility and a prerequisite to Contract award. Failure to submit EBDs within the specified time frame may render the Bid non-responsive.

If the Bidder's Bid is based on subcontracting any part of the Work, each Subcontractor whose total subcontract price exceeds five (5) percent of the total contract price proposed by the Bidder must provide separate EBDs to be included with those of the Bidder. These documents will be opened and examined in the same manner and at the same time as the examination described above for the apparent successful Bidder. Failure of the Bidder to submit his subcontractors' EBDs within the specified time frame may render the Bid non-responsive.



If the Contractor subcontracts any portion of the Work after award, the Agency retains the right to require the Contractor to submit EBDs from the Subcontractor before the subcontract is approved. This Section is not intended to and shall not be interpreted as a waiver by the Agency of any of the requirements or provisions of Public Contract Code Section 4100 et seq. known as the Subletting and Subcontracting Fair Practices Act.

### **3-10.05 Storage**

The EBDs will be stored by the Contract and Purchasing Services Division, Sacramento County Department of General Services, unless the Contractor requests, in writing, that the EBDs be placed in escrow with a mutually agreeable third-party escrow agent. The cost of storage by a third-party escrow agent will be borne by Contractor.

### **3-10.06 Examination**

The EBDs can be examined by both the Agency and the Contractor, at any time deemed necessary by either Agency or the Contractor, to assist in the negotiation of price adjustments and change orders or the settlement of disputes and Contractor claims. As trade secrets, the EBDs are proprietary and confidential as described above.

Examination Process: both the Agency and the Contractor acknowledge that there may be a number of instances when examination of the EBDs may be necessary or requested. The following process shall be followed for each examination of the EBDs.

- a. Either Agency or Contractor may request, in writing to the other, examination of the EBDs. Examination shall occur no later than twenty (20) calendar days from the date of the request for examination. Within ten (10) calendar days from the date of the request to examine, Agency and Contractor will each designate, in writing to the other party, representatives who are authorized to examine the EBDs. No other persons other than the designated representatives will have access to the EBDs during that examination.
- b. Access to the EBDs will take place only in the presence of duly designated representatives of both the Agency and the Contractor. If representatives from either party fail to appear for the examination, the examination will be continued for a period not to exceed five (5) calendar days.
- c. If the representatives of either party fail to appear at the rescheduled examination date, or refuse to appear for the examination, access and the examination of the EBDs may proceed by the requesting party alone. In such an event, the escrow agent shall provide a witness to the examination in order to prevent the editing, amending or removal of any EBDs. Any costs incurred due to the failure or refusal to appear for the examination of the EBDs shall be borne by the party that fails or refuses to appear for the examination.

### **3-10.07 Final Disposition**

The EBDs will be returned to the Contractor when the Contract has been completed and final settlement has been achieved.

The EBDs submitted by unsuccessful bidders will be returned unopened, unless opened as provided for above, following execution of the Contract.

This Specification is not intended to create confidential status to EBDs in the event of litigation between the Contractor and the Agency. If litigation occurs, all EBDs are subject to discovery and are not considered confidential. If litigation commences between the Agency and the Contractor, upon ten (10) Calendar Days written notice to the Contractor, the Agency may demand and the Contractor must permit the Agency to copy all materials submitted into a third-party escrow agent pursuant to this Specification.

## **SECTION 4 SCOPE OF WORK**

### **4-1 INTENT OF CONTRACT DOCUMENTS**

The Work shall be performed and completed according to the Contract documents. The Contract documents provide the details for completing the Work in accordance with the terms of the Contract. Each Contract document is an integral part of the Contract, and a requirement occurring in one is as binding as though occurring in all. The Contract documents shall be interpreted as being explanatory and complementary in requiring complete work ready for use and occupancy or operation in satisfactory working condition with respect to the functional purposes of the installation.

The Contractor shall do all of the work and furnish all labor, materials, tools, equipment, and appliances, except as otherwise herein expressly stipulated, necessary or proper for performing and completing the work herein required, including any Change Order work or disputed work directed by the Agency in conformity with the true meaning and intent of the Contract drawings, Specifications, and all provisions of the Contract, within the time specified.

All work shown on the Plans, the dimensions of which are not figured, shall be accurately followed to the scale to which the drawings are made; however, figured dimensions shall in all cases be followed, even if they differ from scaled measurements. Full-size drawings shall be followed in the execution of the Work.

If the Contract does not specifically allow the Contractor a choice of quality or cost of items to be furnished, but could be interpreted to permit such a choice, the Contractor shall furnish the highest quality under current industry standards, regardless of the cost of the item.

Unless otherwise specified, the Contractor agrees to furnish all tools, equipment, apparatus, facilities, labor, material, and transportation necessary to perform and complete the Work in a good and workmanlike manner to the satisfaction of the Agency, in the manner designated, and in strict conformity to the Contract. When portions of the Work are described in general terms, but not in complete detail, it is understood that the Contractor will employ only the best general practice and incorporate only the best quality materials and workmanship in the Work.

No extra compensation will be allowed for anything omitted but fairly implied. The prices paid for the various items will include full compensation for furnishing all labor, materials, tools, equipment, overhead, and incidentals and doing all work necessary to complete the Work as provided in the Contract. The prices paid include all markups and profit.

If the Contractor discovers any discrepancies during the course of the Work between the Contract drawings and conditions in the field, or any errors or omissions in the Contract drawings and conditions in the field, or any errors or omissions in the Contract drawings, the Specifications, or in the layout given by stakes, points, or instructions, it shall be the Contractor's duty to inform the Agency immediately, and the Agency shall promptly verify the same. Any work done after such discovery, until authorized by the Agency, will be done at the Contractor's risk.

### **4-2 PLANS AND SPECIFICATIONS FURNISHED**

The Agency will provide, at no cost to the Contractor, copies of Project Plans (except Sacramento City and County Standard Drawings or State Plans), Project Specifications (except Sacramento City or County Standard Construction Specifications or the State Specifications), and the fully executed Contract for the Contractor's use in prosecuting the Work. The total number of copies of the Plans and Specifications provided shall equal the total of three copies to the prime Contractor plus one copy to each of the subcontractors listed in the Bid. The Contractor may purchase additional copies of Project Plans and Project Specifications at cost.

The Contractor shall retain an approved set of Contract documents on the job during the progress of the Work. This set shall be used by the Contractor as the Record Drawings as described in Section 11-3, "Record Drawings," of these Specifications.

#### **4-3 CONFORMANCE WITH CODES AND STANDARDS**

The Work shall be in full compliance with the latest adopted edition of the following applicable standards and regulations:

- The State Fire Marshal
- The UBC
- Title 8
- Title 24
- The NEC
- The UPC
- Other codes, laws or regulations applicable to the Work or the Contract

Nothing in the Contract is to be construed to permit work not conforming to these requirements. When the work detailed in the Plans and Specifications differs from governing codes, the Contractor shall complete the Work in accordance with the higher standard. If the higher standard is more expensive than the work detailed in the Plans and Specifications, the Contractor will be compensated for the Contractor's additional costs by Contract Change Order as provided in Section 9, "Changes and Claims," of these Specifications.

#### **4-4 SUPPLEMENTAL DRAWINGS**

In addition to the Plans incorporated in the Contract at the time of signing, the Agency may furnish Supplemental Drawings as necessary to clarify or define in greater detail the intent of the Contract. In furnishing such Supplemental Drawings, the Agency may make minor changes in the Work, not involving extra cost and not inconsistent with the nature of the Work. The Supplemental Drawings shall become a part of the Contract.

#### **4-5 FIELD INSTRUCTIONS OR OTHER WRITTEN DIRECTIVES**

The Agency may issue Field Instructions or other written directives during the course of the Work, and the Contractor shall comply with the Field Instruction or other written directive. A Field Instruction or other written directive may be used to add, delete, modify, or reject work, to note deficiencies in work, to clarify the Contract or to order work to be performed. Work required by a Field Instruction or other written directive shall be in accordance with the Contract and any previously executed Contract Change Orders, except as delineated otherwise in the Field Instruction or other written directive. Drawings included with Field Instructions or other written directives are part of the Contract and shall be incorporated into the Record Drawings.

If the Contractor refuses or neglects to comply with or make progress in the execution of any Field Instruction or other written directive, the Agency may employ any person or persons to perform such work, and the Contractor shall not interfere with the person or persons so employed.

At appropriate intervals, Field Instructions and other written directives that alter the Contract will be grouped to form a Contract Change Order as described in Section 9, "Changes and Claims," of these Specifications.

#### **4-6 DOCUMENT PRECEDENCE**

The component Contract documents are intended to provide explanation for each other.

Any work shown on the Plans and not in the Specifications, or vice versa, is to be executed as if indicated in both. In case of conflict in the Contract, the following order of precedence will govern interpretation of the Contract:

1. Field Instructions or other written directives
2. Special Provisions
3. Technical Provisions
4. Project Plans
5. General Specifications
6. County/City Standard Drawings
7. County/City Standard Specifications
8. State Standard Plans
9. State Standard Specifications

Any work for which there are no provisions in these Specifications, the Special or Technical Provisions, or on the Contract drawings, shall be performed in accordance with the provisions of the State Standard Specifications and/or the State Standard Plans.

#### **4-7 REQUESTS FOR INFORMATION**

##### **4-7.01 General**

Contractor shall prepare a Request for Information (RFI) when additional information, clarification, or interpretation of the Contract is required. RFI's may also be used for apparent conflicts, inconsistencies, ambiguities, or omissions.

RFI's shall be submitted to the Agency sufficiently in advance of the work to permit time for investigation and preparation of a response. Any work undertaken prior to receipt of a response to an RFI will be at the Contractor's risk. Contract time extensions will not be granted due to the Contractor's failure to submit an RFI sufficiently in advance of the work to permit a response by the Agency in accordance with Section 4-7.03, "Response" of these Specifications.

RFI's shall not be used for submittals or for substitution of material or equipment, or for waiving of requirements.

##### **4-7.02 Procedure**

An RFI shall be submitted on an approved form as defined at the preconstruction meeting, and shall be numbered consecutively. A status log shall be prepared and updated by the Contractor and reviewed with the Agency at each progress meeting. Each RFI shall deal with only one topic, item, issue, or system.

The RFI shall clearly describe and specifically state what is being requested. Relevant portions of the Contract shall be cited, marked-up, and attached.

The Contractor shall review each RFI before submittal and compare it with the Contract to verify that a response is required. RFI's will only be accepted from the Contractor and not from subcontractors or suppliers. A recommendation or proposed solution may be included when appropriate or expedient.

RFI's that are not clear or RFI's for which a response is clearly identified in the Contract will not be accepted.

#### **4-7.03 Response**

Unless noted otherwise in the Special Provisions, the Agency will normally provide a written response within fifteen (15) Working Days of receipt of the RFI. The Contractor shall comply with the written response in accordance with Section 4-5, "Field Instructions or Other Written Directives," of these Specifications.

The Contractor shall indicate a priority for responses to RFI's if more than five (5) RFI's are pending at the same time. In case of a dispute between the Contractor and the Agency, protest may be made as provided in Section 9-16, "Dispute Regarding Contract Requirements," of these Specifications.

Subsequent resubmittals of an RFI shall be identified with the same RFI number and a letter designation. Resubmittals shall clearly state the reason for the resubmittal. The Agency will normally respond within fifteen (15) Working Days of receipt of the resubmitted RFI.

Responses to RFI's shall be recorded by the Contractor on the Record Documents in accordance with Section 11-3, "Record Drawings," of these Specifications.

#### **4-8 DELETED ITEMS**

The Agency may delete from the Work any item of work or any portion of an item of work. For lump sum items, the Contractor will be paid for all work done toward the completion of the item prior to such deletion, as provided in Section 9, "Changes and Claims," of these Specifications. For unit price items, the Contractor will be paid for all work done toward the completion of the item based on actual quantities installed, as provided in Section 9, "Changes and Claims," of these Specifications. In no event will the amount paid exceed the Bid amount or Schedule of Values amount less the value of the deleted work.

The Contractor shall make no claim, nor receive any compensation for profits, for loss of profit, for damages, or for any extra payment whatever because of any deleted items of work.

#### **4-9 EXTRA WORK**

Work not covered by the Contract but necessary for the proper completion of the Project will be classed as extra work and shall be performed by the Contractor when directed in writing by the Agency. Extra work shall be performed in accordance with the Contract and as directed by the Agency.

Extra work must be authorized in writing by the Agency before the work is started. Payment for extra work will not be made unless such prior written authorization is obtained.

In the event of an emergency or other situation that endangers the Work or endangers public safety, the Agency will direct the Contractor to perform such extra work necessary to protect the Work or the public.

#### **4-10 USE OF COMPLETED PORTIONS**

The Agency has the right during the progress of the Work to take over and place in service any completed or partially completed portion of the Work. Taking possession shall not be deemed acceptance of any other portions of the Work, nor work on those portions not completed in accordance with the Contract.

#### **4-11 LANDS AND RIGHTS-OF-WAY**

The Agency shall provide the lands, rights-of-way, and easements upon which the Work is to be done, and such other lands as may be designated on the Plans for the use of the Contractor. The Contractor shall confine his operations to within these limits. The Contractor shall comply with the terms and conditions of right of entry, right of way and easement documents. Agency shall provide photocopies of these documents to the Contractor.

The Contractor shall provide at the Contractor's own expense any additional land and access that is required for temporary construction facilities or storage of materials. The Contractor shall obtain all required permissions for use of private property prior to taking possession or use. The permission shall

be obtained in writing and a copy forwarded to the Agency prior to the Contractor taking possession of said property.

#### **4-12 WARRANTY**

The Performance Bond furnished by the Contractor as part of the execution of the Contract shall define the terms and time period of the Warranty of the Contractor's work unless otherwise specified in the Special Provisions. If no time period is specified in the Bond, the time period will be one year after field acceptance of Work (see Section 7-21, "Final Inspection and Field Acceptance," of these Specifications).

If required by the Special Provisions, the Contractor shall enter into and sign Warranty statements in the form provided to warranty various segments of the Work for the time specified.

If failure of any portion of the Work can be attributed to faulty materials, poor workmanship, defective equipment, or any other reason that can be attributed to Contractor's performance, and occurs within the specified warranty period, the Contractor shall promptly make the needed repairs at the Contractor's expense.

The Agency is hereby authorized to make such needed repairs if the Contractor fails to undertake, with due diligence, the needed repairs within ten (10) Calendar Days after the Contractor is given written notice of such failure and without notice to the surety; provided, however, that in case of emergency where, in the opinion of the Agency, delay would cause serious loss or damages or a serious hazard to the public, the repairs may be made or lights, signs, and barricades erected without prior notice to the Contractor or surety, and the Contractor shall pay the entire costs.

## **SECTION 5 CONTROL OF WORK AND MATERIALS**

### **5-1 AUTHORITY OF AGENCY**

The Agency will decide all questions regarding the quality and acceptability of materials furnished, work performed, and rate of progress of the Work. The Agency will decide all questions regarding the interpretation and fulfillment of the Contract on the part of the Contractor, and all questions as to the rights of different contractors involved with the Work.

The Agency will determine the amount and quality of the Work performed and materials furnished for which payment is to be made under the Contract.

The Agency will administer its authority through a duly designated representative identified at the preconstruction meeting. The Contractor and the Agency representative shall make good faith attempts to resolve disputes that arise during the performance of the Work.

Any order given by the Agency not otherwise required by the Contract to be in writing will be given or confirmed by the Agency in writing at the Contractor's request. Such request shall state the specific subject of the decision, order, instruction, or notice and, if it has been given orally, its date, time, place, author and recipient.

### **5-2 ATTENTION AND COOPERATION OF CONTRACTOR**

The Contractor shall comply with any written or verbal instruction delivered to the Contractor or the Contractor's authorized representative. See Sections 4-5, "Field Instructions or Other Written Directives", and 5-1, "Authority of Agency".

### **5-3 SUGGESTIONS TO CONTRACTOR**

Any plan or method suggested to the Contractor by the Agency, but not specified or required in writing, if adopted or followed in whole or in part by the Contractor, shall be used at the risk and responsibility of the Contractor. The Agency assumes no responsibility.

### **5-4 SEPARATE CONTRACTS**

The Agency reserves the right to award other Contracts in connection with the Work. The Contractor shall afford other contractors reasonable opportunity for the delivery and storage of their materials and the execution of their work and shall properly connect and coordinate their work with the other contractors.

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

### **5-5 COOPERATION WITH OTHER CONTRACTORS AND OTHER ENTITIES**

The Agency, utilities, or adjacent property owners, and/or other entities may perform work adjacent to or within the Work area concurrent with the Contractor's operations. The Contractor shall coordinate with and conduct operations to minimize interference with the work of other forces or contractors.

Any disputes or conflicts between the Contractor and other forces or contractors retained by the Agency which create delays or hindrance to each other shall be referred to the Agency for resolution. If the Contractor's work is delayed because of the acts or omissions of any other force or contractor, the Contractor shall have no claim against the Agency other than for an extension of time (see Section 7-18, "Extension of Time," of these Specifications).

## **5-6 CONTRACTOR'S DISMISSAL OF UNSATISFACTORY EMPLOYEES**

If any person employed by the Contractor or any subcontractor shall fail or refuse to carry out the directions of the Agency or the provisions of the Contract, or is, in the opinion of the Agency, incompetent, unfaithful, intemperate, or disorderly; or uses threatening or abusive language or conduct to any person on or associated with the Work or with the public; or is acting or working in a manner that compromises the safety of the Work or persons or property involved with the Work, or is otherwise unsatisfactory, the Contractor shall, when requested by the Agency, remove the worker from the Work immediately, and shall not again employ the removed worker on the Work except with the written consent of the Agency.

## **5-7 CONTRACTOR'S EQUIPMENT**

The Contractor shall provide adequate and suitable equipment, labor, and means of construction to meet all the requirements of the Work, including completion within the Contract Time. Only equipment suitable to produce the quality of work required will be permitted to operate on the Project. Specific types of equipment may be requested by the Agency on component parts of the Work.

The Agency may, at the Agency's option, permit the use of new or improved equipment. If such permission is granted, it is understood that it is granted for the purpose of testing the quality and continuous attainment of work produced by the equipment, and the Agency shall have the right to withdraw such permission at any time that the Agency determines that the alternative equipment is not producing work that is equal in all respects to that specified, or will not complete the Work in the time specified in the Contract.

In any case where the use of a particular type or piece of equipment has been banned, or in cases where the Agency has condemned for use on the Work any piece or pieces of equipment, the Contractor shall promptly remove such equipment from the site of the work. Failure to do so within a reasonable time may be considered a breach of contract.

## **5-8 CONTRACTOR'S SUBMITTALS**

### **5-8.01 Submittals – General**

The Contractor shall furnish all working drawings, plans, specifications, descriptive data, certificates, samples, tests, methods, schedules, and manufacturer's instructions as required in the Contract, and any other information required to demonstrate that the materials and equipment to be furnished and the methods of work comply with the provisions and intent of the Contract. Unless otherwise noted in the Special Provisions or elsewhere in the General Specifications, submittals must be submitted in a timely manner that allows for adequate review time.

Submittals for systems shall be bound together and include all information for the system.

Seven (7) copies of all submittals shall be furnished, two (2) of which will be returned after review. For contracts with a bid amount in excess of \$100,000, the Engineer may direct that the Contractor's submittals, with the exception of the SWPPP, consist of one (1) paper copy and an electronic file (pdf, Word or Excel format for general submittals; scheduling software for schedule submittals; etc.). The Agency will return submittal comments in electronic form. Depending upon the complexity of the submittal, the number of submittals, and the express needs of the Contractor, the submittal will be returned to the Contractor within twenty (20) calendar days, exclusive of any time awaiting clarification or further information. Submittals shall be transmitted using submittal transmittal forms provided by the Agency and contain, at a minimum, the following information:

1. Contract Number
2. Submittal Number
3. Specification Reference



4. Name of Submittal (e.g. "Landscaping")
5. List of all items included in the submittal and a description of each item

Unless otherwise agreed to by the Contractor and the Agency, the Contractor will make all submittals using an electronic submittal transmittal form. The Agency will provide the Contractor with an electronic copy of its submittal-logging database, including the "submittal transmittal form." In order to utilize this database and form, the Contractor must have access to the latest version of Microsoft Access. Where any item of the work is required to be installed in accordance with the manufacturer's recommendations, the Contractor shall furnish seven (7) complete sets of the manufacturer's installation recommendations to the Agency prior to starting the installation. These submittals will be retained by the Agency, and shall consist of hard copies and digital or electronic versions, as directed by the Agency.

If the information furnished in a submittal shows any deviation from the Contract requirements, the Contractor shall, by a statement in writing accompanying the information, advise the Agency of the deviation and state the reasons. If the Contractor fails to provide a statement clearly identifying deviations from the Contract, the Agency may void the entire submittal, and the cost of any action taken by the Agency as a result of the Contractor failing to clearly identify and justify deviations will be borne by the Contractor.

It shall be the Contractor's responsibility to ensure there is no conflict with other submittals and to notify the Agency in any case where the Contractor's submittal may concern work by another contractor or the Agency. The Contractor is solely responsible for coordination of submittals among all related crafts and subcontractors performing the Work. The Contractor shall verify that its Subcontractors' submittals are complete in every way and meet the requirements of the Contract.

The Agency approval of the Contractor's submittals shall not relieve the Contractor of responsibility for any error or of any obligation for accuracy of dimensions and details, for agreement with and conformity to the Contract, or responsibility to fulfill the Contract as prescribed. Nor shall such approval be considered as approval of any deviation or conflict unless the Agency has been expressly advised of the deviation or conflict as set forth immediately above, and the Agency has expressly approved such deviation or conflict.

The Contractor shall make no changes to any submittal after it has been approved, and the equipment or materials shall not deviate in any way except with written approval by the Agency. Fabrication or other work performed in advance of approval, unless directed by the Agency, shall be done entirely at the Contractor's risk.

Minimum requirements for submittals are contained in these Specifications. Additional and/or project-specific requirements may be contained in the Contract. The Contractor is responsible for identifying and providing all required submittals.

#### **5-8.02 Resubmittals**

Resubmittals shall address all comments from the Agency. The Agency will normally return the reviewed resubmittal to the Contractor within twenty (20) calendar days of receipt of the resubmittal. Partial resubmittals may be returned "REJECTED." The Contractor is responsible for the Agency's review costs for each resubmittal in excess of the first resubmittal. These costs will be back charged to the Contractor and will be deducted from progress payments.

#### **5-8.03 Not Used**

#### **5-8.04 Submittals Containing Proprietary Information**

All required information shall be provided even though some or all of such information may be considered proprietary. If any of the information required herein is considered proprietary, a Proprietary

Information Agreement (see sample Agreement in Part V. Standard Forms Specifications) shall be executed between the Agency and the Contractor, stipulating that all such information will be supplied by the Contractor and kept confidential by the Agency. All proprietary data shall be identified as part of the Contractor's Bid and the Agency's standard proprietary agreement shall be executed before award of the Contract. Proprietary information is defined as any information or data describing or defining a product, process or system which: (1) was developed at the expense of the Contractor, a subcontractor or supplier; (2) is not generally available in the industry; and (3) is kept secret by its owner for purposes of preventing its use by others. Application software and all other documentation, or any other product, prepared by the Contractor, subcontractor, or supplier at the expense of the Agency for specific use on the facility being constructed under the Contract shall not be considered proprietary.

All submitted proprietary information shall describe the final record Work. No part of the Work covered by the proprietary agreement shall be modified after proprietary submittal acceptance until updated proprietary information has been submitted by the Contractor and accepted by the Agency. Updated proprietary information shall fully document all modifications to be implemented. All proprietary data shall be marked "PROPRIETARY" by the Contractor.

#### **5-8.05 Electrical, Instrumentation, Control, and Communication Systems**

Electrical, instrumentation, control, and communication system drawings shall include elementary and loop diagram drawings, functional single line system layout drawings, connection drawings, interconnection drawings, panel/cabinet fabrication drawings, and detailed circuit board and component drawings. Detailed circuit schematics and circuit board layout drawings shall clearly show, locate, and identify all components and wiring. Each circuit board component shall be identified by the component's original manufacturer name and part number. Industry standard part numbers shall be used. Component values, voltage/current levels, setpoints, and timing values shall be defined. Drawings shall be in the latest version of AutoCAD or other electronic reproducible medium specified by the Agency.

Complete annotated software/firmware source code listings and program documentation shall be provided for all electronic/electrical systems, subsystems, assemblies, parts, components, and equipment that incorporate programmable devices. All instructions and hardware necessary to load, store, modify, and activate software/firmware source codes and programs shall be provided.

Not more than seventy (70) percent of all electronic/electrical work shall be paid for until all proprietary information has been submitted and approved. All submitted proprietary information shall be that which describes the final as-built work. No part of the work covered by the proprietary agreement shall be modified after proprietary submittal acceptance until after updated proprietary information has been submitted by the Contractor and accepted by the Agency. Updated proprietary information shall fully document all modifications to be implemented. All proprietary data shall be marked "PROPRIETARY" by the Contractor.

#### **5-8.06 Maintenance and Operations (M&O) Submittals**

For use in subsequent maintenance and operations, the Contractor shall furnish, unless otherwise provided for in the Special Provisions, one (1) original and five (5) copies, all bound and indexed, of maintenance and operation information, including the highest level of factory maintenance manuals that are available to factory representatives with a three-year subscription to newsletters and updates supplied by the manufacturer covering all equipment and systems included in the Contract. The Agency may withhold up to thirty (30) percent of the Total Contract Price until M&O submittals have been submitted and approved. Documents shall be provided in hard copy form and in native format such as Word, Excel, AutoCad or \*.pdf. The submittal shall include at a minimum:

1. Drawings
2. As-Built

- a. Electrical
  - b. Mechanical
  - c. Site
3. Detail drawings of structures on the site
4. Dimensions
5. Site Layout
6. Underground lines including:
  - a. Existing underground lines (plumbing, electrical, gas, etc.)
  - b. Incoming and outgoing underground lines (plumbing, electrical, gas, etc.)
  - c. Pre-existing underground lines (plumbing, electrical, gas, etc.)
  - d. Underground Conduit (Electrical Wiring, Rigid, PVC)
7. Wiring Diagrams for equipment located on-site (Generator, RTU, Hoist, etc.)
8. Wiring Diagrams for structures
9. Wiring Diagrams of systems
10. Parts List
11. Illustrations
12. Internal wiring diagrams and circuit board schematics and layout drawings
13. Manufacturer's recommended spare parts lists
14. Name, address, and phone number of nearest parts and service agency
15. Systems balance data
16. Maintenance and service instructions
17. Operations instructions
18. Software including annotated source lists and programs
19. Calibration Instructions
20. Calibration Reports
21. Diagnostic Manuals

The submittal of maintenance and operation information is required for all mechanical, electrical, instrumentation, control, communications, sound, or special equipment and systems. The Contractor shall submit the required data for review at least thirty (30) Calendar Days prior to any required training or the final inspection date. Corrections, additions, and/or resubmittal of data shall be made as directed by the Agency.

The Agency, and such representatives as the Agency may designate, shall receive complete maintenance and operating instructions for all items included above prior to final inspection of the Work.

## **5-9 SURVEYS**

### **5-9.01 Contractor-Furnished Surveys**

The Contractor shall notify the Agency, at least five (5) Working Days in advance, of the times and places the Contractor will need base line and elevation benchmark reference points. The Engineer will establish base line and elevation benchmark reference points. From this information the Contractor shall develop and make all additional detail surveys and measurements necessary for the construction of the work as dimensioned by the Plans.

All surveys for control of the construction and for measurement and payment purposes shall be performed by the Contractor and spot checked in the field by the Engineer. The Contractor shall provide a minimum

of 48-hour notice to the Engineer prior to the date the Engineer's survey check is requested. The Contractor shall provide unrestricted access to the areas to be surveyed and shall allow three working days for the Engineer to perform the surveys. For surveys in excess of one-half mile of levee or roadway length, or 20 acres of borrow site area, the Contractor shall allow an additional day for the Engineer to perform surveys for each additional one-half mile of levee or roadway length, or 5 acres of borrow site area.

The Contractor shall be responsible for the preservation of the base line and elevation benchmark reference points. Reference points damaged or destroyed by the operations of the Contractor will be replaced by the Agency at the Contractor's expense. Unless authorized by the Agency, any work done without line and grade will be done at the Contractor's risk.

The Contractor shall have all surveys carried out by a Registered Civil Engineer or Licensed Land Surveyor, authorized to perform surveying in the State of California. The Engineer will spot check the Contractor's surveys. Any discrepancies between the Contractor's survey and the Engineer's spot check will be resolved between the Contractor and the Engineer. The Engineer will make the final determination in the event a satisfactory resolution is not obtained.

The survey intervals specified in this article shall be reduced, or additional cross sections or data points shall be surveyed, to document special features such as ramps or changes in grade or as needed to properly document details of the construction.

The Contractor shall provide all survey data to the Engineer and the Agency's surveyor, no later than 24 hours after its collection, in an ASCII digital format. The format of the digital data shall be comma-delineated as follows: point number, northing, easting, and elevation. The digital submittal shall include a "read me" file containing a description of where the data was taken (including project reach and stationing), the purpose of the survey (i.e., survey for measurement and payment, clearing and grubbing), and the date of the staking and/or data collection for each data file.

In addition to the digital file submittal, a cross section drawing at each station represented by the digital data file shall be submitted to the Engineer no later than five (5) working days after the data collection. The drawing shall include a cross section showing the original ground surface, the stripped surface, the ground surface after the foundation has been excavated, the ground surface after the foundation has been backfilled, and the ground surface after the placement of the embankment fill. Each subsequent survey shall plot the additional information on the cross section drawing. The drawings shall identify the source data file(s) and date(s) when the survey was performed. The failure of the Contractor to submit the survey data within the time specified will jeopardize the Engineer's ability to evaluate the progress of the work for determining measurement and payment.

In addition to the average end area calculations for payment, Digital Terrain Models shall be submitted for all surveys used to generate construction quantities.

All surveys performed for top of levee profiles and for quantity calculations shall be performed with conventional survey methods using total station survey equipment and by performing closed level loop surveys tying to established benchmarks.

As a minimum, the Contractor shall furnish the following surveys:

#### **5-9.01 A Streets and Highways**

1. Slope Stakes – One line of slope stakes at fifty-foot (50-foot) intervals for the construction of each pavement edge. The Contractor shall set back and reference the stakes as required to construct the work.
2. Subgrade – One line of blue tops at centerline or at a location directed by the Agency for each two (2) lanes of the roadway at fifty-foot (50-foot) intervals, and three (3) lines on super-elevated

sections for each two (2) lanes. The Contractor shall reference subgrade stakes for the subbase and base layers.

3. Finished Base – One (1) line of blue tops at centerline or at a location directed by the Agency for each two (2) lanes of roadway at fifty-foot (50-foot) intervals, and three (3) lines for each (2) lanes on super-elevated and widened sections.
4. All necessary line, location, and elevation stakes for curb and gutter, inlets, pipes, drainage structures, signals, box culverts, and other miscellaneous facilities.

#### **5-9.01 B Sewer, Water, and Drainage Facilities**

1. For all Pipelines: The Contractor shall establish an offset line at fifty-foot (50-foot) intervals, furnish cut sheets and necessary land surveys, and locate principal structures using established benchmarks, base lines, and reference points.
2. For Drainage Channels: The Contractor shall furnish slope stakes at fifty-foot (50-foot) intervals.

From this information, the Contractor shall develop and make all additional detail surveys and measurements necessary for the construction of the Work.

#### **5-9.01 C Levees and Other Embankments**

The following surveys for control of the construction and for measurement and payment shall be performed by the Contractor and spot checked by the Agency:

1. An elevation profile shall be surveyed along the centerline of the existing levee prior to aggregate surface rock removal or excavation. This survey will be the basis for levee reconstruction unless other improvements are required by the Contract.
2. Cross sections for levees shall be performed at one hundred (100) foot maximum intervals before and after levee stripping, and/or before the existing levee is degraded.
3. Cross sections for the inspection trench shall be performed at one hundred (100) foot maximum intervals after excavation of the levee inspection trench and immediately prior to the embankment filling operations.
4. Cross sections for seepage berms shall be performed at one hundred (100) foot maximum intervals before and after foundation stripping.
5. Cross sections for levees and other embankments shall be performed at one hundred (100) foot maximum intervals after completion and prior to surface soil respread.
6. The levee and other embankment cross sections shall extend to 10 feet beyond the limits of work.
7. The cross sections shall be tied into the baseline, and a reproducible plot of the section (one [1] inch = five [5] feet vertical scale, one [1] inch = twenty [20] feet horizontal scale) shall be furnished to the Engineer.
8. An elevation profile shall be surveyed along the centerline of existing levees that will be used as haul routes before hauling begins.
9. Slope Stakes – One line of slope stakes at one-hundred-foot (100-foot) intervals for the construction of levees and embankments. The Contractor shall set back and reference the stakes as required to construct the Work.
10. The Contractor shall maintain the staking during construction of the Work.

The cross sections for all levee and embankment construction shall be at the same location (station) for all surveys.

#### **5-9.01 D Borrow Sites**

Spot elevations at the borrow site excavation areas shall be performed prior to any surface disturbance and compared to the initial cross sections specified below to confirm the surface layer materials were removed to the proper depth. Cross sections of the borrow site excavation areas shall be performed at fifty-foot (50-foot) intervals, as follows:

1. After removal of the specified depth of surface layer.
2. After excavation is complete and before re-spread of stockpiled material.
3. The cross sections shall be tied into a property line boundary or an established baseline, and a reproducible plot of the sections (1 inch = 5 feet vertical scale, 1 inch = 20 feet horizontal scale) shall be furnished to the Engineer. In addition to the reproducible plots, the Contractor shall provide electronic data files of the quantity surveys, as specified above.

The cross sections for all borrow excavations shall be at the same location for all surveys.

#### **5-9.01 E Post Construction Verification**

In addition to the above surveys, the top of the levee profile and the levee and other embankment cross sections to 10 feet beyond the limits of work shall be surveyed at one hundred (100) feet maximum intervals. These surveys will be utilized to confirm that the levee was constructed or reconstructed to the grade tolerances, as specified in the Technical Provisions.

#### **5-9.02 Survey Monuments**

The Agency shall show on the construction plans, to the best of its knowledge, the location and character of survey monuments located within the construction area. It is the Contractor's responsibility to arrange and pay for a diligent and thorough search for survey monuments. This shall be performed by or under the direction of a California Licensed Land Surveyor or a California Registered Civil Engineer authorized to practice Land Surveying, prior to the beginning of construction or maintenance work that could disturb or destroy a survey monument. Any monuments found shall be referenced and reset by or under the direction of a California Licensed Land Surveyor or a California Registered Civil Engineer authorized to practice Land Surveying in accordance with Business and Professions Code Section 8771. On thin surface treatments, such as chip seals, the monuments can be covered in advance of the maintenance treatment with a suitable material and then removed to expose the monument. When survey monuments not shown on the Plans are discovered, the Contractor shall bring them to the attention of the Agency prior to damaging them. Any damaged or destroyed Agency survey monuments will be reset by the Agency at the Contractor's expense. Any other damaged or destroyed survey monuments shall be reset by the Contractor in accordance with the Land Surveyors Act (Business & Professions Code 8700 et seq.).

When the Special Provisions require that the Contractor provide all surveys, the Contractor shall be responsible for referencing, resetting, and filing of corner records for all survey monuments disturbed or destroyed by construction activities in accordance with Business and Professions Code Section 8771.

All survey monuments and references shall be set or reset by or under the direction of a California Licensed Land Surveyor or a California Registered Civil Engineer authorized to practice Land Surveying.

#### **5-9.03 Protection of Survey Monuments**

The Contractor shall be responsible for protecting and perpetuating survey monuments affected by construction activities in accordance with Business and Professions Code Section 8771(b). The Contractor shall be responsible for the accuracy of the Contractor's own layout work, and shall be liable

for the preservation of all established lines and grades. Monuments and stakes damaged or destroyed by the operations of the Contractor shall be replaced at the Contractor's expense.

#### **5-10 RESPONSIBILITY FOR ACCURACY**

The Contractor shall obtain all necessary measurements for and from the Work, and shall check dimensions, elevations, and grades for all layout and construction work and shall supervise such work; the accuracy for all of which the Contractor shall be responsible. The Contractor is responsible for adjusting, correcting, and coordinating the work of all subcontractors so that no discrepancies result.

#### **5-11 DUTIES AND POWERS OF INSPECTORS**

Inspectors are the authorized representatives of the Agency. Their duty is to inspect materials and workmanship of those portions of the Work to which they are assigned, either individually or collectively, under instructions of the Agency, and to report all deviations from the Contract.

#### **5-12 INSPECTION**

The inspection of the Work does not relieve the Contractor of the obligation to fulfill all Contract requirements. Any work, materials, or equipment not meeting the requirements and intent of the Contract will be rejected, and unsuitable work or materials shall be made good, notwithstanding the fact that such work or materials may have previously been inspected or approved and payment may have been made.

Reexamination of any part of the Work may be ordered by the Agency, and such part of the Work shall be uncovered by the Contractor. The Contractor shall pay the entire cost of such uncovering, reexamination, and replacement if the reexamined work does not conform to the Contract.

All work and materials furnished pursuant to the Contract shall be subject to inspection and approval by the Agency. The Contractor shall provide the Agency and Inspectors with access to the Work during construction and shall furnish every reasonable facility and assistance for ascertaining that the materials and the workmanship are in accordance with the requirements and intent of the Contract.

Unless authorized in writing by the Agency, any work done in the absence of an Inspector, whether completed or in progress, shall be subject to inspection. The Contractor shall furnish all tools, labor, materials, access facilities, and other facilities necessary to allow such inspection, even to the extent of uncovering or taking down completed portions of the Work. The Contractor shall pay all costs incurred, whether or not any defective work is discovered. The Contractor shall also be solely responsible for any costs associated with the removal of any defective work discovered during the inspection and the complete cost of reconstruction.

The Contractor shall notify the Agency of the time and place of any factory tests and submit test procedures for approval thirty (30) Calendar Days in advance for any tests that are required by the Contract. The Contractor shall report the time and place of preparation, manufacture or construction of any material for the Work, or any part of the Work, that the Agency wishes to inspect. The Contractor shall give five (5) Working Days notice in advance of the beginning of work on any such material or of the beginning of any such test to allow the Agency to make arrangements for inspecting and testing or witnessing.

#### **5-13 QUALITY OF MATERIALS AND WORKMANSHIP**

Unless otherwise allowed or required by the Special Provisions, all materials shall be new and of a quality at least equal to that specified. When the Contractor is required to 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. If not ordinarily carried in stock, the articles shall conform to the usual standards for first-class materials or articles of the kind required. The work, as a whole or in part, shall be performed with the best equipment to the best standard of construction. At a minimum, all work and materials shall be of the quality called for in the

specifications, the Contract Documents, and any other pertinent or current industry standards or guidelines.

Materials shall be furnished in sufficient quantities and at such times to ensure uninterrupted progress of the Work. All required spare parts shall be delivered in new condition, not in a used or unknown condition, and with any certificates required. Materials, supplies, and equipment shall be stored properly and protected as required. The Contractor shall be entirely responsible for damage or loss by weather or other causes.

Any trench, fill, or roadway settlement occurring during the life of the Contract, including the warranty period, shall be considered a workmanship defect and shall be reconstructed or replaced by the Contractor at no additional cost to the Agency, notwithstanding any previous acceptance or approval by the Agency.

