

DOCUMENT 00 0101

PROJECT MANUAL

for

Station 41 South Lot Landscaping and Sidewalk Improvements Project

at

**555 Obispo Rd
El Granada, CA 94018**

COASTSIDE FIRE PROTECTION DISTRICT

Coastside Fire Protection District
1191 Main Street
Half Moon Bay, CA 94019

Advertisement Date: January 15, 2025

Bid Date: Wednesday, February 5, 2025

DOCUMENT 00 0110

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GraniteCrete Specification Guide – Commercial Non-Vehicular

END OF DOCUMENT

DOCUMENT 00 1113

NOTICE INVITING BIDS

ARTICLE 1 INVITATION TO BID

- 1.01 Notice Inviting Bids:** Owner will receive sealed Bids at the **Coastside Fire Protection District** Office, located at **1191 Main Street, Half Moon Bay, California 94019** until **2:00 PM** on **Wednesday, February 5, 2025**, for the following public work:

COASTSIDE FIRE PROTECTION DISTRICT

Station 41 South Lot Landscaping and Sidewalk Improvements Project
555 Obispo Rd
El Granada, CA 94018

- 1.02 Project Description:** The Work includes a new defensible-space demonstration garden, accessible garden path, memorial bench, new welcome sign, sidewalk connection and street crossing improvements, and other miscellaneous work shown on the Plans and described in these specifications. Sidewalk and street crossing improvements are included in the project as alternate bids. Work shall be completed within **60 Working Days** from the date when Contract Time commences to run.
- 1.03 Procurement of Bidding Documents:** Bidding Documents contain the full description of the Work. Bidders may examine a complete hard-copy set of the Bidding Documents at the Coastside Fire Protection District, 1191 Main Street, Half Moon Bay, CA 94019. Bidders may purchase a complete set of electronic Bidding Documents upon payment of a non-refundable fee of \$25.00. The District will accept payment by credit card, cash, or check, made payable to the "Coastside Fire Protection District". Bidding Documents need not be returned to the District.
- 1.04 Instructions:** Bidders shall refer to Document 00 2113 (Instructions to Bidders) for required documents and items to be submitted in a sealed envelope for deposit into the Bid Box at the location, and no later than the time and date, set forth in Paragraph 1.01 above.
- 1.05 Mandatory Pre-Bid Site Visit:** There is **not** a Pre-Bid Site Visit for this Project.
- 1.06 Bid Preparation Cost:** Bidders are solely responsible for the cost of preparing their Bids.
- 1.07 Reservation of Rights:** Owner specifically reserves the right, in its sole discretion, to reject any or all Bids, to re-bid, or to waive inconsequential defects in bidding not involving time, price or quality of the work. Owner may reject any and all Bids and waive any minor irregularities in the Bids.
- 1.08 Portion of Work to be Performed by Contractor:** The successful bidder shall self-perform no less than **30%** of the Work described in the Contract Documents utilizing its own work force, excluding Specialty Items. Specialty Items will be identified in the Contract Documents.

ARTICLE 2 LEGAL REQUIREMENTS

- 2.01 Required Contractor's License(s):** A California **Class A - General Engineering Contractor** contractor's license is required to bid this contract. Joint ventures must secure a joint venture license prior to award of this Contract. Specialty work may require a specialty contractor's license held by Bidder or a listed subcontractor. The Landscaping work on the project (planting, irrigation, etc.) must be completed by a contractor with a **C-27 Landscape Contractor** license.
- 2.02 Required Contractor and Subcontractor Registration**
- A. Owner shall accept Bids only from Bidders that (along with all Subcontractors listed in Document 00 4330, Subcontractor List) are currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5.
- B. Subject to Labor Code Sections 1771.1(c) and (d), any Bid not complying with paragraph 2.02A above shall be returned and not considered; provided that if Bidder is a joint venture (Business &

Professions Code Section 7029.1) or if federal funds are involved in the Contract (Labor Code Section 1771.1(a)), Owner may accept a non-complying Bid provided that Bidder and all listed Subcontractors are registered at the time of Contract award.

2.03 Bid Alternates:

- A. Bid alternates are identified as follows:
 - 1. Alternate 1: Sidewalk improvements (approximately 191 linear feet)
 - 2. Alternate 2: Sidewalk and crosswalk improvements (approximately 324 linear feet)

- B. The Owner shall have the right, after receiving and reviewing all bids, to award the Contract with none, one, or both of the Bid Alternates included. The determination of lowest bid shall be based upon the Total Base Bid plus none, either, or both of the Bid Alternates price(s).

- C. Owner has made a finding that the material **GraniteCrete** is required for use in the Project and may not be substituted for "or equal" items, for the following purpose(s):
 - 1. In order to obtain a necessary item that is only available from one source.

2.04 Substitution of Securities: Owner will permit the successful bidder to substitute securities for any retention monies withheld to ensure performance of the contract, as set forth in Document 00 6290 Escrow Agreement For Security Deposits In Lieu Of Retention and incorporated herein in full by this reference, in accordance with Section 22300 of the California Public Contract Code.

2.05 Prevailing Wage Laws: The successful Bidder must comply with all prevailing wage laws applicable to the Project, and related requirements contained in the Contract Documents. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations, may be obtained from the California Department of Industrial Relations website [<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>] and are deemed included in the Bidding Documents. Upon request, Owner will make available copies to any interested party. Also, the successful Bidder shall post the applicable prevailing wage rates at the Site.

2.06 Prevailing Wage Monitoring: This Project is subject to prevailing wage compliance monitoring and enforcement by the Department of Industrial Relations.

END OF DOCUMENT

DOCUMENT 00 2113

INSTRUCTIONS TO BIDDERS

Bids are requested by Owner, for a general construction contract, or work described in general, as set forth in Document 00 1113 (Notice Inviting Bids), and the following additional terms.

ARTICLE 1 - PROCEDURES FOR SUBMISSION OF BIDS

1.01 Required Pre-Bid Conference and Site Visit:

- A. Owner will **not** conduct a Pre-Bid Conference and Site Visit.

1.02 Required Pre-Bid Investigations:

- A. Prior to submission of Bid, Bidder must conduct a careful examination of Bidding Documents and understand the nature, extent, and location of Work to be performed. Refer to Document 00 7200 (General Conditions) on required pre-bid investigations.

1.03 Bidder Questions and Answers:

- A. Bidders must direct all questions about the meaning or intent of Bidding Documents to Owner in writing. Interpretations or clarifications considered necessary by Owner in response to such questions will be issued by written Addenda mailed, faxed, or delivered to all parties recorded by Owner as having received Bidding Documents. Owner may not answer questions received less than ten Days prior to the date for opening Bids.
- B. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect, and Bidders shall not rely on oral statements.

1.04 Addenda:

- A. Addenda may also be issued to modify the Bidding Documents as deemed advisable by Owner. Addenda shall be acknowledged by number in Document 00 4113 (Bid Form) and shall be part of the Contract Documents. A complete listing of Addenda may be secured from Owner.

ARTICLE 2 - RECEIPT OF BIDS

2.01 Date and Time:

- A. Sealed Bids will be received by the Owner until the date and time indicated in Document 00 1113 (Notice Inviting Bids). All Bid envelopes will be time-stamped to reflect their submittal time. Owner shall reject all Bids received after the specified time and will return such Bids to Bidders unopened. Bidders must submit Bids in accordance with this Document 00 2113.

2.02 Two Envelope Bid Submission:

- A. Owner will receive Bids in opaque sealed 10 inch x 13 inch envelopes, containing the required items described herein.
- B. Bidders must submit Bids in two envelopes: "Envelope A – Bid Submittals" and "Envelope B – Statement of Qualifications."
- C. Bidders should mark their Bid envelopes using the name, address, identifying information and contract number, indicated in Document 00 1113 (Notice Inviting Bids).

2.03 Required Contents of "Envelope A – Bid Submittals":

- A. Document 00 4113 (Bid Form). Bidders must submit Bids on Document 00 4113 (Bid Form) in accordance with the provisions of Document 00 4113. Bidders must complete all Bid items and supply all information required by Bid documents and specifications.

- B. Document 00 4313 (Bond Accompanying Bid). Bidders must submit Document 00 4313 (Bond Accompanying Bid) accompanied by a cashier's check, certified check (certified without qualification and drawn on a solvent bank of the State of California or a National Bank doing business in the State of California) or completed form of Document 00 4313 of not less than 10% of the base Bid, payable to Owner and completed in accordance with the provisions of Document 00 4313.
- C. Document 00 4314 (Bidder Registration and Experience Form). Bidders must submit Document 00 4314 (Bidder Registration and Experience Form), completed in accordance with the provisions of Document 00 4314.
- D. Document 00 4330 (Subcontractor List). Bidders must submit Document 00 4330 (Subcontractors List) completed in accordance with the provisions of Document 00 4330. The Subcontractors List must include the names of all subcontractors for those subcontractors who will perform any portion of work, including labor, rendering of service, or specially fabricating and installing a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in excess of one half of one percent (0.5%) of the total Bid amount. Any violation of this requirement may result in a Bid being deemed non-responsive and not being considered.
- E. Document 00 4519 (Non-Collusion Affidavit). Bidders must submit Document 00 4519 (Non-Collusion Affidavit) completed in accordance with the provisions of Document 00 4519.
- F. Document 00 4546 (Bidder Certifications). Bidders must submit Document 00 4546 (Bidder Certification) completed in accordance with the provisions of Document 00 4546.
- G. In-Use Off-Road Diesel-Fueled Fleets Regulation Compliance. Each bidder must obtain and submit valid Certificate(s) of Reported Compliance for its fleet and the fleets of listed subcontractors pursuant to Cal. Code of Regs., Title 13, Div. 3, Ch. 9, Sec. 2449. If no vehicles subject to these requirements shall be used by either bidder or its listed subcontractors, bidder shall include with its bid a statement indicating that no vehicle subject to these requirements shall be used, and/or a detailed explanation of any exemptions to the regulations.

2.04 Required Contents of “Envelope B – Statement of Qualifications”:

- A. Document 00 4513 (Statement of Qualifications for Construction Work). Bidder must submit Document 00 4513 (Statement of Qualifications for Construction Work) in accordance with the provisions of Document 00 4513.

ARTICLE 3 BID OPENING AND EVALUATION

3.01 Determination of Apparent Low Bidder:

- A. Owner will open each Bidders' Envelope A at the time and place indicated in Document 00 1113 (Notice Inviting Bids), initially evaluate them for responsiveness, and determine an Apparent Low Bidder as specified herein and in Document 00 1113 (Notice Inviting Bids) and Document 00 4113 (Bid Form).
- B. Apparent Low Bid will be determined solely on the total amount of all Bid items based on terms contained in Document 00 1113 (Notice Inviting Bids) and Document 00 4113 (Bid Form), or as set forth in Paragraph 2.02 of Document 00 1113 (Notice Inviting Bids). All Bidders are required to submit Bids on all Bid items (including any alternates).
- C. For the Apparent Low Bidder only, Owner will open Envelope B and evaluate the Apparent Low Bidder for responsiveness to the requirements of Document 00 4513 and for Responsibility.
- D. If Apparent Low Bidder is determined to be non-responsive or non-responsible, then Owner may proceed to the next Apparent Low Bidder's Bid pursuant to any procedures determined in its reasonable discretion, and proceed for all purposes as if this Apparent Low Bidder were the original Apparent Low Bidder.

3.02 Evaluation of Bids:

- A. Bids must be full, complete, clearly written and using the required forms. Bidders shall make any change in the Bid by crossing out the original entry, entering and initialing the new entry. Bidder's failure to submit all required documents strictly as required entitles Owner to reject the Bid as non-responsive. All Bidders must submit Bids containing each of the fully executed documents supplied in this Project Manual.
- B. In evaluating Bids, Owner will consider Bidders' qualifications, whether or not the Bids comply with the prescribed requirements, unit prices, and other data, as may be requested in Document 00 4113 (Bid Form) or prior to the Notice of Award.
- C. Owner may conduct reasonable investigations and reference checks of Bidder and other persons and organizations as Owner deems necessary to assist in the evaluation of any Bid and to establish Bidder's responsibility, qualifications, financial ability and ability to perform the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time. Submission of a Bid constitutes Bidder's consent to the foregoing.
- D. Owner shall have the right to consider information provided by sources other than Bidder. Owner shall also have the right to communicate directly with Bidder's surety regarding Bidder's bonds.
- E. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between written words and figures will be resolved in favor of the words.
- F. Bids shall be deemed to include the written responses of the Bidder to any questions or requests for information of Owner made as part of Bid evaluation process after submission of Bid.

3.03 Reservation of Rights:

- A. Owner reserves the right to reject any or all nonconforming, non-responsive, unbalanced, or conditional Bids, and to reject the Bid of any Bidder as non-responsive as a result of any error or omission in the Bid, or if Owner believes that it would not be in the best interest of Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner. For purposes of this paragraph, an "unbalanced Bid" is one having nominal prices for some Bid items and enhanced prices for other Bid items.
- B. Owner may retain Bid securities and Bid bonds of other than the Apparent Low Bidder for a period of 90 Days after award or full execution of the Contract, whichever first occurs.
- C. Owner may reject any or all Bids and waive any informalities or minor irregularities in the Bids. Owner also reserves the right, in its discretion, to reject any or all Bids and to re-Bid the Project.

3.04 Required Contractor and Subcontractor Registration:

- A. Owner shall accept Bids only from Bidders that (along with all Subcontractors listed in Document 00 4330, Subcontractor List) are currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5.
- B. Subject to Labor Code Sections 1771.1(c) and (d), any Bid not complying with paragraph 3.04.A, above, shall be returned and not considered; provided that if Bidder is a joint venture (Business & Professions Code Section 7029.1) or if federal funds are involved in the Contract (Labor Code Section 1771.1(a)), Owner may accept a non-complying Bid provided that Bidder and all listed Subcontractors are registered at the time of Contract award.

ARTICLE 4 MANDATORY BID PROTEST PROCEDURES

4.01 Submission of Written Bid Protest:

- A. Any Bid protest in connection with the construction contract or work described in general in Document 00 1113 (Notice Inviting Bids) must be submitted in writing to the **District's Authorized Representative, located at 1191 Main Street, Half Moon Bay, CA 94019**, before

3:30 P.M. of the fifth Business Day following fifth Business Day following posting of Document 00 5050 (Notice of Intent to Award for Construction) at **1191 Main Street, Half Moon Bay, CA 94019**. Owner will use reasonable efforts to deliver by facsimile a copy of Document 00 5050 to all Bidders who submitted Bids no later than the Business Day after issuance, although any delay or failure to do so will not extend the Bid protest deadline described above.

- B. The initial protest document must contain a complete statement of the basis for the protest.
- C. The protest must refer to the specific portion of the document that forms the basis for the protest.
- D. The protest must include the name, address, and telephone number of the person representing the protesting party.
- E. Only Bidders who the Owner otherwise determines are responsive and responsible are eligible to protest a Bid; protests from any other Bidder will not be considered. In order to determine whether a protesting Bidder is responsive and responsible, Owner may evaluate all information contained in any protesting Bidder's Bid, and conduct the same investigation and evaluation as Owner is entitled to take regarding an Apparent Low Bidder.
- F. The party filing the protest must concurrently transmit a copy of the initial protest document and any attached documentation to all other parties with a direct financial interest that may be adversely affected by the outcome of the protest. Such parties shall include all other Bidders who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.

4.02 Exclusive Remedy:

- A. The procedure and time limits set forth in this paragraph are mandatory and are Bidder's sole and exclusive remedy in the event of Bid protest. Bidder's failure to comply with these procedures shall constitute a waiver of any right to further pursue the Bid protest, including filing a Government Code Claim or legal proceedings. A Bidder may not rely on a protest submitted by another Bidder, but must timely pursue its own protest.

ARTICLE 5 AWARD AND EXECUTION OF CONTRACT

5.01 Notice of Award and Submittal of Executed Contract Documents:

- A. If Contract is to be awarded, it will be awarded to the lowest responsible responsive Bidder. Owner will issue Document 00 5100 Notice of Award. Such Award, if made, will be made within ninety (90) days after the opening of the Bid Proposals.
- B. Successful Bidder must execute and submit to Owner the "Required Contract Documents and Proof of Insurance" set forth below, by 5:00 p.m. of the 20th Day following the Notice of Award.

5.02 Required Contract Documents and Proof of Insurance:

- A. Document 00 5200 (Agreement), fully executed by successful Bidder. Submit four originals, each bearing an original signature on the signature page and initials on each page.
- B. Document 00 6113.13 (Construction Performance Bond), fully executed by successful Bidder and surety, in the amount set forth in Document 00 6113.13. Submit one original.
- C. Document 00 6113.16 (Construction Labor and Material Payment Bond), fully executed by successful Bidder and surety, in the amount set forth in Document 00 6113.16. Submit three originals.
- D. Document 00 6536 (Guaranty), fully executed by successful Bidder. Submit one original, bearing an original signature on the signature page and initials on each page.
- E. Insurance certificates and endorsements required by Document 00 7316 (Supplementary Conditions—Insurance): Submit one original set.
- F. Any other items identified by Owner in Document 00 5100 (Notice of Award).

5.03 Failure to Execute and Deliver Documents:

- A. If Bidder to whom Contract is awarded, within the period described in this Document 00 2113, fails or neglects to execute and deliver all required Contract Documents and file all required bonds, insurance certificates, and other documents, Owner may, in its sole discretion, rescind the award, recover on Bidder's surety bond, or deposit Bidder's cashier's check or certified check for collection, and retain the proceeds thereof as liquidated damages for Bidder's failure to enter into the Contract Documents. Bidder agrees that calculating the damages Owner may suffer as a result of Bidder's failure to execute and deliver all required Contract Documents would be extremely difficult and impractical and that the amount of Bidder's required Bid security shall be the agreed and presumed amount of Owner's damages.
- B. Upon such failure to timely deliver all required Contract Documents as set forth herein, Owner may determine the next Apparent Low Bidder and proceed accordingly. Such Award, if made, will be made within sixty (60) days after the opening of the Bid Proposals.

ARTICLE 6 GENERAL CONDITIONS AND REQUIREMENTS

6.01 Modification of Commencement of Work:

- A. Owner expressly reserves the right to modify the date for the Commencement of Work under the Contract and to independently perform and complete work related to Project. Owner accepts no responsibility to Contractor for any delays attributed to its need to complete independent work at the Site.
- B. Owner shall have the right to communicate directly with Apparent Low Bidder's proposed performance bond surety, to confirm the performance bond. Owner may elect to extend the time to receive faithful performance and labor and material payment bonds.

6.02 Conformed Project Manual:

- A. Following Award of Contract, Owner may prepare a conformed Project Manual reflecting Addenda issued during bidding, which will, failing objection, constitute the approved Project Manual.

6.03 Payment Bond:

- A. If the Project described in Document 00 1113 (Notice Inviting Bids) involves an expenditure in excess of twenty-five thousand dollars (\$25,000), the successful Bidder must file a payment bond with and approved by Owner prior to entering upon the performance of the Work, in accordance with Civil Code Section 9550, *et seq.*

6.04 Wage Rates:

- A. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations may be obtained from the California Department of Industrial Relations website [<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>] and are deemed included in the Bidding Documents. Upon request, Owner will make available copies to any interested party. Also, Contractor shall post the applicable prevailing wage rates at the Site.

6.05 Withdrawal of Bids:

- A. Bidders may withdraw their Bids at any time prior to the Bid opening time fixed in this Document 00 2113, only by written request for the withdrawal of Bid filed with Owner at the **at 1191 Main Street, Half Moon Bay, CA 94019**. Bidder or its duly authorized representative shall execute request to withdraw Bid.

