EXHIBIT 2

BID DOCUMENTS

for

VENTURA COUNTY
FIRE PROTECTION DISTRICT

LOCKWOOD VALLEY SUBSTATION
GARAGE ADDITION PROJECT

15021 LOCKWOOD VALLEY ROAD
FRAZIER PARK, CA 93225

BID DUE DATE & TIME:

SEPTEMBER 29, 2021 @ 1:00 PM, PST

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PROJECT DIRECTORY

OWNER: VENTURA COUNTY FIRE PROTECTION DISTRICT
CONTACTS:
PROJECT MANAGER: DAVID KIRBY (805) 910-0256 david.kirby@ventura.org
SITE MANAGER: JIM MATHEWS (805) 910-8574 jim.mathews@ventura.org
165 Durley Avenue
Camarillo, CA 93010

ARCHITECT: IDEAS ARCHITECTURE, REAL ESTATE & CONSTRUCTION
CONTACT: ARTHUR ANDERSON
1082 So. Seaward Avenue
Ventura, CA 93001
(805) 653-5800
ideasarc@sbcglobal.net

GEOTECHNICAL ENGINEER: RYBAK GEOTECHNICAL, INC.
CONTACT: RICHARD, RYBAK
16022 Arminta Street, Suite # 7
Van Nuys, CA 91406
(818) 785-0550
rybakgeotech@hotmail.com

STRUCTURAL ENGINEER: EMPIRE STEEL BUILDINGS
CONTACT: JEFF ATHERTON
5230 Carrol Canyon Road, Suite # 30
San Diego, CA 92121
(949) 212-3590
Jatherton@empiresteelbuildings.com

END OF PROJECT DIRECTORY

NOTICE INVITING BIDS
FOR
VENTURA COUNTY FIRE PROTECTION DISTRICT
LOCKWOOD VALLEY SUBSTATION GARAGE ADDITION PROJECT

N-1 Notice is hereby given that sealed bids will be received in the bid box at the Ventura County Fire Protection District's (herein VCFPD, District, Owner or Agency) main office located at 165 Durley Avenue, Camarillo, CA 93010 93010 **not later than 1:00 PM (PST) September 29, 2021** for VCFPD's Lockwood Valley Substation Garage Addition Project (herein "Project") located at 15021 Lockwood Valley Road, Frazier Park 93225. Issue date of Notice Inviting Bids is September 7, 2021.

Time of Bid Closure: The bid box will be closed promptly at the time specified above. The person opening bids will not accept bids that are not in the bid box at closing time. Note that clocks in the building may not be set to the correct time and should not be relied upon.

N-2 **Availability of Bid Documents:** Bid Documents are available to bidders starting September 7, 2021and will be issued at:

Coast Reprographics (Attn: Brian Ehler)
1710 Donlon Street, Suite 2, Ventura, CA 93003
Phone: (805) 642-5898 E-mail: ventura@coast-repro.com

Each bidder is responsible for the cost of electronic downloads at $10.00 each.
Bidders may purchase hard copies of Plans and Specifications for a non-refundable amount of **$40.00 per set**, if picked up from Coast Reprographics at the above address. Any shipping and handling costs shall be the responsibility of the bidder. All payments shall be made directly to Coast Reprographics. Arrangements for receipt and payment for the Bid Documents shall be made directly with Coast Reprographics.

Each bidder must call Coast Reprographics at the number above to place an order prior to pick up or access their Plan Room at: https://www.coastplanroom.com/jobs/public for electronic download.

Bid Documents are also available for viewing at the trade organizations listed below.

1. Builder's Notebook – planroom@buildersnotebook.com
2. Construction Bidboard – planroom@ebidboard.com
3. Cyber Copy – dfssupport@cybercopyusa.com
4. Ventura County Contractor's Association – plan.room@vccainc.com

N-3 **Location of the Work**: The Work to be completed hereunder for the "Project" is located at 10521 Lockwood Valley Road, Frazier Park, CA 93225.

N-4 **General Description of the Work:**

In general, the Work to be performed for the "Project" is defined by the Contract Documents and consists of the items of Work listed below including all Work shown upon the Construction Drawings, Technical Specifications and all other Trade Contract Documents concerning this Work as required for the complete installation of all Work in accordance with the Specifications, or in Change Order, inclusive of all labor, tools, materials, incidentals, equipment, supervision, management, administration, testing, and all other necessary services, as defined by the Contract Documents. The Work to be performed by the Contractor is further delineated, but not limited to all items below. All items referenced below shall be considered by the Contractor and shall be included in the Total Lump Sum Bid.

The Work for the "Project" includes various forms of site work to support the erection of a new 800 square foot pre-fabricated metal garage, by separate contract. The Work includes and is not limited to: excavation, grading, removal and recompaction, trenching, construction of concrete footings, foundations, bollards, aprons, curbing, and preparation for pre-fabricated structure anchoring and bolting. The Work also includes ADA improvements such as accessible ramps, path of travel, door hardware, minor demolition and removals, signage and striping. Electrical improvements include conduit, cabling, subpanels, limited undergrounding, lighting and receptacle outlets.

A majority of the Work by Contractor on this "Project" shall be completed prior to erection of the pre-fabricated metal garage. Following erection of the pre-fabricated metal garage by separate contract, Contractor on this "Project" shall be required to finish the garage, including lighting, conduit and cabling, outlet receptacles, new mandoor and hardware as noted on the plans.

The pre-fabricated metal garage is Owner-furnished and will be installed through separate contract by an approved contractor of the garage vendor. Included as part of the separate contract are internal insulation, rollup door, operator and associated wiring.

Awarded Contractor shall be solely responsible for the means and methods, procedures and all requirements to complete the Work for this "Project". Contractor shall perform all Work in conformance with every law, statute, ordinance, building code, rule, or regulation and requirements of all City, County, State and Federal Agencies and Authorities having jurisdiction over this "Project", including the demolition, removal, transportation and disposal of all removed materials.

The Contractor shall furnish, provide, install, and maintain all required protective materials and coverings, medium, and services to adequately protect all areas of work during course of construction including maintenance of adequate dust control at all times, and thoroughly clean all areas of work at the end of each workday. Coordination of work with other trades shall be included as necessary.

Recyclable Construction & Demolition Wastes: The site of this "Project" is within the unincorporated area of Ventura County. Contractor shall comply with Ventura County's Construction and Demolition Waste Management Plan and shall perform all Work in conformance with every law, statute, ordinance, building code, rule, or regulation and requirements of all City, County, State and Federal Agencies and Authorities having jurisdiction over this "Project", including the demolition, removal, transportation and disposal of all removed materials. Ventura County Standard Specifications section 7-15 for unincorporated areas apply here.

The provisions of the Contract Documents, including County of Ventura Standard Specifications, Agency's Supplementary Standard Specifications and Division 1, Section 01010 shall apply to all Construction Drawings and Technical Specifications of this "Project".

N-5 **Award of Contract**: The Agency reserves the right to reject any and all bids, or to waive any minor irregularities or informalities in any bids or in the bidding. The Award of the contract, if made by the Agency, will be to the lowest responsible bidder.

The awarded Contractor shall have (14) calendar days following award of the Contract to execute all bonds, insurance certificates & endorsements, and contract forms. Agency reserves the right to award the contract to the second lowest responsible bidder if Contractor fails to meet the 14-day requirement. All Building Permits for the "Project" will be provided by the District.

N-6 **Notice to Proceed and Completion of the Work**: Notice to Proceed will be issued within (7) calendar days after the Contract, bonds, insurance certificates & endorsements and other documents have been returned, properly completed by Contractor. The actual date on which the Contractor starts work shall be stated in the Notice to Proceed. All Work must be completed within **fifty (50)**

working days after the start date issued in the Notice to Proceed. Counting of working days will be temporarily stalled during the erection of the pre-fabricated metal building by separate contract. TIME IS OF THE ESSENCE.

During the construction phase of the "Project", the selected Bidder (i.e., General Contractor and its sub-contractors) shall have access to temporary power. Enclosed jobsite toilet facilities, handwashing station with running water, soap, disposable paper towels and hand sanitizer dispensers shall be provided and maintained at all times in neat, clean and sanitary conditions and regularly pumped out by the General Contractor. General Contractor shall be responsible for providing their own secure storage on the "Project" site.

N-7 **Bids to Remain Open**: Bidders shall guarantee the Bid Prices for a period of 90 calendar days from the Date of Bid Opening. A bid may not be corrected, withdrawn, or canceled by the Bidder for a 90-day period following the bid submission deadline in N-1 above.

N-8 **Bid Security**: Each bid shall be accompanied by a certified or cashier's check or Bid Bond in the amount of 10% of the total bid price, made payable to County of Ventura, Ventura County Fire Protection District as a guarantee that the Bidder, if its Bid is accepted, will promptly obtain the required Bonds and Insurance and will prepare the required submittal documents and execute the Contract. The Bid Bonds for the two lowest responsible bidders will be returned following final execution of a contract, all other Bid Bonds will be returned to the Bidders upon award of the contract by the Agency.

N-9 **Contractor's License**: Bidders shall possess a valid Class B California Contractor's License, as defined by state law. The Contractor shall maintain said license for the duration of the "Project".

N-10 **Retainage from Payments:** Ventura County Standard Specifications (VCSS) requires 5% retention from all payments.

N-11 **Non-mandatory Pre-Bid Meeting**: A non-mandatory pre-bid meeting is scheduled on September 13, 2021 @ 11:00 AM at the "Project" site. The meeting will be held for the purpose of answering any questions concerning the "Project". None of the information transmitted at the pre-bid meeting shall be construed in any way to modify, correct or change the Plans and Specifications. All corrections and changes deemed necessary based on discussions held at the pre-bid meeting shall be forwarded to all Plan Holders as an addendum or RFI clarification, as applicable.

If a potential bidder cannot make the scheduled meeting for good cause (as determined by the Fire District's Representative) an alternate meeting may be scheduled that will substitute for the scheduled one.

N-12 **Bidder's Questions or Requests for Information (RFI)**: During the Bidding Period, bidders shall direct all questions in writing to the individual listed below. Deadline for submitting RFIs is September 17, 2021. Use the RFI form provided at the end of Division 1.

David Kirby Phone: (805) 910-0256 Email: david.kirby@ventura.org

N-13 **Addenda:** Addenda that may be issued for this "Project" must be individually acknowledged by each Bidder by inserting the Addendum Number on page 11 of 20 the *Bid Proposal*. Failure to do so may result in the disqualification of your bid. The acknowledgement of receipt of each Addendum shall be taken as prima facie evidence that, prior to the submission of the bid, the bidder was fully cognizant of all provisions of each Addendum and of all work and conditions affected thereby. All addenda for this this Project will be posted in the Planroom at Coast Reprographics' and may be viewed here: https://www.coastplanroom.com/jobs/public.

N-14 **Liquidated Damages for delay:** $1,000 per calendar day. For each consecutive calendar day in excess of the time specified, as adjusted in accordance with 6-6 of the Ventura County Standard Specifications for completion of the Work, the Contractor shall pay to the Agency, or have withheld from monies due it, the sum of $1,000.

N-15 **Competency of Bidders**: All bidders must meet all of the following minimum bid qualification requirements.

1. The bidding entity must have been established for a minimum of twelve consecutive months. Bidders shall possess a valid Class B California Contractor's License, as defined by state law and must maintain said license for the duration of the "Project".
2. The bidding entity, its Responsible Managing Owner (RMO) or its Responsible Managing Employee (RME), must have successfully completed a minimum of five similar construction projects and miscellaneous work as necessary for complete installation.
3. The bidding entity, its RMO, or its RME shall not have been removed from construction projects for failure to perform or default on contract within the past five (5) years. Successful removal from any project shall be considered possible cause for disqualification from this "Project".
4. All bidders shall submit documentation including a detailed description of at least three (3) similar projects as defined in Item 2 above. Bidder shall provide contact names and phone numbers as they relate to said projects.
5. Misrepresentation of submitted documentation by bidder shall constitute grounds for disqualification of its bid for this "Project".

N-16 **Payment and Performance Bonds**: The California Civil Code §3247 requires a Payment Bond for all public works contracts exceeding $25,000. Public Contract Code PCC §20129, requires a faithful Performance Bond on all contracts that are Bid. Payment and Performance Bonds are required for all contracts over $25,000.00. The awarded Contractor shall furnish a satisfactory Payment Bond and Performance Bond each in the amount of 100% of the Contract Price. Cost of the bonds shall be included in the Contract Price. The Bonds shall remain in effect for one year after the date of Notice of Completion, except as provided by law or as otherwise agreed in writing by the Agency.

N-17 **Prevailing Wage**: Contractors shall pay prevailing wage rates on this "Project". A copy of the California Prevailing Wage Rates can be obtained from the following website: www.dir.ca.gov/DLSR/PWD/index.htm.

N-18 **Registration with Department of Industrial Relations (DIR):** This "Project" is subject to compliance monitoring and enforcement by DIR. Contractor and all subcontractors must comply with the requirements of Labor Code section 1771.1(a), pertaining to registration of contractors. Pursuant to 1771.1(a), a contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal or engage in the performance of any contract for public work unless currently registered with the DIR pursuant to section 1725.5, with limited exceptions for bid purposes only. Contractor shall agree to comply with these sections and all remaining provisions of the Labor Code. For more information, please go to the following websites: http://www.dir.ca.gov/Public-Works/PublicWorks.html

As the awarding body, the Fire District shall register this "Project" with DIR. A DIR Project ID number will be assigned to this "Project". Awarded Contractor shall use this number to submit certified payroll records into DIR's Electronic Certified Payroll Reporting (eCPR) database. Payment applications shall be submitted with copies of DIR's eCPR Online Confirmation that awarded Contractor's payroll submissions into DIR have been processed before request for payment may be processed.

N-19 **Rejection of bids:** The Fire District reserves the right to reject any and all Bids or to waive any minor irregularities or informalities in any bids or in the bidding.

N-20 Contractor acknowledges that: 1. Mr. David Kirby or his designee are acting solely as Agency's Representatives only, and not as Principals. 2. All services rendered and instructions issued by Mr. David Kirby or his designee are solely as representatives for the Agency and for the Agency's benefit. 3. There are no duties of any kind owed by Mr. David Kirby or his designee to the Contractor. To the maximum extent permitted by law, under no circumstances will the Contractor look to or make any claim against Mr. David Kirby or his designee. The Agency shall be solely responsible for payment(s) to the Contractor for all services rendered under the contract. It is acknowledged that the relationship created by this contract is solely between the Agency and the Contractor.

N-21 **Personal Protective Equipment (PPE)**: Proper Personal Protective Equipment (PPE) and clothing shall be worn at all times. Prohibited clothing includes but not limited to tennis shoes, OSHA tennis shoes, shorts or cut-offs, shirts without sleeves, muscle shirts. Hardhat and safety glasses shall be worn at all times in a manner conforming to Manufacturer's and or OSHA standards. The construction area shall be designated, posted, enforced at all times for proper PPE and clothing compliance.

INSTRUCTIONS TO BIDDERS
FOR
VENTURA COUNTY FIRE PROTECTION DISTRICT
LOCKWOOD VALLEY SUBSTATION GARAGE ADDITION PROJECT

Bidders for the work outlined within these Bid Documents, shall fully review the content of the entire Bid Package as indicated within the Table of Contents. The submittal of a Bid shall constitute an irrefutable presentation by the Bidder that the Bidder has completely read, examined, and understood the contents of the Bid Package, has carefully and fully read, analyzed, and understood the Scope of Work involved therewith, has visited the jobsite together with the surrounding environment, and is fully and completely familiar with the fit, finish, attention to detail, accuracy and overall appearance for suitability, evidenced by the Bid Documents. Each bidder is fully responsible for his own interpretations of the total Scope of Work indicated by this Bid Package.

The Agency requires that the materials, sizes, shapes, dimensions, finishes and other information having been communicated to the Bidder via this Bid Package, pre-bid conference to be held at the "Project" site at the address given in N-3 and the Bidder's familiarity with similar Work, without consideration of possible or "or-equal" items unless so indicated by the Contract Documents, including County of Ventura Standard Specifications, Modifications to the Standard Specifications, and shown upon the Construction Drawings and Technical Specifications shall constitute the requirements for the Work. Should the Technical Specifications indicate that a substitution can be made, such proposed substitution shall be submitted for review and acceptance/rejection by the Agency and Agency's Representative, not later than (5) working days following Award of the Contract. Under no circumstances, shall rejection of a proposed substitution by the Agency or its Representative relieve the Contractor from any responsibilities of the Contract.

Bid Submission: Bidders shall submit one (1) complete original set of the Bid Forms, wet-signed and dated, and all required attachments by not later than the date and time stipulated in Item N-1 of the Notice Inviting Bids. Bidders shall not edit the bid forms. Sealed Bids shall be marked as shown below and delivered directly to:

Ventura County Fire Protection District
165 Durley Avenue, Camarillo, CA 93010

Attention: Mr. Tom Kasper, Ventura County Fire Protection District
c/o David Kirby and Teresa Barton
Project: Lockwood Valley Substation Garage Addition Project

BID PROPOSAL
FOR
VENTURA COUNTY FIRE PROTECTION DISTRICT'S
LOCKWOOD VALLEY SUBSTATION GARAGE ADDITION PROJECT

Bid Due Date & Time: September 29, 2021 @ 1:00 PM (PST).

The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into Contract with Ventura County Fire Protection District to perform the Work as specified or indicated in said Contract Documents entitled: Lockwood Valley Substation Garage Addition Project located at 15021 Lockwood Valley Road, Frazier Park CA 93225.

Bidder accepts all of the terms and conditions of the Contract Documents, including without limitations, those in the Notice Inviting Bids and Instructions to Bidders.

This Bid will remain open for the period stated in the Notice Inviting Bids. The Bidder will enter into a Contract within the time and in the manner as is required in the Notice Inviting Bids and will furnish the insurance certificates and Bonds as required by the Contract Documents.

Bidder has examined copies of all the Contract Documents through and inclusive of the following Bid Addenda (receipt of which is hereby acknowledged),

Bid Addenda Number:_____ Date:_____

Bid Addenda Number:_____ Date:_____

Bidder has familiarized themselves with the nature and extent of the Contract Documents, the Work, the site together with the surrounding environment and locality, the legal requirements involved (including all applicable federal, state and local laws, ordinances, rules, regulations, codes, etc.) and the conditions affecting costs, progress or performance of the Work and has made such independent investigations as Bidder deems necessary.

To all the foregoing, and including all Bid Schedule(s) and Bidder's General Information, said Bidder further agrees to complete the Work required under the Contract Documents within the Contract Time stipulated within the Contract Documents, and to accept in full payment therefore the Contract Price named in the aforementioned Bid Schedule(s).

The Bid must be signed in ink, in the name of the Bidder and must bear the signature in longhand of the person duly authorized to sign for the Contractor. Proposals signed by an agent other than an owner, partner or corporate officer shall be accompanied by a power-of-attorney. Proposal form must be dated.

Bidder:_____

By:_____
(Signature – Authorized Representative)

Title:_____

Dated:_____

BID BOND
FOR
VENTURA COUNTY FIRE PROTECTION DISTRICT
LOCKWOOD VALLEY SUBSTATION GARAGE ADDITION PROJECT

Enter Name & Address of Bonding Company

BID BOND

KNOW ALL PERSONS BY THESE PRESENTS: That we _____

_____,Principal,

and _____

_____Surety, are held and firmly bound unto

The County of Ventura and The Ventura County Fire Protection District, Obligee, in the sum of ten percent of the total amount of the Bid for the payment of which we bind ourselves, our legal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has submitted or is about to submit a proposal to Obligee on a contract for Ventura County Fire Protection District's Lockwood Valley Substation Garage Addition Project located at 15021 Lockwood Valley Road, Frazier Park CA 93225.

NOW, THEREFORE, if that contract be awarded to Principal and Principal shall, within such time as may be specified, enter into the contract in the prescribed form in writing and give such bond or bonds as may be specified in the bidding or contract documents with surety acceptable to Obligee then this obligation shall be null and void; otherwise to remain in full force and effect.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in the suit, including reasonable attorney's fee to be fixed by the court.

Signed, sealed and dated.

_____
(Principal)

by_____(Seal)

_____
(Surety)

by_____ (Seal)

NONCOLLUSION DECLARATION TO BE EXECUTED
BY BIDDER AND SUBMITTED WITH BID
FOR
VENTURA COUNTY FIRE PROTECTION DISTRICT
LOCKWOOD VALLEY SUBSTATION GARAGE ADDITION PROJECT

State of California)
) ss.
County of Ventura)

The undersigned declares:

I am the _____ of _____, the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

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

on _____ [date], at _____ [city], _____ [state].

Bidder: _____ Notary Public – California Seal

By (Signature): _____

Printed Name: _____

Title: _____

Organization: _____

Address: _____

_____

_____

BID SCHEDULE
FOR
VENTURA COUNTY FIRE PROTECTION DISTRICT
LOCKWOOD VALLEY SUBSTATION GARAGE ADDITION PROJECT

Bid Item No.	Description	Total Lump-Sum Bid Price

General Description of the Work:

In general, the Work to be performed for the Lockwood Valley Substation Garage Addition Project is defined by the Contract Documents and consists of the items of Work listed below including all Work shown upon the Construction Drawings, Technical Specifications and all other Trade Contract Documents concerning this Work as required for the complete installation of all Work in accordance with the Specifications, or in Change Order, inclusive of all labor, tools, materials, incidentals, equipment, supervision, management, administration, testing, and all other necessary services, as defined by the Contract Documents. The Work to be performed by the Contractor is further delineated, but not limited to all items below. All items referenced below shall be considered by the Contractor and shall be included in the Total Lump Sum Bid.

The Work for the "Project" includes various forms of site work to support the erection of a new 800 square foot pre-fabricated metal garage, by separate contract. The Work includes and is not limited to: excavation, grading, removal and recompaction, trenching, construction of concrete footings, foundations, bollards, aprons, curbing, and preparation for pre-fabricated structure anchoring and bolting. The Work also includes ADA improvements such as accessible ramps, path of travel, door hardware, minor demolition and removals, signage and striping. Electrical improvements include conduit, cabling, subpanels, limited undergrounding, lighting and receptacle outlets.

A majority of the Work by Contractor on this "Project" shall be completed prior to erection of the pre-fabricated metal garage. Following erection of the pre-fabricated metal garage by separate contract, Contractor on this "Project" shall be required to finish the garage, including lighting, conduit and cabling, outlet receptacles, new mandoor and hardware as noted on the plans.

The pre-fabricated metal garage is Owner-furnished and will be installed through separate contract by an approved contractor of the garage vendor. Included as part of the separate contract are internal insulation, rollup door, operator and associated wiring.

Awarded Contractor shall be solely responsible for the means and methods, procedures and all requirements to complete the Work for this "Project". Contractor shall perform all Work in conformance with every law, statute, ordinance, building code, rule, or regulation and requirements of all City, County, State and Federal Agencies and Authorities having jurisdiction over this "Project", including the demolition, removal, transportation and disposal of all removed materials.

The Contractor shall furnish, provide, install, and maintain all required protective materials and coverings, medium, and services to adequately protect all areas of work during course of construction including maintenance of adequate dust control at all times, and thoroughly clean all areas of work at the end of each workday. Coordination of work with other trades shall be included as necessary.

Recyclable Construction & Demolition Wastes: The site of this "Project" is within the unincorporated of Ventura County. Contractor shall comply with Ventura County's Construction and Demolition Waste Management Plan and shall perform all Work in conformance with every law, statute, ordinance, building code, rule, or regulation and requirements of all City, County, State and Federal Agencies and Authorities

having jurisdiction over this “Project”, including the demolition, removal, transportation and disposal of all removed materials. Ventura County Standard Specifications section 7-15 for unincorporated areas apply here.

The provisions of the Contract Documents, including County of Ventura Standard Specifications, Agency's Supplementary Standard Specifications and Division 1, Section 01010 shall apply to all Construction Drawings and Technical Specifications of this “Project”.

Total Lump Sum Base Bid Price $_____

* _____ Dollars _____ Cents

* **Note:** The *Total Lump-Sum Bid Price* is fully inclusive of all costs including overhead and profit and shall constitute the maximum amount payable by the Agency to the Contractor, under the Contract.

*** AWARD OF CONTRACT:**

- The Agency reserves the right to reject any and all bids, or to waive any minor irregularities or informalities in any bids or in the bidding.
- Bidders shall complete and submit, by the due date and time, all forms listed under “Bid Forms” in the table of contents or the Bid may be considered non-responsive.

BIDDER'S GENERAL INFORMATION
FOR
VENTURA COUNTY FIRE PROTECTION DISTRICT
LOCKWOOD VALLEY SUBSTATION GARAGE ADDITION PROJECT

Each Bid shall be accompanied by the following information furnished by the Bidder. Additional sheets and other attachments shall be included with the Bid as necessary. In no event shall an Award of Contract be made unless all of the Bidder's General Information outlined below, is provided to the Agency.
PLEASE TYPE OR PRINT THIS PAGE.

1. BIDDER/CONTRACTOR'S name and street address:

   _____
   _____
   _____

   Name of RMO or RME: _____
   California State Contractor's License Number, Classifications, and Expiration Date for RMO or RME: _____
   _____

2. a. CONTRACTOR'S telephone number (____) _____
   b. CONTRACTOR'S facsimile number (____) _____
   c. CONTRACTOR'S email address _____

3. a. CONTRACTOR'S primary state license classification: _____
   b. CONTRACTOR'S California State License # and Expiration Date: _____
   c. Name of licensee & RMO or RME if different from (1) above: _____

4. Name and title of person/s who inspected the site of the proposed Work, and who attended the pre-bid conferences (if held) for the bidder:

   Name/Title: _____ Date of Inspection: _____
   Name/Title: _____ Date of Inspection: _____
   Name/Title: _____ Date of Inspection: _____

5. Surety Company and agent who will provide the bonds on this Contract (if required):

   a. Name of Surety: _____
   b. Address: _____
      _____
   c. Contractor's Bonding Limit: _____
   d. Surety Company Agent: _____
   e. Telephone Numbers: Agent: _____ Surety: _____
   f. Facsimile Numbers: Agent: _____ Surety: _____
   g. Email Addresses: Agent: _____ Surety: _____

PREVAILING WAGE COMPLIANCE CERTIFICATION
FOR
VENTURA COUNTY FIRE PROTECTION DISTRICT
LOCKWOOD VALLEY SUBSTATION GARAGE ADDITION PROJECT

To: Ventura County Fire Protection District
165 Durley Avenue
Camarillo, California 93010

I hereby certify that I will conform to the State of California Public Works Contract Requirements regarding wages, benefits, on site audits with 48-hour notice, certified payroll records, and apprentice and trainee employment requirements.

_____
CONTRACTOR

_____
CONTRACTOR'S PRINCIPAL'S SIGNATURE (PRINT NAME)

_____
DATE

LIST OF SUBCONTRACTORS
FOR
VENTURA COUNTY FIRE PROTECTION DISTRICT
LOCKWOOD VALLEY SUBSTATION GARAGE ADDITION PROJECT

The following is a complete list of all who will perform more than 1/2% of 1% the value of the base bid amount.

Bidder:_____

By:_____ _____
(Signature – Authorized Representative) Print Name Title

Listing shall comply with the provisions of California Public Contract Code, Section 4104.
No contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with the Department of Industrial Relations (DIR) pursuant to Labor Code 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
State each subcontractor's CA State License No. (CSLB) & DIR Registration No. below.

NAME OF SUBCONTRACTOR	PERCENT OF WORK	ITEM OF WORK	SUBCONTRACTOR'S CSLB NO. & DIR REGISTRATION NO.	COMPLETE BUSINESS ADDRESS & PHONE NO.

If more space is needed, attach additional sheet.

LIST OF CONTRACTOR'S REFERENCES
FOR
VENTURA COUNTY FIRE PROTECTION DISTRICT
LOCKWOOD VALLEY SUBSTATION GARAGE ADDITION PROJECT

Bidder:_____

By:_____ _____
(Signature – Authorized Representative) Print Name Title

NAME OF PROJECT	PROJECT ADDRESS	PROJECT CONTACT PHONE NO. & EMAIL ADDRESS	START DATE, COMPLETION DATE, OR IN PROGRESS	CONTRACT VALUE

If more space is needed, attach additional sheet.

PERFORMANCE AND PAYMENT BONDS
Bond No._____

SURETY BONDS
Performance Bond

Whereas, the Ventura County Fire Protection District, State of California, hereinafter called "Agency", and _____hereinafter called "principal" have entered into a contract dated_____ whereby principal agrees to complete certain designated work identified as Ventura County Fire Protection District's Lockwood Valley Substation Garage Addition, located at 15021 Lockwood Valley Road, Frazier Park, CA 93225 and to perform other duties and obligations as described in said contract which is incorporated herein by this reference and made a part hereof; and

Whereas, principal is required under the terms of said contract to furnish a bond to guarantee principal's faithful performance of the work and all terms and conditions of the contract;

Now, therefore, we the principal and the undersigned, as corporate surety, are held and firmly bound unto Agency in the penal sum of _____**($_____)** lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, successors, executors and administrators, jointly and severally, firmly by these presents.

The condition of this obligation is such that if the principal, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and provisions in the said Contract and any alteration thereof made as therein provided, on principal's part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless Agency, its officers, agents and employees, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

The above obligation shall continue after Agency's acceptance of the work for the duration of the warranty period as specified in the contract during which time if principal fails to make full, complete, and satisfactory repair or replacement to the work and/or fails to protect Agency from loss or damage resulting from or caused by defective materials or faulty workmanship, the obligation of surety hereunder shall continue so long as any obligation of principal remains.

Payment Bond

And, whereas, under the terms of said contract, principal is required before entering upon the performance of the work, to file a good and sufficient payment bond with the Agency to secure the claims to which reference is made in Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code of the State of California.

Now, therefore, said principal and the undersigned, as corporate surety, are held firmly bound unto the Agency and all contractors, subcontractors, laborers, material suppliers and other persons employed in the performance of the aforesaid contract and referred to in the aforesaid Civil Code in the like sum of _____**($_____)** for materials furnished or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, or for any amounts required to be deducted, withheld and paid over to the Franchise Tax Board from the wages of employees of the contractor and the contractor's subcontractors that said surety will pay the same in an amount not exceeding the amount hereinabove set forth, and also in case suit is brought upon this bond, will pay, in addition to the face amount thereof, costs and reasonable expenses and fees including reasonable attorney's fees incurred in successfully enforcing such obligation, to be awarded and fixed by the court, and to be taxed as costs and to be included in the judgment herein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should this condition of this bond be fully performed, then this obligation shall be become null and void; otherwise, it shall be and remain in full force and effect.

General Terms

The surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of said contract or the plans and specifications accompanying the same shall in any manner affect its obligations on these bonds, and it does hereby waive notice of any such change, extension, alteration or addition.

Nothing herein shall limit the Agency's right or surety's obligations under the contract or applicable law, including, without limitation, California Code of Civil Procedure section 337.15.

In witness whereof, this instrument has been duly executed by the principal and surety above named on _____2021.

_____
Name of Principal

By_____

Title_____

_____
Name of Surety

By_____
Attorney-in-Fact

Address_____

Telephone No_____

INDICATE <u>COMPLETE ADDRESS</u> OF SURETY TO WHICH CORRESPONDENCE CONCERNING THIS BOND SHOULD BE DIRECTED.

Contract Sample

Bid Documents – Contract Sample
Ventura County Fire Protection District
Lockwood Valley Substation Garage Addition Project
15021 Lockwood Valley Road, Frazier Park, CA 93225
Bid Due Date and Time – September 29, 2021 @ 1:00 PM, PST

CONTRACT (SAMPLE ONLY)

PROJECT: VENTURA COUNTY FIRE PROTECTION DISTRICT
LOCKWOOD VALLEY SUBSTATION GARAGE ADDITION PROJECT

PROJECT ADDRESS: 15021 LOCKWOOD VALLY ROAD
FRAZIER PARK, CALIFORNIA 93225

The names and addresses of the parties to this Contract, who shall be referred to as "Agency or VCFPD" and "Contractor" respectively, are as follows:

AGENCY: VENTURA COUNTY FIRE PROTECTION DISTRICT
165 DURLEY AVENUE
CAMARILLO, CALIFORNIA 93010

CONTRACTOR: _____

The Agency and the Contractor mutually agree on September 29, 2021 as follows:

1. CONTRACT DOCUMENTS

This Contract consists of the Contract Documents as defined in sub-section 1-2 of the Standard Specifications, which include the following documents and represents the complete agreement between Agency and Contractor:

(a) Notice Inviting Bids dated September 7, 2021.
(b) Proposal.
(c) Instructions to Bidders.
(d) Plans and Specifications identified by:

VENTURA COUNTY FIRE PROTECTION DISTRICT
LOCKWOOD VALLEY SUBSTATION GARAGE ADDITION PROJECT

(e) Addenda, by number and date.
Addendum No. 01 Issue Date:_____
Addendum No. 02 Issue Date:_____

(f) Award of Contract: Agency action of ---------- 2021.
(g) Performance and Payment Bonds.
(h) Prevailing Wage Determinations.
(i) Certificate/Proof of Insurance.
(j) Copy of appropriate Contractor's License.
(k) Change Orders.
(l) Notice of Award.
(m) Notice to Proceed.
(n) Notice of Completion.
(o) Non-Collusion Affidavit.
(p) Schedule of Values.
(q) List of subcontractors.
(r) List of Contractor's References

CONTRACT (SAMPLE ONLY)

2. DESCRIPTION OF WORK

The Contractor shall perform and complete in strict conformity with this Contract the Work as described and Shown in the Contract Documents for VCFPD's Lockwood Valley Substation Garage Addition Project, located at 15021 Lockwood Valley Road, Frazier Park, California 93225.

In general, the Work to be performed for the "Project" is defined by the Contract Documents and consists of the items of Work listed below including all Work shown upon the Construction Drawings, Technical Specifications and all other Trade Contract Documents concerning this Work as required for the complete installation of all Work in accordance with the Specifications, or in Change Order, inclusive of all labor, tools, materials, incidentals, equipment, supervision, management, administration, testing, and all other necessary services, as defined by the Contract Documents. The Work to be performed by the Contractor is further delineated, but not limited to all items below. All items referenced below shall be considered by the Contractor and are included in the Total Lump Sum Bid.

The Work for the "Project" includes various forms of site work to support the erection of a new 800 square foot pre-fabricated metal garage, by separate contract. The Work includes and is not limited to: excavation, grading, removal and recompaction, trenching, construction of concrete footings, foundations, bollards, aprons, curbing, and preparation for pre-fabricated structure anchoring and bolting. The Work also includes ADA improvements such as accessible ramps, path of travel, door hardware, minor demolition and removals, signage and striping. Electrical improvements include conduit, cabling, subpanels, limited undergrounding, lighting and receptacle outlets.

A majority of the Work by Contractor on this "Project" shall be completed prior to erection of the pre-fabricated metal garage. Following erection of the pre-fabricated metal garage by separate contract, Contractor on this "Project" shall be required to finish the garage, including lighting, conduit and cabling, outlet receptacles, new mandoor and hardware as noted on the plans.

The pre-fabricated metal garage is Owner-furnished and will be installed through separate contract by an approved contractor of the garage vendor. Included as part of the separate contract are internal insulation, rollup door, operator and associated wiring.

Awarded Contractor shall be solely responsible for the means and methods, procedures and all requirements to complete the Work for this "Project". Contractor shall perform all Work in conformance with every law, statute, ordinance, building code, rule, or regulation and requirements of all City, County, State and Federal Agencies and Authorities having jurisdiction over this "Project", including the demolition, removal, transportation and disposal of all removed materials.

The Contractor shall furnish, provide, install, and maintain all required protective materials and coverings, medium, and services to adequately protect all areas of work during course of construction including maintenance of adequate dust control at all times, and thoroughly clean all areas of work at the end of each workday. Coordination of work with other trades shall be included as necessary.

Recyclable Construction & Demolition Wastes: The site of this "Project" is within the unincorporated area of Ventura County. Contractor shall comply with Ventura County's Construction and Demolition Waste Management Plan and shall perform all Work in conformance with every law, statute, ordinance, building code, rule, or regulation and requirements of all City, County, State and Federal Agencies and Authorities having jurisdiction over this "Project", including the demolition, removal, transportation and disposal of all removed materials. Ventura County Standard Specifications section 7-15 for unincorporated areas apply here.

The provisions of the Contract Documents, including County of Ventura Standard Specifications, Agency's Supplementary Standard Specifications and Division 1, Section 01010 shall apply to all Construction Drawings and Technical Specifications of this "Project".

CONTRACT (SAMPLE ONLY)

CONTRACTORS ARE REQUIRED BY LAW TO BE LICENSED AND REGULATED BY THE CONTRACTORS' STATE LICENSE BOARD. ANY QUESTIONS CONCERNING A CONTRACTOR MAY BE REFERRED TO THE REGISTRAR, CONTRACTORS' STATE LICENSE BOARD, P. O. BOX 26000, SACRAMENTO, CALIFORNIA, 95826.

3. CONTRACT PRICE:

_____ Dollars ($----------)

The Contract Price is the amount, which Contractor shall accept as full payment for the Work above agreed to be done.

4. CONTRACT TIME:

The time for the completion of the Work is (50) WORKING DAYS from the Contract starting date, as provided in the Contract Documents and shown in the Notice to Proceed. Schedule allowance and provisions shall be provided for Agency-furnished equipment, services, and materials as applicable. Counting of working days will be temporarily stalled during the erection of the pre-fabricated metal building by separate contract. TIME IS OF THE ESSENCE.

CONTRACT (SAMPLE ONLY)

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

Type of Contractor's organization: _____
(Corporation/Partnership/Individual)

List names of all persons who have authority to bind firm (at least one name must be listed):

_____ _____

IF CORPORATION, FILL OUT FOLLOWING AND EXECUTE

Name of President of Corporation: _____

Name of Secretary of Corporation: _____

Corporation is organized under the laws of State of: _____

Firm Name: _____

Signature: _____
By: Date

Printed Name: _____

Title of Office: _____

Address: _____

_____

Telephone Nos.: _____ (Office) _____ (Cell)

E-mail Address: _____

Contractor's State License No.: _____

(Corporate Seal)

State License Expiration Date: _____

Taxpayer I.D. No.: _____

Ventura County Fire Protection District

_____
By: Fire Chief Mark Lorenzen Date

CONTRACT (SAMPLE ONLY)

VENTURA COUNTY
FIRE PROTECTION DISTRICT

CONTRACTOR'S CERTIFICATION

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

_____
(Contractor's Name)

By: _____
Date

Printed Name: _____

Title: _____

PROJECT: VENTURA COUNTY FIRE PROTECTION DISTRICT
LOCKWOOD VALLEY SUBSTATION GARAGE ADDITION PROJECT

PROJECT ADDRESS: 15021 LOCKWOOD VALLY ROAD
FRAZIER PARK, CALIFORNIA 93225

Ventura County Fire Protection District

Ventura County Standard Specifications

(VCSS)

Ventura County Fire Protection District
VC Standard Specifications

Bid Documents
Ventura County Fire Protection District
Lockwood Valley Substation Garage Addition Project
15021 Lockwood Valley Road, Frazier Park, CA 93225
Bid Due Date and Time – September 29, 2021 @ 1:00 PM, PST

1. **Section 1-2 Definitions:**

   A. **Agency: the following is added to this section:**

      "The Agency is the Ventura County Fire Protection District."

   B. **Engineer: The words "Director of Public Works Agency" in this sentence is deleted in its entirety and replaced with the following:**

      "County Executive Officer of the Ventura County Fire Protection District"

   C. **The following is added to this section:**

      Department Director shall mean "Fire Chief of Ventura County Fire Protection District" acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties delegated to them.

2. **Section 1-4.1.2 Is hereby added to the conditions of the Contract:**

   "U. S. Standard Measure is the principal measurement system."

3. **Section 2-5.1 General; the following is added to this section:**

   "Document Conflicts: Should a conflict arise within any of the Contract Documents the most stringent requirement shall govern and is compensated for in the Contractor's Bid amount."

4. **Section 2-5.2 Precedence of Contract Documents; is deleted in its entirety and replaced with the following:**

   "2-5.2 Precedence of Contract Documents. Should a conflict arise within any of the Contract Documents the most stringent requirement shall govern and is compensated for in the Contractor's Bid amount."

5. **Section 2-5.3.2 Working Drawings; the following is added to this section:**

   "SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND SUBMITTALS:

   For this section, provisions described in Division 01 of the Bid Documents shall apply, in addition to the following:

   A. **Quantity of Submittals:** Contractor shall submit five fully complete, legible, and separately bound copies of all submittals required by plans and specifications, unless otherwise approved.

   B. **Resubmittal Time Requirements:** All required resubmittals shall be corrected and resubmitted within three calendar days from receipt of proceeding rejection.

   C. **Shop Drawings:** As applicable, the term "shop drawings" as used herein means drawings, diagrams, schedules, and other data, which are prepared by Contractor, Subcontractors, manufacturers, suppliers, or distributors illustrating some portion of the Work, and includes: illustrations; fabrication, erection, layout and setting drawings; manufacturer's standard drawings; schedules; descriptive literature, instructions, catalogs, and brochures; performance and test data including charts; wiring and control diagrams; and all other drawings and

been coordinated with all other shop drawings received to date by Contractor and this duty of coordination has not been delegated to subcontractors, material suppliers, the Agency, Agency Representative, Architect, or the engineers on this project."

_____
Signature of Contractor and Date

G. **Extent of Review:** In reviewing shop drawings, the Architect or Agency Representative shall not verify dimensions and field conditions. The Architect or Agency Representative shall review and approve shop drawings, product data, samples, etc., for aesthetics and for conformance with the design concept of the Work and the information in the Contract Documents. The Architect or Agency Representative's review shall neither be construed as a complete check which relieves the Contractor, Subcontractor, manufacturer, fabricator, or supplier from responsibility for any deficiency that may exist or from any departures or deviations from the requirements of the Contract Documents unless the Contractor has, in writing, called the Architect or Agency Representative's attention to the deviations at the time of submission. The Architect or Agency Representative's review shall not relieve the Contractor or Subcontractors from responsibility for errors of any sort in shop drawings or schedules, for proper fitting of the Work, coordination of the differing subcontractor trades and shop drawings and Work which is not indicated on the shop drawings at the time of submission of shop drawings.

H. **Late Submittals:** Contractor shall be responsible to pay for the added review time and processing caused by late submittals and more than one resubmittal.

DRAWING AND SUBMITTAL SUBMISSION PROCEDURE (As applicable to this Project)

Drawing and Submittal Submission Procedures described in Division 1 of the Bid Documents shall apply, in addition to the following:

A. **Transmittal Letter and Other Requirements:** All shop drawings must be properly identified with the name of the Project and dated, and each lot submitted must be accompanied by a letter of transmittal referring to the name of the Project and to the Specification section number for identification of each item clearly stating in narrative form, as well as "clouding" on the submissions, all qualifications, departures, or deviations from the Contract Documents. Shop drawings, for each section of the Work shall be numbered consecutively and the numbering system shall be retained throughout all revisions. All Subcontractor submissions shall be made through the Contractor. Each drawing shall have a clear space for the stamps of Architect or Agency Representative and Contractor.

B. **Copies Required:** Each submittal shall include one legible, reproducible sepia and four legible prints of each drawing or schedule, table, cut sheet, etc., including fabrication, erection, layout and setting drawings, and such other drawings as required under the various sections of the Specifications, until final acceptance thereof is obtained. Subcontractor shall submit copies, in an amount as requested by the Contractor, of 1) manufacturers' descriptive data for materials, equipment, and fixtures, including catalog sheets showing dimensions, performance, characteristics, and capacities; 2) wiring diagrams and controls; 3) schedules; 4) all seismic calculations and other calculations; and 5) other pertinent information as required by the Architect or Agency Representative.

C. **Corrections:** The Contractor shall make all corrections required by Architect or Agency Representative and shall resubmit, as required by Architect or Agency Representative, corrected copies of shop drawings or new samples until approved. Contractor shall direct specific attention in writing or on resubmitted shop drawings to revisions other than the

material, fixture, patented process, form, method, or type of construction or any specific name, make, trade name, or catalog number, with or without the words "or equal," such specification shall be deemed to be used for the purpose of facilitating description of the material, process, or article desired and shall be deemed to be followed by the words "or equal." Contractor may, unless otherwise stated, offer any material, process, article, etc., which shall be materially equal or better in every respect to that so indicated or specified and shall completely accomplish the purpose of the Contract Documents.

B. **Substitution Requests:** Requests for substitutions of products, materials, or processes other than those specified must be made in writing on forms approved by the Architect, Agency Representative and Agency within two days of the execution of the established date for the start of construction stated in the Notice to Proceed. Any Requests submitted after the two days shall not be considered, except at the sole discretion of the Agency.

A Substitution Request must be accompanied by evidence as to whether or not the proposed substitution: 1) is equal in quality and serviceability to the specified item; 2) shall entail no changes in detail, construction and scheduling of related work; 3) shall be acceptable in consideration of the required design and artistic effect; 4) shall provide no cost disadvantage to Agency; and 5) shall require no excessive or more expensive maintenance, including adequacy and availability of replacement parts. The burden of establishing these facts and all associated costs, including all costs associated with its design, engineering, permits & permitting process and the like shall be upon the Contractor. The Contractor shall furnish with its request all drawings to include the permitted set of structural engineer's wet stamped drawings approved by all authorities having jurisdiction over this Project, specifications, samples, performance data, calculations, and other information as may be required to assist the Architect, Agency Representative and Agency in determining whether the proposed substitution is acceptable. The final decision shall be the Agency's. The written approval of the Agency, consistent with the procedure for Change Orders, shall be required for the use of a proposed substitute material. Agency may condition its approval of the substitution upon delivery to Agency of an extended warranty or other assurances of adequate performance of the substitution. All risks of delay due to governmental agencies having jurisdiction, approval of a requested substitution shall be on the requesting party. If a substitute offered by the Contractor is not found to be equal to the specified material, the Contractor shall furnish and install the specified material.

6. Section 2-5.4 Record Drawings; the following is added to this section:

"Record Drawings and Annotated Specifications: The Contractor shall prepare and maintain on a current basis an accurate and complete set of Record Drawings showing clearly all changes, revisions to specifications and substitutions during construction, including, without limitation, field changes and the final location of all electrical and mechanical equipment, utility lines, ducts, outlets, structural members, walls, partitions, and other significant features, and Annotated Specifications showing clearly all changes, revisions, to specifications and substitutions during construction, including, without limitation, field changes and the final location of all electrical and mechanical equipment, utility lines, ducts, outlets, structural members, walls, partitions, and other significant features, and Annotated Specifications showing clearly all changes, revisions, and substitutions during construction. A copy of such Record Drawings and Annotated Specifications shall be delivered to Agency in accordance with the Contractor's approved construction schedule. In case a specification allows Contractor to elect one of several brands, makes, or types of material or equipment, the annotations shall show which of the allowable items the Contractor has furnished. The Contractor shall update the Record Drawings and Annotated Specifications as often as necessary to keep them current, but no less often than weekly. The Record Drawings and Annotated Specifications shall be

12. Section 2-13.6.5 is hereby added to the conditions of the Contract; the following is added to this section:

A. The Architect of Record is Ideas Architecture, Real Estate & Construction.
B. Where the word "Architect" is used in these Bid Contract Documents and Division 01, it shall mean Ideas Architecture, Real Estate & Construction.

13. Section 3-2.1 General; the following is added to this section:

"Should any contract item be deleted in its entirety, payment shall be made only for actual costs incurred prior to notification of such deletion."

14. Section 3-2.2.1 Contract Unit Prices; is deleted in its entirety.

15. Section 3-2.2.2 Stipulated Unit Prices; is deleted in its entirety.

16. Section 3-3.2.2 Basis for Establishing Costs; the first sentence of Item (c) of this section is deleted in its entirety and replaced with:

"No payment shall be made for the use of tools which have a replacement value of **$750.00** or less."

17. Section 3-3.2.3 Markup; the following is added to item (b) of this section:

"Only first tier subcontractor mark-ups shall be allowed under the Contract."

18. Section 4-1.3.1 General; the following is added to this section:

"**Inspection Requirements as applicable:** Before calling for inspection, Contractor shall determine that the following have been performed as needed:

a. All areas of work requested to be inspected by the Contractor are ready for inspection.
b. All life safety items are in working order.
c. Mechanical and electrical work complete, fixtures in place, connected and ready for inspection or test.
d. Electrical circuits scheduled in panels and disconnect switches labeled.
e. Painting and special finishes complete.
f. Doors complete with hardware, cleaned of protective film and relieved of sticking or binding and in working order.
g. Tops and bottoms of doors sealed.
h. Floors waxed and polished as specified.
i. Broken glass replaced and glass cleaned.
j. Grounds cleared of Contractor's equipment, raked clean of debris, and trash removed from Site.
k. Work cleaned, free of stains, scratches, and other foreign matter, replacement of damaged and broken material.
l. Finished and decorative work shall have marks, dirt and superfluous labels removed.
m. Final cleanup.
n. Prior tests and inspections are completed.
o. Furnish a letter to Agency stating that the responsible representatives of Agency have been instructed in working characteristics of mechanical and electrical equipment.

D. If a Construction Schedule is considered by the Agency Representative to be in non-compliance with any requirement of the Contract, Contractor shall be notified to review and revise the Construction Schedule and bring it into compliance. Failure of Contractor to submit a Construction Schedule in full compliance with the Contract may result in a delay in processing of progress payments, since Construction Schedule shall be used in evaluating progress for payment approval.

E. The Contractor shall deliver to the Agency Representative an updated Construction Schedule reflecting work progress on weekly reporting period. Each such Construction Schedule shall indicate actual progress to date in execution of work, together with a projected schedule for completion of work.

F. All scheduled submittals are subject to review and acceptance by the Agency and Agency Representative. The Agency retains the right to withhold progress payments until Contractor submits a Construction Schedule acceptable to the Agency Representative and Agency.

G. Concurrent with the Agency's acceptance of Contractor's submitted Construction Schedule, shall be Contractor's signature of acceptance.

PREPARATION GUIDELINES

A. Construction Schedule shall represent a practical plan to complete work within time requirements of the Contract.

1. A schedule extending beyond Contract time or less than Contract time shall not be acceptable.
2. A schedule found unacceptable by the Agency or Agency Representative shall be revised by Contractor and resubmitted.

B. Construction schedule shall clearly indicate sequence of construction activities, grouped by applicable phase and sorted by areas, or facilities within phase, and shall specifically indicate:

1. Start and completion of all items of work, their major components, and interim milestone completion dates, as determined by Contractor and the Agency.

2. Activities for procurement, delivery, installation of equipment, materials, and other supplies, including:

   a. Time for submittals, resubmittals, and reviews. Include decision dates for selection of finishes, if applicable.
   b. Time for fabrication, and delivery of, manufactured products for work.
   c. Interdependence of procurement and construction activities.
   d. As applicable, dates for testing, balancing equipment, and final inspection.

C. Schedule shall be in sufficient detail to assure adequate planning and execution of work.

1. Each activity shall range in duration from 1 to 5 workdays and shall be total of actual days required for completion, and shall include consideration of average normal weather impacts on completion of that activity.

limited to, a description of problem areas, current and anticipated delaying factors, and any proposed revisions for a recovery plan. No added or deleted activities shall be permitted without the Agency Representative's consent. Only Agency Representative's approved changes to the schedule shall be allowed.

3. All change orders affecting this schedule shall be clearly identified as a separate and new Activity.

4. Review of Construction schedule shall not relieve Contractor of responsibility for accomplishing all work in accordance with the Contract Documents.

E. If, according to current updated Construction Schedule, the Agency determines Contractor is behind the Contract completion date or any interim milestone completion dates, considering all time extensions to which Contractor is entitled, Contractor shall submit a revised schedule, showing a workable plan and a narrative description to complete Project on time.

1. The Agency may withhold progress payments until a revised schedule acceptable to the Agency Representative and Agency is submitted by Contractor.

F. Scheduling of change or extra work orders is the responsibility of Contractor.

1. Contractor shall revise Construction Schedule to incorporate all activities involved in completing change orders or extra work orders and submit it to the Agency for review.

G. If the Agency finds Contractor is entitled to extension of any completion date, under provisions of the Contract, the Agency Representative's determination of total number of days extension shall be based upon current analysis of Construction Schedule, and upon data relevant to extension.

H. Contractor acknowledges and agrees that delays to non-critical activities shall not be considered a basis for time extension unless activities become critical. Non-critical activities are those activities which, when delayed, do not affect interim or final Contract completion date.

I. Any claim for extension of time shall be made in writing to the Agency Representative not more than two days after commencement of delay; otherwise, it shall be deemed finally waived for all purposes. Contractor shall provide an estimate of probable effect of such delay on progress of work as part of claim.

J. Failure of the Contractor to provide proper Construction Schedules as required is a material breach of the Contract and grounds for termination by the District. The District at its sole discretion, may choose, instead of termination to withhold, ten percent the value of any progress payments or retention amounts otherwise due and payable to the Contractor until proper Construction Schedules are provided as required.

CONTRACTOR'S RESPONSIBILITY

A. Nothing in these requirements shall be deemed to be a usurpation of Contractor's authority and responsibility to plan and schedule work as Contractor sees fit, subject to all other requirements of Contract Documents.

11) Failure to comply with instructions from Agency, Agency Representative or Architect,
12) Failure to protect the Work from inclement weather.

22. Section 6-6.4.1 Documentation of Delays; the following is hereby added to this section:

"**Inclement Weather:** The Contractor shall only be allowed a time extension for unusually severe weather if it results in precipitation or other conditions which in the amount, frequency, or duration is in excess of the norm at the location and time of year in question as established by NOAA (National Oceanographic & Atmospheric Administration) weather data. No less than twenty-two calendar days shall be allotted for in the contractor's schedule for each winter weather period, which is defined as the months, in aggregate of October, November, December, January, February and March. The weather days shall be shown on the schedule and if not used shall become float for the Project's use.

A day-for-day extension shall only be allowed for those days in excess of the norm. The Contractor is expected to maintain access, and to protect the Work under construction from the effects of inclement weather. If the weather is unusually severe in excess of the NOAA data norm and prevents the Contractor from beginning at the usual starting time, or prevents the Contractor from proceeding with 75% of the normal labor and equipment force towards completion of the day's current controlling item on the accepted schedule for a period of at least five hours, and the crew is dismissed as a result thereof, the Agency Representative shall designate such time as unavoidable delay and grant one calendar-day extension. "

Since this is a working day contract timeline schedule, no extension of time shall be granted for weekends, holidays, and other non-workdays.

Extensions of time shall apply only to that portion of Work affected by delay, and shall not apply to other portions of Work not so affected. An extension of time may only be granted after proper submission of a properly prepared Critical Path Method (CPM) schedule.

23. Section 6-7.3 Contract Time Accounting; is deleted in its entirety.

24. Section 6-8.2 Warranty; the following is hereby added to the conditions of this section:

"Warranty: The Contractor warrants to the Agency, Agency Representative and Architect that materials and equipment furnished under the Contract shall be new, unless otherwise specified in the Contract Documents, and of good quality, that the Work shall be free from defects in materials and workmanship and that the Work shall conform to the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective by the District. This warranty excludes damage or defect caused by abuse (other than by the Contractor or those under the control of the Contractor), modifications not executed by the Contractor, or improper or insufficient maintenance. This warranty excludes normal wear and tear. Nothing in this warranty is intended to limit any manufacturer's warranty which provides the District with greater warranty rights. Contractor's warranty to Agency includes, but is not limited to the following representations:

(a) In addition to any other warranties provided elsewhere, Contractor shall, and hereby does, warrant all Work after date of acceptance of Work by Agency and shall repair or replace any or all such work, together with any other work, which may be displaced in so doing that may prove defective in workmanship or materials within a **one-year** period from date of

acknowledgment of completion of Work specified in Section 6-8 of the VCSS. The project superintendent shall have a minimum of five years' experience in managing construction projects of similar complexity and size to the Work. The Contractor shall also employ a project manager who is responsible for the supervision of the project superintendent who has a minimum of five years' experience in managing construction projects of similar complexity and size to the Work. For each day work is performed at the site between the start date specified in the Notice to Proceed and the acknowledgment of completion of Work specified in Section 6-8 for which the required project superintendent is not at the job site or each working day the project manager is not employed by the Contractor, the Contractor shall be assessed liquidated damages of $800.64 and $740.48, respectively. The project manager can act in the capacity of the project superintendent in the event of temporary illness, vacation, etc., a superintendent may be substituted per the provisions of Section B. below. These liquidated damages are in addition to those specified elsewhere.

B. The identity and qualifications of the project superintendent and project manager shall be submitted by the Contractor at least ten days prior to the contract start date specified in the Notice to Proceed for the review and approval by the Agency Representative. There shall be no substitution for the project superintendent or project manager identified by the Contractor without prior written approval of such substitution by the Agency Representative. Any subsequent project superintendent or project manager shall have the minimum qualifications set forth above.

28. Section 7-8.1 General; the following is hereby added to this section:

"Agency Right to Cleanup: If the Contractor fails to clean up and maintain adequate dust control and clean-up of the site or its surrounding premises to the satisfaction of the Agency and Agency Representative after twenty-four hours of advance written notice to the Contractor, the Agency may clean up and deduct the direct clean-up costs from the Contractor's Contract Sum."

29. Section 9-3.2 Partial and Final Payment; the following is hereby added to this section:

Application for Progress Payment

a. Unless otherwise prescribed by law, on the 25th of each month, the Contractor shall submit to the Agency Representative for review an Application and Certificate for Payment properly filled out on **AIA Documents G702 and G703**, signed by the Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.

b. The Application for Payment shall identify, as a sub-total, the amount of the Contractor's Total Earnings to Date. The Net Payment Due to the Contractor shall be the above-mentioned sub-total from which shall be deducted the amount of retainage specified in the Contract Documents, and the total amount of all previous payments made to the Contractor.

c. In addition to the payment and performance bond, the District shall require that all payment applications be submitted with certified payroll (include the prevailing wage documentation and support), updated Construction Schedule, current reflective As-Builts, and original conditional and unconditional release forms relative to each line item of the payment application from Contractor and his subcontractors.

all amounts to be kept or retained under the provisions of the Contract Documents, including the following items:

1. Liquidated damages, as applicable.
2. Two times the value of outstanding items of correction work or punch list items indicated on the Notice of Completion as being yet uncompleted or uncorrected, as applicable. All such work shall be completed or corrected to the satisfaction of the Agency within the time stated on the Notice of Completion, otherwise the Contractor does hereby waive any and all claims to all monies withheld by the Agency to cover the value of all such uncompleted or uncorrected items.