## **5-14 SUBSTITUTIONS**

Certain materials, articles, or equipment may be designated in the Contract by brand or trade name or manufacturer together with catalog designation or other identifying information. Substitute material, article, or equipment which is of equal quality and of required characteristics for the intended purpose may be proposed for use, provided the Contractor complies with the requirements of the following paragraphs.

### **5-14.01 Written Request**

The Contractor shall submit any request for substitution in writing no later than thirty (30) Calendar Days after the award of the Contract.

### **5-14.02 Documentation**

If requested by the Agency, a proposal for substitution must be accompanied by complete information and descriptive data, including cost of operation, cost of maintenance, and physical requirements necessary to determine the equality of offered materials, articles, or equipment. The Contractor shall also submit such shop drawings, descriptive data, and samples as requested. The burden of proof of comparative quality, suitability, and performance of the offered proposal shall be upon the Contractor. The determination of equal quality suitability, and performance shall be at the sole discretion of the Agency. The Agency will examine such submittals with reasonable promptness. If the Agency rejects the request for such substitution, then one of the particular products designated by brand name in the Contract shall be furnished. Acceptance of substitution by the Agency shall not relieve the Contractor from responsibility for deviations from the Plans and Specifications or from responsibility for errors in submittals. Failure by the Contractor to identify deviations in the request material from the Plans and Specifications shall void the submittal and any action taken thereon by the Agency.

If mechanical, electrical, structural or other changes are required for proper installation and fit of substitute materials, articles or equipment, or because of deviations from the Contract, such changes shall not be made without the written consent of the Agency and shall be made by the Contractor without additional cost to the Agency. The Contractor shall pay the costs of design, drafting, architectural or engineering services and building alterations of the construction required to accommodate any Contractor substitution or construction error to maintain the original function and design.

## **5-15 PREPARATION FOR TESTING**

The Contractor shall maintain proper facilities and provide safe access for inspection by the Agency to all parts of the Work and to the shops wherein parts of the Work are in preparation. Where the Contract requires work to be tested or approved, such work shall not be tested or covered up without at least a five (5) Working Day notice to the Agency of its readiness for inspection, unless the written approval of the Agency for such testing or covering is first obtained.



## **5-16 MATERIALS SAMPLING AND TESTING**

Materials to be used in the Work will be subject to sampling and tests by the Agency. The Contractor shall furnish the Agency with a list of the Contractor's sources of materials and the locations at which such materials will be available for inspection. The list shall be submitted on an Agency form and shall be furnished to the Agency in time to permit the inspection and testing of materials in advance of their use.

Testing shall be done to such standards as set forth in the Plans, Specifications, or Special Provisions. References made in these documents to standard methods of testing materials shall make such standards a part of the Specifications.

Whenever a reference is made in the Specifications to a specification or test designation of any recognized national organization or State of California agency, and the number or other identification representing the year of adoption or the latest revision is omitted, it shall mean the specification or test designation in effect on the date of the original Notice to Contractors for the Work.

When requested by the Agency, samples or test specimens of the proposed materials shall be prepared at the expense of the Contractor and furnished by the Contractor in such quantities and sizes required for proper examination and tests, and with complete information describing type, kind, or size of material, and its source. All samples shall be submitted in time to permit the making of proper tests, analyses, or examinations before incorporating the materials into the Work. No material shall be used in the Work unless or until it has been approved by the Agency. All material tests shall be made by the Agency in accordance with recognized standard practice. The Contractor shall pay the cost of the first retest and any subsequent retest of any area or material. The Agency will secure and test samples whenever necessary.

Sampling and testing laboratories used by the Contractor must be accredited laboratories for the proposed sampling and tests. When California Test Methods are used, testers must be approved for the method specified.

## **5-17 APPROVAL OF MATERIALS**

### **5-17.01 Sources of Supply**

The Agency's approval at the source of supply may be required prior to procurement. Such approval shall not prevent subsequent disapproval or rejection of materials by the Agency if the quality is less than required by the Contract.

### **5-17.02 Plant Inspection**

The Agency assumes no obligation to inspect materials at the source of supply. The Contractor is responsible for incorporating satisfactory materials into the Work, notwithstanding any prior inspections or tests.

The Agency will inspect materials at the source if the Contractor submits a written request and if the Agency deems the inspection necessary. The Contractor and the supplier will cooperate with and assist the Agency while performing the inspection. The Agency shall have access to all production areas of the plant.

## **5-18 PROVISIONS FOR EMERGENCIES**

The Agency may provide necessary labor, material and equipment to correct any emergency resulting from the Contractor's operation including noncompliance with the Contract, public convenience, safety, traffic control, and protection of work, persons and property. The nature of the emergency may prevent the Agency from notifying the Contractor prior to taking action. The costs of such labor, material, and equipment will be deducted from progress payments.

The performance of such emergency work under the direction of the Agency shall not relieve the Contractor from any damages resulting from the emergency.

#### **5-19 RIGHT TO RETAIN IMPERFECT WORK**

If any portion of the work done or materials furnished under the Contract shall prove defective or not in accordance with the Contract, and if the defect in the work or materials is not of sufficient magnitude or importance to make the work dangerous or undesirable, or if the removal of such work or materials is impracticable or will create conditions which are dangerous or undesirable, the Agency shall have the right and authority to retain the work or materials instead of requiring it to be removed and reconstructed or replaced. Progress payment deductions will be made as described in Section 8-9, "Deductions for Imperfect Work," of these Specifications, and a deductive Contract Change Order will be issued in accordance with Section 9, "Changes and Claims", of these Specifications.

#### **5-20 REMOVAL OF REJECTED MATERIALS OR WORK**

The Contractor shall remove all rejected or condemned materials or structures brought to or incorporated in the Work within two (2) Working Days of the Agency's written order. No such rejected or condemned materials shall again be offered for use in the Work. The Contractor shall, at the Contractor's expense, bring into Contract compliance all rejected material or work in a manner acceptable to the Agency.

The Agency may bring into Contract compliance the rejected material if the Contractor fails to comply with this Section. All costs will be deducted from the Progress Payment.

#### **5-21 TEMPORARY SUSPENSION OR DELAY OF WORK**

The Agency has the authority to suspend or delay the Work, wholly or in part, for any period the Agency deems necessary. The Contractor shall immediately comply with the Agency's written order to suspend or delay the Work. The suspended or delayed work shall be resumed only when conditions are favorable or methods are corrected, as ordered or approved in writing by the Agency. Public safety and convenience must be maintained throughout the suspension or delay in accordance with Sections 6-12, "Public Convenience and Safety," and 6-13, "Public Safety and Traffic Control," of these Specifications.

Delays due to suspension of work shall be classified by the Agency as Avoidable or Unavoidable Delays in accordance with Section 7-12, "Delays," of these Specifications.

Such suspension shall not relieve the Contractor of the Contractor's responsibilities as described in the Contract.

#### **5-22 TERMINATION OF CONTRACT**

##### **5-22.01 Reasons for Termination**

The Agency reserves the right to terminate the Contract for any of the reasons listed below:

##### **5-22.01 A Contractor Bankrupt**

If the Contractor is adjudged bankrupt or makes an assignment for the benefit of the Contractor's creditors, or if a receiver is appointed because of the Contractor's insolvency, the Agency may terminate the Contractor's control over the Work and so notify the Contractor and the Contractor's sureties.

##### **5-22.01 B Completion Delay**

The Agency may terminate the Contract if the Contractor has not completed the Work on or before the completion date, as said date may be adjusted by Contract Change Order. The Contractor is not entitled to any compensation and is liable to the Agency for liquidated damages for all time beyond such Contract completion date until the Work is completed, if the Agency chooses to complete the Work.

### **5-22.01 C Abandonment and Unsatisfactory Performance**

The Agency may give the Contractor and the Contractor's surety written notice that the Contract will be terminated if the following breaches are not corrected:

- The Contractor abandons the Work.
- The Work or any portion is sublet or assigned without the Agency's consent.
- The rate of progress is not in accordance with the Contract.
- Any portion of the Work is unnecessarily delayed.
- The Contractor willingly violates any terms or conditions of the Contract.
- The Contractor does not supply sufficient materials or properly skilled labor.
- The Contractor fails to promptly pay its subcontractors.
- The Contractor disregards laws, ordinances, or Agency orders.
- The Contractor fails to respond to defective work notices.

The Contractor shall cease and terminate the Work if satisfactory arrangement for correction is not made within ten (10) Calendar Days from such notification.

### **5-22.01 D Termination of Contract for Convenience**

The Agency may at any time and for any reason terminate the Contractor's services and work for its own convenience.

### **5-22.02 Notice of Termination**

The Agency may give written Notice of Termination of at least five (5) Calendar Days to the Contractor and the Contractor's sureties that the Contractor's control over the Work will be terminated for the reasons stated in the Notice of Termination. Except for instances of Termination for Convenience, the surety shall have the right to take over and perform the Work. The Agency may take over the Work at the Contractor's expense if the surety does not commence performance within thirty (30) Calendar Days from the date of mailing the Notice of Termination. The Contractor shall be liable for any excess cost incurred by the Agency.

Immediately upon receipt of a Notice of Termination, except as otherwise directed in writing by the Agency, the Contractor shall:

1. Stop work under the Contract on the date and to the extent specified in the Notice of Termination
2. Place no further orders or subcontracts for materials, services, or facilities except as necessary to complete the portion of the Work that is not terminated.
3. Terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the Notice of Termination.
4. Assign to the Agency, in the manner, at the times, and to the extent directed by the Agency, all of the rights, titles, and interests of the Contractor under the orders and subcontracts so terminated. The Agency shall have the right, at its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts.
5. Settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts with the approval or ratification of the Agency. The Agency's approval or ratification shall be final.

6. Transfer title to the Agency, and deliver in the manner, at the times, and to the extent directed by the Agency, fabricated or unfabricated parts, work in process, completed work, supplies, other material produced as a part of, or acquired in connection with, the terminated work, and the completed or partially completed drawings, information, and other property that, if the Contract had been completed, would have been submitted to the Agency.
7. Sell, in the manner, at the times, to the extent, and at the price that the Agency directs or authorizes, any property of the types referred to in Item 6 of this Section (Section 5-22.02). The Contractor is not required to extend credit to any purchaser, and may acquire any such property under the conditions prescribed and at a price approved by the Agency. The proceeds of any such transfer or disposition shall be used to reduce any payments made to the Contractor under the Contract or be credited to the cost of the work covered by the Contract or paid as the Agency directs.
8. Complete performance of the Work not terminated by the Notice of Termination.
9. Take necessary action, or as the Agency directs, to protect and preserve the property related to the Contract in which the Agency has an interest.

#### **5-22.03 Payments to Contractor Upon Termination of Contract for Reasons other than Convenience**

In the event of Termination of the Contract for reasons other than Convenience, the Contractor and the Agency may agree upon the amount to be paid to the Contractor for the total or partial termination of the Work. The amount may include those items specified in Section 9, "Changes and Claims," of these Specifications. However, such agreed amount shall not exceed the Total Contract Price, reduced by the amount of payments already made and the Contract price of work not terminated. The Contract shall be amended accordingly, and the Contractor shall be paid the agreed amount.

If the Contractor and the Agency fail to agree on the amount to pay the Contractor because of the termination of work under this Section, the Agency shall determine the amount due the Contractor.

If the Work is completed by the Agency as provided in Sections 5-22.02 and 5-22.04 in this Section, the Contractor is not entitled to receive any portion of the amount to be paid under the Contract until the Work is fully completed. After such completion, if the unpaid balance exceeds the sum of the amount expended by the Agency in finishing the Work, plus all damages sustained or to be sustained by the Agency, plus any unpaid claims on account of labor, materials, tools, equipment, or supplies contracted for by the Contractor for the Work, provided that sworn statements of said claims shall have been filed as required by Section 9, "Changes and Claims," of these Specifications, the excess not otherwise required by these Specifications to be retained shall be paid to the Contractor. If the sum so expended exceeds the unpaid balance of the Total Contract Price, the Contractor and the Contractor's surety are liable to the Agency for the amount of such excess. If the surety completes the Work as provided above, such surety shall be subrogated to money due under the Contract and to money which shall become due in the course of completion by the surety.

The contractor shall not be entitled to recover any expert fees, attorney's fees or other claim preparation fees incurred in the preparation of the termination claim, negotiation of the termination claim and/or any final settlement of the final payment following termination other than for convenience.

The Contractor shall submit to the Agency any termination claim in the form and with the certification that the Agency prescribes. Such claim shall be submitted no later than ninety (90) Calendar Days from the effective date of termination unless the Agency grants one or more extensions, in writing, upon Contractor's written request transmitted within such ninety (90) day period or authorized extension. If the Contractor fails to submit a termination claim within the time allowed, the Agency may determine the

amount, if any, due the Contractor because of the termination. The Agency will then pay the Contractor that amount.

#### **5-22.04 Agency Completion**

In the event of Termination of the Contract for reasons other than Convenience, the Agency may take possession of and use all or any part of the Contractor's materials, tools, equipment, and appliances on the premises to complete the Work. The Agency assumes the responsibility for returning such equipment in as good condition as when it was taken over, reasonable wear and tear excepted. The items shall be returned when the Work is complete or sooner, at the Agency's discretion. The Agency agrees to pay a reasonable amount for the use of such materials and equipment.

The Agency may direct all or any part of the Work to be completed by day labor and/or other contractors.

#### **5-22.04 A Payment for Agency Completion**

If the Agency completes the Work, no additional payment will be made to the Contractor until the Work is complete. All costs of completing the Work, including, but not limited to, Agency's legal expenses, Agency forces, administration and management, direct and indirect, shall be deducted from any sum due the Contractor. If the cost of completing the Work exceeds sums due the Contractor, the Contractor and the Contractor's surety shall, upon demand, pay the Agency a sum equal to the difference. If the Agency completes the Work and there is a sum due the Contractor after the Agency deducts the costs of completing the Work, the Agency will pay such sum to the Contractor and/or the Contractor's surety, as appropriate.

#### **5-22.04 B Agency Completion Not a Waiver of Agency Rights**

No act by the Agency before the Work is finally accepted shall operate as a waiver or estop the Agency from acting upon any subsequent event, occurrence or failure by the Contractor to fulfill the terms and conditions of the Contract. The rights of the Agency pursuant to this Section are in addition to all other rights of the Agency pursuant to the Contract, and at law or in equity.

#### **5-22.05 Payments to Contractor Upon Termination of Contract for Convenience**

In the event of a Termination of the Contract, in whole or in part, for the Convenience of the Agency pursuant to Section 5-22.01 D, the Contractor is entitled to payment only as discussed below.

- (a) Upon such termination, the Contractor is entitled to payment only as follows:
  - (i) the reasonable direct cost of the work completed in conformity with this Agreement as determined by the Engineer; plus,
  - (ii) such other costs actually incurred by the Contractor as are permitted by the Contract and approved by the Engineer; plus,
  - (iii) five percent (5%) of the cost of the work referred to in subparagraph (i) above for overhead; plus,
  - (iv) four percent (4%) of the cost of the work referred to in subparagraph (i and ii) above for profit, so long as the Contractor can demonstrate that the project would have experienced a profit upon its completion.
- (b) "Reasonable direct cost" set forth in subparagraph (a)(i) above includes only costs reasonably and necessarily incurred in the performance of the work and will be calculated by the Engineer by comparing costs submitted within the escrow bid documents and any agreed upon change orders or force account work with the Contractor's direct cost report submitted within the claim as detailed below. "Reasonable direct cost" does not include any costs deemed by the Engineer to be incurred as the result of the Contractor's poor performance of the work, the Contractor's ineffective project management, Contractor induced inefficiencies, Contractor caused project delays or any other Contractor deviation from its contractual or legal duties, and will be deducted from the sums to be paid under this section. It is the

burden of the Contractor to establish the reasonableness of its costs, including those that have been disallowed by the Engineer in accordance with sub-section (a) or (b) herein.

(c) The contractor shall not be entitled to recover any expert fees, attorney's fees or other claim preparation fees incurred in the preparation of the termination claim, negotiation of the claim and/or any final settlement of the final payment following termination.

(d) There will be deducted from such sums as provided in this section, the amount of any payments made to the Contractor prior to the date of the termination of the Contract. The Contractor is not entitled to any claim or claim of lien against the Agency for any additional compensation or damages in the event of such termination for convenience and payment hereunder.

(e) Upon termination of the project for convenience the Contractor, shall within thirty (30) Calendar Days submit a claim in accordance with Section 9-18 of these Specifications detailing the allowed costs pursuant to this section and justification of the reasonableness of said costs.

### **5-23 TERMINATION OF UNSATISFACTORY SUBCONTRACTS**

When any portion of the Work subcontracted by the Contractor is not prosecuted in a satisfactory manner, the Contractor shall immediately terminate the subcontract upon written notice from the Agency. The subcontractor shall not again be employed for any portion of the work on which the subcontractor's performance was unsatisfactory.

## **SECTION 6    LEGAL RELATIONS AND RESPONSIBILITIES**

### **6-1    COMPLIANCE WITH LAWS AND REGULATIONS**

The Contractor shall be familiar and comply with all Federal, State, and local laws, ordinances, codes and regulations which in any manner affect the Work, those engaged or employed in the Work or the material or equipment used in or upon the Work, or in any way affect the conduct of the Work. No pleas of misunderstanding of such laws, ordinances, codes, or regulations or of ignorance of the same on the part of the Contractor shall modify the provisions of the Contract. The Contractor and the Contractor's surety shall indemnify and save harmless the Agency and the Agency's governing Board, officers, officials, directors agents, employees, volunteers, members, affiliates and their duly authorized representatives against any claim for liability arising from, or based upon, the violation of any such law, ordinance, regulation, decree, or order, whether by the Contractor or by the Contractor's employees.

The attention of the Contractor is directed to certain laws that affect the Contract. The listing of these laws in this Section is not to be construed as a listing of all applicable laws. The Contractor is solely responsible for familiarity and compliance with all applicable laws. Particular attention is called to the following:

#### **6-1.01    Hours of Labor**

Eight (8) hours of labor shall constitute a legal day's work and the Contractor or any subcontractor under the Contractor, in the execution of the Contract, shall not require more than eight (8) hours of labor in any Calendar Day, and forty (40) hours of labor in any calendar week, from any person employed by the Contractor in the performance of the Work under the Contract, except as permitted under the provisions of Labor Code Sections 1810 to 1815 of the Labor Code of the State of California. The Contractor shall forfeit, as penalty to the Agency, twenty-five dollars (\$25) for each worker employed by the Contractor or any subcontractor under the Contractor in the execution of the Contract for each Calendar Day during which any worker is required or permitted to labor more than eight (8) hours and for each calendar week during which any worker is required or permitted to labor more than forty (40) hours, in violation of the provisions of such Labor Code.

Overtime and shift work may be established by the Contractor with reasonable notice and the written permission of the Agency. No work other than overtime and shift work shall be done between the hours of 6:00 p.m. and 7:00 a.m., except such work as is necessary for the proper care and protection of work already performed or except in case of an emergency. Failure of the Contractor to perform the Work in accordance with this policy shall be cause for termination under Section 5-22, "Termination of Contract," of these Specifications.

#### **6-1.02    Prevailing Wage**

Pursuant to Labor Code Section 1770, the Contractor and the Contractor's subcontractors shall pay not less than the prevailing rate of per diem wages, including, but not limited to, overtime, Saturday, Sunday, and holiday work, travel and subsistence, as determined by the Director of the California Department of Industrial Relations pursuant to Labor Code Section 1773. Copies of the prevailing wage determinations are available upon request at the office of the Labor Compliance Section, 9700 Goethe Road, Suite D, Sacramento, CA 95827, and are also available from the California Department of Industrial Relations' website at <http://www.dir.ca.gov/DLSR/PWD>.

The wage rates determined by the Director of the California Department of Industrial Relations refer to expiration dates. Prevailing wage determinations with a single asterisk (\*) after the expiration date that are in effect on the date of Notice to Contractors remain in effect for the duration of the project. Prevailing wage determinations with double asterisks (\*\*) after the expiration date indicate that the basic hourly wage rate, overtime and holiday wage rates, and employer payments to be paid for work performed after this date have been determined. If work extends past this date, the new rate shall be paid

and should be incorporated in contracts entered. The Contractor should contact the Department of Industrial Relations as indicated in the prevailing wage determinations to obtain predetermined wage changes. All determinations that do not have double asterisks (\*\*) after the expiration date remain in effect for the duration of the project.

The Contractor and the Contractor's subcontractors shall forfeit, as penalty to the Agency, not more than fifty dollars (\$50) per Calendar Day or portion thereof, for each worker paid less than the prevailing wage rates for any work done under the Contract by the Contractor or by any subcontractor. The Contractor and all its Subcontractors shall comply with the provisions of Labor Code Section 1775. In addition to said penalty, the Contractor or subcontractor shall pay each worker the difference between the prevailing wage and the amount paid for every hour the worker was paid less than the prevailing wage.

For Contracts receiving Federal funding, labor on the project shall also be paid no less than the minimum wage rates as established by the U.S. Secretary of Labor pursuant to Federal Labor Standards Provisions as required by the Davis-Bacon Act and other applicable Federal requirements. Guidance for complying with payments under both the Federal and State provisions, when applicable, is provided in the Notice to Contractors and the Contract Agreement.

#### **6-1.03 Payroll Records**

The Contractor shall comply with Labor Code Section 1776. Regulations implementing Section 1776 are located in Section 16000 and Sections 16401 through 16403 of Title 8, California Code of Regulations. The Contractor shall be responsible for compliance by the Contractor's Subcontractors, including lower-tier Subcontractors.

The Contractor and the Contractor's subcontractors shall keep accurate payroll records, showing the name, address, Social Security number, labor classification, straight time and overtime hours worked each day and week, and the actual wages paid to each journeyman, apprentice, worker, or other employee employed in connection with the Work. Such records shall be certified and available for inspection at all reasonable hours at the principal offices of the Contractor and the Contractor's subcontractors in a manner set forth in Labor Code Section 1776. The Contractor and the Contractor's subcontractors shall file a certified copy of the records enumerated above with the Agency within ten (10) Calendar Days after receipt of a written request. The Contractor shall be held responsible for all subcontractors' compliance with this requirement. The Contractor is responsible for all lower-tier Subcontractors' compliance with this requirement.

The non-compliance penalties specified in subdivision (g) of Labor Code Section 1776 may be deducted from progress payments to the Contractor.

The Contractor is responsible for all lower-tier Subcontractors' compliance with this requirement and any and all fines or damages imposed due to the failure of the Contractor or its Subcontractors and lower-tier Subcontractors to comply with the provisions of the Labor Code.

#### **6-1.04 Nondiscrimination**

Attention is directed to Labor Code Section 1735, which prohibits discrimination in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex of such persons, and provides for penalties.

#### **6-1.05 Apprentices**

The Contractor shall comply with Labor Code Section 1777.5, concerning the employment of apprentices. The Contractor shall be responsible for compliance by all subcontractors.

#### **6-1.06 Workers' Compensation**

Pursuant to Labor Code Section 1860, in accordance with the provisions of Section 3700 of the Labor Code, the Contractor is required to secure the payment of compensation to its employees.



#### **6-1.07 Fair Labor Standards**

The Contractor shall comply with the Fair Labor Standards Act of 1938 as amended (29 U.S.C. 3201 et seq.) as applicable.

#### **6-1.08 Contractor's License**

The Contractor shall comply with Chapter 9 of Division 3 of the Business & Professions Code.

#### **6-1.09 Use of Pesticides**

The Contractor shall comply with all rules and regulations that govern the use of pesticides required in the performance of the Work, including any certifications that may be required for purchase, use, storage or application. Any use of pesticides shall comply with the pesticide use policy contained in Section 10 of these Specifications.

Pesticides include, but are not limited to, herbicides, insecticides, fungicides, rodenticides, germicides, nematocides, bactericides, inhibitors, fumigants, defoliants, desiccants, soil sterilants, and repellants.

Any substance or mixture of substances intended for preventing, repelling, mitigating, or destroying weeds, insects, diseases, rodents, or nematodes and any substance or mixture of substances intended for use as a plant regulator, defoliant or desiccant shall be considered a pesticide.

#### **6-1.10 Reporting Requirements and Sanctions**

Failure to provide specific information, records, reports, certifications, or any other documents required for compliance with the Contract will be considered noncompliance. At a minimum, documents required include:

1. Form SCLC-0001 – List of Subcontractors

Form SCLC-0001 is required from the Contractor and each Subcontractor with a lower tier Subcontractor. This form is due within ten (10) Calendar Days after the date of the preconstruction conference or within ten (10) Calendar Days after the date of award of the subcontract. The later of the two dates will apply.

2. Form SCLC-347- Certified Payroll Reports

Form SCLC-347 is required from the Contractor and each Subcontractor, regardless of the subcontract amount or the type of procurement, for every payroll period in which work is performed. These reports are due within ten (10) Working Days of the ending date of the payroll period. The payroll must be accompanied by a "Statement of Compliance" signed by the employer or the employer's agent indicating that all of the information in the payroll is true, correct, and complete, and the wage rates contained therein are not less than those required by the Contract. The "Statement of Compliance" must be on forms furnished by the Agency or on a form with identical wording. The Contractor is responsible for the submission of copies of payrolls of all subcontractors..

3. Form SCLC-0002 - Fringe Benefit Statement

Form SCLC-0002 is required from the Contractor and each subcontractor if fringe benefits are paid to an approved plan, fund, or program. The statement is due with first certified payroll report and any time the fringe benefit amounts change. The statement is not required if the fringe benefits are paid in cash to the employees.

#### 4. Other Documentation

Upon request, the Contractor must provide the Engineer an accurate record of all activities and personnel performing work onsite. This report should provide as much detailed information as possible, including but not limited to the:

- a. Date work was performed.
- b. Name of Contractor and employees on site.
- c. Name of Subcontractor and lower-tier Subcontractor and employees on site.
- d. Detailed description of work performed by each employee, including hours worked and equipment used.

Other reporting documentation may be required depending upon the source of funding for the project.

If the Contractor fails to comply with the provisions of this Section, the Contractor will be advised of the specific deficiencies and requested to make immediate corrections. The Contractor will also be advised that monetary deductions will be made for failure to effect corrections or delinquencies.

If the Contractor fails to correct a deficiency in the reporting requirements within fifteen (15) Calendar Days after notification, a deduction may be made. In such cases, the deduction will be ten (10) percent of the estimated value of the work done during the month, except that the deduction will not exceed ten thousand dollars (\$10,000), nor be less than one thousand dollars (\$1,000), and will be deducted from the next progress payment.

Deductions for non-compliance will be in addition to all other deductions provided for in the Contract and will apply irrespective of the number of instances of noncompliance. Deductions will be made separately and cumulative for each estimate period in which a new deficiency appears. When all deficiencies for a period have been corrected, the deduction covering that period will be released on the next progress payment. Otherwise, the deduction will be retained.

##### **6-1.11 Subcontracting**

The Contractor must comply with Section 4101 to Section 4113, inclusive, of the Public Contract Code.

##### **6-1.12 Occupational Safety and Health**

The Contractor must comply with all applicable provisions of the California Occupational Safety and Health Act (Labor Code Sections 6300 et seq.). The foregoing includes, but is not limited to, all applicable Title 8 Safety Orders issued by the State of California Occupational Safety and Health Administration (Cal/OSHA). Failure of the Agency to suspend the work or notify the Contractor of the inadequacy of the safety precautions or non-compliance with existing laws and regulations shall not relieve the Contractor of this responsibility.

##### **6-1.13 Not Used**

#### **6-2 INDEMNIFICATION**

##### **6-2.01 Contractor's Performance**

To the fullest extent permitted by law, Contractor shall indemnify, defend, and hold harmless the Agency, and the agencies or entities listed as additional insureds in the Special Provisions, their respective governing boards, officers, directors, officials, trustees, employees, agents, and authorized volunteers, ("Indemnified Party") from and against any and all claims, demands, actions, losses, liabilities, damages, and all expenses and costs incidental thereto (collectively "Claims"), including cost of defense, settlement, arbitration, and reasonable attorneys' fees, resulting from injuries to or death of persons, including but not limited to employees of an Indemnified Party, and damage to or destruction of property,

or loss of use or reduction in value thereof, including but not limited to the property of an Indemnified Party, arising out of, pertaining to, or resulting from the alleged or actual acts or omissions of the Contractor, its officers, agents or employees, or the acts or omissions of anyone else directly or indirectly acting on behalf of the Contractor, or for which the Contractor is legally liable under law. The Contractor understands and agrees that this indemnity obligation shall apply regardless of whether any loss, damage or cost arises from, whether whole or in part, any alleged or actual acts or omissions, or any other negligence, concurrent or otherwise, on the part of the Agency, or any other party indemnified hereunder, excepting only those Claims to the extent caused by the active negligence or willful misconduct of an Indemnified Party where such indemnification would be invalid under Subdivision (b) of Section 2782 of the Civil Code.

The right to defense and indemnity under this Section arises upon occurrence of an event giving rise to a Claim and upon tender in writing to the Contractor. Contractor shall defend the Indemnified Parties with counsel reasonably acceptable to the Agency. Notwithstanding the foregoing, the Agency shall be entitled, on its own behalf, and at the expense of the Contractor, to assume control of its defense or the defense of any Indemnified Party in any legal action, with counsel reasonably selected by it. Should the Agency elect to initially assume control of its defense, or the defense of any Indemnified Party, it does so without prejudice to its right to subsequently request that the Contractor thereafter assume control of the defense and pay all reasonable attorney's fees and costs incurred thereby.

The provisions of this Section shall survive expiration or termination, for default or otherwise, of any agreement between Contractor and Agency.

#### **6-2.02 No Limitation of Liability for Indemnification**

The indemnity obligations set forth herein are not limited by the types and amounts of insurance maintained by the Contractor or the Contractor's Subcontractors at any tier.

Nothing in this indemnity obligation shall be construed to create any duty to, any standard of care with reference to, or any liability or obligation, contractual or otherwise, to any third party.

The provisions of this indemnity obligation shall survive the expiration or termination of the Contract.

#### **6-3 CONTRACTOR'S LEGAL ADDRESS**

Both the address given in the Bid and the Contractor's office in the vicinity of the Work are designated as places that samples, notices, letters, or other articles or communications to the Contractor may be mailed or delivered. The delivery to either of these places shall be deemed sufficient service to the Contractor and the date of such service shall be the date of delivery. The address named in the Bid may be changed at any time by written notice from the Contractor to the Agency. Nothing herein shall be deemed to preclude or render inoperative the service of any drawing, sample, notice, letter or other article or communication to the Contractor.

#### **6-4 CONTRACTOR NOT AN AGENT OF AGENCY**

The Contractor shall be an independent contractor and not an employee, agent, or other representative of the Agency. Nothing in the Contract shall be construed to create any relationship of joint venture, partnership or any other association of any nature whatsoever between the Agency and the Contractor other than that of owner and independent contractor. The Agency shall have the right to direct the Contractor as provided in the Contract. The aforementioned right of supervision shall not reduce or abrogate the Contractor's liability of all damage or injury to persons, public property, or private property that may arise directly or indirectly from the Contractor's execution of the Work.

## **6-5 SUBSTITUTION OF SUBCONTRACTORS**

The Contractor shall not, without the written consent of the Agency: (a) substitute any party as subcontractor in place of the subcontractor designated in the original bid; (b) permit any such subcontract to be assigned or transferred; or (c) allow the subcontracted work to be performed by anyone other than the original subcontractor listed on the bid. Consent for substitution or subletting shall only be given:

1. When the subcontractor listed in the bid, after having reasonable opportunity to do so, fails or refuses to execute a written contract that is based upon the Plans and Specifications for the Project or the terms of such subcontractor's written bid and is presented to the subcontractor by the Contractor ; or
2. When the listed subcontractor becomes bankrupt or insolvent; or
3. When the listed subcontractor fails or refuses to perform the subcontract; or
4. When the listed subcontractor fails or refuses to meet the bond requirements of the Contractor as set forth in California Public Contract Code Section 4108; or
5. When the Contractor demonstrates to the Agency, subject to the further provisions set forth in California Public Contract Code Section 4107.5, that the name of the subcontractor was listed as a result of an inadvertent clerical error; or
6. When the listed subcontractor is not licensed pursuant to the Contractor License Law as set forth in the Business and Professions Code; or
7. When the Agency determines that the work performed by the listed subcontractor is substantially unsatisfactory and not in substantial accordance with the Contract, or that the subcontractor is substantially delaying or disrupting the progress of the work; or
8. When the listed subcontractor is ineligible to work on a public works project pursuant to Section 1777.1 and 1777.7 of the Labor Code.

In the event of such substitution, the Agency will give at least five (5) Working Days notice in writing to the listed subcontractor, unless they have advised the Agency in writing that they have knowledge of the Contractor's request for the substitution

## **6-6 ASSIGNMENT OF CONTRACT**

The Contract or the performance of the Contract may be assigned by the Contractor, but only upon written consent of the Agency and the Contractor's surety, unless the surety has waived its right of notice of assignment. No such assignment or subcontracting shall be permitted that would relieve the Contractor or the Contractor's surety of their responsibilities under the Contract.

## **6-7 ASSIGNMENT OF MONIES**

The Contractor may assign monies due the Contractor under the Contract, and such assignment will be recognized by the Agency, if given proper notice, to the extent permitted by law. Any assignment of monies shall be subject to all deductions provided for in the Contract. All money withheld may be used by the Agency for the completion of the Work if the Contractor defaults.

## **6-8 PROTECTION OF AGENCY AGAINST PATENT CLAIMS**

The Contractor shall assume all costs arising from the use of patented materials, equipment, devices, and processes on or incorporated in the Work and shall indemnify and hold harmless the Agency and the Agency's officers, officials, agents, employees, authorized volunteers, members, affiliates and their duly authorized representatives from all actions for, or on account of, the use of any patented materials, equipment, devices, or processes in the construction of, or subsequent operation of, the Work. Before final payment, if requested by the Agency, the Contractor shall furnish acceptable proof of a proper

release from all costs or claims arising from the use of patented materials, equipment, devices, or processes used on or incorporated in the Work.

## **6-9 RESPONSIBILITY OF THE CONTRACTOR**

The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, procedures, and coordination of all portions of the Work under the Contract, unless otherwise provided in the Contract or in an emergency situation where specific direction regarding construction means, methods, techniques, sequences, procedures, and coordination is necessary to mitigate an imminent and serious health and safety hazard.

The Contractor, in coordination with the Agency and its duly authorized representatives as appropriate, shall implement measures that create safety awareness and promote safe work practices at the jobsite(s) and shall pursue the Contract in the safest manner possible.

The Contractor shall take appropriate action, up to and including termination, against a Contractor or subcontractor employee who willfully or repeatedly violates workplace safety rules.

The Work shall be under the Contractor's responsible care and charge, and the Contractor shall bear the entire risk of injury, loss, or damage to any part by any cause until completion and field acceptance of the project or any portions thereof. The Contractor shall rebuild, repair, restore, and make good all injuries, losses or damage to any portion of the Work or the materials occasioned by any cause, and shall bear the entire expense.

In no case shall the Contractor's use of subcontractors in any way alter the position of the Contractor or the Contractor's sureties with relation to the Contract. When a subcontractor is used, the responsibility for every portion of the Work shall remain with the Contractor. No subcontractor will be recognized as having a direct contractual relationship with the Agency. All persons engaged in the Work under the Contract will be considered as employees of the Contractor and their work shall be subject to all the provisions of the Contract. The Agency will deal only with the Contractor who is responsible for the proper execution of the Work. The Contractor shall pay when due all valid claims of subcontractors, suppliers, and workmen with respect to the Work.

The mention herein of any specific duty or responsibility imposed upon the Contractor shall not be construed as a limitation or restriction of any other responsibility or duty imposed upon the Contractor by the Contract, said reference being made herein merely for the purpose of explaining the specific duty or responsibility.

The Contractor shall do all of the work and furnish all labor, materials, tools, equipment, and appliances, except as otherwise herein expressly stipulated, necessary or proper for performing and completing the Work herein required, including any change order work or disputed work directed by the Agency in conformity with the true meaning and intent of the Contract drawings, Specifications, and all provisions of the Contract, within the time specified.

If the Contractor discovers any discrepancies during the course of the Work between the Contract drawings and conditions in the field, or any errors or omissions in the Contract drawings and conditions in the field, or any errors or omissions in the Contract drawings, the Specifications, or in the layout given by stakes, points, or instructions, it shall be the Contractor's duty to inform the Agency immediately, and the Agency shall promptly verify the same. Any work done after such discovery until authorized by the Agency, will be done at the Contractor's risk.

## **6-10 PERMITS AND LICENSES**

The Contractor, and Subcontractors at all tiers, shall, at the Contractor's sole expense, obtain all necessary permits, registrations, certifications, notifications, and licenses for the normal conduct of the Contractor's business and the construction of the Work, give all necessary notices, pay all fees required by law, and

comply with all laws, ordinances, rules and regulations relating to the Work and to the preservation of the public health and safety.

The California Environmental Quality Act of 1970 (CEQA) may be applicable to permits, licenses, and other authorizations that the Contractor shall obtain from local agencies in connection with performing the Work. The Contractor shall comply with the provisions of CEQA in obtaining such permits, licenses, and other authorizations, which will be obtained in time to prevent delays to the Work.

The Contractor, and Subcontractors at all tiers, shall obtain and comply with all required permits, registrations, certifications, and notifications applicable to the Work in conformance with the requirements of Cal/OSHA regulations.

The Contractor shall comply with permits, licenses, or other authorizations applicable to the Work obtained by the Agency in conformance with the requirements in CEQA as well the conditions of all other permits, licenses, or other authorizations obtained by Agency.

## **6-11 EXISTING UTILITIES**

### **6-11.01 General**

The Contractor shall coordinate and fully cooperate with the Agency and utility owners/operators for the location, relocation, and protection of utilities. The Contractor's attention is directed to the existence of utilities, underground and overhead, necessary for serving all buildings in the Work area and that traverse through the Work area. The Contractor shall arrange with utility owners for the location of service lines serving these buildings in advance of the actual construction and for the relocation of such facilities, if necessary, by the utility owner or the Contractor. Utility relocations shall be staged during construction to minimize interruptions in service.

Coordination activities shall include communication with all utilities with facilities potentially in conflict with the Work, and working cooperatively with those utilities to schedule any required relocation work by the utilities or their contractors. The Contractor shall provide schedule updates to all utilities every two weeks. Copies of all communications between the Contractor or Subcontractors and the utilities shall be provided to the Agency.

Section 4216.4 of the Government Code requires that the excavator expose marked subsurface facilities by hand before using power equipment, unless documented notice is provided to the facility operator and the facility operator agrees to allow power-operated or power-driven equipment, as specified in Section 4216.4 of the Government Code. Within 14 Calendar Days of the Notice to Proceed, the Contractor shall perform the following work:

- Mark the entire area to be excavated, as defined in Section 6-16.04, of these Specifications.
- Contact USA North to mark existing utilities within the area marked to be excavated.
- Hand excavate (power-operated or power-driven excavating or boring equipment can be used for the removal of existing pavement if there are no subsurface installations contained in the pavement), expose, and protect all existing facilities, including existing utility services, laterals, or appurtenances whenever their presence can be inferred from other visible facilities like buildings, meters, junction boxes, valves, service facilities, identification markings, and other indicators on or adjacent to the Work. If the exact location of the subsurface installation cannot be determined by hand, the excavator shall request the utility owner/operator to provide additional information to the excavator, to the extent that information is available to the utility owner/operator, to enable the excavator to determine the exact location of the installation.
- Subsurface facilities that are aligned with the proposed location of underground Contract installations and that lie within 24 inches from the outside edge of the installation for a longitudinal distance of 50 feet or more must be potholed at 25-foot intervals, at each change of direction, and at every service line or lateral unless otherwise directed by the Agency.