6.06 Ineligible Contractors and Subcontractors:

- A. Owner shall not accept a Bid from a Bidder who is ineligible to bid or work on, or be awarded, a public works project pursuant to California Labor Code section 1777.1 or 1777.7. Bidders and the Contractor who is awarded the project contract shall not utilize, or allow work by, any subcontractor who is ineligible to bid or work on, or be awarded, a public works project pursuant to California Labor Code Section 1777.1 or 1777.7. (See California Public Contract Code Section

6109.) The California Division of Labor Standards Enforcement publishes a list of debarred contractors and subcontractors on the Internet at www.dir.ca.gov/DLSE/debar.html.

6.07 Public Records Act Requests:

- A. Per the Public Records Act, Owner will make available to the public Bidder's SOQ (if bidder's Envelope B is opened), all correspondence and written questions submitted during the Bid period, all Bid submissions opened in accordance with the procedures set forth herein, and all subsequent Bid evaluation information. All submissions not opened will remain sealed and shall be returned to the submitter. Except as otherwise require by law, Owner will not disclose trade secrets or proprietary financial information submitted by Bidders that has been designated as confidential by Bidder (including but not limited to the SOQ). Any such trade secrets or proprietary financial information that Bidder believes should be exempted from disclosure shall be specifically identified and marked as such. Blanket-type identification by designating whole pages or sections shall not be permitted and shall be invalid. The specific confidential information must be clearly identified as such.
- B. Upon a request for records regarding this Bid, Owner will notify the Bidder involved, within ten Days from receipt of the request, when the records will be made available for inspection. If the Bidder timely identifies any "proprietary, trade secret, or confidential commercial or financial" information that Bidder determines is not subject to public disclosure, and requests that Owner refuse to comply with the records request, Bidder shall take all appropriate legal action and defend Owner's refusal to produce the information in all forums; otherwise Owner will make such information available to the extent require by applicable law, without restriction.
- C. Information disclosed in the SOQ and the attendant submissions are the property of Owner unless Bidder makes specific reference to data that is considered proprietary. Subject to the requirements in the Public Records Act, reasonable efforts will be made to prevent the disclosure of information except on a need-to-know basis during the evaluation process.

6.08 Substitutions:

- A. Bidders must base their Bids on products and systems specified in Contract Documents or listed by name in Addenda. Owner will consider substitution requests only for "or equal items." Bidders wanting to use "or equal" item(s) may submit Document 00 6325 (Substitution Request Form) no later than 35 Days after Notice of Award. As a limitation on Bidder's privilege to request substitution of "or equal" items, Owner has found that certain items are designated as Owner standards and certain items are designated to match existing items in use on a particular public improvement either completed or in the course of completion or are available from one source. As to such items, Owner will not permit substitution. Such items (if any) are described in Document 00 1113 (Notice Inviting Bids).

6.09 Definitions:

- A. All abbreviations and definitions of terms used in this Document 00 2113 are set forth in Document 00 7200 (General Conditions) and Section 01 4200 (References and Definitions).

END OF DOCUMENT

DOCUMENT 00 4113

BID FORM

TO THE COASTSIDE FIRE PROTECTION DISTRICT

THIS BID IS SUBMITTED BY:

(Firm/Company Name)

Re: **Station 41 South Lot Landscaping and Sidewalk Improvements Project**, at 555 Obispo Rd, El Granada, CA 94018.

The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with the **COASTSIDE FIRE PROTECTION DISTRICT** in the form included in the Contract Documents, Document 00 5200 (Agreement), to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Sum and within the Contract Time indicated in this Bid and in accordance with all other terms and conditions of the Contract Documents.

The Owner shall have the right, after receiving and reviewing all bids, to award the Contract with none, one, or both of the Bid Alternates included. The determination of lowest bid shall be based upon the Total Base Bid plus none, either, or both of the Bid Alternates price(s).

Bidder accepts all of the terms and conditions of the Contract Documents, Document 00 1113 (Notice Inviting Bids), and Document 00 2113 (Instructions to Bidders) including, without limitation, those dealing with the disposition of Bid Security. This Bid will remain subject to acceptance for 60 Days after the day of Bid opening, unless there is a bid protest, then 90 days after the day of bid opening.

In submitting this Bid, Bidder represents that Bidder has examined all of the Contract Documents, performed all necessary Pre-Bid investigations, attended the mandatory Pre-Bid Meeting (if any), received the Pre-Bid Meeting minutes (if any), and received the following Addenda:

Addendum No.	1	Addendum Date	Signature of Bidder

Based on the foregoing, Bidder proposes and agrees to fully perform the Work within the time stated and in strict accordance with the Contract Documents for the following sums of money listed in the following Schedule of Bid Prices:

SCHEDULE OF BID PRICES

All Bid items, including lump sums, unit prices and alternates (if any), must be filled in completely. Bid items are described in Section 01 1100 (Summary of Work). Quote in figures only, unless words are specifically requested.

BASE BID					
No,	Name	Unit	Qty	Unit Price	Extension
1	Mobilization and Demobilization	LS	1	\$	\$
2	Traffic Control	LS	1	\$	\$
3	Stormwater Pollution Prevention	LS	1	\$	\$
4	Demolition and Disposal	LS	1	\$	\$
5	Clearing and Grubbing	SF	9118	\$	\$
6	Excavate, Remove, Prep, Level Area for Path	SF	2380	\$	\$
7	6' Temporary Construction Fence	LF	155	\$	\$
8	GraniteCrete Path	SF	1577	\$	\$
9	Timber Curb	LF	300	\$	\$
10	Aluminum Edging	LF	551	\$	\$
11	Rock Garden, Cobbles	SF	490	\$	\$
12	Redwood Bench Including Frame and Footing	EA	1	\$	\$
13	Nature Trail Signs	EA	6	\$	\$
14	Welcome Sign, Including Footing	EA	1	\$	\$
15	Soil Testing	LS	1	\$	\$
16	Soil Amendment	LS	1	\$	\$
17	Mulch	LS	1	\$	\$
18	5-Gallon Shrubs	EA	5	\$	\$
19	1-Gallon Shrubs	EA	117	\$	\$

20	1-Gallonl Ground Cover	EA	121	\$	\$
21	Succulents	EA	40	\$	\$
22	Landscape Maintenance	LS	1	\$	\$
23	Landscape Irrigation System	LS	1	\$	\$
24	ALLOWANCE - County of San Mateo Encroachment Permit Fees	LS	1	\$ 3,000.00	\$
			Total - Base Bid:		\$

ALTERNATE BID 1 - SIDEWALK IMPROVEMENTS					
A1	Mobilization and Demobilization	LS	1	\$	\$
A2	Traffic Control	LS	1	\$	\$
A3	Stormwater Pollution Prevention	LS	1	\$	\$
A4	Demolition	LS	1	\$	\$
A5	Excavate, Remove, Prep, Level Area for Sidewalk	SF	950	\$	\$
A6	Sidewalk - County Std D-3	SF	950	\$	\$
A7	Curb and Gutter - County Std D-3	LF	190	\$	\$
A8	Deep Lift 16" AC Conform	LF	190	\$	\$
A9	Curb Ramps	EA	2	\$	\$
A10	Patch Asphalt	SF	760	\$	\$
A11	Remove and Re-Install Existing Roadside Sign on New Post - Street Sign	EA	1	\$	\$
			Total - Alt 1 Bid:		\$

ALTERNATE BID 2 - SIDEWALK AND CROSSWALK IMPROVEMENTS					
B1	Mobilization and Demobilization	LS	1	\$	\$
B2	Traffic Control	LS	1	\$	\$
B3	Stormwater Pollution Prevention	LS	1	\$	\$
B4	Demolition	LS	1	\$	\$

					\$
B5	Excavate, Remove, Prep, Level Area for Sidewalk	SF	1625	\$	\$
B6	Sidewalk - County Std D-3	SF	1625	\$	\$
B7	Curb and Gutter - County Std D-3	LF	325	\$	\$
B8	Deep Lift 16" AC Conform	LF	325	\$	\$
B9	Curb Ramps	EA	1	\$	\$
B10	Patch Asphalt	SF	1300	\$	\$
B11	Remove and Re-Install Existing Roadside Sign on New Post- Bike Lane Sign	EA	1	\$	\$
B12	Remove Thermoplastic Markings and Striping	LS	1	\$	\$
B13	Thermoplastic STOP Stencil A24D	EA	1	\$	\$
B14	Thermoplastic Yellow Ladder Crosswalk A24F	EA	1	\$	\$
B15	Thermoplastic STOP Bar 12-Inch White	EA	1	\$	\$
B16	Thermoplastic Yellow Double Yellow Centerline Detail 22 A20A	LF	115	\$	\$
			Total - Alt 2 Bid:		\$

Total BASE Bid Price:

(Indicate Base Bid Price in Words)

Total ALTERNATE 1 Bid Price:

(Indicate Alternate 1 Bid Price in Words)

Total ALTERNATE 2 Bid Price:

(Indicate Alternate 2 Bid Price in Words)

1. The undersigned acknowledges that the Apparent Low Bidder will be determined as provided in Documents 00 1113 (Notice to Bidders) and Document 00 2113 (Instruction to Bidders).
2. Subcontractors for work are listed on Document 00 4330 (Subcontractors List), submitted herewith.
3. The undersigned Bidder understands that Owner reserves the right to reject this Bid.
4. If written notice of the acceptance of this Bid, hereinafter referred to as Notice of Award, is mailed or delivered to the undersigned Bidder within the time described in Paragraph 2 of this Document 00 4113 or at any other time thereafter before it is withdrawn, the undersigned Bidder will execute and deliver the documents required by Document 00 2113 (Instructions to Bidders) within the times specified therein.
5. Notice of Award or request for additional information may be addressed to the undersigned Bidder at the address set forth below.
6. The undersigned Bidder herewith encloses cash, a cashier's check, or certified check of or on a responsible bank in the United States, or a corporate surety bond furnished by a surety authorized to do a surety business in the State of California, in form specified in Document 00 2113 (Instructions to Bidders), in the amount of ten percent (10%) of the Total Bid Price and made payable to the COASTSIDE FIRE PROTECTION DISTRICT.
7. The undersigned Bidder agrees to commence Work under the Contract Documents on the date established in Document 00 7200 (General Conditions) and to complete all Work within the time specified in Document 00 5200 (Agreement).
8. The undersigned Bidder agrees that, in accordance with Document 00 7200 (General Conditions), liquidated damages for failure to complete all Work in the Contract within the time specified in Document 00 5200 (Agreement) shall be as set forth in Document 00 5200.
9. The names of all persons interested in the foregoing Bid as principals are:

IMPORTANT NOTICE:

If Bidder or other interested person is a corporation, give the legal name of corporation, state where incorporated, and names of president and secretary thereof; if a partnership, give name of the firm and names of all individual co-partners composing the firm; if Bidder or other interested person is an individual, give first and last names in full.

NAME OF BIDDER: _____

licensed in accordance with an act for the registration of Contractors, and with license number: _____ Expiration: _____.

(Place of Incorporation, if Applicable) (Principal)

(Principal)

(Principal)

I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

(Signature of Bidder)

NOTE: If Bidder is a corporation, set forth the legal name of the corporation together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If Bidder is a partnership, set forth the name of the firm together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership.

Business Address: _____

Contractor's Representative(s): _____
(Name/Title)

(Name/Title)

Officers Authorized to Sign Contracts _____
(Name/Title)

(Name/Title)

Telephone Number(s): _____
(Area Code) (Number)

(Area Code) (Number)

Fax Number(s): _____
(Area Code) (Number)

(Area Code) (Number)

Date of Bid: _____

END OF DOCUMENT

DOCUMENT 00 4313

a. BOND ACCOMPANYING BID

KNOW ALL BY THESE PRESENTS:

That the undersigned

(Name of Contractor)

as Principal and the undersigned as Surety are held and firmly bound unto Owner, **COASTSIDE FIRE PROTECTION DISTRICT**, a special district of the State of California, as obligee, in the penal sum of **(Dollar Amount In Words)**

Dollars (\$ _____) lawful money of the United States of America being at least ten percent (10%) of the aggregate amount of said Principal's base Bid, for the payment of which, well and truly to be made, we bind ourselves, our successors, executors, administrators, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Principal is submitting a Bid for, Station 41 South Lot Landscaping and Sidewalk Improvements Project, at 555 Obispo Rd, El Granada, CA 94018. Contract Number.

THE CONDITION OF THIS OBLIGATION IS SUCH that if the Bid submitted by the said Principal be accepted and the Contract be awarded to said Principal and said Principal shall within the required periods enter into the Contract so awarded and provide the required Construction Performance Bond, Construction Labor and Material Payment Bond, insurance certificates, Guaranty, and all other endorsements, forms, and documents required under Document 00 2113 (Instructions to Bidders), then this obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument this _____ day of _____, 20____.
(Month)

(Corporate Seal)

By _____
Principal

By _____
Surety

(Corporate Seal)

By _____
Attorney in Fact

END OF DOCUMENT

DOCUMENT 00 4314
BIDDER REGISTRATION FORM

INDEPENDENT CONTRACTOR REGISTRATION

Contractor's License # _____

Date: _____ Fed I.D. # _____

Full Corporate Name of Company: _____

Street Address: _____

Mailing Address: _____

Phone: _____ Fax: _____

Name of Principal Contact: _____

Type of Business: _____ Sole Proprietor _____ Partnership
 _____ Non-Profit 501(c)(3) _____ Corporation
 _____ other (please explain: _____)

INSURANCE

Workers' Compensation:

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

General Liability:

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limits: \$ _____

A.M. Best Rating: _____

Automobile Liability:

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limits: \$ _____

A.M. Best Rating: _____

All-risk Course of Construction (if applicable, as required by Document 00 7316 – Insurance and Indemnification):

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limits: \$ _____

A.M. Best Rating: _____

Professional Liability (if applicable, as required by Document 00 7316 – Insurance and Indemnification):

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limits: \$ _____

A.M. Best Rating: _____

Pollution Legal Liability Insurance (if applicable, as required by Document 00 7316 – Insurance and Indemnification):

Carrier: _____

Address: _____

Phone and Fax: _____

Policy Number: _____

Policy Limits: \$ _____

A.M. Best Rating: _____

BIDDER CERTIFIES, UNDER PENALTY OF PERJURY, THAT THE FOREGOING INFORMATION IS CURRENT AND ACCURATE AND AUTHORIZES OWNER, AND ITS AGENTS AND REPRESENTATIVES TO OBTAIN A CREDIT REPORT AND/OR VERIFY ANY OF THE ABOVE INFORMATION.

SIGNATURE

DATE

END OF DOCUMENT

SAFETY EXPERIENCE

The following statements as to the Bidder's safety experience are submitted with the Bid, as part thereof, and the Bidder guarantees the truthfulness and accuracy of all information.

1. List Bidder's interstate Experience Modification Rate for the last three years.
[20__] _____ [20__] _____ [20__] _____
2. Use Bidder's last year's Cal/OSHA 201 log to fill in the following number of injuries and illnesses:
 - a. Number of lost workday cases _____
 - b. Number of medical treatment cases _____
 - c. Number of fatalities _____
3. Employee hours worked last year _____
4. State the name of Bidder's safety engineer/manager:

Attach a resume or outline of this individual's safety and health qualifications and experience.

I CERTIFY, UNDER PENALTY OF PERJURY, THAT THE FOREGOING INFORMATION IS CURRENT AND ACCURATE AND I AUTHORIZE OWNER, AND ITS AGENTS AND REPRESENTATIVES TO OBTAIN A CREDIT REPORT AND/OR VERIFY ANY OF THE ABOVE INFORMATION.

BIDDER:

By: _____
Signature

Its: _____
Title

Date _____

END OF DOCUMENT

DOCUMENT 00 4513

i. STATEMENT OF QUALIFICATIONS FOR CONSTRUCTION WORK

ARTICLE 1 – GENERAL INFORMATION

1.01 Minimum Bidder Qualifications:

- A. Bidders must be duly licensed in accordance with the California Business & Professions Code and have a history of work performance sufficient to meet the requirements of a responsible bidder in the California Public Contract Code Section 1103.
- B. Bidders must have three (3) years experience as a continuously operating entity engaged in the performance of similar work.
- C. Bidders must demonstrate successful experience with type of work of this Project, to include, within the past year, completed two (2) projects of a similar nature and complexity with a contract dollar amount of at (i.) least 75% of the amount of Bidder's Bid or (ii.) 125% of such amount in the aggregate.

1.02 Measurement:

- A. Bidder's compliance with the minimum qualification requirements will be measured by Bidder's experience as an operating entity and also by the experience of the supervisory personnel who will have responsible charge of the various major components of the Work.
- B. If Bidder subcontracts portions of the Work, Owner, in its determination of whether the minimum qualification requirements have been met, may consider the qualifications of the Subcontractor's supervisory personnel.
- C. The qualifications of the Key Personnel are to be submitted with the Statement of Qualifications (SOQ), by providing the information described in this Document 00 4513.

ARTICLE 2 – REQUIRED CONTENTS OF SOQ SUBMISSION

2.01 Transmittal Letter:

- A. The Transmittal Letter shall name the proposed prime contractor, its legal structure (i.e., corporation, partnership, limited partnership, joint venture). If a joint venture or partnership is proposed, Bidder shall identify partner and/or member of the joint venture and their roles and responsibilities.

2.02 Submittals:

- A. Completed Questionnaires. Bidder shall include a completed Statement of Qualification Questionnaire in the form attached to this Document 00 4513 as Attachment A. Also, if any Subcontractors (**Designated Subcontractors**) are identified below, Bidder must include a Part D to the Questionnaire for each Designated Subcontractors:
 - 1. Designated Subcontractor 1: _____
 - 2. Designated Subcontractor 2: _____
- B. Resumes of Proposed Key Personnel. Bidder shall provide a resume for each named Key Personnel of Bidder and any Designated Subcontractors, to include as necessary: Years of experience; Education - degrees, schools and years obtained; Professional Registrations; Fluency in English (Yes/No); At least two client references, including contact names, addresses and telephone numbers, and description of projects of a similar nature worked on in the past five years.
- C. Audited or Reviewed Financial Statements. Include audited or reviewed financial statements for the three most recently completed fiscal years for Bidder and each member of any proposed consorting or joint venture. Also include audited or reviewed financial statements for the three most recently completed fiscal years for any parent companies of Bidder and each member of any proposed consortium or joint venture.
- D. Surety Letter re: Capability to Provide Required Performance and Payment Bonds. Bidder shall include a letter from a surety duly licensed to do business in the State of California, having a financial rating from A.M. Best Company of A:VII, or better, unless otherwise acceptable to the District, that the surety has agreed to provide Bidder with the required performance and payment

bonds in accordance with the requirements set forth in Documents 00 6113.13 (Construction Performance Bond) and 00 6113.16 (Construction Labor and Material Payment Bond), each in the penal sum of the Contractor's bid when submitted. Owner shall have the right to verify with the surety that the surety, based upon the Bid prices, will issue the required bonds under the conditions stated.

- E. Insurer Letter re: Capability to Provide the Required Insurance. Bidder shall provide a letter from an insurance underwriter, having a financial rating reasonably acceptable to Owner, confirming that the insurer will provide Bidder the required coverages and amounts specified in the Contract Documents.
- F. Description of Human and Physical Resources. Bidder shall identify, describe, and quantify for itself, the following technical information for the construction work: Description and location of manufacturing facilities, naming products and quantifying production capacity and current demand; Description of field organization(s), naming skills and equipment; Description of safety program quality control procedures, and safety experience; and
- G. License: Evidence of a valid contractor's license and required licenses of all licensees of persons who are Key Personnel necessary to perform the Work.
- H. Litigation History. Description of litigation history for the past three years including names of involved parties, nature of dispute, and disposition.

2.03 Format:

- A. The SOQ shall be clear and concise to enable management-oriented personnel to make a thorough evaluation and arrive at a sound determination as to whether the SOQ meet Owner's requirement. To this end, the SOQ should be so specific, detailed and complete as to demonstrate clearly and fully that the Bidder has a thorough understanding of and has demonstrated knowledge of the requirements to perform the Work (or applicable portion thereof).
- B. Any explanation requested by a Bidder regarding the meaning or interpretation of this Document 00 4513 must be requested in writing and with sufficient time allowed for a reply to reach Bidder before the submission of its SOQ. Oral explanations or instructions will not be binding. Any information provided to any prospective Bidder concerning this Document 00 4513 will be furnished to all prospective Bidders as an Addendum to the Bidding Documents.