Release of Retainage and Other Deductions

a. After executing the necessary documents to initiate the Stop Notice filing period, and not more than forty-five days thereafter (based upon a thirty-day filing period and fifteen days processing time), the Agency shall release to the Contractor the retainage funds or securities withheld pursuant to the Agreement, less any deductions to cover pending claims against the Agency.

b. After filing of the necessary documents to initiate the Stop Notice filing period, the Contractor shall have thirty days to complete any outstanding items of correction work remaining to be completed or corrected as listed on a final punch list made a part of the Notice of Completion. Upon expiration of the forty-five days, the amounts withheld, except for liquidated damages, for all remaining work items shall be returned to the Contractor; provided, that said work has been completed or corrected to the satisfaction of the Agency within said thirty days. Otherwise, the Contractor does hereby waive any and all claims for all monies withheld by the Agency under the Contract to cover 1-1/2 times the value of such remaining uncompleted or uncorrected items."

30. Section 9-3.3 Delivered Materials; is deleted in its entirety and replaced with the following:

"**9-3.3 Delivered Materials.** Payment for the cost of materials and equipment delivered to the Project site but not incorporated in the Work shall not be allowed unless permitted in writing by the Agency Representative prior to purchase or delivery."

Ventura County Fire Protection District

Modifications to the VC Standard Specifications

Bid Documents
Ventura County Fire Protection District
Lockwood Valley Substation Garage Addition Project
15021 Lockwood Valley Road, Frazier Park, CA 93225
Bid Due Date and Time – September 29, 2021 @ 1:00 PM, PST

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PUBLIC WORKS AGENCY
STANDARD SPECIFICATIONS
PART 1 - GENERAL PROVISIONS
SECTION 0 - SSPWC ADOPTION AND MODIFICATIONS

0-1 STANDARD SPECIFICATIONS

Except as hereinafter provided or as modified by the Special Provisions, the provisions of Parts 2 through 5 of the 2015 edition of the Standard Specifications for Public Works Construction (referred to as SSPWC), published by BNi Building News, Los Angeles, are part of these Standard Specifications.

0-2 DELETIONS

The following portions of SSPWC are hereby deleted: Part 1 and Sections 200-1.6.2, and 301-1.4.

0-3 NUMBERING OF SECTIONS

The numbering in these modifications is compatible with the numbering in SSPWC. References to whole sections of SSPWC and these modifications are preceded by the word "Section", references to parts of sections show numbers only, such as "211-5", except at the beginning of a sentence, the word "Section" precedes the number. Standard Special Provisions, if included, are numbered as Sections 901 through 999. The Special Provisions are numbered starting with Section 1000 or higher.

Cross-references contained in SSPWC to sections deleted by 0-2 hereof shall be references to the sections of like number contained herein.

0-4 ADDITIONS

The sections that follow, either, replace sections of like number in SSPWC which were deleted in 0-2 above, modify sections of SSPWC, or add material not in SSPWC.

SECTION 1 - TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE AND SYMBOLS

1-1 GENERAL Unless otherwise stated, the words directed, required, permitted, ordered, instructed, designated, considered necessary, prescribed, approved, acceptable, satisfactory, or words of like meaning, refer to actions, expressions, and prerogatives of the Engineer.

1-2 TERMS AND DEFINITIONS

Acceptance--The formal written acceptance by the Agency of the Work which has been completed in all respects in accordance with the Plans and Specifications and any Modifications thereof.

Addendum--Written or graphic instrument issued prior to the opening of Bids which clarifies, corrects or changes the bidding or Contract Documents. The term "Addendum" shall include bulletins and all other types of written notices issued to potential bidders prior to opening of Bids.

Agency--The legal entity for which the Work is being performed.

Agreement--See Contract.

Base--A layer of specified material of planned thickness placed immediately below the pavement or surfacing.

Bid--The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work.

Bidder--Any individual, firm, partnership, corporation, or combination thereof, submitting a Bid for the Work, acting directly or through a duly authorized representative.

Board--The officer or body constituting the awarding authority of the Agency.

Bond--Bid, performance and payment bond or other instrument of security.

Cash Contract--A contract financed by means other than special assessments.

Certificate of Compliance—A written document signed and submitted by a supplier or manufacturer that certifies that the material or assembled material supplied to the Work site conforms to the requirements of the Contract Documents.

Change Order--A written order to the Contractor signed by the Agency directing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract time issued after the effective date of the Contract. A Change Order may or may not also be signed by the Contractor.

Code--The terms Government Code, Labor Code, etc. refer to codes of the State of California.

Consultant--A professional engineer, architect, landscape architect or other professional who designed the project or performed other services for the Agency on the project.

Contract--The written agreement between the Agency and the Contractor covering the Work.

Contract Documents--The Contract, Addenda, notice inviting bids, instruction to bidders; Bid (including documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Contract, the Bonds, permits from jurisdictional regulatory agencies, Special Provisions, Plans, Standard Plans, Standard Specifications, Reference Specifications, Change Orders and Supplemental Agreements.

Contractor--The individual, partnership, corporation, joint venture, or other legal entity having a Contract with the Agency to perform the Work. In the case of work being done under permit issued by the Agency, the Permittee shall be construed to be the Contractor. The term "prime contractor" shall mean Contractor.

Contract Price--The total amount of money for which the Contract is awarded.

Contract Unit Price--The amount shown in the Bid for a single unit of an item of work.

County Sealer--The Sealer of Weights and Measures of the county in which the Contract is let.

Days--Days shall mean consecutive calendar days unless otherwise specified.

Daily Extra Work Reports--Reports on Agency furnished forms as required by 3-3.

Disputed Work--Work in which Agency and Contractor are in disagreement.

Due Notice--A written notification, given in due time, of a proposed action where such notification is required by the Contract to be given a specified interval of time (usually 48 hours or two Working Days) prior to the commencement of the contemplated action. Notification may be from Engineer to Contractor or from Contractor to Engineer.

Electrolier--Street light assembly complete, including foundation, standard, luminaire arm, luminaire, etc.

Engineer--The Director of Public Works Agency acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties delegated to them.

Field Directive--A written communication from the Engineer to the Contractor that does not make any Modification to the Contract Documents. It is used only to answer Contractor's questions and to provide decisions as specified in the Contract Documents.

Geotextile--Synthetic fiber used in civil engineering applications, serving the primary function of separation and filtration.

House Connection Sewer--A sewer, within a public street or right of way, proposed to connect any parcel, lot, or part of a lot with a main line sewer.

House Sewer--A sewer, wholly within private property, proposed to connect any building to a house connection sewer.

Luminaire--The lamp housing including the optical and socket assemblies (and ballast if so specified).

Major Bid Item--A single Contract item constituting 10% or more of the original Contract Price.

Mast Arm--The structural member or bracket, which, when mounted on a Standard, supports the luminaire.

Modification--Includes Change Orders and Supplemental Agreements. A Modification may only be issued after the effective date of the Contract.

Notice of Award--The written notice by the Agency to the successful Bidder stating that upon compliance by it with the required conditions, the Agency will execute the Contract.

Notice to Proceed--A written notice given by the Agency to the Contractor fixing the date on which the Contract time will start.

Owner--Same meaning as Agency.

Person--Any individual, firm, association, partnership, corporation, trust, joint venture, or other legal entity.

Plans--The drawings, profiles, cross sections, Standard Plans, working drawings, shop drawings, and supplemental drawings, or reproductions thereof, approved by the Engineer, which show the location, character, dimensions, or details of the Work.

Private Contract--Work subject to Agency inspection, control, and approval, involving private funds, not administered by the Agency.

Prompt--The briefest interval of time required for a considered reply, including time required for approval by a governing body.

Proposal--See Bid.

Reference Specifications--Those bulletins, standards, rules, methods of analysis or testing, codes, and specifications of other agencies, engineering societies, or industrial associations referred to in the Contract Documents. These refer to the latest edition, including amendments in effect and published at the time of advertising the project or issuing the permit, unless specifically referred to by edition, volume, or date.

Roadway--The portion of a street reserved for vehicular use.

Service Connection-All or any portion of the conduit cable or duct including meter, between a utility distribution line and an individual consumer

Service Lateral Connection-The interface of the House Connection Sewer with the host pipe.

Sewer--Any conduit intended for the reception and transfer of sewage and fluid industrial waste.

Shop Drawings—Drawings showing details of manufactured or assembled products proposed to be incorporated in the Work.

Special Provisions--Any provisions which supplement or modify the Standard Specifications.

Specifications--Standard Specifications, Reference Specifications, Standard Special Provisions, Special Provisions, and specifications in Change Orders or Supplemental Agreements between the Contractor and the Board.

Standard—The shaft or pole used to support street lighting luminaire, traffic signal heads, mast arms, etc.

Standard Plans--Details of standard structures, devices, or instructions referred to on the Plans or in the Specifications by title or number.

Standard Special Provisions-- Special Provisions prepared in standardized form numbered in the series 401 through 499.

1-2 DEFINITIONS (Continued)

Standard Specifications--Parts 1 through 6 of this document. See Section 0. References to whole sections will be preceded by the word "Section", references to parts of sections will show numbers only, such as "3-2", except at the beginning of a sentence, the word "Section" precedes the number.

State--The State of California.

State Standard Plans--Standard Plans prepared by State of California, Business and Transportation Agency, Department of Transportation.

Stipulated Unit Price--Unit prices established by Agency in the Contract Documents.

Storm Drain--Any conduit and appurtenances intended for the reception and transfer of storm water.

Street--Any road, highway, parkway, freeway, alley, walk or way.

Subbase--A layer of specified material of planned thickness between a base and the subgrade.

Subcontractor--An individual, firm or corporation having a direct contract with the Contractor or with any other Subcontractor for the performance of a part of the Work.

Subgrade--For roadways, that portion of the roadbed on which pavement, surfacing, base, subbase, or a layer of other material is placed. For structures, the soil prepared to support a structure.

Supervision--Supervision, where used to indicate supervision by the Engineer, shall mean the performance of obligations, and the exercise of rights, specifically imposed upon and granted to the Agency in becoming a party to the Contract. Except as specifically stated herein, supervision by the Agency shall not mean active and direct superintendence of details of the Work.

Supplemental Agreement--A written amendment of the Contract Documents signed by both parties.

Surety--See 2-4.

Utility--Tracks, overhead or underground wires, pipelines, conduits, ducts, or structures, sewers or storm drains owned, operated or maintained in or across a public right of way or private easement.

Work--That which is proposed to be constructed or done under the Contract or permit, including the furnishing of all labor, materials, equipment, and services.

Working Day--See 6-7.2 and 6.7.2.1.

Working Drawings—Drawings showing details not shown on the Plans which are required to designed by the Contractor

1-3 ABBREVIATIONS

1-3.1 General. The abbreviations herein, together with others in general use, are applicable to these Standard Specifications and to all other Contract Documents.

All abbreviations and symbols used on Plans for structural steel construction shall conform to those given by the "Manual of Steel Construction" published by the American Institute of Steel Construction, Inc.

1-3.2 Common Usage

Abbreviation	Word or Words	Abbreviation	Word or Words
Aban	Abandon	l	Liters
Aband	Abandoned	Lab	Laboratory
ABS	Acrylonitrile-butadiene-styrene	Lat	Lateral
AC	Asphalt Concrete	LD	Local depression
ACP	Asbestos cement pipe	LED	Light Emitting Diode
ADA	Americans with Disabilities Act of 1990 (Public Law 101-336, 104 Sat. 1990,42 USC 12101-12213 (as amended))	LH	Lamp hole
Alt	Alternate	LL	Live load
AmerStd	American Standard	LOL	Layout line
APC	Air Placed Concrete	Long	Longitudinal
ARAM	Asphalt Rubber Aggregate Membrane	LP	Lamp post
ARHM	Asphalt Rubber Hot Mix	LPS	Low pressure sodium (Light)
AWG	American Wire Gage (non-ferrous wire)	LS	Lump sum
B/W	Back of wall	LTS	Lime treated soil
BC	Beginning of curve	m	Meters
BCR	Beginning of curb return	Maint	Maintenance
Bdry	Boundary	Max	Maximum
BF	Bottom of footing	MC	Medium curing
BM	Bench mark	MCR	Middle of curb return
BMPs	Best Management Practices	Meas	Measure
BVC	Beginning of vertical curve	MH	Manhole, maintenance hole
C&G	Curb & Gutter	Mil Spec	Military specification
C&G	Curb and gutter	Min	Minimum
CAB	Crushed aggregate base	Misc	Miscellaneous

Abbreviation	Word or Words
CALOSHA	California Occupational Safety and Health Administration
CALTRANS	California Department of Transportation
CAP	Corrugated aluminum pipe
CB	Catch Basin
Cb	Curb
CBP	Catch Basin Connection Pipe
CBR	California Bearing Ratio
C-C	Center to center
CCFRPM	Centrifugally Cast Fiberglass Reinforced Plastic Mortar
CCR	California Code of Regulations
CCTV	Closed Circuit TV
CF	Cubic foot
CF	Curb face
CFR	Code of Federal Regulations
CFS	Cubic feet per second
CHDPE	Corrugated High Density Polyethylene
CIP	Cast iron pipe
CIPP	Cast-in-place pipe
CIPPC	Cast-in-place Concrete Pipe
CL	Clearance, center line
CLF	Chain link fence
CLSM	Controlled Low Strength Material
CMB	Crushed miscellaneous base
CMC	Cement mortar-coated
CML	Cement mortar-lined
cms	Cubic meters per second
CO	Cleanout (Sewer)
Col	Column
Conc	Concrete
Conn	Connection
Const	Construct, Construction
Coord	Coordinate
CQS	Cationic Quick-Setting
CRM	Crumb Rubber Modifier
CRS	Cationic Rapid-Setting
CSEP	Confined Space Entry Plan
CSP	Corrugated steel pipe
CSPA	Corrugated steel pipe arch
CSS	Cationic Slow-Setting
CT	California Test
CTB	Cement treated base
CV	Check valve
CY	Cubic yard
D	Depth, Load of pipe
db	Decibels
Dbl	Double
DF	Douglas Fir
Dia	Diameter
DIP	Ductile iron pipe
DL	Dead load
DT	Drain tile
Dwg	Drawing
Dwy Appr	Driveway approach
Dwy	Driveway
Ea	Each
EC	End of curve
ECR	End of curb return
EF	Each face
EG	Edge of gutter
EGL	Energy grade line
El	Elevation
ELC	Electrolier lighting conduit
ELT	Extra long ton of slurry
Eng	Engineer, Engineering
EP	Edge of pavement
Esmt	Easement
ETB	Emulsion treated base

Abbreviation	Word or Words
Mon	Monument
MSDS	Material Safety Data Sheet
Mult	Multiple
MUTCD	Manual on Uniform Traffic Control Devices
MVL	Mercury vapor light
N/A	No applicable
NRCP	Nonreinforced concrete pipe
Obs	Obsolete
oc	On center
OD	Outside diameter
OE	Outer edge
Opp	Opposite
Orig	Original
PAV	Pressure Aging Vessel
PB	Pull box
PC	Point of curvature
PCC	Point of compound curvature
PCC	Portland cement concrete
PCVC	Point of compound vertical curve
PE	Polyethylene
PG	Performance Graded
PI	Point of intersection
PL	Property line
PLI	Pounds per linear inch
PMB	Processed miscellaneous base
POC	Point on curve
POT	Point on tangent
PP	Power pole
PRC	Point of reverse curve
PRCB	Precast Reinforced Concrete Box
PRVC	Point of reverse vertical curve
PSI	Pounds per square inch
PT	Point of tangency
PVC	Polyvinyl chloride
Pvmt	Pavement
Pvt R/W	Private right of way
Q	Rate of flow in cms (CFS)
Quad	Quadrangle, Quadrant
R	Radius or Resistance value
R&O	Rock and Oil
R/W	Right of way
RA	Reclaimed Asphalt or Recycling agent
RAC	Recycled asphalt concrete
RAP	Reclaimed asphalt pavement
RBAC	Rubberized asphalt concrete
RC	Reinforced concrete or Rapid Curing
RCB	Reinforced concrete box
RCE	Registered civil engineer
RCP	Reinforced concrete pipe
RCV	Remote control valve
Ref	Reference
Reinf	Reinforced or reinforcement
Res	Reservoir
RGE	Registered geotechnical engineer
RPPCC	Reclaimed Plastic Portland Cement Concrete
RR	Railroad
RSE	Registered structural engineer
RTE	Registered traffic engineer
RTFO	Rolling Thin Film Oven
RW	Reclaimed Water
S	Slope
S/W	Sidewalk
SC	Slow curing
SCCP	Steel cylinder concrete pipe
SCNs	Supplementary Cementitious Materials
SD	Storm drain
SDR	Standard dimension ratio

Abbreviation	Word or Words
EVC	End of vertical curve
Exc	Excavation
Exist or Ex	Existing
Exp Jt	Expansion joint
F & C	Frame and cover
F & I	Furnish and install
F/W	Face of wall
Fab	Fabricate
FAS	Flashing arrow sign
FD	Floor drain
Fdn	Foundation
Fed Spec	Federal Specification
FG	Finished grade
FL	Flow line
FS	Finished surface
ft - lb	foot – pound
Ftg	footing
FW	Face of wall
Ga	Gauge
Galv	Galvanized
GG	Gap graded
GIP	Galvanized iron pipe
GL	Ground line or grade line
GM	Gas meter
GP	Guy pole
Gr	Grade
Grtg	Grating
GSP	Galvanized steel pipe
H	High or height
HB	Hose bib
HC	House connection
HDPE	High density Polyethylene
HDWL	Headwall
HGL	Hydraulic grade line
Hor, Horiz	Horizontal
Hp	Horsepower
HPG	High pressure gas
HPS	High pressure sodium (Light)
HRWRA	High Range Water Reducing Admixture
Hyd, Hydr	Hydraulic
ID	Inside diameter
Incl	Include, Including
Insp	Inspection
Inv	Invert
IP	Iron pipe
J	Joules
JC	Junction chamber
Jct	Junction
JS	Junction structure
Jt	Joint
kg	Kilograms
kPa	KiloPascals
L	Length

Abbreviation	Word or Words
SE	Sand Equivalent
Sec	Section
SF	Square foot
SG	Specific gravity
SI	International System of Units (Metric)
SLC	Service Lateral Connection
Spec	Specifications
SR	Standard ratio
SS	Sanitary sewer
SSB	Select sub-base
SSP	Structural steel plate pipe
SSPA	Structural steel plate pipe arch
St Hwy	State highway
Sta	Station
Std	Standard
Str Gr	Straight grade
Str	Straight
Struc	Structural/Structure
SW	Sidewalk
SWD	Sidewalk drain
SWPPP	Storm Water Pollution Prevention Plan
SY	Square Yard
T/W	Top of wall
Tan	Tangent
TC	Top of curb
TCP	Traffic control plan
Tel	Telephone
TF	Top of footing
Topo	Topography
Tr	Tract
Trans	Transition
TRMAC	Tire rubber modified asphalt concrete
TS	Traffic signal or transition structure
TSC	Traffic signal conduit
TSS	Traffic signal standard
TTC	Temporary traffic control
TW	Top of wall
Typ	Typical
U.S.	United States
U.S.C.	United States Code
USA	Underground Service Alert
Var	Varies, Variable
VB	Valve box
VC	Vertical curve
VCP	Vitrified clay pipe
Vert	Vertical
Vol	Volume
VTCSH	Vehicle Traffic Controls Signal Heads
W	Width or Wider
WATCH	Work Area Traffic Control Handbook
WI	Wrought iron
WM	Water meter
WPJ	Weakened plane joint
WTAT	Wet Track Abrasion Test
X Conn	Cross connection
x (as in 2x4)	by
X-Sec	Cross section

1-3.3 Institutions.

Abbreviation	Word or Words
AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGC	Associated General Contractors of America
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute
API	American Petroleum Institute
APWA	American Public Works Association
AREA	American Railway Engineering Association
ASHRAE	American Society of Heating, Refrigeration and Air-Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWPA	American Wood Preserver's Association
AWS	American Welding Society
AWWA	American Water Works Association
CBSC	California Building Standards Commission
CRSI	Concrete Reinforcing Steel Institute
EIA	Electronic Industries Association
EPA	Environmental Protection Agency
ETL	Electrical Testing Laboratories
FCC	Federal Communications Commission
IAPMO	International Association of Plumbing and Mechanical Officials
ICC	International Code Council
IEEE	Institute of Electrical and Electronics Engineers
IMSA	International Municipal Signal Association
ITE	Institute of Traffic Engineers
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NOAA	National Oceanic and Atmospheric Administration (Department of Commerce)
RUS	Rural Utility Service
UL	Underwriters' Laboratories, Inc.
USGS	United State Geological Survey
WFCA	Western Fire Chiefs Association

1-3.4 Building Codes. The Ventura County Building Code (VCBC) and Ventura County Fire Code (VCFC) are applicable to the Work. VCBC and VCFC adopt by reference a number of uniform and national codes. Where such codes are referenced directly in the Specifications, such references shall be to the VCBC or VCFC which adopt and modify certain provisions in the referenced codes.

Abbreviation	Code	Publisher
CBC	California Building Code	CBSC
DBC	Uniform Code for Abatement of Dangerous Building	ICC
UBC	Uniform Building Code	ICC
UFC	Uniform Fire Code	ICC and WFCA
UHC	Uniform Housing Code	ICC
UMC	Uniform Mechanical Code	IAPMO
UPC	Uniform Plumbing Code	IAPMO
NEC	National Electrical Code	NFPA

1-3.5 Reference Documents.

Abbreviation	Document
HDM	Highway Design Manual, State of California, Department of Transportation, Latest Edition
MUTCD	Manual on Uniform Traffic Control Devices
SSP	Standard Plans, State of California, Department of Transportation, latest edition
SPPWC	Standard Plans for Public Works Construction, Latest edition, published by BNi Building News, Los Angeles,
SSPWC	Standard Specifications for Public Works Construction, (See Section 0-1)
SSS	Standard Specifications, State of California, Department of Transportation, latest edition
VCSS	Ventura County Standard Specifications (Division 1, Sections 0 through 10, of which this section is a part)

1-4 UNITS OF MEASURE

1-4.1 General. The International System of Units, also referred to as SI or the metric system, is the principal measurement system in these Specifications and shall be used for construction, unless otherwise stated in the Contract Documents. U. S. Standard Measure, also called U. S. Customary System, are included in parenthesis. SI units and U. S. Standard Measure in parenthesis may or may not be exactly equivalent. If U. S. Standard Measures are specified for use in the Contract Documents, then all values used for construction shall be U. S. Standard Measures shown in parentheses. However, certain material Specifications and test requirements contained herein use SI units specifically and conversions to U. S. Measures have not been included in these circumstances. When U. S. Standard Measures are not included in parentheses, the SI units shall control.

Reference is also made to ASTM E 380 for definitions of various units of the SI system and a more extensive set of conversion factors.

1-4.1.1 Units for Work. Where U. S. Standard Measure units are shown on the Plans or are specified, U. S. Standard Measure shall be used for the Work.

1-4.2 Units of Measure, Equivalents and Abbreviations

One U.S. Customary Unit	(abbreviation)	Is Equal To	#	SI Unit
mil (=0.001 in)		25.4	micrometers	(μm)
inch	(in)	25.4	millimeter	(mm)
inch	(in)	2.54	centimeter	(cm)
foot	(ft)	0.3048	meter	(m)
yard	(yd)	0.9144	meter	(m)
mile		1.6093	kilometer	(km)
square foot	(ft^2)	0.0929	square meter	(m^2)
square yard	(yd^2)	0.8361	square meter	(m^2)
cubic foot	(ft^3)	0.0283	cubic meter	(m^3)
cubic yard	(yd^3)	0.7646	cubic meter	(m^3)
acre (=43,560 ft^2)		0.4047	hectare (1ha=10,000m^2)	(ha)
gallon	(gal)	3.7854	Liter	(L)
fluid ounce	(fl. oz.)	29.5735	milliliter	(mL)
pound mass (avoirdupois)	(lbs)	0.4536	kilogram	(kg)
ounce mass	(oz)	0.02835	kilogram	(kg)
ounce mass	(oz)	28.35	grams	(g)
Ton (=2000 lb avoirdupois)		0.9072	Tonne (1 Tonne = 1000 kg)	
Poise		0.10	Pascal-second	(Pa-s)
centistoke	(cs)	1.00	square millimeter/sec.	(mm^2/s)
pound force	(lbf)	4.4482	Newton	(N)
pound per square inch	(psi)	6.8948	Kilopascal	(kPa)
pound force per foot	(lbf/ft)	14.594	Newton per meter	(N/M)
foot-pound force	(ft-lbf)	1.3558	Joules	(J)
foot-pound force per second	([ft-lbf]/s)	1.3558	Watt	(W)
part per million	(ppm)	1.00	milligram/liter	(mg/L)
Degree Fahrenheit	(°F)	0.5555	Degree Celsius	(°C)

Temperature: Celsius to Fahrenheit	Temperature: Fahrenheit to Celsius
Temperature °F = (1.8 x °C) + 32	Temperature °C = (°F - 32) / 1.8

SI Units Used in Both Systems		
Ampere (A)	second (s)	Candela (cd)
Volt (V)	decibel (db)	Lumen (lm)

Common Metric Prefixes					
kilo (k)	10^3	milli (m)	10^{-3}	nano (n)	10^{-9}
centi (c)	10^{-2}	micro (μ)	10^{-6}	pico (p)	10^{-12}

1-5 SYMBOLS

°	Degree	℄	Property line	%	Percent
'	Feet or minutes	℄	Survey line or station line	#	Number
"	Inches or seconds	℄	Center line	/	per or of (between words)
Δ	Delta, the central angle or angle between tangents			∠	Angle

SECTION 2 - SCOPE AND CONTROL OF WORK

2-1 AWARD AND EXECUTION OF CONTRACT

2-1.1 Award of Contract. The right is reserved to waive minor irregularities in the proposals and to reject any or all proposals. The award of the Contract, if it be awarded, will be to the lowest responsive, responsible Bidder, determined as provided on the Proposal Form, whose Proposal complies with all the requirements prescribed. Such award, if made, will be made within the number of Days stated in the Proposal form. If the lowest responsible Bidder refuses or fails to execute the Contract, the Agency may, within 45 additional Days, consider the next lowest Bidder to be the lowest responsive, responsible Bidder. The periods of time specified above within which the award of Contract may be made shall be subject to extension for such further period as may be agreed upon in writing by the Bidder concerned. If the Bidder's bid guarantee was in the form of a bid bond, the Bidder shall also submit a statement from the Surety that the bond has been extended for the same period.

Proposals not accompanied by a properly executed Noncollusion Affidavit required by Public Contract Code Section 7106 will be considered nonresponsive and will not be considered for award.

All bids will be compared on the basis of the quantities, amounts and unit prices, or lump sums, as shown on the Bid Proposal.

Before award, the Bidder may be required to furnish acceptable evidence of adequate capability, equipment and financial resources to adequately perform the Work. Bidders found not to be so qualified may have their bids rejected. If reasonable cause exists to believe collusion exists among Bidders, or that prices Bid are unbalanced between Bid items, any or all proposals may be rejected.

Award will not be made to a Bidder who is listed by the State Labor Commissioner as ineligible to bid, work on, or be awarded public works projects.

2-1.2 Notice of Award. Within one Day after award of Contract by the Board, the Bidder to whom Contract is awarded will be notified of award by email and telephone, or if no contact is made by telephone, then by mail. Within three business days after award of Contract, a Notice of Award will be sent, transmitting the Contract Documents to such Bidder for execution. If telephone contact is made, the Bidder may request that the Contract Documents be held in Agency's office to be picked up.

2-1.3 Execution of Contract Documents. On receipt of the Contract Documents, the Bidder shall promptly obtain the required insurance coverage, certificates of insurance, power-of-attorney and Contract bonds, execute the Contract, and transmit all required documents to the Agency.

2-1.4 Failure to Execute Documents. Should the Bidder fail to furnish Agency all required documents, properly executed, prior to the starting day of the Contract time computed as provided in 6-7.4 and stated in the Notice of Award, Agency may thereafter declare the Bidder to be in default and its Proposal guarantee forfeited.

2-1.5 Return of Proposal Guarantees. Within 10 Days after the award of the Contract, Agency will return the Proposal guarantees, other than Bidder's bonds, accompanying such of the proposals as are not to be further considered in making the award. The low and second Bidder's Proposal guarantee will be held until the Contract has been executed, after which all Proposal guarantees, except Bidders' bonds and any guarantees which have been forfeited, will be returned to the respective Bidders whose proposals they accompany.

2-2 ASSIGNMENT. No Contract or portion thereof may be assigned without consent of the Board except that the Contractor may assign money due or which will accrue to it under the Contract. If given written notice, such assignment will be recognized by the Board to the extent permitted by law, but any assignment of money shall be subject to all proper withholdings in favor of the Agency and to all deductions provided for in the Contract. All money withheld, whether assigned or not, shall be subject to being used by the Agency for completion of the Work, should the Contractor be in default.

2-3 SUBCONTRACTS.

2-3.1 General. Each Bidder shall comply with the Chapter of the Public Contract Code including Sections 4100 through 4113. The following excerpts or summaries of some of the requirements of that Chapter are included below for information.

The Bidder shall set forth in the Bid, as provided in 4104:

"(a) (1) The name, the location of the place of business, and the California contractor license number of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor's total bid or ten thousand dollars ($10,000), whichever is greater.

(2) An inadvertent error in listing the California contractor license number provided pursuant to paragraph (1) shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the corrected contractor's license number is submitted to the public entity by the prime contractor within 24 hours after the bid opening and provided the corrected contractor's license number corresponds to the submitted name and location for that subcontractor."

If the Contractor fails to specify a Subcontractor, or specifies more than one Subcontractor for the same portion of the Work to be performed under the Contract (in excess of one-half of 1 percent of the Contractor's total bid), the Contractor shall be qualified to perform that portion itself, and shall perform that portion itself except as otherwise provided in the Code.

Except as provided in Section 4107, no prime contractor, whose Bid is accepted, shall substitute any person or Subcontractor in place of the Subcontractor listed in the original bid other than for causes and by procedures established in Section 4107.5 which provides procedures to correct a clerical error in the listing of a Subcontractor.

Section 4110 provides that a Contractor violating any of the provisions of the Chapter violates the Contract and the Board may exercise the option either to cancel the Contract or assess the Contractor a penalty in an amount of not more than 10 percent of the subcontract involved, after a public hearing.

2-3.1.1 Use of Debarred Subcontractors Prohibited. The Contractor is prohibited from performing work using a Subcontractor who is listed by the State Labor Commissioner as ineligible to work on public works projects.

2-3.2 Additional Responsibilities. The Contractor shall give personal attention to the fulfillment of the Contract and shall keep the Work under its control.

Except where the required Contractor's License Class is "B", the Contractor shall perform, with its own organization, Contract work amounting to at least 50 percent of the Contract Price except that any designated "Specialty Items" may be performed by subcontract and the amount of any such "Specialty Items" so performed may be deducted from the Contract Price before computing the amount required to be performed by the Contractor with its own organization. "Specialty Items" will be identified by the Agency in the Bid or Proposal with an "[S]". Where an entire item is subcontracted, the value of work subcontracted will be based on the Contract Unit Price. This will be determined from information submitted by the Contractor, and subject to approval by the Engineer.

Before the work of any Subcontractor is started, the Contractor shall submit to the Engineer for approval a written statement showing the work to be subcontracted giving the name, contractor license number, registration with the Department of Industrial Relations, and business of each Subcontractor and description and value of each portion of work to be subcontracted.

2-3.3 Status of Subcontractors. Subcontractors shall be considered employees of the Contractor, and the Contractor shall be responsible for their work.

2-3.3.1 Subcontracts. The Contractor shall incorporate into all subcontracts, and the Subcontractor shall incorporate into all lower tier subcontracts, all of the Plans and Specifications which are part of the Contract between the Contractor and the Agency.

2-3.3.2 Contractor Responsible. The Contractor is responsible for properly performing and completing all Work required by the Contract whether or not it employs subcontractors for certain portions of the Work. It shall coordinate the sequence and timing of its efforts and that of its subcontractors to insure the proper and timely completion of the Work.

2-3.3.3 Specialty Contractors. Where a specialty Contractor's license is required by law or by the Specifications in order to perform certain portions of the Work, the Contractor may perform such portion with its own forces if it holds the proper license. Otherwise, it shall employ a properly licensed subcontractor to perform that portion of the Work. Such requirement to employ a subcontractor does not modify the other requirements of 2-3.

2-4 CONTRACT BONDS. Before execution of the Contract by the Agency, the Bidder shall file surety bonds with the Agency to be approved by the Board in the amounts and for the purposes noted below. Bonds issued by a Surety who is listed in the latest version of U.S. Department of Treasury Circular 570, who is authorized to issue bonds in California, and whose bonding limitation shown in said circular is sufficient to provide bonds in the amount required by the Contract shall be deemed to be approved unless specifically rejected by the Agency. Bonds from all other sureties shall be accompanied by all of the documents enumerated in Code of Civil Procedure 995.660(a). The Bidder shall pay all bond premiums, costs, and incidentals.

Each bond shall incorporate, by reference, the Contract and be signed by both the Bidder and Surety and the signature of the authorized agent of the Surety shall be notarized.

The Bidder shall provide two good and sufficient surety bonds. The "Payment Bond" (Material and Labor Bond) shall be for not less than 100 percent of the Contract Price, to satisfy claims of material suppliers and mechanics and laborers employed by it on the Work. The bond shall be maintained by the Contractor in full force and effect until the Work is accepted by the Agency, and until all claims for materials and labor are paid, and shall otherwise comply with the Civil Code.

The "Performance Bond" shall be for 100 percent of the Contract Price to guaranty faithful performance of all Work, within the time prescribed, in a manner satisfactory to the Agency, and that all materials and workmanship will be free from original or developed defects. The bond must remain in effect until the end of the warranty period set forth in 6.8-2.

Should any bond become insufficient, the Contractor shall renew the bond within 10 Days after receiving notice from the Agency.

Should any Surety at any time be unsatisfactory to the Board, notice will be given the Contractor to that effect. No further payments shall be deemed due or will be made under the Contract until a new Surety shall qualify and be accepted by the Board.

Changes in the Work, or extensions of time, made pursuant to the Contract, shall in no way release the Contractor or Surety from its obligations. Notice of such changes or extensions shall be waived by the Surety.

2-4.1 Bond Forms. Bonds shall be on forms furnished by Agency.

2-5 PLANS AND SPECIFICATIONS

2-5.1 General. The Contractor shall keep at the work site a copy of the Plans and Specifications, to which the Engineer shall have access at all times.

The Plans, Specifications, and other Contract Documents shall govern the Work. The Contract Documents are intended to be complementary and cooperative. Anything specified in the Specifications and not shown on the Plans, or shown on the Plans and not specified in the Specifications, shall be as though shown or specified in both.

The Plans shall be supplemented by such working drawings and shop drawings as are necessary to adequately control the Work.

The Contractor shall ascertain the existence of any conditions affecting the cost of the Work through reasonable examination of the work site prior to submitting the Bid..

Existing improvements visible at the work site, for which no specific disposition is made on the Plans, but which interfere with the completion of the Work, shall be removed and disposed of by the Contractor.

The Contractor shall, upon discovering any error or omission in the Plans or Specifications, immediately call it to the attention of the Engineer.

2-5.1.1 Specifications Captions. Captions accompanying specification parts, sections and paragraphs are for convenience of reference only and do not limit the content of such part, section or paragraph.

The division of the Plans into parts and the division of the Specifications into divisions and sections are for the ease of reference only and does not imply the division of work between trades or subcontractors.

2-5.2 Precedence of Contract Documents. If there is a conflict between any of the Contract Documents, the document highest in precedence shall control. The precedence shall be as follows:

1) Permits issued by jurisdictional regulatory agencies.
2) Change Orders and Supplemental Agreements; whichever occurs last.
3) Contract/Agreement.
4) Addenda.
5) Bid/Proposal.
6) Special Provisions.
7) Plans.
8) Standard Plans.
9) Standard Specifications.
10) Reference Specifications.

Detail drawings shall take precedence over general drawings.

2-5.3 Shop Drawings, Working Drawings, and Submittals.

2-5.3.1 General. Submittals shall be provided, at the Contractor's expense, as required in 2-5.3.2, 2-5.3.3 and 2-5.3.4, when required by the Plans or Special Provisions, or when requested by the Engineer.

Materials shall neither be furnished nor fabricated, nor shall any work for which submittals are required be performed, before the required submittals have been reviewed and accepted by the Engineer. Neither review nor acceptance of submittals by the Engineer shall relieve the Contractor from responsibility for errors, omissions, or deviations from the Contract Documents, unless such deviations were specifically called to the attention of the Engineer in the letter of transmittal. The Contractor shall be responsible for the correctness of the submittals.

The Contractor shall allow a minimum of 20 working days for review of submittals unless otherwise specified in the Special Provisions. Each submittal shall be accompanied by a letter of transmittal.

2-5.3.2 Working Drawings. Working drawings shall be of a size and scale to clearly show all necessary details.

Six copies and one reproducible shall be submitted. If no revisions are required, 3 of the copies will be returned to the Contractor. If revisions are required, the Engineer will return one copy along with the reproducible for resubmission. Upon acceptance, the Engineer will return 2 of the copies to the Contractor and retain the remaining copies and the reproducible.

Working drawings are required in the following subsections:

TABLE 2-5.3.2 (A)

Item	Section Number	Title	Subject
1	7-8.5.2	Sanitary Sewers	Sewage Bypass and Pumping
2	7.8.6.3	Water Pollution Control	Storm Water Pollution Prevention Plan
3	7-8.6.6	Water Pollution Control	Dewatering Plan
4	7-10.2.2	Work Area Traffic Control	Traffic Control Plan
5	7-10.4..2.2	Safety	Trench Shoring
6	207-8.4	Joints	Vitrified Clay Pipe
7	207-10.2.1	General	Fabricated Steel Pipe
8	300-3.2	Cofferdams	Structure Excavation & Backfill
9	303-1.6.1	General	Falsework
10	303-1.7.1	General	Placing Reinforcement
11	303-3.1	General	Prestressed Concrete Construction
12	304-1.1.1	Shop Drawings	Structural Steel
13	304-1.1.2	Falsework Plans	Structural Steel
14	304-2.1	General	Metal Hand Railings
15	306-2.1	General	Jacking Operations
16	306-3.1	General	Tunneling Operations
17	306-3.4	Tunnel Supports	Tunneling Operations
18	306-6	Remodeling Existing Sewer Facilities	Polyethylene Liner Installation
19	306-8	Microtunneling	Microtunneling Operations

Working drawings listed above as Items 4, 5, 8, 9, 11, 12, 13, 15 and 18 shall be prepared by a Civil or Structural Engineer registered by the State of California.

2-5.3.3 Shop Drawings. Shop drawings are drawings showing details of manufactured or assembled products proposed to be incorporated into the Work. Shop drawings required shall be as specified in the Special Provisions.

2-5.3.4 Supporting Information. Supporting information is information required by the Specifications for the purposes of administration of the Contract, analysis for verification of conformance with the Specifications, the operation and maintenance of a manufactured product or system to be constructed as part of the Work, and other information as may be required by the Engineer. Six copies of the supporting information shall be submitted to the Engineer prior to the start of the Work unless otherwise specified in the Special Provisions or directed by the Engineer. Supporting information for systems shall be bound together and include all manufactured items for the system. If resubmittal is not required, three copies will be returned to the Contractor. Supporting information shall consist of the following and is required unless otherwise specified in the Special Provisions:

1) List of Subcontractors per 2-3.2.
2) List of Materials per 4-1.4.
3) Certificates of Compliance per 4-1.5.
4) Construction Schedule per 6-1.
5) Spill Prevention and Emergency Response Plan per 7-8.5.3
6) Confined Space Entry Program per 7-10.4.5.1
7) Lean concrete base mix designs per 200-4
8) Concrete mix designs per 201-1.1.
9) Asphalt concrete mix designs per 203-6.1.
10) Pipeline layout diagrams per 207-2.1
11) Equipment and materials list per 307-1
12) Controller cabinet wiring diagrams per 307-17.2.2
13) Data, including, but not limited to, catalog sheets, manufacturer's brochures, technical bulletins, specifications, diagrams, product samples, and other information necessary to describe a system, product or item. This information is required for irrigation systems, street lighting systems, and traffic signals, and may also be required for any product, manufactured item, or system.

2-5.4 Record Drawings. The Contractor shall prepare and maintain a set of prints in the Engineer's Field Office on which the locations and description of all plumbing, mechanical, and electrical facilities, which were not detailed fully on the Plans, are marked in colored pencil. Such prints shall also indicate any authorized changes from the original Plans. Such prints shall be furnished to the Engineer before final Acceptance of the Work.

2-6 WORK TO BE DONE. The Contractor shall perform all work necessary to complete the Contract in a satisfactory manner. Unless otherwise provided, it shall furnish all materials, equipment, tools, labor and incidentals necessary to complete the Work.

All work under the Contract shall be performed in accordance with the highest standards prevailing in the trades unless otherwise specified on the Plans or in the Special Provisions. Unless otherwise specified, it is the intent that the Contractor will construct a complete facility ready for use.

2-6.1 Manufacturer's Recommendations. Where the manufacturer of any materials or equipment provides written recommendations or instructions for its use or method of installation (including labels, tags, manuals, or trade literature), such recommendations or instructions shall be complied with except where the Contract Documents specifically require deviations.

2-6.2 Testing of Installed Components. Where the specifications provide that any component of the Work is to be tested, calibrated or adjusted during or after installation, such testing shall be performed by a qualified firm, approved by the Engineer. The firm performing the testing or calibration shall be employed by and paid for by the Contractor.

2-6.3 Training of Agency Personnel. Where the specifications provide for training of Agency personnel in the use or maintenance of any component of the Work, the Contractor shall arrange for and pay for competent personnel to perform the training. Contractor shall schedule the training with the Engineer.

2-7 SUBSURFACE DATA. All soil and test hole data, groundwater elevations, and soil analyses shown on the Plans or included in the Specifications apply only at the location of the test holes and to the depths shown. Soil test reports for test holes which have been drilled are available for inspection at the office of the Engineer. Additional subsurface exploration may be performed by Bidders or the Contractor at their own expense.

The indicated groundwater elevation is that existing at the date specified in the data. It is the Contractor's responsibility to determine and allow for the groundwater elevation on the date the Work is performed. A difference in groundwater elevation between what is shown in soil boring logs and what is actually encountered during construction will not be considered as a basis for Extra Work per 3-3.

Opinions, recommendations or conclusions contained in any soils report, soil boring logs, subsurface materials investigation, geological report or other similar studies, tests or reports, prepared for the Agency, are not a part of the Contract. Contractor shall be responsible for forming its own opinions and conclusions from the facts set forth in such reports.

2-8 RIGHTS-OF-WAY. Rights-of-way, easements or rights-of-entry for the Work will be provided by the Agency. Unless otherwise provided, the Contractor shall make arrangements, pay for, and assume all responsibility for acquiring, using, and disposing of additional work areas and facilities temporarily required. The Contractor shall indemnify and hold the Agency harmless from all claims for damages caused by such actions.

2-9 SURVEYING

2-9.1 Permanent Survey Markers. The Contractor shall notify the Engineer at least 7 Days before starting work to allow for the preservation of survey monuments, lot stakes (tagged), and bench marks. The Engineer, or the owner at its cost, shall file a Corner Record Form referencing survey monuments subject to disturbance in the Office of the County Surveyor prior to the start of construction and also prior to the completion of construction for the replacement of survey monuments. The Contractor shall not disturb survey monuments, lot stakes (tagged), or bench marks without the consent of the Engineer or the owner on Private Contracts. The Contractor shall bear the expense of replacing any that may be disturbed without permission. Replacement shall be done only under the direction of the Engineer by a Licensed Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within the state.

When a change is made in the finished elevation of the pavement of any roadway in which a permanent survey monument is located, the Contractor shall adjust the monument cover to the new grade within 7 Days of finished paving unless otherwise specified.

2-9.2 Survey Service. The Engineer will set only the horizontal and vertical control survey points shown on the Plans. These will be set prior to the commencement of construction. The Contractor shall preserve these points as well as any other surveys established by the Engineer for use by the Contractor for the duration of their usefulness. If any survey points established by Engineer are lost or disturbed and need to be replaced, such replacement shall be by the Engineer at the expense of the Contractor. The Contractor shall employ engineers or surveyors to perform adequate surveys and staking necessary to construct the Work to the lines, elevations and grades shown on the Plans and for the Engineer's use in checking such work. Copies of the field notes or diagrams used in setting stakes shall be promptly furnished to the Engineer.

2-9.2.1 Open Areas. Where dimensions are not given on the Plans for parking lots, landscaped areas or graded areas, distances shall be scaled. Unless otherwise indicated, straight grades and smooth vertical curves shall be set between indicated elevations. Finished surfaces shall be sloped to drain in order to eliminate ponding of water.

2-9.2.2 Utilities. Section 5-5.1 requires the Contractor's cooperation during the relocation of utilities, which may require the setting of lines and grades when needed by utility owners performing relocations.

2-9.3 Contractor's Surveys. Surveying by private engineers and surveyors on the Work shall conform to the quality and practice required by the Engineer.

2-9.3.1 Errors in Surveys. The Contractor is responsible for the accuracy of all surveys except those performed by the Engineer. To assure that a survey point set by the Engineer has not been disturbed since it was set and that it was accurately set, all surveys by the Contractor shall be based on at least two survey points set by the Engineer or by other governmental surveys, in accordance with good survey practice. Should discrepancies be found between such points, the Engineer shall be notified and construction shall not proceed until the discrepancy has been resolved.

2-9.4 Line and Grade. All Work upon completion shall conform to the lines, elevations, and grades shown on the Plans.

2-9.5 Quantity Surveys. The Engineer will perform all quantity surveys for payment purposes, however, in performing such quantity surveys, it may make use of surveys performed by the Contractor.

2-9.6 Payment for Surveys. Payment for performing all of the surveying and staking as required by the Specifications and such additional surveying and staking as required by the Contractor will be made at the lump sum price set forth in the Proposal and shall be full compensation for furnishing all labor, equipment, instruments and materials necessary to perform the Work. If no bid item for surveying is included in the Proposal, the cost of surveying shall be included in the prices bid for other applicable items of work.

2-10 AUTHORITY OF BOARD AND ENGINEER. The Board has the final authority in all matters affecting the Work. Within the scope of the Contract, the Engineer has the authority to enforce compliance with the Plans and Specifications. The Contractor shall promptly comply with instructions from the Engineer or its authorized representative.

On all questions relating to quantities, the acceptability of material, equipment, or work, the execution, progress or sequence of work, and the interpretation of Specifications or drawings, the decision of the Engineer is final and binding, and shall be precedent to any payment under the Contract, unless otherwise ordered by the Board.

2-10.1 Decisions in Writing. Any and all decisions of the Engineer interpreting Specifications or drawings shall be in writing. Any purported "interpretation" which is not in writing shall not be binding upon the Agency and should not be relied upon by the Contractor.

2-11 INSPECTION

The Work is subject to inspection and approval of the Engineer. The Contractor shall notify the Engineer before noon of the working day before inspection is required. Work shall be done only in the presence of the Engineer, unless otherwise authorized. Any work done without proper inspection will be subject to rejection. The Engineer and any authorized representatives shall at all times have access to the Work during its construction at shops and yards as well as the Work site. The Contractor shall provide every reasonable facility for ascertaining that the materials and workmanship are in accordance with these specifications. Inspection of the Work shall not relieve the Contractor of the obligation to fulfill all conditions of the Contract.

2-11.1 Permit Inspections. The Contractor shall arrange for code compliance inspections by all agencies issuing permits for the Work. The Work shall not continue beyond mandatory inspection points without clearance from the controlling agency. Each agency involved shall be notified in accordance with the code they enforce or in accordance with their standard operating procedures. No extensions of time will be granted for delays occasioned by such inspections except where, through no fault of the Contractor, the inspection is delayed more than one Day beyond normal response time after proper notification has been given.
It shall be the Contractor's responsibility to see that any required inspection record card is signed off before proceeding with the next phase of the Work and completely signed off on completion of the Work.

2-11.2 Structural Observation. When the plans indicate that "Structural Observation" of specific work is required prior to Permit Inspection, Contractor shall notify Engineer, in writing, at least five working days prior to the date Contractor plans to have the work ready for structural observation. If the work is not ready for structural observation on the date indicated, Contractor shall reimburse Agency the cost of structural observer's visit to the Work site. If the work to be observed is substantially complete but is found to need correction before approval by the structural observer, Contractor shall give notice of a new date, as required above.

2-12 SPECIAL NOTICES. When specified in the Specifications or as directed by the Engineer, any notice required to be given in accordance with this subsection shall be in writing, dated, and signed by the Contractor or the Engineer. Such notices shall be served by any of the following methods:

a) Personal delivery with proof of delivery which may be made by declaration under penalty of perjury by any person over the age of 18 years. The proof of delivery shall show that delivery was performed in accordance with these provisions. Service shall be effective on the date of delivery. Notices given to the Contractor by personal delivery may be made to the Contractor's authorized representative at the Work site; or

b) Certified mail addressed to the mailing address of the recipient postage prepaid; return receipt requested. Service shall be effective on the date of the receipt of the mailing.

Simultaneously, the Agency may send the same notice by regular mail. If a notice that is sent by certified mail is returned unsigned, then delivery shall be effective pursuant to regular mail, provided the notice that was sent by regular mail is not returned.

2-13 AGENCY PERSONNEL AND AUTHORITY

2-13.1 General. The Board has complete authority for the project within the limits prescribed by law. Pursuant to resolutions duly adopted by the Board, the authority to perform certain functions has been delegated to the Director of Public Works. Agency staff personnel and Consultants delegated thereto by the Director are authorized to perform functions limited as set forth in the following list of personnel and designated duties.

2-13.2 Engineer. The Director of the Public Works Agency of the County of Ventura is the Engineer and has general authority to administer the Contract. The Engineer has the following specific authority:

(a) To issue Contract Change Orders (CCO) and to settle claims subsequent to Acceptance as follows:

Original Contract Amount	Maximum Amount of any Change Order or Claim Settlement
$50,000 or less	$5,000
greater than $50,000 and not over $250,000	10% of the original Contract amount
greater than $250,000 and not over $3,950,000	$25,000 plus 5% of the original Contract cost in excess of $250,000.
greater than $3,950,000	$210,000

CCOs and claim settlements exceeding the amounts set forth above require Board approval.

(b) To make final adjustments of quantities (FAQ) on unit price items.

(c) To accept the Work when the Contractor has completed all obligations of the Contract, in accordance with the Plans, Specifications and other Contract Documents. The Engineer also has authority to make and record the Notice of Completion.

(d) To approve progress and final payments under the Contract, including the provisions for withholding funds.

(e) To determine whether performance on the Work is satisfactory. Satisfactory performance includes compliance with all contract requirements.

(f) To approve the substitution of a Subcontractor, where allowed by law, if the listed Subcontractor does not object when notified.

(g) To suspend the Work for the benefit of the Agency.

(h) In the absence of the Agency Director, a Public Works Agency Department Director, as Deputy Director of Public Works, may exercise the Engineer's authority. Such action will be indicated by "Acting" with the Department Director's signature.

2-13.3 Department Director (Public Works Agency). The Department Director responsible for the project is designated in the Notice to Proceed. The Department Director has the following authority:

(a) To issue Contract Change Orders (CCO) as follows:

Original Contract Amount	Maximum Amount of any Change Order
Less than $500,000	$5,000
$500,000 to $1,000,000	1% of Bid Price
Greater than $1,000,000	$10,000

(b) To issue extensions of Contract time in accordance with the Contract Documents.

(c) To make final adjustment of quantities where the total does not exceed the amounts listed in (a) above.

(d) To approve the substitution of subcontractors, where allowed by law, if the listed Subcontractor does not object when notified.

(e) To determine when the Work has been completed and acknowledge in writing the completion of the Work.

2-13.4 Project manager. The Project manager responsible for the project is designated in the Notice to Proceed. This person may also be referred to as Project Engineer. The Project manager has the following authority:

(a) To interpret the Plans and Specifications.

(b) To make minor changes in the location or features of the Work where no change in cost is involved. Such changes in cost may not be the net of multiple changes.

(c) To approve substitutes for material and equipment specified by proprietary names when such material and equipment meet the Contract requirements.

(d) To approve shop drawings and submittals.

(e) To issue stop work orders when necessary to enforce the provisions of the Contract.

(f) To make determinations of each Working Day to be charged against the Contract time in accordance with 6-7.3.

(g) To take over a portion of the Work for Agency's use in accordance with 6-10.

(h) To receive all correspondence and other documents from the Contractor.

(i) To inspect the Work and perform Final Inspection subject to review by the Department Director and the Engineer.

2-13.5 Inspector. One or more inspectors will be assigned to the project by the Project manager. Substitutes may be used during absence of the assigned inspector. The Inspector has the following authority subject to review by the Project manager, Department Director and the Engineer:

(a) To view and inspect the Work, sample and test components (at the Work site and at offsite manufacturing locations), and to discuss the Work with the Contractor's field representative.

(b) To determine compliance with the Plans, Specifications and other Contract Documents and to issue warnings of noncompliance.

(c) To issue stop work notices in the following two instances only:

1) Where a safety hazard exists that has an immediate potential for serious injury or death.

2) Where the operation in progress, if continued for even a short period of time, could be adverse to the Agency's interests.

2-13.6 Other Agency Personnel and Consultants.

2-13.6.1 Materials Engineer. The Materials Engineer is designated in the Notice to Proceed. The Materials Engineer may assign one or more Materials Inspectors to the project.

Materials Inspectors have authority to sample and test material at the Work site and at offsite manufacturing or storage locations. They may furnish available written test results to the Contractor's field representative. At batch plants, they may issue warnings of noncompliance, but stop notices require the signature of the Materials Engineer or Project manager.

2-13.6.2 Surveyors & Technicians. Surveyors and technicians shall have free access to the site to perform their duties but have no authority related to Contract administration.

2-13.6.3 Other Persons. Other Agency personnel who are not involved in construction administration and the general public may be present at the site because it is their present place of work, as client/customers, as visitors, as future users of the facility, or as persons who will maintain the completed facility. Where the facility is to continue in use during construction, work access for Agency workers and client/customers shall be maintained as provided in the Special Provisions. Where the facility (or portion where construction is being performed) is not in use during construction, admittance to the Work site by Agency personnel not involved in construction administration and visitors may be allowed by the Contractor or by the inspector, subject to compliance with safety regulations. Such persons have no authority under the Contract and the Agency is not responsible for their comments, suggestions or directions.

2-13.6.4 Consultants. Consultants hired by the Agency shall have free access to the site to perform their duties but have no authority related to Contract administration, unless such duties are specifically identified in writing to the Contractor. When so identified, Consultant may perform the duties of certain Agency personnel described above.

SECTION 3 - CHANGES IN WORK

3-1 CHANGES REQUESTED BY THE CONTRACTOR

3-1.1 General. Changes in specified methods of construction may be made at the Contractor's request when approved in writing by the Engineer. Changes in the Plans and Specifications, requested in writing by the Contractor, which do not materially affect the Work and which are not detrimental to the Work or to the interests of the Agency, may be granted by the Board to facilitate the Work, when approved in writing by the Engineer. Nothing herein shall be construed as granting a right to the Contractor to demand acceptance of such changes.

3-1.2 Payment for Changes Requested by the Contractor. If such changes are granted, they shall be made at a reduction in cost or at no additional cost to the Agency. All costs to the Agency in reviewing the proposed change, or testing materials involved therein, shall be paid for by the Contractor, whether or not the change is approved.

3-2 CHANGES INITIATED BY THE AGENCY

3-2.1 General. The Agency may change the Plans, Specifications, character of the Work, or quantity of work, provided the total arithmetic dollar value of all such changes, both additive and deductive, does not exceed 25 percent of the Contract Price. Should it become necessary to exceed this limitation, the change shall be by written Supplemental Agreement between the Contractor and Agency, unless both parties agree to proceed with the change by Change Order.

Change orders shall be in writing and state the dollar value of the change or establish method of payment, any adjustment in Contract time, and, when negotiated prices are involved, shall provide for the Contractor's signature indicating its acceptance.

3-2.2 Payment for Changes Initiated by the Agency.

3-2.2.1 Contract Unit Prices. If a change is ordered in an item of work covered by a Contract unit price, and such change does not involve a substantial change in the character of the Work from that shown on the Plans or included in the Specifications, an adjustment in payment will be made based upon the increase or decrease in quantity and the Contract unit price. In the case of such an increase or decrease in a Major Bid Item, the use of this basis for the adjustment of payment will be limited to that portion of the change which, together with all previous changes to that item, is not in excess of 25% of the total cost of such item based on the original quantity and Contract unit price.

If a change is ordered in an item of work covered by a Contract unit price, and such change does involve a substantial change in the character of the Work from that shown on the Plans or included in the Specifications, an adjustment in payment will be made in accordance with 3-2.2.3.

Should any Contract item be deleted in its entirety, payment will be made only for actual costs incurred prior to notification of such deletion.

3-2.2.2 Stipulated Unit Prices. Stipulated unit prices are those established by the Agency in the Contract Documents, as distinguished from Contract unit prices submitted by the Contractor. Stipulated unit prices may be used for the adjustment of Contract changes.

3-2.2.3 Pricing. Adjustments in payments for changes other than those set forth in 3-2.2.1 and 3-2.2.2 will be determined by agreement between Contractor and Agency. If unable to reach agreement, the Agency may direct the Contractor to proceed on the basis of Extra Work in accordance with 3-3 or as set forth in 3-2.2.4.