Upon determination of the existence of a conflicting utility, the Contractor shall promptly coordinate utility relocation work. Within 3 weeks of the Notice to Proceed, the Contractor shall provide a written statement to the Agency about the existence of conflicting facilities, utility coordination, and schedules for utility relocations both above and below the surface of the ground. All costs and delays for the following are the Contractor's responsibility: (a) The Contractor fails to pothole and locate utilities within 2 weeks of the Notice to Proceed; (b) The Contractor fails to notify the Agency of potential conflicts within 3 weeks of the Notice to Proceed; (c) The Work is delayed or impacted by existing facilities and the delay or impact could have been avoided had the Contractor complied with these requirements.

#### **6-11.02 Maintenance and Protection**

Unless otherwise shown or specified in the Contract, the Contractor shall maintain in service all drainage, water, gas, sewer lines, power, lighting, telephone conduits, and any other surface or subsurface utility structure that may be affected by the Work. However, the Contractor, for convenience, may arrange with individual owners to temporarily disconnect service lines or other facilities along the line of the Work. The cost of disconnecting and restoring such utilities shall be borne by the Contractor. Notification of any potential interruptions in service shall be provided to the appropriate agencies and affected landowners.

Unless otherwise specified in the Special Provisions, the Contractor shall protect all existing utilities on all projects being constructed, whether inside or outside of project rights-of-way. The utility owner in these cases may elect to provide the necessary protective measures and bill the Contractor for the cost. "Existing utilities" includes traffic control devices, conduits, streetlights, and related appurtenances.

Existing utility facilities that are to be relocated, including joint utility poles, traffic signals and light poles, shall be relocated prior to paving. No paving shall be performed around existing utility facilities that are to be relocated.

#### **6-11.03 Exact Locations Unknown**

The locations of existing utility facilities shown on the Plans are approximate and represent the best information obtainable from utility maps and other information furnished by the various utility owners involved. The Agency warrants neither the accuracy nor the extent of actual installations as shown on the Plans. There may be additional utilities on the property unknown to either party to the Contract. If, during the course of the Work, additional subsurface utilities are discovered, the Agency may make adjustments to the Work. Compensation for such adjustments will be in accordance with Section 9, "Changes and Claims," of these Specifications.

In accordance with Government Code Section 4215, the Agency will compensate the Contractor for the costs of locating, repairing damage not due to the failure of the Contractor to exercise reasonable care, removing, relocating, or protecting existing main or trunk line utility facilities not indicated in the Plans and Specifications with reasonable accuracy, and for equipment on the Work necessarily idled during such work. In no event shall the Agency be liable for any further or additional costs resulting directly or indirectly from any such occurrence. Compensation will be in accordance with Section 9, "Changes and Claims," of these Specifications. Nothing herein shall be deemed to require the Agency to indicate the presence of existing utility services, laterals, or appurtenances whenever their presence can be inferred from other visible facilities such as buildings, meters, junction boxes, valves, service facilities, identification markings, and other indicators on or adjacent to the Work.

If the Contractor discovers utilities not identified in the Plans or Specifications, the Contractor shall immediately notify the Agency and the utility owner by the most expeditious means available and later confirm the notification in writing. If the completion of the Work is delayed by failure of the Agency or the utility owner to remove, repair, or relocate the utility, such delay may be an unavoidable delay as defined and provided for in Section 7-12.02, "Unavoidable Delays," of these Specifications. Nothing herein shall preclude the Agency from pursuing any appropriate remedy against the utility for delays that

are the responsibility of the utility. The Contractor shall not be assessed liquidated damages for delay in completion of the Work for that portion of such delay as is caused by failure of the Agency or the owner of a utility to provide for the removal or relocation of existing utilities.

#### **6-11.04     Underground Service Alert (U.S.A. North)**

The City of Sacramento, the County of Sacramento, and the County of Sutter are members of the Underground Service Alert (USA North) One-Call program. Except in an emergency, the excavator (as defined by Government Code Section 4216) shall notify USA North at least two (2) Working days, but no earlier than fourteen (14) Calendar Days, in advance of performing excavation work. USA North can be reached by calling the toll free number: 1-800-227-2600. USA North does not accept emergency calls. For emergency repairs, the excavator must contact the County operator at 916-875-6900 or the City operator at 916-264-5011. The provisions of Government Code Sections 4216 through 4216.9, inclusive, shall be followed.

Each phase of a project shall be called into USA North and continuing excavation reported every fourteen (14) Calendar Days. The excavator shall not call in to USA North the entire project boundaries or, on road construction projects, the entire length of the project. The excavator shall only request the marking of facilities within the area to be excavated within fourteen (14) Calendar Days of the call. USA North will provide an inquiry identification ("Ticket") number to the person contacting the center. The USA North ticket number shall be available to the Inspector at the job site along with the date USA North was called. If the USA North notifications are not kept up-to-date, the excavation will be stopped, and a new two (2) Working Day notice will be required before continuing the excavation. If, at any time during an excavation for which there is a valid ticket number the field markings are no longer reasonably visible, the excavator shall contact USA North to have the area re-marked. The excavator shall allow two (2) Working Days for re-marking of facilities.

Prior to calling USA North, the excavator shall clearly mark the excavation site with white, water-soluble, or spray chalk paint in paved areas or place flags, stakes, whiskers, or some other approved method in unpaved areas. The excavator shall determine the exact location (twenty-four inches (24") from outside edge on either side of the facility) of utilities in conflict with the proposed excavation by exposing the subsurface installation with hand tools before using any power-operated or power-driven equipment. The excavator is responsible for protecting operators' markings or markers until they are removed.

Prior to Field Acceptance, all USA North markings shall be removed by the Contractor to the satisfaction of the Agency. During the progress of the Work, markings shall be removed by the Contractor to the satisfaction of the Agency. During the progress of the Work, markings or markers shall be removed within two (2) months of the date the markings or markers are no longer needed or upon completion of the work, whichever comes sooner. The Agency will accept natural weathering of the markings if the markings disappear within the two-month period or prior to Field Acceptance. If the markings are in brick pavers or concrete areas and if, by natural weathering or other approved removal methods, the markings still remain, the Contractor must replace the concrete or the brick pavers in-kind, unless the utility operator has failed to use chalk-based paint or other non-permanent marking materials. Excavators and utility operators are encouraged to avoid marking in these areas by using offset markings. Removal methods shall be non-destructive and residual shadowing shall not remain.

Removal of markings shall comply with requirements of the National Pollutant Discharge Elimination System (NPDES), the Regional Water Quality Control Board (RWQCB), and any other applicable federal, state, and local laws, rules, or regulations.

USA North markings not removed by the required time lines may be removed and the sidewalk or street repaired/replaced by the Agency at its discretion. The Agency will charge the excavator a service fee equal to the actual costs of removal for removing the markings and making any repairs and/or



replacements. This fee will include the cost to comply with NPDES, the RWQCB, and any other applicable federal, state, and local laws, rules, or regulations.

#### **6-11.05 Damage to Existing Utilities**

The excavator shall notify the affected utility of any contact, scrape, dent, nick, or damage to its facility. Any operator or excavator who negligently violates Government Code Section 4216.6 is subject to a civil penalty in an amount not to exceed ten thousand dollars (\$10,000). Any operator or excavator who knowingly and willfully violates Government Code Section 4216.6 is subject to a civil penalty in an amount not to exceed fifty thousand dollars (\$50,000).

The excavator shall prepare and implement a response plan to addresses potential accidental damage to a utility line. The plan shall identify chain-of-command rules for notification of authorities and appropriate actions and responsibilities regarding the safety of the public and workers. A component of the response plan shall include worker education training regarding response to such situations.

#### **6-11.06 Markings**

The following table designates color codes and symbols that shall be used by the Contractor and the utility owners to identify utilities:

FIELD MARKINGS - COLOR CODES AND SYMBOLS		
Color	Typical Abbreviation	Typical Utility
White	USA	Proposed Excavation
Pink	TSM	Temporary Survey
Red	SL	Street Lighting
	E	Electric
	TS	Traffic Signals
	G	Gas
Yellow	PP	Oil
	STM	Steam
	CH	Chemical
	Company Name	
Blue	W	Water
Purple	RW	Reclaimed Water
	IRR	Irrigation
Green		Slurry
	SS	Sewer
	SD	Storm Drain

COMMON ABBREVIATIONS			
Facility Identifiers			
CH	Chemical	SL	Street Lighting
E	Electric	STM	Steam
FO	Fiber Optic	SP	Slurry System
G	Gas	TEL	Telephone
LPG	Liquefied Petroleum Gas	TS	Traffic Signal
PP	Petroleum Products	TV	Television

RR	Railroad Signal	W	Water
S	Sewer	RW	Reclaimed, Recycled, Non-Potable Water
SD	Storm Drain		
Underground Construction Descriptions			
C	Conduit	HH	Hand Hole
CDR	Corridor	MH	Manhole
D	Distribution Facility	PB	Pull Box
DB	Direct Buried	R	Radius
DE	Dead End	STR	Structure
JT	Joint Trench	T	Transmission Facility
HP	High Pressure		

#### **6-12 APPROVAL OF CONTRACTOR'S PLANS NO RELEASE FROM LIABILITY**

The review or approval by the Agency of any working drawing or any method of work proposed by the Contractor does not relieve the Contractor of any of the Contractor's responsibility for any errors and is not to be regarded as any assumption of risk or liability by the Agency or any officer, official, agent, employee, member, authorized volunteer, affiliate, or their duly authorized representatives. The Contractor shall have no claim under the Contract because of the failure or partial failure or inefficiency of any reviewed or approved plan or method. Agency review or approval means that the Agency has no objection to the Contractor using the proposed plan or method at the Contractor's responsibility and risk.

#### **6-13 CONTRACTOR SHALL NOT MORTGAGE EQUIPMENT**

The Contractor shall not mortgage or otherwise convey the title of the plant, machinery, tools, appliances, supplies, or materials that may at any time be in use, or further required or useful, in the prosecution of the Work, without prior written consent of the Agency.

#### **6-14 PROPERTY RIGHTS IN MATERIALS**

Nothing in the Contract shall be construed as vesting in the Contractor any right of property in the materials used after they have been installed, attached or affixed to the Work, and on which partial payments have been made by the Agency. All such materials shall be the property of the Contractor and the Agency jointly as their interests may appear, and shall not be removed from the Work by the Contractor without the Agency's consent.

#### **6-15 PRESERVATION OF PROPERTY**

Roadside trees and shrubbery that are to remain, pole lines, fences, signs, traffic control devices, striping, survey markers and monuments, buildings and structures, conduits, under- or above-ground pipelines, and any other improvements and facilities shall be protected from injury or damage. If ordered by the Agency, the Contractor shall provide and install suitable safeguards to protect such objects from injury or damage. If such objects are injured or damaged by reason of the Contractor's operations, said objects shall be replaced or restored at the Contractor's expense to a condition as good as when the Contractor entered upon the Work. The Contractor shall receive Agency approval before the removal of any road sign or permanent traffic control device that interferes with the Work.

#### **6-16 OVERLOADING**

The Contractor shall determine safe loading capacities and shall not overload any structure, equipment, pavement, or material beyond its safe capacity, or significantly deteriorate the preconstruction condition, during construction. In addition to assuming full responsibility for bodily injury resulting from any such overloading, the Contractor shall repair to the Agency's satisfaction or reimburse the Agency for the costs of repairing the damage. For pavement assessment prior to construction, contact the City of Sacramento

Public Works Department, the County of Sacramento Department of Transportation Maintenance Manager, or the County of Sutter Department of Transportation Maintenance Manager, whichever have jurisdiction.

## **SECTION 7 PROSECUTION OF THE WORK**

### **7-1 BEGINNING OF WORK**

No work may take place prior to the Agency's receipt of the executed Contract (as defined in Section 3-7, "Execution of Contract") from the Contractor and the Agency's review and approval of the prescribed bonds and insurance. Upon receipt of the executed Contract and approval of the bonds and insurance by the Agency, a Notice to Proceed will be issued which will constitute authorization to begin work. The Agency may also issue a notice to proceed with preparation of submittals as part of its notice to the Contractor that the Contract has been awarded.

On Working Day or Calendar Day contracts, the counting of Contract Time shall begin no later than thirty (30) Calendar Days from the time the Contractor receives the Contract forms for execution. The Contract completion period shall not be extended due to delays in issuing the Notice to Proceed that result from the Contractor's failure to timely submit the executed Contract, bonds and insurance.

On Fixed Delivery Date contracts, the Contract Time shall begin when the Contractor receives, either by mail or electronic transmittal, the Agency's notice to the Contractor that the Contract has been awarded. The Contract completion period shall not be extended due to delays in issuing the Notice to Proceed that result from the Contractor's failure to timely submit the executed Contract, bonds and insurance.

### **7-2 AMOUNT OF WORK UNDER CONSTRUCTION**

The Contractor shall not have more work under construction than can be prosecuted properly with regard to the rights of the public and the safety and integrity of the project. The Agency has the right to direct the Contractor's operations or schedule to ensure compliance with this requirement.

### **7-3 PRECONSTRUCTION CONFERENCE AND PROGRESS MEETINGS**

Prior to beginning work a preconstruction conference shall be held for the purpose of reviewing the Work. The Contractor must attend this preconstruction conference, and shall invite subcontractors and others necessary to ensure all topics are adequately covered. Topics discussed include, but are not limited to, mobilization, access, temporary facilities, utilities, subcontractors, schedules, procedures, correspondence, progress payments, payroll records, Storm Water Pollution Prevention Plans (SWPPP), coordination, safety, after-hour contacts for Contractor and Agency personnel, quality control/quality assurance, personnel assignments, and other topics as appropriate.

Progress meetings, as stipulated in the Special Provisions or as required by the Agency, will be conducted throughout the duration of the Contract. The purpose of these meetings is to inform, discuss, and resolve issues related to the Work; the Contractor or the Contractor's agent shall attend. Topics discussed include, but are not limited to, progress, schedules, safety, SWPPP, Requests for Information, Field Instructions, Change Orders, field coordination, submittals, quality control/quality assurance, testing, startup, safety, and other topics related to the Work.

Contractor shall attend weekly coordination meetings held with the Engineer to review Contractor's progress on the project and provide a forum to discuss and resolve various issues that may arise during the progress of the work. With reference to Section 4 of the General Provisions, requests for clarification of Contract Documents, or other requests for information regarding the progress of the work, shall be submitted in writing to the Engineer, on a suitable form, to be provided by the Engineer.

### **7-4 WORK TO BE PROSECUTED WITH ADEQUATE SUPERVISION, LABOR FORCE, EQUIPMENT AND METHODS**

The Contractor shall prosecute the Work under the Contract with all materials, tools, machinery, apparatus, and labor necessary to complete the Work as described, shown, or reasonably implied under the Contract, or as directed by the Agency, on or before the scheduled completion date.

#### **7-4.01 Superintendence**

The Contractor shall keep on the Work, throughout its progress, a competent superintendent who shall have complete authority to represent and act for the Contractor. Such superintendent shall be capable of reading and understanding the Contract, and shall receive and follow any instruction given by the Agency.

Whenever the Contractor or the Contractor's superintendent is not present on a particular part of the Work where it may be desired to give direction, orders will be given by the Agency and shall be received and obeyed by the foreman or other representative who may have charge of the particular work in reference to which the orders are given, or the Agency may stop the work until the Contractor or the Contractor's superintendent arrives.

#### **7-4.02 Labor**

Workers, laborers, or mechanics skilled in each class of work shall accomplish every part of the Work.

#### **7-4.03 Equipment and Methods**

Only equipment and methods suitable to produce the quality required by the Contract will be permitted to operate on the Work. Except as specified in Section 5-7, "Contractor's Equipment," of these Specifications, or in the Special Provisions or the Technical Specifications, equipment shall be that used in general practice for the work undertaken. If any part of the Contractor's plant, equipment, or methods of executing the Work is unsafe, inefficient, or inadequate to ensure the required quality or rate of progress of the Work, the Agency may order the Contractor to modify the Contractor's facilities or methods. The Contractor shall promptly comply with such orders at the Contractor's expense. However, neither compliance with such orders nor failure of the Agency to issue such orders shall relieve the Contractor from the obligation to secure the degree of safety, the quality of the Work, and the rate of progress required by the Contract. The Contractor is responsible for the safety, adequacy, and efficiency of his plant, equipment, and methods.

### **7-5 SCHEDULES**

The Contractor shall submit a schedule, in accordance with this Section 7 and Section 5-8, "Contractor's Submittals," of these Specifications, which illustrates the Contractor's plans for carrying out the Work. The Agency will review the schedule, and any updates or revisions, for conformance to the Contract. Agency review of a schedule, update, or revision does not relieve the Contractor of responsibility for the feasibility of the schedule or requirements for accomplishments of milestones and completion within Contract Time, nor does the Agency review warrant or acknowledge the reasonableness of the schedule's logic, durations, labor estimates, or equipment productivity.

If no separate item is provided in the Bid Form, payment for schedules shall be included in payments for mobilization. If no bid item for mobilization is included in the Bid Form, conformance with this provision is incidental to and included in the various bid items and no additional payment will be made. Updates and revisions of the schedules are included in the prices paid for other items of work.

Because the Agency places a high value on the importance and use of project scheduling information as a management tool in achieving the completion of the Work as planned, the Agency will deduct ten (10) percent of the monthly Progress Payment, but not more than twenty-five thousand dollars (\$25,000), for failure by the Contractor to submit the monthly updated schedule, as required by these Specifications, with each monthly progress payment request. These deductions are cumulative, and will be made for each and every month that the Contractor fails to provide the required information. The monthly updated schedule and narrative shall be accurate, reflect actual events on the project, and meet all requirements of these Specifications. If the Contractor does not correct the deficiency by providing an acceptable schedule update within ten (10) days of the Agency's receipt of the monthly Progress Payment request, the deduction will become permanent via a deductive change order.

### **7-5.01 Progress Schedule**

A bar chart or similar form of progress schedule will be required for all contracts. Unless otherwise agreed to by the Agency, the latest version of MS Project or Primavera P6 shall be used. The Contractor shall submit three (3) copies, plus an electronic copy, of a complete baseline progress schedule at the preconstruction conference (see Section 7-3, "Preconstruction Conference and Progress Meetings," in these Specifications). The baseline progress schedule shall show all major portions of the Work, the estimated dates on which the Contractor shall start each portion of the Work, and the contemplated dates for completing each portion of the Work or the approximate percentage of the Work or portions of the Work scheduled for completion at any time.

Unless agreed to by the Agency, the progress schedule shall be updated and submitted to the Agency with each Progress Payment request or when requested by the Agency. All schedule updates or revisions shall show the effects of any occurrence upon which the Contractor will base a notice of potential claim or has based any claim (see Section 9, "Changes and Claims," of these Specifications), and shall expressly call the Agency's attention to those effects. A revised or updated schedule shall be submitted within ten (10) Working Days of an Agency request. The Contractor shall submit three (3) copies plus an electronic copy of each update.

The Contractor shall carry out the various elements of the Work concurrently, as is practicable, and shall not defer construction of any portion of the Work in favor of any other portion, without the express written approval of the Agency.

Upon the occurrence of an event that impacts the project completion date (Time Impact), the Contractor must submit a separate Time Impact Analysis (TIA) per Section 7-12.03 of these Specifications for all delays for which it will be seeking a time extension. The Contractor must not incorporate any delays or change activities into a monthly schedule update without Agency review and approval of a submitted TIA. Upon review and acceptance by the Agency, the proposed TIA must be incorporated into the next monthly schedule update.

Despite the submission of a progress schedule, the Contractor shall be governed by the direction of the Agency if, in the judgment of the Agency, it becomes necessary to accelerate the Work or any part thereof, or cease work at any particular point and concentrate the Contractor's forces at such other point or points, with the intent of preventing delays.

### **7-5.02 CPM Schedule**

In addition to the initial progress schedule required by the previous Section (Section 7-5.01), the Contractor shall submit a practicable Critical Path Method (CPM) network schedule within thirty (30) days of receipt of the executed Contract. Unless otherwise agreed to by the Agency, the latest version of Primavera P6 shall be used. The CPM network diagram shall be time-scaled and include printouts showing the mathematical analysis of the CPM network diagram. Activities shall include, but not be limited to, construction activities, procurement activities, submittal review and approval activities, cure times, and any other activities by the Contractor, the Agency, or any other entity that may impact the Work. Submittal and procurement activities shall include falsework drawings, post tensioning drawings, test procedures, mix designs, long time lead items, etc. The following information shall be shown for each activity:

1. Unique number(s) for each activity.
2. Activity description.
3. Activity relationships and dependencies (logic).
4. Activity duration in Working Days.
5. Early start, early finish; late start, late finish dates (calendar date, i.e., day, month, year).

6. Total float, free float.
7. For completed activities: actual start dates, actual finish dates, duration, and logic.
8. Interim milestone dates and completion dates.
9. Detailed list of work contained within each activity.
10. Manpower loading for each item of work for unit price contracts.
11. Cost loading for each item of work for lump sum contracts, which will be the "Schedule of Values" and the basis for periodic Progress Payments.

All activity calendars must be in Working Days. No more than 50 percent of construction schedule activities can be shown as critical or near critical. Near critical is defined as the longest path plus 15 Working Days total float. The Critical Path must be clearly shown and based upon the longest path through the network logic of necessarily related predecessor and successor activities. All activities must have a minimum of one predecessor and one successor. Schedule activity constraints cannot be used unless authorized by the Agency.

The Contractor shall submit three (3) full-size paper copies, a P6 electronic file and a pdf file of each CPM schedule. Updates to the CPM schedule shall be submitted with each Progress Payment request, when Contract events are changed, or within ten (10) Working Days of an Agency request. The Contractor's Progress Payment request for Lump Sum Contracts (schedules that are Cost Loaded) must be generated from and correspond to the Monthly Schedule Update. A narrative describing the general status of the Work and addressing any problem areas or delays shall be submitted with each revision or update, with impacts on critical path items of work highlighted. A corrective course of action shall also be included when problem areas or delays are encountered.

Upon the occurrence of an event that impacts the project completion date (Time Impact), the Contractor must submit a separate Time Impact Analysis (TIA) per Section 7-12.03 of these Specifications for all delays for which it will be seeking a time extension. The Contractor must not incorporate any delays or change activities into a monthly schedule update without Agency review and approval of a submitted TIA. Upon review and acceptance by the Agency, the proposed TIA must be incorporated into the next monthly schedule update.

All schedule updates or revisions shall show on the critical path the effects of any occurrence upon which the Contractor has based a notice of potential claim or will base any claim (see Section 9, "Changes and Claims," of these Specifications) and shall expressly call the Agency's attention to the effects. A resource leveled/constrained schedule will not be accepted for the determination of critical path impacts.

#### **7-5.03 Four-Week Rolling Schedule**

A four-week rolling schedule shall be provided by the Contractor at each progress meeting. The schedule shall provide an accurate representation of the work performed the previous week and work planned for the current week and the subsequent two (2) weeks.

The schedule shall be provided in a bar chart form with information derived from and consistent with the current project schedule. The schedule shall include activity ID number, activity description, start and finish dates (both scheduled and actual), and any other information requested by the Agency. Each activity shall be coded to note activities on the critical path and activities that are behind schedule.

#### **7-5.04 Float**

Float in any activity, milestone completion date, and/or Contract completion date is owned by the Project and, as such, is a resource available to both the Agency and the Contractor. Neither the Agency nor the Contractor owns the float time.

Unless otherwise provided herein, float is synonymous with total float. Total float is the period of time measured by the number of Working or Calendar Days (as specified in the Contract) each non-critical path activity may be delayed before it and its succeeding activities become part of the critical path. If a non-critical path is delayed beyond its float period, then that activity becomes part of the critical path and controls the end date of the work. Thus, delay of a non-critical path activity beyond its float period will cause delay to the project itself.

Acceptance of a Baseline Schedule, Monthly Update(s), or Revised Schedule, which is based on less time than the maximum time allowed for milestone or Contract completion, does not serve to change any contract duration, nor does it serve as a waiver of either the Contractor's or Agency's right to utilize the full amount of time specified in the Contract. As such, liability for delay of the project completion date rests with the party actually causing delay to the project completion date. For example, if Party A uses some, but not all, of the float time and Party B later uses the remainder of the float time as well as additional time beyond the float time, Party B shall be liable for the costs associated with the time that represents a delay to the project's completion date. Party A would not be responsible for any costs since it did not consume all of the float time and additional float time remained, and the Project or milestone completion date was unaffected.

Should the Contractor submit any schedule reflecting a Forecasted Project Completion Date earlier than the Contract Completion Date, the difference must be shown on a schedule activity titled "Project Float." Should the Contractor not show this time as Project Float, a Contract Change Order will be issued adjusting the Contract Completion Date to the new Forecasted Project Completion Date.

The Contractor shall not use any method to sequester float for its exclusive use. Sequestration of float is a basis for schedule rejection.

#### **7-5.05 Schedule Acceptance**

The Agency will review the baseline schedule, monthly schedule updates or proposed schedule revisions, and any other schedule related data, for conformance to the Contract within 15 Working Days of receipt. All schedule related submittals shall be resubmitted within 10 Working Days of receiving Agency comments. Agency review and acceptance of any baseline schedule, update, revision, or any other schedule-related data does not relieve the Contractor of responsibility for the feasibility of the schedule, completion of any omitted work scope, or requirements for accomplishments of milestones and completion within Contract Time. The Agency review and acceptance does not warrant or acknowledge the reasonableness of the schedule's logic, durations, labor estimates, or equipment productivity.

#### **7-6 UNUSUAL SITE CONDITIONS**

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

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

The Contractor shall follow up the prompt notification with written documentation of the unusual site condition within five (5) Working Days.



The Agency will investigate the condition and arrange for any modification to the condition it deems appropriate, including having the site remediated if it finds that the condition involves hazardous waste or issuing a Field Instruction if it finds that the condition does materially differ from those indicated in the Contract. The Agency will issue a Contract Change Order per Section 9, "Changes and Claims," of these Specifications if it determines that the presence of the condition materially affects the cost of conducting the Work.

## **7-7 PURSUANCE OF WORK DURING INCLEMENT WEATHER**

During inclement or unsuitable weather or other unfavorable conditions, the Contractor shall pursue only such portions of the Work that will not be damaged by the weather or unfavorable conditions. When the weather or unfavorable conditions creates hazardous travel or working conditions, as determined by the Agency, the Contractor may be directed to stop that portion of the Work, in accordance with Section 5-21, "Temporary Suspension or Delay of Work," of these Specifications, until the weather clears or the conditions are no longer unfavorable.

The Contractor must keep roads safe and inspect and maintain storm water pollution prevention and erosion control devices during inclement weather or unfavorable conditions. Lane and road closures may not be allowed if the Agency determines that the traffic controls will create unnecessary risk to the traveling public, the Contractor, and/or Agency employees.

## **7-8 PEAK HOURS, HOURS OF DARKNESS, HOLIDAYS, AND WEEKENDS**

### **7-8.01 Allowable Times and Hours of Work**

Unless otherwise noted in the Special Provisions, directed or approved by the Agency, no work shall be done between the hours of 6 p.m. and 7 a.m., or on Saturdays, Sundays, or Legal Holidays. Unless otherwise noted in the Special Provisions, directed or approved by the Agency, no lane of traffic shall be closed to the public during the peak hours of 6:30 a.m. to 8:00 a.m. and 3:30 p.m. to 6:00 p.m., except as necessary for the proper care and protection of work already performed or in case of an emergency repair as defined below. These exceptions are allowed only with the Agency's written permission.

Lane and road closures during the hours specified above will only be allowed in emergency situations, or with the express written approval of the City of Sacramento Department of Public Works, County of Sacramento Department of Transportation, or County of Sutter Department of Public Works, which has jurisdiction over the roadway.

### **7-8.02 Off-Period Work**

A written request to work between 6 p.m. and 7 a.m. or on Saturdays, Sundays, or legal holidays, or to close a lane of traffic during peak hours must be submitted at least five (5) Working Days in advance of the intended work. The Agency will evaluate the Contractor's request to determine if there is a benefit to the Agency, a nuisance or a hazard to the public, the project, or the area surrounding the site, and if the Contractor should pay any Agency overtime costs related to the off-period work. The Agency may place conditions on any approval of off-period work based upon this analysis.

### **7-8.03 Emergency Repairs**

An emergency repair is a repair to the Work (including traffic controls, barricades, or temporary signs) required as a result of an unforeseen event that poses a danger to the public or jeopardizes the integrity of the Work, whether completed or not. The Contractor may be allowed to close a lane of traffic or work at night, on Saturdays, Sundays, or legal holidays for an emergency repair. The Contractor must notify the Agency within one (1) hour of dispatch of the Contractor's repair crews, and give their name, an emergency contact number, the location of the emergency repair, and a tentative completion date and time. The Contractor shall notify the Agency when the emergency repair is completed and the road is clear, or, if an extension of time is required, the Contractor must provide a revised tentative completion date and time.

#### **7-8.04 Revocation of Permission For Off-Period Work**

The Agency may revoke permission for off-period work if the Contractor endangers the public, an employee, or themselves by violating a safety and health regulation, or fails to maintain an adequate work force and equipment for reasonable prosecution and inspection of such work.

#### **7-8.05 Working Shifts**

Two- or three-shift operations may be established as a regular procedure by the Contractor upon written permission from the Agency. Such permission may be revoked if the Contractor fails to comply with applicable safety and health regulations, fails to maintain adequate force and equipment for reasonable prosecution and inspection of the Work, or fails to provide sufficient artificial light to permit the Work to be carried out safely and appropriately and to permit proper inspection.

#### **7-8.06 Lane and Road Closures During November/December Holiday Season**

Except as provided in the Special Provisions or approved by the Agency, construction will be suspended and no activities that interfere with public traffic shall be conducted on designated streets during the holiday season (defined as the four-day Thanksgiving weekend and December 8 through January 1). The Contractor shall contact the City of Sacramento Department of Public Works, County of Sacramento Department of Transportation, or the County of Sutter Department of Public Works to determine the designated streets where the holiday season restrictions specified herein apply. All existing pits, excavations, trenches, and openings in the road surface shall be backfilled and paved to produce a level and smooth surface. All barricades and barriers shall be removed from all traffic lanes, unless authorized by the Agency as long-term traffic controls. Only emergency repairs as defined in Section 7-8.03, "Emergency Repairs," in this Section of these Specifications will be permitted during the holiday season. Unless otherwise stipulated in the Special Provisions, the holiday season as described above is accounted for in the original contract duration, and Contract Time will continue to be counted during this suspension period. The baseline and progress schedules must include this suspension period if applicable.

### **7-9 TEMPORARY FACILITIES AND SERVICES**

Unless specified otherwise in the Special Provisions, the Contractor shall be responsible for providing and maintaining necessary material storage facilities, utilities, field offices, temporary roads, fences, security, etc. for prosecuting the Work. The Contractor shall not connect to or draw construction water from fire hydrants without written approval from the utility owner and the Agency.

### **7-10 PROTECTION OF WORK, PERSONS AND PROPERTY**

The Contractor shall protect the Work and materials from damage until completion and acceptance of the Work. Neither the Agency nor any of its agents assume any responsibility for collecting funds from any person or persons that damages the Contractor's work.

The Contractor shall store materials and equipment in accordance with manufacturer's recommendations and erect such temporary structures as required to protect them from damage.

The Contractor shall furnish guards, fences, warning signs, walks, and lights, and shall take all other necessary precautions to prevent damage or injury to persons or property.

### **7-11 PROOF OF COMPLIANCE WITH CONTRACT**

When requested by the Agency, the Contractor shall submit properly authenticated proof of the Contractor's compliance with the Contract.

### **7-12 DELAYS**

The Contractor shall provide notification to the Agency for any delays, in accordance with Section 7-13, "Notice of Delays," in this Section of these Specifications.

### **7-12.01 Avoidable Delays**

The Contractor shall not receive any time extensions or compensation for avoidable delays. Avoidable delays include, but are not limited to, the following:

1. Delays that affect only a portion of the work but do not prevent or delay the prosecution of controlling items of work or the completion of the whole Work within the Contract Time.
2. Delays associated with the reasonable interference of other contractors employed by the Agency that do not necessarily prevent or delay the prosecution of controlling items of work or the completion of the whole Work within the Contract Time.
3. Delays associated with loss of time resulting from the necessity of submitting plans for Agency approval or from Agency surveys, measurements, inspections, and testing.
4. Delays that could have been avoided by the exercise of care, prudence, foresight, and diligence on the part of the Contractor or subcontractors.
5. Any curtailment of the Contractor's operations due to the action of the Sacramento Metropolitan Air Quality Management District (SMAQMD), the Feather River Air Quality Management District (FRAQMD), the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Board (RQWCB), or any federal, state, or local jurisdictional agency as a result of the Contractor's failure to comply with the air and water quality aspects of these Specifications or the ordinances and regulations of these agencies.

### **7-12.02 Unavoidable Delays**

The Contractor may be granted an extension of Contract time for delays that are determined to be beyond the control of the Contractor, impact a controlling item of work at the time the delay was encountered, and could not be prevented by the exercise of care, prudence, foresight, and diligence. Unavoidable delays may include Agency acts, acts of God or of the public enemy, fire, floods, epidemics, and strikes. Material shortages and delays in utility company relocations may be classified as unavoidable if the Contractor produces satisfactory evidence of acting in a timely manner.

1. The Contractor shall not receive any additional compensation due to inclement or unsuitable weather or conditions resulting therefrom, acts of God or of the public enemy, fire, floods, epidemics, strikes, material or labor shortages, or utility relocations.
2. The Contractor may be entitled to additional compensation for unavoidable delays the Agency determined resulted from an Agency act or the discovery of cultural resources as specified in Section 10-12, "Archaeological, Paleontological, and Cultural Resources," of these Specifications, except as modified below:
  - a. Compensation for unavoidable delays shall not be granted when the Contractor could have reasonably anticipated the delay.
  - b. When there are two (2) or more concurrent delays and at least one (1) is noncompensable, no compensation other than time extension shall be provided.
  - c. Compensation for unavoidable delays shall be granted only if such unavoidable delay affects controlling operations that would prevent completion of the Work.

### **7-12.03 Time Impact Analysis**

If the Contractor requests a time extension due to unavoidable delays, the Contractor must provide a Time Impact Analysis (TIA) that supports the requested time within 10 Working Days of when the Contractor knows, or should have known, of the delay. The TIA must comply with the following:

1. Describe the impacts of each unavoidable delay on the current scheduled Contract Completion Date or interim milestone.

2. Use the accepted baseline or monthly schedule that has a data date closest to and before the event. If the Agency determines that the schedule used does not appropriately represent the conditions before the event, the Contractor must update the schedule to the day before the event being analyzed.
3. Include an impact schedule (fragnet) developed from incorporating the event into the accepted schedule by adding or deleting activities. If the impact schedule shows that incorporating the event modifies the critical path and Contract Completion Date of the accepted schedule, the difference between scheduled completion dates of the 2 schedules must be equal to the adjustment of Contract time.
4. Provide a narrative describing the chronology of events, changes to the schedule, and how the Contractor met the Contract requirements for providing notice and requesting time.
5. Address concurrent delays in the same time period for which the TIA is submitted.

If the Agency accepts the TIA, the Agency will grant a time extension, and the fragnet then must be included in subsequent monthly schedule updates. If the Agency rejects the TIA, the Contractor must not include the delays in subsequent schedule updates. All TIA related resubmittals must be returned within 10 Working Days of receiving Agency review comments.

Inclusion of any delay events not accepted by the Agency is grounds for rejection of schedule updates. Failure by the Contractor to provide notice and request time in compliance with all contract requirements waives the Contractor's right to a time extension and will result in the Contractor being responsible for all costs to mitigate said delay.

### **7-13 NOTICE OF DELAYS**

The Contractor shall immediately notify the Agency in writing if the Contractor foresees any delay in the prosecution of the Work or immediately upon the occurrence of any unavoidable delay, but in no case shall the written notice be provided to the Agency later than two (2) Working Days after the occurrence of the unavoidable delay. The Contractor shall state the probability of the delay occurring and its cause so the Agency may take steps to prevent the occurrence or continuance of the delay and determine whether the delay is avoidable or unavoidable, its duration, and the extent.

The Agency will assume that all delays were avoidable unless the Agency was notified as indicated above and through its investigation found them unavoidable. No consideration for additional time or compensation will be given for any delay not called to the Agency's attention at the time of its occurrence.

### **7-14 CARELESS DESTRUCTION OF STAKES AND MARKS NO CAUSE FOR DELAY**

If the Contractor or subcontractors carelessly destroy Agency-placed stakes and marks causing a delay in the Work, the Contractor shall have no claim for damages or time extensions. See also Section 5-9, "Surveys," of these Specifications.

### **7-15 TIME OF COMPLETION**

Time is of the essence on all Agency contracts. The Contractor shall complete all of the Work called for under the Contract within the Contract Time set forth in the Special Provisions.

For Working Day or Calendar Day contracts, the Agency will furnish the Contractor a weekly statement showing the number of days charged to the Contract for the preceding week, the number of days of time extensions approved or under consideration, the number of days originally specified for the completion of the Contract, and the extended date for completion. The extended date for completion is the new Contract Completion Date. The Contractor will be allowed fifteen (15) days from the issuance of the weekly statement to file a written protest stating how the Contractor's estimate of Contract days charged to the Contract differs from the Agency's. If no protest is received, it shall be deemed by the Agency that the Contractor has accepted the statement as being correct.

For Fixed Delivery Date contracts, the Agency will furnish the Contractor a weekly statement showing the number of days remaining in the Contract, the number of days of time extensions approved or under consideration, the number of days originally available for the completion of the Contract, and the extended date for completion. The extended date for completion is the new Contract Completion Date. The Contractor will be allowed fifteen (15) days from the issuance of the weekly statement to file a written protest stating how the Contractor's estimate of remaining Contract days differs from the Agency's. If no protest is received, it shall be deemed by the Agency that the Contractor has accepted the statement as being correct.

#### **7-16 EXTENSION OF TIME NOT A WAIVER**

Time extensions granted for unavoidable delays or for the execution of extra or additional work shall not operate as a waiver of the Agency's rights under the Contract.

#### **7-17 INCLEMENT WEATHER AND CONTRACT TIME**

##### **1. Working Day or Calendar Day Contracts**

A Contract day on either Working Day or Calendar Day contracts will not be charged if, in the opinion of the Agency, inclement or unsuitable weather or its effects prevents working on the current controlling operation for at least fifty percent (50) of the scheduled work shift with at least fifty (50) percent of the scheduled labor and equipment. A current controlling operation is any feature of the Work (e.g., an operation or activity including compaction, curing periods, and placement activities) that if delayed or prolonged will delay the time of completion of the Contract. If the current accepted Baseline Schedule or Schedule Update contains float, no work item is controlling and a working day or calendar day will be charged.

##### **2. Fixed Delivery Date Contracts**

This provision specifies the procedure for the determination of time extensions for unusually severe weather for fixed delivery date contracts. In order for the Engineer to award a time extension under this clause, the following conditions must be satisfied:

- a. The weather experienced at the project site during the Contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project during any given month.
- b. The unusually severe weather must actually cause a delay to the completion of the Project. The delay must be beyond the control and without the fault or negligence of the Contractor.
- c. The actual adverse weather delay day(s) must prevent work on current controlling activities for fifty (50) percent or more of the Contractor's scheduled work day.

The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
(07)	(05)	(05)	(04)	(01)	(01)	(01)	(01)	(01)	(02)	(05)	(07)

Upon acknowledgement of the Notice to Proceed (NTP) and continuing throughout the Contract, the Contractor will record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work.