[STATEMENT OF QUALIFICATION QUESTIONNAIRE FOLLOWS ON NEXT PAGE]

1. **ATTACHMENT A – Statement of Qualification Questionnaire**

Bidders shall complete the entire Statement of Qualification Questionnaire and submit it in accordance with Document 00 2113 (Instructions to Bidders) and Document 00 4513 (Statement of Qualifications). Failure to complete the questionnaire or inclusion of any false statement(s) shall be ground for immediate disqualification.

2. **CONTACT INFORMATION**

Company Name: _____

Owner of Company: _____

Contact Person: _____

Address: _____

Phone: _____ Fax: _____

3. **PART A: GENERAL INFORMATION**

1. Does Bidder possess a valid and current California Contractor's license for the work proposed? Yes ___ No ___
2. Does Bidder have a minimum of \$5,000,000 liability insurance coverage? Yes ___ No ___
3. Has Bidder's License been revoked at any time in the last five years? Yes ___ No ___
4. Has Bidder been "default terminated" by an Owner (other than for convenience), or has a Surety completed a contract for Bidder within the last five years? Yes ___ No ___
5. Has Bidder been convicted more than twice for failure to pay prevailing wages in the last three years? Yes ___ No ___
6. Has Bidder attached copies of its reviewed or audited financial statements and accompanying notes for the last three years? Yes ___ No ___
7. Are Bidder and all listed subcontractors registered and qualified with the Department of Industrial Relations pursuant to Labor Code Section 1725.5? Yes ___ No ___

Bidder may be disqualified if any answer to questions 1, 2, 6, or 7 is No.

Bidder may be disqualified if any answer to questions 3, 4, or 5 is Yes.

i. PART B: SAFETY, PREVAILING WAGE, DISPUTES AND BONDS

(SAFETY)

1. Has Cal/OHSA, Federal OSHA, the EPA or any Air Quality Management Owner cited Bidder in the past five years?
Yes ___ No ___ If yes, attach description of each citation.

2. How often does Bidder require documented safety meetings be held for:
- | | | | | |
|------------------|--------------|-----------------|---------------|-------------------------|
| Field Supervisor | Weekly _____ | Bi-Weekly _____ | Monthly _____ | Less Than Monthly _____ |
| Employees | Weekly _____ | Bi-Weekly _____ | Monthly _____ | Less Than Monthly _____ |
| New Hires | Weekly _____ | Bi-Weekly _____ | Monthly _____ | Less Than Monthly _____ |
| Subcontractors | Weekly _____ | Bi-Weekly _____ | Monthly _____ | Less Than Monthly _____ |
3. How often does Bidder conduct documented safety inspections?
Quarterly _____ Semi-annually _____ Annually _____ Other _____
4. Does Bidder have home office safety representatives who visit/audit the job site?
Quarterly _____ Semi-annually _____ Annually _____ Other _____
5. What is Bidder's Interstate Experience Modification Rate? _____. (A rating in excess of **[1]** may constitute grounds for disqualification as non-responsible).

(PREVAILING WAGE PROVISIONS)

6. Has Bidder been fined, penalized or otherwise found to have violated any prevailing wage or labor code provision? If yes, attach description of each occurrence.
Yes _____ No _____

(LICENSE PROVISIONS)

7. Has Bidder changed names or license numbers in the past 5 years? If so, please state reason for change.
Yes _____ No _____ Reason: _____

(DISPUTES)

8. In the past five years, has Bidder on any project that Bidder performed construction services made any written claim against any owner for additional compensation or additional time, that the owner disputed, exceeding on a per project basis an aggregate amount of \$100,000 or 10% of the original contract sum? If yes, attach description of each instance including details of total claim(s) amount, resolution description including amount, and Owner's name and phone number.
Yes _____ No _____
9. In the past five years, has any owner on any project that Bidder performed construction services asserted any written claim against Bidder for delay, defective work, warranty work, backcharges and/or offsets, that the Bidder disputed, exceeding on a per project basis, an aggregate amount of \$100,000 or 10% of the original contract sum? If yes, attach description of each instance including details of total claim(s) amount, resolution description including amount, and Owner's name and phone number.
Yes _____ No _____

(BONDING)

10. Bonding Capacity – Provide documentation from Bidder's surety identifying the following:
Name of bonding company/surety: _____
Name of Surety Agent: _____
Surety Agent address: _____
Surety Agent phone number: _____

Is surety a California-admitted surety? Yes _____ No _____

Is surety listed in the current edition of the California Department of the Treasury's Listing of approved sureties? Yes _____ No _____

List surety's A.M. Best Rating: _____

What is Bidder's total bonding capacity? _____

What percent does Bidder pay for bonds? _____

ii. PART C: EXPERIENCE OF PRIME CONTRACTOR

The nature of this Project requires prior similar experience for the firm and the Key Personnel assigned. Summarize similar project experience below and provide the detailed project information requested:

Prime Contractor. List three projects of similar size and scope to the Work of the Contract, completed in the past two (2) years, and indicate who were the superintendent, project manager and scheduler. NOTE: This listing will be used to assess compliance with the stated minimum qualifications in Paragraph 1.01.

Project Name	Construction Cost (\$)	Year Completed	Name of Project Superintendent	Name of Project Manager	Name of Project Scheduler

Key Personnel.

List Key Personnel that will be assigned to the Work of the current Project and their experience/training with the projects listed above:

Project Manager: _____

Project Superintendent: _____

Project Scheduler: _____

Recent Projects.

Provide information about three (3) of its most currently completed projects. Names and references must be current and verifiable. This listing will be used to assess compliance with the stated minimum qualifications in Paragraphs 1.01. If a separate sheet is used, it must contain all of the following information:

1. Project Name: _____

Location: _____

Owner: _____

Owner Contact (name and phone): _____

Architect/Engineer: _____

Architect/Engineer Contact (name and phone number): _____

Const. Mgr. or Project Mgr. (name and phone number): _____

Description of Project, Scope of Work Performed: _____

Total Construction Cost: _____

Total Change Order Amount: _____

Did Change Orders exceed 10% of original contract sum? _____ If yes, please explain on separate sheet.

Original Scheduled Date of Completion: _____

Time Extensions Granted (number of Days): _____

Actual Date of Completion: _____

Number of Stop Notices filed by Subcontractors or Suppliers: _____

2. Project Name: _____

Location: _____

Owner: _____

Owner Contact (name and phone): _____

Architect/Engineer: _____

Architect/Engineer Contact (name and phone number): _____

Const. Mgr. Or Project Mgr. (name and phone number): _____

Description of Project, Scope of Work Performed: _____

Total Construction Cost: _____

Total Change Order Amount: _____

Did Change Orders exceed 10% of original contract sum? _____ If yes, please explain on separate sheet.

Original Scheduled Date of Completion: _____

Time Extensions Granted (number of Days): _____

Actual Date of Completion: _____

Number of Stop Notices filed by Subcontractors or Suppliers: _____

3. Project Name: _____

Location: _____

Owner: _____

Owner Contact (name and phone): _____

Architect/Engineer: _____

Architect/Engineer Contact (name and phone number): _____

Const. Mgr. Or Project Mgr. (name and phone number): _____

Description of Project, Scope of Work Performed: _____

Total Construction Cost: _____

Total Change Order Amount: _____

Did Change Orders exceed 10% of original contract sum? _____ If yes, please explain on separate sheet.

Original Scheduled Date of Completion: _____

Time Extensions Granted (number of Days): _____

Actual Date of Completion: _____

Number of Stop Notices filed by Subcontractors or Suppliers: _____

iii.PART D: EXPERIENCE OF DESIGNATED SUBCONTRACTOR
[See Document 00 4513 Paragraph 2.02.A]

The nature of this Project requires prior similar experience for the Designated Subcontractor(s) performing the Work. Summarize similar project experience below and provide the detailed project information requested:

Designated Subcontractor. List three (3) projects of similar size and scope to the Work of the Contract, completed in the past two (2) years, and indicate who were the superintendent, project manager and scheduler. NOTE: this listing will be used to assess compliance with the stated minimum qualifications in Paragraph 1.01.

Project Name	Construction Cost (\$)	Year Completed	Name of Project Superintendent	Name of Project Manager	Name of Project Scheduler

Key Personnel.

List Key Personnel that will be assigned to the Work of the current Project and their experience/training with the projects listed above:

Project Manager: _____

Project Superintendent: _____

Project Scheduler: _____

Recent Projects.

Provide information about three (3) of its most currently completed projects. Names and references must be current and verifiable. This listing will be used to assess compliance with the stated minimum qualifications in Paragraph 1.01. If a separate sheet is used, it must contain all of the following information:

1. Project Name: _____

Location: _____

Owner: _____

Owner Contact (name and phone): _____

Architect/Engineer: _____

Architect/Engineer Contact (name and phone number): _____

Const. Mgr. or Project Mgr. (name and phone number): _____

Description of Project, Scope of Work Performed: _____

Total Construction Cost: _____

Total Change Order Amount: _____

Did Change Orders exceed 10% of original contract sum? _____ If yes, please explain on separate sheet.

Original Scheduled Date of Completion: _____

Time Extensions Granted (number of Days): _____

Actual Date of Completion: _____

Number of Stop Notices filed by Subcontractors or Suppliers: _____

2. Project Name: _____

Location: _____

Owner: _____

Owner Contact (name and phone): _____

Architect/Engineer: _____

Architect/Engineer Contact (name and phone number): _____

Const. Mgr. Or Project Mgr. (name and phone number): _____

Description of Project, Scope of Work Performed: _____

Total Construction Cost: _____

Total Change Order Amount: _____

Did Change Orders exceed 10% of original contract sum? _____ If yes, please explain on separate sheet.

Original Scheduled Date of Completion: _____

Time Extensions Granted (number of Days): _____

Actual Date of Completion: _____

Number of Stop Notices filed by Subcontractors or Suppliers: _____

3. Project Name: _____

Location: _____

Owner: _____

Owner Contact (name and phone): _____

Architect/Engineer: _____

Architect/Engineer Contact (name and phone number): _____

Const. Mgr. Or Project Mgr. (name and phone number): _____

Description of Project, Scope of Work Performed: _____

Total Construction Cost: _____

Total Change Order Amount: _____

Did Change Orders exceed 10% of original contract sum? _____ If yes, please explain on separate sheet.

Original Scheduled Date of Completion: _____

Time Extensions Granted (number of Days): _____

Actual Date of Completion: _____

Number of Stop Notices filed by Subcontractors or Suppliers: _____

PART E: FINANCIAL INFORMATION

1. Has Bidder ever reorganized under the protection of bankruptcy laws?
Yes _____ No _____ If yes, please state when _____
2. If Bidder has had the general liability carrier identified in Document 00 4314 (Bidder Registration and Safety Experience Form) for less than 5 years, please provide additional information below for balance of the last 5 years:

Agency Name: _____

Contact Name: _____

Phone Number _____

Carrier: _____ A.M. Best Rating: _____

Carrier: _____ A.M. Best Rating: _____

Carrier: _____ A.M. Best Rating: _____

3. Has Bidder ever had insurance terminated by a carrier? Yes _____ No _____
If yes, explain on a separate signed sheet marked with correlating cross-reference to this paragraph of the questionnaire.

Bidder hereby declares under penalty of perjury that all the information provided in this questionnaire is true and correct.

SIGNATURE

TITLE

END OF DOCUMENT

3. DOCUMENT 00 4519

NON-COLLUSION AFFIDAVIT

PUBLIC CONTRACT CODE §7106

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

STATE OF CALIFORNIA)
) ss.
COUNTY OF _____)

_____, being first duly sworn,
(Name of Principal of Bidder)

deposes and says that he or she is _____
(Office of Affiant)

of _____, the party
(Name of Bidder)

making the foregoing Bid, that the Bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the Bid is genuine and not collusive or sham; that Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham Bid, and has not directly or indirectly colluded, conspired, connived or agreed with any bidder or anyone else to put in a sham Bid, or that anyone shall refrain from bidding, and that the Bidder has not in any manner, directly or indirectly, sought by agreement, communication or conference with anyone to fix the Bid price of Bidder or any other bidder, or to fix any overhead, profit or cost element of the Bid price, or of that of any other bidder, or to secure any advantage against Owner, or anyone interested in the proposed contract; that all statements contained in the Bid are true; and further, that Bidder has not, directly or indirectly, submitted its Bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, Bid depository, or to any member or agent thereof to effectuate a collusive or sham Bid.

Executed under penalty of perjury under the laws of the State of California:

(Name of Bidder)

(Signature of Principal)

Subscribed and sworn before me _____

This _____ day of _____, 20__

Notary Public of the State of _____

In and for the County of _____

My Commission expires _____

(Seal)

- NOTE:** If Bidder is a partnership or a joint venture, this affidavit must be signed and sworn to by every member of the partnership or venture.
- NOTE:** If Bidder [including any partner or venturer of a partnership or joint venture] is a corporation, this affidavit must be signed by the Chairman, President, or Vice President and by the Secretary, Assistant Secretary, Chief Financial Officer, or Assistant Treasurer.
- NOTE:** If Bidder's affidavit on this form is made outside the State of California, the official position of the person taking such affidavit shall be certified according to law.

END OF DOCUMENT

4. DOCUMENT 00 4546

5. BIDDER CERTIFICATIONS

- a.
b. TO BE EXECUTED BY ALL BIDDERS AND SUBMITTED WITH BID

The undersigned Bidder certifies to Owner as set forth in sections 1 through 7 below.

1. STATEMENT OF CONVICTIONS

By my signature hereunder, I hereby swear, under penalty of perjury, that no more than one final, unappealable finding of contempt of court by a Federal Court has been issued against Bidder within the past two years because of failure to comply with an order of a Federal Court or to comply with an order of the National Labor Relations Board.

2. CERTIFICATION OF WORKER'S COMPENSATION INSURANCE

By my signature hereunder, as the Contractor, I certify that I am aware of the provisions of Labor Code Section 3700 that 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.

3. CERTIFICATION OF PREVAILING WAGE RATES AND RECORDS

By my signature hereunder, as the Contractor, I certify that I am aware of the provisions of Labor Code Section 1773 that requires the payment of prevailing wage on public projects. Contractor and any subcontractors under the Contractor shall comply with Labor Code Section 1776 regarding wage records, and with Labor Code Section 1777.5 regarding the employment and training of apprentices. Contractor is responsible to ensure compliance by any and all subcontractors performing work under this Contract.

4. CERTIFICATION OF COMPLIANCE WITH PUBLIC WORKS CHAPTER OF LABOR CODE

By my signature hereunder, as the Contractor, I certify that I am aware of Labor Code Sections 1777.1 and 1777.7 and Contractor and Subcontractors are eligible to bid and work on public works projects.

5. CERTIFICATION OF NON-DISCRIMINATION

By my signature hereunder, as the Contractor, I certify that there will be no discrimination in employment with regard to race, color, religion, gender, sexual orientation, age or national origin; that all federal, state, and local directives and executive orders regarding non-discrimination in employment will be complied with; and that the principal of equal opportunity in employment will be demonstrated positively and aggressively.

6. CERTIFICATION OF NON-DISQUALIFICATION

By my signature hereunder, as the Contractor, I swear, under penalty of perjury, that the below indicated Bidder, any officer of Bidder, or any employee of Bidder who has a proprietary interest in such Bidder, has never been disqualified, removed, or otherwise prevented from bidding on, or completing a Federal, State, or local government project because of a violation of law or safety regulation, except as indicated on the separate sheet attached hereto entitled "Previous Disqualifications." If a statement of "Previous Disqualifications" is attached, please explain the circumstances.

7. CERTIFICATION OF ADEQUACY OF CONTRACT AMOUNT

By my signature hereunder, as the Contractor, pursuant to Labor Code Section 2810(a), I certify that, if awarded the Contract based on the undersigned's Bid, the Contract will include funds sufficient to allow the Contractor to comply with all applicable local, state, and federal laws or regulations governing the labor or services to be provided. I understand that Owner will be relying on this certification if it awards the Contract to the undersigned.

BIDDER:

(Name of Bidder)

Date: _____, 2025

By: _____
(Signature)

Name: _____
(Print Name)

Its: _____
(Title)

END OF DOCUMENT

6. DOCUMENT 00 5050

NOTICE OF INTENT TO AWARD FOR CONSTRUCTION

DATE POSTED: [Insert Date]

PROJECT TITLE: **COASTSIDE FIRE PROTECTION DISTRICT
Station 41 South Lot Landscaping and Sidewalk Improvements Project
at 555 Obispo Rd, El Granada, CA 94018**

_____, the _____ of

Owner intends to recommend to its **Board of Directors** the Award of the above-referenced Project to

_____.

(Name of Contractor)

OWNER: COASTSIDE FIRE PROTECTION DISTRICT

By: _____

(Print name)

Title: _____

Date: _____

END OF DOCUMENT

DOCUMENT 00 5100

NOTICE OF AWARD

Dated _____

TO: _____

ADDRESS: _____

CONTRACT FOR: **COASTSIDE FIRE PROTECTION DISTRICT**
Station 41 South Lot Landscaping and Sidewalk Improvements Project AT
555 Obispo Rd, El Granada, CA 94018

The Contract Sum of your contract is _____
(Amount in Words)

Dollars (\$ _____)

1. Five copies of the proposed Contract Documents listed below accompany this Notice of Award.
2. You must comply with the following conditions precedent by **[5:00 p.m.]** of the **[20th Day]** following the date of this Notice of Award, that is, by **[Day of the Week, Month Day, 20__]**.
 - a. Deliver to Owner **[two]** fully executed counterparts of Document 00 5200 (Agreement). Each copy of Document 00 5200 (Agreement) must bear your original signature on the signature page and your initials on each page.
 - b. Deliver to Owner two originals of Document 00 6113.13 (Construction Performance Bond), executed by you and your surety.
 - c. Deliver to Owner two originals of Document 00 6113.16 (Construction Labor and Material Payment Bond), executed by you and your surety.
 - d. Deliver to Owner original set of the insurance certificates with endorsements required under Document 00 7316 (Supplementary Conditions – Insurance).
 - e. Deliver to Owner one fully executed Document 00 6536 (Guaranty), bearing your original signature on the signature page and your initials on each page.
3. Failure to comply with these conditions within the time specified will entitle Owner to consider your Bid abandoned, to annul this Notice of Award, and to declare your Bid security forfeited.
4. Within **[21 Days]** after you comply with the conditions in Paragraph 2 of this Document 00 5100, Owner will return to you one fully signed counterpart of Document 00 5200 (Agreement).
5. Before you may start any Work at the Site, you must attend a pre-construction conference. The pre-construction conference may be arranged through **[_____ (__) __-__.]** Questions regarding bonds and insurance may be directed to **[_____]** at the same number. All other inquiries regarding the Project should be directed to **[_____]**.
6. Upon commencement of the Work, you and each of your Subcontractors shall certify and provide Owner copies of payroll records in accordance with Labor Code Section 1776.

OWNER: COASTSIDE FIRE PROTECTION DISTRICT

By: _____
(Signature)

(Print Name)

(Title)

ATTEST: _____
Secretary

(Print Name)

AUTHORIZED BY DISTRICT RESOLUTION:

NO: _____

ADOPTED: _____, [20__]

[Copy of Resolution Attached]

END OF DOCUMENT

DOCUMENT 00 5200

AGREEMENT

THIS AGREEMENT, dated this **[date]** day of **[Month]**, **[20__]**, by and between **[Enter Name of Contractor]** whose place of business is located at **[Address of Contractor]** (**Contractor**), and **COASTSIDE FIRE PROTECTION DISTRICT**, a special district of the State of California, (**Owner**), acting under and by virtue of the authority vested in Owner by the laws of the State of California.