3-2.2.4 Non-Agreed Prices. Agency may issue a change order directing the Contractor to proceed at a price set by the Agency or on the basis of Extra Work. If the Agency sets a price for the work covered by the change order, Contractor is entitled to payment for such work in accordance with 3-3 to the extent payment in accordance with 3-3 exceeds the price set by the Agency.

3-3 EXTRA WORK

3-3.1 General. New or unforeseen work will be classed as "Extra Work" when the Engineer determines that it is not covered by Contract Unit Prices or Stipulated Unit Prices.

3-3.2 Payment.

3-3.2.1 General. When the price for the Extra Work cannot be agreed upon, the Agency will pay for the Extra Work based on the accumulation of costs as provided herein.

3-3.2.2 Basis for Establishing Costs

(a) Labor. The cost of labor will be the current cost for wages prevailing for each craft or type of workers performing the Extra Work at the time the Extra Work is done, plus payment of health and welfare, pension, vacation, apprenticeship funds, and other direct costs included in the prevailing rates applicable to the project, as well as assessments or benefits required by lawful collective bargaining agreements. To the total of these labor costs, the labor surcharge set forth in the current CALTRANS Labor Surcharge and Equipment Rental Rates publication shall be applied.

The use of a labor classification which would increase the Extra Work cost will not be permitted unless the Contractor establishes the necessity for such additional costs.

Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for the equipment rental. The labor cost for foremen shall be proportioned to all of their assigned work and only that applicable to Extra Work shall be paid. A foreman is defined as a lead working journeyman.

Nondirect labor costs including superintendence, payroll taxes, all types of insurance, and all other labor costs, not specifically provided for, shall be considered to be paid for as part of the markup of 3-3.2.3(a)(1).

(b) Materials. The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available and delivered to the Work site in the quantities involved, plus sales tax, freight and delivery.

The Agency reserves the right to approve materials and sources of supply, or to supply materials to the Contractor if necessary for the progress of the Work. No markup shall be applied to any material provided by the Agency.

(c) Tool and Equipment Rental. No payment will be made for the use of tools which have a replacement value of $200 or less.

Regardless of ownership, the rates to be used for determining equipment rental costs shall not exceed the following:

(1) For equipment that is listed in the current CALTRANS Labor Surcharge and Equipment Rental Rates publication, the rates shown therein. The right of way delay and overtime/multiple shift factors contained therein shall be used as applicable.

(2) For equipment not listed in said CALTRANS publication, the listed rates prevailing locally at equipment rental agencies, or distributors, at the time the work is performed.

(3) For equipment rental that includes operators and helpers, the applicable cost from (1) or (2) above, plus the applicable labor costs as determined in accordance with (a) above.

The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals.

Necessary loading and transportation costs for equipment used on the Extra Work shall be added to the other costs.

If equipment is used intermittently and, when not in use, could be returned to its rental source at less expense to the Agency than holding it at the work site, it shall be returned, unless the Contractor elects to keep it at the work site at no expense to the Agency.

All equipment shall be acceptable to the Engineer, in good working condition, and suitable for the purpose for which it is to be used. Manufacturer's ratings and manufacturer's approved modifications shall be used to classify equipment and it shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

The reported rental rates for equipment already at the work site shall be for the duration of its use on the Extra Work, commencing at the time it is first put into actual operation on the Extra Work, plus the time required to move it from its previous site, and move it back to its previous site or to a closer site of next use.

3-3.2.2 Basis for Establishing Costs (Continued)

(d) Other Items. The Agency may authorize other items which may be required on the Extra Work. Such items include labor, service, material and equipment which are different in their nature from those required for the Work specified in the Contract and which are of a type not ordinarily available from the Contractor or any of its subcontractors.

Invoices covering all such items in detail shall be submitted with the request for payment.

(e) Invoices. Vendors' invoices for material, equipment rental, and other expenditures, shall be submitted with the request for payment. If the request for payment is not substantiated by invoices or other documentation, the Agency may establish the cost of the item involved at the lowest price which was current at the time of the report.

3-3.2.3 Markup

(a) Work by Contractor. The following percentage shall be added to the Contractor's costs and shall constitute the markup for all overhead and profits, and all other cost not specifically provided for:

(1) Labor 33%
(2) Materials 15%
(3) Equipment Rental 15%
(4) Other Items and Expenditures ... 15%

To the sum of the cost and markups provided for in this section, 1 percent shall be added as compensation for bonding.

(b) Work by Subcontractor. When all or any part of the Extra Work is performed by a Subcontractor, the markup established in 3-3.2.3(a) shall be applied to the Subcontractor's actual cost of such work. A markup of 10% on the first $5,000 of the subcontracted portion of the Extra Work and a markup of 5% on work in excess of $5,000 of the subcontracted portion of the Extra Work may be added by the Contractor.

3-3.3 Daily Extra Work Reports by Contractor. When the price for the Extra Work cannot be agreed upon, the Contractor shall submit a Daily Extra Work Report to the Engineer on forms furnished by the Agency, together with applicable delivery tickets, listing all labor, materials, and equipment involved for that day, and for other services and expenditures when authorized. Failure to submit the Daily Extra Work Report, showing the labor and equipment hours and the quantity of materials used, by the close of the next Working Day may waive any rights for that day. Failure to submit fully completed Daily Extra Work Reports, with the required supporting documentation, within ten calendar days after the Engineer makes a written request for the such reports shall waive all rights for the work covered by the requested reports. An attempt shall be made to reconcile the Daily Extra Work Report daily, and it shall be signed by the Engineer and the Contractor. In the event of disagreement, pertinent notes shall be entered by each party to explain points which cannot be resolved immediately. Each party shall retain a signed copy of the Daily Extra Work Report. Daily Extra Work Reports by Subcontractors or others shall be submitted through the Contractor.

The Daily Extra Work Report shall:

1) Show names of workers, classifications, and hours worked.
2) Describe and list quantities of materials used.
3) Show type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable.
4) Describe other services and expenditures in such detail as the Agency may require.

In addition to the Daily Extra Work Reports, the Contractor shall furnish Certified Payroll Records for the labor included in the reports before payment will be made.

3-4 CHANGED CONDITIONS. The Contractor shall notify the Engineer in writing of the following work site conditions, hereinafter called changed conditions, promptly upon their discovery and before they are disturbed:

1) Subsurface or latent physical conditions differing materially from those represented in the Contract;
2) Unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character being performed; and
3) Material differing from that represented in the Contract which the Contractor believes may be hazardous waste, as defined in Section 25117 of the Health and Safety Code that is required to be removed to a Class I, Class II or Class III disposal site in accordance with provisions of existing law.

The Engineer will promptly investigate conditions which appear to be changed conditions. If the Engineer determines that the conditions are changed conditions and that they will materially increase or decrease the costs of any portion of the Work, a Change Order will be issued adjusting the compensation for such portion of the Work in accordance with 3-2.2. If the Engineer determines that conditions are changed conditions and that they will materially affect the performance time, the Contractor, upon submitting a written request, will be granted an extension of time subject to the provisions of 6-6.

If the Engineer determines that the conditions of which it has been notified by the Contractor do not justify an adjustment in compensation, the Contractor will be so notified in writing. This notice will also advise the Contractor of its obligation to notify the Engineer, in writing, if the Contractor disagrees.

Should the Contractor disagree with such determination, it may submit a written notice of potential claim to the Engineer before commencing the disputed work. In the event of such a disagreement, the Contractor shall not be excused on account of that disagreement from any scheduled completion date provided for by the Contract, but shall proceed with all Work to be performed under the Contract. However, the Contractor shall retain any and all rights provided either by Contract or by law which pertain to the resolution of disputes and protests between the contracting parties. The Contractor shall proceed as provided in 3-5.

The Contractor's failure to give notice of changed conditions promptly upon their discovery and before they are disturbed shall constitute a waiver of all claims in connection therewith.

3-5 DISPUTED WORK. If the Contractor and the Agency are unable to reach agreement on disputed work, the Agency may direct the Contractor to proceed with the Work. Payment shall be as later determined by mediation or arbitration, if the Agency and the Contractor agree thereto, or as fixed in a court of law.

Although not to be construed as proceeding under Extra Work provisions, the Contractor shall keep and furnish records of disputed work in accordance with 3-3.

SECTION 4 - CONTROL OF MATERIALS

4-1 MATERIALS AND WORKMANSHIP

4-1.1 General. All materials, parts, and equipment furnished by the Contractor in the Work shall be new, high grade, and free from defects. Quality of work shall be in accordance with the generally accepted standards. Material and work quality shall be subject to the Engineer's approval.

Materials and work quality not conforming to the requirements of the Specifications shall be considered defective and will be subject to rejection. Defective work or material, whether in place or not, shall be removed immediately from the site by the Contractor, at its expense, when so directed by the Engineer.

If the Contractor fails to replace any defective or damaged work or material after reasonable notice, the Engineer may cause such work or materials to be replaced. The replacement expense will be deducted from the amount to be paid to the Contractor.

Used or secondhand materials, parts, and equipment may be used only if permitted by the Specifications.

4-1.1.1 Materials Furnished by Agency. Materials furnished by the Agency will be available at locations designated in the Special Provisions or if not designated in the Special Provisions, they will be delivered to a single location of Agency's choice within the project area. They shall be hauled to the site of installation by the Contractor at its expense, including any necessary loading and unloading that may be involved. The cost of handling and placing materials furnished by the Agency shall be considered as included in the price paid for the Contract item involving such furnished materials.

The Contractor will be held responsible for all materials furnished to it, and it shall pay all demurrage and storage charges. Furnished materials, after delivery to Contractor, lost or damaged from any cause whatsoever shall be replaced by the Contractor. The Contractor will be liable to the Agency for the cost of replacing lost or damaged furnished material and such costs may be deducted from any monies due or to become due the Contractor.

4-1.2 Protection of Work and Materials. The Contractor shall provide and maintain storage facilities and employ such measures as will preserve the specified quality and fitness of materials to be used in the Work. Stored materials shall be reasonably accessible for inspection. The Contractor shall also adequately protect new and existing work and all items of equipment for the duration of the Contract.

The Contractor shall not, without the Agency's consent, assign, sell, mortgage, hypothecate, or remove equipment or materials which have been installed or delivered and which may be necessary for the completion of the Contract.

4-1.3 Inspection Requirements

4-1.3.1 General. Unless otherwise specified, inspection is required at the source for asphalt concrete pavement mixtures, structural concrete, metal fabrication, metal casting, welding, concrete pipe manufacture, protective coating application, and similar shop or plant operations. Steel pipe in sizes less than 450 mm (18 inches), vitrified clay and cast iron pipe in all sizes are acceptable upon certification as to compliance with the Specifications, subject to sampling and testing by the Agency. Standard items of equipment such as electric motors, conveyors, elevators, plumbing fixtures, etc., are subject to inspection at the Work site only. Special items of equipment such as designed electrical panel boards, large pumps, sewage plant equipment, etc., are subject to inspection at the source, normally only for performance testing. The Specifications may require inspection at the source for other items not typical of those listed in this section.

4-1.3.2 Inspection of Materials Not Locally Produced. When the Contractor intends to purchase materials, fabricated products, or equipment from sources located more than 80 km (50 miles) outside the geographical limits of the Agency, an inspector or accredited testing laboratory (approved by the Engineer), shall be engaged by the Contractor at its expense, to inspect the materials, equipment or process. This approval shall be obtained before producing any material or equipment. The inspector or representative of the testing laboratory shall evaluate the materials for conformance with the Plans and Specifications. The Contractor shall forward reports required by the Engineer. No materials or equipment shall be shipped nor shall any processing, fabrication or treatment of such materials be done without proper inspection by the approved agent. Approval by said agent shall not relieve the Contractor of responsibility for complying with the Contract requirements.

4-1.3.3 Inspection by the Agency. The Agency will provide all inspection and testing laboratory services within 80 km (50 miles) of the geographical limits of the Agency.

4-1.3.4 Certificates of Compliance. The Engineer may require certificates of compliance with the Specifications for materials or manufactured items produced outside of the Work site. Such certificates will not relieve the Contractor from the requirements of providing material and manufactured items complying with the Specifications even though they have been incorporated into the Work.

4-1.4 Tests of Materials. Before incorporation in the Work, the Contractor shall submit samples of materials, as the Engineer may require, at no cost to the Agency. The Contractor, at its own expense, shall deliver the materials for testing to the place and at the time designated by the Engineer. Unless otherwise provided, all initial testing and a reasonable amount of retesting shall be performed under the direction of the Engineer, and at no expense to the Contractor. If the Contractor is to provide and pay for testing, the Specifications will so state.

The Contractor shall notify the Engineer in writing, at least 15 Days in advance, of its intention to use materials for which tests are specified, to allow sufficient time to perform the tests. The notice shall name the proposed supplier and source of material.

If the notice of intent to use is sent before the materials are available for testing or inspection, or is sent so far in advance that the materials on hand at the time will not last but will be replaced by a new lot prior to use on the Work, it will be the Contractor's responsibility to re-notify the Engineer when samples which are representative may be obtained.

4-1.5 Certification. The Engineer may waive materials testing requirements of the Specifications and accept the manufacturer's written certification that the materials to be supplied meet those requirements. Materials test data may be required as part of the certification.

4-1.6 Trade Names or Equals. The Contractor may supply any of the materials specified or offer an equivalent. The Engineer shall determine whether the material offered is equivalent to that specified. Adequate time shall be allowed for the Engineer to make this determination.

Whenever any particular material, process, or equipment is indicated by patent, proprietary or brand name, or by name of manufacturer, such wording is used for the purpose of facilitating its description and shall be deemed to be followed by the words **or equal**. A listing of materials is not intended to be comprehensive, or in order of preference. The Contractor may offer any material, process, or equipment considered to be equivalent to that indicated. The substantiation of offers shall be submitted as provided in the Contract Documents.

The Contractor shall, at its expense, furnish data concerning items offered by it as equivalent to those specified. The Contractor shall have the material tested as required by the Engineer to determine that the quality, strength, physical, chemical, or other characteristics, including durability, finish, efficiency, dimensions, service, and suitability are such that the item will fulfill its intended function.

Test methods shall be subject to the approval of the Engineer. Test results shall be reported promptly to the Engineer, who will evaluate the results and determine if the substitute item is equivalent. The Engineer's findings shall be final. Installation and use of a substitute item shall not be made until approved by the Engineer.

If a substitute offered by the Contractor is not found to be equal to the specified material, the Contractor shall furnish and install the specified material.

The specified Contract completion time shall not be affected by any circumstance developing from the provisions of this section.

4-1.6.1 Compatibility with Design. Where the size, configuration, weight, fastening locations, fastening strength, utility rough-in locations, and utility capacities of equipment or devices offered by the Contractor as equivalents do not conform to those provided for in the Contract Documents or those which are necessary for equipment or devices indicated by brand names, the Contractor shall bear all costs of redesign and changes in construction necessary to adapt the offered equipment or device to the Work.

Equipment or devices will not be considered "equal" where the life cycle cost of operation, utilities and maintenance of the offered alternate is greater than those listed by brand names. Life cycle costs shall mean utility charges (demand and usage charges), maintenance, operating personnel and replacement (equipment, installation and down time expenses) all reduced to an average annual rate using the current interest rate earned on funds invested by the County Treasurer.

4-1.6.2 Trade Names Listed. Where the Agency has listed products by brand or trade name on the Plans or in the Specifications, or both, this shall not be construed as meaning every product may be used without furnishing shop drawings, without redesign of the facility or without a change in utility rough-in requirements.

Where use of products listed on the Plans or in the Specifications, or both, or where use of a substitute proposed as an "equal" product requires shop drawings, redesign of the facility, or revisions in the size and location of rough-in utility connections, or in connecting work, the Contractor shall provide any necessary shop drawings, or shall cause the preparation of any necessary redesign or revisions to the Plans at its own expense and shall bear the full cost of any necessary additional construction or reconstruction work. No work described in shop drawings, a redesign, or a revision to the Plans shall be undertaken until such shop drawings, redesign, or revisions have been approved by the Engineer. Any proposed redesign or revision to the Plans shall be accompanied by complete computations and details prepared by an appropriate licensed design professional.

4-1.7 Weighing Equipment. All scales used for proportioning materials shall be inspected for accuracy and certified within the past 12 months by the State of California Bureau of Weights and Measures, by the County Director or Sealer of Weights and Measures, or by a scale mechanic registered with or licensed by the County.

The accuracy of the work of a scale service agency, except as stated herein, shall meet the standards of the California Business and Professions Code and the California Code of Regulations pertaining to weighing devices. A certificate of compliance shall be presented, prior to operation, to the Engineer for approval and shall be renewed whenever required by the Engineer at no cost to the Agency.

All scales shall be arranged so they may be read easily from the operator's platform or area. They shall indicate the true net weight without the application of any factor. The figures of the scales shall be clearly legible. Scales shall be accurate to within 1 percent when tested with the plant shut down. Weighing equipment shall be so insulated against vibration or moving of other operating equipment in the plant area that the error in weighing with the entire plant running will not exceed 2 percent for any setting nor 1.5 percent for any batch.

4-1.8 Calibration of Testing Equipment. Testing equipment, such as, but not limited to, pressure gages, metering devices, hydraulic systems, force (load) measuring instruments, and strain-measuring devices shall be calibrated by a testing agency acceptable to the Engineer at intervals not to exceed 12 months and following repairs, modification, or relocation of the equipment. Calibration certificates shall be provided when requested by the Engineer.

SECTION 5 - UTILITIES

5-1 LOCATION. The Permittee (in the case of Private Contracts) and the Agency (in the case of Cash or Assessment Act Contracts), will search known substructure records and furnish the Contractor with copies of documents which describe the location of utility substructures, or will indicate on the Plans for the project those substructures (except for service connections) which may affect the Work. Information regarding removal, relocation, abandonment, or installation of new utilities will be furnished to prospective bidders.

Where underground main distribution conduits such as water, gas, sewer, electric power, telephone, or cable television are shown on the Plans, the Contractor shall assume that every property parcel will be served by a service connection for each type of utility.

As provided in Section 4216 of the California Government Code, at least 2 working days prior to commencing any excavation, the Contractor shall contact the regional notification center (Underground Service Alert of Southern California) and obtain an inquiry identification number.

The California Department of Transportation is not required by Section 4216 to become a member of the regional notification center. The Contractor shall contact it for location of its subsurface installations.

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

5-2 PROTECTION. The Contractor shall not interrupt the service function or disturb the support of any utility without authority from the owner or order from the Agency. All valves, switches, vaults, and meters shall be maintained readily accessible for emergency shutoff.

Where protection is required to ensure support of utilities located as shown on the Plans or in accordance with 5-1, the Contractor shall, unless otherwise provided, furnish and place the necessary protection at its expense.

Upon learning of the existence and location of any utility omitted from or shown incorrectly on the Plans, the Contractor shall immediately notify the Engineer in writing. When authorized by the Engineer, support or protection of the utility will be paid for as provided in 3-2.2.3 or 3-3.

The Contractor shall immediately notify the Engineer and the utility owner if any utility is disturbed or damaged. The Contractor shall bear the costs of repair or replacement of any utility damaged if located as noted in 5-1.

When placing concrete around or contiguous to any non-metallic utility installation, the Contractor shall at its expense:

1. Furnish and install a 50 mm (2 inch) cushion of expansion joint material or other similar resilient material; or
2. Provide a sleeve or other opening which will result in a 50 mm (2 inch) minimum-clear annular space between the concrete and the utility; or
3. Provide other acceptable means to prevent embedment in or bonding to the concrete.

Where concrete is used for backfill or for structures which would result in embedment, or partial embedment, of a metallic utility installation; or where the coating, bedding or other cathodic protection system is exposed or damaged by the Contractor's operations, the Contractor shall notify the Engineer and arrange to secure the advice of the affected utility owner regarding the procedures required to maintain or restore the integrity of the system.

5-3 REMOVAL. Unless otherwise specified, the Contractor shall remove all interfering portions of utilities shown on the Plans or indicated in the Bid documents as "abandoned" or "to be abandoned in place". Before starting removal operations, the Contractor shall ascertain from the Agency whether the abandonment is complete, and the costs involved in the removal and disposal shall be included in the Bid for the items of work necessitating such removals.

5-4 RELOCATION. When feasible, the owners responsible for utilities within the area affected by the Work will complete their necessary installations, relocations, repairs, or replacements before commencement of work by the Contractor. When the Plans or Specifications indicate that a utility installation is to be relocated, altered, or constructed by others, the Agency will conduct all negotiations with the owners and work will be done at no cost to the Contractor, except as provided in 301-1.6. Utilities which are relocated in order to avoid interference shall be protected in their position and the cost of such protection shall be included in the Bid for the items of work necessitating such relocation.

After award of the Contract, portions of utilities which are found to interfere with the Work will be relocated, altered or reconstructed by the owners, or the Engineer may order changes in the Work to avoid interference. Such changes will be paid for in accordance with 3-2.

When the Plans or Specifications provide for the Contractor to alter, relocate, or reconstruct a utility, all costs for such work shall be included in the Bid for the items of work necessitating such work. Temporary or permanent relocation or alteration of utilities requested by the Contractor for its convenience shall be its responsibility and it shall make all arrangements and bear all costs.

The utility owner will relocate service connections as necessary within the limits of the Work or within temporary construction or slope easements. When directed by the Engineer, the Contractor shall arrange for the relocation of service connections as necessary between the meter and property line, or between a meter and the limits of temporary construction or slope easements. The relocation of such service connections will be paid for in accordance with provisions of 3-3. Payment will include the restoration of all existing improvements which may be affected thereby. The Contractor may agree with the owner of any utility to disconnect and reconnect interfering service connections. The Agency will not be involved in any such agreement.

5-5 DELAYS. The Contractor shall notify the Engineer of its construction schedule insofar as it affects the protection, removal, or relocation of utilities. Said notification shall be included as a part of the construction schedule required in 6-1. The Contractor shall notify the Engineer in writing of any subsequent changes in the construction schedule which will affect the time available for protection, removal, or relocation of utilities.

The Contractor will not be entitled to damages or additional payment for delays attributable to utility relocations or alterations if correctly located, noted, and completed in accordance with 5-1.

The Contractor may be given an extension of time for unforeseen delays attributable to unreasonably protracted interference by utilities in performing work correctly shown on the Plans.

The Agency will assume responsibility for the timely removal, relocation, or protection of existing main or trunkline utility facilities within the area affected by the Work if such utilities are not identified in the Contract Documents. The Contractor will not be assessed liquidated damages for any delay caused by failure of Agency to provide for the timely removal, relocation, or protection of such existing facilities.

If the Contractor sustains loss due to delays attributable to interferences, relocations, or alterations not covered by 5-1, which could not have been avoided by the judicious handling of forces, equipment, or plant, there shall be paid to the Contractor such amount as the Engineer may find to be fair and reasonable compensation for such part of the Contractor's actual loss as was unavoidable and the Contractor may be granted an extension of time.

5-5.1 Cooperation During Utility Relocation. When utilities are to be relocated during construction, the Contractor shall cooperate and coordinate with the respective utility owners so they may relocate their facilities to clear the Work. Delays in relocation of utilities which result from failure to cooperate and coordinate will not be a cause for an extension of time or Non-Working Days.

5-6 COOPERATION. When necessary, the Contractor shall so conduct its operations as to permit access to the Work site and provide time for utility work to be accomplished during the progress of the Work.

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK. The requirements of this section concerning submission of construction schedules shall not apply to projects where the time allowed to complete the Work is less than 25 Working Days or the total Contract Price bid is less than $75,000 unless required by the special provisions.

The Contractor shall submit a construction schedule concurrently with the submittal of signed Contract, Contract bonds, and certificate of insurance. The Notice to Proceed will be delayed until the schedule is received. See 6-7.4, Starting of Contract Time.

When required by the Special Provisions, a revised schedule shall be submitted monthly prior to each progress payment closure date. Processing of the progress payment will be delayed until such revised schedule complying with this section is received.

The construction schedule shall be in the form of a Construction Element vs. Time Chart as shown in Appendix B-1and a Work Complete vs. Time Chart as shown in Appendix B-2.

The B-1 Chart shall be in sufficient detail to show the chronological relationship of all activities of the project including, but not limited to, estimated starting and completion dates of various activities, submittal of shop drawings to the Engineer for approval, procurement of materials, and scheduling of equipment. The B-1 Chart shall recognize the requirements of 5-5. The B-1 Chart shall reflect obtaining all materials and completing all Work under the Contract within the specified time and in accordance with these Specifications. If the Contractor intends to complete the Work prior to the time for completion, the intended date of completion shall be set forth in the B-1 Chart and the Contractor shall execute a Contract Change Order that changes the number of Working Days allowed for completion to conform with such intended completion date. The Change Order shall not change the Contract Price.

The Contractor may submit a computer generated schedule in lieu of the form in Appendix B-1 and B-2, provided all of the elements shown on that form or specified herein are included.

An updated construction schedule shall be submitted prior to the next progress payment closure date whenever the actual percent Work complete versus percent time elapsed curve falls below and to the right of the dotted line shown on Appendix B-2.

If the Contractor desires to make a major change in its method of operations after commencing construction, or if its schedule fails to reflect the actual progress, it shall submit to the Agency a revised construction schedule in advance of beginning revised operations.

Revised and updated schedules shall show actual completion to the date of the revision in the lower segmented bar for each item.

The construction schedule shall be prepared as follows (see examples in Appendices C-1 and C-2):

1. On theB-1 Chart:
   a Enter the project name and Specification No. as shown on the notice inviting bids and the Contractors name.
   b. List the items of Work either individually or combined where items are part of the same element of the Work.
   c. Assign a value for each horizontal space plotting interval in Working Days as follows: 1 working day for total Contract time of less than 100 working days, 2 for 100 to 200 working days and 5 for longer projects. Enter the value used in the space provided in the lower part of the form.
   d. At the end of performance time and draw a vertical line and label it "End Performance Time". Enter numbers at 10 times the plotting interval at the top of intermediate vertical lines.
   e. Shade in a bar in the upper segmented section for each work item to indicate the period during which Work will be performed. Move-in time and delivery time for materials shall be shown if significant to the schedule.

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK. (Continued)

2. On the B-2 Chart:
   a. Enter the project name and Specification No. as shown on the notice inviting bids.
   b. At time intervals of 10 or 20 working days:
      (1) Compute the cumulative dollar value of Work which is expected to be completed for each item of Work, including the value of the completed portion of lump-sum items.
      (2) Divide the values computed in "b(1)" by the Total Contract Price to determine the percentage of the entire Contract planned for completion at the end of each time interval.
      (3) Divide the days of performance time at the end of each time interval by the total Contract performance time to obtain the percentage of elapsed performance time.
   c. Plot each percentage of completion value figure computed in "b(2)" against the corresponding percentage of completion time computed in "b(3)" using scales on the bottom and left side of chart.
   d. Connect points plotted in "c" with a line which will show the planned progress for the entire job.

If the proposed percent Work complete versus percent time elapsed line falls below and to the right of the dotted line drawn on the B-2 Chart, the Contractor shall provide sufficient information and backup to show that the Work can be completed on time.

6-1.1 Beginning of Work. The issuance of Notice to Proceed by Agency shall constitute the Contractor's authority to enter upon the site of the Work and to begin operations provided it has also notified Engineer at least 24 hours in advance. Entry upon the site without authority will be treated as trespassing.

6-1.2 Starting Work. The Contractor may start work at any time after the Notice to Proceed is issued but work shall begin within 15 Days after the starting date for the Contract, or at such other time as may be indicated in the Special Provisions. The actual date on which the Contractor starts work will not affect the required time for completion as provided for in 6-7 and 6-7.1.

6-1.3 Work Sequence. If required by the Special Provisions, the Contractor shall start construction operations on that part of the Work designated by the Engineer.

6-1.4 Resources Required. The Work shall be conducted in such a manner and with sufficient materials, equipment, and labor to insure its completion in accordance with the Plans and Specifications within the time set forth in the Contract.

6-2 PROSECUTION OF WORK. To minimize public inconvenience and possible hazard and to restore streets and other Work areas to their original condition and former state of usefulness as soon as practicable, the Contractor shall diligently prosecute the Work to completion. If, in the Engineer's opinion, the Contractor fails to prosecute the Work to the extent that the above purposes are not being accomplished, the Contractor shall, upon orders from the Engineer, immediately take the steps necessary to fully accomplish said purposes. All costs of prosecuting the Work as described herein shall be absorbed in the Contractor's bid. Should the Contractor fail to take the necessary steps to fully accomplish said purposes, after orders of the Engineer to do so, the Engineer may suspend the Work in whole or in part, until the Contractor takes said steps.

As soon as possible under the provisions of these Specifications, the Contractor shall backfill all excavations and restore to usefulness all improvements existing prior to the start of the Work.

If Work is suspended through no fault of the Agency, all expenses and losses incurred by the Contractor during such suspensions shall be borne by the Contractor. If the Contractor fails to properly provide for public safety, traffic, and protection of the Work during periods of suspension, the Agency may elect to do so, and deduct the cost thereof from monies due the Contractor. Such action will not relieve the Contractor from liability.

6-3 SUSPENSION OF WORK

6-3.1 General. The Work may be suspended in whole or in part when determined by the Engineer that the suspension is necessary in the interest of the Agency. The Contractor shall comply immediately with any written order of the Engineer. Such suspension shall be without liability to the Contractor on the part of the Agency except as otherwise specified in 6-6.3.

6-3.2 Archaeological and Paleontological Discoveries. If discovery is made of items of archaeological or paleontological interest, the Contractor shall immediately cease excavation in the area of discovery and shall not continue until ordered by the Engineer. When resumed, excavation operations within the area of discovery shall be as directed by the Engineer.

Discoveries which may be encountered may include, but not be limited to, dwelling sites, stone implements or other artifacts, animal bones, human bones and fossils.

The Contractor shall be entitled to an extension of time and compensation in accordance with the provisions of 6-6.

6-3.3 Temporary Suspension of Work. Should suspension of Work be ordered by reason of the failure of the Contractor to carry out orders or to perform any provisions of the Contract; or by reason of weather conditions being unsuitable for performing any item or items of Work; the Contractor, at its expense, shall do all the work necessary to provide a safe, smooth, and unobstructed passageway through construction for use by public traffic during the period of such suspension. In the event that the Contractor fails to perform the work above specified, the Agency may perform such work and the cost thereof will be deducted from monies due or to become due the Contractor.

If the Engineer orders a suspension of all of the Work, or a portion of the Work which is the current controlling operation or operations, due to unsuitable weather or to such other conditions as are considered unfavorable to the suitable prosecution of the Work, the days on which the suspension is in effect shall not be considered Working Days.

If a portion of Work at the time of such suspension is not a current controlling operation or operations, but subsequently does become the current controlling operation or operations, the determination of Working Days will be made on the basis of the then current controlling operation or operations.

If a suspension of Work is ordered by the Engineer due to the failure on the part of the Contractor to carry out orders given or to perform any provision of the Contract, the Days on which the suspension order is in effect shall be considered Working Days if such days are Working Days as defined.

6-4 TERMINATION OF THE CONTRACT FOR DEFAULT..

6.4.1 General. If, prior to the acceptance of the Work, the Contractor:

a) becomes insolvent, assigns its assets for the benefit of its creditors, is unable to pay its debts as they become due, or is otherwise financially unable to complete the Work,

b) abandons the Work by failing to report to the Work site and diligently prosecute the Work to completion,

c) disregards written instructions from the Agency or materially violates provisions of the Contract Documents,

d) fails to prosecute the Work according to the schedule approved by the Engineer,

e) disregards laws or regulations of any public body having jurisdiction, or

f) commits continuous or repeated violations of regulatory or statutory safety requirements, then the Agency will consider the Contractor in default of the Contract.

Notices, and other written communications regarding default between the Contractor, the Agency, and the Surety shall be transmitted in accordance with 2-12.

6-4.2 Notice to Cure. The Agency will issue a written notice to cure the default to the Contractor and its Surety. The Contractor shall commence satisfactory corrective actions within 5 Working Days after receipt.

6-4.3 Notice of Termination for Default. If the Contractor fails to commence satisfactory corrective action within 5 Working Days after receipt of the notice to cure, or to diligently continue satisfactory and timely correction of the default thereafter, then the Agency will consider the Contractor in default of the Contract and:

a) will terminate the Contractor's right to perform under the Contract by issuing a written notice of termination for default to the Contractor and its Surety,

b) may use any materials, equipment, tools or other facilities furnished by the Contractor to secure and maintain the Work site, and

c) may furnish labor, equipment, and materials the Agency deems necessary to secure and maintain the Work site. The provisions of this subsection shall be in addition to all other legal rights and remedies available to the Agency.

6-4.4 Responsibilities of the Surety. Upon receipt of the written notice of termination for default, the Surety shall immediately assume all rights, obligations and liabilities of the Contractor under the Contract. If the Surety fails to protect and maintain the Work site, the Agency may do so, and may recover all costs incurred. The Surety shall notify the Agency that it is assuming all rights, obligations and liabilities of the Contractor under the Contract and all money that is due, or would become due, to the Contractor shall be payable to the Surety as the Work progresses, subject to the terms of the Contract.

Within 15 Working Days of receipt of the written notice of termination for default, the Surety shall submit to the Agency a written plan detailing the course of action it intends to take to remedy the default. The Agency will review the plan and notify the Surety if the plan is satisfactory. If the Surety fails to submit a satisfactory plan, or if the Surety fails to maintain progress according to the plan accepted by the Agency, the Agency may, upon 48 hours written notice, exclude the Surety from the premises, take possession of all material and equipment, and complete the Work in any way the Agency deems to be expedient. The cost of completing the Work by the Agency shall be charged against the Surety and may be deducted from any monies due, or which would become due, the Surety. If the amounts due under the Contract are insufficient for completion, the Surety shall pay to the Agency, within 30 days after the Agency submits an invoice, all costs in excess of the remaining Contract Price.

6-4.5 Payment. The Surety will be paid for completion of the Work in accordance with 9-3 less the value of damages caused to the Agency by acts of the Contractor.

6-5 TERMINATION OF CONTRACT. The Board may terminate the Contract at its own discretion or when conditions encountered during the Work make it impossible or impracticable to proceed, or when the Agency is prevented from proceeding with the Contract by act of God, by law, or by official action of a public authority.

The Agency will issue a written notice of termination for convenience in accordance with 2-12. Upon receipt, the Contractor shall immediately cease work, except work the Contractor is directed to complete by the Engineer or required to complete for public safety and convenience. The Contractor shall immediately notify Subcontractors and suppliers to immediately cease their work.

The Contractor will be paid without duplication for:

a) work completed in accordance with the Contract Documents prior to the effective date of termination for convenience;

b) reasonable costs incurred in settlement of terminated contracts with Subcontractors, suppliers and others; and

c) reasonable expenses directly attributable to termination.

The Contractor shall submit a final termination settlement proposal to the Agency no later than 90 days from the effective date of termination, unless extended, in writing, by the Agency upon written request by the Contractor.

If the Contractor fails to submit a proposal, the Agency may determine the amount, if any, due the Contractor as a result of the termination. The Agency will pay the Contractor the amount it determines to be reasonable. If the Contractor disagrees with the amount determined by the Agency as being reasonable, the Contractor shall provide notice to the Agency within 30 days of receipt of payment. Any amount due shall be as later determined by arbitration, if the Agency and the Contractor agree thereto, or as fixed in a court of law.

6-6 DELAYS AND EXTENSIONS OF TIME

6-6.1 General. If delays are caused by unforeseen events beyond the control of the Contractor, such delays will entitle the Contractor to an extension of time as provided herein, but the Contractor will not be entitled to damages or additional payment due to such delays, except as provided in 6-6.3. Such unforeseen events may include war, government regulations, labor disputes, strikes, fires, floods, adverse weather necessitating cessation of work, other similar action of the elements, inability to obtain materials, equipment or labor, required Extra Work, or other specific events as may be further described in the Specifications.

No extension of time will be granted for a delay caused by the Contractor's inability to obtain materials unless the Contractor furnishes to the Engineer documentary proof of the inability to obtain such materials in a timely manner in accordance with the sequence of the Contractor's operations and the approved construction schedule.

If delays beyond the Contractor's control are caused by events other than those mentioned above, but substantially equal in gravity to those enumerated, and an extension of time is deemed by the Engineer to be in the best interests of the Agency, an extension of time may be granted, but the Contractor will not be entitled to damages or additional payment due to such delays, except as provided in 6-6.3.

If delays beyond the Contractor's control are caused solely by action or inaction by the Agency, such delays will entitle the Contractor to an extension of time as provided in 6-6.2.

6-6.2 Extensions of Time. Extensions of time, when granted, will be based upon the effect of delays to the Work as a whole and will not be granted for noncontrolling delays to minor included portions of Work unless it can be shown that such delays did, in fact, delay the progress of the Work as a whole.

6-6.3 Payment for Delays to Contractor. The Contractor will be compensated for damages incurred due to delays for which the Agency is responsible if such delays are unreasonable in the circumstances involved and were not within the contemplation of the parties when the Contract was awarded to the Contractor and delay the Work as a whole. Such actual costs will be determined by the Engineer. The Agency will not be liable for, and in making this determination the Engineer will exclude, all damages which the Engineer determines the Contractor could have avoided by any reasonable means including, without limitation, the judicious handling of forces, equipment, or plant.

6-6.4 Written Notice and Report. If the Contractor desires payment for a delay as specified in 6-6.3 or an extension of time, it shall, within 30 Days after the beginning of the delay, file with the Agency a written request and report as to the cause and extent of the delay. The request for payment or extension must be made at least 15 Days before the specified completion date. Failure by the Contractor to file these items within the time specified will be considered grounds for refusal by the Agency to consider such request.

6-6.4.1 Documentation of Delays. When the Contractor requests an extension of time for delay due to inability to obtain materials or equipment, the documentary proof required by 6-6.1 shall include the following:

1. Date Engineer was notified of delay.
2. Date the delay began.
3. Exact description of material or equipment causing delay.
4. Documentation showing when and from whom ordered.
5. Documentation of promise to deliver.
6. Documentation of actual delivery date.
7. Description of how late delivery caused delay (include construction schedule).
8. Documentation of measures taken to get prompt delivery.
9. Documentation of attempts to get delivery from other sources.
10. Description of steps taken in project scheduling to minimize effects of late delivery.
11. Description of steps taken to get project back on schedule after actual delivery.
12. Statement of actual time lost as a result of late delivery.

6-7 TIME OF COMPLETION

6-7.1 General. The Contractor shall complete the Work within the time set forth in the Contract. The Contractor shall complete each portion of the Work within such time as set forth in the Contract for such portion. Unless otherwise specified, the time of completion of the Contract shall be expressed in Working Day

6-7.2 Working Day. A Working Day is any day within the period between the start of the Contract time as defined in 6-1 and the date provided in the Contract for completion or upon field acceptance by the Engineer of all Work provided for in the Contract, whichever occurs first, other than:

(1) Saturday,
(2) Sunday,
(3) any day designated as a holiday by the Agency,
(4) any other day designated as a holiday in a Master Labor Agreement entered into by the Contractor or on behalf of the Contractor as an eligible member of a Contractor Association,
(5) any day the Contractor is prevented from working at the beginning of the workday for cause as defined in 6-6.1,
(6) any day the Contractor is prevented from working during the first 5 hours of the workday with at least 60 percent of the normal work force for cause as defined in 6-6.1.

6-7.2.1 Holidays. Solely for the purposes of paragraph (3) of 6-7.2, the following days are designated as holidays by the Agency.

	A	B
MONTH	AGENCY EMPLOYEE HOLIDAYS	OTHER DESIGNATED HOLIDAYS
January	1st day; 3rd Monday	None
February	3rd Monday	12th day
March	None	31st day
March-April	None	One Friday between March 21 and April 23 designated as Good Friday
May	Last Monday	None
June	None	None
July	4th day	None
August	None	None
September	1st Monday	9th day
October	None	2nd Monday
November	11th day; 4th Thursday	the Friday following the 4th Thursday
December	25th	23rd day, only if Thursday or Friday; 24th day; 31st day

If any day listed above falls on Saturday, the preceding Friday is the holiday. If any day listed above falls on Sunday, the succeeding Monday is the holiday.

No extra holiday shall result when such Friday or Monday is already designated as a holiday.
A copy of a Working Day calendar incorporating the above-listed holidays and used by the Agency for Contract time accounting purpose will be furnished to the Contractor upon request.

The term "holiday" as used in this section shall not be construed as being the same as "holiday" within the meaning of 7-2.2.

The Contractor may perform work on the holidays designated in Column A above provided it has obtained prior written approval of the Engineer at least two Days in advance of performing the work. The Contractor may perform work on the holidays designated in Column B above provided the Contractor notifies the Engineer two Days in advance of the holiday.

6-7.2.2 Landscape Maintenance Period. Where a landscape maintenance period is specified, the portion of the time in such period that follows the completion of all other Work required by the Contract shall not be Working Days for Contract time accounting.

6-7.3 Contract Time Accounting. The Engineer will make a daily determination of each Working Day to be charged against the Contract time. These determinations will be discussed and the Contractor will be furnished a periodic statement showing the allowable number of Working Days of Contract time, as adjusted, at the beginning of the reporting period. The statement will also indicate the number of Working Days charged during the reporting period and the number of Working Days of Contract time remaining. If the Contractor does not agree with the statement, the Contractor must file a written protest within 15 Days after receipt, setting forth the facts of the protest. Otherwise, the statement will be deemed to have been accepted.

6-7.4 Starting Date for Contract Time and Notice to Proceed. The starting date for Contract time accounting will be determined by adding the number of Days indicated on the Proposal form to the date the Contract is awarded, however the Agency may, at its option, delay the starting date by not more than 60 calendar Days if necessary to obtain permits, rights-of-way, or approval of federal or State authorities, or when prevented from starting the project due to causes beyond its control. Notice to Proceed will be issued within 7 calendar Days after the Contract, bonds, certificates of insurance and other documents have been returned, properly completed by the Contractor, unless the starting date is delayed as herein provided. If the Agency delays the Contract starting date, Notice to Proceed will be issued at least 7 calendar Days prior to the new starting date. Any delay caused by failure of the Contractor to properly complete or timely return the Contract Documents shall not change the Contract starting date and shall not be a cause for extending the Contract time. The Notice of Award will indicate a probable Contract starting date. The Notice to Proceed will indicate the actual Contract starting date, computed as herein described.

6-8 COMPLETION, ACCEPTANCE AND WARRANTY.

6-8.1 Completion and Acceptance. Acknowledgment of completion of the Work will occur prior to Acceptance by the Agency. Acceptance will only occur after all Contract requirements have been fulfilled, such as training, submission of warranties, maintenance manuals, record drawings, Release on Contract and the like. Acceptance by the Agency will occur when the Engineer signs the Notice of Completion.
The Work will be inspected by the Engineer promptly upon receipt of the Contractor's written assertion that the Work has been completed. If, in the Engineer's judgment, the Work has been completed in accordance with the Plans and Specifications, the Engineer will acknowledge completion of the Work. Completion of the Work, as used above, shall include the Contractor showing evidence of having received an occupancy clearance from Building and Safety, or other permit issuing agency, when a building, plumbing electrical, grading, or other permit is required for the Work. The Engineer will, in acknowledging completion of the Work, set forth in writing the date when the Work was completed. This will be the date when the Contractor is relieved from responsibility to protect the Work. This will also be the date to which liquidated damages will be computed.

6-8.2 Warranty and Correction

6-8.2.1 Warranty The Contractor warrants to the Agency that materials and equipment furnished under the Contract will be new, unless otherwise specified in the Contract Documents, and of good quality, that the Work will be free from defects in materials and workmanship and that the Work will conform to the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective by the Agency. This warranty excludes damage or defect caused by abuse (other than by the Contractor or those under the control of the Contractor), modifications not executed by the Contractor, or improper or insufficient maintenance. This warranty excludes normal wear and tear. Nothing in this warranty is intended to limit any manufacturer's warranty which provides the Agency with greater warranty rights.

6-8.2.2 Correction Period For a period of one (1) year from the date of acceptance of the Work by the Agency, the Contractor shall repair or replace any defective workmanship or materials or Work not in conformance with the Contract Documents after notice to do so from the Engineer, and within the time specified in the notice. If the Contractor fails to make such repair or replacement within the time specified in the notice, the Agency may perform the repair or replacement and the Contractor and the Contractor's sureties shall be liable for the cost thereof. The one (1) year period referenced in this section 6-8.2.2 applies only to the Contractor's obligation to repair or replace defective workmanship or materials or Work not in conformance with the Contract Documents and is not intended to constitute a period of limitations for any other rights or remedies the Agency may have regarding the Contractor's other obligations under the Contract Documents.

6-8.3 No Waiver of Legal Rights. The Agency shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and Acceptance of the Work and payment therefor from showing the true amount and character of the Work performed and materials furnished by the Contractor, nor from showing that any such measurement, estimate, or certificate is untrue or is incorrectly made, nor that the Work or materials do not in fact conform to the Contract.

The Agency shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor or its sureties, or both, such damages as it may sustain by reason of the Contractor's failure to comply with the terms of the Contract.

Neither the Acceptance by the Engineer or by its representative, nor any payment for or Acceptance of the whole or any part of the Work, nor any extension of time, nor any possession taken by the Engineer shall operate as a waiver of any portion of the Contract or of any power herein reserved, or of any right to damages.

A waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.

6-8.4 Landscape Maintenance Period. Final Acceptance of the Contract shall follow the satisfactory completion of all Contract Work, including the landscape maintenance period if one is specified.

6-8.5 Non-complying Work. Neither the final certificate of payment nor any provision in the Contract Documents, nor partial or entire occupancy of the premises by the Agency, shall constitute an Acceptance of Work not done in accordance with the Contract Documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship.

6-8.6 Written Warranties. The Contractor shall obtain and deliver to the Engineer all written warranties required to be furnished by the Specifications. Each of such warranty shall be underwritten by the Contractor for the full period prescribed therein, and shall bear its endorsement to such effect.

6-9 LIQUIDATED DAMAGES. Failure of the Contractor to complete the Work within the time allowed will result in damages being sustained by the Agency. Such damages are, and will continue to be, impracticable and extremely difficult to determine. For each consecutive calendar day in excess of the time specified, as adjusted in accordance with 6-6, for completion of the Work the Contractor shall pay to the Agency, or have withheld from monies due it, the sum of $250, unless otherwise provided in the Contract Documents.

Execution of the Contract under these Specifications shall constitute agreement by the Agency and Contractor that $250 per day is the minimum value of the costs and actual damage caused by failure of the Contractor to complete the Work within the allotted time, that such sum is liquidated damages and shall not be construed as a penalty, and that such sum may be deducted from payments due the Contractor if such delay occurs.

6-10 USE OF IMPROVEMENT DURING CONSTRUCTION. The Agency reserves the right to take over and utilize all or part of any completed facility or appurtenance. The Contractor will be notified in writing in advance of such action. Such action by the Agency will relieve the Contractor of responsibility for injury or damage to said completed portions of the improvement resulting from use by public traffic or from the action of the elements or from any other cause, except injury or damage resulting from the Contractor's operations or negligence. The Contractor will not be required to reclean such portions of the improvement before field completion, except for cleanup made necessary by its operations. Nothing in this section shall be construed as relieving the Contractor from full responsibility for correcting defective work or materials.

In the event the Agency exercises its right to place into service and utilize all or part of any completed facility or appurtenance, the Agency shall assume the responsibility and liability for injury to persons or property arising out of or resulting from the utilization of the facility or appurtenance so placed into service, except for any willful or negligent act or omission by the Contractor, Subcontractor, their officers, employees or agents.

6-10.1 Use of Improvements - Exceptions. The provisions of 6-10 shall not apply to projects for the repair, modification, enlargement or improvement of existing facilities that are to remain in use during construction except where a portion of the project which is completely independent from the rest of the Work can be completed and put into use by the Agency.

On projects on public roads, after satisfactory completion of an isolated section of the Work involving roadway improvements or repairs, when all temporary signs and other temporary Contractor facilities have been removed, the section is not being used as a detour, the section is no longer under the Contractor's control, and the section is opened to public traffic through the end of the Contract period, that section of the Work shall be taken over by the Agency as provided in 6-10. The Contractor shall indicate to the Engineer in writing when the conditions of this paragraph have been complied with and shall specify the limits of the section involved. Any taking over of the Work by the Agency shall be effective only when formal written notification is issued by the Agency.

6-11 NOTICE OF POTENTIAL CLAIM FOR ADDITIONAL COMPENSATION. Procedures for notice of claims in specific situations and circumstances are provided in the following sections:

3-4 ....Changed Conditions
6-6.4 ....Delay and Extensions of Time
6-7.3 ....Contract Time Accounting

Compliance with this section is not prerequisite to assertion of a claim involving those sections or based on differences in measurements or errors of computation as to Contract quantities.

Compliance with the provisions of this section is required in all other situations and circumstances.

It is the intention of this section that differences arising between the parties under and by virtue of the Contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action taken to resolve such differences.

The Contractor shall give the Engineer written notice of a potential claim, setting forth: (1) the reasons for which the Contractor believes additional compensation will or may be due; (2) the nature of the costs involved; and (3) insofar as possible, the amount of the potential claim.

If the claim is based upon an act or failure to act by the Engineer, the said notice must be given to the Engineer prior to the date when the work giving rise to the potential claim is commenced; in all other cases the said notice must be given to the Engineer within 15 Days after the happening of the event, thing or occurrence giving rise to the potential claim.

The Contractor shall not be entitled to the payment of any additional compensation where the written notice of potential claim has not been given to the Engineer in the manner required by and within the time limitations of this section.

6-12 DISPUTES AND CLAIMS; PROCEDURE.

6-12.1 GENERAL. Any and all decisions made on appeal pursuant to this section shall be in writing. Any "decision" purportedly made pursuant to this section which is not in writing shall not be binding upon the Agency and should not be relied upon by the Contractor.

Filing or giving the notices required under 3-4, 6-6.4, 6-7.3 and 6-11 is prerequisite to recovery under a Contractor's claim for additional compensation; nothing in this section shall excuse the Contractor from its duty to file or give the required notices, or from performing other duties required by the Contract Documents.

6-12.2 ADMINISTRATIVE REVIEW. Prior to proceeding under 6-12.3 or filing a Complaint in Arbitration, the Contractor shall exhaust its administrative remedies by submitting its claim for review and decision by the following Agency staff in the following sequence:

Project Manager, responsible for the project
Department Director (Public Works Agency), responsible for the project.
Director of the Public Works Agency (the Engineer)

If the Contractor disputes the Project Manager's decision on its claim, the Contractor shall submit the claim to the Department Director. If the Contractor disputes the Department Director's decision on its claim, the Contractor shall submit the claim to the Engineer. Agency staff decisions shall state the portion of the claim that is undisputed if any.

The Project Manager may elect to forward a claim submitted by the Contractor directly to the Department Director. The Project Manager must give the Contractor notice of that election and the Contractor may supplement its claim within 7 Days of such notice (unless the parties agree in writing to a different time) and its claim will be deemed submitted on the earlier of the day it supplements its claim, the day it states in writing that it will not supplement its claim or the day time to supplement expires. The Department Director may forward a claim timely submitted by the Contractor directly to the Engineer instead of making a decision on the claim, in which case no notice or opportunity to supplement the claim is required, and the claim shall be deemed timely submitted to the Engineer.

The Engineer's decision on the claim shall be the Agency's final decision.

Claims submitted to the Department Director and the Engineer shall be submitted in writing and shall include:

a. A copy of the disputed decision.
b. A statement as to why the Contractor believes the decision is in error.
c. All information, argument, documents and evidence (collectively, materials) that the Contractor wishes to have considered in the review. Where the request for review is made to the Engineer, in lieu of resubmitting materials which have already been submitted to the Department Director, the Contractor may include with the request a list of the materials the Contractor wants the Engineer to consider. Any additional materials and evidence not previously submitted to the Department Director shall be included with the request to the Engineer, if the Contractor wishes them to be considered. If relevant evidence is not available at the time the request is made to the Department Director or the Engineer, the Contractor shall identify such evidence and include a statement as to when such evidence will be submitted.

The Project Manager shall issue a decision on a claim within 10 Days of receipt; if the Project Manager does not do so, then the Project manager will be deemed to have decided to reject the claim in its entirety as of the conclusion of the 10th Day after receipt. The Contractor shall submit a claim to the Department Director for review and decision within 7 Days of receipt of the Project Manager's decision or of the time the Project Manager is deemed to have decided to reject the claim, whichever is applicable. The Department Director shall issue a decision on a claim within 10 Days of the timely submission of the claim; if the Department Director does not do so, then the Department Director will be deemed to have decided to reject the claim in its entirety as of the conclusion of the 10th Day after timely submission. The Contractor shall submit a claim to the Engineer for review and decision within 7 Days of receipt of the Department Director's decision or of the time the Department Director is deemed to have decided to reject the claim, whichever is applicable. If a claim is timely submitted to the Engineer and the Engineer fails to issue a decision on that claim within the time limits prescribed for issuing a written statement under Public Contract Code, section 9204, subdivision (d)(1), the Engineer shall be deemed to have decided to reject the claim in its entirety. At any time after the Project Manager receives a claim, the Agency and Contractor may agree in writing to different time limits than those set forth in this paragraph.

6-12.3 MEET AND CONFER; MEDIATION If the Contractor disputes the Agency's final decision, the Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. 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 within 30 Days for settlement of the dispute.

Within 10 business 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 60 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 Contractor shall agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the Agency and Contractor 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 applicable procedures outside this section.

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.

Failure by the Agency to meet the time requirements of this section shall result in the portion of the claim that remains in dispute being deemed rejected in its entirety.

The parties may agree to waive, in writing, mediation under this section.

6-12.4 ARBITRATION. Claims and disputes arising under or related to the performance of the Contract, for which mediation under 6-12.3 was waived or unsuccessful except for claims which have been released by execution of the "Release on Contract" as provided in 9-4, shall be resolved by arbitration unless the Agency and the Contractor agree in writing, after the claim or dispute has arisen, to waive arbitration and to have the claim or dispute litigated in a court of competent jurisdiction. Arbitration shall be pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2 of the Public Contract Code and the regulations promulgated thereto, Chapter 4 (commencing with Section 1300) of Division 2 of Title 1 of the California Code of Regulations. The arbitration decision shall be decided under and in accordance with California law, supported by substantial evidence and, in writing, contain the basis for the decision, findings of fact, and conclusions of law.

Arbitration shall be initiated by a Complaint in Arbitration made in compliance with the requirements of said Chapter 4. A Complaint in Arbitration by the Contractor shall be filed not later than 90 calendar Days after receipt of the final written decision of the Agency on the claim or dispute or within 300 Days after Acceptance of the Work by the Agency if no written decision has been issued. For the purposes of this section, "Acceptance of the Work by the Agency" shall be defined as the date the Notice of Completion is filed.

Where an election is made by either party to use the Simplified Claims Procedure provided under Sections 1340-1346 of said Chapter 4, the parties may mutually agree to waive representation by counsel.

All contracts valued at more than $25,000 between the Contractor and its subcontractors and suppliers shall include a provision that the subcontractors and suppliers shall be bound to the Contractor to the same extent that the Contractor is bound to the Agency by all terms and provisions of the Contract, including this arbitration provision.

6-13 CONTRACTOR'S WORK HOURS

6-13.1 Working Hours Limitations. Except as otherwise specified, no work shall be performed by the Contractor at the Work site between the hours of 7:00 p.m. and 7:00 a.m. the following day, nor shall work be performed on Saturdays, Sundays or holidays listed in 6-7.2.1.

6-13.2 Regular Work Schedule. The Contractor shall furnish a work schedule with the Construction Schedule required by 6-1 and inform the Engineer at least two Days in advance of changing the schedule. The schedule shall include the times for starting and ending work on each day. Such starting and ending times shall not be more than 10 1/2 hours apart.

6-13.3 Exceptions. The limitations on working hours and days shall not apply to emergency work made necessary by unusual conditions where such work is necessary to protect the Work, to protect the property of others, to protect life, or to ensure the orderly flow of traffic.

The limitations of this section shall not apply where work at times other than allowed by 6-13.1 and 6-13.2 is necessary in order to make utility connections or is required by other provisions contained in these Specifications in order to perform the work in the manner specified. In these cases, the Contractor shall obtain prior written approval of the Engineer at least two Days in advance of performing the work.

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

7-1 THE CONTRACTOR'S EQUIPMENT AND FACILITIES.

7-1.1 General. The Contractor shall furnish and maintain in good condition all equipment and facilities as required for the proper execution and inspection of the Work.

The Contractor shall provide and maintain enclosed toilets for the use of employees engaged in the Work. These accommodations shall be maintained in a neat and sanitary condition, and regularly pumped out.

7-1.2 Temporary Utility Services. The Contractor shall, at its own expense, make all arrangements necessary for the provision of temporary utility services necessary for its own use during performance of the Work.

The Contractor shall not draw water from any fire hydrant (except to extinguish a fire), without obtaining permission from the water utility owner.

7-1.3 Crushing and Screening Operations. Unless otherwise specified in the Special Provisions, the establishment and operation of portable screens and crushers will not be allowed on or adjacent to the Work site.

7-2 LABOR

7-2.1 General. The Contractor, its agents, and employees shall be bound by and comply with applicable provisions of the Labor Code and Federal, State, and local laws related to labor.
Any worker found by the Engineer to be incompetent, intemperate, troublesome, disorderly, or otherwise objectionable, or who fails to perform the Work properly and acceptably, shall be immediately removed from the Work site by the Contractor and shall not be reemployed in the performance on the Work.

7-2.1.1 Special Qualifications. Where the Engineer determines certain portions of the Work require experience, training, certification or other special qualifications that may not be possessed by the average journeyperson, such portions of the Work will be specifically identified in the Special Provisions and the special qualifications identified.

When work requiring special qualifications is being performed, a person with such qualifications must be in immediate charge of the work. The person may be a lead journeyperson, foreperson or trade superintendent. The general superintendent or a foreperson who is not specifically assigned to the area where the identified work is being performed will not be considered to be in immediate charge of the work.