## **7-18 EXTENSION OF TIME**

The Contractor will be allowed a time extension to complete the Work equal to the sum of all unavoidable delays as determined in accordance with Section 7-12.02, "Unavoidable Delays," in this Section of these Specifications, plus any adjustments in Contract Time due to Contract Change Orders as outlined in Section 9-12, "Time Extensions for Changes," in these Specifications. During such time extension, the Contractor will not be charged for extra engineering and inspection or liquidated damages. Requests for a time extension must be submitted in writing to the Agency within ten (10) Working Days of when the Contractor knew, or should have known, of the event that is the reason for the request for time extension. Any failure by the Contractor to provide notice or request a time extension, in compliance with all related contract provisions, is an irrevocable waiver of the Contractor's right to a time extension resulting in the Contractor being responsible for all costs to mitigate the delay..

## **7-19 SUBSTANTIAL COMPLETION**

When the Contractor considers the entire Work, or a specific portion of the Work, substantially complete, the Contractor shall certify in writing to the Agency that the Work is substantially complete and request that the Agency grant substantial completion. Within five (5) Working Days, the Agency and the Contractor shall inspect the Work, or a specific portion of the Work, to determine the status of completion. If the Agency does not consider the Work, or a specific portion of the Work, ready for its intended use, the Agency will notify the Contractor in writing, giving the Agency's reasons. If the Agency considers the Work, or a specific portion of the Work, ready for its intended use, the Agency will grant substantial completion of the Work, or the specific portion of the Work. The counting of time for liquidated damages will cease for the entire Work, or a specific portion of the Work, on the date substantial completion is granted, but shall not bind the Agency to formal acceptance nor relieve the Contractor from the responsibility of completing or correcting any work.

Unless otherwise specified in the Special Provisions, the entire Work, or a specific portion of the Work, will be considered substantially complete when all work depicted on the contract drawings and required by the Contract Documents has been performed, and the Work can be used for its intended purpose. Only minor corrective work will be allowed to be considered as punch list work. The Agency will provide a list of items to be completed or corrected (preliminary punch list) before Field Acceptance. The Contractor shall provide the level of effort and resources necessary to complete the preliminary punch list within 30 Calendar Days of such notification. Unless otherwise agreed to by the Agency, the Agency is authorized to perform the work if the Contractor fails to complete the punch list within 30 Calendar Days. Costs incurred by the Agency to correct defects or deficiencies, including loss of use, inspection and administrative costs, will be deducted from the final project payment via a deductive change order.

## **7-20 CLEANING UP**

Throughout the construction period, the Contractor shall keep the site of the Work in a presentable condition, dispose of any surplus materials, keep roadways reasonably clear of dirt and debris, keep all sidewalk and other pedestrian areas clear of dirt, loose gravel, debris and any tripping hazards, clean out all drainage ditches and structures, and repair any fences or other property damaged during the progress of the Work, to the satisfaction of the Agency. The Contractor shall also keep the work site cleaned of all rubbish, excess material, and equipment. All portions of the work shall be left in a neat and orderly condition prior to requesting final inspection. Surplus material shall be disposed of in accordance with the relevant technical provision of these Specifications.

The final inspection will not be made until final cleanup has been accomplished.

## **7-21 FINAL INSPECTION AND FIELD ACCEPTANCE**

The Contractor shall notify the Agency in writing of the completion of the punch list per Section 7-19, "Substantial Completion," of these Specifications and the Agency will promptly inspect the Work. The

Contractor or the Contractor's representative shall be present at the final inspection. The Contractor will be notified in writing of any defects and/or deficiencies (final punch list). The Contractor shall provide the level of effort and resources necessary to complete the final punch list within 30 Calendar Days. of such notification. When notified that correction of the defective and/or deficient work is complete, the Agency will again inspect the Work to ascertain that the corrections are in accordance with the Contract. The Agency will issue a field acceptance letter if it finds all the corrections acceptable. Field acceptance by the Agency shall cause the commencement of warranty periods, but shall not bind the Board to final acceptance nor relieve the Contractor from the responsibility of completing or correcting any work.

#### **7-22 FINAL ACCEPTANCE AND NOTICE OF COMPLETION**

Upon completion of the Work, including acceptance/approval of Maintenance & Operations manuals, Record Drawings, test reports and other final closeout documents, the Engineer will recommend to the Board that it accept the Contract as complete. Upon acceptance by the Board, a Notice of Completion will be filed with the County Recorder and a thirty-five (35) day lien period will begin. (See Section 8-11, "Final Estimate and Payment," of these Specifications.)

## **SECTION 8 MEASUREMENT AND PAYMENT**

### **8-1 BASIS AND MEASUREMENT OF PAYMENT QUANTITIES**

It is the Contractor's responsibility to measure and/or compute the quantities of work completed, subject to verification by the Agency, under the terms of the Contract. In computing quantities, the length, area, solid contents, number, weight, or time as specified in the Contract or the Schedule of Values shall be used.

#### **8-1.01 Unit Price Contracts**

Payment for all work bid at a price per unit of measurement will be based upon the actual quantities of work as measured upon completion. The Estimated Quantities provided in the Bid Documents are for comparative bidding only. The Agency does not express or imply that the actual amount of work or materials will correspond to the Estimated Quantities. The Contractor shall make no claim nor receive any compensation for anticipated profits, loss of profit, damages, or any extra payment due to any difference between the amounts of work actually completed, or materials or equipment furnished, and the Estimated Quantities. See also Section 9-14, "Contract Change Order (CCO)," of these Specifications.

#### **8-1.02 Lump Sum or Job Contracts, Lump Sum Items**

Progress Payments will be based on the Schedule of Values prepared by the Contractor and approved by the Agency prior to acceptance of the first Progress Payment request (see Section 8-5, "Progress Payment Procedures," in this Section of these Specifications). If requested by the Agency, the Contractor shall furnish full copies of Subcontracts showing actual costs. The Schedule of Values shall be consistent with the baseline progress schedule prepared by the Contractor pursuant to Section 7-5, "Schedules," of these Specifications.

#### **8-1.03 Payment for Mobilization**

Mobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the site; for the establishment of all offices, buildings, and other facilities necessary for the Work; and for all other work and operations which must be performed, or costs incurred, prior to beginning the Work.

Payment for mobilization will be as follows:

##### **8-1.03 A Mobilization Not a Pay Item**

When the Contract does not include a separate pay item for mobilization, full compensation for mobilization will be included in the Contract lump sum price or in the prices paid for the various items of work in a unit price contract, and no additional compensation will be paid.

##### **8-1.03 B Mobilization a Pay Item**

When the Contract or proposed Schedule of Values includes a separate item for mobilization, payment for mobilization will include full compensation for the furnishing of all labor, materials, tools, equipment, administrative costs, and incidentals for mobilization.

1. The Agency will pay no greater than five (5) percent of the Total Contract Price as a separate pay item for mobilization. In the event the Contractor submits a mobilization pay item greater than five (5) percent of the Total Contract Price, the Agency will pay any excess mobilization amount with the final Progress Payment.
2. Payment for mobilization will be prorated as follows:
  - a. When the Progress Payment request is five (5) percent or more of the original Total Contract Price (excluding mobilization), fifty (50) percent of the contract item price for mobilization



or two and one-half (2.5) percent of the Total Contract Price, whichever is less, will be paid for mobilization.

- b. When the Progress Payment request is ten (10) percent or more of the original Total Contract Price (excluding mobilization), seventy (70) percent of the contract item price for mobilization or three and one-half (3.5) percent of the Total Contract Price, whichever is less, will be paid for mobilization.
- c. When the Progress Payment request is twenty (20) percent or more of the original Total Contract Price (excluding mobilization), ninety (90) percent of the contract item price for mobilization or four and one-half (4.5) percent of the Total Contract Price, whichever is less, will be paid for mobilization.
- d. When the Progress Payment request is fifty (50) percent or more of the original Total Contract Price (excluding mobilization), one hundred (100) percent of the contract item price for mobilization or five (5) percent of the Total Contract Price, whichever is less, will be paid for mobilization.

After final acceptance of the Contract, the amount, if any, of the Contract item price for mobilization in excess of five (5) percent of the original Total Contract Price will be included for payment in the final estimate made in accordance with Section 8-11, 'Final Estimate and Payment,' in this Section of these Specifications.

- 3. The Agency will not pay additional mobilization compensation for work under a Contract Change Order unless necessary solely for the performance of Contract Change Order work and unless prior written approval is obtained from the Agency. Payment for mobilization shall be subject to retention per Section 8-7, "Retention," in this Section of these Specifications.

## **8-2 SCOPE OF PAYMENT**

### **8-2.01 General**

Compensation under the terms of the Contract shall be full payment for the Work, including loss or damage arising from the nature of the Work, action of the elements, or unforeseen difficulties encountered during the prosecution of the Work and until its final acceptance; and all risks connected with the prosecution of the Work.

### **8-2.02 Unit Price Contract**

Progress Payments will be made based on the unit price bid and measured quantities for work completed, plus work completed on approved Change Orders. For compensation for alterations in quantities of work, including deviations greater than twenty-five (25) percent, see Section 9-8.02, "Payment for Changes – Unit Prices," in these Specifications.

### **8-2.03 Lump Sum or Job Contract, Lump Sum Item**

Progress Payments will be based upon the approved Schedule of Values for work completed, plus work completed on approved Change Orders.

### **8-2.04 Final Pay Items**

An item designated with a bid item estimated quantity but identified as a Final Pay Item in the Contract shall be paid for using the Bid Form Estimated Quantity. For a Final Pay Item, the Contractor shall accept payment based on the Estimated Quantity regardless of actual quantity used or furnished unless the dimension of the item are changed by the Agency.

### **8-2.05 Allowances**

Allowances may be included in the Bid Form for materials and/or work that may be added during the course of the Contract. The Allowance may be used in whole, in part, or not at all as determined by the Agency. Payment under an Allowance item will only be made upon acceptance and approval of associated quantities of work, invoices or other appropriate documentation as determined by the Agency. Whenever costs of the Work included in the Allowance item are more or less than the specified Allowance amount, the Total Contract Price will be adjusted accordingly by Contract Change Order. The Contractor shall make no claim nor receive any compensation for anticipated profits, loss of profit, damages, or any extra payment due to any difference between the amount of work actually completed, or materials or equipment furnished, and the Estimated Quantities for the Allowance. Markups used in calculating the amount earned by the Contractor under the Allowance shall be: Labor 10%, Materials 10%, Equipment 10%. No markup for bonds or insurance will be allowed.

### **8-2.06 Payment for Material Not Incorporated in the Work**

No Progress Payments will be made for materials and equipment not incorporated in the Work, unless specifically set forth in the Special Provisions or authorized by the Agency. The Agency may impose additional requirements for insurance, storage, handling, security, etc., that the Contractor shall comply with if payment is to be made for materials not incorporated into the Work.

### **8-3 WORK TO BE DONE WITHOUT DIRECT PAYMENT**

Unless otherwise specified in the Special Provisions, compensation for any portion of the Work not specifically identified in the Bid Form or Schedule of Values is understood to be included in the price for other reasonably related items. No additional compensation is allowed for additional shifts or premium pay necessary to ensure that the Work is completed within the time limits specified in the Contract.

### **8-4 PAYMENT FOR USE OF COMPLETED PORTIONS OF WORK**

If the Agency accepts a completed or partially completed portion of the Work under Section 4-10, "Use of Completed Portions," of these Specifications, the Contractor will be compensated in accordance with Sections 8-11, "Final Estimate and Payment," and 8-12, "Final Payment to Terminate Liability of Agency," in this Section of these Specifications. When the Agency accepts a completed or partially completed portion of the Work, the warranty period for that portion commences and the Contractor will be relieved of any further maintenance and protection of that portion. The Contractor will not be relieved of the Contract requirements for repairing or replacing defective work and materials.

### **8-5 PROGRESS PAYMENT PROCEDURES**

No Progress Payment will be made when, in the judgment of the Agency, the Work is not proceeding in accordance with the provisions of the Contract or when the total work done since the last Progress Payment amounts to less than one thousand dollars (\$1,000). Unless otherwise agreed to at the preconstruction meeting or identified in the Special Provisions, on the 20th of each month the Contractor shall submit in writing for Agency review an estimate of the total amount and value of work done, including that done under approved Change Orders, and the acceptable materials furnished and incorporated in the work through the 20th day of the month. The Bid Form or Schedule of Values shall be used to prepare a Progress Payment request for the items, or portions of items, of the Work completed during the preceding monthly progress period. After deducting all previous payments, the retention as described in Section 8-7, "Retention," in this Section of these Specifications, and other withholdings as specified in the Contract from the estimated total value, the Agency will pay the Contractor the balance.

The payment of a Progress Payment or the acceptance thereof by the Contractor does not constitute acceptance of any portion of the Work, and does not reduce the Contractor's liability to replace unsatisfactory work, material, or equipment. An inadvertence or error in an approved Progress Payment request will not release the Contractor or the Contractor's surety from damages arising from the work

covered by the approved payment request or from enforcement of every provision of the Contract. The Agency has the right to correct any error made in any Progress Payment.

The Contractor shall submit computational backup that supports each item in their request for periodic progress payments. The backup shall include, but is not limited to; location of work, computation of volumes, computation of areas, measurement of lineal feet, waybills documenting tonnage, etc. Summary work sheets combining multiple work areas are not acceptable. The computations shall be submitted with the application for payment in the method as specified for "Measurement" of each item in the Technical Specifications. Each successive payment request shall document previous quantities paid for a particular work item.

## **8-6 INSPECTION AND PROGRESS PAYMENTS NOT A WAIVER OF CONTRACT PROVISIONS**

No inspection, order, measurement, approval modification, payment, acceptance of work or material (including, but not limited to, acceptance of the entire Work), time extension, or possession of the Work or any part of the Work shall be a waiver of any of the terms and conditions of the Contract, the powers reserved by the Agency, or any right of the Agency to damages or to reject the Work in whole or part. No breach of this Contract shall be construed a waiver of any other or subsequent breach. All remedies provided in the Contract shall be cumulative and shall be in addition to all other rights and remedies that may exist at law or in equity.

## **8-7 RETENTION**

### **8-7.01 Retention to Ensure Performance**

As described in Section 8-11, "Final Estimate and Payment," in this Section of these Specifications, the Agency will retain five (5) percent of each Progress Payment to ensure performance under the Contract until thirty-five (35) days after filing of the Notice of Completion.

### **8-7.02 Non-Compliance**

The Agency may also retain additional portions of a Progress or Final Payment for Contract noncompliance in an amount deemed appropriate by the Agency.

### **8-7.03 Substitution of Securities**

At the request and expense of the Contractor, in accordance with California Public Contract Code Section 22300, in lieu of the Agency withholding the five (5) percent retention defined in Section 8-7.01, "Retention to Ensure Performance," in this Section of these Specifications, the Contractor may: (1) substitute a deposit of securities at least equivalent to the retention to be paid, or (2) request the Agency pay retention directly to an escrow agent.

If the Contractor elects to utilize the provisions afforded by Section 22300, the Contractor and Agency shall enter into an escrow agreement in the form presented in the Standard Forms section of these Specifications. All forms or correspondence pertaining to Security Deposit in Lieu of Withhold shall be addressed to:

Sacramento County Department of General Services  
Contract & Purchasing Services Division  
9660 Ecology Lane  
Sacramento, California 95827

With a copy to Agency at:

Sacramento Area Flood Control Agency  
1007 7th Street; 7th Floor  
Sacramento, California 95814

#### **8-7.04 Earnest Deposit**

An Earnest Deposit may be held from the final release of retention as described in Section 8-7.01 above for any of the reasons included in Section 8-8, "Withholdings/Denial of Progress Payment Request," of these Specifications. In the event of a dispute between the Agency and the Contractor, the Agency may hold in Earnest Deposit an amount equal to 150 percent of the disputed amount. All or a portion of the monies held in Earnest Deposit will be released upon satisfactory resolution.

#### **8-8 WITHHOLDINGS/DENIAL OF PROGRESS PAYMENT REQUEST**

The Agency may deny a Progress Payment request and/or withhold money from any Progress Payment to:

- Cover any unpaid claims filed pursuant to Civil Code Sections 3179 et seq.;
- Protect the Agency's interest; and/or
- Pay any fines levied against the Work by the Agency or other entities.

The Agency may also deny a Progress Payment request and/or withhold money, or modify any previous Progress Payment, as necessary to protect the Agency from loss due to or affecting enforcement of:

- Defective work not remedied.
- Stop notices filed.
- Failure of the Contractor to make payments properly to subcontractors for labor, materials, or equipment.
- Evidence that the Work cannot be completed for the unpaid balance of the Contract sum.
- Evidence that the Work will not be completed within the Contract time.
- Damage to the Agency or another contractor.
- Failure to carry out the Work in accordance with the Contract.
- Any violation or non-compliance with Contractor's legal responsibilities (see Section 6, "Legal Relations and Responsibilities," of these Specifications), including withholds for wages adjustments in accordance with California Labor Code Section 1727 and any fines incurred by the Agency as a result of the Contractor's actions.

When, under the provisions of the Contract, the Agency charges any sum of money against the Contractor, the Agency will deduct and retain the amount of such charge from a Progress or Final Payment. If, on completion or termination of the Contract, sums due the Contractor are insufficient to pay the Agency charges against the Contractor, the Agency has the right to recover the balance from the Contractor or the Contractor's surety.

#### **8-9 DEDUCTIONS FOR IMPERFECT WORK**

For any portion of the Work retained in accordance with Section 5-19, "Right to Retain Imperfect Work," of these Specifications, the Agency will deduct from a Progress Payment or Final Payment a just and reasonable amount to cover Agency costs for additional maintenance, replacement or repair before the end of the anticipated useful life, or other unanticipated Agency costs. A deductive Contract Change Order will be issued in accordance with Section 9, "Changes and Claims", of these Specifications.

#### **8-10 LIQUIDATED DAMAGES FOR DELAY**

All parties to the Contract agree that time is of the essence, and that the Work shall be completed within the time stated in the Special Provisions, plus any time extensions as provided in Section 7-18, "Extension of Time," of these Specifications. The Contractor's failure to complete the Work within the

time allowed will result in damages to the Agency. Because it is impracticable to determine the actual amount of damage by reason of such delay, the Contractor agrees that the sum(s) set forth in the Special Provisions is (are) a reasonable amount to be charged for liquidated damages. It is agreed that the Contractor shall pay to the Agency the sum set forth in the Special Provisions for each and every day's delay beyond the time prescribed in the Contract, and the Contractor further agrees that the Agency may deduct and retain the amount thereof from any monies due or to become due the Contractor under the Contract.

#### **8-11 FINAL ESTIMATE AND PAYMENT**

Subsequent to Field Acceptance as detailed in Section 7-21, "Final Inspection and Field Acceptance," of these Specifications, the Contractor shall provide a proposed Final Payment request, segregated as to Contract item and Contract Change Order work.

The Agency will review the proposed Final Payment request and, after deducting all previous payments and all amounts to be deducted, withheld, and/or retained under the provisions of the Contract and Public Contract Code Section 7107, shall create the Final Payment request. All Progress Payments shall be subject to correction in the Final Payment.

Within fifteen (15) Calendar Days after the proposed Final Payment request is returned to the Contractor, the Contractor shall submit to the Agency a written approval of said request or a written statement of exceptions. The Contractor's statement of exceptions shall be in sufficient detail for the Agency to ascertain the basis and amount of the exceptions; failure to provide the detail shall be sufficient cause for denial of the exceptions. Any claim of the Contractor or the Contractor's subcontractors or suppliers with respect to the performance or breach of the Contract or any alterations thereof (except for payment of the balance of the Contract price as set forth in the Final Payment request) not specifically set forth in the statement of exceptions, is waived by the Contractor. If the Contractor fails to file a statement of exceptions within the time allowed, the Agency will infer acceptance of the final Progress Payment request as submitted to the Contractor.

If no liens or claims have been filed against the Contractor after thirty-five (35) days from the filing of the Notice of Completion, as detailed in Section 7-22, "Final Acceptance and Notice of Completion," of these Specifications, the Agency will approve for payment the entire sum due, including the release of any retention.

#### **8-12 FINAL PAYMENT TO TERMINATE LIABILITY OF AGENCY**

Payment of the final amount due under the Contract shall release the Agency, and the Agency's officers, officials, agents, employees, members, volunteers, affiliates, and their duly authorized representatives from all claims or liability on account of work performed under the Contract. Tender of this payment shall constitute denial by the Agency of any unresolved claim of the Contractor not specifically excepted in writing by the Contractor. The Contractor's acceptance of the Final Payment shall release the Agency and the Agency's officers, officials, agents, employees, members, volunteers, affiliates, and their duly authorized representatives from all claims or liability on account of work performed under the Contract or any alterations thereof, except unresolved items set forth in the statement of exceptions.

#### **8-13 DISPUTED PAYMENTS**

The Agency will decide disputes regarding payments under the Contract according to the procedures set forth in Section 9, "Changes and Claims," of these Specifications. The decision of the Agency will be final.

## **SECTION 9 CHANGES AND CLAIMS**

### **9-1 AUTHORITY FOR CHANGES**

The Agency reserves the right to order corrections, alterations, additions, modifications, deletions or other changes as required for the proper completion of the Work. The order may be made prior to the final acceptance of the Contract without voiding the Contract, without notice to the Contractor's sureties, and in accordance with the provisions of Section 9-2, "Ordering of Changes," in this Section of these Specifications.

The Contractor shall not perform corrections, alterations, additions, modifications, deletions, or other changes to the Work without a written order from the Agency, in accordance with Section 9-2, "Ordering of Changes," in this Section of these Specifications.

Payment for changed or extra work will not be made without the Agency's written authorization for the changed or extra work.

### **9-2 ORDERING OF CHANGES**

The Agency may order a change, in writing, during the course of the Work, and the Contractor shall comply with the order. Changes to the Work shall in no way affect, vitiate, or make void the Contract or any part thereof, except that which is necessarily affected by such changes and is clearly the evident intention of the parties to the Contract.

Changes to the Work may be initiated as described in Section 4-5, "Field Instructions or Other Written Directives," of these Specifications. Changes that require an adjustment to the Total Contract Price or the Contract Time will be formalized in a Contract Change Order, in accordance with Section 9-14, "Contract Change Order (CCO)," in this Section of these Specifications. Failure of the Agency and Contractor to agree to terms of any order for change shall not relieve the Contractor of his obligation to complete all work, modify any portion of work, or delete any portion of work, as specified in the order.

### **9-3 CONSTRUCTION INCENTIVE CHANGE PROPOSAL (CICP)**

#### **9-3.01 General**

The Construction Incentive Change Proposal (CICP) Program provides a program for the Contractor to use his expertise to improve Contract performance to create an overall reduction in the Total Contract Price. Proposing to delete work is not a CICP. Deleted work is addressed in Section 4-8, "Deleted Items," in these Specifications. The CICP Program shall not apply to Agency contracts of less than one hundred thousand dollars (\$100,000). The Contractor and subcontractors may participate in the CICP Program. Participation of subcontractors shall be through the Contractor, and the Contractor and his subcontractor must agree upon the sharing arrangement; written evidence of such agreement must be submitted with the CICP.

While a CICP is being considered or processed, the Contractor shall proceed with the Work as scheduled.

#### **9-3.02 Description**

A CICP is a formally written proposal for a Contract Change Order. A CICP must be initiated, developed, and identified as such by the Contractor or his subcontractor. A CICP must result in a net capital cost reduction while causing no increase in the total life cycle cost of the project and shall comply with the following conditions:

- Required function, reliability, and safety of the project will be maintained without detracting from the life expectancy or increasing maintenance requirements.
- The proposed change shall not cause undue interruption of the Work, nor shall it extend the Contract Time.

- The proposed change shall comply with all applicable permits, regulations, and code requirements, and any other requirements as set forth in the Contract. The proposed change shall not involve payment of royalties by the Agency to the Contractor.

### **9-3.03 Submittal**

#### **9-3.03 A Pre-Submittal**

The Contractor shall submit a brief description, including such sketches as may be needed to understand the proposal, of the proposed CICP prior to preparing the detailed CICP submittal as outlined below.

Following preparation of the brief description of the proposed CICP, the Contractor shall meet with the Agency to discuss:

1. Proposal concept
2. Permit issues
3. Impact on other projects
4. Project impacts, including traffic, schedule, and later stages
5. Peer reviews
6. Overall proposal merits
7. Review times required by the Agency and other agencies

#### **9-3.03 B CICP Submittal**

Should the Contractor decide to pursue the proposed CICP following the meeting with the Agency, the CICP submittal must contain pertinent information in supporting documents for Agency evaluation. As a minimum, the following information shall be submitted:

1. Name of individuals associated with the development and preparation of the CICP.
2. A detailed description and duly signed plans and specifications showing work as presently designed and the proposed changes. The plans and specifications for the proposed change must be stamped and signed by a California Registered Civil Engineer.
3. A clear identification of all advantages and disadvantages for each proposed change.
4. A detailed procedure and schedule for implementing the proposed change. This detailed procedure and schedule shall include all necessary Contract amendments. Also indicated must be the latest date that the CICP can be approved for implementation.
5. A summary of estimated costs, including the following:
  - a. Project construction costs before and after the CICP. This shall be a detailed estimate identifying the following items for each trade involved in the CICP:
    - Quantities of material and equipment.
    - Unit prices of materials and equipment.
    - Labor hours and rates for installation.
    - Subcontractor and prime Contractor mark ups. Markups used in calculating the adjustment shall be: Labor 10%, Materials 10%, Equipment 10%. Bonds at the rate reflected by the premium on the face of the bond forms, and Insurance 1%.
    - Operation and maintenance costs before and after the CICP.
    - Cost for implementing the CICP not included elsewhere.
  - b. Contractor's share of the savings based on the sharing provision in Section 9-3.05, "Sharing Provisions and Formula," in this Section of these Specifications.

- c. Other data as required by local permits and regulations and code requirements as set forth in the Contract.

6. Time required for execution of the proposed change.

To the extent indicated herein, the Contractor may restrict the Agency's use of any CICP or the supporting data submitted pursuant to this program. Suggested wording for inclusion in the CICP is as follows:

"This data furnished pursuant to the construction incentive clause of the Contract shall not be disclosed or duplicated in whole or in part beyond what is necessary to accomplish the review. This restriction does not limit the Agency's right to use the information if it is available from any source without limitations. The Agency has the right to duplicate, use and disclose any information if the CICP is accepted."

The Agency may modify, accept, or reject the CICP. However, if the CICP is modified or not acted upon within the time allotted in the proposal, or if it is withdrawn or rejected, the Agency will not be liable for the Contractor's cost of developing the CICP.

#### **9-3.04 Acceptance**

The Agency will use the processing procedure specified for Change Orders in Section 9-14, "Contract Change Order (CCO)," in this Section of these Specifications, if a CICP is accepted. The Agency's written approval of the CICP is required. If the CICP is rejected, the Contractor shall not appeal the decision.

#### **9-3.05 Sharing Provisions and Formula**

Upon acceptance of the CICP, the Contractor will receive fifty (50) percent of the Net Capital Savings based upon the following formula:

$$\text{Net Capital Savings} = \text{Contract Cost Prior to CICP} - (\text{Revised Contract Cost After CICP} + \text{CICP Development Cost} + \text{CICP Implementation Cost})$$

The Contractor's development cost is limited to that directly associated with the preparation of the CICP package. Development costs will be reimbursed after approval. However, the Agency will reject costs that cannot be satisfactorily substantiated.

The CICP implementation costs include, when appropriate, engineering costs for reviewing and redesigning the changes. However, Agency costs for processing the CICP are excluded.

### **9-4 CHANGES TO THE CONTRACT**

Within fourteen (14) Calendar Days of a Notice of Potential Claim from the Contractor or issuance of an order for a change or a request for proposal from the Agency for a change to the Contract, the Contractor shall provide a cost and time proposal prepared in accordance with the requirements of Sections 9-8, "Payment for Changes," and 9-12, "Time Extensions for Changes," of these Specifications. The Contractor's proposal shall indicate the amount to be added or deducted from the Total Contract Price, supported by complete details of all Contractor, subcontractor, vendor, or supplier costs per Section 9-6, "Cost and Pricing Data," of these Specifications.

If the Contractor does not submit a proposal within the specified fourteen (14) Calendar Days, and unless the Agency is otherwise notified within the specified fourteen (14) Calendar Days of a potential cost impact, the Contractor agrees to perform the work described in the order for change with no additional compensation. If the order for change is issued on a force account basis, the Contractor must immediately begin keeping records in accordance with Section 9-8.03, "Force Account," in this Section of these Specifications.



## **9-5 PROSECUTION OF CHANGES TO THE CONTRACT**

The Contractor shall comply with and prosecute all portions of the order for change with the same diligence and manner as if the changes were originally included in the Contract, except as otherwise provided in the order.

If agreement is reached regarding payment, but not a time adjustment, the Agency shall have the right to direct the Contractor to proceed with the change at the agreed price. The impact of the changed work on the project schedule will be considered by the Agency in accordance with Section 9-12, "Time Extensions for Changes," in this Section of these Specifications.

When the Agency and Contractor cannot agree on the credit for deleted work (see Section 4-8, "Deleted Items," of these Specifications, the Agency's estimate will be deducted from the Total Contract Price, unless the Contractor presents proof prior to the Final Payment that the Agency's estimate is in error.

## **9-6 COST AND PRICING DATA**

Cost and pricing data submitted by the Contractor shall be true, complete, accurate, and current. The Agency may require a formal certification to verify Contractor-submitted cost and pricing data. Additional requirements for cost and pricing data may also be included in the Special Provisions. The Agency shall have access to the records supporting such cost and pricing data in accordance with the following Section (Section 9-7, "Access to Records," of these Specifications).

## **9-7 ACCESS TO RECORDS**

Upon reasonable notice and during normal business hours, the Agency shall have access to the Contractor's and subcontractors' records for the purpose of verifying and evaluating the Contract and the Work, including the accuracy of cost and pricing data submitted by the Contractor. "Records" as used in this Section shall include, but not be limited to: original estimates, subcontract agreements, purchase orders, books, documents, accounting records, papers, project correspondence, project files, and scheduling information necessary to determine the direct and indirect costs, job site, area and home office overhead, delay and impact costs. Records shall include the original Bid and all documents related to the Bid and its preparation, the as-planned construction schedule and all related documents. Such access shall include the right to examine and audit such records and make excerpts, transcriptions, and photocopies at the Agency's cost. The rights under this paragraph shall extend for a period of five (5) years following the final payment made under the Agreement. The state and federal governments shall have the right to exercise Agency's rights under this paragraph.

## **9-8 PAYMENT FOR CHANGES**

The method of payment agreed upon by the Contractor and the Agency, or selected by the Agency in the absence of agreement, shall be set forth in the order for change.

The three methods of payment are as follows:

### **9-8.01 Lump Sum Price**

The Contractor shall submit a lump sum price proposal. The proposal shall include an estimate of labor, material, equipment, subcontractor, and material supplier costs, including sales tax as appropriate. The proposal shall include markups not exceeding those stipulated in Section 9-9, "Markups for Force Account Work," of these Specifications.

If the Agency and the Contractor agree to a Lump Sum payment for the change, no other payment or adjustment will be made for the change.

### **9-8.02 Unit Prices**

If payment for Contract work is based on unit prices, payment for changed work will be made based on actual quantities of work done at the unit prices contained in the Contract or unit prices otherwise agreed

upon by the Agency and Contractor if none are contained in the Contract. Payment for changed work based on Contract or agreed upon unit prices includes the full cost of the item of work including profit and overhead; and no additional payment or adjustment will be allowed.

If an ordered change in the plans or specifications materially changes the character of the work of a Contract item from that on which the Contractor based the bid unit price, and if the change increases or decreases the actual unit cost of the changed item as compared to the actual or estimated actual unit cost of performing the work of that item in accordance with the plans and specifications originally applicable thereto, in the absence of an executed Contract Change Order specifying the compensation payable, an adjustment in compensation therefore will be made in accordance with the following:

The basis of the adjustment in compensation will be the difference between the actual unit cost to perform the work of that item, or the portion thereof involved in the change, as originally planned and the actual cost of performing the work of the item or portion thereof in the change, as changed. Actual costs will be determined by the Agency in the same manner as if the work were to be paid for on a force account basis as provided in Section 9-8.03, "Force Account", of these Specifications, except that equipment and labor rates used in calculating the difference in the bid and actual unit costs shall be the rates used by the Contractor in preparing the original bid; or the adjustment will be as agreed to by the Contractor and the Agency. The adjustment will apply only to the portion of work of the item actually changed in character. Markups used in calculating the adjustment and costs, both for the as-bid unit cost and the actual unit cost, shall be: Labor 10%, Materials 10%, Equipment 10%. Bonds at the rate reflected by the premium on the face of the bond forms, and Insurance 1%. At the option of the Agency, payment for the work of the item or portion of item which is changed in character will be calculated in accordance with Section 9-8.03, "Force Account", of these Specifications, except that equipment and labor rates used in calculating the costs therefore shall be the rates used by the Contractor in preparing the original bid. Markups used in calculating the adjustment and costs shall be: Labor 10%, Materials 10%, Equipment 10%. Bonds at the rate reflected by the premium on the face of the bond forms, and Insurance 1%.

Compensation for additional costs resulting from unusual site conditions, identified pursuant to General Specification Section 7-6, that differ materially from those indicated in the Contract Documents, shall be calculated in accordance with the above. A variance in the final quantity of any item of work shall not constitute a change in the character of the work.

If the final quantity of any item of work required under the Contract varies from the Estimated Quantity shown on the Bid Form by twenty-five percent (25%) or more due to directed changes, compensation to recover fixed costs not recovered by payment of the actual final quantity will be calculated in accordance with Section 9-8.03, "Force Account", of these Specifications, as modified herein. Markups used in calculating the adjustment shall be: Labor 10%, Materials 10%, Equipment 10%. Bonds at the rate reflected by the premium on the face of the bond forms, and Insurance 1%. Equipment and labor rates used in calculating the difference in the bid and actual fixed costs shall be the rates used by the Contractor in preparing the original bid.

### **9-8.03 Force Account**

In the absence of either an agreed lump sum price or unit prices for the change, the Agency may issue a written order directing the Contractor to proceed with the changed work on a force account basis. The Contractor shall keep and present, in a form acceptable to the Agency, a complete and correct accounting of all costs associated with the change, including all pay records, vouchers, invoices, etc. The Contractor will be paid for labor, materials, and equipment actually used during the performance of the changed work as specified in this Section of these Specifications in Sections 9-8.03.A, "Labor," 9-8.03.B, "Materials," and 9-8.03.C, "Equipment," plus the percentages stipulated in Section 9-9, "Markups for Force Account Work."

To facilitate agreement on direct craft labor hours, construction equipment hours, and material quantities, the Contractor shall notify the Agency not less than four (4) hours prior to starting force account work. The Contractor shall submit Daily Extra Work Reports (DEWRs) for signature not later than 9:00 a.m. the day following performance of any force account work. DEWRs shall list names of all Contractor's staff, the staff person's craft or trade, all craft or trade labor hours, and all material and construction equipment used. The Contractor shall use the Agency's DEWRs in preparing billings for force account work.

All documentation supporting Force Account work shall be priced out and submitted to the Agency no later than 30 Calendar Days after the Force Account work is completed. Failure by the Contractor to notify the Agency of the beginning of the extra work, submit the DEWR's as required, or turn in the support documentation can result in the Agency denying the costs of the extra work.

### **9-8.03 A Labor**

The Contractor will be paid the cost of direct labor (foreperson and below) used in the actual and direct performance of the changed work including working foreman when authorized by the Agency. Except as otherwise provided, the Contractor will receive no additional compensation for overtime work without prior written authorization from the Agency. The cost of labor will be the sum of the following:

#### **9-8.03 A(1) Actual Wages**

Charges for labor will be the Contractor's actual payroll costs for labor of any classification, including employer payments to or on behalf of the workers for health and welfare, pension, vacation, and similar purposes.

#### **9-8.03 A(2) Labor Surcharge**

A twenty-six (26) percent surcharge for taxes, insurance, and all other payments made to or on the behalf of the employee shall be added to the actual wages.

#### **9-8.03 A(3) Subsistence and Travel**

The Agency will pay the Contractor for actual subsistence and travel allowance costs associated with the changed work required by labor agreements or acceptable to the Agency. Documentation must be provided to the Agency.

### **9-8.03 B Materials**

Payment will be for the purchaser's actual cost of supplier or vendor furnished materials. If the Contractor does not furnish satisfactory evidence of the cost of such materials, the cost will be the lowest current wholesale price at which such quantities of materials are available and delivered to the job site. The Agency reserves the right to purchase materials for the changed work; the Contractor shall have no claims for costs or profit on such materials.

### **9-8.03 C Equipment**

The prices paid for equipment directly and solely required for performance of the changed work will be those listed in the current edition of the Caltrans publication, "Labor Surcharge and Equipment Rental Rates." If the equipment is not shown in this publication, the Contractor shall be paid such hourly rental rates as are agreed upon by the Contractor and the Agency prior to use of the equipment, plus thirty-three and one-third (33-1/3) percent for the cost of fuel, oil, lubrication, and field repairs and maintenance if not included in the rental rate. In no case shall the hourly rental rates exceed those of established distributors or equipment rental agencies serving the area.

The rate paid for the use of equipment constitutes full compensation to the Contractor for all costs, including fuel, power, oil, lubrication, supplies, small tools, small equipment, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, labor (except for equipment

operators) and any and all costs to the Contractor incidental to the use of such equipment for the changed work.

Payment will not be made for the equipment while it is inoperative due to breakdowns or for time in which no changed work was performed. Payment for rentals will include time required to move equipment to the changed work from the nearest available rental source and to return it to the source. However, no moving, loading, or transportation costs will be paid if the equipment is used for any other portion of the Work.

Individual pieces of equipment having replacement value of five hundred dollars (\$500) or less shall be considered tools or small equipment and no payment will be made for those pieces of equipment.

#### **9-8.03 D Subcontracts**

Subcontract costs shall be the actual cost to the Contractor for work performed by a subcontractor. The provisions of Section 9-8.03, "Force Account," in this Section of these Specifications, apply to the computation of subcontract costs. Subcontractors shall compute markups per the following Section (Section 9-9, "Markups for Force Account Work").

#### **9-9 MARKUPS FOR FORCE ACCOUNT WORK**

Only the direct costs directly attributable to the performance of the work directed to be performed on a force account basis shall be allowed. All other costs shall be included in the allowed markups. Payment of allowed markups includes, but is not limited to, profit, home office overhead, job site indirect costs, job site office personnel, general field superintendence, general engineering, supervision of labor, bond and insurance premiums, and general field expense, and shall constitute full compensation for all costs not included as actual labor, materials, equipment, or subcontractor costs. Markups for force account work shall not exceed the following:

Labor	25%
Materials	15%
Equipment Rental	15%
Bonds and Insurance	2%

The Contractor or subcontractor, whomever actually performs the directed force account work, may add the markups to the total of allowable costs. When a subcontractor performs work, the Contractor and any higher tiered subcontractor may add as mark-up to the total of allowable costs an aggregate amount not to exceed five (5) percent, subject to the limitations of this Section. The two (2) percent markup for Bonds and Insurance is to be added only to the total of Labor, Materials, and Equipment Rental, including all subcontractor costs.

When the Agency is entitled to credit for deleted work, a ten (10) percent credit for deleted overhead of the Contractor or subcontractor, as applicable, will be added to such credit.

#### **9-10 COMPENSABLE UNAVOIDABLE DELAYS**

Payments will be made as follows for compensable unavoidable delays, as defined in Section 7-12.02, "Unavoidable Delays," in these Specifications.