WHEREAS, Owner, by its Resolution No. **[Insert Number]** adopted on the **[date]** day of **[Month]**, **Year]** awarded to Contractor the following Contract:

**Station 41 South Lot Landscaping and Sidewalk Improvements Project at
555 Obispo Rd, El Granada, CA 94018**

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth, Contractor and Owner agree as follows:

ARTICLE 1 SCOPE OF WORK OF THE CONTRACT

1.01 Work of the Contract:

- A. Contractor shall complete all Work specified in the Contract Documents, in accordance with the Specifications, Drawings, and all other terms and conditions of the Contract Documents (**Work**).

1.02 Price for Completion of the Work:

- A. Owner shall pay Contractor the following Contract Sum (**Contract Sum**) for completion of Work in accordance with Contract Documents as set forth in Contractor's Bid, attached hereto.
- B. The Contract Sum includes all allowances (if any).

[ATTACHMENT]

7. COMMENCEMENT AND COMPLETION OF WORK

1.03 Commencement of Work:

Contractor shall commence Work on the date established in the Notice to Proceed (**Commencement Date**).

- A. Owner reserves the right to modify or alter the Commencement Date.

Completion of Work:

- B. Contractor shall achieve Substantial Completion of the entire Work within **60** Days from the Commencement Date.
- C. Contractor shall achieve Final Completion of the entire Work **70** Days from the Commencement Date.

ARTICLE 2 PROJECT REPRESENTATIVES

2.01 Owner's Project Manager:

- A. Owner has designated **Sean Rose, P.E.** as its Project Manager to act as Owner's Representative in all matters relating to the Contract Documents. If Project Manager is an employee of Owner, Project Manager is the beneficiary of all Contractor obligations to Owner including, without limitation, all releases and indemnities.
- B. Project Manager shall have final authority over all matters pertaining to the Contract Documents and shall have sole authority to modify the Contract Documents on behalf of Owner, to accept work,

and to make decisions or actions binding on Owner, and shall have sole signature authority on behalf of Owner.

- C. Owner may assign all or part of the Project Manager’s rights, responsibilities and duties to a Construction Manager, or other Owner Representative.

2.02 Contractor’s Project Manager and Other Key Personnel:

- A. Contractor has designated [_____] as its Project Manager to act as Contractor’s Representative in all matters relating to the Contract Documents.
- B. Contractor has designated the following other Key Personnel for the Project:

<u>Name</u>	<u>Position</u>
_____	Superintendent <i>[See Doc. 00 7200 Para. 8.01.B]</i>
_____	_____
_____	_____

2.03 Architect/Engineer:

- A. **RHAA Landcape Architecture and Planning** furnished the Plans and Specifications and shall have the rights assigned to Architect/Engineer in the Contract Documents.
- B. Architect/Engineer has designated **Kendra Manning** as its project manager, to act as its representative for receiving and making communications authorized under the Contract Documents.

ARTICLE 3 LIQUIDATED DAMAGES FOR DELAY IN COMPLETION OF WORK

3.01 Liquidated Damage Amounts:

- A. As liquidated damages for delay Contractor shall pay Owner Fifteen hundred dollars (\$1,500.00) for each Day that expires after the time specified herein for Contractor to achieve Substantial Completion of the entire Work, until achieved.
- B. As liquidated damages for delay Contractor shall pay Owner Fifteen hundred dollars (\$1,500.00) for each Day that expires after the time specified herein for Contractor to achieve Final Completion of the entire Work, until achieved.

3.02 Scope of Liquidated Damages:

- A. Measures of liquidated damages shall apply cumulatively.
- B. Limitations and stipulations regarding liquidated damages are set forth in Document 00 7200 (General Conditions).

ARTICLE 4 LIQUIDATED DAMAGES FOR UNAUTHORIZED CHANGES OF KEY PERSONNEL

4.01 Liquidated Damage Amounts:

- A. See Document 00 7200 (General Conditions) Paragraph 11.07.D for liquidated damages provisions pertaining to Key Personnel.

ARTICLE 5 CONTRACT DOCUMENTS

5.01 Contract Documents consist of the following documents, including all changes, Addenda, and Modifications thereto:

Document 00 5100	Notice of Award
Document 00 5200	Agreement
Document 00 5500	Notice to Proceed
Document 00 6113.13	Construction Performance Bond
Document 00 6113.16	Construction Labor and Material Payment Bond
Document 00 6290	Escrow Agreement for Security Deposits

Document 00 6325	Substitution Request Form
Document 00 6530	Release of Claims
Document 00 6536	Guaranty
Document 00 7200	General Conditions
Document 00 7316	Supplementary Conditions – Insurance and Indemnification
Document 00 7380	Apprenticeship Program
Document 00 9113	Addenda
Specifications	Divisions 01 through []
Drawings, Table, Schedules, and technical Specifications listed in Document 00 0115	

- 5.02** There are no Contract Documents other than those listed above. The Contract Documents may only be amended, modified or supplemented as provided in Document 00 7200 (General Conditions).
- 5.03** Owner may issue a Purchase Order to facilitate its internal accounting functions of Project budgeting and payment with respect to services performed by Contractor under this Agreement. Any Owner-issued Purchase Order, including any terms and conditions that may be a part of the Purchase Order, is not a Contract Document. Any Contractor proposal attached to the Purchase Order for reference is not a Contract Document.

ARTICLE 6 MISCELLANEOUS

- 6.01** Terms and abbreviations used in this Agreement are defined in Document 00 7200 (General Conditions) and Section 01 4200 (References and Definitions) and will have the meaning indicated therein.
- 6.02** It is understood and agreed that in no instance are the persons signing this Agreement for or on behalf of Owner or acting as an employee, agent, or representative of Owner, liable on this Agreement or any of the Contract Documents, or upon any warranty of authority, or otherwise, and it is further understood and agreed that liability of Owner is limited and confined to such liability as authorized or imposed by the Contract Documents or applicable law.
- 6.03** Pursuant to Labor Code Section 1771(a), Contractor represents that it and all of its Subcontractors are currently registered and qualified to perform public work pursuant to Labor Code Section 1725.5. Contractor covenants that any additional or substitute Subcontractors will be similarly registered and qualified.
- 6.04** In entering into a public works contract or a subcontract to supply goods, services or materials pursuant to a public works contract, 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. §15) or under the Cartwright Act (Chapter 2 (commencing with §16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time Owner tenders final payment to Contractor, without further acknowledgment by the parties.
- 6.05** Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations, may be obtained from the California Department of Industrial Relations website [<http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>] and are deemed included in the Contract Documents, and shall be made available to any interested party on request. Pursuant to Labor Code Sections 1860 and 1861, in accordance with Labor Code Section 3700, every contractor will be required to secure the payment of compensation to his employees. Contractor represents that it is aware of the provisions of Labor Code Section 3700 that 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 Contractor shall comply with such provisions before commencing the performance of the Work of the Contract Documents.

6.06 This Agreement and the Contract Documents shall be deemed to have been entered into in the County in which the Project is located, State of California, and governed in all respects by California law (excluding choice of law rules). The exclusive venue for all disputes or litigation hereunder shall be in the Superior Court for the in which the Project is located.

IN WITNESS WHEREOF the parties have executed this Agreement in quadruplicate the day and year first above written.

CONTRACTOR: [CONTRACTOR'S NAME]

By: _____
(Signature)

By: _____
(Signature)

Its: _____
Title (If Corporation: Chairman, President
or Vice President)

Its: _____
Title (If Corporation: Secretary, Assistant
Secretary, Chief Financial Officer or
Assistant Treasurer)

OWNER: COASTSIDE FIRE PROTECTION DISTRICT

By: _____
(Signature)

(Print Name)

(Title)

Attest: _____
Secretary

(Print Name)

[OPTIONAL IF REQUIRED BY OWNER]

APPROVED AS TO FORM AND LEGALITY
THIS __ DAY OF _____, [20__]

By: _____
Attorney for Owner

(Print Name)

RESOLUTION NO. _____

END OF DOCUMENT

8. DOCUMENT 00 5500

9. NOTICE TO PROCEED

Dated: _____, 20__

To: _____
(Contractor)

Address: _____

**CONTRACT FOR: COASTSIDE FIRE PROTECTION DISTRICT
Station 41 South Lot Landscaping and Sidewalk Improvements Project at 555 Obispo Rd, El
Granada, CA 94018**

You are notified that the Contract Time under the above Contract will commence to run on _____ [20__]. On that date, you are to start performing your obligations with respect to Work at the Site under the Contract Documents. In accordance with Article 2 of Document 00 5200 (Agreement), the dates of Substantial Completion and Final Completion for the entire Work are _____, [20__] and _____, [20__], respectively.

Before you may start any Work at the Site, you must:

1. Submit certified Safety Program and related information
2. Submit copies of applicable permits

6 OWNER: COASTSIDE FIRE PROTECTION DISTRICT

By: _____

Its: _____

END OF DOCUMENT

10. DOCUMENT 00 6113.13

11. CONSTRUCTION PERFORMANCE BOND

THIS CONSTRUCTION PERFORMANCE BOND (**Bond**) is dated **[Month, Day]**, 20__ is in the amount of **[Insert Amount]** (**Penal Sum**), which is 100% of the Contract Sum and is entered into by and between the parties listed below to ensure the faithful performance of the Contract identified below. This Bond consists of this page and the Bond Terms and Conditions, Paragraphs 1 through 14 attached to this page. Any singular reference to **[Insert name of Contractor]** (**Contractor**), **[Insert name of Surety]** (**Surety**), Coastside Fire Protection District (**Owner**), or other party shall be considered plural where applicable.

CONTRACTOR:

SURETY:

[Insert name of Contractor]

[Insert name of Surety]

Address

Principal Place of Business

City/State/Zip

City/State/Zip

CONSTRUCTION CONTRACT:

Agreement for the **Station 41 South Lot Landscaping and Sidewalk Improvements Project**, located at the 508 Obispo Rd, California, dated **[Month, Day]**, 20__, in the amount of **[Insert Amount]**.

CONTRACTOR AS PRINCIPAL

SURETY

Company: (Corp. Seal)

Company: (Corp. Seal)

Signature: _____

Signature: _____

Name: _____

Name: _____

Title: _____

Title: _____

12. BOND TERMS AND CONDITIONS

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to Owner and the State of California for the complete and proper performance of the Construction Contract, which is incorporated herein by reference.
2. If Contractor completely and properly performs all of its obligations under the Construction Contract, Surety and Contractor shall have no obligation under this Bond.
3. If there is no Owner Default, Surety's obligation under this Bond shall arise after:
 - 3.1 Owner provides Surety with written notice that Owner has declared a Contractor Default under the Construction Contract pursuant to the terms of the Construction Contract; and
 - 3.2 Owner has agreed to pay the Balance of the Contract Sum:
 - 3.2.1 To Surety in accordance with the terms of this Bond and the Construction Contract; or
 - 3.2.2 To a Contractor selected to perform the Construction Contract in accordance with the terms of this Bond and the Construction Contract.
4. When Owner has satisfied the conditions of Paragraph 3 above, Surety shall promptly (within 40 Days) and at Surety's expense elect to take one of the following actions:
 - 4.1 Arrange for Contractor, with consent of Owner, to perform and complete the Construction Contract (but Owner may withhold consent, in which case the Surety must elect an option described in Paragraphs 4.2, 4.3 or 4.4 below); or
 - 4.2 Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors or Construction entities; provided, that Surety may not select Contractor as its agent or independent contractor or Contractor without Owner's consent; or
 - 4.3 Undertake to perform and complete the Construction Contract by obtaining bids from qualified contractors or Construction entities acceptable to Owner for a contract for performance and completion of the Construction Contract and, upon determination by Owner of the lowest responsive and responsible Bidder, arrange for a contract to be prepared for execution by Owner and the contractor or Contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract; and, if Surety's obligations defined in Paragraph 6 below, exceed the Balance of the Contract Sum, then Surety shall pay to Owner the amount of such excess; or
 - 4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor or Contractor, and with reasonable promptness under the circumstances and, after investigation and consultation with Owner, determine in good faith its monetary obligation to Owner under Paragraph 6 below, for the performance and completion of the Construction Contract and, as soon as practicable after the amount is determined, tender payment therefor to Owner with full explanation of the payment's calculation. If Owner accepts Surety's tender under this Paragraph 4.4, Owner may still hold Surety liable for future damages then unknown or unliquidated resulting from the Contractor Default, as agreed by Owner and Surety at the time of tender. If Owner disputes the amount of

Surety's tender under this Paragraph 4.4, Owner may exercise all remedies available to it at law to enforce Surety's liability under Paragraphs 6 and 7 below.

5. At all times Owner shall be entitled to enforce any remedy available to Owner at law or under the Construction Contract including, without limitation, and by way of example only, rights to perform work, protect Work, mitigate damages, advance critical Work to mitigate schedule delay, and coordinate Work with other consultants or contractors.
6. If Surety elects to act under Paragraphs 4.1, 4.2 or 4.3, above, within the time period provided in Paragraph 4, above, and complies with its obligations under this Bond, Surety's obligations under this Bond are commensurate with Contractor's Construction Contract obligations. Surety's obligations include, but are not limited to:
 - 6.1 Contractor's obligations to complete the Construction Contract and correct Defective Work;
 - 6.2 Contractor's obligations to pay liquidated damages; and
 - 6.3 To the extent otherwise required of Contractor under the Construction Contract, Contractor's obligations to pay additional legal, design professional, and other costs not included within liquidated damages resulting from Contractor Default (but excluding attorney's fees incurred to enforce this Bond).
7. If Surety does not elect to act under Paragraphs 4.1, 4.2, 4.3, or 4.4, above, within the time period provided in Paragraph 4, above, or comply with its obligations under this Bond, then Surety shall be deemed to be in default on this Bond ten Days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond. Such Surety default shall be independent of the Contractor Default. To the extent Surety's independent default causes Owner to suffer damages including, but not limited to, delay damages, which are different from, or in addition to (but not duplicative of) damages which Owner is entitled to receive under the Construction Contract, Surety shall also be liable for such damages. In the event any Surety obligation following its independent default is inconsistent or conflicts with California Civil Code Section 2809, or any other law which either prohibits, restricts, limits or modifies in any way any obligation of a surety which is larger in amount or in any other respect more burdensome than that of the principal, Surety hereby waives the provisions of such laws to that extent.
8. If Surety elects to act under Paragraphs 4.1, 4.3 or 4.4, above, within the time period provided in Paragraph 4, above, and complies with all obligations under this Bond, Surety's monetary obligation under this Bond is limited to the Penal Sum.
9. No right of action shall accrue on this Bond to any person or entity other than Owner or its successors or assigns.
10. Surety hereby waives notice of any change, alteration or addition to the Construction Contract or to related subcontracts, design agreements, purchase orders and other obligations, including changes of time, and of any Owner action in accordance with Paragraph 5 above. Surety consents to all terms of the Construction Contract, including provisions on changes to the Contract. No extension of time, change, alteration, Modification, deletion, or addition to the Contract Documents, or of the Work (including services) required thereunder, or any Owner action in accordance with Paragraph 5 above shall release or exonerate Surety on this Bond or in any way affect the obligations of Surety on this Bond, unless such action is an Owner Default.
11. Any proceeding, legal or equitable, under this Bond shall be instituted in any court of competent jurisdiction where a proceeding is pending between Owner and Contractor regarding the Construction Contract, or in the courts of the County of San Mateo, or in a court of competent jurisdiction in the location in which the Work is located. Communications from Owner to Surety

under Paragraph 3.1 above shall be deemed to include the necessary agreements under Paragraph 3.2 above unless expressly stated otherwise.

12. All notices to Surety or Contractor shall be mailed or delivered (at the address set forth on the signature page of this Bond), and all notices to Owner shall be mailed or delivered as provided in Document 00 5200 (Agreement). Actual receipt of notice by Surety, Owner or Contractor, however accomplished, shall be sufficient compliance as of the date received at the foregoing addresses.
13. Any provision in this Bond conflicting with any statutory or regulatory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein.
14. **Definitions**
 - 14.1 **Balance of the Contract Sum:** The total amount payable by Owner to Contractor pursuant to the terms of the Construction Contract after all proper adjustments have been made under the Construction Contract, for example, deductions for progress payments made, and increases/decreases for approved Modifications to the Construction Contract.
 - 14.2 **Construction Contract:** The agreement between Owner and Contractor identified on the signature page of this Bond, including all Contract Documents and changes thereto.
 - 14.3 **Contractor Default:** Material failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract, limited to "default" or any other condition allowing a termination for cause as provided in Document 00 7200 (General Conditions).
 - 14.4 **Owner Default:** Material failure of Owner, which has neither been remedied nor waived, to pay Contractor progress payments due under the Construction Contract or to perform other material terms of the Construction Contract, if such failure is the cause of the asserted Contractor Default and is sufficient to justify Contractor termination of the Construction Contract.

END OF DOCUMENT

DOCUMENT 00 6113.16

CONSTRUCTION LABOR AND MATERIAL PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS:

1.01 THAT WHEREAS, **COASTSIDE FIRE PROTECTION DISTRICT (Owner)** has awarded to **(Name of Contractor)** _____ as Principal, Contract Number _____ dated the _____ day of _____, 20____ (the **Contract**), titled **THE Station 41 South Lot Landscaping and Sidewalk Improvements**__ PROJECT in the amount of \$_____, which Contract is by this reference made a part hereof, for the work of the following Contract:

The Work includes a new defensible-space demonstration garden, accessible garden path, memorial bench, new welcome sign, sidewalk connection and street crossing improvements, and other miscellaneous work shown on the Plans and described in these specifications. Sidewalk and street crossing improvements are included in the project as alternate bids.

1.02 AND WHEREAS, Principal is required to furnish a bond in connection with the Contract to secure the payment of claims of laborers, mechanics, material suppliers, and other persons as provided by law;

1.03 NOW, THEREFORE, we, the undersigned Principal and **(Name of Surety)** _____, as Surety, are held and firmly bound unto Owner in the sum of 100% OF THE CONTRACT PRICE (**\$** _____), for which payment well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

1.04 THE CONDITION OF THIS OBLIGATION IS SUCH, that if Principal, or its executors, administrators, successors, or assigns approved by Owner, or its subcontractors shall fail to pay any of the persons named in California Civil Code Section 9100, or amounts due under the State of California Unemployment Insurance Code with respect to work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over to the State of California Employment Development Department from the wages of employees of Principal and subcontractors pursuant to Section 13020 of the State of California Unemployment Insurance Code with respect to such work and labor, that Surety will pay for the same in an amount not exceeding the sum specified in this bond, plus reasonable attorneys' fees, otherwise the above obligation shall become and be null and void.

1.05 This bond shall inure to the benefit of any of the persons named in California Civil Code Section 9100, as to give a right of action to such persons or their assigns in any suit brought upon this bond. The intent of this bond is to comply with the California Mechanic's Lien Law.

1.06 Surety, for value received, hereby expressly agrees that no extension of time, change, modification, alteration, or addition to the undertakings, covenants, terms, conditions, and agreements of the Contract, or to the work to be performed thereunder, shall in any way affect the obligation of this bond; and it does hereby waive notice of any such extension of time, change, modification, alteration, or addition to the undertakings, covenants, terms, conditions, and agreements of the Contract, or to the work to be performed thereunder.

1.07 Surety's obligations hereunder are independent of the obligations of any other surety for the payment of claims of laborers, mechanics, material suppliers, and other persons in connection with

Contract; and suit may be brought against Surety and such other sureties, jointly and severally, or against any one or more of them, or against less than all of them without impairing Owner's rights against the other.

1.08 Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below.

IN WITNESS WHEREOF, we have hereunto set our hands this ____ day of _____, 20__.