Written certification of the required qualifications shall be furnished to the Engineer at least one week prior to the time work is commenced on the work requiring such qualifications. Such certification is subject to review and acceptance by the Engineer. If, during performance of work requiring special qualifications, the qualified person becomes temporarily or permanently unavailable to the Contractor, work shall not proceed until a qualified replacement has been accepted by the Engineer. The Engineer will promptly consider the certification of the replacement.

If identified work is performed without a person having the special qualifications in charge, the Engineer may, at its sole discretion, order such work removed and replaced at the Contractor's expense.

If, after certification is accepted, the Engineer finds that the certification was inaccurate, or work on the project indicates a lack of the knowledge and experience to supervise the work, the Engineer may order the work stopped until an acceptable replacement has been certified, accepted and is in charge.

7-2.2 Prevailing Wages. Pursuant to Section 1773.2 of the Labor Code, the current prevailing rate of per diem wages at the time of the Bid as determined by the Director of the Department of Industrial Relations (DIR) are on file at the office of the Engineer. The Contractor shall post a copy of these rates at the Work site. Pursuant to Section 1774 of the Labor Code, the Contractor and any Subcontractors shall pay not less than the specified prevailing rates of wages to workers employed on the Contract. If the Contract is Federally-funded, the Contractor and any Subcontractors shall not pay less than the higher of these rates or the rates determined by the United States Department of Labor. Pursuant to Section 1775 of the Labor Code, the Contractor and any Subcontractors, shall, as a penalty to the Agency, forfeit the prescribed amounts per calendar day, or portion thereof, for each worker paid less than the prevailing wage rates. The project is subject to the compliance monitoring and enforcement by the California Department of Industrial Relations (DIR). The contractor is responsible for posting job site notices as prescribed by regulation pursuant to Labor Code section 1771.4, subdivision (a)(2). The Contractor and each Subcontractor, if any, must be registered with the DIR pursuant to Labor Code section 1725.5 and section 1771.1. The Contractor and each Subcontractor, if any, must submit certified payrolls to the Labor Commissioner pursuant to Labor Code 1771.4.

7-2.2.1 Apprentices. Apprentices shall be employed on the Work in accordance with Labor Code Section 1777.5. The Contractor is responsible for compliance with Labor Code Section 1777.5 for all apprenticeable occupations whether employed directly or through subcontractors.

7-2.2.2 Contractors' Duties Concerning Labor Code Compliance. As required by Labor Code 1775(b)(1), Labor Code Sections 1771, 1775, 1776, 1777.5, 1813 and 1815 are required to be included in the contract between the Contractor and subcontractors. The Contractor agrees to comply with these sections and all remaining provisions of the Labor Code.

7-2.3 Payroll Records. Pursuant to Section 1776 of the Labor Code the Contractor and each Subcontractor, if any, shall keep, make available, and submit to the Engineer within ten (10) days of receipt of a written request,

certified payroll records. Pursuant to Labor Code section 1776, subsection (h), the Contractor and each Subcontractor, if any, shall, as a penalty to the Agency, forfeit the prescribed amount for each calendar day, or portion thereof, for each worker, the Contractor and each Subcontractor, if any, fails to comply with that subsection until strict compliance is effectuated. The Contractor and each Subcontractor, if any, waives any right to any notice or hearing on the forfeiture of such penalties pursuant to Labor Code sections 1726 or 1771.6. The contractor shall include the in its subcontracts as required to make this paragraph effective as to each Subcontractor. Upon written request, the Contractor shall withhold penalties forfeited by a Subcontractor pursuant to Labor Code section 1776,l subsection (h), and this paragraph from payment due to such Subcontractor and remit such penalties withheld to the Agency.

7-2.4 Hours of Labor. Pursuant to Section 1810 of the Labor Code, 8 hours of labor shall constitute a legal day's work. Pursuant to Section 1813 of the Labor Code, the Contractor and any Subcontractors, shall, as a penalty to the Agency, forfeit the prescribed amount per calendar day for each worker required or permitted to work more than 8 hours in any 1 calendar day and 40 hours in any 1 calendar week without being compensated in accordance with Section 1815.

Pursuant to Section 1810 of the Labor Code, 8 hours of labor shall constitute a legal day's work. Pursuant to Section 1813 of the Labor Code, the Contractor and each Subcontractor, if any, shall, as a penalty to the Agency, forfeit the prescribed amount per calendar day for each worker required or permitted to work more than 8 hours in any 1 calendar day and 40 hours in any 1 calendar week without being compensated in accordance with Section 1815. Contractor and each Subcontractor, if any, waives any right to any notice or hearing on the forfeiture of such penalties pursuant to Labor Code sections 1726 and 1771.6. Contractor shall include terms in its subcontracts as required to make this paragraph effective as to each Subcontractor. Upon written request, Contractor shall withhold penalties forfeited by a Subcontractor pursuant to Labor Code section 1813 and this paragraph from payments due to such Subcontractor and remit such penalties withheld to the Agency

7-3 INDEPENDENCE OF CONTRACTOR, INDEMNIFICATION AND POLLUTION

7-3.1 Independence of Contractor. It is understood and agreed that Contractor is at all times an independent contractor and that no relationship of employer-employee exists between the parties hereto. Contractor will not be entitled to any benefits payable to employees of County, including but not limited to overtime, retirement benefits, workers' compensation benefits, injury leave or other leave benefits. County is not required to make any tax or benefit deductions from the compensation payable to Contractor under the provisions of this Agreement. As an independent contractor, Contractor hereby holds County harmless from any and all claims that may be made against County based upon any contention by any third party that an employer-employee relationship exists by reason of the Agreement.

If, in the performance of this Agreement, any third persons are employed by Contractor, such persons will be entirely and exclusively under the direction, supervision and control of Contractor. All terms of employment, including hours, wages, working conditions, discipline, hiring and discharging or any other terms of employment or requirements of law, will be determined by Contractor. County will have no right or authority over such persons or the terms of such employment, except as provided in this Agreement.

7-3.2 Indemnification and Hold Harmless Clause. All activities arising out of or relating to the performance of the Work covered by this Contract shall be at the risk of Contractor. To the fullest extent permitted by law, Contractor shall defend (at Agency's request), indemnify and hold harmless Agency, and the County of Ventura if the County of Ventura is not the entity defined as Agency under this Contract, including all of their boards, agencies, departments, officers, employees, agents and volunteers (collectively, "Indemnitee"), against any and all claims, suits, actions, legal or administrative proceedings, judgments, debts, demands, damages, including injury or death to any person or persons, and damage to any property including loss of use resulting therefrom, incidental and consequential damages, liabilities, interest, costs, attorneys' fees and expenses of whatsoever kind of nature, whether arising before, during or after commencement or completion of this Contract, whether against Contractor and Indemnitee or which are in any manner, directly, indirectly, in whole or in part, arising from any act, omission, fault or negligence, whether active or passive, of Contractor, a Subcontractor or anyone directly or indirectly employed by them or anyone for whose acts they may be liable in connection with or incident to the Contract, even though the same may have resulted from the joint, concurring or contributory negligence, or from the passive negligence, of Indemnitee or any other person or persons, unless the same be caused by the sole negligence of Indemnitee, or except to the extent caused by the active negligence or willful misconduct of Indemnitee.

The Agency will notify the Contractor of the receipt of any third party claims.

7-3.3 Contamination and Pollution. Contractor, solely at its own cost and expense, will provide clean up of any premises, property or natural resources contaminated or polluted due to Contractor activities. Any fines, penalties, punitive or exemplary damages assigned due to contaminating or polluting activities of the Contractor will be borne entirely by the Contractor.

7-4 INSURANCE REQUIREMENTS

Contractor, at its sole cost and expense, shall obtain and maintain in full force during the term of this Contract the following types of insurance:

7-4.1 Workers' Compensation Insurance.

7-4.1.1 Coverage. Workers' Compensation coverage, in full compliance with Labor Code 3700, for all employees of Contractor and Employer's Liability in the minimum amount of $1,000,000. The Agency, the County of Ventura, its officers, employees or Consultants, will not be responsible for any claims in law or equity occasioned by failure of Contractor to comply with this paragraph.

7-4.1.2 Certification. Before execution of the Contract by Agency, Contractor shall file with the Engineer the following signed certification:

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

7-4.2 Commercial General Liability Insurance

7-4.2.1 Minimum Limits and Scope; Insurance Classes. "Occurrence" coverage in the minimum amount of:

Coverage Class	Coverage
L-A	$ 1,000,000 combined single limit (CSL) bodily injury and property damage each occurence and $1,000,000 aggregate
L-B	$ 1,000,000 CSL bodily injury and property damage each occurrence and $2,000,000 aggregate
L-C	$ 5,000,000 CSL bodily injury and property damage each occurrence and $5,000,000 aggregate
L-D	$ 10,000,000 CSL bodily injury and property damage each occurrence and $10,000,000 aggregate

If no coverage class is specified in "Proposal", coverage class L-B shall apply.
If Contractor maintains higher limits than the minimums shown above, the Agency requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Agency.

Coverages shall include premises/operations; products/completed operations; independent contractors; underground, explosion and collapse hazards; personal and advertising injury; broad form property damage; and broad form blanket contractual.

7-4.2.2 Coverage Exceptions. On projects where no explosives will be used and no demolition is involved, the coverage for explosion may be omitted. On projects where no excavation is involved, the coverage for underground hazard may be omitted. The omission of said coverages is at Agency's option, and shall not abrogate Contractor's responsibilities for indemnification as set forth in these Specifications.

7-4.2.3 Excess Liability Policies. All Excess Liability policies, if used, shall be on an "umbrella" or following form of the primary layer of coverage.

7-4.3 Commercial Automobile Liability Insurance

Coverage in the minimum amount of $1,000,000 CSL bodily injury and property damage, including automobile liability, any auto.

7-4.4 Property Insurance

Contractor shall arrange for its own "Course of Construction" insurance on the project to protect its interests, as Agency does not have this coverage.

Contractor is responsible for delivering to Agency Work completed in accordance with the Contract except as provided in 7-18 (Acts of God). Should the Work being constructed be damaged by fire or other causes during construction, it shall be replaced by Contractor in accordance with the requirements of the Plans and Specifications without additional expense to Agency.

7-4.5 Other Insurance Provisions.

7-4.5.1 Insurance Company Qualifications. All insurance required shall be issued by (a) an admitted company or admitted companies authorized to transact business in the State of California which have a BEST rating of B+ or higher and a Financial Size Category (FSC) of VII or larger or (b) a California approved Surplus Line carrier or carriers which have a BEST rating of A or higher and a Financial Size Category (FSC) of VII or larger.

Workers compensation insurance not meeting the above requirements but meeting all other requirements of the specifications, will be accepted.

7-4.5.2 Primary Coverage. All insurance required shall be primary coverage as respects Agency and any insurance or self-insurance maintained by Agency or the County of Ventura shall be in excess of Contractor's insurance coverage and shall not contribute to it.

7-4.5.3 Aggregate Limits Exceeded. Agency shall not be notified immediately if any aggregate insurance limit is exceeded. Contractor shall purchase additional coverage to meet requirements.

7-4.5.4 Liability in Excess of Limits. Insurance coverage in the minimum amounts set forth herein shall not be construed to relieve Contractor for liability in excess of such coverage, nor shall it preclude Agency or the County of Ventura from taking such other actions as is available to it under any other provisions of this Contract or otherwise in law.

7-4.5.5 Additional Insured Endorsements. The Agency, the County of Ventura (if not defined as Agency) and all special Districts governed by the County of Ventura Board of Supervisors, and their officials, employees, and volunteers shall be named as Additional Insured as respects Work done by or on behalf of Contractor under the Contract on all policies required (except workers' compensation). With respect to Contractor's commercial general Liability insurance, Additional Insured coverage shall include both ongoing and completed operations.

7-4.5.6 Waiver of Subrogation Rights. Contractor agrees to waive all rights of subrogation against the Agency, the County of Ventura, including its boards, and all special Districts governed by the Board of Supervisors, for losses arising directly or indirectly from the activities or Work performed by Contractor under the Contract (applies only to Workers' Compensation and Commercial General Liability).

7-4.5.7 Cancellation Notice Required. In the case of policy cancellation, Agency shall be notified by the insurance company or companies as provided for in the policy. Contractor shall notify Agency of any and all policy cancellations within three working days of the cancellation.

7-4.5.8 Documentation Required. Prior to execution of the Contract by Agency, Contractor shall provide Agency with Certificates of Insurance for all required coverages (see Appendix A for example), all required endorsement(s) and a copy of its course of insurance policy.

It is the responsibility of Contractor to confirm that all terms and conditions of Section 7-4 Insurance Requirements are complied with by any and all subcontractors that Contractor may use in the completion of the Contract.

7-5 PERMITS. The Agency will obtain, at no cost to the Contractor, all encroachment and building permits necessary to perform Contract Work in streets, highways, railways or other rights of way, unless the necessity for such permit(s) is created by a method of operation chosen by the Contractor. The Contractor shall obtain and pay for all costs incurred for permits necessitated by its operations such as, but not limited to, those permits required for night Work, overload, blasting and demolition.

The Contractor shall pay all business taxes or license fees that are required for the Work.

7-5.1 Highway and Railroad Permits. The Engineer will obtain the basic State highway and railroad encroachment permits which will include checking of plans. However, the Contractor must also obtain permits from these agencies. Inspection fees charged by these agencies must be paid by the Contractor.

7-5.2 Grading Ordinance

7-5.2.1 General. All excavation, filling and grading operations in Ventura County are governed by the Ventura County Grading Ordinance or City Ordinances, except within the project right of way shown on the Plans.

7-5.2.2 Permits Required. Work outside the project right of way which involves excavation or filling of soils is subject to all requirements of the applicable grading ordinance. The requirements may include, but are not limited to, submitting of a grading plan prepared by a Civil Engineer, obtaining a grading permit, paying the permit fee, posting a grading bond, hiring professionals for engineering and testing services, compacting fills, constructing drainage facilities and providing erosion protection.

7-5.2.3 Imported and Exported Material. To insure that neither the Agency nor the Contractor is a party to aiding or abetting any property owner (who is ultimately responsible) to violate the applicable grading ordinance, no material shall be imported from or exported or wasted outside the project right of way until the Contractor has furnished the Engineer a copy of the grading permit covering such operation on land where material is to be deposited or excavated, unless exempt.

7-5.2.4 Exemptions from Permit. No grading permit is required of the Contractor for Work performed within the project right of way shown on the Plans or on borrow or disposal areas shown on the Plans or described in the Special Provisions and which are specifically designated as being exempt from such permit requirements.

7-5.3 Building Permit.

7-5.3.1 Agency Furnished Permits. Except as provided in **7-5.3.2**, Agency will submit the plans for the Work to Department of Building and Safety, and other building related permit issuing agencies, for plan check and make the corrections necessary for the issuance of building and related permits. Agency will Pay plan check and permit fees for the Work. The Contractor may be required to furnish information to the permit issuing agencies, as required for the issuance of permits, and sign the permit.

7-5.3.2 Contractor Furnished Permits. Components or systems, required by the Contract, may require the preparation of plans and calculations to obtain approvals or permits from state or local building, fire prevention, public health, safety, environmental protection and other agencies in addition to the basic permits arranged for by the Agency as provided in **7-5.3.1**. Contractor shall take all actions in a timely manner to obtain such approvals or permits so as not to delay completion of the Work beyond the time provided in **6-7**. Contractor shall include all costs and consider the time required to obtain approvals or permits in the Contract price bid.

7-5.4 Coastal Zone Permits

7-5.4.1 Agency Furnished Permits. Permits required for Work on the project within rights of way furnished by the Agency within the Coastal Zone will be obtained by the Agency.

7-5.4.2 Contractor Furnished Permits. Permits required for the Contractor's operations outside of rights of way furnished by the Agency must be obtained by the Contractor. Such permits are required for brush removal, grading, dredging, disposal of material and many other operations within the Coastal Zone.

7-6 THE CONTRACTOR'S REPRESENTATIVE. Before starting work, the Contractor shall designate in writing a representative who shall have complete authority to act for it. An alternative representative may be designated as well. The representative or alternate shall be present at the Work site whenever work is in progress or whenever actions of the elements necessitate its presence to take measures necessary to protect the Work, persons, or property. Any order or communication given to this representative shall be deemed delivered to the Contractor. A joint venture shall designate only one representative and alternate. In the absence of the Contractor or its representative, instructions or directions may be given by the Engineer to the superintendent or person in charge of the specific work to which the order applies. Such order shall be complied with promptly and referred to the Contractor or its representative.

In order to communicate with the Agency, the Contractor's representative, superintendent, or person in charge of specific work shall be able to speak, read, and write the English language.

7-7 COOPERATION AND COLLATERAL WORK. The Contractor shall be responsible for ascertaining the nature and extent of any simultaneous, collateral, and essential work by others. The Agency, its workers and contractors and others, shall have the right to operate within or adjacent to the Work site during the performance of such work.

The Agency, the Contractor, and each of such workers, contractors and others, shall coordinate their operations and cooperate to minimize interference.

The Contractor shall include in its Bid all costs involved as a result of coordinating its work with others. The Contractor will not be entitled to additional compensation from the Agency for damages resulting from such simultaneous, collateral, and essential work. If necessary to avoid or minimize such damage or delay, the Contractor shall redeploy its work force to other parts of the Work.

Should the Contractor be delayed by the Agency, and such delay could not have been reasonably foreseen or prevented by the Contractor, the Engineer will determine the extent of the delay, the effect on the Work, and any extension of time.

7-8 WORK SITE MAINTENANCE

7-8.1 General Throughout all phases of construction, including suspension of the Work, and until acceptance per 6-8, the Contractor shall keep the Work site clean and free from rubbish and debris. Rubbish and debris collected on the Work site shall only be stored in roll-off, enclosed containers prior to disposal. Stockpiles of such will not be allowed.

When required by the Special Provisions, the Contractor shall provide a self-loading motorized street sweeper equipped with a functional water spray system. The sweeper shall clean all paved areas within the Work site and all paved haul routes at least once each working day.

The Contractor shall ensure there is no spillage along haul routes. Any such spillage shall be removed immediately and the area cleaned.

Should the Contractor fail to keep the Work site free from rubbish and debris, the Engineer may suspend the Work per 6-3 until the condition is corrected.

7-8.2 Air Pollution Control The Contractor shall not discharge smoke, dust, equipment exhaust, or any other air contaminants into the atmosphere in such quantity as will violate any Federal, State, or local regulations.

The Contractor shall also abate dust nuisance by cleaning, sweeping and spraying with water, or other means as necessary. The use of water shall conform to 7-8.6.

7-8.3 Noise Control. Noise generated from the Contractor's operations shall be controlled as specified in the Special Provisions.

7-8.4 Storage of Equipment and Materials.

7-8.4.1 General Materials and equipment shall be removed from the Work site as soon as they are no longer necessary. Before inspection by the Engineer for acceptance, the Work site shall be cleared of equipment, unused materials, and rubbish so as to present a satisfactory clean and neat appearance.

Excess excavated material shall be removed from the Work site immediately unless otherwise specified in the Special Provisions.

Forms and form lumber shall be removed from the Work site as soon as practicable after stripping.

7-8.4.2 Storage in Public Streets. Construction materials and equipment shall not be stored in streets, roads, or highways for more than 5 days after unloading unless otherwise specified in the Special Provisions or approved by the Engineer. All materials or equipment not installed or used in construction within 5 days after unloading shall be stored at a location approved by the Engineer.

Excavated material, except that which is to be used as backfill in the adjacent trench, shall not be stored in public streets unless otherwise specified in the Special Provisions or approved by the Engineer. Immediately after placing backfill, all excess material shall be removed from the Work site.

7-8.5 Sanitary Sewers.

7-8.5.1 General. The flow of sewage shall not be interrupted. Should the Contractor disrupt the operation of existing sanitary sewer facilities, or should disruption be necessary for performance of the Work, the Contractor shall bypass the sewage flow around the Work. Sewage shall be conveyed in closed conduits and disposed of in a sanitary sewer system. Sewage shall not be permitted to flow in trenches nor be covered by backfill.

Whenever sewage bypass and pumping is required by the Plans or Specifications, or the Contractor so elects to perform, the Contractor shall submit per 2-5.3 a working drawing conforming to 7-8.5.2 detailing its proposed plan of sewage bypass and pumping.

7-8.5.2 Sewage Bypass and Pumping Plan. The plan shall indicate the locations and capacities of all pumps, sumps, suction and discharge lines. Equipment and piping shall be sized to handle the peak flow of the section of sewer line to be bypassed and pumped. Equipment and piping shall conform to 7-10, the Plans, and the Special Provisions. Bypass piping, when crossing areas subject to traffic loads, shall be constructed in trenches with adequate cover and otherwise protected from damage due to traffic. Lay-flat hose or aluminum piping with an adequate casing and/or traffic plates may be allowed if so approved by the Engineer. Bypass pump suction and

discharge lines that extend into manholes shall be rigid hose or hard pipe. Lay flat hose will not be allowed to extend into manholes. The Contractor shall provide a backup bypass pumping system in case of malfunction. The backup bypass system shall provide 100 percent standby capability, and be in place and ready for immediate use.

Each standby pump shall be a complete unit with its own suction and discharge piping. In addition to the backup system, the Contractor shall furnish and operate vacuum trucks when required by the Plans or Special Provisions.

7-8.5.3 Spill Prevention and Emergency Response Plan. The Contractor shall prepare and submit per 2-5.3 a spill prevention and emergency response plan. The plan shall address implementation of measures to prevent sewage spills, procedures for spill control and containment, notifications, emergency response, cleanup, and spill and damage reporting.

The plan shall account for all storm drain systems and water courses within the vicinity of the Work which could be affected by a sewage spill. Catch basins that could receive spilled sewage shall be identified Unless otherwise specified in the Special Provisions, these catch basins shall be sealed prior to operating the bypass and pumping system. The Contractor shall remove all material used to seal the catch basins when the bypass and pumping system operations are complete.

The Contractor shall be fully responsible for containing any sewage spillage, preventing any sewage from reaching a watercourse, recovery and legal disposal of any spilled sewage, any fines or penalties associated with the sewage spill imposed upon by the Agency and/or the Contractor by jurisdictional regulatory agencies, and any other expenses or liabilities related to the sewage spill.

7-8.6 Water Pollution Control The Contractor shall prevent, control, and abate discharges of pollutants from the construction site in order to protect the storm drain system, which includes pipes, channels, streams, waterways, and other bodies of water, by the construction, installation or performance of water pollution control measures as shown on the Stormwater Pollution Control Plan (SWPCP) or Stormwater Pollution Prevention Plan (SWPPP) depending on the land area affected by the construction activity. The Contractor shall ensure compliance with the current State NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activity (General Construction Permit), NPDES No. CAS000002 and current Ventura County NPDES Municipal Separate Storm Sewer System (MS4) Permit No. CAS004002.

7-8.6.1 Compliance with NPDES General Construction Permit

7-8.6.1.1 Construction Sites

If the Work involves construction activity that results in soil disturbance of one acre or more of total land area, or results in soil disturbances of less than one acre but is a part of a work area larger than one acre, the Contractor shall comply with the requirements of the General Construction Permit NPDES No. CAS000002. Construction activity includes clearing, grading, excavation, stockpiling, and reconstruction of existing facilities involving removal and replacement. Construction activity does not include routine maintenance such as, maintenance of original line and grade, hydraulic capacity, or original purpose of the facility.

The Contractor shall comply with requirements of the General Construction Permit (NPDES No. CAS000002), obtained by the Agency, including a site-specific Storm Water Pollution Prevention Plan (SWPPP) for the Work to be developed by Qualified SWPPP Developer (QSD) and implemented by the Qualified SWPPP Practitioner (QSP). After July 1, 2010, the Agency will electronically file all required Permit Registration Documents (PRDs) through the State Water Board's Stormwater Multi-Application and Report Tracking System (SMARTS) website, as required prior to the commencement of construction activity. PRDs consist of the Notice of Intent (NOI), Risk Assessment, Post-Construction Calculations, a Site Map, the SWPPP, a signed certification statement by the Legally Responsible Party (LRP), and the first annual fee. For the Permit application, the Contractor shall submit to Project Manager the following:

- The completed site-specific Risk Assessment
- Post-construction calculations if applicable for the project, and
- Site-specific SWPPP developed in accordance with applicable Permits.

7-8.6.1.2 Linear Utility Projects; Contractor shall comply with the requirements of the General Construction Permit NPDES No. CAS000002 for Linear Underground/Overhead projects (LUPs) one acre or greater.

7-8.6.2 Compliance with NPDES MS4 Permit

7-8.6.2.1 Construction Sites Less Than One Acre The Contractor shall ensure implementation of an effective combination of erosion and sediment control Best Management Practices (BMPs) listed in **Table 6** of the Ventura County NPDES MS4 Permit. The Contractor shall develop and implement a Storm Water Pollution Control Plan (SWPCP).

7-8.6.2.2 Construction Sites One Acre but Less Than 5 Acres The Contractor shall ensure implementation of an effective combination of appropriate erosion and sediment control BMPs from **Table 7** (BMPs at Construction sites 1 acre or greater but less than 5 acres) of the Ventura County NPDES MS4 Permit in addition to the ones identified in **Table 6** (BMPs at Construction sites less than 1 acre) to prevent erosion and sediment loss, and the discharge of construction wastes. For all construction sites one acre or greater, the Contractor shall submit the SWPPP to the Agency for review and certification as the Local SWPPP.

7-8.6.2.3 Construction Sites 5 Acres and Greater The Contractor shall ensure implementation of an effective combination of the following BMPs in **Tables 8** (BMPs at Construction sites 5 acres or greater) in addition to the ones identified in **Table 6** (BMPs at Construction sites less than 1 acre) and **Table 7** (BMPs at Construction sites 1 acre or greater but less than 5 acres) at all construction sites 5 acres and greater to prevent erosion and sediment loss, and the discharge of construction wastes. For all construction sites one acre or greater, the Contractor shall submit the SWPPP to the Agency for review and certification as the Local SWPPP.

7-8.6.2.4 Enhanced Construction BMP Implementation

Construction sites located on hillsides, adjacent or directly discharging to CWA 303(d) listed waters for siltation or sediment, and directly adjacent to Environmentally Sensitive Areas are termed "high risk sites." Contractor shall implement enhanced practices that preclude impacts to water quality posed by the high risk sites.

Contractor shall ensure that high risk sites are inspected by the Qualified SWPPP Developer, Qualified SWPPP Practitioner, or Certified Professionals in Erosion and Sediment Control (CPESC) at the time of BMP installation, at least weekly during the wet season, and at least once each 24 hour period during a storm event that generates runoff from the site, to identify BMPs that need maintenance to operate effectively, that have failed or could fail to operate as intended.

During the wet season, the area of disturbance shall be limited to the area that can be controlled with an effective combination of erosion and sediment control BMPs. Enhanced sediment controls should be used in combination with erosion controls and should target portions of the site that cannot be effectively controlled by standard erosion controls described above. Effective sediment and erosion control BMPs proposed by the Contractor shall include the BMPs listed in Table 9 (Enhanced Construction BMP Implementation) of the NPDES MS4 Permit. The Contractor shall implement the BMPs listed in Table 9 unless shown unnecessary. Also, the Contractor shall retain records of the inspection and a determination and rationale of the BMPs selected to control runoff.

7-8.6.3 Plan.

7-8.6.3.1 The SWPCP, required for construction projects less than one acre, shall be prepared in accordance with the requirements of current Ventura County NPDES MS4 Permit No. CAS004002 and County Ordinance No. 4142.

7-8.6.3.2 The SWPPP, required for construction projects one acre or greater, shall be prepared in accordance with the requirements of the state's General Construction Permit NPDES Permit CAS000002, Ventura Countywide Stormwater Quality Management Program, NPDES MS4 Permit No. CAS004002, and County Ordinance No. 4142.

7-8.6.3.3 The SWPCP/SWPPP shall identify potential pollutant sources on the construction site that may affect the quality of discharges, whether non-stormwater or stormwater, from the site and design the use and placement of water pollution control measures, BMPs, to effectively prohibit the entry of pollutants from the site into the storm drain system during construction. At a minimum, and depending on the size of the project area, the SWPCP/SWPPP will include all appropriate minimum BMPs as required by the Ventura Countywide Stormwater Quality Management Program, NPDES MS4 Permit No. CAS004002 (Tables 6 through 9). The SWPCP/SWPPP must utilize the measures recommended in the California Stormwater Quality Association (CASQA) Stormwater BMPs Handbook for Construction (January 2003 version until July 1, 2010 and 2009 version after July 1, 2010). Starting July 1, 2010 SWPPP shall be prepared by QSD as defined in the NPDES Permit CAS000002. The Contractor shall complete, sign and submit the SWPCP/SWPPP for review and final approval by the Project Engineer, prior to issuance of the Notice to Proceed as provided in 6-7.4.

7-8.6.3.4 For all construction projects one acre and greater, the Contractor shall submit the SWPPP to the Agency for review and certification as Local SWPPP in accordance with NPDES MS4 Permit No. CAS004002 prior to the Notice to Proceed as provided in 6-7.4.

7-8.6.4 Measures. All water pollution control measures shall conform to the requirements of the submitted SWPCP/SWPPP. If circumstances during the course of construction require changes to the original SWPCP/SWPPP, a revised SWPCP/SWPPP shall be promptly submitted to the Project Manager in each instance. The SWPPP shall be amended or revised by QSD. A copy of the current SWPCP/SWPPP including revisions and amendments shall be kept at the site to ensure that field personnel has access to the current document at all times. If measures being taken are inadequate to control water pollution effectively, the Project Manager may direct the Contractor to revise the operations and no further work shall be performed until adequate water pollution control measures are implemented. Effective September 2, 2011, implementation of the SWPPP shall be overseen by the Contractor's QSP as defined in the General Construction Permit NPDES No. CAS000002. All work installed by the Contractor in connection with the SWPCP/SWPPP but not specified to become a permanent part of the Work shall be removed and the site restored in so far as practical to its original condition prior to completion of the Work.

7-8.6.4.1 Post-Construction Standards; Contractor shall ensure that applicable post-construction standards are implemented to meet applicable project requirements of the Ventura County NPDES MS4 Permit and General Construction Permit NPDES No. CAS000002 (effective September 2, 2012).

7-8.6.4.2 Active Treatment Systems; Contractor shall comply with requirements of the General Construction Permit NPDES No. CAS000002 for active treatment systems as applicable.

7-8.6.5 Monitoring and Reporting

7-8.6.5.1 Monitoring; In accordance with the General Construction Permit NPDES No. CAS000002, the Contractor shall develop and implement monitoring program for Risk Level 2 and 3 sites. In addition at Risk Level 3 sites, contractor shall perform receiving water monitoring to meet Permit requirements.

7-8.6.5.2 Reporting; the Contractor shall ensure that all submittals and reports are prepared and submitted to the RWQCB in accordance with the applicable Permits. At minimum the reports will include Annual Report (for applicable projects due September 1st), Rain Event Action Plan (due 48 hrs prior to the rain event for the applicable projects), Numeric Action Levels (NAL) Exceedance Report (as required), Numeric Effluent Limitations (NELs) Violation Report (within 24 hours after NEL exceedance is identified). Contractor shall submit required reports to the Project Manager for review and approval prior to submittal to the RWQCB.

7-8.6.6 Dewatering Activities. All dewatering activities shall be performed in accordance with applicable regulatory requirements issued by the Los Angeles Regional Water Quality Control Board, including specific requirements contained in the Waste Discharge Requirements (WDR) when issued for the Work.

7-8.6.7 Payment. The Contract lump sum price for water pollution control shall include full compensation for furnishing all labor, materials, tools, equipment, services and incidentals and for doing all work involved in water pollution control as specified herein. Payment for water pollution control will be made as the Work proceeds, and is in compliance with the approved Water Pollution Control Plan, on the following basis.

Partial payment estimate (excluding mobilization & water pollution control payments) as a percentage of the original Contract price (excluding the mobilization & water pollution control Bid items).		Cumulative amount of water pollution control pay item earned is the lesser of the amounts as computed by these two columns.	
Equal to or greater than	Less than	Percentage of water pollution control pay item	Percentage of the original Contract total.
5	10	10	1
10	20	20	2
20	50	50	3
50	Completion of Work	75	5
Completion of Work		100	

Where no Bid item is provided for water pollution control, payment for water pollution control shall be considered to be included in the other Bid items.

7-8.7 Drainage Control. The Contractor shall maintain drainage within and through the Work areas. Earth dams will not be permitted in paved areas. Temporary dams of sandbags, asphaltic concrete or other acceptable material will be permitted when necessary to protect the Work, provided their use does not create a hazard or nuisance to the public. Such dams shall be removed from the site as soon as their use is no longer necessary.

7-8.8 Final Cleaning. At the completion of the Work, the Contractor shall remove all waste materials and rubbish from and about the project, as well as all tools, construction equipment, temporary facilities, machinery, and surplus materials.

At completion of construction and just prior to final inspection, the Contractor shall thoroughly clean the interior and exterior of the buildings, including hardware, floors, roofs, sills, ledges, glass, or other surfaces where debris, plaster, paint, spots, and dirt or dust may have collected. All glass shall be washed clean and polished. Remove all grease, stains, labels, fingerprints, and other foreign materials from interior and exterior surfaces. Repair, patch, and touch up marred surfaces to match adjacent finishes.

The Contractor shall use only experienced workmen or professional cleaners for final cleaning. It shall use only cleaning materials recommended by the manufacturer of the surface to be cleaned, and use cleaning materials only on surfaces recommended by the cleaning material manufacturer.

It shall broom-clean all paved surfaces and rake-clean other surfaces of grounds.

The Contractor shall replace air conditioning filters if units were operated during construction, and clean all ducts, blowers, and coils if air conditioning units were operated without filters during construction.

After cleaning, the Contractor shall maintain the building in a clean condition until it is accepted by the Agency.

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS. The Contractor shall be responsible for the protection of public and private property adjacent to the Work and shall exercise due caution to avoid damage to such property.

The Contractor shall repair or replace all existing improvements within the right-of-way which are not designated for removal (e.g., curbs, sidewalks, driveways, fences, walls, signs, utility installations, pavement, structures, etc.) which are damaged or removed as a result of its operations. When a portion of a sprinkler system within the right-of-way must be removed, the remaining lines shall be capped. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension.

Maintenance of street and traffic signal systems that are damaged, temporarily removed or relocated shall be done in conformance with 307-1.5.

Trees, lawns, and shrubbery that are not designated to be removed shall be protected from damage or injury. If damaged or removed because of the Contractor's operations, they shall be restored or replaced in as nearly the original condition and location as is reasonably possible. Lawns shall be reseeded and covered with suitable mulch.

The Contractor shall give reasonable notice to occupants or owners of adjacent property to permit them to salvage or relocate plants, trees, fences, sprinklers and other improvements which are designated for removal and would be destroyed because of the Work.

All costs to the Contractor for protecting, removing, and restoring existing improvements shall be absorbed in its bid.

In existing buildings, all surfaces, equipment, furniture and other property shall be protected from loss or damage by or as result of the Contractor's operations. The Contractor shall replace damaged property or shall repair and restore it to its previous condition. Patching, painting, replacement of wall, ceiling and floor covering and similar Work shall be done in such a manner that the repaired Work will not be readily noticeable.

7-10 PUBLIC CONVENIENCE AND SAFETY

7-10.1 Access.

7-10.1.1 General. The Contractor's operations shall cause no unnecessary inconvenience to the public or businesses in the vicinity of the Work. The Contractor shall have no greater length or quantity of Work under construction than can be properly prosecuted with a minimum of inconvenience to the public and other contractors engaged in adjacent or related work.

The Contractor shall provide continuous and unobstructed access to the adjacent properties unless otherwise specified in the Special Provisions or approved by Engineer. Work requiring traffic lane closures shall only be performed between the hours specified in the Special Provisions or shown on the TCP. Traffic shall be permitted to pass through the Work site, unless otherwise specified in the Special Provisions or shown on the TCP.

7-10.1.1.1 Vehicular Access. Vehicular access to residential driveways shall be maintained to the property line except when necessary construction precludes such access. If backfill has been completed to the extent that safe access may be provided and the street is opened to local traffic, the Contractor shall immediately clear the street and driveways and provide and maintain access.

7-10.1.1.2 Pedestrian Access. Safe, adequate, and ADA compliant pedestrian access shall be maintained unless otherwise approved by the Engineer. 7-10.2 Work Area Traffic Control.

7-10.2 Traffic Control

7-10.2.1 General. Work area traffic control shall conform to the California MUTCD, WATCH, or as specified in the Special Provisions. The total length of the traffic control zone shall include a buffer space, advance signing, striping transitions in advance of the Work site, existing striping, signing, and raised medians.

7-10.2.2 Traffic Control Plan.

7-10.2.2.1 General. If so specified in the Special Provisions or on the permit, the Contractor shall submit a TCP in accordance with 2-5.3. The sheets of the TCP shall display the title, phase identification, name of the firm preparing the TCP, name and stamp of the Registered Traffic or Civil Engineer, approval block for each jurisdictional agency, north arrow, sheet number, and number of sheets comprising the TCP. General notes and symbol definitions shall be included when required. Adequate dimensioning shall be provided to allow for proper field installation. The TCP shall be drawn to a 1 inch = 40 feet scale on common size sheets, either 8-1/2 inches x 11 inches, 8-112 inches x 14 inches, 11 inches x 17 inches, or 2-foot x 3-foot plan sheets as dictated by the length of the Work.

The requirements in the Special Provisions shall govern the design of the proposed TCP.

7-10.2.2.2 Payment. Payment for preparation of the TCP shall be included in the appropriate lump sum Bid items. If no Bid items have been provided, payment shall be included in the various Bid items unless otherwise specified in the Special Provisions.

7-10.3 Haul Routes. Unless otherwise specified in the Special Provisions, the haul route(s) shall be determined by the Contractor.

7-10.4 Safety.

7-10.4.1 Work Site Safety.

7-10.4.1.1 General. The Contractor shall provide safety measures as necessary to protect the public and workers within, or in the vicinity of, the Work site. The Contractor shall ensure that its operations will not create safety hazards. The Contractor shall provide safety equipment, material, and assistance to Agency personnel so that they may properly inspect all phases of the Work. When asbestos is being removed, the requirements of the CCR Title 8, Div. 1, Chapter 4, Subchapter 4 and Subchapter 7 shall be implemented.

7-10.4.1.2 Work Site Safety Official. The Contractor shall designate in writing a "Project Safety Official" who shall be at the Work site at all times, and who shall be thoroughly familiar with the Contractor's Injury and Illness Prevention Program (IIPP) and Code of Safe Practices (CSP). The Project Safety Official shall be available at all times to abate any potential safety hazards and shall have the authority and responsibility to shut down an unsafe operation, if necessary.

7-10.4.2 Safety Orders.

7-10.4.2.1 General. The Contractor shall have at the Work site, copies or suitable extracts of Construction Safety Orders, Tunnel Safety Orders, and General Industry Safety Orders issued by the State Division of Industrial Safety. Prior to beginning any excavation 5 feet in depth or greater, the Contractor shall submit to the Engineer, the name of the "Competent Person" as defined in CCR, Title 8, Section 1504, in accordance with 2-5.3. The "Competent Person" shall be present at the Work site as required by Cal-OSHA.

7-10.4.2.2 Shoring Plan. Before excavating any trench 5 feet (105m) or more in depth, the Contractor shall submit in accordance with 2-5.3 a detailed working drawing (shoring plan) showing the design of the shoring, bracing, sloping, or other provisions used for the workers' protection. If the shoring plan varies from the shoring system standards, the shoring plan shall be prepared by a registered Structural or Civil Engineer. The shoring plan shall accommodate existing underground utilities. No excavation shall start until the Engineer has accepted the shoring plan and the Contractor has obtained a permit from the State Division of Industrial Safety. A copy of the permit shall be submitted to the Engineer in accordance with 2-5.3. If the Contractor fails to submit a shoring plan or fails to comply with an accepted shoring plan, the Contractor shall suspend work at the affected location(s) when directed to do so by the Engineer. Such a directive shall not be the basis of a claim for Extra Work and the Contractor shall not receive additional compensation or Contract time due to the suspension.

7-10.4.2.3 Payment. Payment for shoring shall be included in the Bid item provided therefor. Payment for compliance with the provisions of the safety orders and all other laws, ordinances, and regulations shall be included in the various Bid items.

7-10.4.3 Use of Explosives. Explosives may be used only when authorized in writing by the Engineer, or as otherwise specified in the Special Provisions.

Explosives shall be handled, used, and stored in accordance with all applicable regulations.

Prior to blasting, the Contactor shall comply with the following requirements:

a) The jurisdictional law enforcement agency shall be notified 24 hours in advance of blasting.

b) The jurisdictional fire department shall be notified 24 hours in advance of blasting.

c) Blasting activities and schedule milestones shall be included in the Contractor's construction schedule per 6-1.

For a Private Contract, specific permission shall be obtained from the Agency in writing, prior to any blasting operations in addition to the above requirements.

The Engineer's approval of the use of explosives shall not relieve the Contractor from liability for claims caused by blasting operations.

7-10.4.4 Hazardous Substances. An MSDS as described in CCR, Title 8, Section 5194, shall be maintained at the Work site for all hazardous material used by the Contractor. Material usage shall be accomplished with strict adherence to California Division of Industrial Safety requirements and all manufacturer warnings and application instructions listed on the MSDS and on the product container label. The Contractor shall notify the Engineer if a specified product cannot be used under safe conditions. 7-10.4.5 Confined Spaces. 7-10.4.5.1 Confined Space Entry Program (CSEP). The Contractor shall be responsible for implementing, administering and maintaining a CSEP in accordance with CCR, Title 8, Sections 5156, 5157 and 5158.

Prior to the start of the Work, the Contractor shall prepare and submit a CSEP in accordance with 2-5.3. The CSEP shall address all potential physical and environmental hazards and contain procedures for safe entry into confined spaces such as the following:

a) Training of personnel

b) Purging and cleaning the space of materials and residue

c) Potential isolation and control of energy and material inflow

d) Controlled access to the space

e) Atmospheric testing of the space

f) Ventilation of the space

g) Special hazards consideration

h) Personal protective equipment

i) Rescue plan provisions

The submittal shall include the names of the Contractor's personnel, including each Subcontractor's personnel, assigned to the Work that will have CSEP responsibilities, their CSEP training, and their specific assignment and responsibility in carrying out the CSEP.

7-10.4.5 Confined Spaces.

7-10.4.5.1 Confined Space Entry Program (CSEP). The Contractor shall be responsible for implementing, administering and maintaining a CSEP in accordance with CCR, Title 8, Sections 5156, 5157 and 5158.

Prior to the start of the Work, the Contractor shall prepare and submit a CSEP in accordance with 2-5.3. The CSEP shall address all potential physical and environmental hazards and contain procedures for safe entry into confined spaces such as the following:

a) Training of personnel.

b) Purging and cleaning the space of materials and residue.

c) Potential isolation and control of energy and material inflow.

d) Controlled access to the space.

e) Atmospheric testing of the space.

f) Ventilation of the space.

g) Special hazards consideration.

h) Personal protective equipment.

i) Rescue plan provisions.

The submittal shall include the names of the Contractor's personnel, including each Subcontractor's personnel, assigned to the Work that will have CSEP responsibilities, their CSEP training, and their specific assignment and responsibility in carrying out the CSEP.

7-10.4.5.2 Permit-Required Confined Spaces. Entry into permit-required confined spaces as defined in CCR, Title 8, Section 5157 may be required as a part of the Work. Manholes, tanks, vaults, pipelines, excavations, or other enclosed or partially enclosed spaces shall be considered permit-required confined spaces until the pre-entry procedures demonstrate otherwise. The Contractor shall implement a permit-required CSEP prior to performing any work in a permit-required confined space. A copy of the permit shall be available at all times for review by the Contractor and the Engineer at the Work site.

7-10.4.5.3 Payment. Payment for the CSEP shall be included in the Bid items for which the CSEP is required.

7-10.5 Security and Protective Devices.

7-10.5.1 General. Security and protective devices shall consist of fencing, steel plates, or other devices as specified in the Special Provisions to protect open excavations

7-10.5.2 Security Fencing. The Contractor shall completely fence open excavations. Security fencing shall conform to 304-3.5. Security fencing shall remain in place unless workers are present and construction operations are in progress during which time the Contractor shall provide equivalent security..

7-10.5.3 Steel Plate Covers. The Contractor shall provide steel plate covers as necessary to protect from accidental entry into openings, trenches, and excavations.

7-11 PATENT FEES OR ROYALTIES. The Contractor shall absorb in its Bid, the patent fees or royalties on any patented article or process which may be furnished or used in the Work. The Contractor shall indemnify and hold the Agency harmless from any legal action that may be brought for infringement of patents.

7-12 ADVERTISING. The names of contractors, subcontractors, architects, or engineers, with their addresses and the designation of their particular specialties, may be displayed on removable signs. The size and location of such signs shall be subject to the Engineer's approval.

Commercial advertising matter shall not be attached or painted on the surfaces of buildings, fences, canopies, or barricades.

7-13 LAWS TO BE OBSERVED. The Contractor shall keep fully informed of State and National laws and County and Municipal ordinances and regulations which in any manner affect those employed in the Work or the materials used in the Work or in any way affect the conduct of the Work. It shall at all times observe and comply with all such laws, ordinances and regulations.

7-13.1 Mined Materials. Mined material from California surface mines, used on the Work, shall be from a mine identified in the list published by the California Department of Conservation (referred to as 3098 List), as required by Public Contract Code 20676. This list is available on the Internet at www.conservation.ca.gov/OMR/ab_3098_list/index.htm.

7-14 ANTITRUST CLAIMS. Section 7103.5 of the Public Contract Code provides:

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

7-15 RECYCLABLE CONSTRUCTION & DEMOLITION WASTES. Ventura County Ordinance Code Section, 4421 et seq, requires that if any recyclable solid wastes or marketable reusable materials will be generated on the site of the Work within the unincorporated areas of Ventura County, the Contractor shall prepare a Construction & Demolition Debris Waste Diversion Plan and submit it to the Ventura County Public Works Agency, Water & Sanitation Department - Integrated Waste Management Division (IWMD). The Contractor shall prepare and file Construction & Demolition Debris Waste Diversion Reporting Forms as required by the IWMD.

For projects within the unincorporated areas of Ventura County, the Contractor shall submit an IWMD Form B-Recycling Plan approved by IWMD prior to issuance of the Notice to Proceed as provided in 6-7.4.

For projects within the unincorporated areas of Ventura County, the Contractor shall submit an IWMD Form C-Reporting Form approved by IWMD prior to the Engineer preparing the final estimate as provided in 9-3.2.

If the site of the Work is within an incorporated city, the Contractor shall comply with all the recycling, solid waste diversion, and hauling requirements of that incorporated city.

7-16 BLANK

7-17 LOSS OR DAMAGE TO THE WORK. The Contractor is responsible for delivering to the Agency Work completed in accordance with the Contract except as provided in 7-18. Should the Work being constructed be damaged by fire or other causes before Acceptance by the Agency, it shall be replaced in accordance with the requirements of the Plans and Specifications without additional expense to the Agency. The Agency does not carry "Course of Construction" insurance on the Work. Contractor should arrange for its own insurance to protect its interests.

7-18 ACTS OF GOD. As provided in Section 7105 of the California Public Contract Code, the Contractor shall not be responsible for the cost of repairing or restoring damaged portions of the Work determined to have been proximately caused by an act of God in excess of 5 percent of the contracted amount, provided that the Work damaged was built in accordance with accepted and applicable building standards and the Specifications and Drawings. The Contractor shall obtain insurance to indemnify the Agency for any damage to the Work caused by an act of God if the premium of said insurance coverage is called for as a separate bid item in the bidding schedule for the Work. For purposes of this section, the term "acts of God" shall include only the following occurrences or conditions and effects: earthquakes in excess of a magnitude of 3.5 on the Richter Scale, and tidal waves.

SECTION 8 - FACILITIES FOR AGENCY PERSONNEL

8-1 GENERAL. A field office shall be provided when required by the Plans or Special Provisions. The field office shall be at a suitable location approved by the Engineer.

A field office shall be a weather-tight building of suitable proportions with 16 m^2 (120 sq. ft.) of floor area, at least one door, and a window area of 2 m^2 (22 Sq. Ft.). A field office may be a building or a separate room in a building the Contractor may be required to provide or that it may desire to provide for its own use. In either case, the room shall have a separate exterior door. All doors shall be provided with hasps for padlocks.

The office shall be convenient to the Work. It shall be adequately heated, ventilated, electrically lighted, and provided with telephone service, all at the expense of the Contractor or plant owner. Offices are for the exclusive use of Agency personnel, unless otherwise provided herein.

Field offices at the worksite shall be removed upon completion of the Work.

All costs incurred in furnishing, maintaining, servicing, and removing a field office required at the Work site shall be included in the price bid for such item. If such item is required by the Plans or Specifications and no bid item is provided in the Proposal, the costs shall be absorbed in the other items for which bids are entered. Buildings and equipment furnished by the Contractor at the Work site under the provisions of this section are the property of the Contractor.

The first progress payment will not be approved until all facilities are in place and fully comply with the Specifications.

8-2 EQUIPMENT FOR FIELD OFFICES. Unless otherwise specified, a field office shall be equipped with:

Plan table, 0.75 m x 1.5 m (2 1/2 ft. x 5 ft.) or larger
Plan rack, capacity to hold two sets of project Plans plus all shop drawings
Desk and chair
Two lockers with hasps for padlocks

SECTION 9 - MEASUREMENT AND PAYMENT

9-1 MEASUREMENT OF QUANTITIES FOR UNIT PRICE WORK

9-1.1 General. Unless otherwise specified, quantities of work shall be determined from measurements or dimensions in horizontal planes. However, linear quantities of pipe, piling, fencing, and timber shall be considered as being the true length measured along longitudinal axis.

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

9-1.2 Methods of Measurement. Materials and items of Work which are to be paid for on the basis of measurement shall be measured in accordance with the methods stipulated in the particular sections involved.

9-1.3 Certified Weights. When payment is to be made on the basis of weight, the weighing shall be done on certified platform scales or, when approved by the Engineer, on a completely automated weighing and recording system. The Contractor shall furnish the Engineer with duplicate licensed weighmaster's certificates showing actual net weights. The Agency will accept the certificate as evidence of weights delivered.

9-1.4 Units of Measurement. Measurements shall be in accordance with 1-4.1 and 1-4.2. A metric ton or "tonne" is equal to 1000 kilograms and the unit of liquid measure is a Liter (in U.S. Standard Measures, a pound is an avoirdupois pound; a ton is 2000 pounds avoirdupois; and the unit of liquid measure is a gallon).

9-2 LUMP SUM BID ITEMS. Items for which quantities are indicated as "Lump Sum", "L.S." or "Job" shall be paid for at the price indicated in the Proposal. Such payment shall be full compensation for the items of Work and all Work appurtenant thereto.

When required by the Specifications or requested by the Engineer, the Contractor shall submit to the Engineer within 15 Days after award of Contract, a detailed schedule in triplicate, to be used only as a basis for determining progress payments on a lump sum contract or any designated lump sum bid item. This schedule should equal in total the lump sum bid and shall be in such form and sufficiently detailed as to satisfy the Engineer that it correctly represents a reasonable apportionment of the lump sum. If Mobilization or Water Pollution Control are included in the detailed schedule, those items will be paid for as provided in 9-3.4.2 and 7-8.6.4, receptively.

9-3 PAYMENT

9-3.1 General. The quantities listed in the Bid schedule will not govern final payment unless identified by Agency on the Proposal as [F]. The symbol "[F]" indicates that the quantities shown on the Proposal form are the final pay quantities. Payment to the Contractor (except those items identified as [F]) will be made only for the actual quantities of Contract items constructed in accordance with the Plans and Specifications. Upon completion of construction, if the actual quantities show either an increase or decrease from the quantities given in the Bid schedule, the Contract Unit Prices will prevail subject to the provisions of 3-2.2.1. Payment for those items identified as [F] will be based on the quantities shown on the Proposal unless changed as provided in 3-2.2.1.

The unit and lump sum prices to be paid shall be full compensation for the items of work and all appurtenant work, including furnishing all materials, labor, equipment, tools and incidentals.

Payment for items shown on the Plans or required by the Specifications, for which no pay item is provided, shall be considered included in the prices named for the other items shown on the Proposal.

Payment will not be made for materials wasted or disposed of in a manner not called for under the Contract. This includes rejected material not unloaded from vehicles, material rejected after it has been placed and material placed outside of the Plan lines. No compensation will be allowed for disposing of rejected or excess material.

Whenever any portion of the Work is performed by the Agency at the Contractor's request, the cost thereof shall be charged against the Contractor, and may be deducted from any amount due or becoming due from the Agency.

Whenever immediate action is required to prevent injury, death, or property damage, and precautions which are the Contractor's responsibility have not been taken and are not reasonably expected to be taken, the Agency may, after reasonable attempt to notify the Contractor, cause such precautions to be taken and shall charge the cost thereof against the Contractor, or may deduct such cost from any amount due or becoming due from the Agency. Agency action or inaction under such circumstances shall not be construed as relieving the Contractor or its Surety from liability.

9-3.1 General. (Continued)

Payment shall not relieve the Contractor from its obligations under the Contract; nor shall such payment be construed to be Acceptance of any of the Work. Payment shall not be construed as the transfer of ownership of any equipment or materials to the Agency. Responsibility of ownership shall remain with the Contractor who shall be obligated to store, protect, repair, replace, rebuild, or otherwise restore any fully or partially completed work or structure for which payment has been made; or replace any materials or equipment required to be provided under the Contract which may be damaged, lost, stolen or otherwise degraded in any way prior to completion of the Work under the Contract, except as provided in 6-10.

Warranty periods shall not be affected by any payment but shall commence on the date equipment or material is placed into service at the written direction of the Engineer. In the event such items are not placed into service prior to partial or final completion of the Work, the warranty periods will commence on the date set forth as the date of field completion in the Engineer's acknowledgement of completion.

If, within the time fixed by law, a properly executed notice to stop payment is filed with the Agency, due to the Contractor's failure to pay for labor or materials used in the Work, all money due for such labor or materials will be withheld from payment to the Contractor in accordance with applicable laws.

At the expiration of 35 Days from the date of recording of the Notice of Completion, or as prescribed by law, the amount deducted from the final estimate and retained by the Agency will be paid to the Contractor except such amounts as are required by law to be withheld by properly executed and filed notices to stop payment, or as may be authorized by the Contract to be further retained.

9-3.2 Partial and Final Payment. The Engineer will, after award of Contract, establish a closure date for the purpose of making monthly progress payments. The Contractor may request in writing that such monthly closure date be changed. The Engineer may approve such request when it is compatible with the Agency's payment procedure.

Each month, the Engineer will make an approximate measurement of the Work performed to the closure date and, as a basis for making monthly payments, estimate its value based on the Contract Unit Prices or as provided for in 9-2. When the Work has been satisfactorily completed, the Engineer will determine the quantity of Work performed and prepare the final estimate.

Work not conforming to the Contract Documents shall not be measured for payment.

Conformance with the Contract Documents shall be, in addition to constructing the Work in accordance with the Contract Documents, the Contractor's compliance with those portions of the Contract Documents not directly related to the completed Work, including but not limited to: construction and maintenance of detours; diversion and control of water; protection and repair of existing facilities of the Agency and adjacent owners; site maintenance; coordination with utilities and other contractors on the site; proper survey procedures and records; obtaining required permits and inspections; complying with working hour limitations; providing a Contractor's representative while Work is being performed; complying with environmental requirements; maintaining access and safety for users of facilities that are to remain in service during construction; and obeying all laws affecting the Work.

Payment for Extra Work will be made only on approved Daily Extra Work Reports with supporting documentation as required in 3-3.

From each progress estimate, 5 percent will be deducted and retained by the Agency, and the remainder less the amount of all previous payment will be paid to the Contractor.

No progress payment made to the Contractor or its sureties will constitute a waiver of the liquidated damages under 6-9.

9-3.2 Partial and Final Payment. (Continued)

As provided for in Sections 22300 of the California Public Contract Code, the Contractor may substitute securities for any monies withheld by the Agency to ensure performance under the Contract. In substituting securities, the Contractor may either:

a. Deposit qualifying securities already owned by the Contractor with the Escrow prior to the Contract payment date, or

b. Direct the Agency to send retained funds to the Escrow to be invested by the Escrow in qualifying securities as directed by the Contractor.

9-3.2.1 Release of Withheld Contract Funds. Pursuant to Public Contract Code Section 22300, Contractor has the option to deposit securities with an Escrow Agent as a substitute for retention earnings required to be withheld by Agency pursuant to the construction Contract between the Agency and the Contractor. A form of Escrow Agreement for Security Deposits in Lieu of Retention has been adopted by the Agency as one of the Contract Documents; procedures for implementing the provisions of the Escrow Agreement are contained in Escrow Instructions which shall become effective upon exercise of the option by the Contractor.

The Contractor shall take the following steps if it desires to substitute securities:

a. Execute the Escrow Agreement for Security Deposits in Lieu of Retention.

b. Furnish to the Escrow Agent a power of attorney and other forms necessary to empower the Escrow Agent to convert the securities to cash.

c. Furnish to the Escrow Agent the securities described.

d. Pay the Escrow Agent's fees and costs.

When the Contractor deposits with the Escrow Agent securities in lieu of money required to be withheld from progress payments, a sum of money equivalent to the current cash value of the securities as determined by the Escrow Agent shall be released to the Contractor by, or upon the direction of, the Agency.

If the total of the money plus the current cash conversion value of securities on deposit should fall below the aggregate amount of the sums required to be withheld from progress payments pursuant to 9-3.1 and 9-3.2, an amount equal to the difference shall be withheld from the next regular progress payment in addition to the amount which would ordinarily be withheld pursuant to 9-3.1 and 9-3.2. If the next regular progress payment is less than the total of the amounts to be withheld therefrom, the Contractor shall immediately either deposit with the Agency cash in the amount of the difference or deposit with the Escrow Agent additional securities having a current cash conversion value equal to or greater than the difference.