##### **9-10.01 Construction Equipment**

Compensation will be paid for construction equipment idle as a result of a compensable unavoidable delay to the extent costs are incurred. The prices paid for equipment will be those in the current edition of the Caltrans publication, "Labor Surcharge and Equipment Rental Rates," with the following modifications:

- The right-of-way delay factor for each classification of equipment will be applied to the rental rate.

- Compensation will be provided for the actual time of the delay, but not more than eight (8) hours per day.

Compensation will only be paid for equipment that was actually idle; the Agency will not compensate the Contractor for equipment that was removed from the jobsite during the idle period. Compensation will be provided for each day or portion of a day, excluding Saturdays, Sundays, and holidays, for the duration of the delay.

#### **9-10.02 Job Site Indirect Costs**

Indirect costs shall be limited to the following:

1. Actual payroll costs for field office staff incurred as a result of the delay, including management, supervision, safety, estimating, engineering, drafting, clerical, secretarial, and accounting. A twenty-six (26) percent surcharge for taxes, insurance, and all other payments made to or on the behalf of the employee may be added to the payroll costs.
2. Actual cost for third-party services provided for the field office, such as management, supervision, safety, estimating, engineering, drafting, clerical, secretarial, and accounting utilized in lieu of employees. No surcharge shall be added to these costs.
3. Applicable field office expenses for rent and utilities that are substantiated by invoices. Compensation for on-site plant, incidentals, and facilities for non-field office personnel including branch office and home office personnel will not be provided. Compensation for these items and other incidentals is included in the following Section (Section 9-10.03, "Markup for Compensable Unavoidable Delays").

#### **9-10.03 Markup for Compensable Unavoidable Delays**

Except for compensable unavoidable delays associated with archeological and cultural resources as described in Section 10-12, "Archeological, Paleontological, and Cultural Resources," of these Specifications and right-of-way delays, no more than fifteen (15) percent may be added to job-site indirect costs for onsite plant, incidentals, overhead, home office and branch office costs, bonds, insurance and profit. The Contractor shall determine the distribution of the markup among the Contractor, subcontractors, and suppliers.

#### **9-10.04 Duplicated Overhead Costs**

If the Contractor is compensated for delays in accordance with this Section, and the delay is attributable to direct cost changes to which markups were added in accordance with Section 9-9, "Markups For Force Account Work," of these Specifications, those markups shall be adjusted to five (5) percent for profit only as all overhead costs are compensated in accordance with Section 9-10.2 and 9-10.3 of these Specifications.

#### **9-11 LIMITATIONS ON PAYMENTS FOR CHANGED WORK**

The Agency will not pay the Contractor for costs in excess of prevailing market values, unless the Contractor can establish, to the satisfaction of the Agency, that the Contractor has investigated all possible means of providing the work and that the excess costs could not be avoided. The Agency will be the sole judge of the necessity of incurring costs in excess of market value and whether the excess costs are directly required for performance of changed work. The Agency's determination will be final.

#### **9-12 TIME EXTENSIONS FOR CHANGES**

The Contractor is entitled only to adjustment in Contract Time if completion of the entire Work is extended due to the change impacting the controlling item of work. Each proposal submitted by the Contractor in accordance with Section 9-4, "Changes to the Contract," in this Section of these Specifications shall state the amount of extra time the Contractor believes the change added to the overall

project schedule. Failure to request a time extension within the time allowed constitutes a waiver of the Contractor's right to subsequently claim an adjustment in Contract Time.

### **9-13 EFFECT ON SURETIES OF CHANGES TO THE WORK**

No alterations, time extensions, extra or additional work or other changes authorized by these conditions or any part of the Contract shall affect the sureties' obligations under the Contract.

### **9-14 CONTRACT CHANGE ORDER (CCO)**

The Agency will issue a Contract Change Order (CCO) if a change to the Total Contract Price or Contract Time is necessary. The Contractor shall not be entitled to any adjustments in either Total Contract Price or Contract Time for changes performed without written direction from the Agency. Adjustments in Contract Time and Total Contract Price for changes performed will not be made until a Contract Change Order is processed. A Contract Change Order is comprised of one or more Field Instructions or other written directives, and contains a summary of each change and changes to the Total Contract Price and Contract Time.

### **9-15 ACCEPTANCE OF ORDERS FOR CHANGES**

The Contractor's written agreement of a Contract Change Order, Field Instruction, or other written directive will constitute his final and binding agreement to the provisions of the Contract Change Order, Field Instruction, or other written directive, and a waiver of all claims in connection therewith, whether direct or consequential in nature, including those of any subcontractors or suppliers. If the Contractor disagrees with any Contract Change Order, Field Instruction, or other written directive, the Contractor may submit a notice of potential claim to the Agency in accordance with Section 9-17, "Notice of Potential Claim," in this Section of these Specifications. Disagreement with the provisions of a Contract Change Order, Field Instruction, or other written directive does not relieve the Contractor of the Contractor's obligations under the Contract.

### **9-16 DISPUTE REGARDING CONTRACT REQUIREMENTS**

If the Contractor and Agency fail to agree whether or not any work or other matter is within the scope of the Contract, the Contractor shall nevertheless immediately perform such work upon receipt of a written Field Instruction or other written directive. Within fourteen (14) Calendar Days after receipt of the Field Instruction or other written directive, the Contractor may submit a written protest detailing the Contract requirements exceeded and the approximate cost and/or time change. Failure to submit a protest within the specified period constitutes a waiver of the Contractor's rights to adjustments in the Total Contract Price or Contract Time for the disputed Contract requirement.

The Contractor shall not stop performing the Work pending resolution of a dispute, unless ordered in writing by the Agency.

If the Agency agrees with the Contractor's written protest, the Total Contract Price and/or Contract Time will be adjusted through a Contract Change Order. Protests and claims denied by the Agency will be so stated in writing.

### **9-17 NOTICE OF POTENTIAL CLAIM**

#### **9-17.01 Notice of Potential Claim (NOPC)**

The Contractor shall not be entitled to payment of any additional compensation for any cause, including any disagreement, protest, or change, any act or failure to act by the Agency, or the happening of any event, thing or occurrence, unless the Contractor has given the Agency advance written notice of potential claim (NOPC) as hereinafter specified. The NOPC must clearly describe the nature, circumstances, and basis of the potential claim, and must explain the reasons that the Contractor believes additional compensation and/or time will or may be due, the nature of the costs and/or time involved, the amount of

the potential claim, a request for equitable adjustment, and written and verifiable documentation and support. The nature, circumstances, basis, and reasons must remain consistent.

Except as required in Section 9-18, "Submission of Claims", of these Specifications, the Contractor must promptly provide an NOPC to the Agency upon discovery of concealed or unknown conditions or a disagreement, protest, situation, event, or occurrence that may result in a claim. This notice must be submitted no more than ten (10) Calendar Days after the discovery or occurrence of an event that may be the basis for a claim for additional compensation or time; failure to do so waives the claim.

If costs or time cannot be reasonably determined at the time the NOPC is provided, the NOPC must be amended to include quantified cost and time impacts within thirty (30) Calendar Days after work has ceased on the event that prompted the NOPC; failure to do so waives the claim. For NOPC events that extend more than thirty (30) Calendar Days the Contractor must provide a monthly accounting of ongoing costs and time impacts by the 5<sup>th</sup> day of the succeeding and subsequent month(s); failure to do so waives the claim.

#### **9-17.02 Duty to Mitigate Damages**

The Contractor is required to take all reasonable and practical efforts to mitigate the damaging effects of a potential current or future claim it perceives as a result of an act or failure to act on the part of the Agency, or as a result of an event, thing or occurrence. Written notice by the Contractor of a potential claim does not excuse the Contractor from pursuing the mitigation of a claim in good faith and with due diligence. Where possible, or if directed by the Agency, the Contractor shall be prepared to discuss various methods of mitigation with the Agency prior to actual mitigation.

The obligation to minimize foreseeable damages requires that the Contractor use reasonable care and diligence to prevent an unwarranted incurrence of damages from a delay caused by the Agency or other party or an unforeseen event. In evaluating a delay, if, in the opinion of the Agency, the delay could have been avoided by due care of the Contractor, the Contractor is responsible for the additional costs attributed to the failure to mitigate the damaging effects.

### **9-18 SUBMISSION OF CONSTRUCTION CLAIMS**

#### **9-18.01 In General**

Claims procedures shall be in accordance with Section 9204 of the Public Contract Code as restated and supplemented herein. Claims shall be filed with the Agency at its primary office location.

For the purposes of this Section 9-18, a "claim" is as defined in Public Contract Code Section 9204 and includes a collection of separate demands on the same project.

#### **9-18.02 Purpose**

The purpose of this Section shall be to provide a process for the resolution of construction contract disputes at the construction management level prior to initiating any other claims process or legal action against the Agency. Where a claim seeks payment by the Agency of money or damages, compliance with this Section 9-18 shall be a prerequisite to, but not a substitute for, compliance with the government claims process set forth in Title, 1, Division 3.6 (beginning at Section 810) of the California Government Code.

#### **9-18.03 Claim Documentation**

For any claim, the Contractor must furnish claim documentation as specified herein. The Contractor must submit 3 complete certified copies of all claim documentation. The evaluation of the Contractor's claim will be based on Agency's records and the claim documentation submitted by Contractor. Claim documentation must conform to generally accepted auditing standards and must be in the following format:

- 1. Introduction and background**
- 2. Issues**
  - a. Index of issues
  - b. For each issue:
    - Background
    - Chronology
    - Contractor's position (reason for Agency's potential liability)
    - Supporting documentation of merit
    - Supporting documentation of damages
- 3. Critical path method schedules, as-planned versus as-built, and delay (time impact) analysis**
- 4. Productivity and damages exhibits**
- 5. Summary of issues and damages**

Supporting documentation of merit for each issue must be cited by reference, photocopies, or explained. Supporting documentation may include, but not be limited to, general conditions, technical specifications, drawings, correspondence, conference notes, shop drawing logs, survey books, inspection reports, delivery schedules, test reports, daily reports, subcontracts, fragmentary critical path method schedules, photographs, technical reports, requests for information, field instructions, and other related records.

Supporting documentation of damages for each issue must be cited, photocopied, or explained. Supporting documentation may include, but not be limited to, certified detailed labor, materials, equipment, and construction equipment and services costs; purchase orders; invoices; project as-planned and as-built costs; subcontractor payment releases; quantity reports; other related records; general ledger and all other accounting materials.

Each copy of claim documentation must include the following certification, signed in the same manner as the Contract was signed:

"I, \_\_\_\_\_, being the (must be an officer) of (general contractor), declare under penalty of perjury under the laws of the State of California, and do personally certify and attest that: I have thoroughly reviewed the attached claim for additional compensation and/or extension of time, and know its contents, and said claim is made in good faith; the supporting data is truthful and accurate; that the amount requested accurately reflects the Contract adjustment for which the Contractor believes the Agency is liable; and, further, that I am familiar with California Penal Code Section 72 and California Government Code Section 12650, et seq., pertaining to false claims, and further know and understand that submission or certification of a false claim may lead to fines, imprisonment and/or other severe legal consequences.

(Signature of officer)

(Date) "

If the Contractor is unable to support any part of a claim and it is determined that the inability is attributable to falsity of the certification or misrepresentation of fact or fraud by the Contractor, the Contractor is liable to the Agency for three (3) times the amount of damages sustained by the Agency, plus the cost of civil action. The Contractor may also be liable to the Agency for a civil penalty of up to \$10,000 for each false claim.



#### **9-18.04 Claim Resolution Process.**

A. Claims must be mailed on or before the date of final payment. Claims must be sent by registered mail or certified mail with return receipt requested.

B. Upon receipt of a claim pursuant to this Section, the Agency shall conduct a reasonable review of the claim and, within a period not to exceed forty-five (45) Calendar Days, shall provide the Contractor a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, the Agency and Contractor may, by mutual agreement, extend the time period provided in this subdivision.

C. If the Agency requires approval from the Agency's Board of Directors to provide the Contractor a written statement identifying the disputed portion and the undisputed portion of the claim, and the Board of Directors does not meet within the forty-five (45) Calendar Days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the Agency shall have up to three (3) Working Days following the next duly publicly noticed meeting of the Board after the 45-day period, or extension, expires to provide the Contractor a written statement identifying the disputed portion and the undisputed portion.

D. Any payment due on an undisputed portion of the claim shall be processed and made within sixty (60) Calendar Days after the Agency issues its written statement. If the Agency fails to issue a written statement, paragraph (I), below, shall apply.

E. If the Contractor disputes the Agency's written response, or if the Agency fails to respond to a claim issued pursuant to this Section within the time prescribed, the Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. A demand by the Contractor for a meet and confer conference shall be sent within fifteen (15) Calendar Days of issuance or deadline for issuance of the Agency's written statement on the claim. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the Agency shall schedule a meet and confer conference to be held within thirty (30) Calendar Days for settlement of the dispute.

F. If the Contractor does not request a meet-and-confer conference within the required time period, the parts of the claim remaining in dispute shall be subject to the government claims process set forth in Title 1, Division 3.6 (beginning at Section 810) of the California Government Code.

G. Within ten (10) Working Days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the Agency shall provide the Contractor a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within sixty (60) Calendar Days after the Agency issues its written statement. Any disputed portion of the claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation, with the Agency and the Contractor sharing the associated costs equally. The Agency and the Contractor shall mutually agree to a mediator within ten (10) Working Days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to the government claims process set forth in Title 1, Division 3.6 (beginning at Section 810) of the California Government Code.

H. For purposes of this Section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this Section.

I. Failure by the Agency to respond to a claim from the Contractor within the time periods described in this Section or to otherwise meet the time requirements of this section shall result in the

claim being deemed rejected in its entirety. A claim filed pursuant to this Section 9-18 that is denied by reason of the public entity's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this Section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.

J. If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a public entity because privity of contract does not exist, the Contractor may present to the public entity a claim on behalf of a subcontractor or lower tier subcontractor.

#### **9-18.05 Qualifications Of A Mediator**

The Mediator selected must have expertise in the area of the dispute and be knowledgeable in the Mediation process. No person can serve as a Mediator in a dispute in which that person has a financial or personal interest in the result of the Mediation. Before accepting an appointment, the prospective Mediator must disclose any circumstances likely to create a presumption of bias or prevent a prompt meeting with the parties. Upon receipt of the information, the parties must meet and confer and decide whether to select another Mediator.

#### **9-18.06 Vacancies**

If a Mediator becomes unwilling or unable to serve, another Mediator can be selected unless the parties agree otherwise.

#### **9-18.07 Representation**

Any party may be represented by persons of their choice who has full authority to negotiate. The names and addresses of those persons must be communicated in writing to all parties and to the Mediator.

#### **9-18.08 Time and Place Of Mediation**

The Mediator will set the time of each Mediation session. The Mediation will be held at a convenient location agreeable to the Mediator and the parties, as the Mediator determines. All reasonable efforts will be made by the parties and the Mediator to schedule the first session within thirty (30) Calendar Days after selection of the Mediator.

#### **9-18.09 Identification Of Matters In Dispute**

At least ten (10) Working Days before the first scheduled Mediation session, each party must provide the Mediator with a brief memorandum setting forth its position with regard to the issues that need to be resolved. The memoranda will be mutually exchanged by the parties. At the first session, the parties will be expected to produce all information reasonably required for the Mediator to understand the issue presented. The Mediator may require each party to supplement the information.

#### **9-18.10 Authority Of Mediator**

The Mediator does not have authority to impose a settlement upon the parties but will attempt to help the parties reach a satisfactory resolution of their dispute. The Mediator is authorized to conduct joint and separate meetings with the parties and to make oral and written recommendations for settlement. Whenever necessary, the Mediator can obtain expert advice concerning technical aspects of the dispute, provided the parties agree and assume the expenses of obtaining expert advice. Arrangements for obtaining expert advice will be made by the Mediator or the parties, as the Mediator determines. The Mediator is authorized to end the Mediation whenever, in the Mediator's judgment, further efforts at Mediation will not contribute to a resolution of the dispute between the parties.

**9-18.11 Privacy**

Mediation sessions are private. The parties and their representatives may attend Mediation sessions. Other persons may attend only with the permission of the parties and with the consent of the Mediator.

**9-18.12 Confidentiality**

Confidential information disclosed to a Mediator by the parties or by witnesses in the course of the Mediation will not be divulged by the Mediator. All records, reports, or other documents received by a Mediator while serving as Mediator will be confidential. The Mediator cannot be compelled to divulge the records or to testify in regard to the Mediation in any adversary proceeding or judicial forum. The parties must maintain the confidentiality of the Mediation and cannot rely on, or introduce as evidence in an arbitration, judicial or other proceedings or any of the following: (a) Views expressed or suggestions made by the other party with respect to a possible settlement of the dispute; (b) Statements made by the other party in the course of the Mediation proceedings; (c) Proposals made or views expressed by the Mediator; or (d) Whether the other party had or had not indicated willingness to accept a proposal for settlement made by the Mediator.

**9-18.13 No Stenographic Record**

There will be no stenographic record of the Mediation.

**9-18.14 Termination Of Mediation**

*The Mediation will be terminated (a) by the execution of a settlement agreement by the parties; (b) by a written declaration of the Mediator to the effect that further efforts at Mediation are no longer worthwhile; or (c) by a written declaration of a party or parties to the effect that the Mediation proceedings are terminated.*

**9-18.15 Exclusion Of Liability**

No Mediator will be a necessary party in judicial proceedings related to the Mediation. No Mediator is liable to any party for any act or omission in connection with a Mediation conducted hereunder.

**9-18.16 Interpretation and Application Of These Mediation Provisions**

The Mediator will interpret and apply these Mediation provisions insofar as they relate to the Mediator's duties and responsibility.

**9-18.17 Expenses**

The expenses of witnesses for either side must be paid by the party producing the witnesses. All other expenses of the Mediation, including required traveling and other expenses of the Mediator, the expenses of witnesses called by the Mediator, and the cost of any proofs or expert advice produced at the request of the Mediator, will be split equally between the parties.

**9-19 RESERVED****9-20 RESERVED****9-21 NO ALTERNATIVE CLAIMS PROCEDURE**

Nothing in the Contract constitutes an agreement for an alternative claim procedure under the provisions of Government Code Section 930.2, nor relieves the Contractor of the requirements of Government Code, Part 3, Chapters 1 and 2 and Title 1, Division 3.6, Chapters 1, 2, 3, and 4.

**9-22 ASSIGNMENT OF CLAIMS**

The Contractor shall not assign any portion of the moneys due the Contractor without written Agency approval. No person other than the party signing the Contract has any claim under the Contract, except as provided in the Contract.

**9-23 NO WAIVER OF GOVERNMENT CLAIM PROCESS**

No statement in these Specifications for the Contract constitutes a waiver of government claim filing requirements pursuant to Title 1, Division 3.6 of the California Government Code or as otherwise set forth in local, state and federal law.

## SECTION 10 ENVIRONMENTAL CONTROLS AT WORK SITE

### 10-1 DUST CONTROL

During the performance of the work, the Contractor shall assume all responsibility for dust control and shall furnish all labor, equipment, and means required, and shall carry out proper and efficient measures wherever and as often as necessary to prevent the construction operations from producing dust in amounts harmful to persons, damaging to property, or causing a nuisance to persons living nearby or occupying buildings in the vicinity of the work. The Contractor shall limit fugitive dust below levels specified by SMAQMD or FRAQMD rules, OSHA *Permissible Exposure Limits (PEL's) for Airborne Particle Not Otherwise Specified (NOS)* (5 milligrams per cubic meter), whichever is most stringent. Dust control will be strictly enforced with particular emphasis on work areas adjacent to residential and agricultural properties, sensitive biological resources and recreational areas. Responsibility for any injury to persons or damage to property, crops or orchards from dust caused by the Contractor's operations shall be borne by the Contractor as provided in Section 6 of the General Provisions. The cost of water for dust control shall be included in prices bid for other items of work, and no additional compensation will be made therefore.

The curtailment of the construction activities as a result of the inadequate dust control measures or the lack of using tarpaulins will not be considered an unavoidable delay.

The Contractor shall implement the following measures to control fugitive dust emissions.

1. All land clearing, grubbing, scraping, excavation, land leveling, grading, and cut and fill, and demolition activities shall be effectively controlled for fugitive dust emissions by measures including, but not limited to, applying water, presoaking, or applying a dust palliative to prevent dust from migrating off site at levels exceeding those specified herein.

All exposed or disturbed surfaces shall be watered two times daily or more, as needed, but not to the extent that sediment flows off the site. Exposed and disturbed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.

2. When materials are transported off site, the Contractor shall apply measures to prevent airborne emission of dust at levels exceeding those specified herein. Appropriate measures may include, but are not limited to: material shall be covered; materials shall be effectively wetted to limit visible dust emissions; or at least six (6) inches of freeboard space from the top of the container to the top of the materials shall be maintained. However, earthen or aggregate materials in any haul trucks that will be traveling on freeways or major roadways shall be covered.
3. Contractor's operations shall limit or expeditiously remove (at least once each day, or more often as necessary or directed) the accumulation of mud or dirt from adjacent public streets when operations are occurring. Streets shall be cleaned using a commercial/municipal style wet power vacuum street sweeper. The street sweeper shall wet the sweeping brooms during all cleaning activities. The use of rotary brushes (power brooms) on standard construction equipment is not allowed. "Washing" of streets onto highway shoulders or into the storm drain system is not allowed.

Site accesses shall be treated to a distance of 100 feet from the paved road with a 6- to 12-inch layer of wood chips, mulch, or gravel to reduce generation of road dust and road dust carryout onto public roads.

A publicly visible sign shall be posted with the telephone number and person to contact at the Agency regarding dust complaints. The phone number of SMAQMD or FRAQMD shall also be visible to allow the general public to lodge complaints.

4. Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized to control fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant, or covered with tarps.
5. All transfer processes involving a free fall of soil or other particulate matter shall be coordinated in such a manner as to minimize the free-fall distance and fugitive dust emissions.
6. All interactive construction areas (previously graded areas that remain inactive for 96 hours), including unpaved roads and employee/equipment parking areas, shall be effectively stabilized to control fugitive dust emissions utilizing water or chemical stabilizer/suppressant.
7. Erosion control seeding shall be implemented as soon as practical to stabilize disturbed areas in a timely manner.
8. Contractor shall water all haul roads as needed to control dust.
9. Contractor shall limit traffic speeds on unpaved roads to 15 mph, unless adequate dust control measures can be implemented to the satisfaction of Agency. With adequate dust control, speed limits can be increased to limits as provided in the Special Provisions or applicable permit conditions.
10. Wheel washers and/or "Rumble Strips" shall be installed for all exiting trucks and equipment, or trucks and equipment shall be cleaned to remove accumulated dirt prior to leaving the site.
11. Excavation, grading and demolition activities shall be suspended when wind speeds exceed a time-weighted average of 20 mph for 15 minutes, unless adequate dust control measures can be implemented to the satisfaction of the Agency.
12. The extent of excavation and grading operations active at one time shall be limited to the extent of the Contractor's ability to adequately control dust.
13. Temporary traffic control shall be provided on surface streets in the project area as needed during all phases of construction, as deemed appropriate by the Sacramento County Department of Transportation, and/or the Sutter County Department of Public Works, and/or the California Department of Transportation (Caltrans), and the Agency to improve traffic flow (thus reducing vehicle exhaust emissions) and to reduce vehicle dust emissions.

## **10-2 AIR POLLUTION CONTROL**

### **10-2.01 General**

The Contractor shall comply with all Federal, State, Agency, and local air pollution control rules, regulations, ordinances, and statutes that apply to the Work. The Contractor shall also comply with the requirements of any permits issued to the Agency as noted in the Special Provisions.

### **10-2.02 Equipment Exhaust Emission Control**

The Contractor shall implement the following measures to reduce equipment exhaust emissions of NO<sub>x</sub> and PM<sub>10</sub>.

1. Heavy equipment shall be turned off rather than being allowed to idle for more than five minutes. Clear signage identifying this requirement shall be posted at the entrances to the work site(s) and at additional locations within the work site(s) as directed by the Engineer.
2. All equipment shall be maintained and properly tuned in accordance with manufacturer's specifications.
3. The Contractor shall ensure that emissions from all off-road, diesel-powered equipment used on the project site do not exceed forty percent (40%) opacity for more than three minutes in any one hour. Any equipment found to exceed forty percent (40%) opacity (or Ringelmann

2.0) within the specified time limit shall be repaired immediately. Non-compliant equipment and repairs thereto shall be documented by the Contractor and a summary report shall be provided to the Agency and to SMAQMD and/or FRAQMD monthly. A visual survey of all in-operation equipment shall be made at least weekly. A monthly summary of the visual survey results shall be submitted to SMAQMD and/or FRAQMD throughout the construction period, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed, as well as the dates of each survey. SMAQMD and/or FRAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this section shall supersede other SMAQMD and/or FRAQMD or state rules or regulations.

4. The Contractor shall provide a plan for approval by the Agency and the SMAQMD and/or FRAQMD, demonstrating that the heavy-duty (50 horsepower or more) off-road vehicles to be used in the construction project (including owned, leased, and subcontractor vehicles) will achieve a project-wide fleet-average twenty percent (20%) NO<sub>x</sub> reduction and forty-five percent (45%) particulate reduction compared to the most recent California Air Resources Board (CARB) fleet average at the time of construction. This plan shall be submitted in conjunction with the equipment inventory. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. As appropriate, the SMAQMD Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction.
5. The Contractor shall submit to the Agency and to SMAQMD and/or FRAQMD, a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used for an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the horsepower rating, engine production year, and projected hours of use or fuel throughput for each piece of equipment. The Contractor shall provide the anticipated construction timeline including start date, and name and phone number of the project manager, and on-site superintendent. This information shall be submitted at least four (4) business days prior to the use of subject heavy-duty off-road equipment. As appropriate, the SMAQMD Equipment List Form can be used to submit this information. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs.

### **10-3 BURNING**

Unless otherwise provided in the Special Provisions or approved by the Agency in writing, material shall not be burned on site.

### **10-4 EROSION, SEDIMENT, AND WATER POLLUTION CONTROL**

#### **10-4.01 General**

The Federal Clean Water Act provides for the regulation and reduction of pollutants discharged into the Waters of the United States by extending National Pollutant Discharge Elimination System (NPDES) requirements to construction sites to prevent pollutants from construction activities or construction sites from entering storm drain systems. Storm drain systems include both constructed and natural facilities, including streams, waterways, and other bodies of water. The Contractor shall protect the local storm drain system from pollution, and shall organize, conduct and schedule operations to avoid, prevent, control and abate erosion and the generation and transport of sediments. Where erosion may cause water pollution due to the nature of the material or the season, the Contractor's operations shall be scheduled so

temporary or permanent erosion control features are installed concurrently with, or immediately following, grading operations.

All disturbed soils shall undergo appropriate erosion control treatment (e.g., sterile straw mulching, seeding, planting) prior to the end of the construction season, or prior to November 1, whichever comes first. If use of erosion control fabrics is necessary, tightly-woven fiber netting (mesh size less than 0.25-inch) or similar material shall be used to minimize potential for small animals to become entangled. Coconut coir matting is an acceptable erosion control material, but no plastic mono-filament matting or netting shall be used. The edge of the material shall be buried in the ground to prevent animals from crawling underneath the material. Where erosion control fabrics are used in woody vegetation planting areas, the fabric shall be slit in appropriate locations as necessary to allow for plant installation and root growth.

The Contractor shall implement precautions to minimize turbidity/siltation during construction. This may require placing barriers (e.g., silt curtains) to prevent silt and/or other deleterious materials from entering downstream reaches. The performance/effectiveness of sediment and turbidity control barriers shall be inspected at least once each day during construction to check that they are functioning properly. Should a control barrier not function effectively, it shall be immediately repaired or replaced. Additional controls shall be installed as necessary. Sediment shall be removed from sediment controls once the sediment has reached 1/3 of the exposed height or capacity of the control. Sediment collected in these devices shall be disposed of away from the collection site at designated upland areas of the project site(s).

Water containing mud or silt from construction activities shall be treated by filtration, or retention in a settling pond, adequate to prevent muddy water from entering live waterways.

The Contractor is responsible for organizing and scheduling the Work to prevent, control, and/or abate water pollution. In order to provide effective and continuous control of water pollution, it may be necessary for the Contractor to perform the Work in small or multiple units, on an out-of-phase schedule, and/or with modified construction procedures. The Contractor shall coordinate water pollution control work with all other Contract work.

The required plan to control erosion, sediment and water pollution must be reviewed and accepted by the Agency before work begins. If the Contractor's methods fail to prevent erosion or sedimentation, the Contractor shall revise and adjust the control measures to provide effective control and restore damage resulting from erosion or sedimentation originating from the Work and other sites the Contractor controls or passes through.

The Contractor shall designate a Water Pollution Control Manager (WPCM) whose duties include:

- a. Being responsible for water pollution control work.
- b. Being the primary contact for water pollution control work.
- c. Overseeing the implementation of the water pollution control plan or program.
- d. Preparation and submittal of plans, amendments, and reports.
- e. Mobilization of crews to make immediate repairs to water pollution control measures.
- f. Ensuring that all employees have current water pollution control training.
- g. Being at the job site within two (2) hours of being contacted.
- h. Stopping construction activities that are damaging water pollution control measures or causing water pollution.

The name of and contact information for the WPCM shall be provided to the Agency at the pre-construction meeting.

#### **10-4.02 Regulations, Ordinances, Permits, and Specifications**

The Contractor shall comply with all Federal, State, Agency and local permits, rules, regulations, ordinances, statutes, and Agency directions that apply to erosion, sediment, and water pollution control.



The Contractor shall comply with the most stringent regulation, ordinance, permit, or specification of the following applicable to the Work:

- a. This Section
- b. The Contract Special Provisions
- c. Within the Unincorporated area of Sacramento County:
  1. The County of Sacramento Land Grading and Erosion Control Ordinance (Chapter 16.44 of the Sacramento County Code)
  2. The County of Sacramento Stormwater Management and Discharge Control Ordinance (Chapter 15.12 of the Sacramento County Code)
  3. The County of Sacramento Municipal Separate Storm Sewer System (MS4) Permit
- d. Within the Incorporated area of the City of Sacramento:
  1. The City of Sacramento Grading, Erosion and Sediment Control Ordinance (Chapter 15.88 of the Sacramento City Code)
  2. The City of Sacramento Stormwater Management and Discharge Control Ordinance (Chapter 13.16 of the Sacramento City Code)
  3. The City of Sacramento Municipal Separate Storm Sewer System (MS4) Permit
- e. Within the Unincorporated area of Sutter County:
  1. The County of Sutter Land Grading and Erosion Control Ordinance (Chapter 1770 of the Sutter County Code)
  2. The County of Sutter Stormwater Management and Discharge Control Ordinance (Chapter 1790 of the Sutter County Code)
  3. The County of Sutter Municipal Separate Storm Sewer System (MS4) Permit
- f. The State of California General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order No. 2009-0009-DWQ and successor permits (Construction General Permit, CGP)

#### **10-4.03 Agency Requirements**

The Contractor is required to develop and implement one of the following plans to control erosion, sediment and water pollution. The required plan will be identified in the Special Provisions

1. A Stormwater Pollution Prevention Plan (SWPPP). (See Section 10-4.04, “Stormwater Pollution Prevention Plan (SWPPP),” of these Specifications.) The Contractor is responsible for knowing the CGP requirements for the specified Risk Level and how those requirements apply to the Work. The Risk Level will be identified in the Special Provisions.
2. An Erosion and Sediment Control Plan (ESCP). (See Section 10-4.05, “Erosion and Sediment Control Plan (ESCP),” of these Specifications.)
3. A Water Pollution Control Program. (See Section 10-4.06, “Water Pollution Control Program (WPCP),” of these Specifications.)

The Contractor must submit the required plan for review and acceptance prior to performing work. Unless specifically authorized in writing by the Agency, activities that could create water pollution (like potholing, clearing, grubbing, or similar ground-disturbing activities) must not be performed without a written plan to control water pollution.

The plan must indicate how the Contractor proposes to effectively control water pollution during the Work. The plan must show all water pollution control Best Management Practices (BMP's) the Contractor will implement in connection with the Work, including inactive areas and completed work, and must describe how the Contractor will monitor the effectiveness of the plan. Standard Drawings 11-1 through 11-10 must be adhered to as applicable.

The Contractor must update the plan as frequently as required, or as directed by the Agency, to address the current stage of construction or whenever there is a change in construction activities or operations that affects the discharge of pollutants. The plan must be adjusted if the objective of reducing pollutants in discharges is not effectively achieved, or at the direction of the Agency. Updates and adjustments to the plan must show additional control measures or revised operations, including those in areas not shown in the initially approved program, which are required on the project to control water pollution effectively. Amendments to the plan must be submitted to the Agency for review and acceptance. Upon approval of the amendment, the Contractor must implement the additional control measures or revised operations.

The Agency is not responsible for the Contractor's water pollution control plan, delays to the Work due to the Contractor's failure to prepare and implement a plan, or impacts resulting from the Agency's standard submittal review process.

The minimum program required will be specified in the Special Provisions or by the Agency. The Contractor may opt to comply with a more restrictive program than that which is required by the Special Provisions or the Agency. The Contractor must then conform to all requirements of both the minimum applicable program and the more restrictive program. (For example, if an ESCP is required but the Contractor chooses to prepare a SWPPP, the SWPPP must be prepared by a civil engineer as required by the erosion control ordinance).

Before starting the Work, the Contractor shall develop a program for the control of water pollution during the Work. The program shall indicate how the Contractor proposes to effectively control water pollution during the Work. The program shall also describe how the Contractor plans to monitor the effectiveness of the program. The program shall show erosion control work and all water pollution control measures the Contractor plans to implement in connection with the Work. The Contractor shall not perform any clearing, grubbing or earthwork on the project, other than that specifically authorized in writing by the Agency, without a water pollution control program. The Contractor shall submit the program to the Agency for review.

The Agency is not liable to the Contractor for any portion of the water pollution control program or subsequent revisions, nor for any delays to the Work due to the Contractor's failure to prepare and implement a program nor for any delays as a result of Agency review.

#### **10-4.04 Storm Water Pollution Prevention Plan**

##### **10-4.04 A General**

Construction projects disturbing one (1) acre or more, or less than one (1) acre if part of a larger project, and linear projects are covered under the State of California General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order No. 2009-0009-DWQ (CGP). The State Water Resources Control Board (State Board or SWRCB) will issue a Waste Discharge Identification Number (WDID) for the project. Work can not start until the WDID is issued and the SWPPP has been accepted by the Agency.

##### **10-4.04 B Contents**

At a minimum, the SWPPP must contain the following:

1. An ESCP as described in Section 10-4.05 including:
  - a. Discharge locations
  - b. Sampling locations
  - c. ATS location (if applicable)

2. A sampling and analysis plan that identifies and addresses all sampling and analysis required by the CGP for the specified Risk level
3. Sample Rain Event Action Plan (as applicable)
4. Copies of permits obtained by the Agency, including:
  - a. Fish & Wildlife permits
  - b. U.S. Army Corps of Engineers permits
  - c. RWQCB 401 water quality certifications
  - d. Aerially deposited lead variance from the Department of Toxic Substance Control, aerially deposited lead variance notification, and RWQCB waste discharge requirements for aerially deposited lead reuse.

#### **10-4.04 C Preparation, Review and Acceptance**

The SWPPP must be prepared in accordance with the CGP. The SWPPP must be written, certified, and amended by a Qualified SWPPP Developer (QSD) as defined in the CGP. The SWPPP must be submitted to the Agency for review and acceptance, and implemented by the Contractor before Work starts. The Contractor must submit three (3) hard copies for review and approval. Upon approval by the Agency, the Contractor must provide an electronic copy in MS Word, PDF, or another format acceptable for uploading to the SWRCB Storm Water Multi Application and Report Tracking System (SMARTS). A current, hard copy of the SWPPP must be kept onsite at all times and must immediately be presented to Agency and Regional Water Quality Control Board (RWQCB or Regional Board) Inspectors, or personnel from other jurisdictional agencies, upon request. Failure to maintain and update the SWPPP or have the SWPPP readily available for review can result in a directive to stop work. (See Section 10-4.07, “Compliance,” of these Specifications.)

#### **10-4.04 D Implementation**

The individual responsible for the implementation of the SWPPP must be a Qualified SWPPP Practitioner (QSP) as defined in the CGP. All project personnel, inspectors, consultants, and contractors responsible for the use, installation, inspection, maintenance, and repair of Best Management Practices (BMP's) on all County projects are required to attend a project-specific stormwater compliance meeting. (See Section 10-4.08, “Required Stormwater Regulatory Compliance Meeting,” of these Specifications.)

#### **10-4.04 E Reporting**

If at any time the project is not in compliance, the Contractor must make a written report to the Agency within two (2) Working Days of the event that caused the project to be out of compliance. By August 1st of each year, the Contractor must submit to the Agency all required information for the Annual Report required by the CGP.

#### **10-4.05 Erosion and Sediment Control Plan (ESCP)**

The Contractor must prepare an Erosion and Sediment Control Plan (ESCP) for a project that involves the grading, filling, excavating, storage, or disposal of 350 cubic yards or more of soil, or the clearing and grubbing of one (1) acre or more. At a minimum, the ESCP must include the following information:

1. A site map showing:
  - a. A vicinity map.
  - b. Boundary lines of the property and each lot or parcel into which the site is proposed to be divided for storm water quality management.
  - c. Construction site boundaries.
  - d. A delineation of the area to be cleared and grubbed.
  - e. On-site and surrounding watercourses, wetlands, sensitive habitats, and other features that are not to be disturbed.
  - f. Existing and proposed drainage systems.

- g. Drainage area boundaries and acreages.
  - h. Existing roads and structures on the site, and on adjacent property.
  - i. Proposed roads and structures on the site, and on adjacent property.
  - j. Topography of existing ground including accurate contours at two foot intervals for slopes up to ten percent and five foot intervals for slopes over ten percent. Spot elevations are required where relatively flat conditions exist. The spot elevations or contour lines must be extended off-site for a minimum distance of 50 feet, or 100 feet in flat terrain.
  - k. Locations of existing vegetation, including oak trees, other trees over six inches in diameter measured at 4.5 feet above the ground, groves of trees
  - l. Elevations, location, extent and slope of proposed grading shown by contours, cross-sections or other means, including fills or other special features to be included in the work.
  - m. Locations of:
    - i. Storage areas for materials.
    - ii. Storage areas for waste.
    - iii. Vehicle service and fueling areas.
    - iv. Loading/unloading of materials.
    - v. Vehicle access points.
    - vi. Water storage and water transfer for dust control and compaction.
  - n. Location of erosion and sediment control measures to be implemented or constructed prior to, during or after each proposed activity. Describe methods to ensure effectiveness of BMPs, including personnel training requirements and procedures. Identify appropriate personnel responsible for supervisory duties related to implementation.
2. A statement of the quantity of material to be excavated, the quantity of material to be filled, whether the excavation or fill is permanent or temporary, and the amount of material to be imported to or exported from the site.
  3. A schedule showing when:
    - a. Work activities will be performed that could cause the discharge of pollutants into stormwater.
    - b. Water pollution control practices associated with each construction phase will be implemented.
    - c. Soil stabilization and sediment control practices for disturbed soil areas will be implemented.
  4. A description of and details for:
    - a. Erosion control measures and sediment control measures to be implemented or constructed prior to, during or after each proposed activity.
    - b. Dust control and construction site road and entrance stabilization measures.
    - c. Storage and disposal of construction materials.
  5. A maintenance and monitoring schedule and log, including reporting forms, for all erosion and sediment control measures.
  6. Additional plans required by the Agency.