CONTRACTOR AS PRINCIPAL

SURETY

Company: (Corp. Seal)

Company: (Corp. Seal)

Signature

Signature

Name

Name

Title

Title

Street Address

Street Address

City, State, Zip Code

City, State, Zip Code

END OF DOCUMENT

DOCUMENT 00 6325

SUBSTITUTION REQUEST FORM

To: **COASTSIDE FIRE PROTECTION DISTRICT, Owner**

[Enter Phone Number [\(650\) 726-5213](tel:6507265213)]

PROJECT: Station 41 South Lot Landscaping and Sidewalk Improvements	Contractor:
--	--------------------

Substitution Request By:	Firm:
--------------------------	-------

Transmittal Record	Attn:	Firm:	Date Sent:	Date Rec'd:	Date Due:
Contractor to Owner					
Contractor to Architect					
Owner / Architect to Consultant					
Architect to Owner Representative					
Owner Representative to Contractor					

We hereby submit for your consideration the following product instead of the specified item for the Project:

Section / Drawing	Article	Specified Item
Proposed Substitution:		

We have (a) attached manufacturer's literature, including complete technical data and laboratory test results, if applicable, (b) attached an explanation of why proposed substitution is a true equivalent to specified item, (c) included complete information on changes to Contract Documents that the proposed substitution will require for its proper installation, and (d) filled in the blanks below:

Contractor to complete questions that follow and certifies to the accuracy of all answers:

<p>A. Does the substitution affect dimensions shown on Drawings? Yes ___ / No ___. If No, please explain proposed mitigation and why substitution is equivalent to originally specified item:</p>
<p>B. Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution? Yes ___ / No ___. If No, please state reasons explain why substitution is equivalent to originally specified item:</p>
<p>C. What effect does the substitution have on other trades? No effect: ___ / Some effect___. If substitution will affect other trades, please explain the effect and why substitution is equivalent to originally specified item:</p>
<p>D. Will substitution cause change to Project Schedule, or to critical delivery dates? Add? Shorten? If the substitution will add to schedule dates or affect critical activities, please explain why substitution is equivalent to originally specified item:</p>
<p>E. Please describe differences between proposed substitution and specified item? Please explain and identify any and all differences, and please explain why substitution is equivalent to originally specified item:</p>
<p>F. What is the Cost Differential to Contractor in original specified item and proposed substitution including all mark-ups? [If substitution requested during bid period, skip this question.]</p>
<p>G. Are Manufacturer's guarantees for the proposed item the same as for item specified? Yes ____; No _____. If No, please explain why substitution is equivalent to originally specified item:</p>

H.	Contractor accepts full responsibility for delays caused by redesign of other items of the Work necessitated by substitution? Yes ___ / No ___. If No, please state reasons and explain why substitution is equivalent to originally specified item:
I.	Contractor states that the function, appearance and quality are equivalent or superior to the specified item? Yes ___ / No ___. If No, please explain why substitution is equivalent to originally specified item:

We certify that the function, appearance, and quality of the proposed substitution are equivalent or superior to those of the specified item, except as we may specifically state otherwise in this request.

Submitted by: _____ Signature: _____

Firm: _____ Date: _____

Address: _____ Phone/ Fax: _____

Remarks: _____

**Consultant
Response:**
 Accepted
 Not Accepted
 Accepted As Noted
 Received Too Late

**Owner Representative
Response:**
 Accepted
 Not Accepted
 Accepted As Noted
 Received Too Late

Remarks: _____

Remarks: _____

By: _____

By: _____

END OF DOCUMENT

13. DOCUMENT 00 6530

AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS
[Public Contract Code Section 7100]

THIS AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS (**Agreement and Release**), made and entered into this [date] day of [Month], [20], by and between **COASTSIDE FIRE PROTECTION DISTRICT (Owner)**, and [Enter Name of Contractor] (**Contractor**), whose place of business is at [Enter Address of Contractor].

RECITALS

- A. Owner and Contractor entered into Contract Number [insert number] (the “**Contract**”) for construction of Owner **Station 41 South Lot Landscaping and Sidewalk Improvements**, located at **555 Obispo Rd, El Granada, CA 94018** California.
- B. The Work under the Contract has been completed.

AGREEMENT

NOW THEREFORE, it is mutually agreed between Owner and Contractor as follows:

- 1. Contractor will not be assessed liquidated damages except as detailed below:

Original Contract Sum	\$ _____
Modified Contract Sum	\$ _____
Payment to Date	\$ _____
Liquidated Damages	\$ _____
Payment Due Contractor	\$ _____
- 2. Subject to the provisions of this Agreement and Release, Owner will forthwith pay to Contractor the sum of [_____] Dollars and [_____] Cents (\$ _____) under the Contract, less any amounts withheld under the Contract or represented by any Notice to Withhold Funds on file with Owner as of the date of such payment.
- 3. Contractor acknowledges and hereby agrees that there are no unresolved or outstanding claims in dispute against Owner arising from the Contract, except for the claims described in Paragraph 4 of this Document 00 6530. It is the intention of the parties in executing this Agreement and Release that this Agreement and Release shall be effective as a full, final and general release of all claims, demands, actions, causes of action, obligations, costs, expenses, damages, losses and liabilities of Contractor against Owner, and all if its agents, employees, consultants, inspectors, representatives, assignees and transferees, except for the Disputed Claims set forth in Paragraph 4 of this Document 00 6530. Nothing in this Agreement and Release shall limit or modify Contractor’s continuing obligations described in Paragraph 6 of this Document 00 6530.
- 4. The following claims submitted under Document 00 7200 (General Conditions), Article 12, are disputed (**Disputed Claims**) and are specifically excluded from the operation of this Agreement and Release.

[Insert information in Chart below, affix attachment if necessary]

CLAIM NO.	14. DATE SUBMITTED	15. DESCRIPTION OF CLAIM	16. AMOUNT OF CLAIM

- 5. Consistent with California Public Contract Code Section 7100, Contractor hereby agrees that, in consideration of the payment set forth in Paragraph 2 of this Document 00 6530, Contractor hereby releases and forever discharges Owner, and all of its agents, employees, consultants, inspectors, assignees and transferees from any and all liability, claims, demands, actions or causes of action of whatever kind or nature arising out of or in any way concerned with the Work under the Contract.
- 6. Guarantees and warranties for the Work, and any other continuing obligation of Contractor, shall remain in full force and effect as specified in the Contract Documents.
- 7. Contractor shall immediately defend, indemnify and hold harmless Owner, any of the Owner's Representatives, Project Manager, and all of their agents, employees, consultants, inspectors, assignees and transferees, from any and all claims, demands, actions, causes of action, obligations, costs, expenses, damages, losses and liabilities that may be asserted against them by any of Contractor's suppliers and/or Subcontractors of any tier and/or any suppliers to them for any and all labor, materials, supplies and equipment used, or contemplated to be used in the performance of the Contract, except for the Disputed Claims set forth in Paragraph 4 of this Document 00 6530.
- 8. Contractor hereby waives the provisions of California Civil Code Section 1542, which provide as follows:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER, MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

- 9. The provisions of this Agreement and Release are contractual in nature and not mere recitals and shall be considered independent and severable, and if any such provision or any part thereof shall be at any time held invalid in whole or in part under any federal, state, county, municipal or other law, ruling, or regulation, then such provision, or part thereof shall remain in force and effect only to the extent permitted by law, and the remaining provisions of this Agreement and Release shall also remain in full force and effect, and shall be enforceable.
- 10. Contractor represents and warrants that it is the true and lawful owner of all claims and other matters released pursuant to this Agreement and Release, and that it has full right, title and authority to enter into this instrument. Each party represents and warrants that it has been represented by counsel of its own choosing in connection with this Agreement and Release.

11. All rights of Owner shall survive completion of the Work or termination of the Contract, and execution of this Agreement and Release.

***** CAUTION: THIS IS A RELEASE - READ BEFORE EXECUTING *****

7 OWNER: COASTSIDE FIRE PROTECTION DISTRICT

By: _____
Signature

Name: _____
Print

Its: _____
Title

ATTEST:

Secretary

Print

[CONTRACTOR]

By: _____
Signature

Name: _____
Print

Its: _____
Title

[CONTRACTOR]

By: _____
Signature

Name: _____
Print

Its: _____
Title

[IF REQUIRED] REVIEWED AS TO FORM:

Dated: _____, [20__]

By: _____
Counsel for Owner

Name: _____
Print

END OF DOCUMENT

17. DOCUMENT 00 6536

18. GUARANTY

TO: The **COASTSIDE FIRE PROTECTION DISTRICT (Owner)**, for construction of the **Station 41 South Lot Landscaping and Sidewalk Improvements Project**, located at **555 Obispo Rd, El Granada, CA 94018**, California.

The undersigned guarantees all construction performed on this Project and also guarantees all material and equipment incorporated therein.

- 1.01 Contractor hereby grants to Owner for a period of one year following the date of Final Acceptance of the Work completed, or such longer period specified in the Contract Documents, its unconditional warranty of the quality and adequacy of all of the Work including, without limitation, all labor, materials and equipment provided by Contractor and its Subcontractors of all tiers in connection with the Work.
- 1.02 Neither final payment nor use nor occupancy of the Work performed by the Contractor shall constitute an acceptance of Work not done in accordance with this Guaranty or relieve Contractor of liability in respect to any express warranties or responsibilities for faulty materials or workmanship. Contractor shall remedy any defects in the Work and pay for any damage resulting therefrom, which shall appear within one year, or longer if specified, from the date of Final Acceptance of the Work completed.
- 1.03 If within one year after the date of Final Acceptance, or such other period of time as may be prescribed by laws or regulations, or by the terms of Contract Documents or any extended warranty or guaranty, any Work is found to be Defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions, correct such Defective Work. Contractor shall remove any Defective Work rejected by Owner and replace it with Work that is not Defective, and satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If Contractor fails to comply promptly with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the Defective Work corrected or the rejected Work removed and replaced. Contractor shall pay for all claims, costs, losses and damages caused by or resulting from such removal and replacement. Where Contractor fails to correct Defective Work, or defects are discovered outside the correction period, Owner shall have all rights and remedies granted by law.
- 1.04 Observation and inspection of the Work shall not relieve Contractor of any of its obligations under the Contract Documents. Even though equipment, materials, or Work required to be provided under the Contract Documents have been inspected, accepted, and estimated for payment, Contractor shall, at its own expense, replace or repair any such equipment, material, or Work found to be Defective or otherwise not to comply with the requirements of the Contract Documents up to the end of the guaranty period.
- 1.05 This Guaranty is in addition to any other Contractor warranties contained in the Contract Documents, and not in lieu of, any and all other Contractor liability imposed under the Contract Documents or at law. In the event of any conflict or inconsistency between the terms of this Guaranty and any Contractor warranty or obligation Contractor under the Contract Documents or at law, such inconsistency or conflict shall be resolved in favor of the greater protection to Owner.

Date: _____, 20__	
	Contractor's name
	By: _____
	Signature

	Print Name
	Title
	Street Address
	City, State, Zip code

END OF DOCUMENT

DOCUMENT 00 7200

GENERAL CONDITIONS

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GENERAL CONDITIONS

ARTICLE 1 - INTERPRETATION OF CONTRACT DOCUMENTS

1.01 Interpretation Of Documents

- A. Contract Documents are complementary; what is called for by one is as binding as if called for by all.
- B. Individual Contract Documents subdivide at first level into Articles, and then into paragraphs.

1.02 Order Of Precedence Of Documents

- A. In the case of discrepancy or ambiguity in the Contract Documents, the following order of precedence shall prevail:
 - 1. Modifications in inverse chronological order (i.e., most recent first), and in the same order as specific portions they are modifying;
 - 2. Agreement Forms (Document 00 5200 and other 5000 and 6000 series Documents), and terms and conditions referenced therein;
 - 3. General Conditions (Document 00 7200);
 - 4. Division 01 General Requirements, if included;
 - 5. Drawings and Technical Specifications (Division 02 and above);
 - 6. Written words over figures, unless obviously incorrect;
 - 7. Figured dimensions over scaled dimensions;
 - 8. Large-scale Drawings over small-scale Drawings.
- B. Any conflict between Drawings and Technical Specifications (Division 2 and above) will be resolved in favor of the document of the latest date (i.e., the most recent document), and if the dates are the same or not determinable, then in favor of Specifications.
- C. Any conflict between a bill or list of materials shown in the Contract Documents and the actual quantities required to complete Work required by Contract Documents, will be resolved in favor of the actual quantities.
- D. All Technical Specifications included in the Project manual shall be included within the Contract Documents unless identified otherwise.

ARTICLE 2 - PRE-BID INVESTIGATIONS

2.01 Pre-Bid Investigations Required

- A. Prior to and as a condition of submitting a Bid and executing Document 00 5200 (Agreement), Contractor shall make reasonable efforts to investigate fully the Work of the Contract. Contractor shall visit the Site, examine thoroughly and understand fully the nature and extent of the Contract Documents, Work, Site, locality, actual conditions and as-built conditions.
- B. Contractor's investigation shall include, without limitation, requesting and thoroughly examining of all reports of exploration and tests of subsurface conditions, as-built drawings, drawings, product specification(s) or reports, made available by Owner for contracting purposes or during Contractor's pre-bid investigations, of existing above ground and (to the extent applicable) below ground conditions (together, **Existing Conditions Data**), including, as applicable, Underground Facilities, geotechnical data, as-built data, utility surveys, record documents of all types, hazardous materials surveys, or similar materials which may appear or be referenced in the Project Manual or the in the Contract Documents, and all local conditions, and federal, state and local laws and regulations that in any manner may affect cost, progress, performance or furnishing of Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Contractor and safety precautions and programs incident thereto.
- C. Contractor's investigations shall consider fully the fact that Existing Conditions Data is in many cases based on information furnished to Owner by others (e.g., the prior owner or builders), and that due to their age or their chain of custody since preparation, may not meet current industry standards for accuracy. Contractor shall also: (i.) provide Owner with prompt written notice of all conflicts, errors, ambiguities, or discrepancies of any type, that it discovered in or among the Contract Documents and the Existing Conditions Data, and (ii.) subject to Owner's approval,

conduct any such additional or supplementary examinations, investigations, explorations, tests, studies and data compilations, concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site or otherwise, which Contractor may deem necessary in order to perform and furnish the Work in accordance with the terms and conditions of Contract Documents.

- D. During performance of the Contract, Contractor will be charged with knowledge of all information that it should have learned in performing these pre-bid investigations and other obligations, and shall not be entitled to Change Orders (time or compensation) due to any information, error, inconsistency, omission, or conditions that Contractor should have known as a part of this Work. Contractor shall be responsible for the resultant losses, including, without limitation, the cost of correcting Defective Work.

2.02 Limited Reliance Permitted On Owner's Existing Conditions Data

- A. Regarding aboveground and as-built conditions shown on the Contract Documents or supplied by Owner, such information has been compiled in good faith, however, Owner does not expressly or impliedly warrant or represent that such information is correctly shown or indicated, or otherwise complete for construction purposes. Contractor must independently verify such information as part of its pre-bid investigations, and where conditions are not reasonably verifiable or discrepancies are identified, bring such matters to Owner's attention through written question issued during the bid period. In executing Document 00 5200 (Agreement), Contractor shall rely on the results of its own independent investigation and shall not rely on Owner-supplied information regarding aboveground conditions and as-built conditions, and Contractor shall accept full responsibility for its verification work sufficient to complete the Work as intended.
- B. Regarding subsurface conditions other than Underground Facilities shown on the Contract Documents or otherwise supplied by Owner, Contractor may rely only upon the general accuracy of actual reported depths, actual reported character of materials, actual reported soil types, actual reported water conditions, or actual obstructions shown or indicated in the Contract Documents. Owner is not responsible for the completeness of any subsurface condition information, Contractor's conclusions or opinions drawn from any subsurface condition information, or subsurface conditions that are not specifically shown. (For example, Owner is not responsible for soil conditions in areas contiguous to areas where a subsurface condition is shown.)

2.03 Pre-Bid Investigation Requirements For Excavation And Utilities Relocation Projects

- A. As part of its pre-bid investigations for Projects involving excavation and/or relocation of existing utilities, Contractor shall make reasonable efforts to verify information regarding Underground Facilities, including but not limited to, requesting additional information or verification of information as necessary.
- B. Because of the nature and location of Owner and the Project, the existence of Underground Facilities is deemed inherent in the Work of the Contract, as is the fact that Underground Facilities are not always accurately shown or completely shown on as-built records, both as to their depth and location. Contractor shall, therefore, take care to note the existence and potential existence of Underground Facilities, in particular, above and below grade structures, drainage lines, storm drains, sewers, water, gas, electrical, chemical, hot water, and other similar items and utilities. Contractor shall carefully consider all supplied information, request additional information Contractor may deem necessary, and visually inspect the Site for above ground indications of Underground Facilities (such as, for example not by way of limitation, the existence of existing service laterals, appurtenances or other types of utilities, indicated by the presence of an underground transmission main or other visible facilities, such as buildings, new asphalt, meters and junction boxes, on or adjacent to the Site). Contractor shall also consider local underground conditions and typical practices for Underground Facilities, either through its own direct knowledge or through its subcontractors, and fully consider this knowledge in assessing the existing information and the reasonableness of its reliance.

ARTICLE 3- SUBCONTRACTORS

3.01 Subcontractor Listing Law

- A. Contractor shall comply with the Subcontractor Listing law, Public Contract Code Section 4101, et seq. Contractor shall not substitute any other person or firm in place of any Subcontractor listed in the Bid except as may be allowed by law.
- B. Subcontractors shall not assign or transfer their subcontracts or permit them to be performed by any other contractor without Owner's written approval. At Owner's request, Contractor shall provide Owner with a complete copy of all executed subcontracts or final commercial agreements with Subcontractors and/or suppliers.

3.02 Subcontracts

- A. Subcontract agreements shall preserve and protect the rights of Owner under the Contract Documents so that subcontracting will not prejudice such rights. To the extent of the Work to be performed by a Subcontractor, Contractor shall require the Subcontractor's written agreement (i) to be bound to the terms of Contract Documents and (ii) to assume vis-à-vis Contractor all the obligations and responsibilities that Contractor assumes toward Owner under the Contract Documents. (These agreements include for example, and not by way of limitation, all warranties, claims procedures and rules governing submittals of all types to which Contractor is subject under the Contract Documents.)
- B. Contractor shall provide for the assignment to Owner of all rights any Subcontractor (of any tier) may have against any manufacturer, supplier, or distributor for breach of warranties and guarantees relating to the Work performed by the Subcontractor under the Contract Documents. Subcontracts shall provide and acknowledge Owner as an intended third-party beneficiary of each subcontract and supply contract (of any tier).

ARTICLE 4- DRAWINGS AND SPECIFICATIONS

4.01 Intent Of Drawings And Specifications

- A. Contractor shall interpret words or phrases used to describe Work (including services), materials, or equipment that have well-known technical or construction industry or trade meaning in accordance with that meaning. Drawings' intent specifically includes the intent to depict construction that complies with all applicable laws, codes and standards.
- B. As part of the "**Work**," Contractor shall provide all labor, materials, equipment, machinery, tools, facilities, services, employee training and testing, hoisting facilities, Shop Drawings, storage, testing, security, transportation, disposal, the securing of all necessary or required field dimensions, the cutting or patching of existing materials, notices, permits, documents, reports, agreements and any other items required or necessary to timely and fully complete Work described and the results intended by Contract Documents and, in particular, Drawings and Specifications. Divisions and Specification Sections and the identification on any Drawings shall not control Contractor in dividing Work among Subcontractors or suppliers or delineating the Work to be performed by any specific trade.
- C. Contractor shall perform reasonably implied parts of Work as "**incidental work**" although absent from Drawings and Specifications. Incidental work includes any work not shown on Drawings or described in Specifications that is necessary or normally or customarily required as a part of the Work shown on Drawings or described in Specifications. Incidental work includes any work necessary or required to make each installation satisfactory, legally operable, functional, and consistent with the intent of Drawings and Specifications or the requirements of Contract Documents. Contractor shall perform incidental work without extra cost to Owner. Incidental work shall be treated as if fully described in Specifications and shown on Drawings, and the expense of incidental work shall be included in price Bid and Contract Sum.