The Contractor shall be the beneficial owner of any such securities on deposit with the Escrow Agency and shall be entitled to any interest earned thereon prior to conversion. The Agency may direct the Escrow Agency to convert securities with the Escrow Agency into cash, and to deliver the cash to the Agency, in any case where the Contractor is in default, including the following:

a. where the Agency would be entitled to use funds withheld pursuant to 9-3.1 and 9-3.2 to satisfy claims of workers, materials suppliers or subcontractors, or to complete or correct work which the Contractor has failed or refused to complete or correct, or

b. where the Contractor has failed to comply with the requirements of this section respecting the deposit of additional cash or securities to make up for a fall in the value of securities already on deposit with the Escrow Agency.

The Agency may hold and use cash resulting from such a conversion of securities in the same manner as it would be entitled to hold and use funds withheld pursuant to 9-3.1 and 9-3.2.

9-3.2.2 Timely Progress Payments. As required by Public Contract Code Section 20104.50, the Contractor is informed that should a progress payment not be made within 30 Days after receipt of an undisputed and properly submitted payment request from the Contractor, the Agency shall pay interest to the Contractor on the unpaid amount at the rate set forth in the Code of Civil Procedures, Section 685.010(a). Agency shall promptly review payment requests, and if not determined to be proper, document to the Contractor, within 7 Days, the reasons why the request is not proper.

Contractor should refer to the code sections cited for further information.

9-3.3 Delivered Materials. Payment for the cost of materials and equipment delivered to the Work site but not incorporated in the Work will be included in the progress estimate if, prior to the closure date for the monthly progress payment, the material or equipment is listed by the Contractor on the Agency's form together with date of delivery, vendor's or Subcontractor's name and cost; is accompanied by a copy of an invoice showing the cost thereof; has an aggregate cost in excess of $5,000 for each progress payment; is currently on the Work site at an approved location and in good condition; and is one of the following:

1. Precast concrete units weighing more than 100 kilograms (200 pounds) each.
2. Structural steel members weighing more than 100 kilograms (200 pounds) each.
3. Individual pieces of electrical equipment costing over $1,000 each.
4. Individual pieces of mechanical equipment costing over $1,000 each.
5. Reinforced concrete pipe of any size.
6. Storm drainage pipe 900 mm (36") in diameter and larger.
7. Water and sewer pipe 300 mm (12") in diameter and larger.
8. Finish hardware for doors.
9. Other individual items of equipment costing over $1,000 each
10. Materials where the aggregate value of a single type of material exceeds $1,000 and is either:
    a) Fabricated or cut to fit the Work before delivery, or
    b) Of a size or type not available from any manufacturer without a special production run.

On unit price Bid items, the amount paid for materials or equipment delivered but not incorporated in the Work shall not exceed 75% of the amount of the Bid item which includes such material or equipment.

On lump sum Bid items, the amount paid for materials and equipment delivered and not incorporated in the Work shall not exceed 75% of the item in the approved schedule submitted in accordance with 9-2 of which such materials or equipment is a part.

Should materials or equipment previously paid for be damaged, destroyed, stolen or removed from the Work site, the payment previously made therefor will be deducted from the next progress payment, unless such materials or equipment are replaced prior thereto.

On the closure date for progress payments, as provided in 9-3.2, the Contractor shall certify that all materials and equipment not incorporated into the Work, for which payment has previously been made or is being requested, is still at the Work site and in good condition. Failure to provide such certification will be cause for deducting previous payments for materials not incorporated in the Work from the amount due the Contractor in the progress payment.

Payment for materials or equipment, as provided herein, shall not constitute approval or acceptance thereof nor shall such payment modify or abridge any of the rights the Agency has under the Specifications or at law nor relieve the Surety of any of its obligations under the bonds.

9-3.4 Mobilization

9-3.4.1 Scope. Mobilization includes preliminary services, work and operations, including but not limited to, furnishing required bonds, obtaining necessary permits and work areas, providing a specified field office, the movement of labor, supplies, equipment and incidentals to the Work site, and for all other work, services and operations which must be performed or for which costs are incurred prior to performing work of the other Contract items.

9-3.4.2 Payment. The Contract lump sum price bid for mobilization shall include full compensation for furnishing all labor, materials, tools, equipment, services and incidentals and for doing all work involved in mobilization as specified herein. Payment for mobilization will be made as the Work proceeds on the following basis except that where a field office is required by the Specifications, no payment for mobilization will be made until the specified field office has been provided:

Partial payment estimate (excluding mobilization & water pollution control payments) as a percentage of the original Contract price (excluding the mobilization & water pollution control Bid items).		Cumulative amount of mobilization pay item earned is the lesser of the amounts as computed by these two columns.	
Equal to or greater than	Less than	Percentage of mobilization pay item	Percentage of the original Contract total.
5	10	50	5
10	20	75	7.5
20	50	95	9.5
50	Completion of Work	100	10
Completion of Work		100	

Where no Bid item is provided for mobilization, payment for mobilization shall be considered to be included in the other Bid items.

9-4 TERMINATION OF AGENCY LIABILITY. After completion of all work required by the contract, Agency will furnish Contractor a Release on Contract form stating the amount of total authorized payments for the project. Contractor shall execute and return said form within 21 days of receipt. Said form shall release and discharge the Agency from all claims of and liability to the Contractor for all manner of debts, demands, accounts, claims, and causes of action under or by virtue of said Contract except:

a. The claim against the Agency for the remainder, if any, of the amounts retained as provided in 9-3.2, and any amounts retained as required by Stop Notices or Labor Code provisions.

b. Any unsettled claims or disputes listed on the Release on Contract form which has been processed in compliance with the requirements for making claims under the Contract, including given timely notice pursuant to the applicable provisions of the Contract and following the procedure set forth in 6-12.

Acceptance of the Release on Contract by the Agency shall not be deemed a waiver or release of the Agency's right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

When executing the Release on Contract, the Contractor shall certify that each unsettled claim or dispute listed thereon has been processed in compliance with the requirements for making claims under the Contract, including giving timely notice pursuant to the applicable provisions of the Contract and following the procedures for resolution of disputes or claims set forth in 6-12 and that acceptance of the Release on Contract by the Agency shall not be deemed a waiver or release of the Agency's right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

If Contractor fails to execute and submit a Release on Contract within the 21 day time period set forth above, the Release on Contract shall be deemed to have been submitted with no unsettled claims or disputes listed on the Release on Contract. A payment of $1.00 will be made to the Contractor for such Release on Contract and waiver.

SECTION 10 - DIVERSION, CONTROL AND REMOVAL OF WATER

10-1 DESCRIPTION. This section covers the diversion, control and removal of all water entering into the construction area or otherwise affecting construction activities.

10-2 REQUIREMENTS. All permanent construction shall be performed in a site free from water unless otherwise provided for in the Special Provisions. The Contractor shall construct, maintain, and operate all necessary cofferdams, pumps, channels, flumes, drains, well points and/or other temporary diversion, protective, and water removal works required for diversion, control and removal of all water, whether surface or groundwater, whatever its source, during construction.

Inundation of partially completed Work due to lack of control during non-working periods will not be permitted, and may be cause for requiring removal and replacement of Work already completed.

The Contractor shall be responsible for obtaining the use of any property in addition to that provided for in the Plans and Specifications, which may be required for the diversion, protective, and water removal works so as not to create a hazard to persons or property or to interfere with the water rights of others.

It shall be understood and agreed that the Contractor shall hold the Agency and the Engineer harmless from legal action taken by any third party with respect to construction and operations of the diversion and protective works.

10-3 DIVERSION AND CONTROL WORKS.

Prior to beginning of work involving diversion, control and removal of water, the Contractor shall submit a water control plan to the Engineer. In the event circumstances during the course of construction require changes to the original water control plan, a revised water control plan shall be promptly submitted to the Engineer in each instance. No responsibility shall accrue to the Engineer or the Agency as a result of the plan or as a result of knowledge of the plan.

Construction and operation of the diversion, control and removal works shall be in accordance with the water control plan submitted, except deviations therefrom may be specifically approved by the Engineer.

All works installed by the Contractor in connection with dewatering, control, and diversion of water but not specified to become a permanent part of the Work, shall be removed and the site restored, insofar as practical, to its original condition prior to completion of construction or when directed by the Engineer.

10-4 PAYMENT. No separate Bid item is included. Payment for this item of Work will be considered to be included in the payments made for other items of Contract Work to which water control is incidental.

200-1 ROCK PRODUCTS

200-1.6 Stone for Riprap

200-1.6.1A Alternate Stone for Riprap. As an alternate to the requirements of Subsection 200-1.6, the sample may be subject to the following tests:

TESTS	TEST METHOD NO.	REQUIREMENTS
Apparent Specific Gravity	ASTM C 127	2.40 Min.
Resistance to Abrasion	ASTM C 535, Grading 1	35% Max.
Soundness	Section 211-8	10% Max.
Wet and Dry Loss	Section 211-9	5% Max.
Solubility	Section 211-10	No Loss

All rock shall be angular or subangular in shape. Angular shall be defined as having sharp corners and straight planes on all faces, with no evidence of wear caused by wind, water or abrasion. Subangular shall be defined the same as angular except that evidence of wear by wind, water or abrasion may be allowed. Determination of angularity will be made by the Engineer.

200-1.6.2 Riprap Size

The individual classes of rock used for riprap shall conform to the following:

Rock Sizes	RIPRAP CLASSES					
	1-Tonne (1-Ton)	½-Tonne (½-Ton)	¼-Tonne (¼-Ton)	Light	Facing	Cobble
	PERCENTAGE LARGER THAN					
2-Tonne (2-Ton)	0-5					
1-Tonne (1-Ton)	50-100	0-5				
½-Tonne (½-Ton)		50-100	0-5			
¼-Tonne (¼-Ton)	90-100		50-100	0-5		
100-kg (200-lb)		90-100		50-100	0-5	
35-kg (75-lb)			90-100	90-100	50-100	0-5
10-kg (25-lb)					90-100	95-100
0.5-kg (1-lb)	100	100	100	100	100	100

The amount of material smaller than the smallest size listed in the table for any class of riprap shall not exceed the percentage limit listed in the table determined on a weight basis.

Compliance with the percentage limit shown in the table for all other sizes of the individual pieces of any class of riprap shall be determined by the ratio of the number of individual pieces larger than the specified size compared to the total number of individual pieces larger than the smallest size listed in the table for that class.

Flat or needle shapes will not be accepted unless the thickness of individual pieces is greater than 1/3 the length.

Before placing in final location, depositing, or stockpiling within the project limits, each individual load of riprap must meet the size requirements of the class specified.

SECTION 206 - MISCELLANEOUS METAL ITEMS

206-3 GRAY IRON AND DUCTILE IRON CASTINGS

206-3.3.2A Manhole Frame and Cover Sets

Unless otherwise specified, manhole frames and covers shall be in accordance with the following Standard Plans contained in the SPPWC:

Clear Opening Diameter mm (Inches)	SPPWC Plan No.	Catalog Numbers	
		Alhambra Foundry	Long Beach Iron Works
600 (24)	630-1	A-1495	X-162
675 (27)	631-1	A-1496	X-164
750 (30)	632-1	A-1497	X-163
900 (36)	633-1	A-1498	X-106A

206-5 METAL RAILINGS.

206-5.2 Flexible Metal Guard Rail Materials.

206-5.2A Flexible Metal Guard Rail Materials; Modification. The "Construction" grade Douglas Fir for "posts, including blocks" does not have to be "free of heart center".

SECTION 210 - PAINT AND PROTECTIVE COATINGS

210-6 STORM DRAIN HARDWARE. All storm drain hardware, including manhole frames and covers, grates, protection bars, steps, etc., shall be protected from corrosion.

Storm drain hardware made of cast iron shall be protected by painting with, or dipping in, a commercial grade asphalt paint. Storm drain hardware made of steel shall be galvanized.

211-6 SIEVE ANALYSIS. Sieve analysis shall be performed in accordance with ASTM C136.

211-7 Sand Equivalent Test. This test is intended to serve as a field test to indicate the presence or absence of plastic fine material. The test shall be run in accordance with Calif. test 217 or ASTM D2419. When testing material containing asphalt, this test method shall be modified by drying the sample at a temperature not exceeding 38°C (100°F).

211-8 R-VALUE. Resistance (R-value) shall be determined by California Test 301.

211-9 SPECIFIC GRAVITY AND ABSORPTION. Apparent specific gravity, bulk specific gravity and absorption shall be determined by California Test 206, 207, 208, 209, 224, 225, or 308, Method C where zinc stearate may be substituted for paraffin.

211-10 LOS ANGELES RATTLER TEST. Loss in Los Angeles Rattler shall be determined by California Test 211.

211-11 SOUNDNESS. For riprap, the soundness shall be determined in accordance with Calif. Test 214, excluding sections D, E, G.2.b, and H, and adding the following:

a. The test sample shall be prepared by breaking or sawing a representative sampling of riprap into particles passing the 75 mm (three inch) and retained on the 50 mm (two inch) sieve. If there are a variety of rock types or degrees of weathering within a rock type, each unique type or condition must meet the loss requirement.

b. The test sample size shall be 25,000 grams (55 lbs.) ± 1 percent.

c. All particles of test sample which break into three or more pieces during testing shall be discarded. The remaining sample shall be washed on a 4.75 mm (#4) sieve and all particles retained shall be oven dried.

d. The loss in weight shall be determined by subtracting from the original weight of the test sample the final weight of all particles retained on the 4.75 mm (#4) sieve. Divide the loss in weight by the original weight and multiply by 100 to determine the percent loss.

e. Report the following:

   (1) The percent loss.

   (2) The number of pieces affected, classified as to number disintegrating, splitting, crumbling, cracking, flaking, etc.

211-12 WET AND DRY LOSS. Wet and dry loss shall be determined as follows:

A sample of rock shall be crushed, screened, oven dried, and 1,000 g (2.2 lbs.) to 1,500 g (3.3 lbs.) of the 19 mm (3/4 inch) to 9.5 mm (3/8 inch) fraction shall be taken for the test.

The crushed and graded sample shall be submerged in tap water for 8 hours at room temperature, after which the sample shall be drained and oven dried at 78°C (140°F). When dry, the sample shall be cooled to room temperature. This completes one cycle.

After 10 cycles, the percent loss shall be computed as follows:

$$\% \text{ Loss} = \frac{100 \times \text{Weight of Material Passing 4.75 mm (No. 4) Sieve}}{\text{Total Weight of Sample}}$$

211-13 SOLUBILITY. Approximately 0.5 kg (one pound), air dried samples shall be immersed in local tap water and in Pacific Ocean water (or a 3.5% sodium chloride solution) for 8 hours each at 78°C (140°F). After immersion, the samples shall be washed with tap water, air dried and reweighed.

211-14 Permeability Test. Permeability tests for granular soils shall be performed in accordance with ASTM D2434, using samples compacted to the specified field density.

PART 3 CONSTRUCTION METHODS

SECTION 301 - TREATED SOILS, SUBGRADE PREPARATION AND PLACEMENT OF BASE MATERIALS

301-1 SUBGRADE PREPARATION

301-1.3 Relative Compaction

301-1.3.1 Firm, Hard and Unyielding. The term "firm, hard and unyielding" as used in 301-1.3 shall mean that when the heaviest construction and hauling equipment used on the Work drives over the subgrade, no permanent deformation shall occur either before or during pavement construction.

301-1.4 Subgrade Tolerances. Subgrade for pavement, sidewalk, curb and gutter, driveways, or other roadway structures shall not vary more than 15 mm (0.05 feet) from the specified grade and cross section. Subgrade for subbase or base material shall not vary more than 15 mm (0.05 feet) from the specified grade and cross section.

Variations within the above specified tolerances shall be compensating so that the average grade and cross section specified are met.

301-2 UNTREATED BASE

301-2.3 Compacting

301-2.3.1 Tolerances. The tolerance requirement in 301-2.3 is modified from 6 mm (0.02 foot) to 15 mm (0.05 foot).

SECTION 302 - ROADWAY SURFACING

302-5 ASPHALT CONCRETE PAVEMENT

302-5.1 General

302-5.1.1 Asphalt Concrete Berms. Asphalt concrete berms shall be constructed of Class III-D-PG70-10 asphalt concrete by mechanical means to conform to the details and location as shown on the Plans.

A tack coat, as provided in 302-5.4, shall be applied to the existing or new pavement preceding the placement of the asphalt concrete berms.

302-5.4 Tack Coat

302-5.4.1 Fog Seal. When specified, a fog seal consisting of material meeting the requirements of 203-3 shall be applied to the surfaces of all completed asphalt concrete at the rate of 0.36 liter per square meter (0.08 gallon per square yard) of the combined emulsion or such lesser rate ordered by the Engineer. Surface to be sealed shall be free from dust, dirt, and other foreign material. Surface shall be sealed within 7 Days after paving.

302-5.9 Measurement and Payment

302-5.9.1 Measurement and Payment for Asphalt Berm. Asphalt concrete berms will be paid for at the Contract Unit Price per linear meter (feet) of berm in place. No separate measurement or payment will be made for asphalt, aggregate, or tack coat.

302-5.9.2 Measurement and Payment for Fog Seal, Tack Coat, and Prime Coat. Measurement and payment for the specified material shall be by the tonne (ton) in place. Emulsions shall be measured after the specified dilution has been made.

SECTION 303 - CONCRETE AND MASONRY CONSTRUCTION

303-5 CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, ALLEY INTERSECTIONS, ACCESS RAMPS AND DRIVEWAYS

303-5.1 Requirements

303-5.1.4 Concrete Substitution. Class 280-C-14 (470-C-2000) may be used in lieu of Class 310-C-17 (520-C-2500) and Class 280-D-14 (470-D-2000) in lieu of Class 310-D-17 (520-D-2500) as specified in 201-1.1.2 for street surface improvements, excluding concrete pavement, when no class is specified on the Plans or in the Special Provisions.

SECTION 306 - UNDERGROUND CONDUIT CONSTRUCTION

306-1 OPEN TRENCH OPERATIONS

306-1.2 Installation of Pipe

306-1.2.1 Bedding

306-1.2.1.1 Bedding Material. When native material is allowed for backfill in the bedding zone, no rocks larger than 40 mm (1½") in maximum dimensions shall be included. Material containing ashes, cinders, and types of refuse or other deleterious material shall not be used as bedding.

306-1.2.1.2 Sewer Pipe Bedding. Bedding for sewer pipe from 100 mm (4") below the pipe to the spring line (horizontal diameter) of the pipe shall be free draining, granular material with a maximum size of 15 mm (1/2 inch), unless another bedding method is shown on the Plans.

Densification of the bedding material may be by the application of water or by mechanical means. Unless otherwise specified, all bedding material shall be densified to a relative density of 90%. Acceptability of densification in the bedding zone will be determined by visual inspection and probing to determine that no voids exist in the backfill material. In this paragraph, the word "voids" does not include intergranular voids in the soil structure.

306-1.2.1.3 Flexible Pipe Bedding. Bedding for flexible drainage and sewer pipe shall be granular material having a sand equivalent of at least 50. The bedding material shall be placed and compacted from 150 mm (six inches) below the pipe to the top of the bedding as defined in 306-1.2.1. A 1 m (three foot) long section of low permeability material (50% passing 75 μm (200) sieve) shall be installed and mechanically compacted in lieu of the above specified bedding material at intervals of 60 m (200 feet) or as otherwise indicated on the Plans.

306-9 DISINFECTION. All water mains and appurtenances shall be disinfected before being placed in service in accordance with AWWA C651 except as specified herein:

a. The water mains shall be chlorinated so that a chlorine residual of not less than 20 ppm remains in the water after standing in the pipe for 24 hours.

b. The Agency will perform sampling and testing of bacteriologic samples. Disinfection shall be repeated until two or more consecutive samples are negative for coliform organisms.

The pressure in the line being chlorinated shall be maintained at least 35 kPa (5 psi) lower than that existing in any Agency line to which it is connected.

306-10 WATERWORKS APPURTENANCES

306-10.1 Valves. Valves shall be located as shown on the drawings.

Each valve shall be operated prior to its installation to assure proper functioning. Valves shall be installed plumb and in alignment with the water main. Valves shall be anchored by metal ties to a concrete base. Line valves may be moved to the closest joint upon approval of the Engineer.

306-10.2 Valve Boxes. Each underground valve shall be provided with a valve box. The valve boxes shall be installed plumb and centered over the operating nut of the valve. Valve boxes shall be installed with concrete collars.

Where valve boxes are to be placed in asphaltic type pavement, they shall not be set to grade until after paving has been completed.

Where valve boxes are to be placed in concrete pavement, they shall be set to grade prior to paving operations.

306-10.3 Thrust Devices. A reaction or thrust device shall be provided on all dead ends, tees, elbows, and bends with more than 5 degrees deflection on pressure pipe lines.

Thrust devices shall be cast-in-place concrete, poured against undisturbed or compacted earth. Thrust devices shall be sized and constructed in accordance with the Plans.

Thrust devices and anchor blocks shall be constructed of Class 280-C-14 (420-C-2000) concrete. Thrust devices and anchor blocks shall be cured at least 7 Days where Type IP or II cement is used or at least 48 hours where Type III cement is used.

Metal tie-rods or clamps shall be of adequate strength to prevent movement of pipe. All metal shall be coated in accordance with AWWA C110.

306-10.4 Fire Hydrants. Fire Hydrants shall be installed as shown on the Plans.

All hydrants shall stand plumb and shall have their nozzles parallel with or at right angles to the curb, with the pumper nozzle facing the curb, except that hydrants having only two hose nozzles 90 degrees apart shall be set with each nozzle facing the curb at an angle of 45 degrees.

In uncurbed public road rights of way, fire hydrants shall be located as far as possible from the traveled way while providing a 1 m (3-foot) wide clear space between the fire hydrant and the right of way line. In curbed public road rights of way, fire hydrants shall be installed so that there is 300 mm (12 inches) clear between the face of curb and the fire hydrant.

306-10.5 Fire Hydrant Barricades. Fire hydrant barricades shall consist of 100 mm (4-inch) standard steel pipe, schedule 40, filled with concrete, and having a total length of 2 m (72 inches). They shall be embedded in concrete blocks 300 mm (12 inches) in diameter and 1000 mm (40 inches) deep below ground surface with the barricade pipe embedded to 100 mm (4 inches) above the bottom of the concrete so 1 m (36 inches) extends above ground surface. The steel pipe above ground shall be painted chrome yellow in accordance with AWWA C503.

Barricades shall be installed between the fire hydrant and vehicle traffic paths at locations indicated on the Plans or where required by the water purveyor or Fire Department. Barricades shall not be installed within public road rights of way.

Fire hydrant barricades shall not obstruct the hydrant outlets.

310-5 Painting Various Surfaces

310-5.6 Painting Traffic Striping, Pavement Markings, and Curb Markings.

310-5.6.8A Application of Paint - Two Coats All painted traffic striping and markings shall be applied in two coats. The price named in any Bid item for painting traffic striping and markings shall include all costs for both applications, including any delays entailed for the required drying time between applications. If bleeding, curling or discoloration occurs following application of the second coat, unsatisfactory areas shall be given an additional coat, or coats, of paint. No additional payment will be made for work necessary to correct bleeding, curling or discoloration.

PART 4

SECTION 400 - ALTERNATE ROCK PRODUCTS, ASPHALT CONCRETE, PORTLAND CEMENT CONCRETE AND UNTREATED BASE MATERIAL

400-1 Rock Products

400-1.1 Requirements

400-1.1.1 General

Alternate rock material, Type S, as specified in Section 400 may be used on the Work.

400-3 Portland Cement Concrete

Suppliers of portland cement concrete shall file mix designs as required by 400-1.1.2

400-4 Asphalt Concrete

Suppliers of asphaltic cement concrete shall file mix designs as required by 400-1.1.2

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:
	PHONE (A/C, No, Ext): FAX (A/C, No):
	E-MAIL ADDRESS:
	INSURER(S) AFFORDING COVERAGE / NAIC #
INSURED	INSURER A :
	INSURER B :
	INSURER C :
	INSURER D :
	INSURER E :
	INSURER F :

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

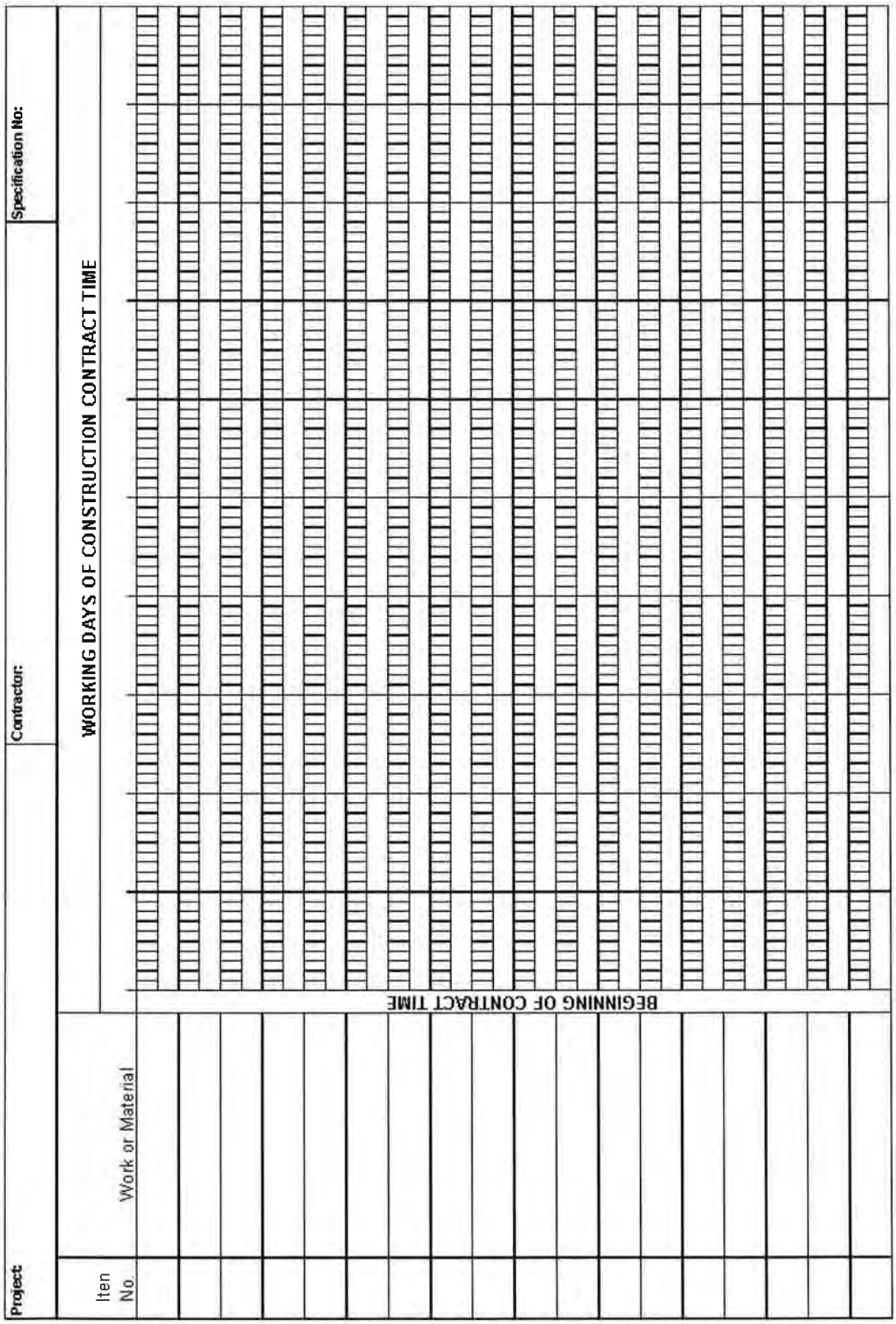
INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$ See VCSS 7-4.2
	[X] COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	[ ] CLAIMS-MADE [X] OCCUR						MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$ See VCSS 7-4.2
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$
	[X] POLICY [ ] PRO-JECT [ ] LOC							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	[X] ANY AUTO						BODILY INJURY (Per person)	$
	[ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS						BODILY INJURY (Per accident)	$ 1,000,000
	[ ] HIRED AUTOS [ ] NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$ 1,000,000
								$
	UMBRELLA LIAB [X] OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB [ ] CLAIMS-MADE						AGGREGATE	$
	DED [ ] RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						WC STATU-TORY LIMITS [ ] OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICE/MEMBER EXCLUDED? [ ] N / A (Mandatory in NH)						E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

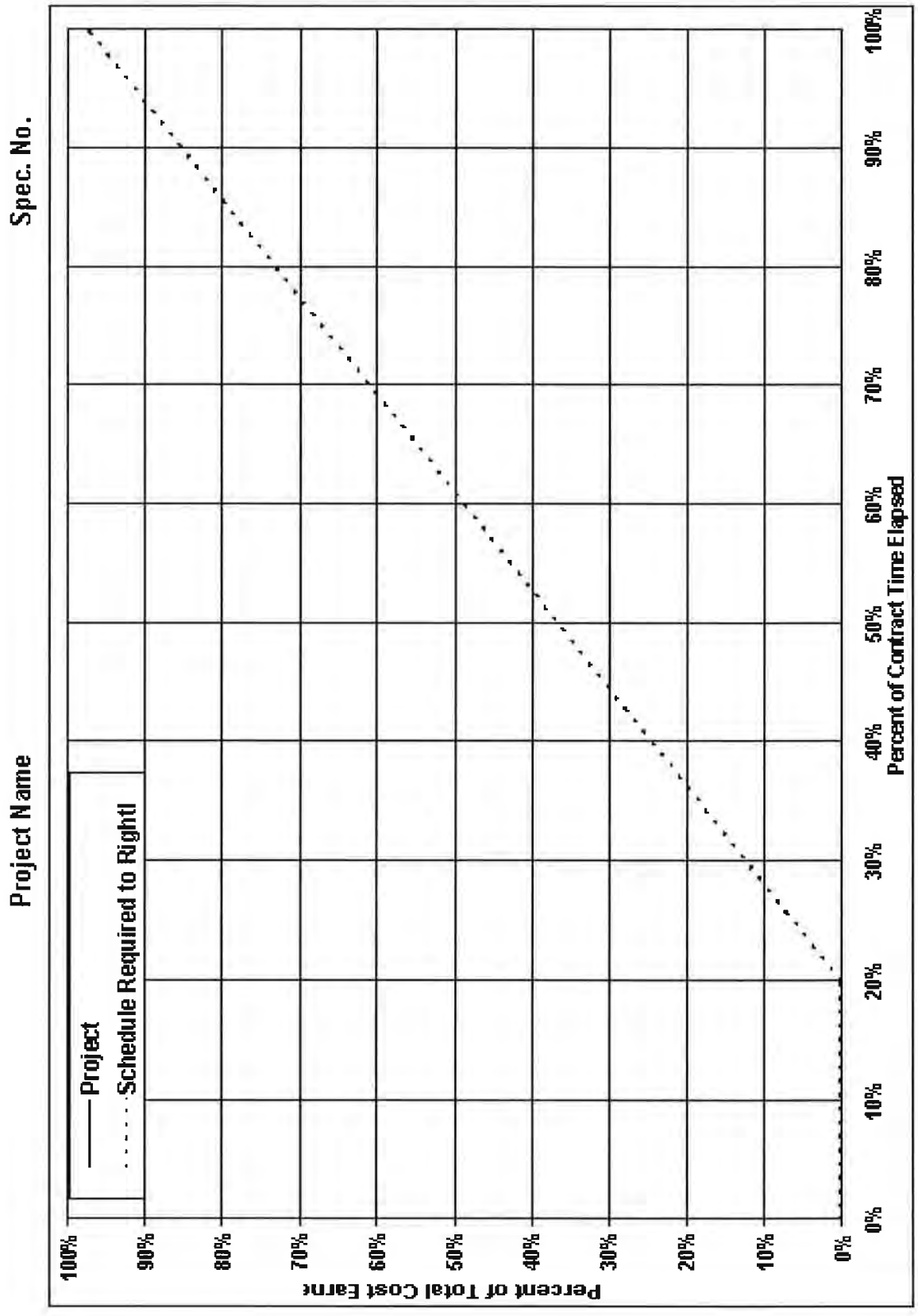
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

(Agency) - (Project Name) (Project Specification number)

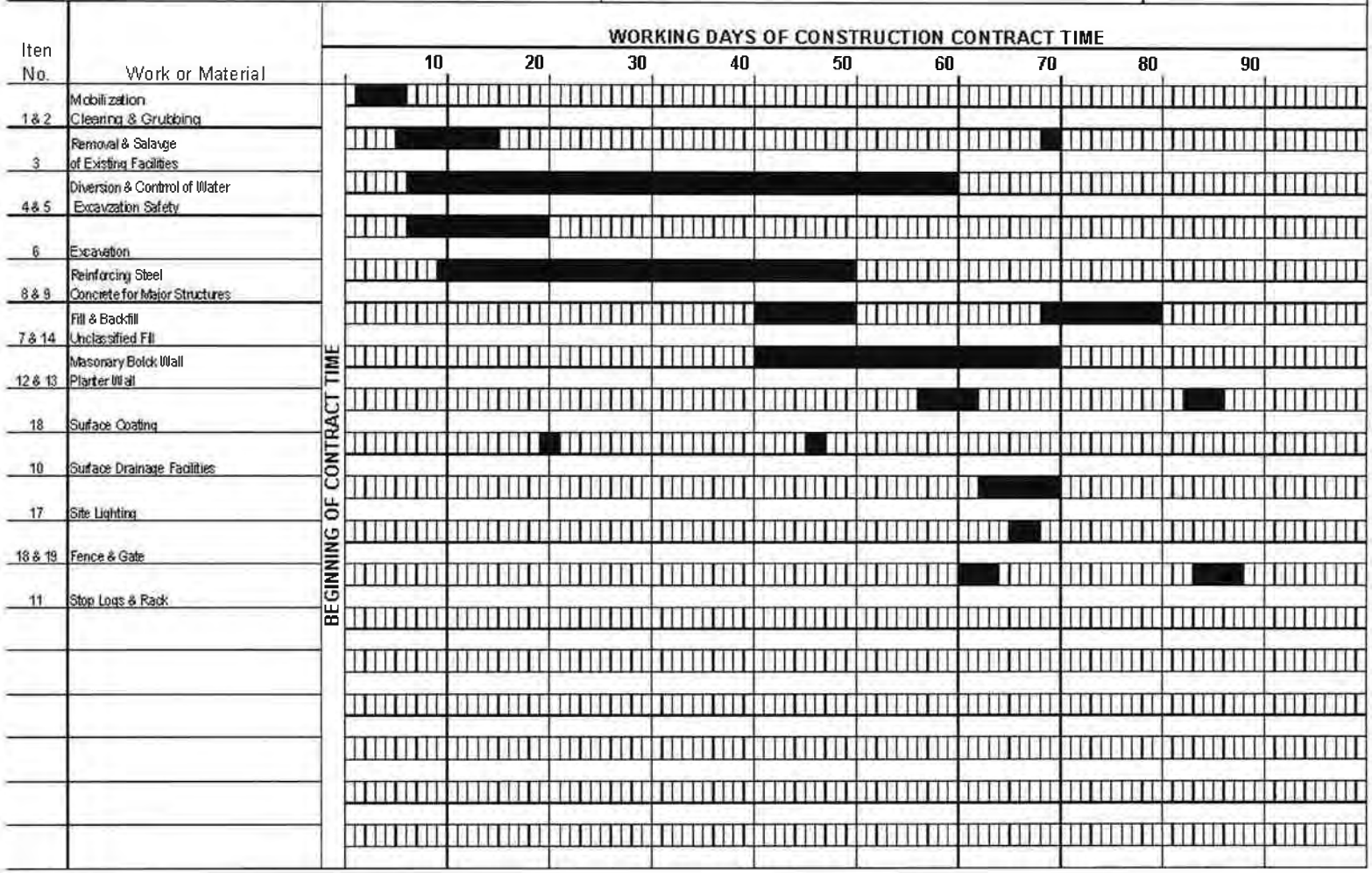
The Agency and the County of Ventura, including its boards, all special Districts governed by the Board of Supervisors, agencies, departments, officers, consultants, employees, agents and volunteers, Is named as Additional Insured as respects work done by Contractor under the terms of the contract on General Liability and Auto Liability Policies. Waiver of Subrogation is applicable to the Agency and the County of Ventura, its boards, districts, agencies, departments, officers, employees, agents and volunteers for Work Comp and General Liability. Endorsements required for referenced contract will be issued by the Insurance Company.

CERTIFICATE HOLDER	CANCELLATION
County of Ventura Public Works Agency L-1670 800 S. Victoria Avenue Ventura, CA 93009-1670	**SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.** AUTHORIZED REPRESENTATIVE


Project:
Contractor:
Specification No:
WORKING DAYS OF CONSTRUCTION CONTRACT TIME
Item No.
Work or Material
BEGINNING OF CONTRACT TIME
EACH HORIZONITAL INTERVAL EQUALS ____ WORKING DAYS OF CONTRACT TIME
Submitted
Contractor
By
Date
Title


Project Name
Spec. No.
Project
Schedule Required to Right!
Percent of Total Cost Earne
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Percent of Contract Time Elapsed

Project:	Contractor:	Specification No:
Arroyo Santa Margurita	Dilbert and Company Construction	FC97-32



Iten No.	Work or Material
1 & 2	Mobilization Clearing & Grubbing
3	Removal & Salvage of Existing Facilities
4 & 5	Diversion & Control of Water Excavation Safety
6	Excavation
8 & 9	Reinforcing Steel Concrete for Major Structures
7 & 14	Fill & Backfill Unclassified Fil
12 & 13	Masonary Bolck Wall Planter Wall
18	Surface Coating
10	Surface Drainage Facilities
17	Site Lighting
18 & 19	Fence & Gate
11	Stop Logs & Rack

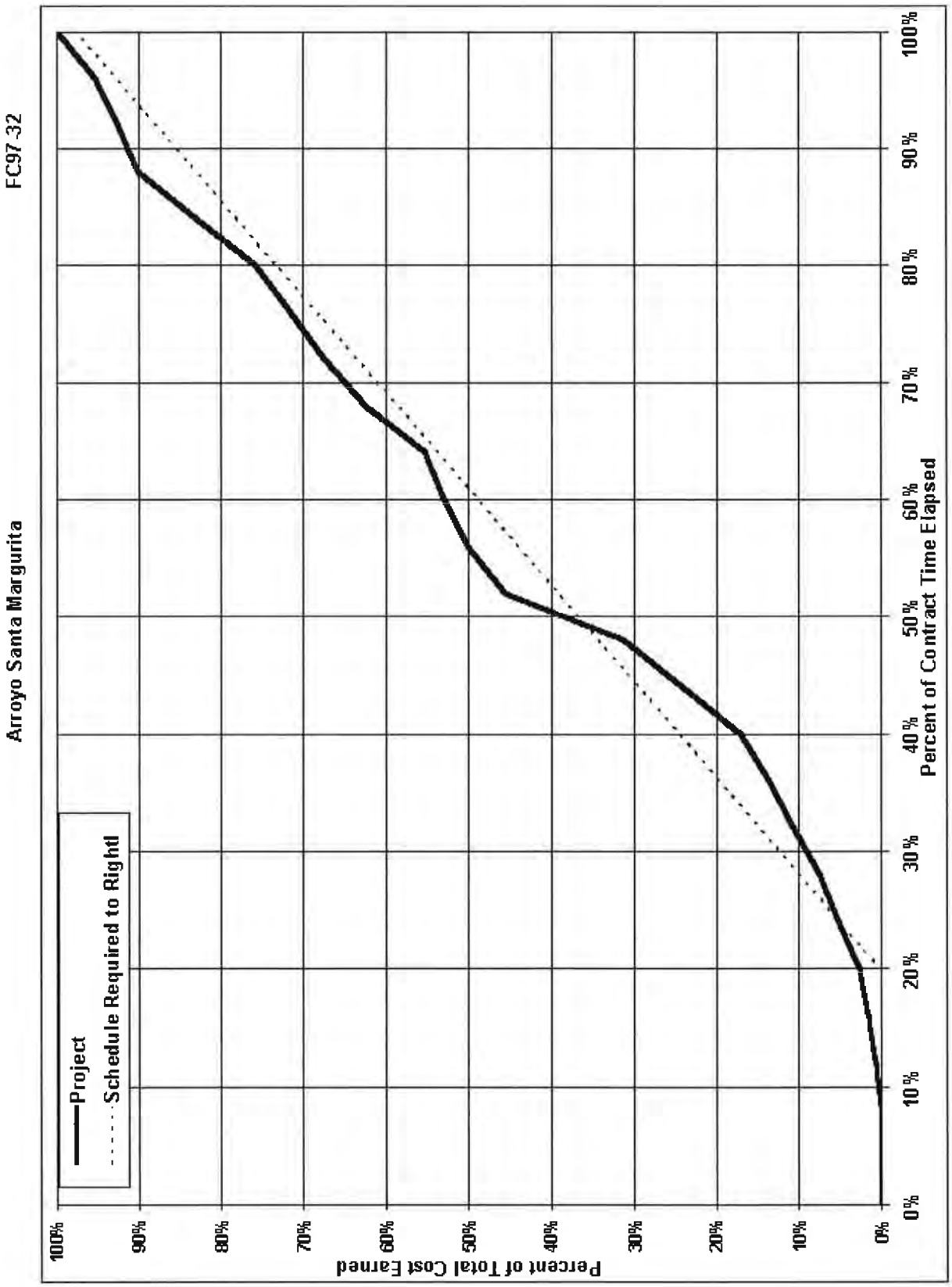
EACH HORIZONITAL INTERVAL EQUALS 1 WORKING DAYS OF CONTRACT TIME

Submitted Dilbert and Company Construction
Contractor

By *Tina Blair*

5/22/97
Date

Title President


FC97-32
Arroyo Santa Margurita
Project
Schedule Required to Right
Percent of Total Cost Earned
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 %
10 %
20 %
30 %
40 %
50 %
60 %
70 %
80 %
90 %
100 %
Percent of Contract Time Elapsed

APPENDIX D ESCROW AGREEMENT FORM SAMPLE

ESCROW AGREEMENT FOR
SECURITY DEPOSITS IN LIEU OF RETENTION

This Escrow Agreement is made and entered into by and between
("Agency") whose address is _____ and
("Contractor") whose address is _____ and
("Escrow Agent") whose address is _____.

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

(1) Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Agency pursuant to the Construction Contract entered into between the Agency and Contractor for _____ in the amount of dated _____, (hereinafter referred to as the "Contract") which Contract is identified by Spec. No._____ and Auditor Controller's Contract No._____. Alternatively , on written request of the Contractor, the Agency shall make payments of the retention earnings directly to the Escrow Agent. When Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Agency within ten days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the Agency and Contractor. Securities shall be held in the name of _____ , and shall designate the Contractor as the beneficial owner.

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

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

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

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

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

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

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

(9) Escrow Agent shall rely on the written notifications from the Agency and the Contractor pursuant to Sections (1) to (8), inclusive, of this Agreement and the Agency and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.

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

On behalf of Agency:

_____, Director,
Public Works Agency

_____, Director
Central Services Department

_____, Director
Engineering Services Department

Address for all of the above:
Public Works Agency
800 South Victoria Avenue
Ventura, CA 93009

SAMPLE FORM
Form used for escrow will have names and signatures of persons authorized in accordance with paragraph 10.

On behalf of Contractor:

_____
Title

_____
Name

_____
Signature

_____
Street Address

_____
City & State Zip Code

On behalf of Escrow Agent:

_____
Title

_____
Name

_____
Signature

_____
Street Address

_____
City & State Zip Code

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

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

Agency:
(Agency name)

_____
Title

_____
Name

_____
Signature

Contractor:
(Contractor company name)

_____
Title

_____
Name

_____
Signature

EXHIBIT "A"
ESCROW INSTRUCTIONS

The parties to this escrow are _____("Agency") and _____ ("Contractor") and _____("Escrow Agent"). Agency and Contractor have entered into a contract for the construction of _____which contract is identified by Spec. No. _____ and Auditor-Controller's Contract No. _____ and was entered into by and between Agency and Contractor ("Construction Contract"). Pursuant to Public Contract Code Section 22300, Contractor may substitute certain securities for an equivalent amount of money required to be withheld from progress payments by Agency to Contractor pursuant to the Construction Contract.

The Escrow Agent is hereby instructed as follows:

1. Contractor may deliver to Escrow Agent:
   (a) Securities of the types specified in Sections 22300 of the Public Contract Code and Section 16430 of the Government Code.
   (b) Such other documents as are necessary to enable Escrow Agent to convert such securities into cash.
2. Upon receipt of such securities and other documents, Escrow Agent shall notify Agency within ten days of the deposit, and shall examine them to determine whether they are in a form sufficient to effect conversion of the securities into cash. Escrow Agent shall thereupon send written notice of its determination to Agency.
3. Escrow Agent shall hold such securities as trustee for Agency. The right of Agency to such securities is superior to any other lien or claim of lien; provided, however, that Contractor shall be entitled to any interest earned by such securities prior to their conversion to cash pursuant to section 5 hereof, and further provided that such interest may be withdrawn by Contractor at any time and from time to time without notice to Agency.

   Securities may be substituted by Contractor, but any securities substituted for securities previously deposited shall not reduce the current cash value of securities held below that last reported to Agency by Escrow Agent.
4. Escrow Agent shall determine the current cash value of such securities held by it as of the close of business on the first business day following the _____ day of each month and, in addition, on any other days which the Agency may from time to time specify in a written notice to Escrow Agent. Current cash value shall be determined as follows:
   (a) For securities traded over-the-counter or on a stock exchange:
      (1) Determine either the current bid price for the securities as of the close of business or the face value of the securities, whichever is less.
      (2) Subtract the cost of sale (broker commission).
      (3) Subtract all unpaid escrow fees and costs associated therewith.
   (b) For certificates of deposit:
      (1) Determine the face amount.
      (2) Subtract the potential interest penalty for immediate conversion.
      (3) Subtract all unpaid escrow fees and costs associated therewith.
   (c) Determine the value of other securities by procedures calculated to determine net realizable value. Promptly upon making each such determination, Escrow Agent shall notify Agency of the securities held and current cash value of such securities.

5. At any time or times that Agency believes it has a right to do so under the provisions of the Construction Contract, Agency may, without the consent of Contractor, deliver to Escrow Agent a written demand that Escrow Agent convert to cash all or any part of such securities. Upon seven days' written notice from Agency of such demand, Escrow Agent shall convert to cash all or part of such securities as demanded and shall distribute the cash as instructed by the Agency.

6. When the Construction Contract has been satisfactorily completed on the part of Contractor and any stop notices filed against the Construction Contract have been released, Agency shall give written notice to Escrow Agent that such securities may be returned to Contractor. Upon receipt of such written notice and payment of all escrow fees and costs, the Escrow Agent shall deliver to Contractor all money, interest, securities and other documents remaining in escrow and the escrow shall terminate.

7. Contractor, and not Agency, shall be liable to Escrow Agent for all of Escrow Agent's fees and costs associated with this escrow.

8. The Director of the Ventura County Public Works Agency, a Department Director of said Agency, or other person authorized in writing by such Director or Department Director is authorized to give written notice and to make written demands on behalf of Agency pursuant to sections 4, 5 and 6 hereof.

9. All written notices and demands pursuant to the escrow agreement and these Instructions shall be addressed as follows:

(a) To Agency:

Director, Ventura County Public Works Agency
800 South Victoria Avenue
Ventura, California 93009

(b) To Contractor:

(c) To Escrow Agent:

DATED: _____

_____	_____	_____
_____	_____	_____
By _____	By _____	By _____
Title _____	Title _____	Title _____
AGENCY	CONTRACTOR	ESCROW AGENT Bank Charter: State [ ] Federal [ ] Escrow Agent's Address:

_____

_____

APPENDIX E BLANK

RELEASE ON CONTRACT

CONTRACT NAME: _____

SPEC. NO. _____, PROJECT NO. _____

WHEREAS, by the terms of the contract dated ____ _, 20___ entered into by _____

_____and the undersigned CONTRACTOR,

_____

_____

_____

undersigned CONTRACTOR agreed to perform certain work for the compensation specified in said contract; and

WHEREAS, the CONTRACTOR represents that said work is fully completed and that final payment is due to the CONTRACTOR under terms of said contract,

NOW, THEREFORE, in consideration of the promises and the payment by [AGENCY NAME] to the CONTRACTOR of the amount due under the contract, to wit, the sum of $_____ and the additional consideration of $1.00, receipt of which is hereby acknowledged by the CONTRACTOR, the CONTRACTOR hereby releases and forever discharges _____ of and from all manner of debts, dues, demands, sum or sums of money, accounts, claims and causes of action, in law and in equity, under or by virtue of said contract except the claim against the Agency for the remainder, if any, of the amounts retained as provided in 9-3.2, any amounts retained as required by Stop Notices or Labor Code Provisions, and any unsettled claims or disputes as follows: (If none, leave blank)

Description of Claim or Dispute	Amount	Date of Claim	Date of Notice of Potential Claim

The CONTRACTOR certifies that each unsettled claim or dispute listed hereon has been processed in compliance with the requirements for making claims under the contract, including giving notice pursuant to the applicable provisions of the contract, and following the procedures for resolution of disputes or claims set forth in subsection 6-12 of the contract. Acceptance of this Release on Contract by the [Agency Name] shall not be deemed as a waiver or release of its right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

IN WITNESS WHEREOF, the hand and seal of the CONTRACTOR have been hereunto set this ___ day of _____, 20___.

THIS FORM MUST BE ACCOMPANIED
by a proper acknowledgement form
(See Civil Code Section 1189)

Contractor

By

Title

SAMPLE PERFORMANCE AND PAYMENT BOND FORM

Bond No._____

SURETY BONDS

PERFORMANCE BOND

Whereas, the «Agency», hereinafter called "Agency", and «Contr», hereinafter called "principal", have entered into a contract dated «ContrDate» whereby principal agrees to complete certain designated work identified as project «ProjName» (Spec. No.«SpecNo»), and to perform other duties and obligations as described in said contract, which is incorporated herein by this reference and made a part hereof; and

Whereas, principal is required under the terms of said contract to furnish a bond to guarantee principal's faithful performance of the work and all terms and conditions of the contract;

Now, therefore, we the principal and the undersigned, as corporate surety, are held and firmly bound unto Agency in the penal sum of «CostText» ($«OrigCostFmtd») lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, successors, executors and administrators, jointly and severally, firmly by these presents.

The condition of this obligation is such that if the principal, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and provisions in the said contract and any alteration thereof made as therein provided, on principal's part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless Agency, its officers, agents and employees, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

The above obligation shall continue after Agency's acceptance of the work for the duration of the warranty period as specified in the contract during which time if principal fails to make full, complete, and satisfactory repair or replacement to the work and/or fails to protect Agency from loss or damage resulting from or caused by defective materials or faulty workmanship, the obligation of surety hereunder shall continue so long as any obligation of principal remains.

PAYMENT BOND

And, whereas, under the terms of said contract, principal is required before entering upon the performance of the work, to file a good and sufficient payment bond with the Agency to secure the claims to which reference is made in Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code of the State of California.

Now, therefore, said principal and the undersigned, as corporate surety, are held firmly bound unto the Agency and all contractors, subcontractors, laborers, material suppliers and other persons employed in the performance of the aforesaid contract and referred to in the aforesaid Civil Code in the like sum of «CostText» dollars ($«OrigCostFmtd») for materials furnished or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, or for any amounts required to be deducted, withheld and paid over to the Franchise Tax Board from the wages of employees of the contractor and the contractor's subcontractors, that said surety will pay the same in an amount not exceeding the amount hereinabove set forth, and also in case suit is brought upon this bond, will pay, in addition to the face amount thereof, costs and reasonable expenses and fees including reasonable attorney's fees incurred in successfully enforcing such obligation, to be awarded and fixed by the court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should this condition of this bond be fully performed, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

GENERAL TERMS

The surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of said contract or the plans and specifications accompanying the same shall in any manner affect its obligations on these bonds, and it does hereby waive notice of any such change, extension, alteration or addition.

Nothing herein shall limit the Agency's rights or surety's obligations under the contract or applicable law, including, without limitation, California Code of Civil Procedure section 337.15.

In witness whereof, this instrument has been duly executed by the principal and surety above named

on _____, 20

«Contr»
Name of Principal

By_____

Title_____

_____
Name of Surety

By_____
Attorney-in-Fact

Address _____

City_____ State___ Zip_____

INDICATE COMPLETE ADDRESS OF SURETY TO WHICH CORRESPONDENCE CONCERNING THIS BOND SHOULD BE DIRECTED.

Telephone No._____

A-467/9-Tmpl

SAMPLE BOND FORM

Agency will prepare the Bond in this format and transmit it to the Contractor along with the Contract and the Notice of Award letter.

Surety shall fill in the Bond No., date identification and signature of surety in places provided.

Contractor shall sign and indicate title in place provided.

Ventura County Fire Protection District

Technical Specifications

Division 01 – Section 01010

General Requirements & Summary of Work

Division 01 – Section 01010
General Requirements and Summary of Work

Bid Documents
Ventura County Fire Protection District
Lockwood Valley Substation Garage Addition Project
15021 Lockwood Valley Road, Frazier Park, CA 93225
Bid Due Date and Time – September 29, 2021 @ 1:00 PM, PST

DIVISION 1

SECTION 01010

GENERAL REQUIREMENTS AND SUMMARY OF WORK

For Ventura County Fire Protection District's (herein Agency, District or VCFPD) Lockwood Valley Substation Garage Addition Project located at 10521 Lockwood Valley Road, Frazier Park, CA 93225, the following individuals shall act as authorized representatives of Agency as directed by and under the supervision of the Agency's Business Services Bureau Manager, and will confer with the Agency's Business Services Bureau Manager and Agency regarding its actions. The Contractor shall bear all expenses of correcting Work done contrary to the Contract Documents, Construction Drawings and Technical Specifications if the Contractor performed same, 1) without first consulting the Architect, Agency's Business Services Bureau Manager and Project Manager for further instructions regarding said Work or 2) disregarded the Architect's, Business Services Bureau Manager's and Project Manager's instructions regarding said Work.

1. Architect of Record is Ideas Architecture, Real Estate & Construction. Arthur Anderson, A.I.A is the Principal-in-Charge.
2. VCFPD's Business Services Bureau Manager is Tom Kasper.
3. VCFPD's Representative and Project Manager is David Kirby.

Where the word "Architect" is used in these Bid Contract Documents and Division 01, it shall mean Ideas Architecture, Real Estate & Construction.

A. DESCRIPTION OF THE WORK – GENERAL:

1. The Work to be performed includes, but is not limited to, the items outlined in the Contract Documents and includes all Work shown upon the Construction Drawings, Technical Specifications, and all other Trade Contract Documents concerning this Work.

   Construction Drawings and general provisions of the Contract Documents, including County of Ventura Standard Specifications, Agency's Supplementary Standard Specifications and the requirements of this Division 01, Section 01010 apply to the Project named above.

2. The Construction Drawings and Technical Specifications indicate the nature of the Work in terms of the Architectural and Structural Design Concept. It is specially noted that the Construction Drawings and Technical Specifications are intended to show the overall Design Concept only with regard to finished appearance, use, location, sizes, finishes, etc. The Contractor shall be solely responsible for the means, methods, and procedures of construction of the Work.

3. The Contractor shall perform all Work in conformance with every law, statute, ordinance, building code, rule, or regulation. The Contractor shall assume full responsibility for such Work and shall bear the attributable cost of correction or Project delay.

4. The Work to be performed under this Contract shall include the furnishing of all plant, tools, equipment, materials, hardware, accessories, supplies and fabricated or manufactured articles, necessary appurtenances and items for the Work, including all guarantees and warranties.
   The Work shall also include the furnishing of all packaging, transportation, trucking, fuel, freight, drayage, delivery and services; obtaining of all permits and licenses, fees, royalties, insurance and bonds and payment of all applicable taxes and all storage and demurrage costs as required by these Bid Documents to complete all Work. The Work also includes all required surveying and layout, submission of shop drawings, submittals, samples, data sheets, manufacturers' manuals, as well as the provision of all scaffolding, temporary bracing and shoring, temporary stairs, ladders and other access aids, hoisting, all OSHA-required safety measures, and all labor and supervision and management and all other operations and miscellaneous services and appurtenances required for the fulfillment of the Contract in strict accordance with the Contract Documents, as well as the reasonable intent in describing the scope of the completed Project.

5. Contractor will be responsible for all prep and moisture testing required by manufacturers' specification for all finishes.

6. Contractor shall provide at no additional cost to the District, access wherever to all parts of the Work that require periodic inspection, maintenance or access that are concealed by permanent non-removable construction or as required by any codes and or authorities having jurisdiction over the Project.

7. Contractor will provide, furnish, install, and maintain for the duration of this Contract all required weather protections and Storm Water Pollution Controls.

8. **CONFORMANCE WITH LAWS**: Each and every provision of law required by law to be inserted in this Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though it were included herein, even if through mistake or otherwise any such provision is not inserted, or is not correctly inserted.

   Before commencing any portion of the Work, Contractor shall check and review the Drawings and Specifications for such portion for conformance and compliance with all laws, ordinances, codes, rules and regulations of all governmental authorities and public and municipal utilities affecting the construction and operation of the physical plant of the Project, all quasi-governmental and other regulations affecting the construction and operation of the physical plant of the Project, and other requirements, if any, designated in the Contract Documents. Such checking shall include but not limited to Title 21 and Title 24 of the California Code of Regulations, California Building Code, local utility, local water connection, local grading, and all other applicable agencies. In the event Contractor observes any violation of any law, ordinance, code, rule or regulation, or inconsistency with the Contract Documents, Contractor shall, within two calendar days, notify Project Manager and Agency in writing of same and shall ensure that any such violation or inconsistency shall be corrected in the manner provided hereunder prior to the construction of that portion of the Project. The Contractor shall bear all expenses of correcting Work done contrary to said laws, ordinances, codes, rules, and regulations if the Contractor performed same, 1) without first consulting the Architects, Agency, and Project Manager for further instructions regarding said Work or 2) disregarded the Architect's, Agency's, and Project Manager's instructions regarding said Work. The Contractor shall make available, at the construction site, as required, as applicable, a copy of all applicable laws, rules, codes, ordinances, standards, and regulations books or sections.