The Special Provisions will identify information, if any, to be provided by the Agency.

#### **10-4.06 Water Pollution Control Program (WPCP)**

If the Work does not fall under Sections 10-4.04 or 10-4.05 of these Specifications, the Contractor must prepare a Water Pollution Control Program (WPCP) detailing the following:

1. A map showing:
  - a. Location of soil stockpiles and solid waste containers.
  - b. Vehicle and equipment fueling, servicing, cleaning and storage areas.
  - c. Material storage areas.
  - d. Locations of erosion and sediment control BMPs.
  - e. Site drainage during execution of the Work.
  - f. Stabilized vehicle accesses
  - g. Concrete clean out areas.
2. Chemicals, potential pollutants and hazardous materials to be used.
3. Methods for (include copies of drawings, details, and/or descriptions):
  - a. Dewatering.
  - b. Street cleaning.
  - c. Managing run-on and run off.
  - d. Spill prevention and control.
  - e. Handling and disposal of solid waste.
  - f. Methods for safekeeping and secondary containment of chemicals, potential pollutants, and hazardous materials.
  - g. Storage and dispensing of fuel and lubricants.
  - h. Clean out and disposal of concrete.
  - i. Construction BMP maintenance, inspection, and repair.
  - j. Sanitation provisions
4. Site stabilization after completion of the work
5. Construction BMP implementation and removal schedule

The WPCP must be submitted to the Agency for review and acceptance prior to the beginning of work.

#### **10-4.07 Compliance**

If the Contractor fails to comply with requirements of this Section 10-4, “Erosion, Sedimentation, and Water Pollution Control,” the Agency can stop all or a portion of the Contractor’s operations and direct the installation of erosion, sedimentation, or water pollution control measures, the organizing and scheduling of work, the preparation of required reports or documentation, or other work required to achieve compliance. In accordance with Section 5-21, “Temporary Suspension or Delay of Work,” of these Specifications, the Contractor cannot resume work until the Agency’s directive has been complied with to the satisfaction of the Agency. Temporary suspensions or delays caused by the Contractor’s failure to comply with the requirements of this Section are considered avoidable delays. See Section 7-12.01, “Avoidable Delays,” of these Specifications. Compliance with the provisions in this Section does not relieve the Contractor of the responsibility for compliance with other Contract provisions.

The Contractor must install BMPs, maintain BMPs, perform inspections, remove BMPs, and prepare documentation required by the SWPPP, ESCP, or WPCP applicable to the Work. At a minimum, inspections must be done weekly and 24 hours prior to, during, and after each rain event, and every 24 hours during extended rain events. The Contractor is solely responsible for preparing and maintaining inspection and monitoring records; and for including those records in the SWPPP, ESCP or WPCP, copies of which must be made available to the Agency upon request.

The Contractor must immediately correct or replace a BMP deemed ineffective by the Contractor or Engineer. If the measures taken by the Contractor are inadequate to effectively control water pollution, the Agency can direct the Contractor to revise operations and/or water pollution control efforts. The Agency reserves the right to take corrective action and withhold Agency costs for corrective action from progress payments or final payment in accordance with Section 8-8, “Withholdings/Denial of Progress Payment Request,” of these Specifications.

All fines, including third-party claims, levied against the Agency as a result of Contractor's non-compliance are the Contractor's sole responsibility and will be withheld from progress payments or final payment in accordance with Section 8-8, "Withholdings/Denial of Progress Payment Request," of these Specifications.

#### **10-4.08 Required Stormwater Regulatory Compliance Meeting**

The Contractor and all Subcontractors are required to attend a Stormwater Regulatory Compliance Meeting conducted by the Agency before construction activities begin. This meeting is mandatory for all construction personnel, including subcontractors and vendors, involved in construction activities that could have an impact on stormwater management.

The meeting could last up to three hours depending on the complexity of the project and the potential for pollutants originating from the project. Full compensation for attending this meeting shall be included in the prices paid for the various items of work and no separate payment will be made.

#### **10-4.09 Payment**

Unless noted otherwise in the Special Provisions or included as a payment item in the Technical specification, full compensation for preparing SWPPP, ESCP and WPCP plans, implementing, monitoring, inspecting and ensuring compliance with erosion and sediment control and storm water pollution and prevention requirements is included in the prices paid for the various Contract items of work and no additional compensation will be paid.

### **10-5 CONTROL OF WATER IN THE WORK**

When groundwater or surface run-off water is encountered, the Contractor shall furnish, install, maintain, and operate all necessary machinery, pipes, appliances, and equipment to keep excavations and wet areas reasonably free from water. Water shall be disposed of by the Contractor in a manner that does not damage public or private property or create a nuisance or health hazard. The Contractor must apply for and obtain any permits required to dispose of the water. De-watering operations shall remain in effect until the Work has been completed, inspected, and approved, and all danger of flotation and other damage is eliminated. Water pumped from waterways, trenches, excavations, or low spots shall be disposed as specified in the Special Provisions or as directed by the Agency. The Contractor is not allowed to dispose of any water that contains sediment or other contaminants. The Contractor is responsible for providing filtration, settlement, or disposal facilities as required to comply with the requirements of Section 10-4, "Erosion, Sediment, and Water Pollution Control," in this Section of these Specifications.

### **10-6 NOISE CONTROL**

The Contractor shall employ noise-reducing construction practices such that noise from construction complies with applicable City of Sacramento, County of Sacramento, or County of Sutter noise ordinance requirements and other noise level rules, regulations, and ordinances that apply to the work. The City of Sacramento ordinance can be viewed at <http://www.cityofsacramento.org>. The County of Sacramento ordinance can be viewed at <http://www.sacounty.net/coco/county-code.html>.

Measures that shall be used to limit noise may include but are not limited to:

1. Locating equipment, construction staging and stockpiling areas, and construction vehicle routes as far as practical from noise sensitive uses.
2. Using sound control devices such as mufflers on equipment and using exhaust and intake silencers on all internal combustion engines, in accordance with manufacturers' specifications. All haul trucks shall be inspected before use at least once per year to ensure maintenance and presence of noise-control devices.
3. Using equipment that is quieter than standard equipment.

4. Using noise-reducing enclosures around noise-generating equipment.
5. Establishing and enforcing construction site and haul road speed limits.
6. Restricting the use of bells, whistles, alarms, and horns to safety warning purposes only.
7. Locating noise-attenuating buffers such as structures, truck trailers, or soil piles between noise-generating sources and sensitive uses.
8. Restricting hours for equipment start-up and materials and equipment deliveries.

The Contractor shall prepare a detailed noise control plan based on the construction methods proposed. This plan shall identify specific measurements that will be taken to ensure compliance with the noise limits specified above. The noise control plan will be submitted to and approved by the Engineer before any noise-generating construction activity begins.

Where noise generating activities are conducted within three hundred (300) feet of noise sensitive receptors, the Contractor shall continuously measure and record sound generated as a result of the work activities conducted under this contract. Sound monitoring equipment shall be calibrated prior to taking measurements and shall have a resolution to within 2 dBA. Monitoring shall take place at each activity operation adjacent sensitive receptors. The recorded sound monitoring results shall be furnished weekly to the Engineer.

A disturbance coordinator shall be provided by the Agency and this person's phone number shall be posted around the project site, in adjacent public spaces, and in construction notifications. The disturbance coordinator shall be responsible for responding to any complaints about construction activities. All public complaints about construction disturbances shall be directed to the disturbance coordinator who shall be responsible for determining the cause of the complaint and for verifying that feasible measures have been implemented to alleviate the problem. The disturbance coordinator shall have the authority to halt activity if necessary to protect public health and safety.

## **10-7 CONTAMINATED AND HAZARDOUS MATERIALS OR ENVIRONMENTS**

### **10-7.01 Contaminated or Hazardous Materials**

The Contractor shall comply with all Federal, State, and local rules, regulations, ordinances, and statutes that apply to the handling, storage, and disposal of contaminated and hazardous materials. All work involving material containing asbestos must be performed in accordance with California Labor Code, Sections 6501.5 through 6510 and California Code of Regulations, Title 8, Section 5208, and any other pertinent regulations.

### **10-7.02 Hazardous Environments**

Existing sewers and appurtenances exposed to sewage and industrial wastes are considered contaminated with disease-causing organisms. The Contractor shall advise all personnel (including subcontractor personnel) in contact with contaminated facilities, debris, wastewater, or similar items of the necessary precautions to avoid disease. It is the Contractor's responsibility to urge all personnel to observe a strict regimen of proper hygienic precautions, including any inoculations recommended by the local public health officer.

### **10-7.03 Hazardous Materials Control Program**

The Contractor shall implement a hazardous materials control program which shall, in addition to other requirements of these Specifications, include:

1. The Contractor shall ensure proper labeling, storage, handling, and use of hazardous materials in accordance with the Occupational Safety and Health Administration's HAZWOPER requirements.

2. The Contractor shall ensure that employees are properly trained in the use and handling of these materials and that each material is accompanied by a material safety data sheet.
3. Storage areas for construction materials that contains hazardous or potentially toxic materials shall have an impermeable membrane between the ground and the hazardous/toxic materials and shall be bermed and covered as necessary to prevent the discharge of pollutants to groundwater and runoff water. Any small quantities of hazardous materials stored temporarily in staging areas shall be stored on pallets within fenced and secured areas and protected from exposure to weather. Incompatible materials shall be stored separately, as appropriate.
4. All hazardous material spills or threatened releases, including petroleum products such as gasoline, diesel, and hydraulic fluid, regardless of quantity spilled, shall be immediately reported to the Engineer. Such notification shall include the Contractor's proposed method of cleaning up the spill. Follow-up reports shall be provided to the Engineer which shall include the cause of the spill, the measures taken for cleanup, and the measures that will be implemented to reduce the likelihood of a similar spill in the future.
5. Equipment shall be inspected daily for oil and fuel leaks. Equipment found to be leaking oils or fuel shall be repaired immediately or removed from the job site.

The Contractor shall develop a Hazardous Materials Contingency Plan prior to delivery of any hazardous materials to the Project site. The Contractor shall implement the plan if an accidental spill occurs. Provisions outlined in the plan shall include telephone numbers of county and state agencies and primary, secondary, and final clean-up procedures.

If, during site preparation and construction activities, previously undiscovered or unknown evidence of hazardous materials contamination is observed or suspected through either obvious or implied measures (i.e., stained or odorous soil), construction activities shall immediately cease in the area of the find. The Agency shall obtain a qualified hazardous materials specialist to assess the project site and collect and analyze soil samples, if needed, from the construction site. If contaminants are identified in the samples, the Agency shall provide direction on implementation of measures in accordance with federal and state regulations prior to the re-commencement of construction activities.

The Contractor shall prepare a Worker Health and Safety Plan before the start of construction activities. This plan shall identify, at a minimum, all contaminants that could be encountered during construction activity; all appropriate worker, public health, and environmental protection equipment and procedures to be used during project activities; emergency response procedures; the most direct route to the nearest hospitals; and a site safety officer. The plan shall describe actions to be taken should hazardous materials be encountered on site, including protocols for handling hazardous materials and preventing their spread and emergency procedures to be taken.

#### **10-8 USE OF EXPLOSIVES**

The Contractor shall not use explosives on the Work unless the Agency grants permission in writing or the use of explosives is specified in the Contract Documents, and then only under such conditions as the Agency prescribes.

#### **10-9 SANITARY REGULATIONS**

The Contractor shall comply with all Federal, State and local rules, regulations, ordinances, and statutes with respect to sanitation. The Contractor shall obey and enforce such sanitary requirements, and shall take precautions against contagious or infectious diseases.

Sanitary conveniences for the use of the workers shall be provided and routinely maintained by the Contractor at all operational areas. To the extent practical, sanitary conveniences shall be obscured from the public. The Contractor shall strictly enforce use of such facilities.



## 10-10 CONFINED SPACES

When working in a confined space, the Contractor shall comply with all confined space requirements of applicable safety regulations and these Specifications. See also Section 12-1.05, "Confined Spaces."

## 10-11 CLEANING UP

The Contractor shall keep the site in a neat and presentable condition. The Contractor shall dispose of surplus materials, clean out all drainage ditches and structures, and repair any fences or other property damaged during the progress of the Work. When material is disposed of outside of an easement, street, or highway right-of-way, or other Agency-owned properties, the Contractor shall do so in accordance with the Contract Documents.

## 10-12 ARCHAEOLOGICAL, PALEONTOLOGICAL, AND CULTURAL RESOURCES

Cultural (archaeological) resources shall include historic-period artifacts, deposits, and buried structures; prehistoric-period Native American artifacts, deposits and human remains; and paleontological resources. Archaeological remains encompass a wide range of prehistoric and historic objects that have been subject to human use or modification or are the result of human manufacture. These objects include whole and fragmentary artifacts, such as stone, bone, or shell tools and ornaments; glass or ceramic bottles, jars, and dishes; metal cans or tools; and animal bone. Whole and partial features, such as fire pits, and the remains of buildings (foundations or debris) are also considered cultural resources, as is human bone. Paleontological resources include fossils, bone and similar evidence of past animal or vegetal life.

The Agency shall retain the services of a professional archaeologist and appropriate Tribal Monitors to perform monitoring during on-site earthwork, and appropriate actions shall be taken if potential archaeological, paleontological or other cultural resources are discovered, as described below. The professional archaeologists and Tribal Monitors shall be provided sufficient work space and shall be allowed an unobstructed view of excavations. The professional archaeologists and/or Tribal Monitors are authorized to pause construction periodically as needed for a closer examination of exposed sediments and/or artifacts. Each week, the Contractor shall provide the Agency a schedule of work to occur the following week, to inform Tribal and archaeological monitors of planned work, timing, and locations. The Engineer shall maintain a daily sign-in/sign-out log for all Tribal and archaeological monitors. The log shall include the date, monitor's name and affiliation, and time of monitoring sign-in and sign-out. The log shall be provided to the Agency weekly. The Contractor shall ensure that all Tribal and archaeological monitors are informed of safety requirements, protocols and procedures and that any monitors present onsite at the time attend construction safety meetings.

All on-site Contractor's project personnel shall attend cultural resources awareness and sensitivity training and shall be instructed to be alert for the possibility of damage to or destruction of buried cultural resource materials. They shall be instructed to recognize signs of prehistoric use. **The Contractor's project personnel shall not collect archaeological or paleontological material found on the project site**, but shall report any such finds (or suspected finds) immediately, so damage to such resources may be prevented. The Contractor's personnel shall be instructed by representatives of the Agency at a mutually agreeable time and prior to the performance of any earthwork. The Contractor shall provide a translator to allow the training to be conducted in Spanish for Spanish language speakers and other languages as needed or necessary. Training shall also be provided as new personnel are brought on the job during the construction period. The Contractor shall notify the Agency and representatives of the Agency of the need for additional training before new personnel begin work at the project site(s). Any of the Contractor's project personnel who continually fail to follow the Agency's protocols for respecting and protecting archaeological, paleontological or cultural resources shall be subject to dismissal under the provisions of General Specifications Section 5-6 - Contractor's Dismissal of Unsatisfactory Employees and prosecution under the provisions of appropriate State and Federal laws and regulations.

The Native American monitor and the archaeological monitor have the authority to temporarily stop work at a specific location to examine a potential discovery of cultural resources. If archaeological, paleontological, or other cultural resources are discovered during the Work, the Contractor shall cease excavation and other ground-disturbing activities in that area and within 100 feet in all directions from the discovery and immediately notify the Agency, the Agency archaeologist and the Tribal Monitor. The area shall be flagged or fenced, and no construction activity shall occur in the designated area until a qualified archaeologist, Tribal Monitor or paleontologist can assess the nature of the resources. If the Agency determines fencing is required to protect a discovered cultural resource, the Contractor shall install temporary 42-inch-high orange construction fencing (or other fencing, as approved by the Agency), under direction of the Engineer. The Agency, in consultation with the qualified archaeologist/monitor/paleontologist, will determine additional protection measures, as necessary and appropriate. If the Agency directs that work be temporarily ceased at the location of the find, the Contractor shall temporarily suspend work at the location, and as appropriate, restart operations outside of the buffer zone. Delays associated with such Agency direction shall be evaluated in accordance with Section 7-12.02, "Unavoidable Delays," of these Specifications.

If the discovery could potentially be human remains, the appropriate procedures described in California Health and Safety Code Section 7050 et seq. and California Public Resources Code Section 5097.9 et seq. shall be implemented. The Contractor shall cease excavation and other ground-disturbing activities in that area and within 150 feet in all directions from the discovery and immediately notify the Agency, the Agency archaeologist and the Tribal Monitor. The area shall be flagged and fenced, and no construction activity shall occur in the fenced area until the following procedures have been completed. The Agency shall immediately notify the Sacramento/Sutter County Coroner to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State, including Agency, lands (California Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). After the coroner's findings have been made, the NAHC-designated Most Likely Descendant shall determine the ultimate treatment and disposition of the remains in consultation with the land-owner.

### **10-13 PROTECTION OF EXISTING TREES**

Special attention shall be given to protection of certain native and ornamental trees or shrubs, landmark trees, and all native oak trees in the City and County of Sacramento and the County of Sutter. Additional requirements for specific trees may be shown on the Plans, or designated in the Special Provisions, Technical Specifications, or by the Agency. The following measures specify minimum requirements for protection of existing trees. The term "Certified Arborist" is defined as a current certificate holder as established by the International Society of Arboriculture.

1. No trees shall be removed or disturbed unless specifically designated for removal on the Plans or by the Agency. Every reasonable effort shall be made to avoid creating conditions adverse to the trees' health. The Contractor shall notify the Agency if any construction operations called for in the Contract Documents may cause damage to any existing trees or vegetation to be preserved.
2. The natural ground within the drip line of protected trees shall remain as undisturbed as possible. The area within the drip line is a critical portion of the root zone and defines the minimum protected area of each tree. The drip line area shall be identified on the ground by a circle with a radius measurement from the trunk of the tree to the tip of its longest limb. The limb cannot be cut back in order to change the drip line. Removing limbs within the drip line does not change the originally protected root zone. Temporary Protective Fencing, with a minimum height of four feet (4'-0") shall be installed one foot (1 ft) outside of and continuously around the drip line

perimeter of the trees prior to beginning the Work. The Contractor shall provide fencing as needed to meet the requirements of this project. The location of all proposed Temporary Protective Fencing shall be staked by the Contractor, for approval by the Engineer, before the start of Temporary Protective Fencing installation. Temporary Protective Fencing shall be completely installed in place and approved by the Engineer before the start of any construction operations.

3. No signs, ropes, cables, or any other items shall be attached to a tree, except those cables recommended by a Certified Arborist for limb support.
4. No vehicles, construction equipment, temporary or mobile buildings, supplies, materials, or facilities shall be driven, parked, stockpiled, or located within the drip line of trees.
5. Where it is not possible to establish a protected zone at the drip line (i.e., project work requires activity within the drip line), tree trunks and limbs greater than two (2) inches in diameter shall be protected with a cushioning material to prevent incidental damage. The Contractor shall propose a protective cushioning material and method of attachment to the Engineer for approval prior to construction.
6. Where pruning of tree canopies is required for equipment access and to prevent damage to trees during construction activities, pruning shall be the minimum required for equipment clearance. All trees within the work area that require pruning for construction clearance shall be pruned prior to commencement of construction. All branches shall be cut cleanly without peeling, tearing, splitting, or damage to the branch collar. All cuts shall be thinning cuts (i.e., removal at the point of attachment or to a node) rather than heading cuts or stub cuts (a cut between points of attachment or nodes). No covering, chemical or liquid treatment of pruning cuts shall be used. Branches greater than two inches in diameter shall be cut only under the direction of a Certified Arborist. No single tree shall be subjected to removal of greater than twenty (20) percent of the tree canopy. Pruning of more than twenty (20) percent of the canopy shall be done only under the direction of a Certified Arborist and with the approval of the Engineer.
7. Where tree roots are encountered within the scope of grading operations, roots shall be cut cleanly by hand to expose minimum tree tissue surface area to disturbance (i.e., cuts shall be made directly across the cross section rather than at an angle across the root). Damaged roots shall be traced back and cleanly cut behind any split, crack, or other damage. Exposed roots shall be immediately backfilled with soil to prevent drying. If, due to the construction, the roots must be unearthed for more than two hours, they must be kept moist and covered with wet burlap or an approved equal until they are covered by moist earth. Supporting structural buttress roots that provide stability to the tree or keep it from toppling shall be protected in place. The Contractor shall hand-dig in the drip line of trees to prevent root cutting and mangling. Roots greater than 2 inches in diameter shall be cut only under the direction of a Certified Arborist and with the approval of the Engineer. No single tree shall be subjected to root pruning for greater than twenty (20) percent of the total area beneath the tree canopy (drip line). Root pruning of more than twenty (20) percent of the area beneath drip line shall be only be done under the direction of a Certified Arborist and with the approval of the Engineer.
8. Unauthorized grade cuts or fills are not permitted within the drip line of trees. Cuts or fills necessary beyond the drip line but near the protected trees shall be contoured to drain away from the tree's drip line.
9. No utility line trenching will be permitted within the drip lines of trees. If it is necessary to install underground utilities within the drip line of a tree, the utility line shall be either bored or drilled to avoid damaging roots. If the Agency determines boring or drilling is inappropriate, the utility

line trench may be hand dug under the direct supervision of a Certified Arborist to avoid damaging roots.

10. All pruning and other activities involving trees shall follow current professional practices and standards as recommended by the International Society of Arboriculture
11. The Contractor shall immediately notify the Engineer if any trees or vegetation are damaged by the Contractor's operations. The Contractor shall remove any damaged vegetation at the Contractor's own expense as directed by the Engineer. If, in the opinion of the Engineer, existing vegetation to be protected is damaged during construction, the Contractor, at no additional cost to the Agency, shall replace such damaged plants with plants of the same species from sources and at sizes and quantities approved by the Engineer as adequate for replacement. Determination of extent of damage, value of damaged plants, and suitable replacement will rest solely with the Engineer.
12. The Engineer shall make weekly inspections to ensure the Temporary Protective Fencing stays in place and to monitor the health of the trees. The Contractor shall undertake any required action at the discretion of the Engineer to ensure the health of the trees (e.g., supplemental irrigation, fertilization, soil compaction remediation, etc.).
13. The Contractor shall completely remove and lawfully dispose of all vegetative debris (such as from authorized tree removal and pruning activities) offsite.

#### **10-14 CONSTRUCTION CONTRACTOR PROTOCOLS FOR AVOIDING AND MINIMIZING IMPACTS TO RAPTORS, SPECIAL STATUS, AND OTHER NESTING BIRDS**

##### **10-14.01 General**

1. The following construction contractor information and protocols for avoiding and minimizing impacts to raptors and migratory birds are to be strictly adhered to pursuant to the Contract Specifications. These protocols satisfy the terms and conditions of the U.S. Army Corps of Engineers and measures stipulated by the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife.
2. All raptors are protected under Section 3503.5 of the State Fish and Game Code, which states that it is unlawful to take, possess, or destroy any raptor (i.e., hawks, eagles, falcons, and owls), including their nests or eggs. Essentially all native birds are protected under the Migratory Bird Treaty Act, which states that it is unlawful, except as permitted by regulations, "to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird." In addition, under State and Federal Endangered Species Acts, certain raptors and migratory birds are listed as threatened or endangered species and are to be protected against take. Take, as defined by the Federal Act, means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or to attempt to engage in any such conduct. "Harm" has been interpreted to include significant habitat modification that could result in take. Take of the protected species could result in fines or work stoppages and individuals could be prosecuted, fined, and/or imprisoned.
3. Surveys in the project area have identified the presence of several threatened, endangered, and other native species that are protected by state and federal laws. These species are not to be "taken" by project activities. Therefore, the Contractor shall strictly implement these protocols to avoid and minimize any potential impacts to raptors, migratory birds, and other protected species.

#### **10-14.02 General Prohibitions and Requirements**

1. All on-site personnel shall be required to attend a worker awareness training seminar prior to the initiation of project activities. Training also shall be provided as new personnel are brought on the job during the construction period. The training will include identification of the species present on the project site, their habitat, their life history, their regulatory status (e.g., if they are listed as threatened or endangered), and the measures required to minimize take of the species during project construction. All on-site personnel shall be required to read the information sheet and follow the protocols stated therein. The Agency will provide the seminar at the project site. As needed, the Contractor shall provide a translator to allow the training to be conducted in Spanish for Spanish language speakers and other languages as needed or necessary.
2. No take, as defined above, of any bird is allowed.
3. All birds encountered shall not be harmed or killed.
4. All ground nesting birds encountered (living or dead) shall be reported immediately to the contacts listed below.
5. The date, time, precise location, and description of all ground nesting birds encountered (living or dead) shall be documented by the Contractor and reported immediately to the contacts listed below. Obviously dead birds shall be collected and placed outside of the work area for identification by the biologist.
6. Buffer zones established by the Agency biologist to protect nesting raptors and migratory birds shall be avoided. No grading, construction, tree removal, or other ground disturbance shall occur within the buffer zone until the young have fledged (as determined by the Agency biologist) or until authorized by the California Department of Fish and Wildlife.

#### **10-14.03 Ground Disturbing Activities**

1. All new ground disturbing activities shall only be conducted after a qualified Agency biologist has surveyed the area of proposed disturbance and verified that there are no sensitive species that will be impacted by the proposed activities.
2. The area of the new ground disturbance shall be surveyed by the qualified Agency biologist twenty-four (24) hours prior to the start of activities. The biologist shall also be on-site during the initial start of the activities to monitor for the presence of sensitive species.
3. The area of disturbance shall be re-surveyed whenever a lapse in construction activity of two weeks or greater has occurred.
4. Clearing and grubbing in habitat areas shall be minimized to only those areas necessary to complete the project construction.
5. Excavation of channel banks shall be accomplished using equipment located and operated from the top of bank, with the least removal practical for wetland vegetation.
6. Haul roads and access roads shall utilize existing roadways to the extent possible. The location of all new haul roads or access roads shall be approved by the Engineer prior to use. Haul roads and access roads shall be delineated by the Contractor in the field utilizing temporary fencing or other suitable delineator as approved by the Engineer.
7. The Contractor shall fence and avoid areas designated as sensitive habitat that are not to be disturbed by construction activities.

8. The Agency will provide the qualified biologist. The Contractor is responsible for notifying the Agency seventy-two (72) hours in advance of the need for the surveys.

#### **10-14.04 Swainson's Hawk**

1. A preconstruction Swainson's hawk nesting survey shall be conducted by a qualified Agency biologist within the suitable habitat to be disturbed and within a 0.5-mile radius of the project areas during the breeding season (March 1- September 15), in accordance with California Department of Fish and Wildlife guidelines. If no Swainson's hawk nests are found, then no further mitigation shall be required.
2. If an active Swainson's hawk nest is located on or within 0.5 mile of the project site then the following shall be implemented: an appropriate buffer that minimizes the potential for disturbance of the nest shall be determined by the Agency biologist, in coordination with the California Department of Fish and Wildlife. No project activities shall commence within the buffer area until a qualified biologist confirms that the nest is no longer active or the birds are not dependent on it. Monitoring shall be conducted by a qualified biologist to determine whether project activity results in detectable adverse effects on the nesting pair or their young. The size of the buffer may vary, depending on the nest location, nest stage, construction activity, and monitoring results. If implementation of the buffer becomes infeasible or construction activities result in an unanticipated nest disturbance, the California Department of Fish and Wildlife shall be consulted to determine the appropriate course of action.
3. Monitoring shall be conducted by the Agency biologist to ensure project activity does not result in detectable adverse effects to the nesting pair or their young.

#### **10-14.05 Burrowing Owl**

1. A preconstruction burrowing owl survey shall be conducted by a qualified Agency biologist of the entire project area and adjacent areas within up to 1,500 feet. If no burrowing owls are observed, then no further mitigation shall be required.
2. If an active burrowing owl nest (burrows occupied by adults and/or young) is located in the project area, the nest site shall be avoided with an appropriate non-disturbance buffer zone until it is no longer in use as determined by a qualified biologist. No project activities shall commence within the buffer area until a qualified biologist confirms that the nest is no longer active or the birds are not dependent on it. Monitoring shall be conducted by a qualified biologist to ensure that project activity does not result in detectable adverse effects on the nesting pair or their young. The size of the buffer may vary, depending upon the nest location, nest stage, construction activity, and monitoring results.
3. If a burrow in or adjacent to the project area is occupied by a non-breeding burrowing owl, the burrow shall be avoided with an appropriate non-disturbance buffer zone to be determined by the biologist. No project activities shall be allowed within the buffer zone. The non-disturbance buffer zone shall be maintained until the Agency biologist can make a determination on the appropriate course of action.
4. Should avoidance be infeasible, then upon approval of the California Department of Fish and Wildlife and under the supervision of the Agency biologist, exclusionary measures may be employed while the burrowing owls are not in the burrow. While this will displace individual owls, it will avoid direct killing (take) resulting from construction activities while the nests are occupied.

#### **10-14.06 Other Raptors and Special-Status Birds**

1. A focused survey for nests (both in trees and on the ground) of other raptors and special-status bird species shall be conducted by a qualified Agency biologist before project activities are

initiated during the nesting season (February 1 to July 31) to identify active nests within 200 to 1,000 feet of project activity areas. The survey shall be conducted no more than 14 days prior to the beginning of construction or tree removal.

2. If nesting raptors or special-status birds are found during the focused survey, appropriate buffers around the nest sites shall be determined by a qualified Agency biologist to avoid nest failure resulting from project activities. The size of the buffer shall depend on the species, nest location, nest stage, and specific construction activities to be performed while the nest is active. No project activity shall commence within the buffer areas until the qualified Agency biologist has determined that the young have fledged or the nest site is otherwise no longer in use.

#### **10-14.07 Migratory Birds**

1. A focused survey for nests of non-sensitive migratory birds shall be conducted by a qualified Agency biologist during the nesting season (March 1 to July 31) to identify active nests within 100 feet of project activity areas. The survey shall be conducted no more than 7 days prior to the beginning of construction or tree removal.
2. If an active nest is located, an appropriate buffer to minimize impacts shall be determined by the qualified Agency biologist. No project activities shall commence within the buffer area until the Agency biologist can make a determination on the appropriate course of action. The size of the buffer may vary, depending on the nest location, nest stage, and construction activity.

#### **10-14.08 Contact Information**

To report bird sightings, contact the Agency (916-874-7606, or the Agency Biologist (numbers to be provided during construction).

### **10-15 CONSTRUCTION CONTRACTOR PROTOCOLS FOR AVOIDING AND MINIMIZING IMPACTS TO THE GIANT GARTER SNAKE (*THAMNOPHIS GIGAS*)**

#### **10-15.01 General**

1. The following construction contractor information and protocols for avoiding and minimizing impacts to the giant garter snake (GGS) are to be strictly adhered to pursuant to the Contract Specifications. These protocols satisfy the terms and conditions of the U.S. Army Corps of Engineers and measures stipulated by the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife.
2. Under State and Federal Endangered Species Acts, the GGS is listed as a threatened species and is to be protected against take. Take, as defined by the Federal Act, means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or to attempt to engage in any such conduct. Take of the GGS could result in fines or work stoppages and individuals could be prosecuted, fined, and/or imprisoned.
3. Surveys in the project area have identified the presence of the GGS. There are also several species of common snakes (none of which are poisonous or a threat to people) in the area. Therefore, the Contractor shall strictly implement these protocols to avoid and minimize any potential impacts to the GGS, take of the GGS, or impacts to other snake species.

#### **10-15.02 General Prohibitions and Requirements**

1. All on-site personnel shall be required to attend a worker awareness training seminar prior to the initiation of ground disturbing activities. Training also shall be provided as new personnel are brought on the job during the construction period. The training will include identification of the GGS and its habitat, its life history, its threatened status and Endangered Species Act protection, and the measures required to minimize take of the GGS during project construction. All on-site personnel shall be required to read the GGS information sheet and follow the protocols stated

therein. The Agency will provide the seminar at the project site. As needed, the Contractor shall provide a translator to allow the training to be conducted in Spanish for Spanish language speakers and other languages as needed or necessary.

2. No take, as defined above, of any snakes is allowed.
3. All snakes encountered shall not be harmed or killed and shall be allowed to move away from construction activities on their own.
4. All snakes encountered (living or dead) shall be reported immediately to the contacts listed below.
5. The date, time, precise location, and description of all snakes encountered (living or dead) shall be documented by the Contractor and reported immediately to the contacts listed below. The checklist of descriptive characteristics of snakes observed, listed on the reverse side, shall be filled in to assist the Agency biologist with identification of the snake encountered. Obviously dead snakes shall be collected and placed in a bag for delivery to the biologist.
6. If any snake is observed retreating into an underground burrow within the project limits, no construction shall be allowed within a 50-foot radius of the burrow. A 50-foot radius non-disturbance buffer zone shall be established until the Agency biologist can make a determination that the snake is or is not a GGS.
7. If the Agency biologist determines that a GGS has retreated into an underground burrow within the project limits, and the area of the burrow can not be avoided by the project, then under the approval, supervision and direction of the California Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, and the Agency Biologist, the Contractor shall provide suitable equipment and labor to excavate the burrow so as to allow personnel with appropriate authority to capture and handle the GGS to relocate the GGS outside of the project area. The cost of labor and equipment provided by the Contractor to excavate a burrow will be paid for by force account.

#### **10-15.03 Ground Disturbing Activities**

1. All new ground disturbing activities within two hundred (200) feet of GGS habitat shall only be conducted between May 1 and October 1, which is the active season for the GGS.
2. The area of the new ground disturbance shall be surveyed by an Agency biologist approved by the U.S. Fish and Wildlife Service twenty-four (24) hours prior to the start of activities. The Agency biologist shall also be on-site during the initial start of the ground disturbing activities to monitor for the presence of snakes.
3. The area of disturbance shall be re-surveyed whenever a lapse in construction activity of two weeks or greater has occurred.
4. Clearing and grubbing in GGS habitat areas shall be minimized to only those areas necessary to complete the project construction.
5. Excavation of channel banks shall be accomplished using equipment located and operated from the top of bank, with the least removal practical for wetland vegetation.
6. Haul roads and access roads shall utilize existing roadways to the extent possible. The location of all new haul roads or access roads shall be approved by the Engineer prior to use. Haul roads and access roads shall be delineated by the Contractor in the field utilizing temporary fencing or other suitable delineator as approved by the Engineer.
7. The Contractor shall fence and avoid areas designated as GGS habitat that is not to be disturbed by construction activities. Exclusionary fencing (aka silt control fence) shall be placed after May 1 or before October 1 and at least 10 calendar days prior to the beginning of ground disturbing



activities, to exclude GGS from entering areas where upland ground disturbance will occur during the snake's active season (May 1 to October 1). Prior to fencing installation, the alignment of the fence shall be mowed (to a height of 6 inches) in order to conduct a surface survey for the presence of burrows. Fencing shall be installed with a minimum of 6 inches buried into the ground and extend a minimum of 24 inches above ground. Fence stakes shall be installed on the inside of the exclusion area (on the side towards the area of disturbance). One-way escape funnels shall be installed every 50 to 100 feet along the fence line to provide an escape for any GGS that may be within the disturbance area. Openings cut in the fencing fabric to install the escape funnels shall be sealed tightly against the funnels. The fencing shall enclose the entirety of the work site or additional exclusionary fencing shall be extended 200 to 400 feet beyond the extent of the GGS habitat area. The fencing shall be inspected before the start of each work day and maintained by the Contractor until completion of the project. The fencing shall be completely removed when project activities are completed.

8. The Agency will provide a biologist approved by the U.S. Fish and Wildlife Service. The Contractor is responsible for notifying the Agency seventy-two (72) hours in advance of the need for the surveys.

#### **10-15.04 Dewatering**

1. Dewatering activities on the work site shall only occur between April 15 and October 1.
2. Dewatered channels shall remain dry for at least fifteen (15) consecutive days prior to excavating, filling, or other construction activities in the channel.
3. After completion of the fifteen (15) day dry period, and before the beginning of construction activities in the channel, the channel shall be surveyed by the Agency biologist approved by the U.S. Fish and Wildlife Service.

#### **10-15.05 Contact Information**

To report snake sightings, contact the Agency (916) 874-7606, or the Agency Biologist (to be provided during construction).

**SACRAMENTO AREA FLOOD CONTROL AGENCY  
SNAKE ENCOUNTER CHECKLIST**

**GGs Description**

The GGS can be from one (1) to four (4) feet long and is characterized as a chocolate brown or dark gray snake with a faint yellow dorsal stripe running on top of the entire length of its body. The yellow dorsal stripe may be completely absent. When disturbed, the GGS typically retreats into the water where it will seek cover in the vegetation or may dive beneath the surface of the water. The GGS may also retreat to the upland areas (grass levee slopes or fields). There may be other snakes in the project area that can be identified by the characteristics listed on this data sheet. Please note the information or check the following snake identifying characteristics as applicable:

\* **Approximate length of snake observed:** \_\_\_\_\_ **feet**

\* **Coloration – Check any that apply to the snake observed**

- \_\_\_ Yellow or cream colored dorsal stripe present
- \_\_\_ Dorsal stripe absent
- \_\_\_ Dorsal stripe present with red blotches on both sides
- \_\_\_ Chocolate brown or dark gray back
- \_\_\_ Completely olive-brown
- \_\_\_ Yellow and brown blotches over entire length
- \_\_\_ Alternate black and white bands
- \_\_\_ Other \_\_\_\_\_

\* **Behavior – Check any that apply to the snake observed**

- \_\_\_ Retreated into the water
- \_\_\_ While in the water dove under water or submerged under water
- \_\_\_ Retreated to the uplands (grass levee slopes or fields)
- \_\_\_ Retreated into a burrow
- \_\_\_ Other \_\_\_\_\_

Other – Note any other observations

Name of Observer: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Location of observation: \_\_\_\_\_

## **10-16 CONSTRUCTION CONTRACTOR PROTOCOLS FOR AVOIDING AND MINIMIZING IMPACTS TO WETLANDS AND SENSITIVE HABITATS**

### **10-16.01 General**

Sensitive habitats are those that are of special concern to resource agencies, or that are afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, and/or Section 404 of the Clean Water Act (CWA).

The following information and protocols for avoiding and minimizing impacts to wetlands and other sensitive habitats shall be strictly adhered to by the Contractor pursuant to the Contract Specifications. These protocols satisfy the terms and conditions of the U.S. Army Corps of Engineers and measures stipulated by the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife.

1. Fill of wetlands is prohibited under the Clean Water Act unless a permit is obtained for the proposed activity. Fill, as defined by the Federal Act, includes the placement of earth or dredged material in wetlands or the removal of earth or dredged material from wetlands. Fill of wetlands without first obtaining a permit could result in fines or work stoppages and individuals could be prosecuted, fined, and/or imprisoned.
2. Under State and Federal Endangered Species Acts, certain wetlands species that are listed as threatened or endangered species are protected against take. Take of these species is prohibited unless a permit is obtained for the proposed activity. Take, as defined by the Federal Act, means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or to attempt to engage in any such conduct. Take of the protected species without first obtaining a permit could result in fines or work stoppages and individuals could be prosecuted, fined, and/or imprisoned.
3. Surveys in the project area have identified the presence of wetlands and other protected sensitive habitats. Therefore, the Contractor shall strictly implement these protocols to avoid and minimize any potential impacts to wetlands and other sensitive habitats.