4.02 Checking Of Drawings And Specifications

- A. Before undertaking each part of Work, Contractor shall carefully study and compare Contract Documents and check and verify pertinent figures shown in the Contract Documents and all applicable field measurements. Contractor shall be responsible for any errors that might have been

avoided by such comparison. Figures shown on Drawings shall be followed; Contractor shall not scale measurements. Contractor shall promptly report to Owner, in writing, any conflict, error, ambiguity or discrepancy that Contractor may discover. Contractor shall obtain a written interpretation or clarification from Owner before proceeding with any Work affected thereby. Contractor shall provide Owner with a follow-up correspondence every ten Days until it receives a satisfactory interpretation or clarification.

4.03 Interpretation Of Drawings And Specifications

- A. A typical or representative detail on Drawings shall constitute the standard for workmanship and material throughout corresponding parts of Work. Where necessary, and where reasonably inferable from Drawings, Contractor shall adapt such representative detail for application to such corresponding parts of Work. The details of such adaptation shall be subject to prior approval by Owner. Repetitive features shown in outline on Drawings shall be in exact accordance with corresponding features completely shown.
- B. Should any discrepancy appear or any misunderstanding arise as to the import of anything contained in Drawings and Specifications, or should Contractor have any questions or requests relating to Drawings or Specifications, Contractor shall refer the matter to Owner, in writing, with a copy to the Architect/Engineer. Owner will issue with reasonable promptness written responses, clarifications or interpretations as Owner may determine necessary, which shall be consistent with the intent of and be reasonably inferable from Contract Documents. Such written clarifications or interpretations shall be binding upon Contractor. If Contractor believes that a written response, clarification or interpretation justifies an adjustment in the Contract Sum or Contract Time, Contractor shall give Owner prompt written notice. If the parties are unable to agree to the amount or extent of the adjustment, if any, then Contractor shall perform the Work in conformance with Owner's response, clarification, or interpretation and may make a written claim for the adjustment as provided in Article 12.
- C. The following general specifications shall apply wherever in the Specifications, or in any directions given by Owner in accordance with or supplementing Specifications, it is provided that Contractor shall furnish materials or manufactured articles or shall do Work for which no detailed specifications are shown. Materials or manufactured articles shall be of the best grade, in quality and workmanship, obtainable in the market from firms of established good reputation. If not ordinarily carried in stock, the materials or manufactured articles shall conform to industry standards for first class materials or articles of the kind required, with due consideration of the use to which they are to be put. Work shall conform to the usual standards or codes, such as those cited herein, for first class work of the kind required. Contractor shall specify in writing to Owner, at least 10 Business Days prior to furnishing such materials or performing such Work, the materials to be used or Work to be performed under this Paragraph.

4.04 Use Of Drawings And Specifications.

- A. Drawings, Specifications and other Contract Documents were prepared for use for Work of Contract Documents only. No part of Contract Documents shall be used for any other construction or for any other purpose except with the written consent of Owner. Any unauthorized use of Contract Documents is prohibited and at the sole liability of the user.

ARTICLE 5 - COMMENCEMENT OF THE WORK

5.01 Submission Of Required Schedules

- A. Contractor shall submit to Owner in draft for review and discussion at the Preconstruction Conference, and in final prior to the first payment application, the following schedules:
 - 1. Schedule of Values
 - 2. Progress Schedule, and
 - 3. Schedule of Submittals.
- B. No progress payment shall be due or owing to Contractor until such schedules are submitted to and acceptable to Owner and/or Architect/Engineer as meeting the requirements of the Contract

Documents. In Owner's sole discretion, Owner may elect to instead withhold a portion of any progress payment for unacceptable compliance with contract requirements for such schedules.

- C. Owner's acceptance of Contractor's schedules will not create any duty of care or impose on Owner any responsibility for the sequencing, scheduling or progress of Work nor will it interfere with or relieve Contractor from Contractor's full responsibility therefore.

5.02 Commencement Date Of Contract Time

- A. The Contract Time will commence to run on the 60th Day after the issuance of the Notice of Award or, if a Notice to Proceed is given, on the date indicated in the Notice to Proceed.
- B. Owner may give a Notice to Proceed at any time within 60 Days after the Notice of Award. Contractor shall not do any Work at the Site prior to the date on which the Contract Time commences to run.

ARTICLE 6 - CONTRACTOR'S ORGANIZATION AND EQUIPMENT

6.01 Contractor's Legal Address

- A. Address and facsimile number given in Contractor's Bid are hereby designated as Contractor's legal address and facsimile number. Contractor may change its legal address and facsimile number by notice in writing, delivered to Owner, which in conspicuous language advises Owner of a change in legal address or facsimile number, and which Owner accepts in writing. Delivery to Contractor's legal address or depositing in any post office or post office box regularly maintained by the United States Postal Service, in a wrapper with postage affixed, directed to Contractor at Contractor's legal address, or of any drawings, notice, letter or other communication, shall be deemed legal and sufficient service thereof upon Contractor. Facsimile to Contractor's designated facsimile number of any letter, memorandum, or other communication on standard or legal sized paper, with proof of facsimile transmission, shall be deemed legal and sufficient service thereof upon Contractor.

6.02 Contractor's Superintendents Or Forepersons

- A. Contractor shall at all times be represented on Site by one or more superintendents or forepersons authorized and competent to receive and carry out any instructions that Owner may give, and shall be liable for faithful observance of instructions delivered to Contractor or to authorized representative or representatives on Site.

6.03 Proficiency In English

- A. Supervisors, security guards, safety personnel and employees who have unescorted access to the Site shall possess proficiency in the English language in order to understand, receive and carry out oral and written communications or instructions relating to their job functions, including safety and security requirements.

6.04 Contractor's And Subcontractors' Employees

- A. Contractor shall employ, and shall permit its Subcontractors to employ, only competent and skillful personnel to do Work. If Owner notifies Contractor that any of its employees, or any of its Subcontractors' employees on Work is incompetent, unfaithful, disorderly or profane, or fails to observe customary standards of conduct or refuses to carry out any provision of the Contract Documents, or uses threatening or abusive language to any person on Work representing Owner, or violates sanitary rules, or is otherwise unsatisfactory, and if Owner requests that such person be discharged from Work, then Contractor or its Subcontractor shall immediately discharge such person from Work and the discharged person shall not be re-employed on the Work except with consent of Owner.

6.05 Contractor's Use Of The Site

- A. Contractor shall not make any arrangements with any person to permit occupancy or use of any land, structure or building within the limits of the Work, for any purpose whatsoever, either with or without compensation, in conflict with any agreement between Owner and any Owner, former Owner or tenant of such land, structure or buildings. Contractor may not occupy Owner-owned

property outside the limit of the Work as indicated on the Drawings unless it obtains prior approval from Owner.

6.06 Contractor's Site Office

- A. Unless expressly provided otherwise in the Contract Documents, Contractor shall provide a site office staffed by a resident project manager or job superintendent.

ARTICLE 7 - OWNER'S ADMINISTRATION OF WORK

7.01 Owner's Representative(s)

- A. Owner's Representative(s) will have limited authority to act on behalf of Owner as set forth in the Contract Documents.
- B. Except as otherwise provided in these Contract Documents or subsequently identified in writing by Owner, Owner will issue all communications to Contractor through Owner's Representative, and Contractor shall issue all communications to Owner through Owner's Representative in a written document delivered to Owner.
- C. Should any direct communications between Contractor and Owner's consultants, architects or engineers not identified in Article 2 of Document 00 5200 (Agreement) occur during field visits or by telephone, Contractor shall immediately confirm them in a written document copied to Owner.

7.02 Owner's Observation Of The Work

- A. Work shall be performed under Owner's general observation and administration. Contractor shall comply with Owner's directions and instructions in accordance with the terms of Contract Documents, but nothing contained in these General Conditions shall be taken to relieve Contractor of any obligations or liabilities under the Contract Documents. Owner's failure to review or, upon review, failure to object to any aspect of Work reviewed, shall not be deemed a waiver or approval of any non-conforming aspect of Work.
- B. Subject to those rights specifically reserved in the Contract Documents, Owner will not supervise, or direct, or have control over, or be responsible for, Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or Contractor's failure to comply with laws and regulations applicable to the furnishing or performance of Work. Owner will not be responsible for Contractor's failure to perform or furnish the Work in accordance with Contract Documents.

7.03 Consultant's Observation Of Work

- A. Owner may engage one or more of the following to assist in administering the Work: an Architect/Engineer, Project Manager, Construction Manager, or any other independent consultant (collectively for purposes of this Article 7, **Consultant**). If so engaged, Consultant will advise and consult with Owner, but will have authority to act on behalf of Owner only to extent provided in the Contract Documents or as set forth in writing by Owner. Consultant will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with Work. Consultant will not be responsible for or have control over the acts or omissions of Contractor, Subcontractors or their agents or employees, or any other persons performing Work.
- B. Consultant may review Contractor's Submittals, such as Shop Drawings, Product Data, and Samples, but only for conformance with design concept of Work and with information given in the Contract Documents.
- C. Consultant may visit the Site at intervals appropriate to stage of construction to become familiar generally with the progress and quality of Work and to determine in general if Work is proceeding in accordance with Contract Documents. Based on its observations, Consultant may recommend to Owner that it disapproves or rejects Work that Consultant believes to be Defective or will not produce a complete Project that conforms to Contract Documents, or will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by Contract Documents. Consultant may also recommend to Owner special inspection or testing of Work, whether or not the Work is fabricated, installed, or completed.

- D. Consultant may conduct observations or inspections to recommend to Owner the dates that Contractor has achieved Substantial Completion and Final Completion, and will receive and forward to Owner for review written warranties and related documents required by Contract Documents.

7.04 Owner's And Consultant's Exercise Of Contract Responsibilities

- A. Owner, Consultant, and all Owner's representatives, in performing their duties and responsibilities under the Contract Documents, accept no duties, responsibilities or duty of care, nor may the same be implied or inferred, towards Contractor, any Subcontractor, sub-Subcontractor or supplier, except those set forth expressly in the Contract Documents.

7.05 Owner's Right Of Access To The Work

- A. During performance of Work, Owner, Consultant, and all Owner's representatives may at any time enter upon Work, shops or studios where any part of the Work may be in preparation, or factories where any materials for use in Work are being or are to be manufactured, and Contractor shall provide proper and safe facilities for this purpose, and shall make arrangements with manufacturers to facilitate inspection of their processes and products to such extent as Owner's interests may require. Other contractors performing work for Owner may also enter upon Work for all purposes required by their respective contracts. Subject to the rights reserved in the Contract Documents, Contractor shall have sole care, custody, and control of the Site and its Work areas.

7.06 Owner's Right Of Separate Construction

- A. Owner may perform with its own forces, construction or operations related to the Project, or the Site during Contractor's operations. Owner may also award separate contracts in connection with other portions of the Project or other construction or operations, on the Site or areas contiguous to the Site, under conditions similar to these Contract Documents, or may have utility Owners perform other work.
- B. Contractor shall adjust its schedule and fully coordinate with and shall afford all other contractors, utility districts and Owner (if Owner is performing work with its own forces), proper and safe access to the Site, and reasonable opportunity for the installation and storage of their materials. Contractor shall ensure that the execution of its Work properly connects and coordinates with others' work, do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work, and shall cooperate with them to facilitate the progress of the Work.
- C. To the extent that any part of Contractor's Work is to interface with work performed or installed by other contractors or utility owners, Contractor shall inspect and measure the in-place work. Contractor shall promptly report to Owner in writing any defect in in-place work that will impede or increase the cost of Contractor's interface unless corrected.

ARTICLE 8 - CONTRACTOR'S PROSECUTION AND PROGRESS OF THE WORK

8.01 Contractor To Supervise The Work

- A. Subject to those rights specifically reserved in the Contract Documents, Contractor shall supervise, direct, have control over, and be responsible for, Contractor's means, methods, techniques, sequences or procedures of construction, safety precautions and programs incident thereto, and compliance with laws and regulations applicable to the furnishing or performance of Work.
- B. Contractor shall keep on the Site at all times during Work progress a competent resident Superintendent, who shall not be replaced without Owner's express written consent and, if applicable, payment of liquidated damages as required by Document 00 5200 (Agreement). The Superintendent shall be Contractor's representative at the Site and shall have complete authority to act on behalf of Contractor. All communications to and from the Superintendent shall be as binding as if given to or by Contractor.
- C. Contractor shall supervise, inspect, and direct Work competently and efficiently, devoting the attention and applying such personal skills and expertise as may be required and necessary to perform Work in accordance with Contract Documents. Contractor shall be solely responsible for and have control and charge of construction means, methods, techniques, sequences and

procedures, safety precautions and programs in connection with the Work. Contractor shall be responsible to see that the completed Work complies accurately with Contract Documents.

- D. Contractor is fully responsible for Contractor's own acts and omissions. Contractor is responsible for all acts and omissions of its Subcontractors, suppliers, and other persons and organizations performing or furnishing any of the Work, labor, materials, or equipment under a direct or indirect contract with Contractor.
- E. Contractor shall conduct monthly Contractor Safety Committee meetings, and weekly toolbox safety talks.

8.02 Contractor To Maintain Cost Data

- A. Contractor shall maintain full and correct information as to the number of workers employed in connection with each subdivision of Work, the classification and rate of pay of each worker in form of certified payrolls, the cost to Contractor of each class of materials, tools and appliances used by Contractor in Work, and the amount of each class of materials used in each subdivision of Work. Contractor shall provide Owner with monthly summaries of this information. If Contractor maintains or is capable of generating summaries or reports comparing actual Project costs with Bid estimates or budgets, Contractor shall provide Owner with a copy of such report upon Owner's request.
- B. Contractor shall maintain daily job reports recording all significant activity on the job, including the number of workers on Site, Work activities, problems encountered and delays. Contractor shall provide Owner with copies for each Day Contractor works on the Project, to be delivered to Owner either the same Day or the following Day morning before starting work at the Site. Contractor shall take pre-construction and monthly progress photographs of all areas of the Work. Contractor shall maintain copies of all correspondence with Subcontractors and records of meetings with Subcontractors.
- C. Owner shall have the right to audit and copy Contractor's books and records of any type, nature or description relating to the Project (including, without limitation, financial records reflecting in any way costs claimed on the Project), and to inspect the Site, including Contractor's trailer, or other job Site office, and this requirement shall be contained in the subcontracts of Subcontractors working on Site. By way of example, Owner shall have the right to inspect and obtain copies of all Contract Documents, planning and design documents, Bid proposal and negotiation documents, cost records and job cost variance reports, design modification proposals, value engineering or other cost reduction proposals, revisions made to the original design, job progress reports, photographs, and as-built drawings maintained by Contractor. Owner and any other applicable governmental entity shall have the right to inspect all information and documents maintained hereunder at any time during the Project and for a period of five years following Final Completion, in accordance with the provisions of the Government Code Section 8546.7. This right of inspection shall not relieve Contractor of its duties and obligations under the Contract Documents. This right of inspection shall be specifically enforceable in a court of law, either independently or in conjunction with enforcement of any other rights in the Contract Documents.

8.03 Contractor To Supply Sufficient Workers And Materials

- A. Unless otherwise required by Owner under the terms of Contract Documents, Contractor shall at all times keep on the Site materials and employ qualified workers sufficient to prosecute Work at a rate and in a sequence and manner necessary to complete Work within the Contract Time. This obligation shall remain in full force and effect notwithstanding disputes or claims of any type.
- B. At any time during progress of Work should Contractor directly or indirectly (through Subcontractors) refuse, neglect, or be unable to supply sufficient materials or employ qualified workers to prosecute the Work as required, then Owner may require Contractor to accelerate the Work and/or furnish additional qualified workers or materials as Owner may consider necessary, at no cost to Owner. If Contractor does not comply with the notice within three Business Days of date of service thereof, Owner shall have the right (but not a duty) to provide materials and qualified workers to finish the Work or any affected portion of Work, as Owner may elect. Owner may, at its discretion, exclude Contractor from the Site, or portions of the Site or separate work elements during the time period that Owner exercises this right. Owner will deduct from moneys due or which may thereafter become due under the Contract Documents, the sums necessary to meet expenses thereby incurred and paid to persons supplying materials and doing Work. Owner will deduct from

funds or appropriations set aside for purposes of Contract Documents the amount of such payments and charge them to Contractor as if paid to Contractor. Contractor shall remain liable for resulting delay, including liquidated damages and indemnification of Owner from claims of others.

- C. Exercise by Owner of the rights conferred upon Owner in this subparagraph is entirely discretionary on the part of Owner. Owner shall have no duty or obligation to exercise the rights referred to in this subparagraph and its failure to exercise such rights shall not be deemed an approval of existing Work progress or a waiver or limitation of Owner's right to exercise such rights in other concurrent or future similar circumstances. (The rights conferred upon Owner under this subparagraph are, like all other such rights, cumulative to Owner's other rights under any provision of the Contract Documents.)

8.04 Contractor To Maintain Project Record Documents

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Contract Modifications, Change Orders, Work Directives, Force Account orders, and written interpretations and clarifications in good order and annotated to show all as-built changes made during construction. These Project Record Documents, together with all approved Samples and a counterpart of all approved Shop Drawings, shall be maintained and available to Owner for reference. Upon completion of the Work, Contractor shall deliver to Owner, the Project Record Documents, Samples and Shop Drawings and as-built drawings.
- B. Throughout Contractor's performance of the Work of the Project, Contractor shall maintain construction records to include: shop drawings; product data/material data sheets; samples; submittal; purchases; materials; equipment; inspections; applicable handbooks; applicable codes and standards; maintenance and operating manuals and instructions; RFI Log; Submittal Log; other related documents and revisions which arise out of the Construction Contracts. Contractor shall maintain records of principal building layout lines, elevations for the bottom of footings, floor levels, and key site elevations (certified by a qualified surveyor or professional engineer). Contractor shall make all records available to Owner. At the completion of the Project, Contractor shall deliver all such records to the Owner to have a complete set of record as-built drawings.

8.05 Contractor To Not Disrupt Owner Operation

- A. Contractor shall schedule and execute all Work in a manner that does not interfere with or disrupt Owner operations including, without limitation, parking, utilities (electricity, gas, water), noise, access by employees and administration, access by vendors, physicians, patients and any other person or entity using Owner facilities or doing business with Owner. Contractor shall produce and supply coordination plans and requests to Owner, following Owner procedures, for all necessary interference of construction with Owner, which Owner will reasonably cooperate with.

8.06 Contractor To Provide Temporary Facilities And Controls

- A. Unless expressly provided otherwise in the Contract Documents, Contractor shall provide all temporary utilities (including without limitation electricity, water, natural gas), lighting, heating, cooling and ventilating devices, telephone, sanitary facilities, barriers, fences and enclosures, tree and plant protection, fire protection, pollution, erosion, Storm Water Pollution Prevention controls, noise and traffic control, and any other necessary services required for construction, testing or completion of the Work.

ARTICLE 9 - WARRANTY, GUARANTY, AND INSPECTION OF WORK

9.01 Warranty And Guaranty

- A. General Representations and Warranties: Contractor represents and warrants that it is and will be at all times fully qualified and capable of performing every Phase of the Work and to complete Work in accordance with the terms of Contract Documents. Contractor warrants that all construction services shall be performed in accordance with generally accepted professional standards of good

and sound construction practices and all requirements of Contract Documents. Contractor warrants that Work including , without limitation, each item of materials and equipment incorporated therein, shall be new, of suitable grade of its respective kind for its intended use, and free from defects in design, engineering, materials, construction and workmanship. Contractor warrants that Work shall conform in all respects with all applicable requirements of federal, state and local laws, applicable construction codes and standards, licenses, and permits, Drawings and Specifications and all descriptions set forth therein, and all other requirements of Contract Documents. Contractor shall not be responsible, however, for the negligence of others in the specification of specific equipment, materials, design parameters and means or methods of construction where that is specifically shown and expressly required by Contract Documents.