9. **AMBIGUITY AND INCONSISTENCY:** Before commencing any portion of the Work, Contractor shall carefully examine all Drawings and Specifications and other information given to Contractor as to materials and methods of construction and other Project requirements. Contractor shall, within two calendar days, notify Project Manager in writing of any perceived or alleged error, inconsistency, conflict, ambiguity, or lack of detail or explanation in the Drawings and specifications in the manner provided herein. If the Contractor or its subcontractors, material or equipment suppliers, or any of their officers, agents, and employees performs, permits, or causes the performance of any Work under the Contract Documents, which it knows or should have known to be in error, inconsistent, or ambiguous, or not sufficiently detailed or explained, Contractor shall bear any and all costs arising there from including, without limitation, the cost of correction thereof without increase or adjustment to the Contract Price or the time for performance. If Contractor performs, permits or causes the performance of any Work under the Contract Documents prepared by or on behalf of Contractor which is in error, inconsistent or ambiguous, or not sufficiently detailed or explained, Contractor shall bear any and all resulting costs, including, without limitation, the cost of correction, without increase to or adjustment in the Contract Price or the time for performance.

10. Contractor shall protect all structures indicated to remain on the plans to the fullest extent possible by benching, sloping, slot cutting or shoring. The cost of any required permits, engineered shoring plans, shoring or other protective measures that may be required shall be the responsibility of the Contractor and shall be included in the Contractor's base bid price.

11. **SUBSTITUTION**:

One Product Specified: Unless the Specifications state that no substitution is permitted, whenever the Contract Documents indicate any specific article, device, equipment, product, material, fixture, patented process, form, method, or type of construction or any specific name, make, trade name, or catalog number, with or without the words "or equal," such specification shall be deemed to be used for the purpose of facilitating description of the material, process, or article desired and shall be deemed to be followed by the words "or equal." Contractor may, unless otherwise stated, offer any material, process, article, etc., which shall be materially equal or better in every respect to that so indicated or specified and will completely accomplish the purpose of the Contract Documents.

Substitution Requests: Requests for substitutions of products, materials, or processes other than those specified must be made in writing on forms approved by the Architect, Project Manager and Agency within two days of the execution of the established date for the start of construction stated in the Notice to Proceed. Any Requests submitted after the two days will not be considered, except at the sole discretion of the Agency.

A Substitution Request must be accompanied by evidence as to whether or not the proposed substitution: 1) is equal in quality and serviceability to the specified item; 2) will entail no changes in detail, construction and scheduling of related work; 3) will be acceptable in consideration of the required design and artistic effect; 4) will provide no cost disadvantage to Agency; and 5) will require no excessive or more expensive maintenance, including adequacy and availability of replacement parts. The burden of establishing these facts and all associated costs, including all costs associated with its design, engineering, permits & permitting process and the like shall be upon the Contractor. The Contractor shall furnish with its request all drawings to include the permitted set of structural engineer's wet stamped drawings approved by all authorities having

jurisdiction over this Project, specifications, samples, performance data, calculations, and other information as may be required to assist the Architect, Project Manager and Agency in determining whether the proposed substitution is acceptable. The final decision shall be the Agency's. The written approval of the Agency, consistent with the procedure for Change Orders, shall be required for the use of a proposed substitute material. Agency may condition its approval of the substitution upon delivery to Agency of an extended warranty or other assurances of adequate performance of the substitution. All risks of delay due to governmental agencies having jurisdiction, approval of a requested substitution shall be on the requesting party. If a substitute offered by the Contractor is not found to be equal to the specified material, the Contractor shall furnish and install the specified material.

B. BEFORE STARTING CONSTRUCTION:

1. Before undertaking each part of the Work, the Contractor shall carefully study and compare the Contract Documents and check and verify pertinent information and figures shown thereon and all applicable field measurements. The Contractor shall promptly report in writing, via Request for Information (RFI) process to the Architect and Project Manager any conflict, error or discrepancy which the Contractor may discover and shall obtain a written interpretation or clarification from the Architect and Project Manager before proceeding with any Work affected thereby; however, the Contractor shall not be liable to the Agency or the Architect for failure to report any conflict, error or discrepancy in the Contract Documents, unless the Contractor had actual knowledge thereof or should reasonably have known thereof. Contractor shall only submit one issue per RFI, along with their proposed possible solution for consideration including any schedule or costs impact.

C. SUPERVISION:

1. The Contractor shall designate in writing and keep on the Work at all times during its progress a competent, full-time, technically qualified, English speaking Superintendent or Head Supervisor approved by the Project Manager and Agency. No work on the job site shall be performed without the onsite presence of a Superintendent or Head Supervisor. The Superintendent or Head Supervisor shall not be replaced without written notice to the Project Manager except under extraordinary circumstances; provided, that Contractor shall be required to replace said Superintendent or Head Supervisor at any time upon request of the Project Manager and Agency. The Superintendent or Head Supervisor shall be the Contractor's representative at the site and shall have authority to act on behalf of the Contractor. All communications given to the Superintendent or Head Supervisor shall be as binding as if given to the Contractor. The Contractor shall issue all its communications to the District through the Project Manager.

2. The Contractor, each of their respective Subcontractors' Job Site Superintendent or Head Supervisor, and their respective designated Safety Representative(s) shall have successfully completed the 29 CFR 1926 10-hour OSHA Course or equivalent CAL-OSHA Course prior to the start of their work. Contractor shall submit proof of completion prior to mobilization.

D. LABOR, MATERIALS, EQUIPMENT, MATERIAL HANDLING & STAGING:

1. It is this Contractor's responsibility to provide for all hoisting, tools, equipment, and rigging of materials and/or equipment.

2. Contractor shall be responsible for their own materials, tools, and equipment during the delivery, unloading, rigging, hoisting, or while in storage until Final Acceptance by Agency.

3. Contractor shall deliver materials, equipment, labor, etc. to the jobsite in such a manner so as to provide for the proper execution of its Work in a continuous, uninterrupted fashion.

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

5. Contractor may stockpile materials and equipment in areas approved by the Project Manager. Contractor may not store, locate or temporarily place any materials, equipment, etc. whatsoever on the "Temporary Fire Lanes" as indicated by contrasting painted or otherwise appropriately marked surfaces and/or signage, within or without the building. If the material, equipment, etc. stored, located or temporarily placed by the Contractor should create an interference or obstruct the work of other trades or the Agency, Contractor will immediately move upon instruction from the Project Manager and relocate its materials at its own expense with no delays or costs to the Agency. Contractor shall neither store nor stage any materials or equipment upon surrounding public streets, sidewalks or other similar areas.

6. The Contractor shall coordinate all deliveries of materials and equipment with the Project Manager, a minimum of two working days prior to the anticipated date of delivery. No exceptions to the prior notification requirements will be allowed.

7. Contractor shall be responsible for receiving all Project deliveries made to Contractor. Contractor shall have its own forces present whenever deliveries are received and shall not rely upon the Agency or others to receive deliveries for Contractor.

8. As applicable to this Project, the Contractor shall provide all fencing as required at the perimeter of the site and staging areas, to ensure safety and security. Fencing to include green fabric on all perimeter sides. Location of perimeter and stage area fencing shall be approved by the Project Manager prior to installation. Contractor shall provide and maintain at all times, a 6-foot height chain link fence with locks around all areas of work for safety and security. The Contractor shall furnish the Project Manager with two sets of keys or combination for the locks.

9. The Contractor shall furnish, provide, install, and maintain all required protective material and coverings, medium, and services to protect all items, equipment, facilities, building, and artifacts, etcetera, associated with this Project through the entire duration of this Contract and through completion of the Project.

10. No threading machines, oil use devices, or any possible containments, containment(ing) devices, machines, and/or equipment shall be allowed within the building envelope unless authorized by the Project Manager. All care shall be provided by the Contractor and their respective subcontractors to protect all floors, walls, surfaces, etcetera at all times. Contractor shall make corrections to the protection medium at the direction of the Project Manager, without additional cost to the Project or Contract.

E. MEETINGS (including but not limited to):

1. The Contractor shall attend a Mandatory Pre-Construction Meeting to be held with the Project Manager and Architect prior to commencement of work. Copies of the minutes shall be transmitted for record by Project Manager.

2. The Contractor shall attend Mandatory Weekly Construction Meetings as scheduled.

3. Contractor shall hold, administer and document a Mandatory Pre-Construction Meeting for each and every subcontractor prior to their work commencement. Copies of the minutes shall be transmitted for record to the Project Manager, upon demand.

4. The Contractor and each respective subcontractor shall hold and document a Mandatory Weekly Tool Box and Tail Gate Meeting. Copies of the minutes shall be transmitted for record to the Project Manager, upon demand.

5. The Contractor and each of their respective subcontractors shall train and orientate each of their respective employees as to the requirements for the Project site, as defined by the Contract Documents, and OSHA.

F. COORDINATION AND COMMUNICATIONS:

1. The Agency shall issue all its communications to the Contractor through the Project Manager, David Kirby at (805) 914-4568 or david.kirby@ventura.org.

G. AGENCY/OWNER–FURNISHED, AGENCY/OWNER–INSTALLED WORK (AFAI OR OFOI)

1. Items shown on the drawings as AFAI or OFOI shall be furnished by the Agency/Owner and installed by the Agency/Owner. Work indicated as AFAI or OFOI will be performed under separate contract employed by the Agency at its discretion. Where Work of this Contract adjoins or conflicts with AFAI or OFOI work, the Contractor shall cooperate with the Agency and its employees in a manner, which will provide for a reasonable and accurate completion of this Contract and Work under separate contract.

2. The Contractor shall furnish, provide, install, and maintain all required protective material and coverings, medium, and services to protect all items, equipment, facilities, building, and artifacts, etcetera associated with this project through the entire duration of this Contract and through completion of the project.

H. AGENCY/OWNER–FURNISHED, CONTRACTOR–INSTALLED WORK (AFCI OR OFCI)

1. Items shown on the drawings as AFCI or OFCI shall be furnished by the Agency/Owner and installed by the Contractor. The Contractor shall verify exact sizes and services required for each item of equipment indicated on the Drawings or in the Specification as AFCI or OFCI and shall obtain from the Agency/Owner rough-in drawings, diagrams, setting templates and other necessary information to assure proper mating of assemblies.

2. The Contractor shall receive at the Project site each item of equipment from the Agency and from that time on shall assume full responsibility for the items and equipment until one year from date of substantial completion.

3. The Contractor shall give the Agency two days prior notice of the requirement for delivery to the site of all AFCI or OFCI equipment.

4. Contractor shall be responsible for providing all personnel, tools, materials, rigging, and equipment in receiving, storing, securing, protecting, and delivering to applicable work area all AFCI or OFCI items and equipment and shall uncrate, inspect and notify the Agency in writing within two days of receiving said items or equipment of the acceptance or rejection of the items or equipment. The Agency, after receiving notice, will take appropriate action to have the items or equipment made acceptable for the Contractor's use. Rejected items shall be carefully stored and protected from damage by the Contractor until the Agency takes appropriate action.

5. The Contractor shall be responsible for final placing, installation, connection, start-up, checking, testing, and demonstrating satisfactory operation. The Agency will provide names of manufacturer(s) representatives, who will assist the Contractor in checking, testing, and demonstrating the equipment.

6. The Contractor shall furnish, provide, install, and maintain all required protective material and coverings, medium, and services to protect all items, equipment, facilities, building, and artifacts, etcetera associated with this Project through the entire duration of this Contract and through completion of the Project.

I. SAFETY AND SECURITY:

1. Contractor shall be responsible for the installation and maintenance of any protective barricades, protective cables, protection planking and/or similar protective devices in accordance with all local, State or Federal agencies and the Agency's requirements, around or over elevator shafts, mechanical shafts, stair openings, other floor openings and around the exterior perimeter of any floor/deck edges as it relates specifically to this Contractor's scope of work. This protective work shall be coordinated with the work of other contractors and the Agency's requirements for access. Contractor shall be responsible to maintain safe working conditions and reinstall all protective devices immediately as required by CAL-OSHA and the Agency. Similarly, should this Contractor remove the protective devices, Contractor shall be responsible to maintain safe working conditions and to reinstall those protective devices immediately as required by CAL-OSHA and the Agency. Should this Contractor fail to maintain safe working conditions in any manner whatsoever, the Agency may immediately order the unsafe condition correct by others and charge the delinquent Contractor for all costs involved. Contractor shall at all times adhere strictly to Cal-OSHA regulations with regard to workplace safety. Contractor recognizes and agrees with the fact that Cal-OSHA establishes a minimum level of workplace safety and those job conditions may require the adoption of safety practices and procedures, which exceed that of Cal-OSHA. As a result, Contractor agrees to institute such additional safety measures as the Agency may suggest as necessary. Contractor shall designate, post, and strictly enforce the entire construction site as a Hard Hat Area.

2. Proper Personal Protective Equipment (PPE) and clothing shall be worn at all times. Prohibited clothing includes but is not limited to tennis shoes, OSHA tennis shoes, shorts or cut-offs, shirts without sleeves, muscle shirts. Hardhat and safety glasses shall be worn at all times in a manner conforming to Manufacturer's and or OSHA standards. The construction area shall be designated, posted, enforced at all times for proper PPE and clothing compliance.

3. Contractor shall post all building envelope access ways as "No-Food within the Building Area". The consumption of food products within the building envelope shall be strictly prohibited and enforced without prejudice. During inclement periods, the Contractor shall provide dry areas for the consumption of food products.

4. Upon a daily basis, at all times, or more often as required by Cal-OSHA, the Agency or the Project Manager, Contractor shall keep the work areas, the Agency's occupied areas, the areas outside the building and the adjacent streets and sidewalks clean and free from materials, equipment, debris, artifacts, nails, residual or trash resulting from Contractor's own operations in a manner and to the extent acceptable to the Agency, and Project Manager. Contractor shall record and document the daily and weekly Safety and Health Monitoring results, and correct as required by Contract and law. Copies of the Daily and Safety Health Monitoring results shall be transmitted upon request by the Project Manager.

5. Provide flagmen and perform all traffic control, in connection with Contractor's Work, as required for the protection of pedestrian and vehicular traffic. The provision of barricades and warning lights shall be the responsibility of the Contractor for activities associated with its Work. Contractor shall maintain all pedestrian and vehicle accesses at all times unless otherwise approved. Roadway vehicle through traffic shall and will not be allowed to cross the site property.

6. Contractor shall provide for all ongoing and final cleanup of all debris resulting from all Work. Said cleanup shall include removal from all work areas and legal disposal into dumpster bins provided by the Contractor. Contractor shall maintain all areas associated with this Project clean and free of debris, artifacts, and residual; free of vandalism residual and free of graffiti at all times.

7. Contractor shall be responsible for taking all safeguards necessary for fire protection and fire prevention (Reference 29 CFR 1910, 1926, NFPA 241, CAL-OSHA 4848, T8-CCR).

8. The Contractor and Subcontractors shall continuously protect the Work, the District's property, and the property of others, from damage, injury, or loss arising in connection with operations under the Contract Documents. The Contractor and Subcontractors, at their own expense, shall make good any such damage, injury, or loss, except such as may be solely due to, or caused by, agents or employees of the District.

   The Contractor, at Contractor's expense, will remove all mud, water, or other elements as may be required for the proper protection and prosecution of its Work. (Reference Storm Water Pollution Control requirements).

   Contractor shall take adequate precautions to protect existing roads, sidewalks, curbs, pavements, utilities, adjoining property and structures (including, without limitation, protection from settlement or loss of lateral support), and to avoid damage thereto, and repair any damage thereto caused by

construction operations. All permits, licenses, or inspection fees required for such maintenance or repair Work shall be obtained and paid for by Contractor.

9. Contractor shall provide and maintain a Daily Project Sign-In-Sheet at the entrances to all areas of work. The sign in sheet will be located in highly visible area and will consist of the following:

    a. Date & Time
    b. First and Last Name (print)
    c. Company
    d. Reason for Visit
    e. Signature

10. Contractor/Subcontractor shall make available upon request by the Project Manager the following items, as applicable (including but not limited to):

    a. Pre-Job Site Orientation and Pre-Job Site Training Log for each individual employee, by each and every contractor and subcontractor, vendor and supplier accessing this Project site.
    b. Confined Space Permit and Log (CAL-OSHA 5156-5158, T8-CCR, 29 CFR 1910, 1926).
    c. Hot Work Permit and Log (NFPA 241 CAL-OSHA 4848, T8-CCR, 29 CFR).
    d. Lock Out Tag Out -- LOTO plan, procedures and log (CAL-OSHA, T8-CCR, GISO 3314, ESO 2320, 29 CFR).
    e. Equipment and Tool Training Log (CAL-OSHA 3203.a.7, 29 CFR).
    f. Employee Qualifications for work being performed, unless otherwise requested (CAL OSHA 2320.1.a, 29 CFR. This requirement is for disciplines).
    g. Hazardous Materials Log (T8-CCR, CAL OSHA 1510, 29 CFR).
    h. Material Safety Data Sheets – MSDS (T22-CCR 12000, CAL OSAH 5194, 29 CFR).
    i. Hazardous Materials Program (CAL OSHA 5194, 29 CFR).
    j. Emergency Response Plan (CAL OSHA 1512.d, OSHA Poster S-500, 29 CFR).
    k. Employee Orientation Log and Documentation (29 CFR)
    l. Substance Abuse Policy and Procedures (29 CFR)
    m. Chemical Inventory Log (29 CFR)
    n. Process Safety Management Program (29CFR 1910, 1920)
    o. VOC Report
    p. OSHA 300 Log (29 CFR)
    q. Environmental Safety and Health Program (29 CFR)
    r. Corporate Criminal Liability Act (CCLA), California Penal Code 387 compliance.
    s. Contractor and Subcontractor EMR's (CAL OSHA, 29 CFR).
    t. Subcontractor Pre-Construction Meeting Minutes (29CFR, CCLA).
    u. As-Built Drawings / Red-Lines (Contract Documents).
    v. Employee Safety Violation Warning and Notification Log (29 CFR).
    w. Subcontractor Quality Control Non-Conformance Reports and Log (Contract Documents).
    x. Cleanliness and Health Deficiency Notices to Subcontractors (29 CFR).
    y. Scaffold Inspection Report (CAL OSHA 341.a, 1670-1671.2)
    z. SCAQMD Permits
    aa. Injury and Illness Prevention Program (CAL OSHA 3203)
    bb. Emergency Medical Services (EMS) (CAL OSHA 1504.a, 1512.b)
    cc. Workplace Security Plan (CAL OSHA and CAL Labor Code).

dd. Written Code of Safe Practices (CAL OSHA 1509.b).
ee. HAZWOPER Training and Certification (29 CFR).

11. The Contractor shall make available, at the construction site, as required, as applicable, a copy of all applicable laws, rules, codes, ordinances, and regulations books or sections upon request by the Project Manager.

12. An EMR Safety Rating (Experience Modifier Rate) greater than 1.25 requires notification to CAL-OSHA, per CAL-OSHA regulations. An EMR rating greater than 1.0 requires that the General Contractor and the applicable subcontractor submit a Safety Plan for review that delineates the methods that will be empowered to assure a safe working site for all parties associated with this Project.

J. REGULATORY:

1. Provide for any special requirements of the City, County or State Departments of Building and Safety, Fire Department, Department of Public Works, Cal-OSHA, and any other governing agency having jurisdiction over the Project.

K. NON-CONFORMING WORK:

1. Contractor shall promptly remove and reinstall any and all non-conforming work, at its own expense and without delays to the Project, in such a manner so as to completely conform to the approved submittals and in complete conformance with the Contract Documents.

L. EXECUTION OF WORK:

1. Provide all materials, equipment, skilled and knowledgeable manpower and supervision and/or overtime, at no increase to Contract Price, to maintain the rate of installation required to accommodate the Project Schedule.

2. Contractor shall be responsible to field measure all work as may be necessary prior to the production of shop drawings, submittals and fabrication.

3. Contractor is fully responsible for the incorporation into its Work, of all applicable information as shown or reasonably implied by or inferred from the Construction Documents.

4. Contractor shall cooperate fully with any contractors, vendors, testing and inspection agency retained by the Agency and/or required by governing agencies having jurisdiction over the Project, including any remedial work required by said inspector.

5. Contractor shall comply with all equal employment opportunity and affirmative action requirements of Federal, State and local authorities.

6. Sufficient manpower shall be provided at all times to maintain the scheduled progress of the job. A shortage of manpower in the industry shall not be accepted as an excuse for not properly manning the job so as to maintain schedule and avoid delays or added costs to the Agency and/or other contractors. The Project Manager shall give the Contractor written notice if such manpower

shortage occurs which may negatively affect the overall construction schedule. Only one notice will be issued as a warning, the second notice will be a request for the Contractor to replace the responsible party. Contractor shall immediately rectify the situation by scheduling adequate crew to replace those who are not performing per schedule. Any cost or schedule impacts will be at the sole cost to the Contractor.

7. The Contractor shall be responsible for maintaining in working order at all times, all existing utilities and equipment serving VCFPD's Lockwood Valley Substation in Frazier Park and the surrounding areas. The Contractor shall coordinate any/all utility transfers, shut downs, relocations required for the Project, a minimum of two working days prior to the anticipated date of work. All requests shall be made in writing to the Project Manager and shall include date, time, and duration requested for the work. All work related to the utilities will be scheduled for off peak hours (weekdays – 6 pm to 6 am, weekends, and holidays) at no additional cost to the Contract. Any unanticipated utility failure caused by the Contractor will result in back charges to the Contractor from the Fire District for the sum of cost plus administrative and management fees by the Agency or its Representatives.

8. The Project Manager shall have the authority to communicate directly with all personnel related to this Project including (Contractors, Subcontractors, Vendors, and Inspectors) with respect to schedule, quality control, change orders, and manpower.

9. As applicable, the Contractor shall schedule the final coat of painting work to be applied after the first Punch List is generated and near its completion.

10. All repair work shall be completed by painting edge to edge.

M. SUBMITTAL SCHEDULE:

1. Contractor shall submit a complete submittal schedule within two (2) working days of the date of Contract Award, for review and acceptance by the Project Manager and Agency.

N. SUBMITTAL PROCEDURES (As applicable for this Project):

1. General: The provisions of Section A.1. above shall apply, in addition to the following.

2. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

   a. Provide a space approximately 4" x 5" on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.

   b. Include the following information on the label for processing and recording action taken.
      - Project name.
      - Date.
      - Name and address of Architect.
      - Name and address of Contractor.
      - Name and address of subcontractor.
      - Name and address of supplier.
      - Name of manufacturer.

- Number and title of appropriate Specification Section.
- Drawing number and detail references, as appropriate.
- Equipment tag number of drawing designation.

3. Shop Drawings: Submit newly prepared information, drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Show Drawings. Standard information prepared without specific reference to the Project is not considered Shop Drawings.

   a. Shop Drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, and similar drawings. Include the following information:
      - Dimensions.
      - Identification of products and materials included.
      - Compliance with specified standards.
      - Notation of coordination requirements.
      - Notation of dimensions established by field measurement.

   b. Sheet Size: Submit Shop Drawings on sheets at least 8-1/2" x 11" but no larger than 24" x 36".

4. Product Data: Collect product data into a single submittal for each element of construction or system. Product data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves. Where product data must be specially prepared because standard printed data is not suitable for use, submit as "Shop Drawings".

5. Identify applicable choices and options within the PDF. Where product data includes information on several products, some of which are not required, indicate the applicable information. Include the following information:

   a. Manufacturer's printed recommendations.
   b. Compliance with recognized trade association standards.
   c. Compliance with recognized testing agency standards.
   d. Application of testing agency labels and seals.
   e. Notation of dimensions verified by field measurement.
   f. Notation of coordination requirements.

6. Do not submit product data until compliance with requirements of the Contract Documents has been confirmed.

7. Submittals: The Architect will return submittals electronically with action to be taken and corrections or modifications required.

   a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.

8. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others as required for performance of construction activities. Show distribution on transmittal forms.

    a. Do not proceed with installation until an acceptable copy of applicable product data is in the installer's possession.
    b. Do not permit use of unmarked copies of product data in connection with construction.

O. DAILY CONSTRUCTION REPORTS:

Daily Work Reports shall be completed by the Contractor and submitted to the Project Manager at the end of each day and at a minimum shall include the following:

a. List of subcontractors at the site;
b. Accurate count of contractor, subcontractor and visitor personnel at the site;
c. Morning and afternoon weather conditions;
d. Accidents and unusual events;
e. Meetings and significant decisions;
f. Stoppages, delays, shortages, losses;
g. Emergency procedures;
h. Orders and requests of governing authorities;
i. Change Orders received;
j. Utility shutdowns;
k. Written and verbal inspections approvals and rejections from regulatory agencies;
l. Tests and start-ups;
m. Substantial completions authorized;
n. Accurate description of each construction activity occurring during the day and reference activities, equipment, materials, involved therewith;
o. Requests for information issued and replies received;
p. Submittals issued and replies received.

P. WEEKLY CONSTRUCTION REPORTS (including but not limited to the following):

1. Contractor shall provide and submit for record on a weekly basis the following:

    a. Weekly Safety Audit Report.
    b. Weekly Request for Information -- RFI Log.
    c. Weekly Submittal Log.
    d. Weekly Equipment Delivery Schedule.
    e. Weekly Change Order Log/Change Order Request/Possible Cost Log.
    f. Weekly Project Schedule Status and Update.
    g. Weekly Open and/or Unresolved Issues Report and/or Log.

Q. QUALITY ASSURANCE:

1. Particular attention shall be given to the quality assurance for the Project. All mock-ups and samples to be performed and provided by this Contractor.

2. For all material and equipment specified or indicated in the Drawings, the Contractor shall provide all labor, materials, equipment, and services necessary for complete assemblies and complete working systems. Incidental items not indicated on the Drawings, nor mentioned in the Specifications, that can legitimately and reasonably be inferred to belong to the Work described, or be necessary in good practice to provide a complete assembly or system, shall be furnished as

   though itemized in the Contract Documents in every detail. In all instances, material and equipment shall be installed in strict accordance with each manufacturer's most recent published recommendations and specifications.

3. Contractor shall provide and install approved caulking and/or sealant as shown upon the Drawings and as required to properly complete Contractor's penetrations of water-resistant/proof, weather-resistant/proof, fire-rated and/or sound-rated surface, including all building exterior penetrations, joints, and seams.

R. EMPLOYEES:

1. All workers and supervision to be skilled, knowledgeable, experienced, and able to communicate for safety issues in English in their trades. The following are strictly prohibited:

   a. The wearing of tennis shoes, shorts, cut-off pants, sleeveless shirts, vulgar or offensive apparel, jewelry, etc.;
   b. The displaying or presentation of offensive posters, symbols, insignias, labels, stickers, signs, etc.
   c. The use of offensive or vulgar language;
   d. The use of alcohol or any other drugs or substances which may cause intoxication;
   e. Being onsite while in a state of intoxication or under influence of a control substance;
   f. The making of lewd or suggestive remarks or gestures;
   g. Unsafe working practices;
   h. The playing of radios and the wearing of headphones;
   i. The possession of any weapons in the vicinity of the Project site;
   j. The disturbance or inconvenience to the occupants of surrounding buildings, businesses and residences;
   k. Not complying with OSHA safety orders;
   l. Animal(s), or pet(s);
   m. Unauthorized visitors or guests;
   n. Unprofessional or unacceptable behavior, posture, attitude, disposition;
   o. Non-contract compliant behavior;
   p. Eating or the consumption of food products or the drinking and/or consumption of non-water items within the building envelope;
   q. Dark Glasses inside the building envelope and enclosed or covered area;
   r. Cooking on outside burner or stove;
   s. Hard Hat not being worn with brim forward at all times;

t. Smoking except in designated area, and smoking inside of building envelope at any time; Cigarette/Cigar/Other butts and smoking refuse disposed of in an appropriate receptacle;
u. Spitting or discharge of bodily fluids or other unsanitary practices.

At the sole discretion of the Project Manager or the Agency, any Contractor whose employee are observed engaging in any of the mentioned prohibited practices, activities, etc., shall be immediately and permanently removed from Project.

S. JOB SITE SAFETY MEETINGS:

1. The Contractor is required to conduct Weekly Tail Gate and Tool Box safety meetings with Contractor's own workers and subcontractors' representatives. Records of these meetings signed by all attendees, shall be forwarded with the Contractor's Daily Reports to the Project Manager.

T. PARKING:

1. Parking areas for Contractor, subcontractor, suppliers, vendors, and their respective employees shall be designated and delimitated. Contractor(s) shall not utilize Lockwood Valley Substation parking areas at any time, unless approved by Agency and Project Manager. Contractor(s) shall not inhibit traffic flow.

U. SCAFFOLDING:

1. Contractor shall furnish, erect/remove its own scaffolding. Where this Contractor erects or causes to have erected, scaffolding (inclusive of decking, work platforms, staging, etc.) for its own usage in the performance of its Work, this Contractor shall permit others to utilize its scaffolding for the performance of their work during the period wherein the scaffolding remains erected. The Contractor shall not charge others for the right to use erected scaffolding. Scaffolding shall be installed and assembled in compliance with all regulations. Scaffolding not tagged for use shall not be utilized. Contractor shall make available upon demand a Scaffolding Checklist for all stages, phase, and sections of scaffolding.

V. REQUEST FOR INFORMATION:

1. For each Request for Information (RFI) received from Contractor for which the Project Manager determines that the necessary information is stated in sufficient clarity in the Contract Documents, such that a competent contractor should have been able to determine said information without further clarification, the Agency will back-charge Contractor and deduct from the following progress payment applications the amount of two hundred ($200.00) as partial compensation (but not as a penalty) for the time spent in researching and documenting the unnecessary request.

2. All RFIs, clarifications or requests for decisions necessary to allow continuous scheduled progress of work shall be submitted by the Contractor a minimum of two working days prior to it being needed. Delays resulting from inadequate notice, as required herein, shall be borne by the Contractor. Only one question or issue shall be indicated or identified per each RFI. Contractor shall also indicate or reflect the possible solution(s) or resolution(s) if applicable.

3. Contractor shall submit all RFIs on the RFI form attached hereto.

W. DOCUMENT CONFLICTS:

Should a conflict arise within any of the aforementioned documents, the most stringent requirement shall govern and is compensated for in the Contractor's Bid amount.

X. ADDITIONAL SAFETY REQUIREMENTS (as applicable to this Project):

At all times when work is not being performed by Contractor or when Contractor is not on the job site, all open trenches shall be covered with approved trench plates or provide/install a temporary security fence at approved height, which shall be erected before start of trench work and removed upon completion of the work.

END OF DIVISION 1 SECTION

Ventura County Fire Protection District

Appendix 1

Project Grading Permit (GP20-0090) & Associated Information

Bid Documents
Ventura County Fire Protection District
Installation of New Communication Tower, Foundation & Trash Enclosure
Fire Station 44 – 1050 Country Club Drive, Simi Valley, CA 93065
Bid Due Date and Time – September 29, 2021 @ 1:00 PM, PST

County of Ventura
Public Works Agency
Engineering Services Department
MEMORANDUM

Date: October 7, 2020

To: Building and Safety

From: Jim O'Tousa, CEG, Division Manager
Land Development Services

Subject: Review of Building Permit Application.

Reference: **C20-0884, GP20-0090**
Ventura County FPD [15021 Lockwood Valley Road, APN 003-0-230-370]

1. Rybak Geotechnical, Inc., April 6, 2020, Geotechnical Engineering Investigation, proposed Garage, Lockwood Valley Compound, 15011 E. Lockwood Road, Lockwood, County of Ventura, California. Prepared for Ventura County Fire Protection District, Project No. 3293.

A review of the referenced report has been completed and sufficient information is presented to satisfy minimum code requirements and approve the report for the proposed garage. The following comments are provided:

1. A Grading Permit is issued on this project, Grading Permit GP 20-0090. Please hold inspection of building construction until the grading permit is completed and grading clearance has been issued.

JOT:jot

SEE ATTACHED GRADING PERMIT →
EXTENSION TO 10/7/2022

EDR See Project folder

VCFD

DS-01

County of Ventura
GRADING PERMIT
PUBLIC WORKS AGENCY
DEVELOPMENT AND INSPECTION SERVICES
800 South Victoria Avenue, Ventura, CA 93009
(805) 654-2030

Permit No. GP20-0090

Grading Work Description: Excavation work for building footings, conc slabs and minor trenching for utilities

Assessor Parcel No(s): 003-0-230-370

Address of Work: 15021 Lockwood Valley Road, Frazier Park, CA 93225

Grading Type: ☐ Regular ☐ Engineered ☐ Stockpile ☐ Agricultural ☐ Oil Field ☑ Remove & Recompact ☐ Discretionary

Depth of Cut 4.50 Excavation 342.70 yds³ Export 0.00 yds³ Height of Fill 4.50 Fill 336.70 yds³ Import 6.00 yds³

Destination of Surplus: N/A Source of Import: To Be Determined

Deviations from Grading Ordinance: N/A VC DWG No(s) N/A

Stormwater Form(s): SWPCP WDID: N/A QSP Required: Yes ☐ No ☑

PERMITTEE SHALL NOTIFY SUBDIVISION INSPECTION 48 HOURS PRIOR TO WORK

Property Owner: Ventura County PWA Address: 800 S Victoria Ave
City: Ventura Zip: 93009 Email: Anitha.Balan@ventura.org Phone: 805-672-2132

Contractor: To Be Determined Address:
City: Zip: Email: Phone:

~~Civil Engineer~~ Architect: Arthur Anderson Address: 1082 South Seaward Avenue
City: Ventura Zip: 93001 Email: IdeasArc@sbcglobal.net Phone: 805-653-5800

Soils Engineer: Richard Rybak Address: 16022 Arminta Street, Suite 7
City: Van Nuys Zip: 91406 Email: rrybak@rybakgeotechnical.com Phone: 818-785-0550

Geologist: Address:
City: Zip: Email: Phone:

This permit authorizes only that work described hereon. Neither the issuance of this permit, nor the compliance with the provisions hereof or with any conditions imposed by this permit shall relieve any person from responsibility for damage to other persons or property nor impose any liability upon the governing agency for damage to other persons or property. All attached addenda are a part of this permit. All modifications of this permit or of the approved grading plan must be approved by the governing agency.

I hereby acknowledge that I have read this application and state that the above is correct, and that all excavation, grading and filling of land shall be in accordance with the approved plans, and the applicable grading ordinance. In consideration of the County issuing this grading permit the permittee agrees to comply with all provisions of this permit including the standard conditions and any special conditions attached hereto.

Your permit is not complete until a "NOTIFICATION OF COMPLETION - GRADING" is issued. Occupancy does not mean that your grading permit is complete.

X Signature: PROPERTY OWNER Print Name: DAVID KIRBY Date: 9/22/20

Issued by: Date Issued: 10-7-2020 Expiration Date: 10-7-2021

WORKMAN'S COMPENSATION (E)

10-7-2022

It is required that each applicant file the following:
1. A certificate of consent to self-insure issued by the Director of Industrial Relations, or
2. A certificate of Workman's Compensation Insurance issued by an admitted insurer, or
3. An exact copy certified by the Director of Industrial Relations or the insurer, or
   Workman's Compensation Insurance Policy No. Expiration Date
4. Statement of Understanding:
   "I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workmen's Compensation Laws of California. I further certify that I will verify compliance with the Workman's Compensation Laws of California of all sub-contractors contracted by me for any participation on projects over which I have contractual jurisdiction."
   I declare under penalty of perjury that the foregoing is true and correct.

X Signature Date

FILL IN ALL BLANKS. IF NOT APPLICABLE, ENTER THE WORD "NONE or N/A"
Signature of this sheet constitutes agreement of Standard Conditions as described on page 2

STANDARD CONDITIONS

1. Grading shall be in accordance with the Ventura County Building Code Appendix J, Latest Edition, Standard Specifications for Public Works Construction(SSPWC), the Ventura County Standard Land Development Manual & Specifications and any supplemental conditions if applicable. The permittee shall supply a bond if requested by Ventura County.
2. Plan check and inspection fee deposits shall be made in accordance with the Board of Supervisor's adopted Fee Deposit Schedule. The permittee shall pay the actual costs (including overhead) for services rendered. If at any time the actual costs exceed the deposits, the permittee shall pay the balance due before proceeding with further work. Failure to remit payment when due may result in the County issuing a "Stop Work Notice". Deposits not used will be refunded to the permittee upon completion of all required work.
3. All recommendations made by the Technical Consultants contained in the reports referenced hereon as approved or conditioned by the County are a part of this grading permit.
4. A preconstruction/pre-grade conference of all interested parties shall be held prior to any construction or grading. Any work performed under this permit prior to conducting a pre-grade meeting will be subject to whatever action including restoration to existing conditions before work was begun, that the County of Ventura deems necessary to inspect, correct and/or approve said work.
5. All graded surfaces subject to erosion shall be protected as approved by the Technical Consultants and accepted by the Building Official. Protection shall be provided and fully functional prior to commencement of grading.
6. All deleterious material, i.e., lumber, logs, brush, or any other organic materials or rubbish, shall be removed from all areas to receive compacted fill.
7. Unsuitable material shall be removed as required by the soils engineer (and engineering geologist, where employed) from all areas to receive compacted fill or drainage structures.
8. All areas to receive compacted fill shall be inspected and approved by the soils engineer (and engineering geologist, where employed) after removal of unsuitable material and excavation of keyways and benches, and prior to placement of fill or subsurface drainage systems.
9. All excavated slopes and keys for buttress fills must be examined by the engineering geologist and soils engineer to insure that all potential planes of failure have been exposed in the excavation and will be adequately supported by the proposed buttress. Field certification shall be submitted by the consultants.
10. All soil or rock materials deemed unsuitable for placement in compacted fill shall be removed from the site. A material such as concrete or imported materials shall be approved by the soils engineer prior to use in compacted fill.
11. The soils engineer & engineering geologist shall submit recommendations for corrective work to insure slope stability where unstable material is exposed at the top of cuts.
12. Materials for interceptor, terrace and down drains shall meet Ventura County Standard Land Development Specifications or the SSPWC, latest edition.
13. The soils engineer shall direct the removal or treatment of any existing underground structures such as septic tanks, irrigation lines, etc.
14. Any water well located within the site shall be reported to the Watershed Protection District of Ventura County prior to its modification or destruction. Special procedures are required for abandonment.
15. Interim soils and geologic reports shall be submitted to the County to obtain a building construction clearance.
16. "As-built" soils engineering (and if applicable, engineering geology) reports, summarizing all work performed and concluding that fills have been placed according to the approved plans and that all geologic features are stable as graded shall be submitted to the County prior to approval of the grading by the building official.
17. All permitted work contemplated under the permit will be completed within the time limit specified in the permit and will be done in accordance with approved plans and in compliance with the terms and conditions of the grading permit to the satisfaction of the building official and all of the provisions of applicable Codes, applicable laws, and ordinances.
18. This permit is valid only to the extent of Ventura County Building Code. Permits and consent required by other interested Agencies and consent of the underlying fee owner of easement and that of easement holders shall be the responsibility of the permittee. The permittee shall be responsible for obtaining all necessary permits and permissions from affected property owners, public agencies, and others.
19. If the owner wishes to change any technical consultants, grading shall cease until a new technical consultant assumes and accepts responsibility for the grading.
20. If the property subject to this permit changes ownership, grading shall cease until the new owner contacts Development and Inspection Services and transfers the permit to the new owner.
21. The permittee shall be responsible for determining the existence and location of any existing underground facilities.
22. All work shall be done in a manner which will minimize soil erosion. Existing natural vegetation shall be preserved wherever possible and practical. Exposure of disturbed soils shall be limited to an area in which work will be completed prior to the onset of the rainy season, to ensure that the soil is stabilized and vegetation is established.
23. Facilities shall be constructed to minimize and retain sediment produced on site. Sediment basins, sediment traps, and similar measures shall be installed prior to any clearing or grading activities, and shall be maintained throughout these activities until removal is authorized. Such structures shall be designed to minimize potential mosquito problems. Seeding, mulching, and other suitable stabilization measures shall be used to protect exposed erodible areas. Permanent sediment retention facilities and final stabilization measures shall be installed as soon as practical and a plan for their maintenance developed and adhered to.
24. Provisions shall be made to mitigate any increased runoff caused by altered soil conditions during and after construction.
25. Neither cut nor fill slopes shall be steeper than two parts horizontal to one part vertical (2:1) unless a geological or engineering analysis indicates that steeper slopes are safe and appropriate erosion control measures are specified. The top of cuts and the toe of fills shall not be closer than five 5-feet from any property line or road right of way.
26. Cleared vegetation and excavated materials shall be disposed of in a manner which reduces t risk of erosion and is in conformance with the approved permit.
27. Prior to the "Notice of Completion – Grading" being issued all disturbed areas must be stabilized and slopes vegetated with 70% coverage using native vegetation, where practical.

Ventura County Fire Protection District

Appendix 2

Geotechnical Engineering Investigation Report

Prepared by: Rybak Geotehcnical, Inc.
Issue Date: 4/6/2020

Bid Documents
Ventura County Fire Protection District
Lockwood Valley Substation Garage Addition Project
15021 Lockwood Valley Road, Frazier Park, CA 93225
Bid Due Date and Time – September 29, 2021 @ 1:00 PM, PST

Rybak Geotechnical, Inc. *Consulting Engineers*
16022 Arminta Street, Ste. #7, Van Nuys, CA 91406 • (818) 785-0550 • www.rybakgeotechnical.com

Geotechnical Engineering Investigation
Proposed Garage, Lockwood Valley Compound
15011 E. Lockwood Road
Lockwood, County of Ventura, California

For
VENTURA COUNTY FIRE PROTECTION DISTRICT
Project No. 3293 April 6, 2020

Rybak Geotechnical, Inc. *Consulting Engineers*
16022 Arminta Street, Ste. #7, Van Nuys, CA 91406 • (818) 785-0550 • www.rybakgeotechnical.com

April 6, 2020
Project No. 3293

Ventura County Fire Protection District
165 Durley Avenue
Camarillo, California 93010

Attn: Mr. David Kirby

Dear Mr. Kirby:

We are pleased to submit our report on a geotechnical engineering investigation performed for the proposed garage to be located at the Lockwood Valley Compound, located at 15011 E. Lockwood Road, in the Lockwood area of the County of Ventura, California. Our geotechnical engineering conclusions and recommendations are presented in this report.

Four copies of the report have been transmitted herewith. It should be noted that no copies of this report have been submitted by us to any other individuals or agencies. Please review the report; if satisfactory, distribute the unbound copies to the applicable agencies and pay any required filing fee. Should you have any questions regarding the report or this submittal, please do not hesitate to call.

Respectfully submitted,
RYBAK GEOTECHNICAL, INC.

RICHARD RYBAK
President

Dist: (4) Addressee

TABLE OF CONTENTS

APPENDIX

INTRODUCTION

This report presents the results of the geotechnical engineering investigation performed for the proposed garage building to be located at the Lockwood Valley Compound, located at 15011 E. Lockwood Road, Lockwood, County of Ventura, California. The objectives of the investigation were to evaluate the earth material conditions at the site and to provide geotechnical engineering conclusions and recommendations pertaining to the construction of a garage structure.

The scope of our services included subsurface exploration and sampling, laboratory testing, engineering analysis, research of pertinent geologic and geotechnical literature, and preparation of this report. Results of the subsurface exploration and laboratory testing are provided in the Appendix.

Prior to going out to bid, it is recommended that all plans and specifications for the project be reviewed and approved by this office. Due to the preliminary nature of the project, as plans are prepared this office should be informed of ongoing plan revisions.

SITE DEVELOPMENT

The scope of the project was provided by the client, Ventura County Fire Protection District (VCFPD). The client intends to construct a new 800-square foot, metal pre-fabricated roll-up door garage for parking a fire patrol vehicle. The proposed location of the new garage building is indicated on the attached Geotechnical Map (Plate 1).

SITE DESCRIPTION

The subject site is located at the Lockwood Valley Compound, in the Lockwood Valley area of Ventura County, California. At the time of our exploration, the subject property was occupied by various small buildings and facilities. The area of the proposed building is relatively level with no pronounced highs or lows.

PREVIOUS REPORTS

The following old report was reviewed as part of the scope of this investigation:

Geotechnical Engineering Report for Lockwood Valley Communications Tower, Lockwood Valley Area, Ventura County, California, prepared by Earth Systems Southern California, dated June 15, 2001

Earth Systems Southern California (ESSC) excavated one boring to a total depth of 51.5 feet for the communications tower. ESSC encountered groundwater at a depth of 20.5 feet below the existing surface grade. An evaluation of liquefaction potential was also performed. The evaluation concluded that there was a potential for liquefaction occurring at this site. A recommendation was made that the structural engineer assume the potential for a total settlement of 2 inches and the potential for a differential settlement of ½ inch.

EXPLORATION

Subsurface exploration at the subject site was performed on March 4, 2020 and consisted of the excavation of two borings to depths of 15 and 16 feet below existing surface grade. The borings were excavated with the aid of hand-auger equipment. The earth materials encountered during excavation of the exploratory borings were logged by the field engineer and classified by visual examination in accordance with the Unified Soil Classification System. Relatively undisturbed samples of the soils were obtained with the aid of a thin-wall sampler. The sampler was driven with impact from a 140 pound weight dropped a distance of 30 inches onto a sampling unit. The soil was retained in brass rings of 2.5-inch outside diameter and 1.0-inch height. Bulk samples of the soils were also collected.

Upon completion of sampling, the borings were backfilled and properly tamped. The boring locations are indicated on Plate 1 and the earth materials encountered are shown on the logs, Plates A-1 and A-2 in the Appendix.

LABORATORY TESTING

GENERAL

Representative samples of the earth materials were transported to the laboratory and tested to determine pertinent geotechnical engineering properties. The results of the laboratory tests performed are summarized in the Appendix.

MOISTURE/DRY DENSITY

The dry unit weight and moisture content were determined for the ring samples. The dry unit weights and moisture contents are provided on Table 2, and on Plates A-1 and A-2, in the Appendix.

SHEAR STRENGTH

One direct shear test was performed on representative samples with the purpose of establishing the shear strength of the natural soils. The method of testing was in conformance with ASTM D 3080. The samples were tested in an artificially saturated condition. The shear test was performed with a strain-controlled device. Samples were subjected to shearing forces under normal stresses of 1, 2, and 3 kips per square foot. The results of the direct shear testing are provided on Plate B in the Appendix.

CONSOLIDATION

Three consolidation tests were performed on representative undisturbed samples to determine the load-settlement characteristics of the soils at their field moisture content and in a saturated condition. The method of testing was in conformance with ASTM D2435. The results of the consolidation tests are provided on Plates C-1 through C-3 in the Appendix.

SWELL POTENTIAL

One swell potential test was performed on an undisturbed ring sample of the insitu soils. The test was performed to assess swell potential during changes in moisture content. The sample was tested under a static normal stress of 60 pounds per square foot. The swell of the soil sample was measured subsequent to sample saturation. The results of the swell testing are provided on Table 3 in the Appendix.

CONCLUSIONS AND RECOMMENDATIONS

GENERAL

Based upon the results of our exploration, laboratory testing and analysis, it is the finding of this firm that construction of the proposed garage building is considered feasible from a geotechnical engineering standpoint, provided our advice and recommendations are followed and are implemented during construction.

It is strongly recommended that a meeting be held at the subject site with the general contractor and grading contractor, and a representative of our office, prior to any excavations, to review the future grading and construction procedures/sequences.

A total of nine inches of existing fill was encountered in our borings B1 and B2. The existing fill is not considered suitable for support of footings, floor slabs, or additional structural fill. The proposed building may be supported on shallow, conventional footings underlain by a minimum of 3 feet of properly compacted fill. The compacted fill should extend out horizontally from the outside edge of the footings a distance equal to the depth of fill beneath the footings, or 3 feet, whichever is more. The floor slab should be supported on a minimum of 3 feet of properly compacted fill placed on the undisturbed natural soils.

SEISMIC DESIGN CONSIDERATIONS

Although no known active faults traverse through the subject site, like most of Southern California, the subject site lies within a seismically active area. Earthquake resistant structural design is recommended. Designing structures to be earthquake-proof is generally considered to be impractical, especially for private projects, due to cost limitations. Significant damage to structures may be unavoidable during large earthquakes. The structural design of the proposed structures should be based on the California Building Code (CBC). The following minimum seismic parameters should be used:

- Site Classification = Site Class D
- Mapped, short period Acceleration Parameter, S_s = 1.124
- Mapped Acceleration Parameter at 1.0 second period, S_1 = 0.407
- Site Coefficient, F_a = 1.051
- Mapped MCE Spectral Response Acceleration at Short Periods, S_{ms} = 1.180
- Design Earthquake Spectral Response Acceleration Parameter at Short Period, S_{ds} = 0.787
- Seismic Design Category = D
- Long-period transition period = 12 seconds

According to the CBC, a ground motion hazard analysis is required to be performed in accordance with Section 21.2 of ASCE/SEI 7-16 for structures on Site Class D with S1 greater than or equal to 0.2. The S1 for this project is 0.402, in excess of 0.2. As an alternative to performing the ground motion hazard analysis, the following may be utilized by the project structural engineer: A long period coefficient (Fv) of 1.7 may be utilized for calculation of Ts, provided that the value of the Seismic Response Coefficient (Cs) is determined by Equation 12.8-2 for values of the fundamental period of the building (T) less than or equal to 1.5Ts, and taken as 1.5 times the value computed in accordance with either Equation 12.8-3 for T greater than 1.5Ts and less than or equal to TL or Equation 12.8-4 for T greater than TL.

According to the 2020 LABC, where Site Class D (which is the case for this project) is selected as the default site class per Section 11.4.3 of ASCE/SEI 7-16, the value of Fa shall not be less than

1.2. Where the simplified design procedure of Section 12.14 is used, the value of Fa shall be determined in accordance with Section 12.14.8.1, and the values for Fv, SMS and SM1 need not be determined.

These minimum code values are intended to protect life and may not provide an acceptable level of protection against significant cosmetic damage and serious economic loss. A significantly higher than code lateral design parameter would be necessary to further reduce potential economic loss during a major seismic event. Structural engineers, however, often regard higher than code values as impractical for use in structural design. The structural engineer and project owner must decide what level of risk is acceptable and to assign appropriate seismic values for use in structural design. The risk of damage to the structure due to a large earthquake cannot be totally eliminated, and obtaining appropriate insurance as a mitigation measure is strongly recommended.

EXPANSIVE SOILS

The site soils are considered Low in expansion potential. No special considerations with respect to expansive soils are deemed necessary.

SITE GRADING

Site Preparation and Compaction

It is anticipated that site grading will include, removal and recompaction of unsuitable site soils for support of foundations and flatwork. The areas to receive compacted fill should be stripped of all unsuitable deposits, including vegetation, debris, existing fill, and disturbed/loose soils. After excavating as required, the exposed natural soils should be carefully observed by the geotechnical engineer or his representative to verify the removal of all unsuitable deposits. Subsequently, the exposed approved earth materials should be scarified to a depth of 6 inches, brought to the proper moisture content, and properly compacted. After compacting the scarified bottom, all required fill should be placed in loose lifts not more than 8 inches in thickness. All bottoms to accept compacted fill should be relatively level. Benching may be necessary.

No fill should be placed, spread or rolled during unfavorable (i.e., wet) weather. When the work is interrupted by rain, operations shall not be resumed until the geotechnical engineer indicates that conditions will permit satisfactory results.

For all new fill placed on this project, a minimum relative fill compaction of 90 percent of maximum dry density obtainable by the ASTM Designation D1557 method of compaction shall be utilized.

Field tests shall be made in accordance with ASTM D-1556. Field density tests shall be made at no less than two (2) foot intervals and not less than one test for each 500 cubic yards of fill placed. Field observation and testing shall be performed by the geotechnical engineer or his representative during grading to determine the degree of compaction and proper moisture content. Where compaction is less than required, additional compactive effort shall be made with adjustment of the moisture content, as necessary, until the proper percent compaction is obtained.

Material for Fill

The on-site soils, less any debris or organic matter, may be used in compacted fills. Any required imported fill should be inspected by the geotechnical engineer prior to stockpiling onsite. Imported soils should consist of relatively granular soils with an Expansion Index of less than 20, and be free of vegetation, debris, and deleterious materials. Fill should be free of rocks larger than 6 inches in any dimension.

Utility Trench Backfill

Backfill of all utility trenches within building, flatwork, parking, and drive areas should be properly compacted. Underground utilities should be provided with proper sand bedding and shading to a minimum of 12 inches above the top of pipe. The remainder of the trench should be properly backfilled with the on-site soils and mechanically compacted in lifts to a minimum relative compaction of 95 percent. Jetting or flooding of backfill materials is not permitted. The excavated bedrock should not be used in trench backfill.

Observation

The compaction of all required fill should be observed and tested by a representative of this firm. The observation and testing should include the following:

- Observe the exposed subgrade in areas to receive fill and in areas where excavation has resulted in the desired finished subgrade, observe proofrolling, and delineate areas requiring overexcavation.

- Perform visual observations to evaluate the suitability of on-site and import soils for fill placement; collect and submit soil samples for required or recommended laboratory testing, where necessary.

- Perform field density testing to determine the percentage of compaction achieved during fill placement. Verify proper moisture content during grading.

The governmental agencies having jurisdiction over the project should be notified prior to commencement of grading so that the necessary grading permits may be obtained and arrangements may be made for the required inspections.

CONVENTIONAL FOUNDATIONS

General

As discussed in the "General" section of the "Conclusions and Recommendations" section of this report, shallow, conventional footings be utilized for support of the proposed building, provided the footings are underlain by a minimum of 3 feet of properly compacted fill which itself has been placed on approved natural soil.

Design

Minimum 12-inch wide continuous footings embedded a minimum depth of 18 inches below lowest adjacent grade may be designed for an allowable bearing capacity of 1,500 pounds per square foot. Minimum 24-inch wide isolated column footings embedded a minimum depth of 18

inches below lowest adjacent grade may be designed for an allowable bearing capacity of 2,000 pounds per square foot

A one-third increase in the above allowable bearing values may be utilized for wind or seismic loads. The recommended bearing values are net values, and the weight of the concrete in the footings may be taken as 50 pounds per cubic foot, and the weight of the soil backfill may be neglected when determining the downward loads.

Resistance to lateral loading may be provided by soil friction and by the passive resistance of the natural soil or properly compacted fill. A coefficient of friction of 0.40 may be used between footings and the supporting natural soils or properly compacted fill. The passive resistance of the properly compacted fill against footings may be assumed to be 250 pounds per cubic foot, to a maximum of 2,500 pounds per square foot. The passive resistance of the earth materials and the frictional resistance between the footings and the supporting earth materials may be combined without reduction in determining the total lateral resistance.

A majority of the static settlement of the new foundations is expected to occur upon initial loading. The static settlement of the new foundations is not expected to exceed ½ inch. Static differential settlement is not expected to exceed 1/4 inch.

FLOOR SLABS

Floor slabs-on-grade should be supported on a minimum of 3 feet of properly compacted fill placed on competent natural soils. It is recommended that the floor slabs be a minimum of four inches in thickness. All floor slabs should be reinforced with a minimum of #4 steel bars placed 16 inches on center, each way. In order to decrease the potential for moisture to migrate through the floor slab, it is recommended that a fiber reinforcement additive be added to the concrete mix. This will improve the tensile strength of the concrete and reduce the likelihood of shrinkage cracks from developing. In addition, it is important that any shrinkage cracks that do develop in the floor slab be sealed prior to covering of the slab.

Where a floor covering that would be critically affected by moisture is to be used, it is recommended that the floor slabs be underlain by a vapor retardant which consists of a minimum

15-mil thick extruded polyolefin plastic (no recycled content or woven materials permitted). Permeance as tested before and after mandatory conditioning should be less than 0.01 perms and comply with the ASTM E1745 Class A requirements. Vapor retardant should be installed according to ASTM E1643, including proper perimeter seal. The concrete should be poured directly atop the vapor retardant. No sand should be placed atop the vapor retardant. The concrete mix should be designed so as to minimize possible curling of the slab. The concrete slabs should be allowed to cure properly before placing vinyl or other moisture-sensitive floor covering. Prior to placement of the vapor retardant or casting of concrete against soil, the soil subgrade should be wetted to eliminate any shrinkage cracks.

Construction activities and exposure to the environment can cause deterioration of prepared subgrades. Therefore, we recommend that our field representative observe the condition of the final subgrade earth materials immediately prior to slab-on-grade construction and, if necessary, perform further field density and moisture content tests to determine the suitability of the final prepared subgrade.

Concrete shrinks as it cures, resulting in shrinkage tension within the concrete mass. The development of tension results in cracks within the concrete since concrete is weak in tension. Therefore, the concrete should be placed using procedures to minimize the cracking within the slab. Shrinkage cracks can become excessive if water is added to the concrete above the allowable limit and proper finishing and curing practices are not followed. Concrete mixing, placement, finishing and curing should be performed per the American Concrete Institute Guide for Concrete

Floor and Slab Construction (ACI 301.1R-89). Where shrinkage cracks would be unsightly, such as in the garage, concrete slabs on grade should be provided with tooled, crack control joints at 10 to 15-foot centers or as specified by the structural engineer.

Tile flooring can crack, reflecting cracks in the concrete slab below the tile. Therefore, the slab designer should consider additional steel reinforcement in concrete slabs on-grade that will directly support tile. The tile installer should consider installation methods that reduce possible cracking of the tile. A vinyl crack isolation membrane (approved by the Tile Council of America/Ceramic

Tile Institute) is recommended between tile and concrete slabs-on-grade per the Portland Cement Association Specifications.

TEMPORARY EXCAVATIONS

General

Temporary excavations up to about 5 feet in height are anticipated during construction. The term "surcharged temporary excavation" as used in this report refers to the following: if an imaginary plane is projected down and out from the bottom of any existing footing or property line at an angle of 45-degrees and that imaginary plane intersects a temporary excavation, that temporary excavation is considered surcharged. The term "unsurcharged temporary excavation" refers to a temporary excavation which is not intercepted by the aforementioned imaginary plane.