### **10-16.02 General Prohibitions and Requirements**

1. All on-site personnel shall be required to attend a worker awareness training seminar prior to the initiation of project activities. Training also shall be provided as new personnel are brought on the job during the construction period. The training will include identification of the wetlands and other sensitive habitats present on the project site, including habitat for sensitive plant and wildlife species, the life history and regulatory status of such species, and the measures required to minimize fill of wetlands and take of wetlands species during project construction. The Agency will provide the seminar at the project site. As needed, the Contractor shall provide a translator to allow the training to be conducted in Spanish for Spanish language speakers and other languages as needed or necessary.
2. No fill, as defined above, of any kind in a wetland area is allowed except in accordance with the Specifications and in areas identified on the Plans.
3. No take, as defined above, of any protected species is allowed.

### **10-16.03 Ground Disturbing Activities**

1. All new ground disturbing activities shall only be conducted after an approved biologist has surveyed the area of proposed disturbance and verified that no unpermitted activities will occur.
2. The area of the new ground disturbance shall be surveyed by the approved biologist twenty-four (24) hours prior to the start of activities. The biologist shall also be on-site during the initial start of the activities to monitor for the presence of sensitive species.

3. The area of disturbance shall be re-surveyed whenever a lapse in construction activity of two weeks or greater has occurred.
4. Clearing and grubbing in habitat areas shall be minimized to only those areas necessary to complete the project construction. The Contractor shall be liable for any costs, fines, penalties, and rehabilitation expenses resulting from entering any restricted area.
5. Excavation of channel banks shall be accomplished using equipment located and operated from the top of bank, with the least removal practical for wetland vegetation.
6. Haul roads and access roads shall utilize existing roadways to the extent possible. The location of all new haul roads or access roads shall be approved by the Engineer prior to use. Haul roads and access roads shall be delineated by the Contractor in the field utilizing temporary fencing or other suitable delineator as approved by the Engineer. Haul roads and access roads shall be outside of riparian and wetland areas that will be avoided.
7. The Contractor shall fence areas designated as sensitive habitat that are not to be disturbed by construction activities to the satisfaction of the Engineer. The Contractor shall avoid all such areas.
8. The Agency will provide the approved biologist. The Contractor is responsible for notifying the Agency seventy-two (72) hours in advance of the need for the surveys.

#### **10-16.04 Vernal Pools**

1. Dewatering of vernal pools will not be allowed. Pools shall be allowed to dry naturally by evaporation.
2. The Contractor shall stay at least two hundred fifty (250) feet from the margin of the vernal pools or vernal swales that will not be impacted by project construction, unless the Agency biologist determines a smaller buffer is appropriate. The Contractor shall avoid activities that will result in effects to the pool/swale habitat's hydrology, sedimentation, or contamination.
3. The Contractor shall place and maintain adequate exclusion fencing, silt fencing or straw bales around any avoided or indirectly impacted vernal pool habitat.

#### **10-16.05 Water Quality Control**

1. All fueling and maintenance of vehicles and other equipment shall occur at designated refueling and staging areas located on the crown or landside of the levee and at least fifty (50) feet from active stream channels or other water bodies. All refueling, maintenance, and staging of equipment and vehicles shall be conducted in a location where a spill shall not drain directly toward aquatic habitat. The Contractor shall ensure that contamination of habitat does not occur during such operations. All workers shall be informed of the importance of preventing spills and appropriate measures to take should a spill occur. Appropriate containment materials shall be installed to collect any discharge, and adequate materials for spill cleanup shall be maintained on-site throughout the construction period.
2. The Contractor shall implement best management practices, as identified by the California State Water Quality Control Board, to control erosion into wetland and vernal pool habitats. These practices and measures shall be monitored for effectiveness and maintained throughout the construction operations.
3. All areas disturbed by the project activities shall be protected from washout or erosion.
4. Plastic monofilament netting or jute netting (erosion control matting) shall not be used.
5. Only certified weed-free rice straw shall be used for erosion control purposes.

6. Stockpiling of construction materials and storage of portable equipment, vehicles and supplies, including chemicals, shall be restricted to the designated construction staging areas and exclusive of the riparian and wetlands avoidance areas. All heavy equipment, vehicles, and supplies shall be stored at the designated staging areas at the end of each work period.
7. Vehicles and equipment shall be inspected daily for oil, fuel, and other leaks. Leaking equipment shall be repaired immediately or removed from the job site. The Contractor shall immediately clean up any spill of hazardous materials. Any spill and the methods utilized to clean up the spill shall be immediately reported to the Agency.
8. All debris, sediment, rubbish, vegetation, or other material removed from the construction areas shall be disposed of at an approved disposal site. Litter and construction debris shall be removed from the project site daily. All work pads and construction debris shall be removed from work sites immediately when work is completed at each site. All unused materials, equipment or supplies shall be removed from the project site at the completion of the project. Notify the Engineer in advance of starting any in-water activity.
9. The Contractor shall not place any materials, i.e., soil, silt, and other organic materials, where they may pass into surface water or surface water drainage paths.
10. Every reasonable precaution shall be exercised to protect streams and other waters from pollution with fuels, oils, and other harmful materials. Safer alternative products (such as biodegradable hydraulic fluids) shall be used where feasible. Petroleum products, chemicals, fresh cement, and construction by-products containing, or water contaminated by, any such materials shall be prevented from contaminating the soil, shall not be allowed to enter surface waters, and shall be collected and transported to an authorized off-site disposal area. The Contractor shall not discharge any excavated materials into surface waters. The Contractor's activities shall not cause visible oil, grease, or foam in the work area or downstream. The Contractor shall notify the Agency immediately of any spill of petroleum products or other harmful materials or discharge of other organic or earthen materials.

A written spill prevention and control plan (SPCP) shall be prepared and implemented. The SPCP and all material necessary for its implementation shall be accessible on-site prior to initiation of project construction and throughout the construction period. The SPCP shall include a plan for the emergency cleanup of any spills of fuel or other harmful materials. Employees/construction workers shall be provided the necessary information from the SPCP to prevent or reduce the discharge of pollutants from construction activities to waters and to use the appropriate measures should a spill occur. In the event of a spill, work shall stop immediately and the containment and cleanup activities shall be implemented. The California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, National Marine Fisheries Service, Central Valley Regional Water Quality Control Board, and U.S. Army Corps of Engineers shall be notified within 24 hours.

11. The Contractor's activities shall not cause settleable matter to exceed 0.1 ml/L in surface waters measured three hundred (300) feet downstream from the project. If project activities result in the deposition of soil materials or creation of a visible plume in surface waters, monitoring shall be conducted immediately upstream and three hundred (300) feet downstream of the work site and the results reported daily to the Engineer. The Agency shall notify the Water Quality Control Board immediately if the criteria for turbidity, settleable matter, oil/grease, or foam are exceeded.
12. The Contractor's activities shall be timed with awareness of precipitation forecasts and likely increases in stream flow. Prior to storm events, activities shall cease and not commence until reasonable erosion control measures have been implemented. Weather forecasts shall be documented upon request by the Engineer.

13. Except for site preparation, for the placement of dewatering structures or haul road crossings, no excavation in the live stream (flowing water) is allowed. If flowing water is present or should reasonably be anticipated, the Contractor shall first submit a detailed water diversion/dewatering plan to the Engineer and Department of Fish and Wildlife. Dewatering structures may include the use of sand bag, Port-a-dams, water bladder dams, K-rails, or driven sheet metal cofferdams.

All materials placed in streams, rivers, or other waters shall be nontoxic and shall not contain coatings or treatments or consist of substances deleterious to aquatic organisms that may leach into the surrounding environment in amounts harmful to aquatic organisms.

#### **10-16.06 Fish**

1. In-water construction activities shall be conducted within in-water work windows to avoid impacts to critical salmonid life stages (juvenile rearing, and juvenile and adult passage), typically from June through October.
2. Natural woody riparian habitat shall be avoided to the maximum extent practicable. Habitat to be avoided shall be temporarily fenced and designated as environmentally sensitive areas. These areas shall be avoided by all construction personnel.
3. Screens shall be installed on any construction-related water pump intakes located on waterways with salmonids in accordance with current salmonid screening specifications of National Marine Fisheries Service and California Department of Fish and Wildlife.

#### **10-16.07 Western Pond Turtle**

1. A pre-construction survey for western pond turtle (*Actinemmys marmorata*) shall be conducted by a qualified biologist in aquatic habitats to be dewatered and/or filled during project construction no more than 24 hours prior to filling in the creek channel. Surveys shall also be conducted immediately after any dewatering and before any fill of aquatic habitat. If no pond turtles are observed, no further mitigation is necessary.
2. If pond turtles are found, they shall be captured and relocated by a qualified biologist to nearby areas of suitable habitat that would not be disturbed by project construction.

#### **10-16.08 Aquatic Species**

The Contractor shall check daily for stranded aquatic life as the water level in the dewatering area drops. The Contractor shall undertake all reasonable efforts to capture and move all stranded aquatic life observed in the dewatered areas. Capture methods may include fish landing nets, dip nets, buckets, and by hand. Captured aquatic life shall be released immediately in the closest body of water adjacent to the work site.

#### **10-16.09 Contact Information**

Required reports or notifications shall be made to the Agency (916) 874-7606, or the Agency biologist (numbers to be provided during construction).

### **10-17 CONSTRUCTION PROTOCOLS FOR FIRE PREVENTION AND FIRE SUPPRESSION**

#### **10-17.01 General**

The Contractor, in consultation with the Agency, shall prepare and implement a fire management plan in coordination with the appropriate emergency service and/or fire-suppression agencies of the applicable local jurisdictions before beginning project construction. The plan shall describe fire prevention and response methods, including fire precaution, fire pre-suppression, and suppression measures that are consistent with the policies and standards of the affected jurisdictions. All materials and equipment required for implementation of the plan shall be maintained on-site. Fire safety training shall be provided

to all construction personnel and all construction personnel shall be made familiar with the contents of the fire management plan before construction activities begin.

#### **10-17.02 Construction Site**

1. The Contractor shall follow all reasonable precautions for fire prevention.
2. The Contractor shall cooperate with local fire authorities as requested by these agencies and approved by the Engineer.
3. The Contractor or Contractor's employees shall call 911 and the local fire department will be promptly alerted in a fire emergency. Local fire department telephone numbers shall be available at the job site when provided by the local fire agency.
4. The Contractor shall provide a mobile phone on site for emergency calls.
5. The Contractor shall designate a capable and qualified person who shall be in charge of fire protection. The responsibilities shall include locating and maintaining fire protective equipment and ensuring implementation of the Contractor's fire protection plan.
6. The Contractor shall ensure that all fire extinguishers and fire suppression systems are inspected and serviced as necessary and at least annually by a certified technician. The Contractor shall ensure that all fire extinguishers and fire suppression systems on the job site are inspected at least monthly by a qualified person and a record of the inspection shall be maintained.
7. The Contractor shall provide demonstrations and training to all personnel in the use of available "first aid" firefighting equipment. A record of this training listing the personnel in attendance and the equipment or techniques demonstrated shall be maintained.
8. Open fires are prohibited on the job site.
9. Smoking on the job site is not allowed except within staging areas that have been cleared of flammable materials.
10. Glass bottles and jugs shall not be utilized on the job site.
11. The Contractor shall provide and maintain in serviceable condition at each work site tools to be used only for suppressing fires. Such tools shall consist of round-tipped shovels, pulaskis, McClouds, and/or axes sufficient in number to equip all employees present in the work area.
12. The Contractor shall promptly remove from the job site all flammable debris produced by work activities.
13. There shall be no mechanical vegetation removal, welding or torch cutting activities when there is a Red Flag Fire Day Warning in effect for the county where work activities are proposed to occur. Information on red flag days may be obtained by calling the National Weather Service at (916) 979-3051.
14. These protocols are considered the minimum activities and procedures required. The Contractor shall supplement these requirements for specific job activities.

#### **10-17.03 Vehicles**

1. All highway vehicles shall be equipped with an appropriate fire extinguisher.
2. All off-road vehicles shall be equipped with an appropriate fire extinguisher and appropriate firefighting equipment.
3. Vehicles shall only be parked in areas that have been sufficiently cleared of flammable vegetation.

#### **10-17.04 Portable Power Equipment**

1. Portable fire extinguishers shall be located within fifty (50) feet of portable power equipment when in use. Extinguishers shall not be obstructed from view or blocked in any way.
2. Approved spark arresters shall be installed on all portable power equipment.
3. Fueling operations shall only be performed in areas that have first been cleared of flammable materials.

#### **10-17.05 Storage of Flammable Materials and Liquids**

1. Flammable Liquids stored at the job site shall be stored in a UL-Approved storage cabinet.
2. Flammable liquids shall only be transported in approved portable tanks and safety cans.

#### **10-17.06 Staging Areas**

1. To the extent feasible, the Contractor shall clear flammable vegetation for a distance of fifty (50) feet around staging areas, equipment, and vehicle service areas and areas where flammable materials are stored.
2. Used oil and oil filters shall not be stored on the job site.

#### **10-17.07 Welding and Torch Cutting**

1. The Contractor's designated fire protection person shall establish and maintain safe torch cutting and welding procedures.
2. In all areas where welding or torch cutting will occur, the Contractor shall establish an area that has been cleared of flammable material for a distance of ten feet in all directions.
3. During welding or torch cutting operations, the Contractor shall provide one person whose sole duty is to watch for and extinguish minor fires that may be started by the Contractor's activities.
4. Welding or torch cutting shall not take place after noon on any given day unless it is conducted in a staging area suitably cleared of flammable vegetation.
5. Welding or torch cutting shall not take place if the prevailing wind is determined to be blowing fifteen miles per hour or more.
6. Two five-gallon buckets of water (filled 4/5th full), and two four-gallon backpack sprayers shall be at each welding or torch cutting location.

### **10-18 GROUND VIBRATION MONITORING AND CONTROL PROGRAM**

The Contractor shall develop and implement a program to prevent damage to existing structures as a result of ground vibration caused by construction activities. Where ground vibration generating activities are conducted within two hundred (200) feet of vibration sensitive receptors, the Contractor shall continuously measure and record vibration generated as a result of the work activities conducted under this contract. The Contractor shall measure and record ground vibration levels at each activity operation adjacent sensitive receptors. Vibration monitoring equipment shall be placed at the property line adjacent to large equipment and, with owner approval, as near as possible to the residential structures adjacent to the large equipment.

Ground vibrations shall be measured as peak particle velocity in inches per second. Vibration measurements shall be made using an instrument capable of continuously monitoring three (3) orthogonal components with a resolution to within one-hundredth (0.01) inch per second. Vibration shall not exceed one-half (0.50) inch per second at the levee toe and 0.20 inch per second fifty (50) feet landside of the landside levee toe. In areas where homes, buildings or other structures (including pools) are within fifty (50) feet of the landside levee toe, the maximum allowed vibration shall be 0.10 inch per second and 72



vibration decibels at the levee toe. The Contractor shall be responsible for repairing damage to any building or structure resulting from ground vibrations exceeding the allowances specified.

## **10-19 CONSTRUCTION PROTOCOLS FOR ELDERBERRY SHRUBS**

Where elderberry shrubs are located adjacent to the project site, the contractor shall implement these protective measures. The elderberry shrub is the host plant of the Valley Elderberry Longhorn Beetle (VELB), a federally listed threatened species. The U.S. Fish and Wildlife Service has established avoidance and minimization measures for elderberry shrubs that occur in the vicinity of construction activities (U.S. Fish and Wildlife Service 2017), as presented below. The Contractor shall implement the measures listed below to avoid and minimize impacts to the VELB resulting from project activities.

1. **Fencing and avoidance area.** All areas to be avoided during construction shall be fenced and/or flagged as close to the construction limits, as feasible. Such fencing shall be placed at least twenty (20) feet from the drip line of the shrub, depending on the type of activity. In areas where encroachment within the 20-foot buffer will occur and is approved by the U.S. Fish and Wildlife Service
2. **Worker education.** The Contractor's personnel shall attend a worker awareness training provided by the Agency's biologist prior to the initiation of ground disturbance activities. Training also shall be provided as new personnel are brought on the job during the construction period. The training will include the status of the VELB, its host plant and habitat, and the need to avoid damaging the elderberry shrubs, and the possible penalties for noncompliance. The Agency will provide the seminar at the project site. As needed, the Contractor shall provide a translator to allow the training to be conducted in Spanish for Spanish language speakers and other languages as needed or necessary.
3. **Construction monitoring.** The Agency's biologist will monitor the work area at project appropriate intervals to assure that all avoidance and minimization measures are implemented.
4. **Timing.** As much as feasible, all activities that could occur within 50 meters (165 feet) of an elderberry shrub will be conducted outside of the flight season of the VELB (March–July).
5. **Trimming.** Trimming may remove or destroy VELB eggs and/or larvae and may reduce the health and vigor of the elderberry shrub. In order to avoid and minimize adverse effects to VELB when trimming, trimming shall occur between November and February and shall avoid the removal of any branches or stems that are  $\geq 1$  inch in diameter. Measures to address regular and/or large scale maintenance (trimming) shall be established in consultation with the Service.
6. **Chemical usage.** Herbicides shall not be used within the drip-line of the shrub. Insecticides shall not be used within thirty (30) meters (98 feet) of an elderberry shrub. All chemicals shall be applied using a backpack sprayer or similar direct application method.
7. **Mowing.** Mechanical weed removal within the drip-line of the shrub shall be limited to the season when adults are not active (August - February) and shall avoid damaging the elderberry.
8. **Erosion control and re-vegetation.** Erosion control shall be implemented and the affected area shall be re-vegetated with appropriate native plants.

## **10-20 CONSTRUCTION PROTOCOLS FOR USE OF PESTICIDES**

### **10-20.01 General**

1. It is the Agency's policy to use pesticides only after other methods of control have been exhausted.

2. The Contractor shall comply with all rules and regulations that govern the use of pesticides required in the performance of the Work, including any certifications that may be required for purchase, use, storage, or application.
3. Pesticides include, but are not limited to, herbicides, insecticides, fungicides, rodenticides, germicides, nematocides, bactericides, inhibitors, fumigants, defoliants, desiccants, soil sterilants, and repellants.
4. Any substance or mixture of substances intended for preventing, repelling, mitigating, or destroying weeds, insects, diseases, rodents, or nematodes and any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant shall be considered a pesticide.
5. Contractor shall be required to justify to the Agency why the use of pesticides should be allowed.

#### **10-20.02 72 Hours Notice of Pesticide Use**

Written notice shall be provided to the Agency a minimum of 72 hours in advance of all proposed pesticide applications.

#### **10-20.03 Content of Written Notice of Pesticide Use**

1. Purpose for proposed application.
2. Name of certified applicator(s) and parent company.
3. Date and time of proposed application.
4. Location of proposed application (site specific).
5. Pesticide proposed for use.
6. Method of application.
7. Rate and number of application(s) proposed.
8. Material Data Safety Sheets.
9. Safety precautions proposed.
10. Anticipated weather conditions (temp. POP, wind).
11. Signage – appropriate signage notifying the public of pesticide use shall be posted at the site for a 48-hour period prior to and after application. Signs must be posted at each entrance point and at intermediate points within the work area. Signs between entrance points shall result in a placement of no less than three (3) signs per mile. Signs shall contain a pictorial warning not to enter the area and, at a minimum, shall include the following information:
  - a. Date the pesticides was applied
  - b. Re-Entry restrictions
  - c. Pesticide type
  - d. Product name
  - e. Locations applied
  - f. Areas treated
  - g. Purpose of pesticide application

#### **10-20.04 Post Pesticide Use Report**

A brief written account shall be supplied to the Agency within forty-eight (48) hours of pesticide application and shall contain the following information:

1. Mitigating circumstances requiring follow-up i.e., additional treatment areas, public usage, spills, etc.
2. Actual Weather conditions at time of application (temperature, wind speed).
3. Estimated success of application i.e., low, moderate, high.
4. Actual quantities of pesticide used.

#### **10-20.05 Certification**

Prior to any pesticide application on Agency property and/or restoration or work sites:

1. A copy of the valid California 'Qualified Applicators Certificate(s)' for the persons performing and supervising pesticide applications shall be furnished to the Agency.
2. A copy of the record of completion of California mandatory continuing education requirements for persons qualified to apply pesticides shall be furnished to the Agency.

## **SECTION 11 PRECONSTRUCTION PHOTOGRAPHS AND RECORD DRAWINGS**

### **11-1 GENERAL**

Preconstruction photographs and Record Drawings are required on all Agency Work.

### **11-2 PRECONSTRUCTION PHOTOGRAPHS**

Preconstruction photographs shall be taken by the Contractor at one-hundred (100) foot intervals along the route of the Work before any construction begins. The view in each photograph shall include a sign showing the date, name of the Project, lateral or street, and applicable station designation. The sign shall not block the important areas of the view and shall be legible in a three and one-half inch by five inch (3-1/2" x 5") print. Each photograph shall be taken from a point between four (4) feet and eight (8) feet above the ground. All prints shall show good details in both shadow and sunlit areas. Negatives may be of any size provided minimum negative resolution throughout the major area of the negative is one hundred (100) lines per inch multiplied by the enlargement factor necessary to produce an eight inch by ten inch (8" x 10") print.

The views in preconstruction photographs shall include the entire construction zone and, in particular, show the interface between the right-of-way and construction zone, and abutting property features such as, but not limited to, condition of existing streets, sidewalks, driveways, fences, landscaping, buildings abutting work site, and existing surface utility facilities on and close to the Work.

All essential features of the project area shall be shown accurately. The Agency may order additional photographs showing additional features or orientations, if the Agency determines that all essential features are not accurately or adequately shown.

A sample of twenty-four (24) photographs shall be submitted to the Agency for approval before proceeding with the remaining photographs. All photographs which do not conform to these Specifications, as determined by the Agency, shall be retaken.

The Contractor shall submit to the Agency one (1) three and one-half inch by five inch (3-1/2"x5") color glossy print, and the negative or digital file, of each photograph taken. Prints shall be submitted in three-ring photo album binders with clear plastic covered fillers, four (4) photos each side, grouped in sequence according to feature. The name and number of the Contract and Contractor's name shall appear on the binder cover. Each group of prints shall be identified by a label which projects beyond the edge of filler page(s) and is easily recognized. Negatives may be placed within the filler sleeves or submitted separately. Alternatively, photos may be taken in digital form with photo prints submitted in three-ring binders. Prints shall have photo date electronically noted on the print and in captions. CDs of the digital files in .jpg or .pdf format shall be provided.

A video tape of the job site in a VHS or DVD format shall also be submitted. The content and quality requirements for the photographs shall apply to the video tape.

Following completion of the work, the Contractor shall provide post-construction photographs and video in the same manner as required for preconstruction photographs and video.

### **11-3 RECORD DRAWINGS**

The Contractor shall maintain a neat and accurately marked set of Record Drawings, which shall be provided to the Agency for review and approval prior to final acceptance of the Work. The Record Drawings shall represent the Work as constructed and document changes to the Work shown on the Project Plans, and shall show the actual as-constructed conditions of installed or modified systems, equipment, and material.

Record Drawings shall be produced by marking a full size copy of the Project Plans as follows:

**Red** – Additions including notes and dimensions.

**Green** – Deletions (by hash marks or appropriate lines through the deletion.)

**Graphite (gray)** – General comments and notes used by Contractor or Agency and not required on the as-built.

**Yellow** – Work completed as shown and used by Agency in field review of the as-built, during the submittal phase.

**Blue** – Agency verification and notes required to be added and noted by Agency in review of the as-built, during submittal phase.

The Record Drawings shall show, by field measured dimensions, the exact locations of all underground work, including all sprinkler system piping and components, and the final elevations and locations of all improvements constructed, modified or adjusted. The Record Drawings must show on the plan and profile drawings the type and class of all underground water, sewer, and drainage pipe installed and the station or location of transitions between pipe materials. Record Drawings shall be available for inspection by the Agency at all times and shall be updated at least weekly with all Field Instructions and other written directives, Contract Change Orders, and Contract adjustments shown thereon and initialed by the Agency. Progress payments or portions thereof may be withheld if Record Drawings are not kept up to date.

Unless otherwise specified in the Special Provisions or Technical Specifications, the Contractor shall submit two (2) sets of Record Drawings to the Agency at the final inspection. These Record Drawings shall include certification by the Contractor that the Record Drawings are a true representation of the Work as actually constructed. The Work will not be formally accepted until the Record Drawings are provided to and approved by the Agency. Final payment or a portion thereof may be withheld if final Record Drawings are not provided.

#### **11-4 PAYMENT**

When the Contract includes a payment item for preconstruction and post-construction photographs, preconstruction and post-construction photographs will be paid for at a lump sum price.

The lump sum price paid for preconstruction and post-construction photographs includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in taking and submitting preconstruction photographs, and video tape, as specified in these Specifications and the Special Provisions, and as directed by the Agency.

When the Contract does not include a payment item for preconstruction photographs, full compensation for preconstruction photographs and video tape is included in the prices paid for the various items of work and no separate payment will be made.

Full compensation for Record Drawings is included in the prices paid for the various items of work and no separate payment will be made.

## **SECTION 12 SAFETY, PUBLIC CONVENIENCE, AND TRAFFIC CONTROL**

### **12-1 SAFETY**

#### **12-1.01 Safety Regulations, Programs, and Plans**

Safety is a prime consideration in Agency contracts. The Contractor and all subcontractors shall fully comply with all applicable Cal/OSHA, Title 8 Regulations. The Contractor, and all Subcontractors, shall, upon request, submit to the Agency a copy of their Injury and Illness Prevention Program (IIPP), Code of Safe Work Practices (CSWP), Contract Specific Safety Plan (CSSP), and Task Specific Safety Plan (TSSP) for review by the Agency. No work shall be started unless otherwise authorized by the Agency until the Agency has completed its review of required safety documents and provided written authorization to proceed. The Contractor and all Subcontractors are required to fulfill the requirements of these programs or plans during the prosecution of the Work.

The Agency has full authority to enforce, make exceptions to, or waive requirements of any of the requested safety programs or plans on a case-by-case basis. Exceptions and or waivers will be provided in writing to the Contractor. Use of all or part of any safety and health program or plan does not relieve the Contractor of the responsibility to comply with prevailing local, state, and federal laws and regulations.

Plans shall be formatted in a logical and orderly fashion, including tabs and section dividers for ease of navigation and review.

##### **12-1.01 A Injury and Illness Prevention Program (IIPP) and Code of Safe Work Practices (CSWP)**

The IIPP and CSWP shall be prepared in accordance with Cal/OSHA, Title 8, Section §1509.

##### **12-1.01 B Contract Specific Safety Plan (CSSP)**

The CSSP shall state the nature of the Work and the anticipated hazards, and shall describe how those hazards will be mitigated to protect workers and the public. The CSSP shall cover the notification of employees, subcontractors, and others working on or visiting the jobsite of foreseeable hazards and provisions for Personal Protective Equipment (PPE). The CSSP shall certify that all employees have received or will receive appropriate site-specific safety and health training particular to the unique hazards of the Work.

Note: Employees shall be trained before starting any work activity where such training is explicitly required in the Cal/OSHA, Title 8 Regulations.

##### **12-1.01 C Task Specific Safety Plan (TSSP)**

A TSSP shall be prepared for high-hazard activities including, but not limited to, excavations greater than 5 feet in depth into which an employee will descend, permit-required confined spaces, activities involving the public right-of-way, tunneling, control of hazardous energy including electrical, thermal, kinetic, and potential, critical crane lifts, erection of falsework or precast panels, work requiring the use of respiratory protection equipment (e.g., lead or asbestos work), and the use of radioactive materials or radiation generating devices. Specific requirements for TSSP's may be indicated in the Special Provisions. At a minimum, the TSSP shall include the following elements as applicable to the activity:

1. A detailed description of the activity;
2. Step-by-step procedures for controlling all serious health safety hazards including Illustrations and calculations;
3. List of all Personal Protective Equipment (PPE) to be used;
4. Designation of health and safety responsibilities and authority for all key personnel;

5. Names of, and training records for, all Competent Persons, Qualified Persons, and for all other employees performing critical tasks that require training by Cal/OSHA, Title 8 Regulations;
6. Employee medical and equipment test records pertinent to the specific task, such as respirator fit test records and medical evaluations;
7. Copies of all health and safety forms and checklists to be used in relation to the task;
8. Copies of Safety Data Sheets (SDSs) required for substances to be used; and
9. Emergency response and rescue procedures related to the task.

#### **12-1.02 24-Hour Contact Information**

The Contractor shall have on record with the Agency the following 24-hour emergency contact names and numbers:

- Temporary Traffic Control Device Supplier: Supplier of all temporary traffic control devices to be used during construction.
- Contractor Representative: An employee of the Contractor having the authority to make decisions and the ability to respond to an emergency on the project at any time.
- Safety Representative: An employee of the Contractor properly trained in all workplace hazards and having the authority to make decisions regarding safety and health matters on the project and to direct the Contractor's personnel to abate any hazard identified by the Agency.

#### **12-1.03 Illumination**

Work by the Contractor during the hours of darkness or in locations where natural light is inadequate shall be illuminated to conform to the applicable minimum illumination intensities established by, Cal/OSHA, Title 8, Sections §1523, §3317, §8415, the National Cooperative Highway Research Program (NCHRP) Report 476, and the approved Traffic Control Plan (TCP).

#### **12-1.04 Personal Protective Equipment (PPE).**

Cal/OSHA Title 8 Regulations for PPE shall be adhered to. The Contractor shall provide the required PPE to employees and shall ensure that it is used and maintained in a sanitary and reliable condition.

#### **12-1.05 Confined Spaces**

##### **12-1.05 A Contractor Responsibilities and Qualifications**

Prior to any permit-required confined space entry, as defined by Cal/OSHA, Title 8, Section §5157, the Contractor shall submit the following for Agency review and acceptance per Section 12-1.01 C, "Task Specific Safety Plan (TSSP)," of these Specifications:

1. The Contractor's general procedures for confined space entry;
2. A detailed description of and step-by-step procedure for the proposed work;
3. A list of names of all employees involved in the permit-required entry and each person's responsibilities and authority in connection with the entry;
4. A list of all equipment to be used including, but not limited to, respiratory, atmospheric monitoring, chemical analysis, communication, entry and retrieval, ventilation, lighting, and power tools;
5. Copies of all forms and checklists to be used;
6. Rescue procedures, including notification, name and contact information of the emergency response agency, and method of communication;

7. Employee training records pertaining to confined spaces;
8. Employee records pertaining to the use of respiratory equipment;
9. Safety Data Sheets (SDS) for all applicable chemicals and products;
10. Hot work procedures (if applicable);
11. Lock-out/tag-out procedures (if applicable).

The Contractor's submittal shall be made a minimum of thirty (30) Calendar Days prior to any permit-required confined space entry in accordance with Section 5-8, "Contractor's Submittals," of these Specifications.

The Contractor will not be allowed to make a permit-required confined space entry until the Agency has reviewed and accepted the Contractor's qualifications and proposed methods.

The Contractor shall conform to the procedures established by the Contractor's submittal during confined space operations.

Mechanical ventilation shall be used to augment natural air circulation where necessary. Mechanical ventilation and its use shall meet the following minimum requirements:

- Before ventilation is initiated, information such as restricted areas within the confined space, voids, the nature of the contaminants present, the size of the space, the capacity needs of the blower(s), the type of work to be performed, and the number of people involved, shall be considered. This information, together with ventilation calculations, shall be submitted with the TSSP.
- Blowers shall function continuously and correctly throughout all entry activities. If a blower fails, all employees shall leave the space immediately.
- The space shall be purged in a manner sufficient to achieve a minimum of six (6) air exchanges per hour. The Contractor shall increase this air exchange rate as necessary to safeguard entrants.
- Motor vehicles and other gasoline powered equipment shall not be allowed to operate near the blower air intake.
- Use of mechanical ventilation shall be noted on the entry permit.

Note: Atmospheric testing shall be conducted following purging, before entry, and continuously during entry. Entry may not begin until testing has demonstrated that the hazardous atmosphere has been effectively eliminated or controlled.

#### **12-1.06 Respiratory Protection**

The Contractor is required to evaluate job tasks to determine if they could result in exposure to gases, vapors, fumes, dust, mists, or other regulated substances (e.g., asbestos, lead) above legally established limits. In these situations, the Contractor shall institute appropriate control measures to achieve regulatory compliance and maintain levels below the Permissible Exposure Limit (PEL). When these controls are unfeasible, respiratory protection may be necessary. If the Contractor intends to use respiratory protective equipment, such equipment shall be in full compliance with Cal/OSHA, Title 8, Section §5144 "Respiratory Protection" and any other applicable regulation(s). The Contractor shall submit a "Task Specific Safety Plan (TSSP)," per Section 12-1.01 C of these Specifications, for Agency review and acceptance.



### **12-1.07 Hazard Communication**

The Contractor is required to develop, implement, and maintain a written Hazard Communication Program in order to protect employees who may use or be exposed to hazardous chemicals during the course of construction. The Contractor's Hazard Communication Program shall be in compliance with Cal/OSHA, Title 8, Section §5194.

The Contractor shall provide copies of SDS's to the Agency upon request.

### **12-1.08 Control Of Hazardous Energy (Lockout/Tagout)**

Before a Contractor or any Subcontractor performs work on a system where the unexpected energizing, start up, or release of energy could occur and cause injury or damage, the energy source shall be isolated in accordance with the requirements of Cal/OSHA, Title 8, Section §3314 and of these Specifications.

When the Work requires the use of hazardous energy control procedures, the Contractor shall submit a Hazardous Energy Control Plan (HECP) to the Agency for review and acceptance per Section 12-1.01.C, "Task Specific Safety Plan (TSSP)," of these Specifications. Implementation of hazardous energy control procedures shall not be initiated until the HECP has been accepted by the Agency. The HECP shall outline the scope, purpose, authorization, rules, and techniques to be used for the control of hazardous energy, including, but not limited to, the following:

1. A statement of the intended use of the procedures;
2. Means of coordinating and communicating hazardous energy control activities including coordination with the facility owner and maintenance personnel;
3. Procedural steps and responsibilities for shutting down, isolating, blocking, and securing systems to control hazardous energy;
4. Procedural steps and responsibilities for the placement, removal, and transfer of lockout and tagout devices;
5. Procedural steps and responsibilities for placing and tagging, and moving or removing tags;
6. Requirements for testing the system to verify the effectiveness of isolation and lockout and tagout devices;
7. Procedures for safely responding to emergencies;
8. Requirements for transfer of authority and removal of hazardous energy control devices from the authorized employee to another individual

The Contractor shall fully coordinate hazardous energy control activities with the facility owner and maintenance personnel throughout planning and implementation. Each shall inform the other of their energy control procedures, ensure that their own personnel understand and comply with the procedures, and ensure that all employees affected by the hazardous energy control activity are notified when the steps outlined in the HECP are to be initiated.

A preparatory inspection shall be conducted to ensure that affected personnel understand the hazards and procedures for their control.

Daily inspections shall be conducted by a qualified person to ensure that all requirements of the hazardous energy control procedures are being followed.

Training shall be provided to ensure that the purpose and function of the hazardous energy control procedures are understood by employees and that employees possess the knowledge and skills required for the safe application, usage, and removal of energy control devices.

### **12-1.09 Control Of Fugitive Emissions**

The Contractor shall take precautions necessary to control fugitive emissions from the job site. Fugitive emissions include, but are not limited to: products and chemicals, noise, and hazardous materials (such as lead or asbestos).

#### **12-1.09 A Products and Chemicals**

Where a product or chemical to be used by the Contractor has a Permissible Exposure Limit (PEL) established by Cal/OSHA, the Contractor shall maintain exposure levels below the PEL. The Contractor shall monitor the work area for changing conditions and the potential for exposure above the PEL. Monitoring shall occur, at a minimum, during the start of work and whenever there is a change in procedure, process, or chemicals or materials used. When requested, copies of air monitoring data shall be provided to the Agency and to the building owner (where applicable) and shared with building occupants. If it is unfeasible to maintain exposure levels below the PEL, the Contractor shall restrict access to authorized personnel only.

#### **12-1.09 B Noise**

The Contractor shall comply with applicable regulatory requirements for noise and for the control of noise affecting the general public. The Contractor shall be responsible for compliance with Section 10-6, "Noise Control," of these Specifications and with Special Provisions or Technical Specifications that may contain specific or additional requirements. The Contractor shall provide appropriate hearing protection to employees exposed to a time weighted average noise level of 90 decibels (dBA) or more and train the employees in their proper care and use.

#### **12-1.09 C Asbestos Containing Material (ACM)**

All work shall be performed in compliance with current federal and state regulations, including U.S. EPA and, Cal/OSHA, Title 8, Sections §1529 and §5208, "Asbestos," the Special Provisions, Section 10-7.01 "Contaminated or Hazardous Materials," of these Specifications, and the requirements contained herein.

When the work involves the potential for exposure to ACM as defined by Cal/OSHA, Title 8, Section §1529(a), the Contractor shall provide a detailed Asbestos Abatement Plan (AAP) per Section 12-1.01 C, "Task Specific Safety Plan (TSSP)," of these Specifications. The plan shall include the location and layout of decontamination areas, the sequencing of asbestos work and methods to be used to assure the safety of building occupants, workers, and visitors to the site, methods for controlling emissions in the work area and the containerization and disposal of asbestos debris, and the following:

1. Current medical examination reports for each employee of the Contractor who will be on site;
2. Documentation stating that the Contractor is currently licensed by the State of California to perform asbestos abatement work;
3. Documentation indicating timely notification to the State Department of Industrial Relations (DIR) and of project fees paid;
4. Current certificates of asbestos training for each employee of the Contractor who will be on site and will be associated with the asbestos related work;
5. Current documentation of respirator training and fit testing for each employee of the Contractor who will be on the site;
6. A letter from the EPA indicating an approved disposal site for ACM;
7. A list of authorized personnel to be granted access to the work area;
8. All required permits, licenses, and insurance;

9. Documentation of the Contractor's notifications to businesses and residents regarding the abatement project schedule;
10. The names and phone numbers and contact information of person(s) to be contacted on behalf of the Contractor in cases of an emergency.
11. Safety Data Sheets (SDSs) for chemicals that will be used or that will be present at the job site. SDSs shall be provided to building occupants if chemicals or other hazardous substances are to be used in a facility or in areas where vapors or fumes could enter air intakes.

Note: A copy of all Asbestos Waste Manifests shall be submitted to the Agency.

#### **12-1.09 D Removal and Disposal of Asbestos Concrete Pipe (ACP)**

The disturbance of ACP is regulated under Cal/OSHA, Title 8, Section §1529. In addition, the following applies:

1. No ACP is to be disturbed unless first authorized by the Agency.
2. The Contractor is responsible to employ the means, methods, and techniques required to ensure that all ACP is removed in a manner such that it remains intact (indurated). When it is unfeasible to remove ACP without making the material friable, the Contractor shall submit an AAP for review and approval by the Agency.
3. Any disturbance of greater than 100 sq. ft. of ACP requires the Contractor to be registered for asbestos-related work. Exception: Contractors with employees and supervisors who have received the prescribed 4-hour ACP training by a Cal-OSHA certified training provider may non-destructively remove greater than 100 sq. ft. of ACP without the asbestos-related work registration. Employees shall have a current certificate of training from an accredited training provider.
4. Wet-cutting, snap-cutting, or a “clean break” of the pipe by an excavator is considered non-destructive. Abrasive (dry) sawing of ACP is a specifically "prohibited activity.”
5. Any operation that crushes or otherwise renders ACP friable requires that the work be done by a registered contractor.
6. If more than 260 linear feet of ACP is to be removed, and upon removal will become friable, the Contractor shall file a National Emission Standards for Hazardous Air Pollutants (NESHAPS) notification.
7. Non-friable ACP waste shall be packaged (6-mil waste bags or wrapped in 6-mil poly sheeting and taped to be leak proof) and disposed of at a classified landfill that accepts asbestos waste. The Contractor shall submit to the Agency a certificate of disposal to verify that the waste was legally disposed of. If underground sections of ACP are to be abandoned in place, they shall be left intact and non-friable (indurated).