- B. Extended Warranties: Any warranty exceeding one year provided by the supplier or manufacturer of any equipment or materials used in the Project shall be extended for such term. Contractor expressly agrees to act as co-guarantor of such equipment and materials and shall supply Owner with all warranty and guarantee documents relative to equipment and materials incorporated in the Project and guaranteed by their suppliers or manufacturers.
- C. Environmental and Toxics Warranty: The covenants, warranties and representations contained in this Paragraph are effective continuously during Contractor's Work on the Project and following cessation of labor for any reason including, without limitation, Project completion. Contractor covenants, warrants and represents to Owner that:
 - 1. To Contractor's knowledge after due inquiry, no lead or Asbestos-containing materials were installed or discovered in the Project at any time during Contractor's construction thereof. If any lead or Asbestos-containing materials were discovered, Contractor made immediate written disclosure to Owner.
 - 2. To Contractor's knowledge after due inquiry, no electrical transformers, light fixtures with ballasts or other equipment containing PCBs are or were located on the Project at any time during Contractor's construction thereof.
 - 3. To Contractor's knowledge after due inquiry, no storage tanks for gasoline or any other toxic substance are or were located on the Project at any time during Contractor's construction thereof. If any such materials were discovered, Contractor made immediate written disclosure to Owner.
 - 4. Contractor's operations concerning the Project are and were not in violation of any applicable environmental federal, state, or local statute, law or regulation dealing with hazardous materials substances or toxic substances and no notice from any governmental body has been served upon Contractor claiming any violation of any such law, ordinance, code or regulation, or requiring or calling attention to the need for any Work, repairs, construction, alteration, or installation on or in connection with the Project in order to comply with any such laws, ordinances, codes, or regulations, with which Contractor has not complied. If there are any such notices with which Contractor has complied, Contractor shall provide Owner with copies thereof.

9.02 Inspection Of Work

- A. Work and materials, and manufacture and preparation of materials, from beginning of construction until Final Completion and acceptance of Work, shall be subject to inspection and rejection by Owner, its agents, representatives or independent contractors retained by Owner to perform inspection services, or governmental agencies with jurisdictional interests. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's Site safety procedures and program so that they may comply therewith as applicable. Upon request or where specified, Owner shall be afforded access for inspection at the source of supply, manufacture or assembly of any item of material or equipment, with reasonable accommodations supplied for making such inspections.
- B. Contractor shall furnish, in such quantities and sizes as may be required for proper examination and tests, Samples or test specimens of all materials to be used or offered for use in connection with Work. Contractor shall prepare Samples or test specimens at its expense and furnish them to Owner. Contractor shall submit all Samples in ample time to enable Owner to make any necessary

tests, examinations, or analyses before the time it is desired to incorporate the material into the Work.

- C. Contractor shall give Owner timely notice of readiness of Work for all required inspections, tests or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- D. If applicable laws or regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests or approvals, and furnish Owner with the required certificates of inspection, or approval. Owner will pay the cost of initial testing and Contractor shall pay all costs in connection with any follow-up or additional testing. Contractor shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for the acceptance of materials or equipment to be incorporated in the Work, or of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.
- E. If Contractor covers any Work, or the work of others, prior to any required inspection, test or approval without written approval of Owner, Contractor shall uncover the Work at Owner's request. Contractor shall bear the expense of uncovering Work and replacing Work. In any case where Contractor covers Work contrary to Owner's request, Contractor shall uncover Work for Owner's observation or inspection at Owner's request. Contractor shall bear the cost of uncovering Work.
- F. Whenever required by Owner, Contractor shall furnish tools, labor and materials necessary to make examination of Work that may be completed or in progress, even to extent of uncovering or taking down portions of finished Work. Should Work be found unsatisfactory, cost of making examination and of reconstruction shall be borne by Contractor. If Work is found to be satisfactory, Owner, in manner herein prescribed for paying for alterations, Modifications, and extra Work, except as otherwise herein specified, will pay for examination.
- G. Inspection of the Work by or on behalf of Owner, or Owner's failure to do so, shall not under any circumstances be deemed a waiver or approval of any non-conforming aspect of the Work. Contractor shall have an absolute duty, in the absence of a written Change Order signed by Owner, to perform Work in conformance with the Contract Documents and to immediately correct Defective Work immediately upon Contractor's knowledge.
- H. Any inspection, evaluation, or test performed by or on behalf of Owner relating to the Work is solely for the benefit of Owner, and shall not be relied upon by Contractor. Contractor shall not be relieved of the obligation to perform Work in accordance with the Contract Documents, nor relieved of any guaranty, warranty, or other obligation, as a result of any inspections, evaluations, or tests performed by Owner, whether or not such inspections, evaluations, or tests are permitted or required under the Contract Documents. Contractor shall be solely responsible for testing and inspecting Work already performed to determine whether such Work is in proper condition to receive later Work.

9.03 Correction Of Defective Work

- A. Owner may direct Contractor to correct any Defective Work or remove it from the Site and replace it with Work that is not Defective and satisfactorily correct or remove and replace any damage to other Work or the work of others resulting from the correction or removal. Also, if Contractor fails to supply sufficient skilled workers, suitable materials or equipment, or to furnish or perform the Work in such a way that the completed Work will conform to Contract Documents, Owner may direct Contractor to perform the Work in accordance with the Contract Documents, correct or replace any such Defective Work, or stop any portion of Work.
- B. Owner may correct and remedy the Defective Work or perform any other work, corrective or otherwise, if, after five Days' written notice to Contractor, Contractor fails to correct Defective Work or to remove and replace rejected Work; or provide a plan for correction of Defective Work acceptable to Owner; or perform Work in accordance with Contract Documents. In connection with such corrective and remedial action, Owner may exclude Contractor from all or part of the Site; take possession of all or part of Work and suspend Contractor's Work related thereto; take possession of all or part of Contractor's tools, appliances, construction equipment and machinery at the Site; and incorporate in Work any materials and equipment stored at the Site or for which

Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, its representatives, agents, employees, and other contractors and consultants' access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

- C. Contractor shall be responsible for all claims, costs, losses, damages, expenses and liabilities incurred or sustained by Owner in exercising rights and remedies under this Paragraph. Contractor shall be responsible for any and all claims, costs, losses and damages caused by or resulting from such correction or removal. A Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work and the Contract Sum. If the parties are unable to agree to the amount of an appropriate decrease in the Contract Sum, Owner may decide the proper amount or, in its discretion may elect to leave the Contract Sum unchanged and deduct from monies due Contractor, all such claims, costs, losses and damages caused by or resulting from exercising its rights and remedies. If Contractor disagrees with Owner's calculations, it may make a claim as provided in Article 12 of this Document 00 7200.
- D. These Owner rights and remedies are entirely discretionary on the part of Owner, and shall not give rise to any duty on the part of Owner to exercise the rights for the benefit of Contractor or any other party. Owner's rights under this Paragraph shall be in addition to any other rights it may have under the Contract Documents or by law.

9.04 Acceptance of Defective Work

- A. Owner may in its sole discretion elect to accept Defective Work. Contractor shall pay all claims, costs, losses and damages attributable to Owner's evaluation of and determination to accept such Defective Work. If Owner accepts any Defective Work prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work and the Contract Sum. If the parties are unable to agree to the amount of an appropriate decrease in the Contract Sum, Owner may deduct from monies due Contractor, all claims, costs, losses, damages, expenses and liabilities attributable to the Defective Work. If Contractor disagrees with Owner's calculations, Contractor may make a claim as provided in Article 12 of this Document 00 7200. If Owner accepts any Defective Work after final payment, Contractor shall pay to Owner, an appropriate amount as determined by Owner.

9.05 Rights Upon Inspection, Correction Or Acceptance

- A. Contractor shall not be allowed an extension of Contract Time because of any delay in the performance of Work attributable to the exercise by Owner of its rights and remedies under this Article. Where Owner exercises its rights under this Article, it retains and may still exercise all other rights it has by law or under the Contract Documents including, without limitation, the right to terminate Contractor's right to proceed with the Work under the Contract Documents for cause and/or make a claim or back charge where a Change Order cannot be agreed upon.
- B. Observation or inspection by Owner or its authorized agents or representatives shall not relieve Contractor of its obligation to have furnished material and workmanship in accordance with Contract Documents. Payment for Work completed through periodic progress payments, final payment or otherwise shall not operate to waive Owner's right to require full compliance with Contract Documents and shall in no way be deemed as acceptance of any defective Work paid therefor. Contractor's obligation to complete the Work in accordance with Contract Documents shall be absolute, unless Owner agrees otherwise in writing.

9.06 Proof Of Compliance Of Contract Provisions

- A. In order that Owner may determine whether Contractor has complied or is complying with requirements of Contract Documents not readily enforceable through inspection and tests of Work and materials, Contractor shall at any time, when requested, submit to Owner properly authenticated documents or other satisfactory proofs of compliance with all applicable requirements.
- B. Before commencing any portion of Work, Contractor shall inform Owner in writing as to time and place at which Contractor wishes to commence Work, and nature of Work to be done, in order that proper provision for inspection of Work may occur, and to assure measurements necessary for record and payment. Information shall be given to Owner a reasonable time in advance of time at

which Contractor proposes to begin Work, so that Owner may complete necessary preliminary work without inconvenience or delay to Contractor.

9.07 Correction Period And Project Warranty Period:

- A. If within one year after the date of Final Acceptance, or such longer period of time as may be prescribed by laws, regulations or by the terms of Contract Documents or any extended warranty or guaranty, any Work (completed or incomplete) is found to be Defective, Contractor shall promptly without cost to Owner and in accordance with Owner's written instructions, correct such Defective Work. Contractor shall remove any Defective Work rejected by Owner and replace it with Work that is not Defective, and satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If Contractor fails to promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the Defective Work corrected or the rejected Work removed and replaced. Contractor shall pay for all claims, costs, losses and damages caused by or resulting from such removal and replacement. Where Contractor fails to correct Defective Work, or defects are discovered outside the correction period, Owner shall have all rights and remedies granted by law.
- B. In special circumstances where a part of the Work is occupied or a particular item of equipment is placed in continuous service before Final Acceptance of all the Work, the correction period for that part of Work or that item may start to run from an earlier date if so provided by Change Order.
- C. Where Defective Work or rejected Work (and damage to other Work resulting therefrom) has been corrected, removed, or replaced under this Paragraph after the commencement of the correction period, the correction period hereunder with respect to such Work shall be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

9.08 No Waiver

- A. Neither recordation of Final Acceptance nor final certificate for payment nor provision of the Contract nor partial or entire use or occupancy of premises by Owner shall constitute acceptance of Work not done in accordance with Contract Documents nor relieve Contractor of liability in respect to express warranties or responsibility for faulty materials or workmanship.
- B. If, after installation, operation, or use of materials or equipment to be provided under Contract proves to be unsatisfactory to Owner, Owner shall have right to operate and use materials or equipment until said materials and equipment can, without damage to Owner, be taken out of service for correction or replacement. Period of use of Defective materials or equipment pending correction or replacement shall in no way decrease guarantee period required for acceptable corrected or replaced items of materials or equipment.
- C. Nothing in the Contract Documents shall be construed to limit, relieve, or release Contractor's, Subcontractors', and equipment suppliers' liability to Owner for damages sustained as result of latent defects in materials or equipment caused by negligence of Contractor, its agents, suppliers, employees, or Subcontractors.

ARTICLE 10 - MODIFICATIONS OF CONTRACT DOCUMENTS

10.01 Owner's Right To Direct Changed Work.

- A. Owner may, without notice to the sureties and without invalidating the Contract, make changes in the Work (**Changed Work**) including, without limitation: alterations, deviations, additions to, or deletions from Contract Documents; increase or decrease the quantity of any item or portion of the Work; expand, reduce or otherwise change the Contract Time; delete any item or portion of the Work; and require extra Work. Contractor shall perform such Work under applicable provisions of the Contract Documents, unless specifically provided otherwise at the time the change is ordered. In the case of any ordered extra Work, Owner reserves the right to furnish all or portions of associated labor, material, and equipment, which Contractor shall accept and use without payment for costs, markup, profit, or otherwise for such Owner-furnished labor, materials, and equipment.
- B. If Changed Work is of such a nature as to increase or decrease the time or cost of any part of Work, price fixed in Contract shall be increased or decreased by amount as the Contractor and Owner may agree upon as reasonable and proper allowance for increase or decrease in cost of Work

using the cost guidelines set forth in this Article, and absent such agreement, then as Owner may direct (with Contractor retaining its rights under Article 12 herein).

10.02 Required Documentation For Changed Work

- A. Changes affecting the Contract Time or Contract Sum of the Work shall be set forth in a written Change Order or Change Directive that shall specify:
 - 1. The Work performed in connection with the change to be made;
 - 2. The amount of the adjustment of the Contract Sum, if any, and the basis for compensation for the Work ordered; and
 - 3. The extent of the adjustment in the Contract Time, if any.
- B. A Change Order or Change Directive will become effective when signed by Owner, notwithstanding that Contractor has not signed it. A Change Order will become effective without Contractor's signature, provided Owner indicates same thereon (by indicating it as a "unilateral change order").
- C. All changes in any plans and specifications approved by any authority with jurisdiction may also require addenda or change orders approved by that authority.
- D. Where Owner requests, a performance bond rider covering the changed Work must be executed and delivered to Owner before proceeding with the changed Work or shortly in time thereafter.

10.03 Procedures And Pricing Of Changed Work

- A. Procedures for changed work and pricing of changed work, claims and all forms of extra compensation, are set forth in Section 01 2600 (Modification Procedures).

ARTICLE 11 - TIME ALLOWANCES

11.01 Time Allowances

- A. Time is of the essence. Contract Time may only be changed by Change Order, and all time limits stated in the Contract Documents are to mean that time is of the essence.
- B. Float. Float shall be treated as a Project resource. Contractor shall not be entitled to a time extension for impacts that consume float, but do not impact the critical path.
- C. Time extensions will not be granted unless substantiated by the Critical Path Method (**CPM**) Schedule, and then not until the CPM project float becomes zero. If Contractor fails to submit a TIE within the required time period, then Contractor shall be deemed to have agreed that there is no time impact and that Contractor has irrevocably waived its rights to any additional Contract Time.

11.02 Excusable Delay And Inexcusable Delay Defined.

- A. Excusable Delay. Subject to the provisions on Notice of Delay below, Contract Time may be adjusted in an amount equal to the time lost due to:
 - 1. Changes in the Work ordered by Owner (**Changes**);
 - 2. Acts or neglect by Owner, Architect, any Owner Representative, utility owners or other contractors performing other work, not permitted or provided for in the Contract Documents, provided that Contractor has performed its responsibilities under the Contract Documents (including, without limitation, pre-bid investigations) (**Acts or Neglect**); or
 - 3. Fires, floods, epidemics, abnormal weather conditions beyond the parameters otherwise set forth in this Article, earthquakes, civil or labor disturbances, or acts of God (together, "force majeure events"), provided damages resulting therefrom are not the result of Contractor's failure to protect the Work as required by Contract Documents (**Force Majeure**).
- B. Inexcusable Delay. Contract Time shall not be extended for any period of time where Contractor (and/or any Subcontractor) is delayed or prevented from completing any part of the Work due to a cause that is within Contractor's risk or responsibility under the Contract Documents. Delays attributable to or within the control of a Subcontractor, or its subcontractors, or supplier, are deemed delays within the control of Contractor.

11.03 Notice Of Delay

- A. Within seven Days of the beginning of any delay (excepting adverse weather delays), Contractor shall notify Owner in writing, by submitting a notice of delay that shall describe the anticipated delays resulting from the delay event in question. If Contractor requests an extension of time, Contractor shall submit a TIE within ten days of the notice of delay. Owner will determine all claims and adjustments in the Contract Time. No claim for an adjustment in the Contract Time will be valid and such claim will be waived if not submitted in accordance with the requirements of this subparagraph. In cases of substantial compliance with the seven-day notice requirement here (but not to exceed twenty-one days from the beginning of the delay event), Owner may in its sole discretion recognize a claim for delay accompanied with the proper TIE, provided Contractor also shows good faith and a manifest lack of prejudice to Owner from the late notice.

11.04 Compensable Time Extensions

- A. Subject to other applicable provisions of the Contract Documents, Contractor may be entitled to adjustment in Contract Sum in addition to Contract Time for:
 - 1. Excusable delay caused solely by Changes in the Work ordered by Owner, as provided above, and/or
 - 2. Excusable delay caused solely by Acts or Neglect by Owner or other person, as provided above.

11.05 Non-Compensable Time Extensions

- A. Subject to other applicable provisions of the Contract Documents, Contractor may be entitled to adjustment in Contract Time only, without adjustment in Contract Sum, for
 - 1. Periods of excusable delay caused solely by weather or Force Majeure events as provided above in this Article, or
 - 2. Periods of concurrent delay, where delay results from two or more causes, one of which is compensable (resulting from Changes or Acts or Neglect as set forth above in this Article), and the other of which is non-compensable or unexcusable, such as: acts or neglect of Contractor, Subcontractors or others for whom Contractor is responsible; other acts, omissions and conditions which would not entitle Contractor to adjustment in Contract Time; adverse weather; and/or actions of Force Majeure as provided above in this Article.

11.06 Adverse Weather

- A. Adverse weather delays may be allowed only if the number of workdays of adverse weather exceeds the parameters listed or referenced immediately below in this subparagraph and Contractor proves that adverse weather actually caused delays to work on the critical path. Contractor shall give written notice of intent to claim an adverse weather day within one Day of the adverse weather day occurring.
- B. Claims for extension of time for rain delay will not be granted unless the number of days work is prevented by rain exceeds 100% of the historical average number of rain days for the period of the Contract Time, based on the records of the National Oceanic & Atmospheric Administration (**NOAA**) weather station closest to the Project Site, as measured and reported by NOAA. (For example, for California, Oregon and Washington, these figures are contained in the “>=0.10 inch” column at the applicable weather station’s “General Climate Summary Table” for “Precipitation” at <http://www.wrcc.dri.edu/climate-summaries/>), pro-rated in the individual month Contractor starts and finishes Work. Delays due to adverse weather conditions will not be allowed for weather conditions that fall within these parameters.
- C. In order to qualify as an adverse weather delay with respect to the foregoing parameters, (i.) daily rainfall must exceed 0.1 inch, and/or (ii.) daily snowfall must exceed 1.0 inch or more, at the NOAA station located closest to the Project site, as measured and reported by NOAA. Notwithstanding these allowances, Contractor shall at all times employ all available mitigation measures to enable Work to continue, Contractor shall take reasonable steps to mitigate potential weather delays, such as dewatering the Site, lime treatment, and covering Work and material that could be affected adversely by weather. Failure to do so shall be cause for Owner to not grant a time extension due to adverse weather, where Contractor could have avoided or mitigated the potential delay by exercising reasonable care.

- D. Contractor shall include the foregoing precipitation parameters as a monthly activity in its progress schedule. As Work on the critical path is affected by precipitation, Contractor shall notify Owner and request that the days be moved to the affected activities. Any adverse weather days remaining shall be considered Project float available to either Owner or Contractor.
- E. Adverse weather delay for precipitation shall be recognized for the actual period of time Contractor proves it was delayed by precipitation exceeding the specified parameters. For example, and not by way of limitation, if precipitation exceeding the specified parameters does not in fact delay Contractor's progress on the critical path, then no time extension shall be recognized; and conversely, if Contractor proves to Owner's satisfaction that precipitation exceeding the specified parameters causes delay to Contractor for a period longer than the number of precipitation days incurred (e.g., if it rains or snows during grading work), then Contractor shall be entitled to a time extension equal to the actual period of such delay.
- F. During unfavorable weather, wet ground, or other unsuitable construction conditions, Contractor shall employ best practices to protect the Work, manage the construction site and rainwater during inclement weather. Persons performing the Work shall examine surfaces to receive their Work and shall report in writing to Contractor, with copy to Owner representative and the Architect conditions detrimental to the Work. Failure to examine and report discrepancies makes the Contractor responsible, at no increase in Contract Sum, for corrections Owner may require. Commencement of Work constitutes acceptance of surface.