Unsurcharged, temporary excavations may be cut up to 5 feet in vertical height. Portions of unsurcharged temporary excavations in excess of 5 feet in height should be sloped back at a uniform gradient no steeper than 1:1 (horizontal:vertical). Surcharged temporary excavations should be slot cut.

Where sloped embankments are utilized, the tops of the slopes should be barricaded to prevent vehicles and storage loads within 3 feet of the tops of the slopes. If the temporary construction embankments are to be maintained during the rainy season, berms are suggested along the tops of the slopes where necessary to prevent runoff water from entering the excavation and eroding the slope faces. The soils exposed in the cut slopes can be made if variations in the soil conditions occur. All excavations should be stabilized within 30 days of initial excavation.

Slot Cuts

The following conditions are required for construction of slot cuts. The initial slope is to be excavated under direct observation provided by the geotechnical engineer or his representative. This initial cut is to be formed at a gradient of 1:1 (horizontal:vertical). The first series of slot cuts should be laid out along the temporary slope in a sequence identified as A-B-C, i.e. only the

"A" slots would be excavated and the intervening two slots (B and C) would remain as buttresses. The removal and recompaction operations would be performed within the "A" slots. Subsequently, the "B" slots would be worked. Finally, upon completion of work within the "B" slots, the "C" slots would be excavated. The slots should be a maximum of 6 feet in width, and the intervening buttresses should be 12 feet in width.

SITE DRAINAGE

Positive surface gradients should be maintained adjacent to all structures so as to direct surface water run-off and roof drainage away from foundations and slabs toward suitable discharge facilities. Drainage should not be allowed to pond anywhere on the site.

PLAN REVIEW

Formal plans ready for submittal to the Department of Building and Safety must be reviewed by Rybak Geotechnical, Inc. prior to submittal. Any change in the scope of the project may require additional geotechnical work.

SITE OBSERVATION

It is recommended that all pile and conventional foundation excavations be observed by the geotechnical engineer and/or engineering geologist prior to placing forms, steel, or concrete. All excavations should be cleaned of loose soil and debris prior to observation. The excavations should be approved by this office prior to the placement of reinforcing steel, concrete forms, or concrete. The geotechnical engineer or geologist should verify that the foundations will be embedded into the competent bedrock. All bottom excavations to receive compacted fill should be inspected by the geotechnical engineer or geologist prior to placing any controlled compacted fill. Any fill that is placed must be approved, tested, and verified if used for engineered purposes. Should the observations reveal any unforeseen hazard, additional recommendations may be necessary. Please advise Rybak Geotechnical, Inc. at least 24 hours prior to any required site visit. It is recommended that a pre-grading meeting be held with the general contractor, grading

contractor and our office prior to construction. All approved plans, permits, and geotechnical reports must be at the jobsite and available during site observations/testing.

CONSTRUCTION SITE MAINTENANCE

The construction contractor or general contractor shall supervise and direct the work and they shall be solely responsible for all construction means, methods, techniques, sequences and procedures. Also, they shall be solely and completely responsible for conditions on the job site, including safety of all persons and property during the performance of work. All pile/caisson excavations must be properly covered and secured. Periodic or continuous observations by the geologic and geotechnical consultant will not, nor are intended to, include review of the adequacy of the contractor's safety measures in, on or near the construction site.

It is the responsibility of the contractor to maintain a safe construction site per CalOSHA's requirements. When excavations exist on a site, the area should be fenced and warning signs posted. Earth material generated by foundation and subgrade excavations should be either removed from the site or properly placed as a controlled compacted fill. Earth material must not be spilled over any descending slope.

Workers should not be allowed to enter any unshored trench excavations over 5 feet deep. All shoring, bracing and excavation or confined space entry should be in accordance with current requirements of CAL/OSHA, the Industrial Accident Commission of the State of California, and all other public agencies having jurisdiction.

Please call this office with any questions. This report and the exploration are subject to the following "Limitations" section. Please read the "Limitations" carefully, as it limits our liability.

LIMITATIONS

This report was prepared in accordance with generally accepted geotechnical engineering and geologic principles and practice available at this time and with the degree of care and skill ordinarily exercised under similar circumstances by geotechnical engineers and engineering geologists practicing in this area. No other representation, either expressed or implied, is made as to the conclusions and professional advice included in this report.

This report was prepared exclusively for the sole use and benefit of the client, the Ventura County Fire Protection District, and their authorized agents, and is not transferrable. This report is intended for use with regard to the specific project discussed herein. The conclusions and recommendations contained in this report are based on the data relating only to the project and location discussed herein. Any changes in design or locations of structures from those outlined in this report should be provided to us so that we may review our conclusions and recommendations and make any necessary modifications.

The subsurface conditions described in this report have been projected from borings on the site as indicated, and are believed representative of the project area. The conclusions and recommendations contained herein are based on the findings and observations made at the boring locations. It is not unusual to find conditions beyond borings which differ from the actual conditions encountered. Therefore, existing fill, soil, geologic and groundwater conditions can vary significantly between exploratory excavations and with passage of time. As with most projects, conditions revealed during construction may be at variance with the findings herein. If this occurs, the changed conditions must be evaluated by the geotechnical and geologic consultant, and additional recommendations provided, as warranted. The exploration was performed only on a portion of the site, and cannot be considered as indicative of the portions of the site not explored.

The recommendations contained within this report were developed with the assumption that the necessary geotechnical and geologic observations and testing will be performed during construction by a representative of this firm. If construction phase services are performed by others, they must accept full responsibility for all geotechnical/geological aspects of the project, including this report.

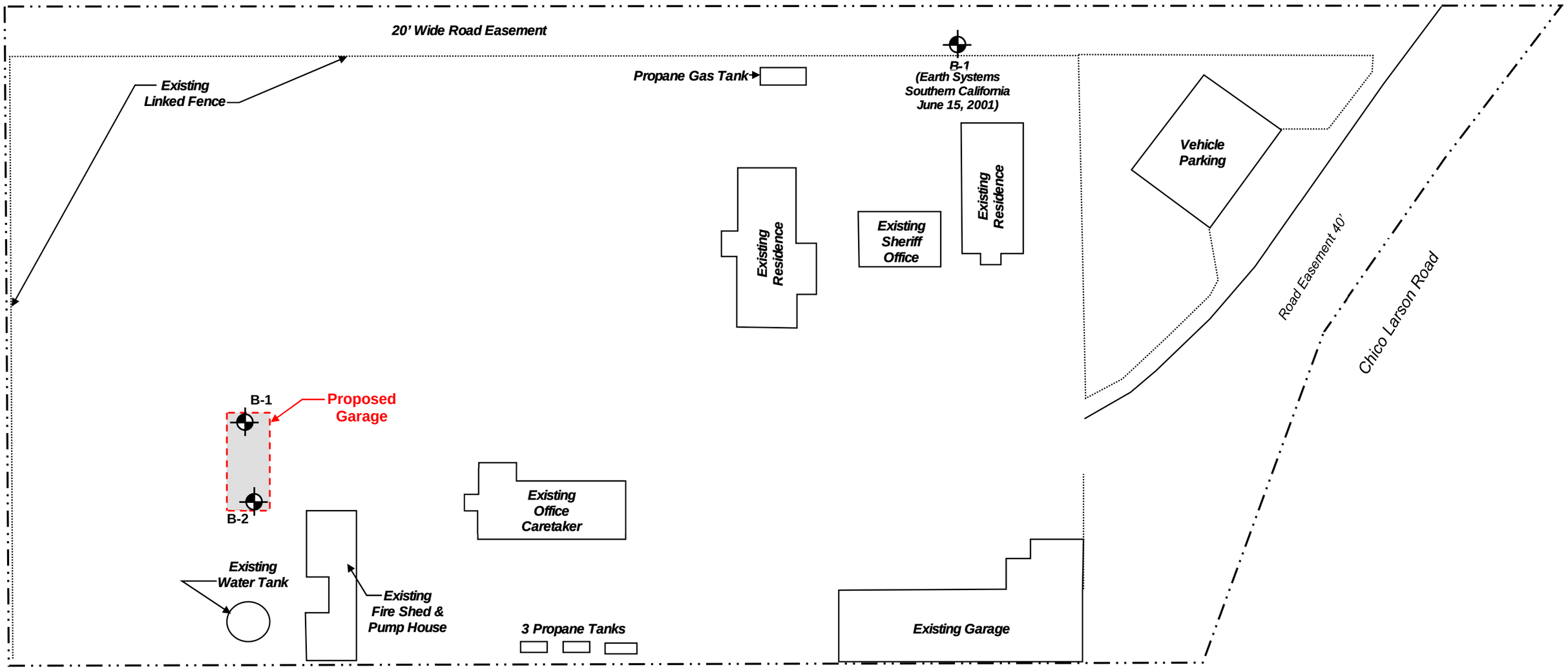
Respectfully submitted,
RYBAK GEOTECHNICAL, INC.

RICHARD RYBAK
Geotechnical Engineer
G.E. 2131

RR:ab

GEOTECHNICAL MAP

15011 EAST LOCKWOOD ROAD,
LOCKWOOD, CA



LEGEND:

B-2

Approximate Location of Boring

NORTH

Scale 1"=40'

Project: VCFPD – 15011 E. Lockwood Rd., Lockwood, CA	Project No: 3293	Date: April 6, 2020
Rybak Geotechnical, Inc. *Consulting Engineers*		**Plate 1**

RYBAK GEOTECHNICAL, INC.

BORING NO. 1

Client: **VCFPD (15011 LOCKWOOD RD)** Exploration Date: March 4, 2020
Project No.: 3293

Sample Depth, (ft.)	Blows per foot	Moisture Content (%)	Dry Density (lbs/cu.ft.)	Depth (ft.)	Soil Type	Description Surface Conditions:
				0		
						EXISTING FILL: Gravelly Sand, gray-brown, slightly moist, very dense
1.0	HS	10.1	98.2	1	ML	NATURAL SOIL: Sandy Silt, brown to tan-brown, moist, medium-firm, porous
1.5	HS	10.9	91.7			
				2		
2.5	HS	10.3	83.7			
3.0	HS	11.9	85.8	3		
4.0	HS	12.8	88.6	4		
				5		
6.0	HS	5.7	94.9	6	SW	Sand, yellow-brown, moist, medium-dense, fine to medium-grained
				7	SM	Silty Sand, brown, moist, dense, some gravel
				8		abundant gravel
9.0	HS	2.2	107.5	9		
					SW	Sand, yellow-brown, moist, dense, fine to medium-grained, some gravel
				10		
				11	ML	Sandy Silt, tan-brown, moist, firm
				12		
				13		
				14		
14.5	HS	7.2	105.2			
				15		
				16		
				17		Total depth: 15 feet
						No groundwater
				18		Fill to 9 inches
				19		
				20		
				21		
				22		
				23		
				24		
				25		
				26		
				27		
				28		
				29		
				30		

PLATE A-1

RYBAK GEOTECHNICAL, INC.

BORING NO. 2

Client: **VCFPD (15011 LOCKWOOD RD)** Exploration Date: March 4, 2020
Project No.: 3293

Sample Depth, (ft.)	Blows per foot	Moisture Content (%)	Dry Density (lbs/cu.ft.)	Depth (ft.)	Soil Type	Description Surface Conditions:
				0		
						EXISTING FILL: Gravelly Sand, gray-brown, slightly moist, very dense
				1	ML	NATURAL SOIL: Sandy Silt, brown to tan-brown, moist, medium-firm, porous
2.0	HS	7.9	98.8	2		
				3		
4.0	HS	9.5	88.6	4		
				5		
6.0	HS	4.2	- -	6		
				7		
				8	SW	Sand, yellow-brown, moist, dense, fine to medium-grained, some gravel
9.0	HS	5.3	107.4	9	SM	Silty Sand, tan-brown, moist, dense, some gravel
				10		
				11		
				12	ML	Sandy Silt, tan-brown, moist, firm
				13		
				14		
15.0	HS	6.9	101.3	15		
				16		
				17		Total depth: 16 feet
						No groundwater
				18		Fill to 9 inches
				19		
				20		
				21		
				22		
				23		
				24		
				25		
				26		
				27		
				28		
				29		
				30		

PLATE A-2

Table 1. Type and Quantity of Laboratory Test

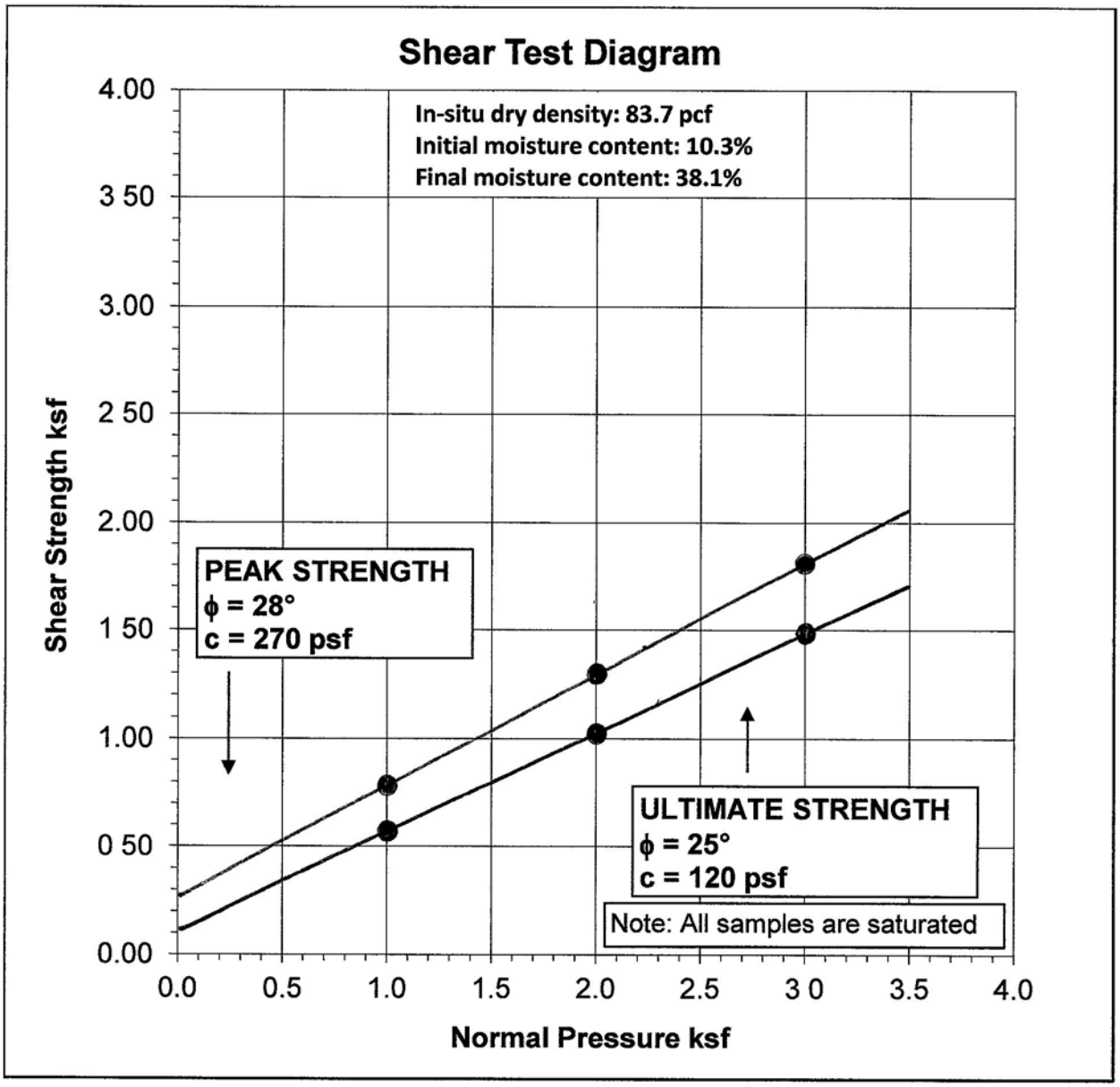
Laboratory Test	Quantity	ASTM Standard
Dry Density	12	-----
Moisture Content	13	D-2216
Consolidation	3	D-2435
Direct Shear	1	D-3080
Swell Test	1	HUD 60 psf Method

Table 2. Results of the Dry Density-Moisture Content Tests

Location	Depth ft.	Soil Description	Dry Density, pcf	Moisture Content, %
B1	1.0	Brown to tan-brown, sandy Silt	98.2	10.1
B1	1.5	Brown to tan-brown, sandy Silt	91.7	10.9
B1	2.5	Brown to tan-brown, sandy Silt	83.7	10.3
B1	3.0	Brown to tan-brown, sandy Silt	85.8	11.9
B1	4.0	Brown to tan-brown, sandy Silt	88.6	12.8
B1	6.0	Yellow-brown, Sand	94.9	5.7
B1	9.0	Yellow-brown, Sand	107.5	2.2
B1	14.5	Tan-brown, sandy Silt	105.2	7.2
B2	2.0	Brown to tan-brown, sandy Silt	98.8	7.9
B2	4.0	Brown to tan-brown, sandy Silt	88.6	9.5
B2	6.0	Brown to tan-brown, sandy Silt	--	4.2
B2	9.0	Tan-brown, silty Sand	107.4	5.3
B2	15.0	Tan-brown, silty Sand	101.3	6.9

Table 5. Results of Swell Test

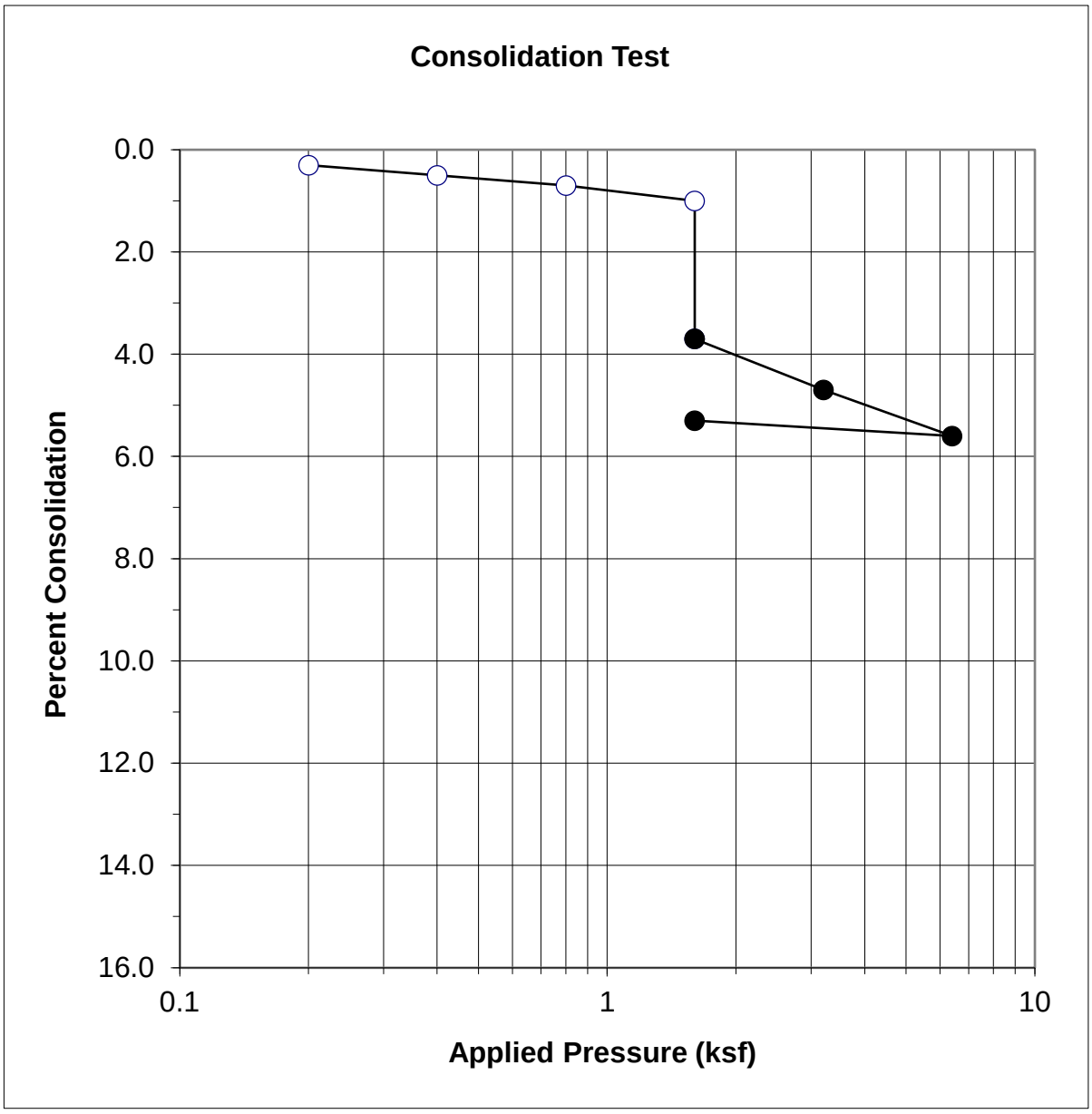
Location	Depth ft	Soil Descriptions	% Swell
B2	2.0	Brown to tan-brown, sandy Silt	3.3 (Low)



DATE: 3/16/2020	SAMPLE: B1 - 2.5'
CLIENT:V.C.F.P.D. (SLOCKWOOD)	PROJECT NO. 3293

RYBAK GEOTECHNICAL, INC.

Plate - B

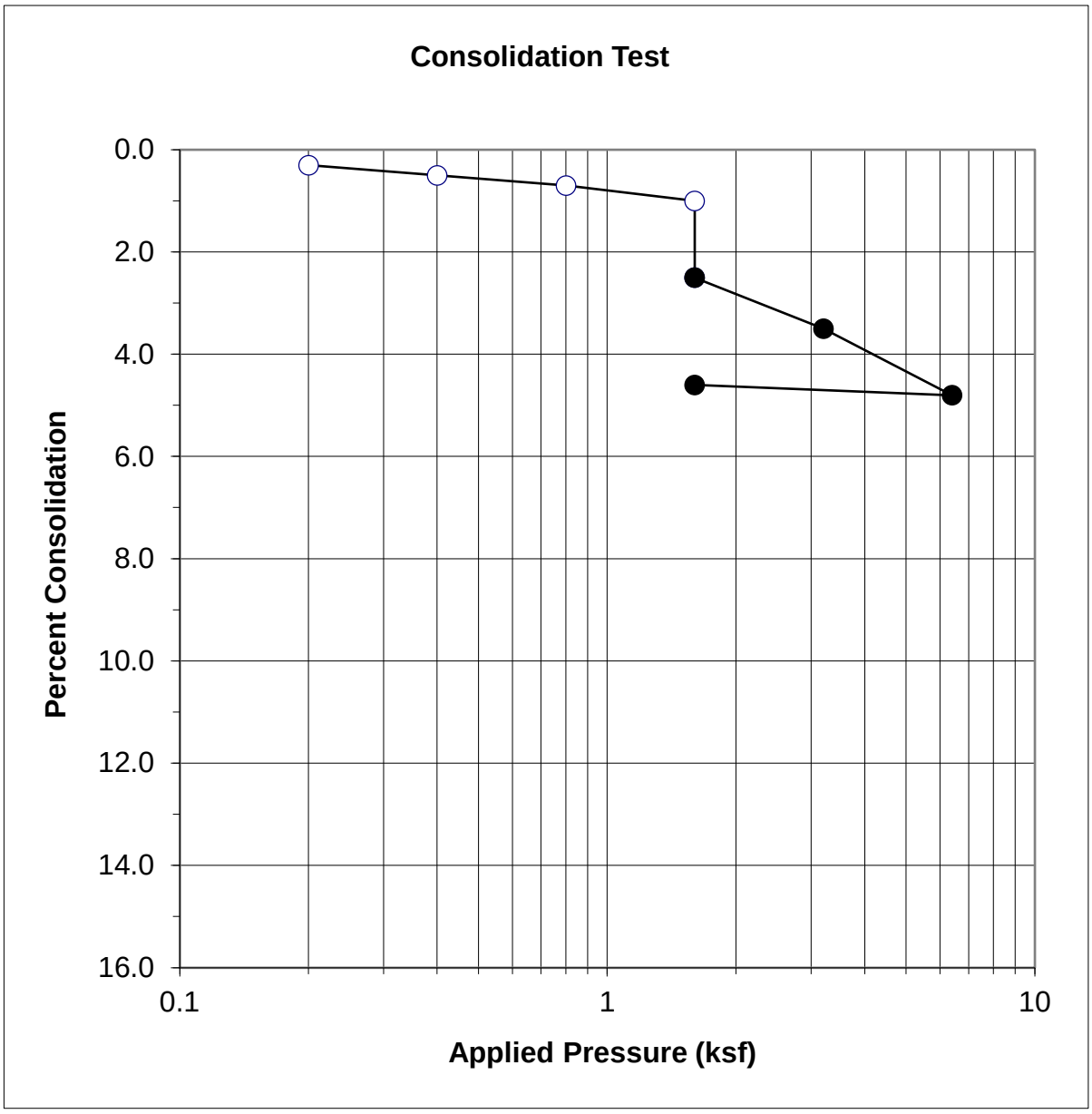


○ Before Saturation ● After Saturation

DATE: 03/11/2020	**SAMPLE: B2 - 2.0'**
CLIENT: VCFPD (LOCKWOOD)	**PROJECT NO. 3293**

RYBAK GEOTECHNICAL, INC.

Plate C-1

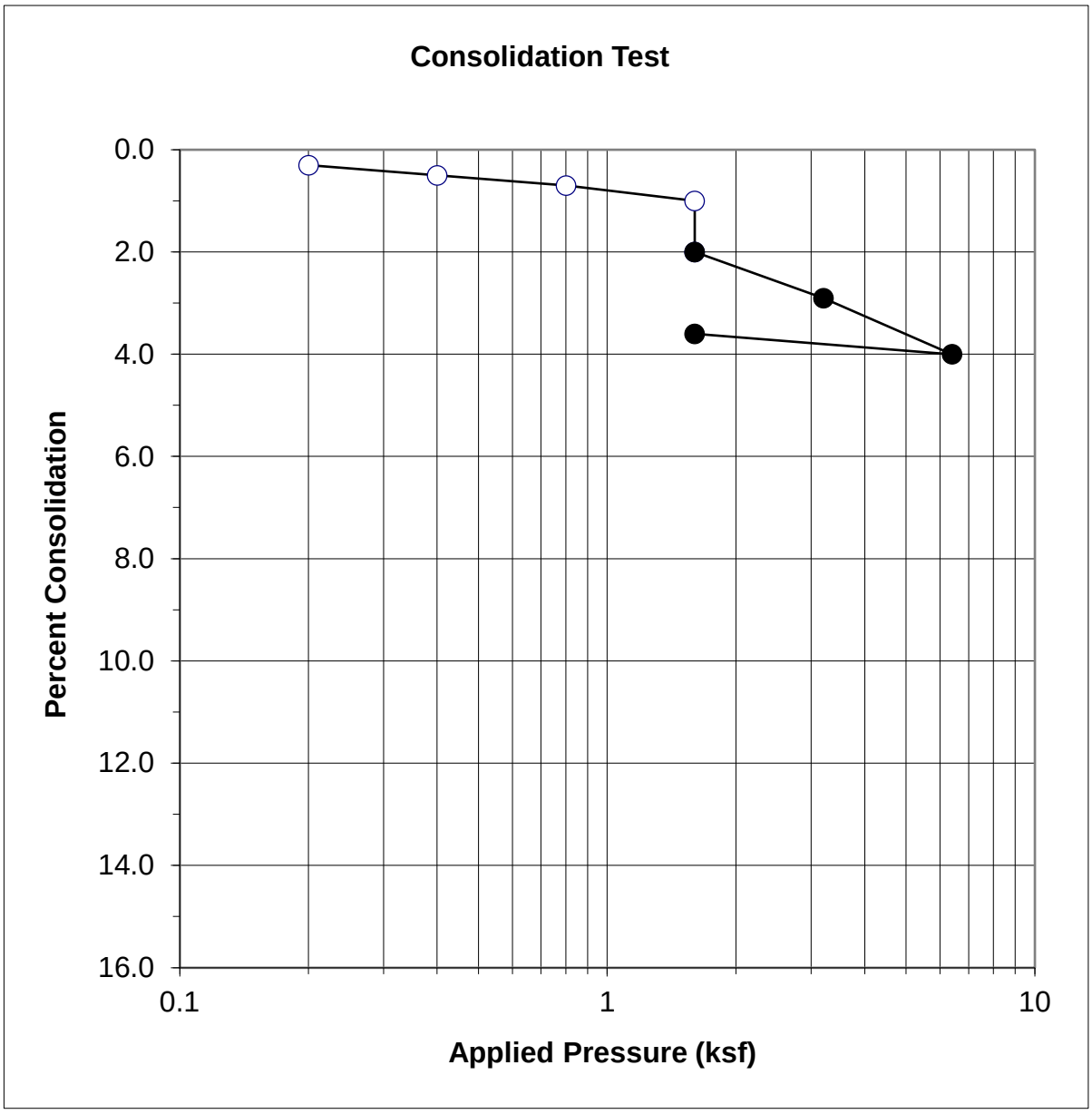


○ Before Saturation ● After Saturation

DATE: 03/11/2020	**SAMPLE: B1- 4.0'**
CLIENT: VCFPD (LOCKWOOD)	**PROJECT NO. 3293**

RYBAK GEOTECHNICAL, INC.

Plate C-2



○ Before Saturation ● After Saturation

DATE: 03/12/2020	**SAMPLE: B2- 9.0'**
CLIENT: VCFPD (LOCKWOOD)	**PROJECT NO. 3293**

RYBAK GEOTECHNICAL, INC.

Plate C-3

VCFPD (Lockwood)

Lockwood Rd, Lockwood, CA 93426, USA

Latitude, Longitude: 35.9439569, -121.0730774

Date	4/6/2020, 10:46:48 AM
Design Code Reference Document	ASCE7-16
Risk Category	I
Site Class	D - Stiff Soil

Type	Value	Description
S_S	1.124	MCE_R ground motion. (for 0.2 second period)
S_1	0.407	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.18	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	0.787	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1.051	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.475	MCE_G peak ground acceleration
F_{PGA}	1.125	Site amplification factor at PGA
PGA_M	0.535	Site modified peak ground acceleration
T_L	12	Long-period transition period in seconds
SsRT	1.124	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	1.189	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.824	Factored deterministic acceleration value. (0.2 second)
S1RT	0.407	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.439	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.658	Factored deterministic acceleration value. (1.0 second)
PGAd	0.756	Factored deterministic acceleration value. (Peak Ground Acceleration)

Type	Value	Description
C_{RS}	0.945	Mapped value of the risk coefficient at short periods
C_{R1}	0.926	Mapped value of the risk coefficient at a period of 1 s

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Ventura County Fire Protection District

Appendix 3

County of Ventura Stormwater Pollution Control Plan (SWPCP)

Bid Documents
Ventura County Fire Protection District
Lockwood Valley Substation Garage Addition Project
15021 Lockwood Valley Road, Frazier Park, CA 93225
Bid Due Date and Time – September 29, 2021 @ 1:00 PM, PST

COUNTY OF VENTURA STORMWATER PROGRAM

COUNTY OF VENTURA

STORMWATER POLLUTION CONTROL PLAN (SWPCP)

Project Name

LOCKWOOD VALLEY SUBSTATION – GARAGE ADDITION

Project Information (if applicable)

Tract/Plan No.:

Grading Permit No.: GP20-0090

Building Permit No.: C20-884

Land Use No.:

Conditional Use Permit No.: PL20-0034

Subdivision No.:

Assessor Parcel Number:: 003-0-230-370

Location: 15021 LOCKWOOD VALLEY ROAD, FRAZIER PARK, CA 93225

General Description:

CONSTRUCTION OF AN 800 SF PRE-FABRICATED METAL GARAGE

Construction Start Date: OCTOBER 2021

Construction Completion Date: JANUARY 2022

Stormwater Pollution Control Plan (SWPCP) Prepared by:

DAVID KIRBY, FACILITIES MANAGER
Name, Title

8/22/21
Date

VENTURA COUNTY FIRE DEPARTMENT
Agency or Contractor Name

805-914-4568
Agency or Contractor Phone No.

REQUIREMENTS

FOR

STORMWATER POLLUTION CONTROL PLAN

For County owned or operated construction projects including those under a Capital Improvement Project Plan that disturb less than one acre of soil, the County of Ventura requires the development and implementation of a Storm Water Pollution Control Plan (SWPCP) to meet requirements of the County of Ventura National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit Order No. R4-2010-0108 (dated July 8, 2010).

The purpose of the SWPCP is to identify potential pollutant sources that may affect the quality of discharges and to design the use and placement of Best Management Practices (BMPs) to effectively prohibit the entry of pollutants from the construction site into the storm drain system during construction. Erosion and sediment source control BMPs should be considered for both active and inactive (previously disturbed) construction areas. BMPs for wind erosion and dust control are also included. The SWPCP may require modification as the project progresses and as conditions warrant.

The SWPCP shall be developed and implemented in accordance with the NPDES Municipal Stormwater Permit No. CAS004002 (Order No. R4-2010-0108; dated July 8, 2010), and any other requirements established by the County of Ventura.

All project contractors and subcontractors shall implement an effective combination of appropriate erosion and sediment control BMPs prescribed by the Ventura County Municipal Stormwater Permit Order No. R4-2010-0108 as applicable on the County owned or operated construction projects. The purpose of BMP implementation is to prevent erosion and sediment loss, and the discharge of construction wastes.

This SWPCP includes BMP references from the California Stormwater Best Management Practice Handbooks (Construction (11/09 ver.), Municipal, New Development & Redevelopment, and Industrial). The handbooks may be obtained from the California Stormwater Quality Association (CASQA), Post Office Box 2105, Menlo Park, CA 94026-2105; 650-366-1042; www.casqa.org or www.cabmphandbooks.com.

Acronyms and Abbreviations:

CASQA	California Stormwater Quality Association
BMP	Best Management Practice
NPDES	National Pollutant Discharge Elimination System
SWPCP	Stormwater Pollution Control Plan

COUNTY OF VENTURA

STORMWATER POLLUTION CONTROL PLAN

Project Owner/Developer/Operator Information

Project Manager: DAVID KIRBY

Project ~~Engineer~~ ARCHITECT: ARTHUR ANDERSON

County Agency: VENTURA COUNTY FIRE DEPARTMENT

Department/Division: FACILITIES

Mailing Address: 165 DURLEY AVENUE

City: CAMARILLO State: CA Zip: 93010 Phone: 805-914-4568

Estimated Start Date of Project: OCTOBER 2021

Estimated Finish Date of Project: JANUARY 2022

Site Map Requirements

In addition to proposed construction plans, provide the following information, *if applicable.*

- Parcel Size = 0.749 acres
- Construction work area = 0.075 acre/acres.
- Soil disturbance area = 0.057 acre/acres.
  Note: This SWPCP is only required for construction projects disturbing less than 1 acre of soil. All construction projects that disturb one acre or more of soil or that disturb less than one acre of soil, but the site is a part of a larger common area of development or sale, require coverage under the State National Pollutant Discharge Elimination System (NPDES) General Construction Permit No. CAS000002. For more information refer to http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.shtml.
- Existing paved areas and buildings.
- Areas of existing vegetation to be protected/preserved.
- Areas where it is known that toxic materials have been stored, disposed, spilled, or leaked onto the construction site.
- Affected water courses, lakes, wetlands, springs, and wells.
- Watershed boundary of offsite areas that drain into construction site.
- Boundary of drainage area where stormwater leaves property.
- Areas of soil disturbance and locations of potential soil erosion areas requiring BMPs during construction.
- Areas of cut and fill.
- Drainage patterns and slopes anticipated after major grading activities.
- Locations of existing storm drain facilities.
  Types and locations of stormwater structures, controls, and/or BMPs that will be built/utilized to control stormwater pollution during construction. Provide a brief description of BMPs selected and, if appropriate, attach modified fact sheets or additional information.
- Construction and erosion control material storage areas.
- Temporary stockpile and construction waste storage areas.
- Construction vehicle storage and service areas.

The above information should be updated as needed to meet evolving construction conditions.

Inventory of Contractor's Activities and Special Conditions

1. Describe construction materials, equipment, and vehicles that will be used onsite.

EQUIPMENT / VEHICLES → TRUCK, DUMP TRUCK, SKID STEER, BACKHOE, CRANE, JUMPING JACK, PLATE COMPACTOR, CONCRETE TRUCK, AND HAND TOOLS.

MATERIALS → CONCRETE, REBAR, WOOD, PRE-FAB METAL BUILDING PARTS, ANCHOR BOLTS, CONDUIT, MATERIAL PALLETS, PORTABLE TOILET AND DUMPSTER.

2. Describe the existing soil and source description of fill material (reference or attach soils report if available).

THE AREA OF CONSTRUCTION IS EXPOSED DIRT. EXCAVATION FOR FOOTINGS, FOUNDATIONS, AND MINOR UTILITY TRENCHING. FOR SUBSURFACE SOIL INVESTIGATION RREFR TO THE PROJECT GEOTECHNICAL REPORT AND ASSOCIATED RESPONSES PREPARED BY RYBAL GEOTECHNICAL.

3. Provide a description of special site conditions that may contribute pollutants to all discharges and how they are to be controlled.

NO SPECIAL CONDITIONS EXIST THAT CANNOT BE CONTROLLED UTILIZING THE BMPS PROPOSED AND ASSOCIATED FACT SHEETS INCLUDED HEREIN.

4. Describe stormwater structures/controls on the site prior to construction and how these structures/controls will be integrated into the SWPCP to reduce sediment and other pollutants in all discharges.

RURAL AREA W/ NO STORM DRAIN SYSTEM. DUST WILL BE MANAGED W/ WATER AND STREET SWEEPING & VACUUMING WILL MAINTAIN CLEANLINESS OF PUBLIC RIGHT OF WAY ACCESS POINT.

5. Provide the sequence for implementation or installation or proposed BMPs.

PRIOR TO & DURING CONSTRUCTION → ESTABLISH & MAINTAIN PERIMETER CONTROLS AS APPLICABLE.

DURING CONSTRUCTION → AS-NEEDED STREET SWEEPING, SITE CLEAN-UP, PORTABLE TOILET PUMPING, MATERIAL STORAGE PROTECTION AS WELL AS CONCRETE AND WASTE MANAGEMENT.

6. List waters, other than stormwater, which will flow from the site during dry weather, the approximate amount of flow, and methods for preventing or treating these dry weather flows.

NONE FROM THE CONSTRUCTION AREA.

Attach sheets if additional space is required.

Monitoring, Inspection, and Maintenance Requirements

1. Implement maintenance/repair efforts to ensure that the required BMPs are in good and effective condition. (A maintenance/repair plan is attached? ☑ Yes ☐ No)
2. Annually train all site personnel responsible for installing, inspecting, and maintaining BMPs (training program/material attached? ☑ Yes ☐ No) Document training is provided in Attachment 2.
3. At minimum conduct one site inspection during the wet season (between October 1 and April 15). Keep records and document inspection information on the Inspection form (Attachment 1)

Best Management Practices - BMPs

Complete the following charts. The BMPs listed may be used if applicable or adequate. Additional BMPs may apply. Please do not attach the BMP Fact Sheets referenced from the California Stormwater BMP Handbooks to the County's copy of the SWPCP; however, the BMP Fact Sheets must be attached to the SWPCP that is kept at the construction site. BMPs can be downloaded from the California Stormwater Handbooks at www.casqa.org or http://www.dot.ca.gov/hq/construc/constmanual/

Table 1. BMPs at Construction Sites Less than 1 Acre

BMPs Selected – Noted by Ref. ID from the California Stormwater BMP Handbooks		Use BMP		(If no, state reason)
		Yes	No	
Erosion Control BMPs				
EC-1 or SS-1	Scheduling	✓		
EC-2 or SS-2	Preservation of Existing Vegetation		✓	NO VEGETATION IMPACTS
Temporary Sediment Control BMPs				
SE-1 or SC-1	Silt Fence		✓	SANDBAG BARRIER INSTEAD
SE-8 or SC-8	Sandbag Barrier	✓		AS NEEDED
Temporary Tracking Control BMPs				
TC-1	Stabilized Construction Entrance/Exit		✓	SMALL CONSTRUCTION AREA. NOT WARRANTED
Non-Stormwater Management BMPs				
NS-1	Water Conservation Practices	✓		
NS-2	Dewatering Operations		✓	NOT ANTICIPATED

Table 1. BMPs at Construction Sites Less than 1 Acre (Continued)

BMPs Selected – Noted by Ref. ID from the California Stormwater BMP Handbooks		Use BMP		(If no, state reason)
		Yes	No	
Waste Management & Materials Pollution Control BMPs				
WM-1	Material Delivery & Storage	✓		
WM-3	Stockpile Management	✓		
WM-4	Spill Prevention & Control	✓		
WM-5	Solid Waste Management	✓		
WM-8	Concrete Waste Management	✓		
WM-9	Sanitary/Septic Waste Mgmt.	✓		
Additional BMPs Selected				
SE-7	STREET SWEEPING/VACUUMING	✓		

* SEE APPENDIX FOR BMP FACT SHEETS *

Certification

Contractor

As the Contractor of record, I have selected appropriate BMPs to effectively minimize the negative impacts of this project's construction activities on stormwater quality. The project owner is aware that the selected BMPs must be installed, monitored, and maintained to ensure their effectiveness. The BMPs not selected for implementation are redundant or deemed not applicable to the proposed construction activity.

TBD

Name: _____ Title: _____

Signature: _____ Date: _____

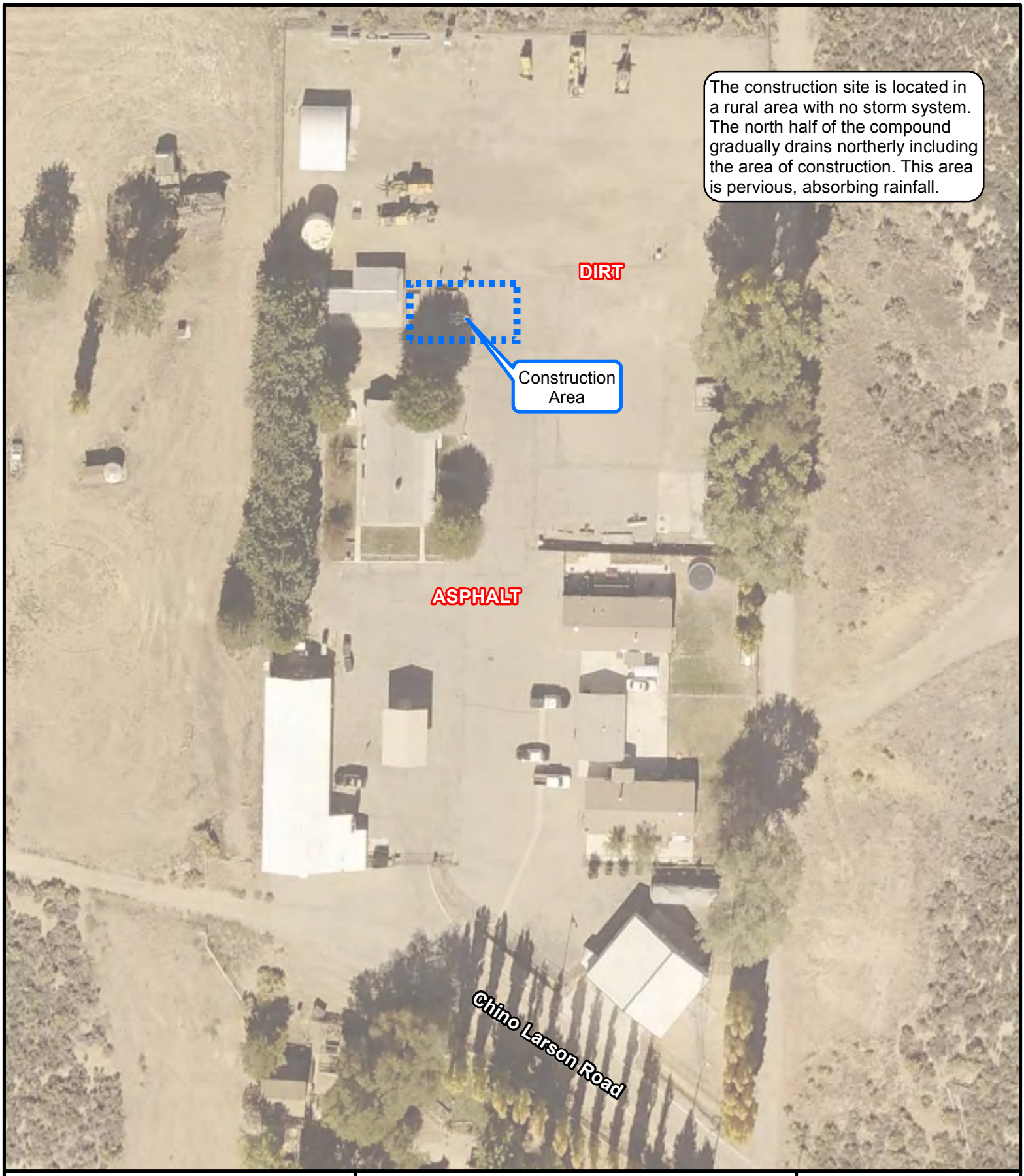
Owner/Developer:

I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is true, accurate, and complete. I am aware that submitting false and/or inaccurate information, failing to update the SWPCP to reflect current conditions, or failing to properly and/or adequately implement the SWPCP may result in sanctions provided by law.

Name: DAVID KIRBY Title: FACILITIES MANAGER

County Agency: VENTURA COUNTY FIRE DEPARTMENT Department/Division: FACILITIES

Signature: _____ Date: 8/22/21



Business Services Bureau

Facilities Department

165 Durley Avenue
Camarillo, CA 93010

LOCKWOOD VALLEY SUBSTATION

15021 Lockwood Valley Road, Frazier Park, CA 93225

SWPCP Site Plan

N

Feet
0 25 50

Attachment 1 to SWPCP

Inspection Checklist for Construction Sites Less Than One Acre

County's Project Engineer or Project Inspector shall conduct site inspection at sites less than one acre for the implementation of storm water quality controls a minimum of once during the wet season (October 1 through April 15) using this checklist. Keep a copy of the completed inspection checklist with the project SWPCP on site.

DATE OF INSPECTION: _____

Project Name: _____

Inspector's Name: _____

Weather Conditions during inspection: _____

	Item	Compliance Accomplished YES	NO	N/A	Date Completed
1	Are erosion control measures (BMPs) identified in SWPCP in place and effective?				
2	Are sediment control measures (BMPs) identified in SWPCP in place and effective?				
3	Is the site entrance stabilization adequate?				
4	Is equipment/vehicles parked in designated areas and free from significant leaks? Are drip pans present as needed?				
5	Are maintenance areas free from stains on the soil?				
6	Are all materials stored in bins or covered in plastic and protected from storm water?				
7	Is construction waste being disposed of in proper trash containers?				
8	Are concrete washout stations present and being utilized and maintained?				
9	Is fugitive dust being controlled and water being used as needed?				
10	Are catch basins, drainage channels, drain inlets/outlets being protected?				

Construction Site Inspection Checklist (Continued)

Comments:

I certify under penalty of law that this inspection is true, and I or a qualified assigned person has performed the required inspection as stated in the SWPCP.

Inspector Name _____ Inspector Signature _____

Date _____

Attachment 2 to SWPCP

Trained Personnel Log

Employees and contractors must be trained on the SWPCP prior to start of construction and annually thereafter. Contractor shall keep original training logs as an attachment to the project specific SWPCP.

Stormwater Management Training Log

Project Name: _____

Project Number/Location: _____

Stormwater Management Topic: (check as appropriate)

- ❑ Erosion Control
- ❑ Sediment Control
- ❑ Wind Erosion Control
- ❑ Tracking Control
- ❑ Non-storm water management
- ❑ Waste Management and Materials Pollution Control
- ❑ Storm Water Sampling

Specific Training Objective: _____

Location: _____ Date: _____

Instructor: _____ Telephone: _____

Course Length (hours): _____

Attendee Roster (attach additional forms if necessary)

Name	Company	Phone

COMMENTS:

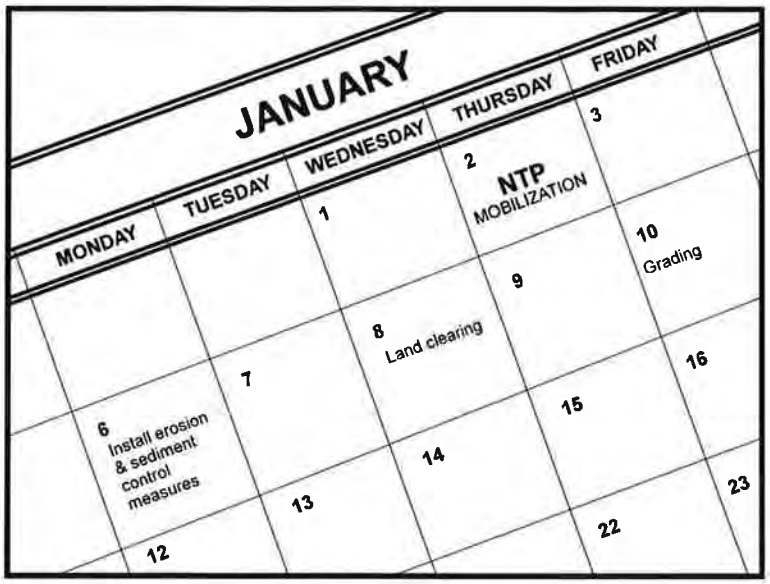
_____

_____

APPENDIX

BMP FACT SHEETS

Scheduling EC-1



Description and Purpose

Scheduling is the development of a written plan that includes sequencing of construction activities and the implementation of BMPs such as erosion control and sediment control while taking local climate (rainfall, wind, etc.) into consideration. The purpose is to reduce the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicle tracking, and to perform the construction activities and control practices in accordance with the planned schedule.

Suitable Applications

Proper sequencing of construction activities to reduce erosion potential should be incorporated into the schedule of every construction project especially during rainy season. Use of other, more costly yet less effective, erosion and sediment control BMPs may often be reduced through proper construction sequencing.

Limitations

- Environmental constraints such as nesting season prohibitions reduce the full capabilities of this BMP.

Implementation

- Avoid rainy periods. Schedule major grading operations during dry months when practical. Allow enough time before rainfall begins to stabilize the soil with vegetation or physical means or to install sediment trapping devices.
- Plan the project and develop a schedule showing each phase of construction. Clearly show how the rainy season relates

Categories

EC	Erosion Control	☑
SE	Sediment Control	☒
TC	Tracking Control	☒
WE	Wind Erosion Control	☒
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

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to soil disturbing and re-stabilization activities. Incorporate the construction schedule into the SWPPP.

- Include on the schedule, details on the rainy season implementation and deployment of:
  - Erosion control BMPs
  - Sediment control BMPs
  - Tracking control BMPs
  - Wind erosion control BMPs
  - Non-stormwater BMPs
  - Waste management and materials pollution control BMPs
- Include dates for activities that may require non-stormwater discharges such as dewatering, sawcutting, grinding, drilling, boring, crushing, blasting, painting, hydro-demolition, mortar mixing, pavement cleaning, etc.
- Work out the sequencing and timetable for the start and completion of each item such as site clearing and grubbing, grading, excavation, paving, foundation pouring utilities installation, etc., to minimize the active construction area during the rainy season.
  - Sequence trenching activities so that most open portions are closed before new trenching begins.
  - Incorporate staged seeding and re-vegetation of graded slopes as work progresses.
  - Schedule establishment of permanent vegetation during appropriate planting time for specified vegetation.
- Non-active areas should be stabilized as soon as practical after the cessation of soil disturbing activities or one day prior to the onset of precipitation.
- Monitor the weather forecast for rainfall.
- When rainfall is predicted, adjust the construction schedule to allow the implementation of soil stabilization and sediment treatment controls on all disturbed areas prior to the onset of rain.
- Be prepared year round to deploy erosion control and sediment control BMPs. Erosion may be caused during dry seasons by un-seasonal rainfall, wind, and vehicle tracking. Keep the site stabilized year round, and retain and maintain rainy season sediment trapping devices in operational condition.
- Apply permanent erosion control to areas deemed substantially complete during the project's defined seeding window.

Costs

Construction scheduling to reduce erosion may increase other construction costs due to reduced economies of scale in performing site grading. The cost effectiveness of scheduling techniques should be compared with the other less effective erosion and sedimentation controls to achieve a cost effective balance.

Inspection and Maintenance

- Verify that work is progressing in accordance with the schedule. If progress deviates, take corrective actions.
- Amend the schedule when changes are warranted.
- Amend the schedule prior to the rainy season to show updated information on the deployment and implementation of construction site BMPs.

References

Stormwater Quality Handbooks Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities Developing Pollution Prevention Plans and Best Management Practices (EPA 832-R-92-005), U.S. Environmental Protection Agency, Office of Water, September 1992.

Street Sweeping and Vacuuming SE-7

Categories

EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	☑
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	☑
Metals	
Bacteria	
Oil and Grease	☑
Organics	

Potential Alternatives

None

Description and Purpose

Street sweeping and vacuuming includes use of self-propelled and walk-behind equipment to remove sediment from streets and roadways, and to clean paved surfaces in preparation for final paving. Sweeping and vacuuming prevents sediment from the project site from entering storm drains or receiving waters.

Suitable Applications

Sweeping and vacuuming are suitable anywhere sediment is tracked from the project site onto public or private paved streets and roads, typically at points of egress. Sweeping and vacuuming are also applicable during preparation of paved surfaces for final paving.

Limitations

Sweeping and vacuuming may not be effective when sediment is wet or when tracked soil is caked (caked soil may need to be scraped loose).

Implementation

- Controlling the number of points where vehicles can leave the site will allow sweeping and vacuuming efforts to be focused, and perhaps save money.
- Inspect potential sediment tracking locations daily.
- Visible sediment tracking should be swept or vacuumed on a daily basis.

- Do not use kick brooms or sweeper attachments. These tend to spread the dirt rather than remove it.
- If not mixed with debris or trash, consider incorporating the removed sediment back into the project

Costs

Rental rates for self-propelled sweepers vary depending on hopper size and duration of rental. Expect rental rates from $58/hour (3 yd^3 hopper) to $88/hour (9 yd^3 hopper), plus operator costs. Hourly production rates vary with the amount of area to be swept and amount of sediment. Match the hopper size to the area and expect sediment load to minimize time spent dumping.

Inspection and Maintenance

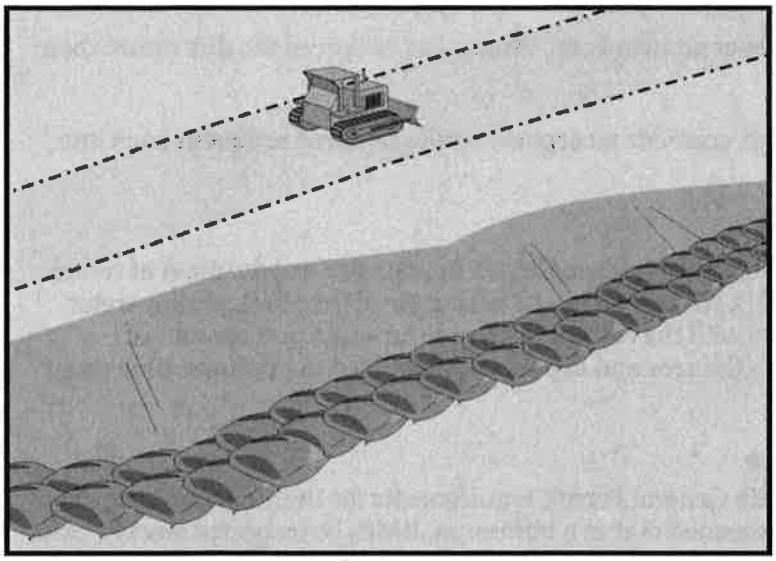
- Inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- When actively in use, points of ingress and egress must be inspected daily.
- When tracked or spilled sediment is observed outside the construction limits, it must be removed at least daily. More frequent removal, even continuous removal, may be required in some jurisdictions.
- Be careful not to sweep up any unknown substance or any object that may be potentially hazardous.
- Adjust brooms frequently; maximize efficiency of sweeping operations.
- After sweeping is finished, properly dispose of sweeper wastes at an approved dumpsite.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Labor Surcharge and Equipment Rental Rates, State of California Department of Transportation (Caltrans), April 1, 2002 – March 31, 2003.

Sandbag Barrier SE-8



Categories

EC	Erosion Control	☒
SE	Sediment Control	☑
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Description and Purpose

A sandbag barrier is a series of sand-filled bags placed on a level contour to intercept or to divert sheet flows. Sandbag barriers placed on a level contour pond sheet flow runoff, allowing sediment to settle out.

Suitable Applications

Sandbag barriers may be a suitable control measure for the applications described below. It is important to consider that sand bags are less porous than gravel bags and ponding or flooding can occur behind the barrier. Also, sand is easily transported by runoff if bags are damaged or ruptured. The SWPPP Preparer should select the location of a sandbag barrier with respect to the potential for flooding, damage, and the ability to maintain the BMP.

- As a linear sediment control measure:
  - Below the toe of slopes and erodible slopes.
  - As sediment traps at culvert/pipe outlets.
  - Below other small cleared areas.
  - Along the perimeter of a site.
  - Down slope of exposed soil areas.
  - Around temporary stockpiles and spoil areas.
  - Parallel to a roadway to keep sediment off paved areas.
  - Along streams and channels.

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

SE-1 Silt Fence

SE-5 Fiber Rolls

SE-6 Gravel Bag Berm

SE-12 Manufactured Linear Sediment Controls

SE-14 Biofilter Bags

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- As linear erosion control measure:
  - Along the face and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow.
  - At the top of slopes to divert runoff away from disturbed slopes.
  - As check dams across mildly sloped construction roads.