#### **12-1.09 E Lead**

The Contractor is responsible for complying with all applicable federal, state, and local regulations and standards for lead-related work. This includes, Cal/OSHA, Title 8, Section §1532.1). The Contractor shall provide a detailed Lead Abatement Plan (LAP) per Section 12-1.01.C, “Task Specific Safety Plan (TSSP),” of these Specifications for Agency review and approval.

#### **12-1.10 Tunnel Safety**

The Contractor shall be aware of any Work that may be under the jurisdiction of the Tunneling Safety Orders (TSO), Title 8, Sections §§8400 – 8568. It is the Contractor’s responsibility to apply for and obtain any permits and licenses and to comply with all applicable laws and regulations. When the work

involves tunneling under the jurisdiction of the TSO's, the Contractor shall provide a detailed Tunnel Safety Plan (TSP), in compliance with Section 12-1.01.C (TSSP) of these Specifications. As required by TSO Section §8406, a Certified Safety Representative and Certified Gas Tester shall be designated by the Contractor and identified in the TSSP.

## **12-2 PUBLIC CONVENIENCE AND SAFETY**

### **12-2.01 Public Convenience**

Work within public streets and/or roadway rights-of-way shall be done in an expeditious manner and cause as little inconvenience to the traveling public as possible. Vehicles, bicycles, and pedestrians shall be allowed to pass at all times except during an emergency closure. See Section 7-8, "Peak Hours, Hours of Darkness, Holidays and Weekends," of these Specifications for time limitations. The surface of roadways open to the public shall be kept in a smooth, even condition, free of humps and depressions, satisfactory for the use of public traffic at all times as determined by the Agency.

Temporary facilities used by the Contractor to perform the Work or store or stage material or equipment shall not be installed or placed where they will interfere with the free and safe passage of public vehicular, bicycle, or pedestrian traffic.

### **12-2.02 Pedestrian and Bicyclist Access**

The Contractor shall not block the movement of pedestrian or bicyclist traffic within public streets and/or roadway rights-of-way. The Contractor shall provide for pedestrian and bicycle traffic by phasing construction operations and/or by providing alternative pedestrian and bicyclist access through or adjacent to construction areas. Proper advance notice signage with reasonable detours shall be installed and maintained through all phases of construction. Notice shall be provided to the appropriate City and/or County departments at least fourteen (14) calendar days before closure and/or detour of pedestrian and bicycle routes. Alternative bicycle or pedestrian routes and facilities that can be used when detours or route closures are in place shall be posted at least fourteen (14) calendar days in advance.

Access to pedestrian and bicycle devices at traffic signals shall be maintained at all times. Pedestrians shall never be diverted into a portion of the street used for vehicular traffic or onto private property unless proper barriers, delineation, and adequate signage are in place. Pedestrian and bicycle access shall consist of 4 foot wide bridges across trenches and 4 foot wide passageways through construction areas. Hand railings for pedestrians shall be provided when required by the Americans with Disabilities Act (ADA) on each side of each bridge or passageway to protect pedestrians from hazards caused by construction operations or adjacent vehicular traffic.

Clearly marked pedestrian detours shall be provided to address any sidewalk or pedestrian walkway closures or if pedestrian safety would be otherwise compromised. Clearly marked bicycle detours shall be provided to address bicycle route closure or if bicyclist safety would be otherwise compromised. Crossing guards and/or flag persons shall be provided, as needed, to avoid traffic conflicts and ensure pedestrian and bicyclist safety, particularly in the vicinity of schools.

Railings or barricades, which border passageways located in roadway areas, shall be reflectorized on the side facing oncoming traffic.

#### **12-2.02 A Pedestrians (Temporary Alternate Circulation Path)**

When crosswalk or other pedestrian facilities are temporarily closed or relocated, temporary alternate circulation paths are required to be provided by the Contractor to achieve the maximum accessibility

feasible under existing conditions. The alternate paths are to be accessible to all pedestrians, including those with visual impairments.

#### **12-2.02 A(1) Components**

A Temporary Alternate Circulation Path (hereafter referred to as “path” or “pathway”) shall consist of one or more of the following components: walkways, ramps, and landings, blended transitions, crosswalks, and pedestrian overpasses and underpasses. Elevators, platform lifts, stairways, and escalators shall not be part of a path. Components of a path shall comply with the applicable portions of these Specifications.

#### **12-2.02 A(2) Continuous Width**

Unless otherwise approved by the Agency, the minimum continuous and unobstructed clear width of a path shall be 4 feet, exclusive of the width of the pedestrian barricades and channelizing devices. If the alignment of the temporary path does not allow for a minimum continuous and unobstructed clear width of 4 feet, the width may be reduced upon written approval of the Agency. *Where a path turns or changes direction, it shall accommodate the continuous passage of a wheelchair or scooter. As with street or highway design for vehicles, additional maneuvering width or length may be needed along curved or angled path routings, particularly where the grade exceeds 5 percent. Individual segments of paths shall have a minimum straight length of 4 feet.*

*The Americans with Disabilities Act Accessibility Guidelines (ADAAG) Section 4.4 “Provisions for Protruding Objects” apply across the entire width of the path.*

#### **12-2.02 A(3) Width at Passing Spaces**

Paths that are less than 4 feet in clear width shall provide passing spaces at maximum intervals of 200 feet. Paths at passing spaces shall be 4 feet wide for a minimum distance of 5 feet.

#### **12-2.02 A(4) Walkway Grade and Cross Slope**

Unless otherwise approved by the Agency, the pathway surface shall be level and navigable and shall not have a slope greater than 12 to 1 or a cross slope greater than 2 percent.

#### **12-2.02 A(5) Surface**

All slip-resistant surfaces shall have a surface static coefficient of friction of 0.50 per ASTM C 1028.

The surface of the path shall be firm, stable, slip resistant, and detectable as defined by the CA/MUTCD. The pathway shall be constructed of Portland cement concrete, asphalt concrete, slip-resistant plywood, slip-resistant steel plates or other materials acceptable to the Agency.

Dirt is not an acceptable surface. Slip-resistant plywood used for a walkway shall have a minimum thickness of 1-1/8 inches and shall be thoroughly supported to provide a firm stable surface.

Surface discontinuities shall not exceed 1/2 inch maximum. Changes in level up to 1/4 inch may be vertical and without edge treatment. Vertical discontinuities between 1/4 and 1/2 inch maximum shall be beveled at 1 to 2 minimum. The bevel shall be applied across the entire level change. Changes in level greater than 1/2 inch shall be accomplished by means of a ramp that complies with *California Code of Regulations*, Title 24, Part 2, Chapter 11B, Section 1127B.5, and ADAAG 4.7.

#### **12-2.02 A(6) Location**

Sidewalks at the construction location may be closed with adequate detours. Detour routes shall be limited to existing sidewalks, private properties, crossings at roadway intersections, and sections of the roadway isolated from vehicular and bicyclist traffic by means of a barrier, and specifically designated for pedestrian traffic as approved by the Agency. To the maximum extent feasible, the alternate circulation path shall be provided on the same side of the street as the disrupted route.

Pedestrians may be detoured onto private property only if written permission from the property owner, which includes indemnification of the Agency for any liability arising from the use of the pedestrian detour, is first obtained. The documentation shall be provided to the Agency upon request.

#### **12-2.02 A(7) Protection**

Where the temporary alternate circulation path is exposed to adjacent construction, excavation drop-offs, traffic, or other hazards, it shall be demarcated with barricades, channelizing devices, concrete barriers, or other temporary traffic control devices necessary to provide clear guidance, separation and a safe path for pedestrians.

When it is necessary to block pedestrian travel at the departure curb to close a crosswalk due to construction activities, curb ramp access to the perpendicular crosswalk shall be maintained at all times. This may require additional pedestrian channelization if only a single diagonal curb ramp serves the corner.

During working hours, at least one Contractor employee shall be assigned the responsibility to escort pedestrians in need of assistance through and/or around the construction site. The assigned pedestrian escort shall be appropriately trained and equipped. The employee assigned this responsibility may also participate in other construction activities; however, they shall be aware that acting as a pedestrian escort is their primary responsibility.

#### **12-2.02 A(8) Lighting**

The pathway shall be provided with lighting with sufficient wattage to provide adequate illumination and a safe and secure environment for pedestrians. When existing artificial lighting does not sufficiently illuminate the path or there is no artificial lighting, temporary lighting shall be installed.

### **12-2.03 Written Notification To Residences and Businesses**

The Contractor shall notify, in writing, residents and business establishments along the route of the Work at least 10 Working Days prior to road closures and at least 3 Working Days prior to placing parking restrictions or planned disruption of any ingress and/or egress. The notice provided to the residences or businesses shall include, at a minimum, a schedule of closures with estimated closure times, the closure location, an alternate route or detour, and the name and 24-hour phone number of a contact person employed by the Contractor.

### **12-2.04 Access To Driveways, Houses, and Buildings**

Safe and passable pedestrian, bicyclist, and vehicular access shall be provided and maintained to fire hydrants, homes, commercial and industrial establishments, churches, schools, parking lots, service stations, motels, fire and police stations, hospitals, and all similar facilities and establishments. Access shall be navigable, continuous, and unobstructed unless otherwise approved by the Agency.

When abutting property owner's mutual access is to be eliminated, repaired, or replaced under the Contract, the existing access shall not be closed until the replacement access facilities are completed and functional.

### **12-2.05 Property Damage**

Any property damage caused by the Contractor shall be repaired immediately at the Contractor's expense to the satisfaction of the Agency.

### **12-2.06 Erection of Signs To Facilitate Passage of Vehicles**

The Contractor shall erect such warning and directional signs as necessary, or as directed by the Agency, for facilitating the passage of public traffic within public streets and/or roadway rights-of-way through or around the Work and the approaches. Warning and directional signs shall comply with these Specifications and the California Manual on Uniform Traffic Control Devices (CA/MUTCD).

### **12-2.07 Traffic Obstructions, Delays, and Inconveniences**

Public traffic within public streets and/or roadway rights-of-way shall be permitted to pass through the Work, and the Contractor shall conduct operations that offer the least possible obstruction, delay, and inconvenience to the public, except where authorized by the Agency or in an emergency situation where access may endanger the public. See Section 7-8.03, "Emergency Repairs," of these Specifications for criteria on what constitutes an emergency.

### **12-2.08 Work On Private Property**

The Contractor shall obtain written permission from the owner of any privately owned property prior to beginning any work, storing materials, or otherwise conducting any operations on the property. Written approval from the property owner shall be on file with the Agency before any operations are permitted on the privately owned property.

### **12-2.09 Hazardous Conditions Created**

Whenever the Contractor's operations create a condition hazardous to pedestrians, bicyclists, or the traveling public, the Contractor shall, at the Contractor's own expense, furnish, erect, and maintain any fences, covers, temporary traffic barriers, barricades, lights, signs, and other temporary traffic control devices necessary, or as directed by the Agency, to prevent accidents or damage or injury to the public or property.

## **12-3 PUBLIC SAFETY AND TRAFFIC CONTROL**

### **12-3.01 General**

Traffic controls shall be installed in accordance with the latest edition of the "California Manual on Uniform Traffic Control Devices" (CA/MUTCD), the National Cooperative Highway Research Program (NCHRP) Report 476 (nighttime traffic controls), the approved Traffic Control Plan (TCP), the project special provisions, these Specifications, and all other supporting, applicable, and referenced standards, documents, or manuals.

### **12-3.02 Responsibility For Safety**

It is the Contractor's responsibility to provide for public safety and traffic control. The Agency may review the Contractor's operations and inform the Contractor if an unsafe or hazardous condition is observed. The Contractor may be directed verbally or via Field Instruction, letter, or other means to abate the hazard. The Contractor shall comply with directives for hazard abatement immediately or within the timeframe imposed by the Agency.

### **12-3.03 Passage of Emergency Vehicles**

The Contractor shall provide for the uninterrupted passage of emergency vehicles through or around the Work zone at all times regardless of the controlled traffic conditions in place at the time. Exception: The roadway was previously approved for complete closure (e.g., bridge replacement) and where required and advance notification has been provided.

### **12-3.04 Furnishing, Installing, and Maintaining Temporary Traffic Controls**

Signs, lights, barriers, fences, barricades, and other facilities shall be furnished, erected and maintained by the Contractor to provide adequate warning and guidance to the public of conditions to be encountered during road construction at all hours of the day or night. Traffic control devices shall be placed before beginning work and shall be removed from the right-of-way at the end of each day or shift, or, for long-term closures, when no longer needed, and shall be placed so as to not obstruct bicycle lanes and pedestrian facilities.

Traffic control devices furnished and erected by the Contractor shall not obscure the visibility of, nor conflict in intent, meaning, and/or function with, existing signs, lights, or traffic control devices.

Previously used Temporary Traffic Control Devices will be considered satisfactory if approved by the Agency before placement. ATSSA's Quality Guidelines for Temporary Traffic Control Devices and Features shall be used as a guide.

#### **12-3.04 A Temporary Traffic Barriers (TTB)**

The four (4) primary functions of TTBs are:

1. To keep vehicular traffic from entering work areas, such as excavations or material storage sites;
2. To separate workers, bicyclists, and pedestrians from motor vehicle traffic;
3. To separate opposing directions of vehicular traffic; and
4. To separate vehicular traffic, bicyclists, and pedestrians from work and/or structures such as falsework for bridges and other exposed unyielding objects.

TTBs are required where any of the following conditions exist:

- A. Excavations – When the near edge of an excavation is 15 feet or less from the edge of the traveled way, except when:
  1. Excavations are covered with steel plates or concrete covers of adequate thickness to prevent accidental entry by traffic or the public;
  2. Excavations are less than 1 foot deep;
  3. Excavations have side slopes, where the slope is 4 to 1 (horizontal:vertical) or less (excluding existing roadside ditches);
  4. Excavations are protected by an existing barrier or railing.
- B. Unprotected Unyielding Obstacles – Whenever the work includes installation of a substantial fixed object such as bridge falsework, or whenever the Contractor removes a portion of an existing protective railing and does not replace the railing during the same day, or whenever the roadway alignment changes and subsequently encroaches onto an existing fixed obstacle in such that it creates a significant hazard to the traveling public.
- C. Material and Equipment Storage - Whenever unyielding material or heavy equipment is allowed to be stored within 15 feet of the traveled way.

TTBs are approved for use by the Agency through the Traffic Control Plan (TCP) submittal process. Where approved, TTBs shall be installed in full compliance with the following:

1. TTBs shall be approved by the Agency through a Certificate of Compliance before being placed in the public right-of-way.
2. TTBs shall meet the requirements of NCHRP Report 350, Test Level 3 (TL-3) criteria, unless otherwise approved by the Agency.
3. The TTB System shall be of sufficient length to completely shield the entire drop-off area or obstacle
4. Exposed surfaces of new and used TTB segments shall be freshly coated with white paint prior to their first use on the project and periodically repainted to remove marks from vehicle strikes and graffiti when requested by the Agency.
5. TTB segments shall be in new or like-new condition free of chips, cracks, or structural steel deformation or loss that may compromise the designed characteristics of the segment.



Connecting eyes shall be straight and undamaged. Rejection of TTB segments is at the sole discretion of the Agency.

6. Maintain a minimum 2-foot offset between the traveled lane and the TTB and between the excavation and the TTB. If the excavation/barrier minimum separation is not possible, and lateral movement cannot be tolerated, the TTB shall be anchored to the road surface as indicated in Detail T3 of the Caltrans Standard Plans. Note: Placing the TTB on a grout bed can provide a mechanical interlock to prevent movement and may be used as an alternative method for anchoring if approved by the Agency.
7. TTBs shall be set on a firm, stable foundation graded to provide a uniform bearing throughout the entire length of each segment.
8. Abutting TTB ends shall be placed and maintained in alignment without substantial offset to one another.
9. Adjacent TTB segments shall be properly connected as indicated on Detail T3 of the Caltrans Standard Plans.
10. Where the TTB system is placed on a curve and the radius is too severe to properly connect the segments, the Barrier shall be backed continuously with earth fill as indicated on Detail T3 of the Caltrans Standard Plans.
11. The approach end of the Barrier shall be tapered away from the road at a 8 to 1 or flatter angle and shall be shielded from traffic through one of the following methods:
  - I. Bury the end of the TTB in an earthen slope so no abrupt end exists.
  - II. Extend the end of the TTB to a point 15 feet or more beyond the edge of the traveled way (ETW).
  - III. Install a crash cushion array at the approach end of the TTB system meeting the requirements of Section 12-3.04.B of these Specifications.
12. If a TTB system is to be placed within 10 feet of the traveled way, the Contractor shall provide Barrier reflectors fastened to each segment and evenly spaced using one of the following methods:
  - I. High strength, two component, quick-set bonding epoxy.
  - II. A mechanical system (stainless steel, galvanized or zinc plated) consisting of an internal thread flush anchor, hex bolt, lock and flat washers.

The retro-reflective sheeting shall be white (silver) or yellow (amber) in color and applied to one or both sides of the reflector as necessary based on TTB application (traffic separation). The number and placement of reflectors may vary depending on site conditions.
13. The approach end of a TTB system shall have a Caltrans P-marker or Caltrans R-Marker installed as appropriate for conditions. If the TTB is placed on a skew, a Type P Marker shall also be installed at the skew point nearest the traveled way.
14. The Barrier System shall be removed from the right-of-way when no longer required on the project or when directed by the Agency.

#### **12-3.04 B      Crash Cushions**

Crash Cushions shall meet the requirements of NCHRP Report 350, Test Level 3 criteria as crashworthy devices.

The appropriate Crash Cushion array from Caltrans Standard Plans T1A, T1B, or T2 shall be used based on the posted speed and location of the barrier or fixed object to be attenuated. A manufacturer-designed Crash Cushion array may be used if approved in advance by the Agency.

A crash cushion array shall be furnished, installed, and maintained as shown on the project plans and/or TCP, the Caltrans Standard Plans, and in conformance with the manufacturer's recommendations and the following:

1. If a fixed object or the approach end of a TTB is less than 15 feet from the traveled way, a temporary crash cushion array is required unless otherwise approved by the Agency.
2. Crash Cushions shall be in new or like new condition when installed.
3. Any Crash Cushion that is damaged to the extent that it cannot perform as intended and as specified by the manufacturer shall be immediately (within 24 hours) repaired or replaced by the Contractor.
4. Crash Cushion Modules shall be filled to the proper level (based on placement within the array) and with the appropriate material (generally ASTM C-33 Concrete Sand). Any module found to be improperly filled or filled with unacceptable material (e.g., cobbles, aggregate base, dirt, trash or other non-approved materials) shall be immediately removed from the roadway and replaced with a properly-filled module.
5. Cone inserts, where required, shall be placed in each module and in the proper orientation as indicated by the manufacturers' specifications.
6. Lids shall be correctly fastened and maintained in place at all times. Water shall not be allowed to enter the module and mix with the sand.
7. When a Crash Cushion array is no longer required, all modules shall be removed from the right-of-way by the Contractor.
8. The surface on which a Crash Cushion array is installed shall be smooth, flat, and compacted (usually asphalt).
9. The module at the approach end of a temporary Crash Cushion array shall have a Caltrans P-marker or Caltrans R-Marker installed as appropriate for conditions.
10. Temporary Crash Cushion arrays shall not encroach into the traveled way.
11. The Contractor shall repair any pavement damaged by the installation or removal of a Crash Cushion array.

### **12-3.05 Inadequate Traffic Controls and After-Hour Maintenance and Repairs**

Should the Contractor appear negligent in furnishing and maintaining sufficient traffic control devices or protective measures or fail to provide flaggers as necessary to control traffic, the Agency may direct the Contractor, at the Contractor's expense, to abate the hazard. See Section 4-5, "Field Instructions or Other Written Directives," of these Specifications, regarding requirements for compliance with directives.

Should the Agency point out the inadequacy of warning devices and protective measures, that action does not relieve the Contractor from responsibility for public safety or abrogate the Contractor's obligation to furnish and pay for these devices and measures.

Should the Contractor fail to properly furnish or maintain traffic controls or correct a hazard caused by inadequate or inappropriate traffic control, the Agency will abate the hazard. Expenses to abate the hazard will be deducted from a progress payment. If the Contractor is unavailable to perform after-hour maintenance and repair to traffic control devices, the Agency will make all necessary repairs to safeguard motorists, bicyclists, and pedestrians, and deduct all costs from a progress payment.

### **12-3.06 Competent Flaggers**

The Contractor shall provide flaggers to control traffic when necessary or requested by the Agency. Flaggers shall be trained as required by Cal/OSHA, Title 8, Section §1599. The Contractor shall be prepared to provide verification of such training to the Agency when requested. If in the opinion of the Agency a flagger is not performing in a manner that is conducive to the safe passage of vehicles, bicyclists, and/or pedestrians, the Contractor will be directed to immediately find a replacement flagger.

### **12-3.07 Construction Signs**

The Contractor is responsible for supplying, installing, and maintaining all construction signs and posts. Regulatory signs or guide signs shall be supplied, erected, and maintained by the Contractor, and shall be protected from damage from construction activities by the Contractor through the duration of the project.

### **12-3.08 Temporary Bridging of Excavations and Trenches**

1. The use of steel plates shall be approved by the Agency prior to installation.
2. Steel plates, in the roadway, shall have the name and 24-hour emergency telephone number of the contractor responsible for maintaining the plates stenciled on the roadway pavement adjacent to the plates. Painted text shall be in white lettering using chalk-based paint. The text shall be neatly stenciled lettering, a minimum 3 inches in height, and shall be maintained in legible condition for the duration of plate placement.
3. Steel plate thickness vs. trench width requirements:
  - a. 18 inches or less in width - minimum thickness of 3/4 inch.
  - b. Greater than 18 and less than 72 inches in width - minimum thickness of 1 inch.
  - c. The thickness of steel plates for trench widths exceeding 72 inches shall be established through an analysis completed by a licensed professional engineer.
4. Whenever steel plates are used to cover an excavation where the related work is to take place for longer than 2 weeks, the steel plates shall be inlaid or recessed into the existing pavement, milling out the pavement surface to ensure that the top of the plate matches existing elevations of the adjacent pavement surface. Steel plates shall be large enough to extend beyond the edge of the trench at least 18 inches, but no more than 30 inches, on all sides. Corners of steel plates shall not protrude into the traveled way creating a hazard to motorists, bicyclists, or pedestrians.
5. Whenever steel plates are used to cover an excavation where the related work is to take place for less than 2 weeks, they may be placed on top of the asphalt with transitional ramps of MC250 asphalt mix against vertical edges of the plates. Ramping shall be accomplished to provide a minimum angle of approach of 12 to 1, providing a smooth, gradual transition between the pavement and the plate. Steel plates shall be anchored to the roadway surface with pins or spikes on the 4 outermost corners. Additional pins shall be placed as necessary to assure the steel plates are secured. Pins shall be installed such that they do not protrude above the plate surface any more than is necessary to anchor the plate and shall not create a hazard for the motoring, bicycling or pedestrian public. Steel plates shall be welded together (when necessary) to prevent shifting/bouncing. The steel plates shall extend beyond the edge of the trench at least 18 inches, but no more than 30 inches, on all sides. Corners of steel plates shall not protrude into the traveled way creating a hazard to motorists, bicyclists, or pedestrians.
6. Steel plates shall have a nonskid surface static coefficient of friction of 0.35 per California Test 342 for all steel plates within traveled roadway, and 0.50 per ASTM C1028 for steel plates in pedestrian pathways or crossings. When required by the Agency, the Contractor shall certify in writing to the Agency that steel plates used in the Work meet the required static coefficient of friction.

7. The length of a series of plates running parallel to traffic wheel paths shall not exceed 30 feet unless approved in writing by the Agency or noted in the TCP or Contract drawings.
8. Trench walls and adjacent soils shall be sufficiently stabilized prior to the use of steel plates for bridging.
9. For conditions that require a support structure (e.g., wide excavation with multiple steel plates, I-Beams, sheet piles, etc.), the system shall be designed by a registered professional engineer and submitted to the Agency for approval before use.
10. Where the street surface is uneven, plates shall be bedded on MC250 asphalt mix.
11. Steel plates shall be installed to operate within minimum noise levels.
12. Steel plates cannot remain on the roadway for longer than seven (7) Calendar Days unless approved in writing by the Agency.
13. BUMP (W8-1) warning signs shall be properly posted and maintained in advance of all roadway plates placed on the surface of the pavement.
14. The Contractor is responsible for maintaining the steel plates to allow for the safe passage of vehicles until the roadway is properly back-filled and patched.
15. The Contractor is responsible for damages or injuries that occur as a result of the plates being placed in the roadway. The Contractor shall reimburse the Agency any costs for emergency repairs.

In sidewalk areas, one and 1-1/8 inches plywood with a skid-resistant surface and a static coefficient of friction of 0.50 per ASTM C 1028 may be substituted for steel plating where the excavation is less than 2 feet deep and when authorized by the Agency. Transitional ramps of MC250 asphalt mix shall be installed against vertical edges in the direction of pedestrian traffic (both upstream and downstream). Ramping shall be accomplished to provide a minimum angle of approach of 12 to 1, providing a smooth, gradual transition between the sidewalk and the plate. Plywood shall extend beyond the edge of the trench. Any overlap (where multiple sheets are used) shall be a minimum of 12 inches. The plywood shall not protrude past the sidewalk edge into the traveled lane.

Vehicular travel over backfilled but unpaved excavations is not allowed. The Contractor shall provide a temporary surface suitable for driving consisting of at least 2 inches of plant mix asphalt over 6 inches of aggregate base, concrete slurry (completely cured), or traffic plates placed over the excavated area of sufficient width and thickness as indicated in this Section.

#### **12-3.09 Entering and Leaving the Construction Zone**

Construction equipment shall enter and leave the roadway by moving in the direction of public traffic. All movements of workers and construction equipment on or across lanes open to public traffic shall be performed in a safe manner that will not endanger the workers or the public.

#### **12-3.10 Existing Traffic Signal and Lighting Systems, Signs and Pavement Markings**

Existing traffic signal and lighting systems shall be kept in operation. When traffic signal shutdown is permitted by the Agency, the Contractor shall notify the Agency at least five (5) Working Days prior to shut down. Traffic signal detectors accidentally cut or damaged shall be repaired or replaced by the Contractor at the Contractor's expense and be operational within 72 hours. When traffic signals are approved for shutdown, the Contractor shall control traffic by use of flaggers as directed by the Agency.

Existing signs and pavement markings shall be maintained by the Contractor and shall not be removed or altered without Agency approval.

### **12-3.11 Bus Stops**

If construction operations will obstruct a bus stop, the Contractor shall notify Sacramento Regional Transit (RT) 48 hours in advance of beginning that portion of the Work and make arrangements agreeable with RT to provide an alternate location where people can safely board the bus.

### **12-3.12 Removal of Spillage From Roadway**

The Contractor shall immediately remove any spillage resulting from their operations along or across any public traveled way.

### **12-3.13 Road Edge Drop-off**

A road edge drop-off is defined as an elevation difference between lanes or the edge of the traveled lane and shoulder as traversed by the wheel of a motor vehicle.

Although not always feasible, a transitional ramp with appropriate signs and delineation is preferred over other methods (barrier or open drop-off with warning signs and delineation).

Where the drop-off is between lanes and overlay or paving operations cannot be completed within the allowable lane closure time, a transitional ramp is required if the drop-off is greater than 0.08 foot. Taper edges that are transverse to the direction of traffic at a 20:1 (horizontal:vertical) slope or flatter. Taper edges that are longitudinal to the direction of traffic at a 4:1 (horizontal:vertical) slope or flatter.

For drop-offs between the edge of the traveled lane and the shoulder that are greater than 0.15 foot, the ramp shall be constructed at a 4:1 (horizontal:vertical) or flatter slope. Ramp material shall be fully compacted and compatible with the material in the excavated area. This applies only to drop-offs created by construction or permit and utility operations. Drainage ditches are not to be considered as drop-offs.

Placement of all signs and channelizing devices shall be as indicated in Part 6 Temporary Traffic Control of the California MUTCD. Install portable delineators or tubular markers throughout the drop-off condition spaced at intervals indicated in Table 6F-102, or closer as directed by the Agency. Channelizing devices shall be “glue-down” type when requested by the Agency. Channelizing devices used to separate opposing directions of traffic shall be yellow with retro-reflective banding. Where the drop-off condition is greater than 0.15 foot and up to 0.25 foot, install Low Shoulder (W8-11) signs. Where the drop-off condition is greater than 0.25 foot but less than 1.0 foot, place No Shoulder (C-31A) signs. Sign spacing shall be as indicated in Table 6C-1. Whenever a drop-off is 1.0 foot or greater in depth, barrier protection is required in compliance with Section 12-3.04.A of these Specifications unless otherwise approved by the Agency.

## **12-4 TRAFFIC CONTROL AND HAUL ROUTE PLANS (TCP)**

### **12-4.01 General**

Access to levee projects shall be from the locations shown on the Plans and shall be from the landside of the levees. No access to the project shall be available from the waterside of the levees, unless shown on the Plans and authorized by the Engineer. Levee roadways, rather than surface streets, shall be used to the maximum extent feasible to access staging areas, work sites, and borrow areas. All access to the staging areas or the job site by the Contractors personnel and material and equipment deliveries shall be made utilizing the access points shown. Roadways on which construction workers are allowed to reach the specified access locations shall also be as designated by the Agency.

The Contractor will be required to submit a Traffic Control Plan to the County of Sacramento, City of Sacramento and/or the County of Sutter, and Caltrans, for all work or haul activities within County, City and Caltrans rights-of-way. Approval of the Traffic Control Plan by the agencies listed, as well as the Engineer, is mandatory prior to initiating work within the listed agency’s rights-of-way, including hauling operations. The Traffic Control Plan is to be submitted at the earliest possible date so that the review period does not affect the Contractor’s schedule.

The Contractor shall notify the County of Sacramento Department of Transportation, the City of Sacramento Department of Public Works, the County of Sutter Department of Public Works, and the California Highway Patrol of the proposed work schedule and proposed haul operations.

The Contractor shall coordinate truck routes and construction activities with the appropriate City and County departments and Caltrans.

The Contractors' traffic control plan shall describe the methods of traffic control to be used during construction. All on-street construction traffic control shall comply with the jurisdiction's standard construction specifications. The plan shall reduce the effects of construction on the roadway system in the project area throughout the construction period. The Contractor shall follow the standard construction specifications of affected jurisdictions and obtain the appropriate encroachment permits, as required. The conditions of the encroachment permit will be incorporated into the construction contract and will be enforced by the Agency and the agency that issues the encroachment permit. The traffic control plan shall include the following elements, as appropriate:

1. Posting warnings about the potential presence of slow-moving vehicles
2. Using traffic control personnel when appropriate
3. Placing and maintaining barriers and installing traffic control devices necessary for safety.

The contractor shall train construction personnel in appropriate safety measures as described in the plan, and shall implement the plan.

Two-way traffic flow shall be maintained on arterial roadways accessing or passing along active work areas, unless otherwise allowed by the Agency and the appropriate jurisdiction. At least one lane of traffic in each direction shall be maintained at all times along major streets. Proposed lane closures during the a.m. and p.m. commuting hours shall be coordinated with the appropriate jurisdiction and minimized during the morning and evening peak traffic periods. Lane closures shall be kept as short as possible. Safe pedestrian and bicyclist access, if any, shall be maintained in or around the construction areas at all times. Construction areas shall be secured as required by the applicable jurisdiction to prevent pedestrians and bicyclists from entering the work site, and all stationary equipment shall be located as far away as possible from areas where bicyclists and pedestrians are present.

The Contractor shall notify and consult with emergency service providers to maintain emergency access and facilitate the passage of emergency vehicles on local streets.

#### **12-4.02 Traffic Pattern Changes**

The Contractor shall notify the Agency in advance of the Contractor's desire to change any existing traffic patterns. Traffic lanes for public use shall be at least 10 feet in width. Whenever feasible, an additional 4 feet shall be provided for a bicycle lane. If it is not feasible to provide a separate bicycle lane, the Contractor shall post signage before the construction area stating, "SHARE the Road with Bicyclists." Additionally, when the lane is shared, the Contractor shall post signage for a maximum speed limit of 25 MPH in the shared lane. For traffic pattern changes that do not require a road closure, the Contractor shall provide the Agency with a minimum of five (5) Working Days advance notification, unless otherwise approved or deemed an emergency lane closure by the Agency. For all road closures, the Contractor shall provide the Agency with a minimum of twenty (20) Working Days notice prior to the desired closure date, unless otherwise approved or deemed an emergency road closure by the Agency.

#### **12-4.03 Traffic Control Plans (TCP)**

A TCP is required for all work performed within the public right-of-way which modifies vehicular, bicycle and/or pedestrian traffic patterns. Each TCP shall be developed in accordance with the latest version of the California Manual on Uniform Traffic Control Devices (CA/MUTCD). The basic objective of the TCP is to permit the Contractor to work within the public right-of-way efficiently and

effectively, while maintaining a safe, uniform flow of traffic. Both construction work and public interest shall be given consideration when developing the TCP.

TCP templates can be located at the County of Sacramento Department of Transportation website. These templates satisfy many of the locations/situations typically encountered, but not all. If the Contractor chooses to use a TCP template they should become familiar with the General Conditions and shall first confirm its applicability to the location/situation and its use with the Agency. The TCP requires review and approval prior to proceeding with work within the public right-of-way.

The TCP shall be provided to the Agency and the jurisdiction for review and approval at least five (5) Working Days in advance of rudimentary lane closures and at least twenty (20) Working Days in advance of complex lane closures and road closures. The Contractor is solely responsible for submitting any proposed TCP or modification and obtaining the Agency's and the jurisdiction's approval. Copies of the approved TCP shall be onsite at all times.

Unless the Contractor uses a provided template or unless otherwise approved by the Agency, the TCP shall:

1. Be on 22 by 34 inch or 11 by 17 inch sheets.
2. Be legible and standardized, using computer generated graphics.
3. Show all proposed construction signs, barricades, flaggers, delineation and other traffic control devices required to provide appropriate temporary traffic control for the Work.
4. Indicate the name, address, and telephone number of the person responsible for designing the TCP.
5. Be signed and stamped by a Registered Civil Engineer, Registered Traffic Engineer, ATSSA certified Traffic Control Design Specialist, or C-31 Licensed Contractor.
6. Include the name and telephone number of the 24-hour contact person representing the Contractor for implementation of temporary traffic controls.
7. Indicate the Contract number, encroachment permit number, or the name of the improvement project.
8. Indicate the duration of the construction work (Calendar Days) and the requested work hours (example -- 8:00am to 3:30pm).
9. Indicate a north arrow.
10. Show and label all streets in the vicinity.
11. Show all existing traffic signals and traffic control signs and indicate any proposed operational changes (e.g., placing signal lights on flash, or covering signal lights temporarily).
12. Show existing striping, pavement markings, painted crosswalks and bike lanes. Include total roadway widths, individual lane widths, bike lane widths, median dimensions, etc.
13. Show existing curbs, gutters, sidewalks, driveways and intersections in the construction work zone.
14. Indicate posted speed limits.
15. Show location and dimensions of the construction work zone.
16. Show work area and materials storage area (if applicable).
17. Label all taper lengths and widths, delineator spacing, and sign spacing.

18. Include a legend to define all symbols and designate them with current CALTRANS nomenclature.
19. Show all parking restriction zones and signs.
20. Show signs and barricades to be used to direct pedestrians or bicyclists through or around the Work.

## **12-5 BARRICADING OPEN TRENCHES**

Any excavation permitted by the Agency to be left open shall be barricaded with Type I, Type II, or Type III barricades with retro-reflective tape and flashers, as approved or directed by the Agency. Signs stating "OPEN TRENCH" shall be posted when directed by the Agency. Open excavated areas shall be barricaded with at least two (2) Type III barricades at the end of the excavation that faces oncoming traffic. Any excavation within 8 feet of the traveled way, not protected by a barrier approved by the Agency as indicated in Section 12-3.13, "Road Edge Drop-off," of these Standard Specifications, shall be backfilled at the end of the work shift provided with a transitional ramp, or plated in accordance with Section 12-3.08, "Temporary Bridging of Excavations and Trenches," of these Specifications.

## **12-6 EXCAVATION AND TRENCH SAFETY**

The Contractor's excavation operations shall follow the requirements of the California Code of Regulations(Cal/OSHA), Title 8, California Code of Regulations, Section 1541 Article 6 "Excavations" as applicable to the work.

### **12-6.01 Permit**

The Contractor shall obtain a permit from the Division of Industrial Relations per Labor Code Section 6500, as specified in Cal/OSHA, Title 8, Article 2 , Sections §§341 – 341.5, for all excavations 5 feet or deeper into which an employee is required to descend. The permit shall be kept at the construction site at all times.

### **12-6.02 Shoring, Bracing, Shielding, and Sheet piling**

In accordance with Labor Code Section 6705, in advance of excavation of any trench or trenches 5 feet or more in depth, with a total value of \$25,000 or more, the Contractor shall submit to the Agency a detailed plan showing the design of shoring, bracing, sloping, or other provisions for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If the plan varies from the shoring system standards, the plan shall be prepared by a California registered civil or structural engineer. A signed copy of the detailed plan shall be on site at all times during excavation work. The Contractor's submittal shall be made a minimum of five (5) Calendar Days prior to any excavation work in accordance with Section 5-8, "Contractor's Submittals," of these Specifications.

Nothing in this Section shall be deemed to allow the use of a shoring, sloping, or protective system less effective than that required by Cal/OSHA, Title 8, Article 6 "Excavations." Nothing in this Section shall be construed to impose tort liability on the Agency or any of its employees. These shoring, sloping, or protective systems shall support the sides of the excavation and prevent soil movement that could cause injury to persons or structures. Any damage resulting from a lack of adequate shoring, bracing, shielding or sheet piling shall be repaired at the Contractor's expense.

A Competent Person, as defined in Cal/OSHA, Title 8, Section §1504, "Definitions," shall be on site at all times when the Contractor's employees are working within the excavation.

The price bid for work that requires an excavation of 5 feet or deeper (or less if conditions warrant) shall include the cost of adequate sheet piling, shoring and bracing, or equivalent method conforming to applicable safety orders, unless a separate bid item is included in the Bid Form.



### **12-6.03 Contaminated Soil Management**

If the Contractor is performing excavation work at a site where there is evidence, or historical data to indicate, that the soil is contaminated with oil, fuel, or other such hazardous materials, the Contractor is required to adhere to the regulatory requirements that govern the excavation and disposal of contaminated soil. These requirements include provisions for work zone delineation and control, handling of contaminated debris, storage of excavated soil, personal protective equipment, equipment decontamination, and air monitoring. See Section 10-7 Contaminated and Hazardous Materials or Environments of these Specifications for additional information.

The Contractor is required to stop work and implement the appropriate emergency response procedures in the event that field observation (e.g. odor, discoloration/staining, oily sheen) indicates that contaminated soil has been encountered. If the Contractor fails to stop work and implement appropriate emergency response procedures, the Agency may stop the Work, and the Contractor shall be responsible for impacts to the Work due to the Agency stoppage.

### **12-6.04 Hazardous Material Spill Prevention and Control**

The Contractor shall develop and implement a Spill Prevention Control and Countermeasure (SPCC) Plan. The Contractor's SPCC Plan shall describe the procedures and equipment used to minimize spills, leaks, or releases of oil or hazardous materials. In addition, the Plan shall address the reporting and response procedures in the event of an incident.