Limitations

- It is necessary to limit the drainage area upstream of the barrier to 5 acres.
- Sandbags are not intended to be used as filtration devices.
- Easily damaged by construction equipment.
- Degraded sandbags may rupture when removed, spilling sand.
- Installation can be labor intensive.
- Durability of sandbags is somewhat limited and bags will need to be replaced when there are signs of damage or wear.
- Burlap should not be used for sandbags.

Implementation

General

A sandbag barrier consists of a row of sand-filled bags placed on a level contour. When appropriately placed, a sandbag barrier intercepts and slows sheet flow runoff, causing temporary ponding. The temporary ponding allows sediment to settle. Sand-filled bags have limited porosity, which is further limited as the fine sand tends to quickly plug with sediment, limiting or completely blocking the rate of flow through the barrier. If a porous barrier is desired, consider SE-1, Silt Fence, SE-5, Fiber Rolls, SE-6, Gravel Bag Berms or SE-14, Biofilter Bags. Sandbag barriers also interrupt the slope length and thereby reduce erosion by reducing the tendency of sheet flows to concentrate into rivulets which erode rills, and ultimately gullies, into disturbed, sloped soils. Sandbag barriers are similar to gravel bag berms, but less porous. Generally, sandbag barriers should be used in conjunction with temporary soil stabilization controls up slope to provide effective erosion and sediment control.

Design and Layout

- Locate sandbag barriers on a level contour.
- When used for slope interruption, the following slope/sheet flow length combinations apply:
  - Slope inclination of 4:1 (H:V) or flatter: Sandbags should be placed at a maximum interval of 20 ft, with the first row near the slope toe.
  - Slope inclination between 4:1 and 2:1 (H:V): Sandbags should be placed at a maximum interval of 15 ft. (a closer spacing is more effective), with the first row near the slope toe.

  - Slope inclination 2:1 (H:V) or greater: Sandbags should be placed at a maximum interval of 10 ft. (a closer spacing is more effective), with the first row near the slope toe.

- Turn the ends of the sandbag barrier up slope to prevent runoff from going around the barrier.
- Allow sufficient space up slope from the barrier to allow ponding, and to provide room for sediment storage.
- For installation near the toe of the slope, sand bag barriers should be set back from the slope toe to facilitate cleaning. Where specific site conditions do not allow for a set-back, the sand bag barrier may be constructed on the toe of the slope. To prevent flows behind the barrier, bags can be placed perpendicular to a berm to serve as cross barriers.
- Drainage area should not exceed 5 acres.
- Butt ends of bags tightly.
- Overlap butt joints of row beneath with each successive row.
- Use a pyramid approach when stacking bags.
- In non-traffic areas
  - Height = 18 in. maximum
  - Top width = 24 in. minimum for three or more layer construction
  - Side slope = 2:1 (H:V) or flatter
- In construction traffic areas
  - Height = 12 in. maximum
  - Top width = 24 in. minimum for three or more layer construction.
  - Side slopes = 2:1 (H:V) or flatter.
- See typical sandbag barrier installation details at the end of this fact sheet.

Materials

- ***Sandbag Material:*** Sandbag should be woven polypropylene, polyethylene or polyamide fabric, minimum unit weight of 4 ounces/yd^2, Mullen burst strength exceeding 300 lb/in^2 in conformance with the requirements in ASTM designation D3786, and ultraviolet stability exceeding 70% in conformance with the requirements in ASTM designation D4355. Use of burlap is not an acceptable substitute, as sand can more easily mobilize out of burlap.
- ***Sandbag Size:*** Each sand-filled bag should have a length of 18 in., width of 12 in., thickness of 3 in., and mass of approximately 33 lbs. Bag dimensions are nominal, and may vary based on locally available materials.

- ***Fill Material:*** All sandbag fill material should be non-cohesive, Class 3 (Caltrans Standard Specification, Section 25) or similar permeable material free from clay and deleterious material, such as recycled concrete or asphalt.

Costs

Empty sandbags cost $0.25 - $0.75. Average cost of fill material is $8 per yd^3. Additional labor is required to fill the bags. Pre-filled sandbags are more expensive at $1.50 - $2.00 per bag. These costs are based upon vendor research.

Inspection and Maintenance

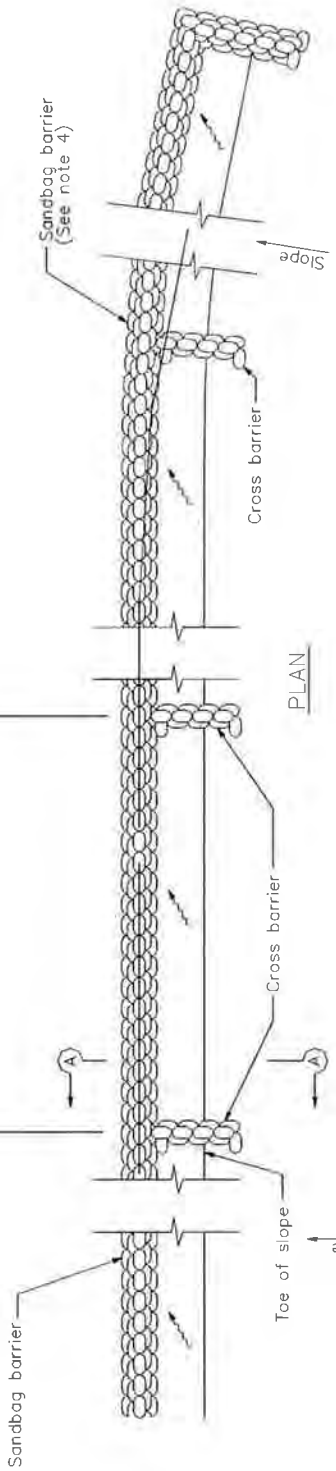
- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Sandbags exposed to sunlight will need to be replaced every two to three months due to degradation of the bags.
- Reshape or replace sandbags as needed.
- Repair washouts or other damage as needed.
- Sediment that accumulates behind the BMP should be periodically removed in order to maintain BMP effectiveness. Sediment should be removed when the sediment accumulation reaches one-third of the barrier height.
- Remove sandbags when no longer needed and recycle sand fill whenever possible and properly dispose of bag material. Remove sediment accumulation, and clean, re-grade, and stabilize the area.

References

Standard Specifications for Construction of Local Streets and Roads, California Department of Transportation (Caltrans), July 2002.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

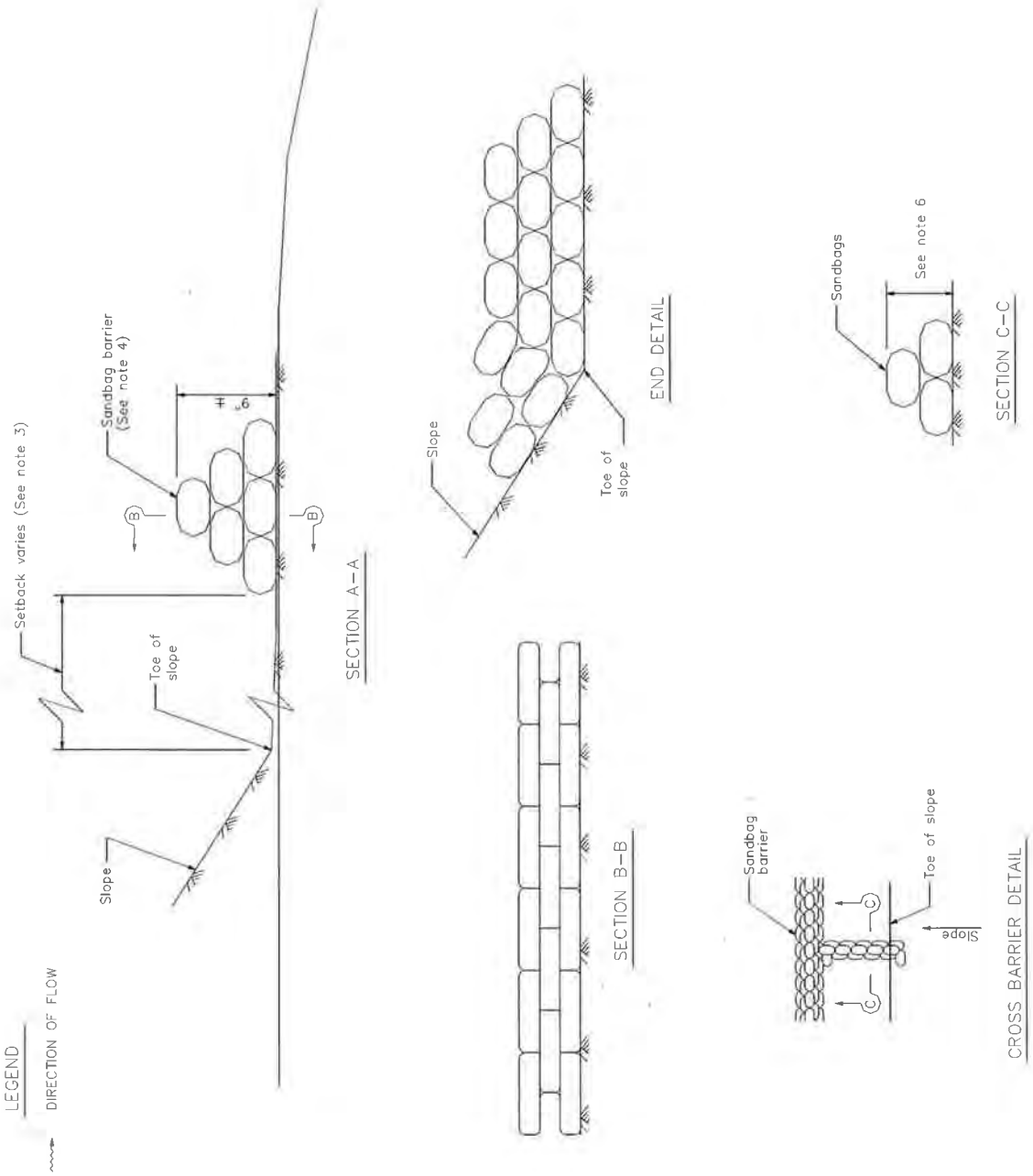
Erosion and Sediment Control Manual, Oregon Department of Environmental Quality, February 2005.



SANDBAG BARRIER

NOTES

1. Construct the length of each reach so that the change in base elevation along the reach does not exceed 1/2 the height of the linear barrier In no case shall the reach length exceed 500'
2. Place sandbags tightly
3. Dimension may vary to fit field condition
4. Sandbag barrier shall be a minimum of 3 bags high
5. The end of the barrier shall be turned up slope
6. Cross barriers shall be a min of 1/2 and a max of 2/3 the height of the linear barrier
7. Sandbag rows and layers shall be staggered to eliminate gaps


LEGEND
DIRECTION OF FLOW
Setback varies (See note 3)
Sandbag barrier (See note 4)
Toe of slope
Slope
SECTION A–A
Slope
Toe of slope
END DETAIL
SECTION B–B
Sandbags
See note 6
SECTION C–C
Sandbag barrier
Toe of slope
Slope
CROSS BARRIER DETAIL

Water Conservation Practices NS-1

Categories

EC	Erosion Control	☒
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☑
WM	Waste Management and Materials Pollution Control	

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Description and Purpose

Water conservation practices are activities that use water during the construction of a project in a manner that avoids causing erosion and the transport of pollutants offsite. These practices can reduce or eliminate non-stormwater discharges.

Suitable Applications

Water conservation practices are suitable for all construction sites where water is used, including piped water, metered water, trucked water, and water from a reservoir.

Limitations

- None identified.

Implementation

- Keep water equipment in good working condition.
- Stabilize water truck filling area.
- Repair water leaks promptly.
- Washing of vehicles and equipment on the construction site is discouraged.
- Avoid using water to clean construction areas. If water must be used for cleaning or surface preparation, surface should be swept and vacuumed first to remove dirt. This will minimize amount of water required.

- Direct construction water runoff to areas where it can soak into the ground or be collected and reused.
- Authorized non-stormwater discharges to the storm drain system, channels, or receiving waters are acceptable with the implementation of appropriate BMPs.
- Lock water tank valves to prevent unauthorized use.

Costs

The cost is small to none compared to the benefits of conserving water.

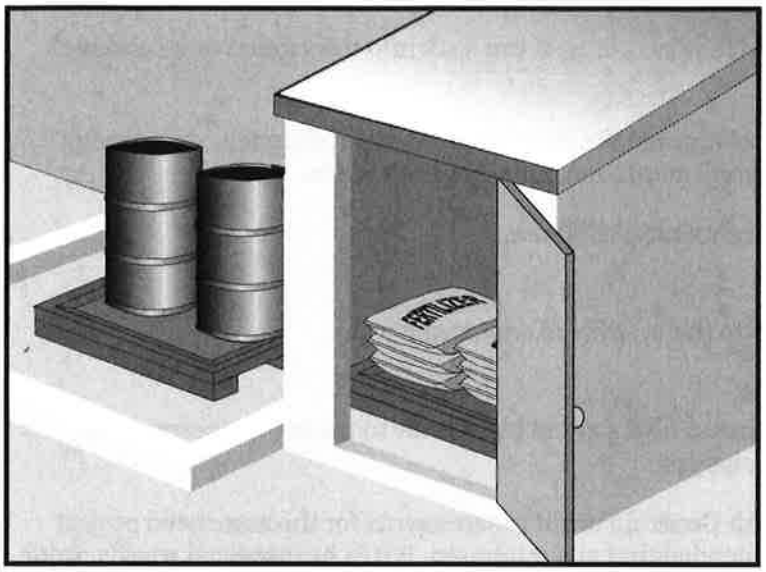
Inspection and Maintenance

- Inspect and verify that activity based BMPs are in place prior to the commencement of authorized non-stormwater discharges.
- Inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subject to non-stormwater discharges daily while non-stormwater discharges are occuring.
- Repair water equipment as needed to prevent unintended discharges.
  - Water trucks
  - Water reservoirs (water buffalos)
  - Irrigation systems
  - Hydrant connections

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Material Delivery and Storage WM-1



Categories		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Description and Purpose

Prevent, reduce, or eliminate the discharge of pollutants from material delivery and storage to the stormwater system or watercourses by minimizing the storage of hazardous materials onsite, storing materials in watertight containers and/or a completely enclosed designated area, installing secondary containment, conducting regular inspections, and training employees and subcontractors.

This best management practice covers only material delivery and storage. For other information on materials, see WM-2, Material Use, or WM-4, Spill Prevention and Control. For information on wastes, see the waste management BMPs in this section.

Suitable Applications

These procedures are suitable for use at all construction sites with delivery and storage of the following materials:

- Soil stabilizers and binders
- Pesticides and herbicides
- Fertilizers
- Detergents
- Plaster
- Petroleum products such as fuel, oil, and grease

Targeted Constituents	
Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

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- Asphalt and concrete components
- Hazardous chemicals such as acids, lime, glues, adhesives, paints, solvents, and curing compounds
- Concrete compounds
- Other materials that may be detrimental if released to the environment

Limitations

- Space limitation may preclude indoor storage.
- Storage sheds often must meet building and fire code requirements.

Implementation

The following steps should be taken to minimize risk:

- Chemicals must be stored in water tight containers with appropriate secondary containment or in a storage shed.
- When a material storage area is located on bare soil, the area should be lined and bermed.
- Use containment pallets or other practical and available solutions, such as storing materials within newly constructed buildings or garages, to meet material storage requirements.
- Stack erodible landscape material on pallets and cover when not in use.
- Contain all fertilizers and other landscape materials when not in use.
- Temporary storage areas should be located away from vehicular traffic.
- Material Safety Data Sheets (MSDS) should be available on-site for all materials stored that have the potential to effect water quality.
- Construction site areas should be designated for material delivery and storage.
- Material delivery and storage areas should be located away from waterways, if possible.
  - Avoid transport near drainage paths or waterways.
  - Surround with earth berms or other appropriate containment BMP. See EC-9, Earth Dikes and Drainage Swales.
  - Place in an area that will be paved.
- Storage of reactive, ignitable, or flammable liquids must comply with the fire codes of your area. Contact the local Fire Marshal to review site materials, quantities, and proposed storage area to determine specific requirements. See the Flammable and Combustible Liquid Code, NFPA30.
- An up to date inventory of materials delivered and stored onsite should be kept.

- Hazardous materials storage onsite should be minimized.
- Hazardous materials should be handled as infrequently as possible.
- Keep ample spill cleanup supplies appropriate for the materials being stored. Ensure that cleanup supplies are in a conspicuous, labeled area.
- Employees and subcontractors should be trained on the proper material delivery and storage practices.
- Employees trained in emergency spill cleanup procedures must be present when dangerous materials or liquid chemicals are unloaded.
- If significant residual materials remain on the ground after construction is complete, properly remove and dispose of materials and any contaminated soil. See WM-7, Contaminated Soil Management. If the area is to be paved, pave as soon as materials are removed to stabilize the soil.

Material Storage Areas and Practices

- Liquids, petroleum products, and substances listed in 40 CFR Parts 110, 117, or 302 should be stored in approved containers and drums and should not be overfilled. Containers and drums should be placed in temporary containment facilities for storage.
- A temporary containment facility should provide for a spill containment volume able to contain precipitation from a 25 year storm event, plus the greater of 10% of the aggregate volume of all containers or 100% of the capacity of the largest container within its boundary, whichever is greater.
- A temporary containment facility should be impervious to the materials stored therein for a minimum contact time of 72 hours.
- A temporary containment facility should be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills should be collected and placed into drums. These liquids should be handled as a hazardous waste unless testing determines them to be non-hazardous. All collected liquids or non-hazardous liquids should be sent to an approved disposal site.
- Sufficient separation should be provided between stored containers to allow for spill cleanup and emergency response access.
- Incompatible materials, such as chlorine and ammonia, should not be stored in the same temporary containment facility.
- Materials should be covered prior to, and during rain events.
- Materials should be stored in their original containers and the original product labels should be maintained in place in a legible condition. Damaged or otherwise illegible labels should be replaced immediately.

- Bagged and boxed materials should be stored on pallets and should not be allowed to accumulate on the ground. To provide protection from wind and rain throughout the rainy season, bagged and boxed materials should be covered during non-working days and prior to and during rain events.
- Stockpiles should be protected in accordance with WM-3, Stockpile Management.
- Materials should be stored indoors within existing structures or completely enclosed storage sheds when available.
- Proper storage instructions should be posted at all times in an open and conspicuous location.
- An ample supply of appropriate spill clean up material should be kept near storage areas.
- Also see WM-6, Hazardous Waste Management, for storing of hazardous wastes.

Material Delivery Practices

- Keep an accurate, up-to-date inventory of material delivered and stored onsite.
- Arrange for employees trained in emergency spill cleanup procedures to be present when dangerous materials or liquid chemicals are unloaded.

Spill Cleanup

- Contain and clean up any spill immediately.
- Properly remove and dispose of any hazardous materials or contaminated soil if significant residual materials remain on the ground after construction is complete. See WM-7, Contaminated Soil Management.
- See WM-4, Spill Prevention and Control, for spills of chemicals and/or hazardous materials.
- If spills or leaks of materials occur that are not contained and could discharge to surface waters, non-visible sampling of site discharge may be required. Refer to the General Permit or to your project specific Construction Site Monitoring Plan to determine if and where sampling is required.

Cost

- The largest cost of implementation may be in the construction of a materials storage area that is covered and provides secondary containment.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Keep storage areas clean and well organized, including a current list of all materials onsite.
- Inspect labels on containers for legibility and accuracy.

- Repair or replace perimeter controls, containment structures, covers, and liners as needed to maintain proper function.

References

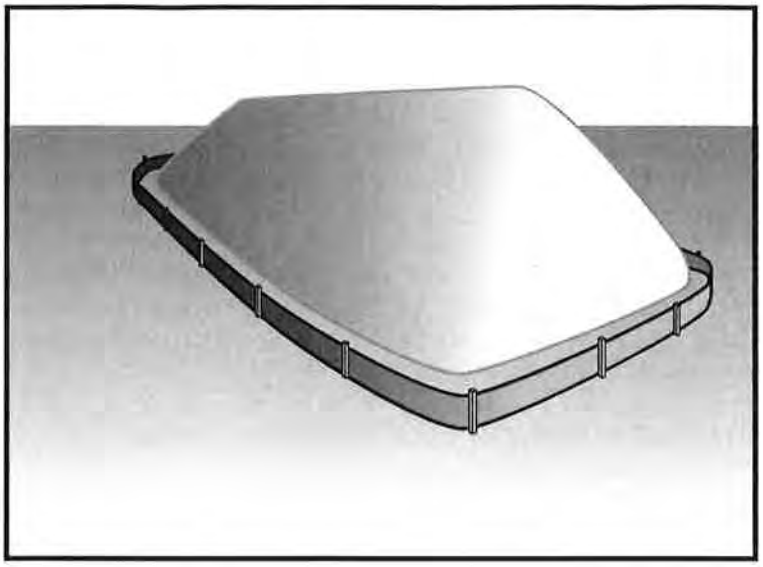
Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Coastal Nonpoint Pollution Control Program: Program Development and Approval Guidance, Working Group Working Paper; USEPA, April 1992.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

Stockpile Management WM-3



Categories		
EC	Erosion Control	
SE	Sediment Control	☒
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☒
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Description and Purpose

Stockpile management procedures and practices are designed to reduce or eliminate air and stormwater pollution from stockpiles of soil, soil amendments, sand, paving materials such as portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate sub base or pre-mixed aggregate, asphalt minder (so called "cold mix" asphalt), and pressure treated wood.

Suitable Applications

Implement in all projects that stockpile soil and other loose materials.

Limitations

- Plastic sheeting as a stockpile protection is temporary and hard to manage in windy conditions. Where plastic is used, consider use of plastic tarps with nylon reinforcement which may be more durable than standard sheeting.
- Plastic sheeting can increase runoff volume due to lack of infiltration and potentially cause perimeter control failure.
- Plastic sheeting breaks down faster in sunlight.
- The use of Plastic materials and photodegradable plastics should be avoided.

Implementation

Protection of stockpiles is a year-round requirement. To properly manage stockpiles:

Targeted Constituents	
Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

- On larger sites, a minimum of 50 ft separation from concentrated flows of stormwater, drainage courses, and inlets is recommended.
- After 14 days of inactivity, a stockpile is non-active and requires further protection described below. All stockpiles are required to be protected as non-active stockpiles immediately if they are not scheduled to be used within 14 days.
- Protect all stockpiles from stormwater runon using temporary perimeter sediment barriers such as compost berms (SE-13), temporary silt dikes (SE-12), fiber rolls (SE-5), silt fences (SE-1), sandbags (SE-8), gravel bags (SE-6), or biofilter bags (SE-14). Refer to the individual fact sheet for each of these controls for installation information.
- Implement wind erosion control practices as appropriate on all stockpiled material. For specific information, see WE-1, Wind Erosion Control.
- Manage stockpiles of contaminated soil in accordance with WM-7, Contaminated Soil Management.
- Place bagged materials on pallets and under cover.
- Ensure that stockpile coverings are installed securely to protect from wind and rain.
- Some plastic covers withstand weather and sunlight better than others. Select cover materials or methods based on anticipated duration of use.

Protection of Non-Active Stockpiles

A stockpile is considered non-active if it either is not used for 14 days or if it is scheduled not to be used for 14 days or more. Stockpiles need to be protected immediately if they are not scheduled to be used within 14 days. Non-active stockpiles of the identified materials should be protected as follows:

Soil stockpiles

- Soil stockpiles should be covered or protected with soil stabilization measures and a temporary perimeter sediment barrier at all times.
- Temporary vegetation should be considered for topsoil piles that will be stockpiled for extended periods.

Stockpiles of Portland cement concrete rubble, asphalt concrete, asphalt concrete rubble, aggregate base, or aggregate sub base

- Stockpiles should be covered and protected with a temporary perimeter sediment barrier at all times.

Stockpiles of "cold mix"

- Cold mix stockpiles should be placed on and covered with plastic sheeting or comparable material at all times and surrounded by a berm.

Stockpiles of fly ash, stucco, hydrated lime

- Stockpiles of materials that may raise the pH of runoff (i.e., basic materials) should be covered with plastic and surrounded by a berm.

Stockpiles/Storage of wood (Pressure treated with chromated copper arsenate or ammoniacal copper zinc arsenate

- Treated wood should be covered with plastic sheeting or comparable material at all times and surrounded by a berm.

Protection of Active Stockpiles

A stockpile is active when it is being used or is scheduled to be used within 14 days of the previous use. Active stockpiles of the identified materials should be protected as follows:

- All stockpiles should be covered and protected with a temporary linear sediment barrier prior to the onset of precipitation.
- Stockpiles of "cold mix" and treated wood, and basic materials should be placed on and covered with plastic sheeting or comparable material and surrounded by a berm prior to the onset of precipitation.
- The downstream perimeter of an active stockpile should be protected with a linear sediment barrier or berm and runoff should be diverted around or away from the stockpile on the upstream perimeter.

Costs

For cost information associated with stockpile protection refer to the individual erosion or sediment control BMP fact sheet considered for implementation (For example, refer to SE-1 Silt Fence for installation of silt fence around the perimeter of a stockpile.)

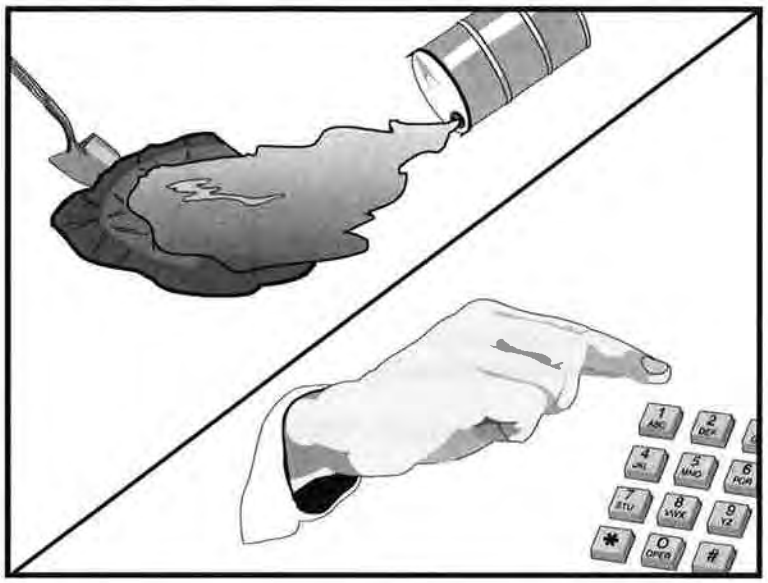
Inspection and Maintenance

- Stockpiles must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- It may be necessary to inspect stockpiles covered with plastic sheeting more frequently during certain conditions (for example, high winds or extreme heat).
- Repair and/or replace perimeter controls and covers as needed to keep them functioning properly.
- Sediment shall be removed when it reaches one-third of the barrier height.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Spill Prevention and Control WM-4



Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Objective**

☒ **Secondary Objective**

Targeted Constituents

Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

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Description and Purpose

Prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

This best management practice covers only spill prevention and control. However, WM-1, Materials Delivery and Storage, and WM-2, Material Use, also contain useful information, particularly on spill prevention. For information on wastes, see the waste management BMPs in this section.

Suitable Applications

This BMP is suitable for all construction projects. Spill control procedures are implemented anytime chemicals or hazardous substances are stored on the construction site, including the following materials:

- Soil stabilizers/binders
- Dust palliatives
- Herbicides
- Growth inhibitors
- Fertilizers
- Deicing/anti-icing chemicals

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- Fuels
- Lubricants
- Other petroleum distillates

Limitations

- In some cases it may be necessary to use a private spill cleanup company.
- This BMP applies to spills caused by the contractor and subcontractors.
- Procedures and practices presented in this BMP are general. Contractor should identify appropriate practices for the specific materials used or stored onsite

Implementation

The following steps will help reduce the stormwater impacts of leaks and spills:

Education

- Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills.
- Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.
- Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).
- Establish a continuing education program to indoctrinate new employees.
- Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

- To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
- Store hazardous materials and wastes in covered containers and protect from vandalism.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- Train employees in spill prevention and cleanup.
- Designate responsible individuals to oversee and enforce control measures.
- Spills should be covered and protected from stormwater runon during rainfall to the extent that it doesn't compromise clean up activities.
- Do not bury or wash spills with water.

- Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.
- Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with WM-10, Liquid Waste Management.
- Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.
- Place proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.
- Keep waste storage areas clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

- Clean up leaks and spills immediately.
- Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be sent to either a certified laundry (rags) or disposed of as hazardous waste.
- Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

Minor Spills

- Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.
- Use absorbent materials on small spills rather than hosing down or burying the spill.
- Absorbent materials should be promptly removed and disposed of properly.
- Follow the practice below for a minor spill:
  - Contain the spread of the spill.
  - Recover spilled materials.
  - Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

- Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.

- Spills should be cleaned up immediately:
  - Contain spread of the spill.
  - Notify the project foreman immediately.
  - If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
  - If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
  - If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

- For significant or hazardous spills that cannot be controlled by personnel in the immediate vicinity, the following steps should be taken:
  - Notify the local emergency response by dialing 911. In addition to 911, the contractor will notify the proper county officials. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
  - Notify the Governor's Office of Emergency Services Warning Center, (916) 845-8911.
  - For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
  - Notification should first be made by telephone and followed up with a written report.
  - The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
  - Other agencies which may need to be consulted include, but are not limited to, the Fire Department, the Public Works Department, the Coast Guard, the Highway Patrol, the City/County Police Department, Department of Toxic Substances, California Division of Oil and Gas, Cal/OSHA, etc.

Reporting

- Report significant spills to local agencies, such as the Fire Department; they can assist in cleanup.
- Federal regulations require that any significant oil spill into a water body or onto an adjoining shoreline be reported to the National Response Center (NRC) at 800-424-8802 (24 hours).

Use the following measures related to specific activities:

Vehicle and Equipment Maintenance

- If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.
- Regularly inspect onsite vehicles and equipment for leaks and repair immediately
- Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.
- Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.
- Place drip pans or absorbent materials under paving equipment when not in use.
- Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.
- Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around
- Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.
- Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

- If fueling must occur onsite, use designate areas, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.
- Discourage "topping off" of fuel tanks.
- Always use secondary containment, such as a drain pan, when fueling to catch spills/ leaks.

Costs

Prevention of leaks and spills is inexpensive. Treatment and/ or disposal of contaminated soil or water can be quite expensive.

Inspection and Maintenance

- Inspect and verify that activity–based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.

- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur.
- Keep ample supplies of spill control and cleanup materials onsite, near storage, unloading, and maintenance areas.
- Update your spill prevention and control plan and stock cleanup materials as changes occur in the types of chemicals onsite.

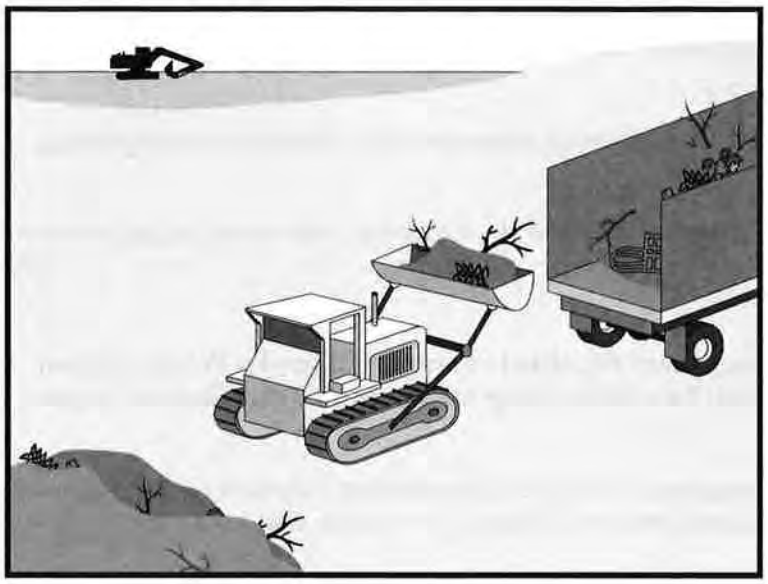
References

Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

Solid Waste Management WM-5



Categories		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Objective**
☒ **Secondary Objective**

Targeted Constituents	
Sediment	☑
Nutrients	☑
Trash	☑
Metals	☑
Bacteria	
Oil and Grease	☑
Organics	☑

Potential Alternatives

None

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Description and Purpose

Solid waste management procedures and practices are designed to prevent or reduce the discharge of pollutants to stormwater from solid or construction waste by providing designated waste collection areas and containers, arranging for regular disposal, and training employees and subcontractors.

Suitable Applications

This BMP is suitable for construction sites where the following wastes are generated or stored:

- Solid waste generated from trees and shrubs removed during land clearing, demolition of existing structures (rubble), and building construction
- Packaging materials including wood, paper, and plastic
- Scrap or surplus building materials including scrap metals, rubber, plastic, glass pieces, and masonry products
- Domestic wastes including food containers such as beverage cans, coffee cups, paper bags, plastic wrappers, and cigarettes
- Construction wastes including brick, mortar, timber, steel and metal scraps, pipe and electrical cuttings, non-hazardous equipment parts, styrofoam and other materials used to transport and package construction materials

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- Highway planting wastes, including vegetative material, plant containers, and packaging materials

Limitations

Temporary stockpiling of certain construction wastes may not necessitate stringent drainage related controls during the non-rainy season or in desert areas with low rainfall.

Implementation

The following steps will help keep a clean site and reduce stormwater pollution:

- Select designated waste collection areas onsite.
- Inform trash-hauling contractors that you will accept only watertight dumpsters for onsite use. Inspect dumpsters for leaks and repair any dumpster that is not watertight.
- Locate containers in a covered area or in a secondary containment.
- Provide an adequate number of containers with lids or covers that can be placed over the container to keep rain out or to prevent loss of wastes when it is windy.
- Cover waste containers at the end of each work day and when it is raining.
- Plan for additional containers and more frequent pickup during the demolition phase of construction.
- Collect site trash daily, especially during rainy and windy conditions.
- Remove this solid waste promptly since erosion and sediment control devices tend to collect litter.
- Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.
- Do not hose out dumpsters on the construction site. Leave dumpster cleaning to the trash hauling contractor.
- Arrange for regular waste collection before containers overflow.
- Clean up immediately if a container does spill.
- Make sure that construction waste is collected, removed, and disposed of only at authorized disposal areas.

Education

- Have the contractor's superintendent or representative oversee and enforce proper solid waste management procedures and practices.
- Instruct employees and subcontractors on identification of solid waste and hazardous waste.
- Educate employees and subcontractors on solid waste storage and disposal procedures.

- Hold regular meetings to discuss and reinforce disposal procedures (incorporate into regular safety meetings).
- Require that employees and subcontractors follow solid waste handling and storage procedures.
- Prohibit littering by employees, subcontractors, and visitors.
- Minimize production of solid waste materials wherever possible.

Collection, Storage, and Disposal

- Littering on the project site should be prohibited.
- To prevent clogging of the storm drainage system, litter and debris removal from drainage grates, trash racks, and ditch lines should be a priority.
- Trash receptacles should be provided in the contractor's yard, field trailer areas, and at locations where workers congregate for lunch and break periods.
- Litter from work areas within the construction limits of the project site should be collected and placed in watertight dumpsters at least weekly, regardless of whether the litter was generated by the contractor, the public, or others. Collected litter and debris should not be placed in or next to drain inlets, stormwater drainage systems, or watercourses.
- Dumpsters of sufficient size and number should be provided to contain the solid waste generated by the project.
- Full dumpsters should be removed from the project site and the contents should be disposed of by the trash hauling contractor.
- Construction debris and waste should be removed from the site biweekly or more frequently as needed.
- Construction material visible to the public should be stored or stacked in an orderly manner.
- Stormwater runon should be prevented from contacting stored solid waste through the use of berms, dikes, or other temporary diversion structures or through the use of measures to elevate waste from site surfaces.
- Solid waste storage areas should be located at least 50 ft from drainage facilities and watercourses and should not be located in areas prone to flooding or ponding.
- Except during fair weather, construction and highway planting waste not stored in watertight dumpsters should be securely covered from wind and rain by covering the waste with tarps or plastic.
- Segregate potentially hazardous waste from non-hazardous construction site waste.
- Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.

- For disposal of hazardous waste, see WM-6, Hazardous Waste Management. Have hazardous waste hauled to an appropriate disposal and/or recycling facility.
- Salvage or recycle useful vegetation debris, packaging and surplus building materials when practical. For example, trees and shrubs from land clearing can be used as a brush barrier, or converted into wood chips, then used as mulch on graded areas. Wood pallets, cardboard boxes, and construction scraps can also be recycled.

Costs

All of the above are low cost measures.

Inspection and Maintenance

- Inspect and verify that activity–based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect BMPs in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur
- Inspect construction waste area regularly.
- Arrange for regular waste collection.

References

Processes, Procedures and Methods to Control Pollution Resulting from All Construction Activity, 430/9-73-007, USEPA, 1973.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

Concrete Waste Management WM-8

Categories

EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	☒
WM	Waste Management and Materials Pollution Control	☑

Legend:

☑ **Primary Category**

☒ **Secondary Category**

Targeted Constituents

Sediment	☑
Nutrients	
Trash	
Metals	☑
Bacteria	
Oil and Grease	
Organics	

Potential Alternatives

None

Description and Purpose

Prevent the discharge of pollutants to stormwater from concrete waste by conducting washout onsite or offsite in a designated area, and by employee and subcontractor training.

The General Permit incorporates Numeric Action Levels (NAL) for pH (see Section 2 of this handbook to determine your project's risk level and if you are subject to these requirements).

Many types of construction materials, including mortar, concrete, stucco, cement and block and their associated wastes have basic chemical properties that can raise pH levels outside of the permitted range. Additional care should be taken when managing these materials to prevent them from coming into contact with stormwater flows and raising pH to levels outside the accepted range.

Suitable Applications

Concrete waste management procedures and practices are implemented on construction projects where:

- Concrete is used as a construction material or where concrete dust and debris result from demolition activities.
- Slurries containing portland cement concrete (PCC) are generated, such as from saw cutting, coring, grinding, grooving, and hydro-concrete demolition.
- Concrete trucks and other concrete-coated equipment are washed onsite.

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- Mortar-mixing stations exist.
- Stucco mixing and spraying.
- See also NS-8, Vehicle and Equipment Cleaning.

Limitations

- Offsite washout of concrete wastes may not always be possible.
- Multiple washouts may be needed to assure adequate capacity and to allow for evaporation.

Implementation

The following steps will help reduce stormwater pollution from concrete wastes:

- Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.
- Store dry and wet materials under cover, away from drainage areas. Refer to WM-1, Material Delivery and Storage for more information.
- Avoid mixing excess amounts of concrete.
- Perform washout of concrete trucks in designated areas only, where washout will not reach stormwater.
- Do not wash out concrete trucks into storm drains, open ditches, streets, streams or onto the ground. Trucks should always be washed out into designated facilities.
- Do not allow excess concrete to be dumped onsite, except in designated areas.
- For onsite washout:
  - On larger sites, it is recommended to locate washout areas at least 50 feet from storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
  - Washout wastes into the temporary washout where the concrete can set, be broken up, and then disposed properly.
  - Washouts shall be implemented in a manner that prevents leaching to underlying soils. Washout containers must be water tight and washouts on or in the ground must be lined with a suitable impervious liner, typically a plastic type material.
- Do not wash sweepings from exposed aggregate concrete into the street or storm drain. Collect and return sweepings to aggregate base stockpile or dispose in the trash.
- See typical concrete washout installation details at the end of this fact sheet.

Education

- Educate employees, subcontractors, and suppliers on the concrete waste management techniques described herein.

- Arrange for contractor's superintendent or representative to oversee and enforce concrete waste management procedures.
- Discuss the concrete management techniques described in this BMP (such as handling of concrete waste and washout) with the ready-mix concrete supplier before any deliveries are made.

Concrete Demolition Wastes

- Stockpile concrete demolition waste in accordance with BMP WM-3, Stockpile Management.
- Dispose of or recycle hardened concrete waste in accordance with applicable federal, state or local regulations.

Concrete Slurry Wastes

- PCC and AC waste should not be allowed to enter storm drains or watercourses.
- PCC and AC waste should be collected and disposed of or placed in a temporary concrete washout facility (as described in Onsite Temporary Concrete Washout Facility, Concrete Transit Truck Washout Procedures, below).
- A foreman or construction supervisor should monitor onsite concrete working tasks, such as saw cutting, coring, grinding and grooving to ensure proper methods are implemented.
- Saw-cut concrete slurry should not be allowed to enter storm drains or watercourses. Residue from grinding operations should be picked up by means of a vacuum attachment to the grinding machine or by sweeping. Saw cutting residue should not be allowed to flow across the pavement and should not be left on the surface of the pavement. See also NS-3, Paving and Grinding Operations; and WM-10, Liquid Waste Management.
- Concrete slurry residue should be disposed in a temporary washout facility (as described in Onsite Temporary Concrete Washout Facility, Concrete Transit Truck Washout Procedures, below) and allowed to dry. Dispose of dry slurry residue in accordance with WM-5, Solid Waste Management.

Onsite Temporary Concrete Washout Facility, Transit Truck Washout Procedures

- Temporary concrete washout facilities should be located a minimum of 50 ft from storm drain inlets, open drainage facilities, and watercourses. Each facility should be located away from construction traffic or access areas to prevent disturbance or tracking.
- A sign should be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities.
- Temporary concrete washout facilities should be constructed above grade or below grade at the option of the contractor. Temporary concrete washout facilities should be constructed and maintained in sufficient quantity and size to contain all liquid and concrete waste generated by washout operations.

- Temporary washout facilities should have a temporary pit or bermed areas of sufficient volume to completely contain all liquid and waste concrete materials generated during washout procedures.
- Temporary washout facilities should be lined to prevent discharge to the underlying ground or surrounding area.
- Washout of concrete trucks should be performed in designated areas only.
- Only concrete from mixer truck chutes should be washed into concrete wash out.
- Concrete washout from concrete pumper bins can be washed into concrete pumper trucks and discharged into designated washout area or properly disposed of or recycled offsite.
- Once concrete wastes are washed into the designated area and allowed to harden, the concrete should be broken up, removed, and disposed of per WM-5, Solid Waste Management. Dispose of or recycle hardened concrete on a regular basis.
- Temporary Concrete Washout Facility (Type Above Grade)
  - Temporary concrete washout facility (type above grade) should be constructed as shown on the details at the end of this BMP, with a recommended minimum length and minimum width of 10 ft; however, smaller sites or jobs may only need a smaller washout facility. With any washout, always maintain a sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations.
  - Materials used to construct the washout area should conform to the provisions detailed in their respective BMPs (e.g., SE-8 Sandbag Barrier).
  - Plastic lining material should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.
  - Alternatively, portable removable containers can be used as above grade concrete washouts. Also called a "roll-off"; this concrete washout facility should be properly sealed to prevent leakage, and should be removed from the site and replaced when the container reaches 75% capacity.
- Temporary Concrete Washout Facility (Type Below Grade)
  - Temporary concrete washout facilities (type below grade) should be constructed as shown on the details at the end of this BMP, with a recommended minimum length and minimum width of 10 ft. The quantity and volume should be sufficient to contain all liquid and concrete waste generated by washout operations.
  - Lath and flagging should be commercial type.
  - Plastic lining material should be a minimum of 10 mil polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.

- The base of a washout facility should be free of rock or debris that may damage a plastic liner.

Removal of Temporary Concrete Washout Facilities

- When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and properly disposed or recycled in accordance with federal, state or local regulations. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and properly disposed or recycled in accordance with federal, state or local regulations..

- Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

Costs

All of the above are low cost measures. Roll-off concrete washout facilities can be more costly than other measures due to removal and replacement; however, provide a cleaner alternative to traditional washouts. The type of washout facility, size, and availability of materials will determine the cost of the washout.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.

- Temporary concrete washout facilities should be maintained to provide adequate holding capacity with a minimum freeboard of 4 in. for above grade facilities and 12 in. for below grade facilities. Maintaining temporary concrete washout facilities should include removing and disposing of hardened concrete and returning the facilities to a functional condition. Hardened concrete materials should be removed and properly disposed or recycled in accordance with federal, state or local regulations.

- Washout facilities must be cleaned, or new facilities must be constructed and ready for use once the washout is 75% full.

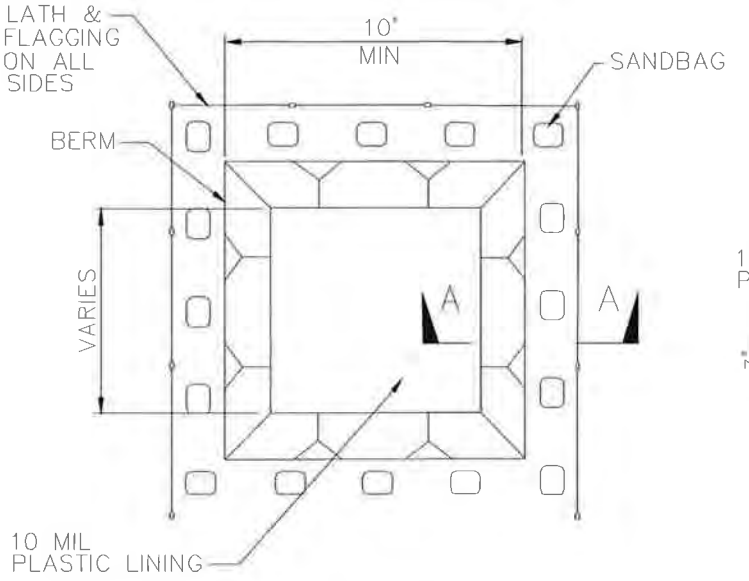
- Inspect washout facilities for damage (e.g. torn liner, evidence of leaks, signage, etc.). Repair all identified damage.

References

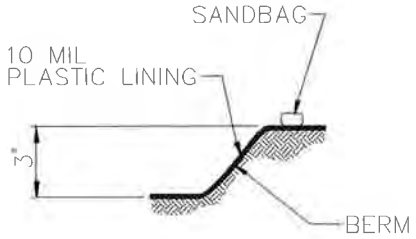
Blueprint for a Clean Bay: Best Management Practices to Prevent Stormwater Pollution from Construction Related Activities; Santa Clara Valley Nonpoint Source Pollution Control Program, 1995.

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), November 2000, Updated March 2003.

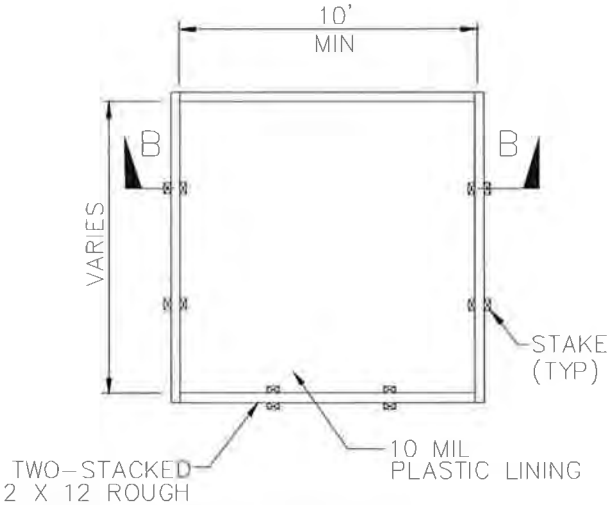
Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.



PLAN
NOT TO SCALE
TYPE "BELOW GRADE"



SECTION A–A
NOT TO SCALE



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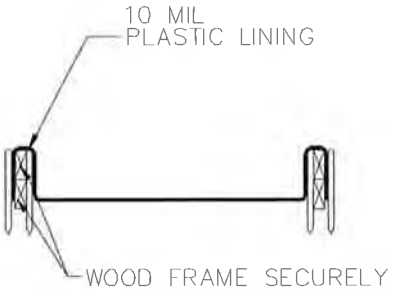
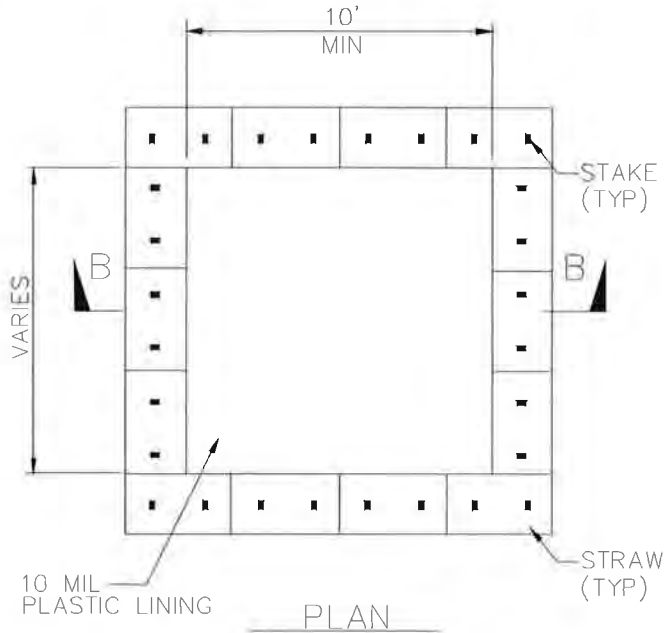
TYPE "ABOVE GRADE"



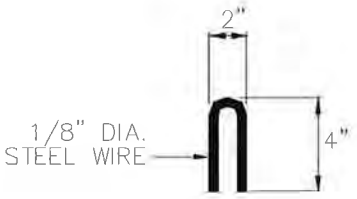
SECTION B–B
NOT TO SCALE

NOTES

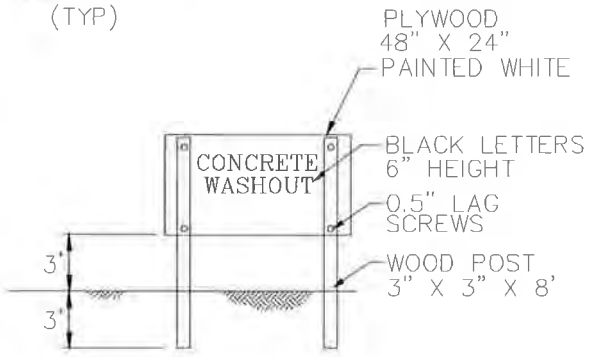
1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.



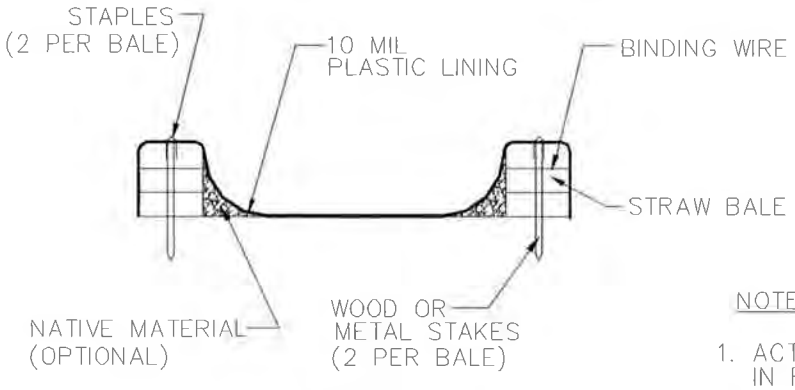
PLAN
NOT TO SCALE
TYPE "ABOVE GRADE"
WITH STRAW BALES



STAPLE DETAIL



CONCRETE WASHOUT
SIGN DETAIL
(OR EQUIVALENT)

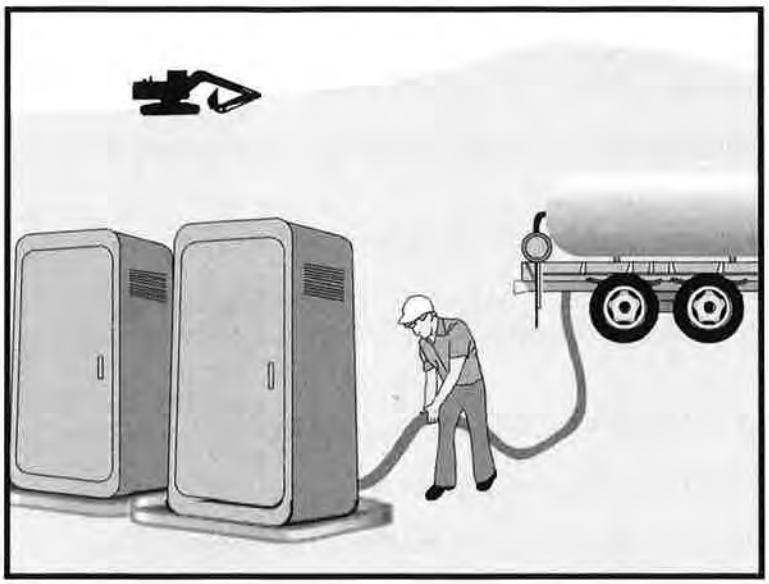


SECTION B-B
NOT TO SCALE

NOTES

1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

Sanitary/Septic Waste Management WM-9



Categories		
EC	Erosion Control	
SE	Sediment Control	
TC	Tracking Control	
WE	Wind Erosion Control	
NS	Non-Stormwater Management Control	
WM	Waste Management and Materials Pollution Control	☑

Legend:
☑ **Primary Category**
☒ **Secondary Category**

Description and Purpose

Proper sanitary and septic waste management prevent the discharge of pollutants to stormwater from sanitary and septic waste by providing convenient, well-maintained facilities, and arranging for regular service and disposal.

Suitable Applications

Sanitary septic waste management practices are suitable for use at all construction sites that use temporary or portable sanitary and septic waste systems.

Limitations

None identified.

Implementation

Sanitary or septic wastes should be treated or disposed of in accordance with state and local requirements. In many cases, one contract with a local facility supplier will be all that it takes to make sure sanitary wastes are properly disposed.

Storage and Disposal Procedures

- Temporary sanitary facilities should be located away from drainage facilities, watercourses, and from traffic circulation. If site conditions allow, place portable facilities a minimum of 50 feet from drainage conveyances and traffic areas. When subjected to high winds or risk of high winds, temporary sanitary facilities should be secured to prevent overturning.

Targeted Constituents	
Sediment	
Nutrients	☑
Trash	☑
Metals	
Bacteria	☑
Oil and Grease	
Organics	☑

Potential Alternatives

None

CASQA
CALIFORNIA STORMWATER QUALITY ASSOCIATION

- Temporary sanitary facilities must be equipped with containment to prevent discharge of pollutants to the stormwater drainage system of the receiving water.
- Consider safety as well as environmental implications before placing temporary sanitary facilities.
- Wastewater should not be discharged or buried within the project site.
- Sanitary and septic systems that discharge directly into sanitary sewer systems, where permissible, should comply with the local health agency, city, county, and sewer district requirements.
- Only reputable, licensed sanitary and septic waste haulers should be used.
- Sanitary facilities should be located in a convenient location.
- Temporary septic systems should treat wastes to appropriate levels before discharging.
- If using an onsite disposal system (OSDS), such as a septic system, local health agency requirements must be followed.
- Temporary sanitary facilities that discharge to the sanitary sewer system should be properly connected to avoid illicit discharges.
- Sanitary and septic facilities should be maintained in good working order by a licensed service.
- Regular waste collection by a licensed hauler should be arranged before facilities overflow.
- If a spill does occur from a temporary sanitary facility, follow federal, state and local regulations for containment and clean-up.

Education

- Educate employees, subcontractors, and suppliers on sanitary and septic waste storage and disposal procedures.
- Educate employees, subcontractors, and suppliers of potential dangers to humans and the environment from sanitary and septic wastes.
- Instruct employees, subcontractors, and suppliers in identification of sanitary and septic waste.
- Hold regular meetings to discuss and reinforce the use of sanitary facilities (incorporate into regular safety meetings).
- Establish a continuing education program to indoctrinate new employees.

Costs

All of the above are low cost measures.

Inspection and Maintenance

- BMPs must be inspected in accordance with General Permit requirements for the associated project type and risk level. It is recommended that at a minimum, BMPs be inspected weekly, prior to forecasted rain events, daily during extended rain events, and after the conclusion of rain events.
- Arrange for regular waste collection.
- If high winds are expected, portable sanitary facilities must be secured with spikes or weighed down to prevent over turning.
- If spills or leaks from sanitary or septic facilities occur that are not contained and discharge from the site, non-visible sampling of site discharge may be required. Refer to the General Permit or to your project specific Construction Site Monitoring Plan to determine if and where sampling is required.

References

Stormwater Quality Handbooks - Construction Site Best Management Practices (BMPs) Manual, State of California Department of Transportation (Caltrans), March 2003.

Stormwater Management for Construction Activities; Developing Pollution Prevention Plans and Best Management Practice, EPA 832-R-92005; USEPA, April 1992.

RFI (Request for Information) Sample

Bid Documents – RFI Sample
Ventura County Fire Protection District
Lockwood Valley Substation Garage Addition Project
15021 Lockwood Valley Road, Frazier Park, CA 93225
Bid Due Date and Time – September 29, 2021 @ 1:00 PM, PST

REQUEST FOR INFORMATION FORM – BID PHASE

REQUEST FOR INFORMATION (RFI) **RFI # :** _____

TO: Ventura County Fire Protection District DATE: _____

ATTENTION: District Representative (David Kirby) or Architect of Record (Ideas Architecture)

PROJECT NAME: Lockwood Valley Substation Garage Addition Project

PROJECT LOCATION & ADDRESS: 15021 Lockwood Valley Road, Frazier Park, CA 93225

Sheet Number: _____ Bulletin or Delta Number: _____

Spec. Section _____ Sheet Details: _____

_____ _____

REQUEST FOR INFORMATION: (Reference attached sheets.)

_____

_____

_____

_____

CONTRACTOR'S RECOMMENDATION: (Reference attached sheets.)

_____

_____

_____

_____

Requested by: _____
Signature Print Name

The above information is requested on or before: _____

Cost Impact: ___ Yes ___ No ___ Possible Time Impact: ___ Yes ___ No ___ Possible

RFI RESPONSE: (Reference attached sheets.)

_____

_____

_____

_____

Response Issued By:

Print Name: _____ Signature: _____

Date: _____

Ventura County Fire Protection District

Technical Specifications, Plans & Drawings

Schedule of Drawings

(See Table of Contents)

Bid Documents
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