11.07 Liquidated Damages

- A. Time is of the essence. Execution of Contract Documents by Contractor shall constitute its acknowledgement that Owner will actually sustain damages in the form of Contract administration expenses (such as Project management and consultant expenses) in the amount fixed in the Contract Documents for each and every Day during which completion of Work required is delayed beyond expiration of time fixed for completion plus extensions of time allowed pursuant to provisions hereof.
- B. Contractor and Owner agree that because of the nature of the Project, it would be impractical or extremely difficult to fix the amount of such actual damages incurred by Owner because of a delay in completion of all or any part of the Work. Contractor and Owner agree that specified measures of liquidated damages shall be presumed to be the amount of such damages actually sustained by Owner, and that because of the nature of the Project, it would be impracticable or extremely difficult to fix the actual damages.
- C. Liquidated damages for delay shall cover administrative, overhead, interest on bonds, and general loss of public use damages suffered by Owner as a result of delay. Liquidated damages shall not cover the cost of completion of the Work, damages resulting from Defective Work, lost revenues or costs of substitute facilities, or damages suffered by others who then seek to recover their damages from Owner (for example, delay claims of other contractors, subcontractors, tenants, or other third-parties), and defense costs thereof. Owner may deduct from any money due or to become due to Contractor subsequent to time for completion of entire Work and extensions of time allowed pursuant to provisions hereof, a sum representing then-accrued liquidated damages.
- D. Contractor and Owner agree that the Key Personnel listed in Contractor's Statement of Qualifications (Document 00 4513) were a material factor in Owner's assessment of Contractor's experience and the adequacy of Contractor's supervisory personnel. Accordingly, Contractor and Owner agree that Contractor shall not remove, reassign or make changes to any of the Key Personnel without Owner's prior written approval. In the event that any Key Personnel leaves the Project, is reassigned and/or is removed and replaced by Contractor before Project Final Completion, for any reason whatsoever, Contractor agrees to pay Owner liquidated damages as set forth in the Agreement (Document 00 5200), unless Contractor can demonstrate to Owner's satisfaction that the Key Personnel were reassigned and/or removed and replaced for reasons beyond Contractor's control.

ARTICLE 12 - CLAIMS BY CONTRACTOR

12.01 Obligation to File Claims for Disputed Work

- A. Should it appear to Contractor that the Work to be performed or any of the matters relative to the Contract Documents are not satisfactorily detailed or explained therein, or should any questions arise as to the meaning or intent of the Contract Documents, or should any dispute arise regarding the true value of any work performed, work omitted, extra work that the Contractor may be required to perform, time extensions, payment to the Contractor during performance of this Contract, performance of the Contract, and/or compliance with Contract procedures, or should Contractor otherwise seek extra time or compensation FOR ANY REASON WHATSOEVER, then Contractor shall first follow procedures set forth in the Contract Documents (including, without limitation, Paragraphs 11.03, 11.04, 13.03 and 13.04 of this Document 00 7200 and Section 01 2600.) If a dispute remains, then Contractor shall give written notice to Owner that expressly invokes this Article 12. Owner shall decide the issue in writing within 15 days; and Owner's written decision shall be final and conclusive. If Contractor disagrees with Owner's decision, or if Contractor contends that Owner failed to provide a decision timely, then Contractor's SOLE AND EXCLUSIVE REMEDY is to promptly file a written claim setting forth Contractor's position as required herein.

12.02 Form And Contents Of Claim

- A. Contractor's written claim must identify itself as a "**Claim**" under this Article 12 and must include the following: (i) a narrative of pertinent events; (ii) citation to contract provisions; (iii) theory of entitlement; (iv) complete pricing of all cost impacts; (v) a time impact analysis of all time delays that shows actual time impact on the critical path; (vi) documentation supporting items (i) through (v); and (vii) a verification under penalty of perjury of the claim's accuracy. The Claim shall be submitted to Owner within thirty (30) calendar days of receiving Owner's written decision, or the date Contractor contends such decision was due, and shall be priced like a change order according to Section 01 2600, and must be updated monthly as to cost and entitlement if a continuing claim. Routine contract materials, for example, correspondence, RFI, Change Order requests, or payment requests shall not constitute a claim. Contractor shall bear all costs incurred in the preparation and submission of a claim.

12.03 Administration During/After Claim Submission

- A. Owner may render a final determination based on the Claim or may in its discretion conduct an administrative hearing on Contractor's claim, in which case Contractor shall appear, participate, answer questions and inquiries, and present any further evidence or analysis requested by Owner prior to rendering a final determination. Should Owner take no action on the Claim within 45 days of submission, it shall be deemed denied.
- B. Notwithstanding and pending the resolution of any claim or dispute, Contractor shall diligently prosecute the disputed work to final completion in accordance with Owner's determination.
- C. After their submission, claims less than \$375,000 shall also be subject to the Local Agency Disputes Act.

12.04 Compliance

- A. The provisions of this Article 12 constitute a non-judicial claim settlement procedure that, pursuant to Government Code Section 930.2, shall constitute a condition precedent to submission of a valid Government Code Claim under the Government Code. Contractor shall bear all costs incurred in the preparation, submission and administration of a claim. Any claims presented in accordance with the Government Code must affirmatively indicate Contractor's prior compliance with the claims procedure herein and the previous dispositions under Paragraph 12.03 above of the claims asserted. No suit may be brought against Owner arising out of or in connection with the Project unless and until Contractor presents to Owner a statutory Government Code Claim, in accordance with Government Code Sections 910, *et seq.* Pursuant to Government Code Section 930.2, the one-year period in Government Code section 911.2 shall be reduced to 150 days from either accrual of the cause of action, substantial completion or termination of the contract, whichever occurs first; in all other respects, the Government Code shall apply unchanged.
- B. Failure to submit and administer claims as required in Article 12 shall waive Contractor's right to claim on any specific issues not included in a timely submitted claim. Claim(s) or issue(s) not raised in a timely protest and timely claim submitted under this Article 12 may not be asserted in any subsequent litigation, Government Code Claim, or legal action.

- C. Owner shall not be deemed to waive any provision under this Article 12, if at Owner's sole discretion, a claim is administered in a manner not in accord with this Article 12. Waivers or modifications of this Article 12 may only be made a signed change order approved as to form by legal counsel for both Owner and Contractor; oral or implied modifications shall be ineffective.

ARTICLE 13 - UNDERGROUND CONDITIONS

13.01 Contractor To Locate Underground Facilities.

- A. During construction, Contractor shall comply with Government Code Sections 4216 to 4216.9, and in particular Section 4216.2 which provides, in part: "Except in an emergency, every person planning to conduct any excavation shall contact the appropriate regional notification center at least two working days, but no more than 14 calendar days, prior to commencing that excavation, if the excavation will be conducted in an area which is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the excavator, and, if practical, the excavator shall delineate with white paint or other suitable markings the area to be excavated. The regional notification center shall provide an inquiry identification number to the person who contacts the center and shall notify any member, if known, who has a subsurface installation in the area of the proposed excavation."
- B. Contractor shall contact USA, and schedule the Work to allow ample time for the center to notify its members and, if necessary, for any member to field locate and mark its facilities. Contractor is charged with knowledge of all subsurface conditions reflected in USA records. Prior to commencing excavation or trenching work, Contractor shall provide Owner with copies of all USA records secured by Contractor. Contractor shall advise Owner of any conflict between information provided in Document 00 3132 (Geotechnical Data and Existing Conditions), the Drawings and that provided by USA records. Contractor's excavation shall be subject to and comply with the Contract Documents.
- C. Contractor shall also investigate the existence of existing service laterals, appurtenances or other types of utilities, indicated by the presence of an underground transmission main or other visible facilities, such as buildings, new asphalt, meters and junction boxes, on or adjacent to the Site, even if not shown or indicated in Document 00 3132 (Geotechnical Data and Existing Conditions), the Drawings or that provided by USA records. Contractor shall immediately secure all such available information and notify Owner and the utility owner, in writing, of its discovery.

13.02 Contractor To Protect Underground Facilities.

- A. At all times during construction, all operating Underground Facilities shall remain in operation, unless the Contract Documents expressly indicate otherwise. Contractor shall maintain such Underground Facilities in service where appropriate; shall repair any damage to them caused by the Work; and shall incorporate them into the Work, including reasonable adjustments to the design location (including minor relocations) of the existing or new installations. Contractor shall take immediate action to restore any in service installations damaged by Contractor's operations.
- B. Prior to performing Work at the Site, Contractor shall lay out the locations of Underground Facilities that are to remain in service and other significant known underground installations indicated by the Underground Facilities Data. Contractor shall further locate, by carefully excavating with small equipment, potholing and principally by hand, all such utilities or installations that are to remain and that are subject to damage. If additional utilities whose locations are unknown are discovered, Contractor shall immediately report to Owner for disposition of the same. Additional compensation or extension of time on account of utilities not shown or otherwise brought to Contractor's attention, including reasonable action taken to protect or repair damage, shall be determined as provided in this Document 00 7200.
- C. If during construction, an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated in the materials supplied by Owner for bidding or in information on file at USA or otherwise reasonably available to Contractor, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby (and in no event later than seven Days), and prior to performing any Work in connection therewith (except in an emergency), identify the owner of such Underground Facility and give written notice to that owner

and to Owner. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

- D. The cost of all of the following will be included in the Contract Sum and Contractor shall have full responsibility for (a) reviewing and checking all available information and data including, without limitation, information made available for bidding and information on file at USA; (b) locating all Underground Facilities shown or indicated in the Contract Documents, available information, or indicated by visual observation including, without limitation, and by way of example only, engaging qualified locating services and all necessary backhoeing and potholing; (c) coordination of the Work with the owners of such Underground Facilities during construction; and (d) the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.
- E. Consistent with Government Code Section 4215, as between Owner and Contractor, Owner will be responsible for the timely removal, relocation, or protection of existing main or trunk line utility facilities located on the Site only if such utilities are not identified in the Contract Documents or information made available for bidding. Owner will compensate for the cost of locating and repairing damage not due to Contractor's failure to exercise reasonable care, removing and relocating such main or trunk line utility facilities not indicated in the Contract Documents or information made available for bidding with reasonable accuracy, and equipment on the Project necessarily idled during such Work. Contractor shall not be assessed liquidated damages for delay in completion of the Project, when such delay was caused by the failure of Owner or the utility to provide for removal or relocation of such utility facilities.

13.03 Concealed Or Unknown Conditions

- A. If either of the following conditions is encountered at Site when digging trenches or other excavations that extend deeper than four feet below the surface, Contractor shall give a written Notice of Differing Site Conditions to Owner promptly before conditions are disturbed, except in an emergency as set forth in this Document 00 7200, and in no event later than seven Days after first observance of:
 - 1. Subsurface or Latent physical conditions which differ materially from those indicated in the Contract Documents; or
 - 2. Unknown physical conditions of an unusual nature or which differ materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents.
- B. In response to Contractor's Notice of Differing Site Conditions under this Paragraph, Owner will investigate the identified conditions, and if they differ materially and cause increase or decrease in Contractor's cost of, or time required for, performance of any part of the Work, Owner will negotiate the appropriate change order following the procedures set forth in the Contract Documents. If Owner determines that physical conditions at the Site are not Latent or are not materially different from those indicated in Contract Documents or that no change in terms of the Contract Documents is justified, Owner will so notify Contractor in writing, stating reasons (with Contractor retaining its rights under Article 12 of this Document 00 7200.)
- C. Contractor shall not be entitled to any adjustment in the Contract Sum or Contract Time regarding claimed Latent or materially different Site conditions (whether above or below grade) if Contractor knew or should have known of the existence of such conditions at the time Contractor submitted its Bid, failed to give proper notice, or relied upon information, conclusions, opinions or deductions of the kind that the Contract Documents preclude reliance upon.
- D. Regarding Underground Facilities, Contractor shall be allowed an increase in the Contract Sum or an extension of the Contract Time, or both, to the extent that they are attributable to the existence of any Underground Facility that is owned and was built by Owner only where the Underground Facility:
 - 1. Was not shown or indicated in the Contract Documents or in the information supplied for bidding purposes or in information on file at USA; and
 - 2. Contractor did not know of it; and

3. Contractor could not reasonably have been expected to be aware of it or to have anticipated it from the information available. (For example, if surface conditions such as pavement repairs, valve covers, or other markings, indicate the presence of an Underground Facility, then an increase in the Contract Sum or an extension of the Contract Time will not be due, even if the Underground Facility was not indicated in the Contract Documents, in the information supplied to Contractor for bidding purposes, in information on file at USA, or otherwise reasonably available to Contractor.)
- E. Contractor shall bear the risk that Underground Facilities not owned or built by Owner may differ in nature or locations shown in information made available by Owner for bidding purposes, in information on file at USA, or otherwise reasonably available to Contractor. Underground Facilities are inherent in construction involving digging of trenches or other excavations on Owner's Project, and Contractor is to apply its skill and industry to verify the information available.
- F. Contractor's compensation for claimed Latent or materially different Site conditions shall be limited to the actual, reasonable, incremental increase in cost of that portion of the Work, resulting from the claimed Latent or materially different Site conditions. Such calculation shall take into account the estimated value of that portion of the Work and the actual value of that portion of the Work, using for guidance Contractor's or its subcontractor's bid amount and actual amounts incurred for that portion of the Work and the reasonable expectation (if any) of differing or difficult site conditions in the Work area based on the available records and locale of the Work. For example, if Contractor excavates in an area unexpected, then such costs would be recoverable entirely; while if Contractor extends an existing excavation, then such costs would be recoverable if the resulting excavation costs in that work area exceeded the reasonable expectations therefore.

13.04 Notice Of Hazardous Waste Or Materials Conditions

- A. Contractor shall give a written Notice of Hazardous Materials Condition to Owner promptly, before any of the following conditions are disturbed (except in an emergency as set forth in this Document 00 7200), and in no event later than 24 hours after first observance of any:
 1. Material that Contractor believes may be hazardous waste or hazardous material, as defined in Section 25117 of the Health and Safety Code (including, without limitation, Asbestos, lead, PCBs, petroleum and related hydrocarbons, and radioactive material) that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law (**hazardous material**); or
 2. Other material that may present an imminent substantial danger to persons or property exposed thereto in connection with Work at the Site (**other materials**).
- B. Except as otherwise provided in the Contract Documents or as provided by applicable law, Contractor shall not be required to give any notice for the disturbance or observation of any such hazardous materials or other materials where such matter is disturbed or observed as part of the scope of Work under the Contract Documents (such as hazardous waste or hazardous material investigation, remediation or disposal activities which are identified as the subject of Work under the Contract Documents), where Contractor complies with all requirements in the Contract Documents and applicable law respecting such materials.
- C. Contractor's Notice of Hazardous Materials Condition shall indicate whether the hazardous materials or other materials were shown or indicated in the Contract Documents to be within the scope of Work, and whether the hazardous materials or other materials were brought to the Site by Contractor, its Subcontractors, suppliers, or anyone else for whom Contractor is responsible.
- D. Contractor shall not be entitled to any adjustment in the Contract Sum or Contract Time regarding claimed hazardous waste or materials if:
 1. Contractor knew of the existence of such hazardous materials or other materials at the time Contractor submitted its Bid; or
 2. Contractor should have known of the existence of such hazardous material or other materials as a result of its having the responsibility to obtain additional or supplementary examinations, investigation, explorations, tests, studies, and data concerning the conditions at or contiguous to the Site prior to submitting its Bid; or
 3. Contractor failed to give the written notice within the required timeframe set forth below.

- E. If Owner determines that conditions involve hazardous materials or other materials and that a change in Contract Document terms is justified, Owner will issue either a Request for Proposal or Construction Change Directive under the procedures described in the Contract Documents. If Owner determines that conditions do not involve hazardous materials or other materials or that no change in Contract Document terms is justified, Owner will notify Contractor in writing, stating the reasons for its determination.
- F. In addition to the parties' other rights under this Document 00 7200, if Contractor does not agree to resume Work based on a reasonable belief that it is unsafe, or does not agree to resume Work under special conditions, Owner may order the disputed portion of Work deleted from the Work, or performed by others, or Owner may invoke its right to terminate Contractor's right to proceed under the Contract Documents in whole or in part, for convenience or for cause as the facts may warrant.
- G. If Contractor does not agree with any Owner determination of any adjustment in the Contract Sum or Contract Time under this Article, Contractor may make a claim as provided in Article 12 of this Document 00 7200.

ARTICLE 14 - LEGAL AND MISCELLANEOUS

14.01 Laws And Regulations

- A. Contractor shall keep fully informed of and shall comply with all laws, ordinances, regulations and orders of any properly constituted authority affecting the Contract Documents, Work and persons connected with Work, and shall protect and indemnify Owner and its officers, employees, consultants and agents against any claim or liability, including attorney's fees, arising from or based on violation of law, ordinance, regulation or order, whether by Contractor or by Subcontractors, employees or agents. Authorized persons may at any time enter upon any part of Work to ascertain compliance of all applicable laws, ordinances, regulations and orders.

14.02 Permits And Taxes

- A. Contractor shall procure all permits and licenses applicable to the Work (including environmental matters to the extent applicable); pay all charges and fees, including fees for street opening permits; comply with, implement and acknowledge effectiveness of all permits; initiate and cooperate in securing all required notifications or approvals therefore; and give all notices necessary and incident to due and lawful prosecution of Work, unless otherwise provided herein. Owner will pay applicable building permits, sanitation and water fees for the completed construction, except as otherwise provided in the Contract Documents. Contractor shall pay all sales and/or use taxes levied on materials, supplies, or equipment purchased and used on or incorporated into Work, and all other taxes properly assessed against equipment or other property used in connection with Work, without any increase in the Contract Sum. Contractor shall make necessary arrangements with proper authorities having jurisdiction over roads, streets, pipelines, navigable waterways, railroads, and other works in advance of operations, even where Owner may have already obtained permits for the Work.

14.03 Communications And Information Distribution

- A. All communications recognized under the Contract Documents shall be in writing, in the form of a serialized document, by type of communication. For example, RFI's shall be serialized beginning with RFI No. 1; payment applications shall be serialized beginning with Payment Application No. 1, submittals shall be serialized per specification section and transmitted with transmittal sheets beginning with Transmittal No. 1; and correspondence shall be serialized beginning with letter No. 1. Contractor may propose other record management and identification systems or protocols, intended to facilitate orderly transmittal of project information, storage and retrieval of such information, which Owner will review consistent with these stated objectives, and accept or reject in its sole discretion.
- B. Documents Requiring Signatures. All documents requiring signatures for approval prior to implementing action, as stipulated in other portions of Contract Documents, shall require a manually signed, serialized letter delivered to the other party at its address for notice otherwise specified in the Contract Documents, either personally or by mail.

- C. Electronic data transfer of such correspondence will serve to expedite preliminary concurrence of information, only. Receipt of "hard copy" signature on forms is required prior to implementing action or work as the conditions may require. For example, change orders and authorizations for extra cost, require signatures. A party may acknowledge receipt of PDF copies of required correspondence by e-mail, but in the absence of such acknowledgment, mail or personal delivery is required.
- D. All emails shall be copied to Owner's and Contractor's Project Representative. Owner reserves the right to preclude e-mail communication, in whole or in part, as Project needs may require. Communication between Owner and Contractor shall not be via Twitter, Facebook, or other types of instant text message systems. Any such communications shall be inadmissible for any purpose related to this Contract.

14.04 Suspension Of Work

- A. Owner may, without cause, order Contractor in writing to suspend, delay or interrupt Work in whole or in part for such period of time as Owner may determine. An adjustment shall be made for increases in cost of performance of Work of the Contract Documents caused by any such suspension, delay or interruption, calculated using the measures set forth in Section 01 2600 (Modification Procedures). No adjustment shall be made to extent that performance is, was or would have been so suspended, delayed or interrupted by another cause for which Contractor is responsible.

14.05 Termination Of Contract For Cause

- A. The Contractor shall be in default of the Contract Documents and Owner may terminate the Contractor's right to proceed under the Contract Documents, for cause, in whole or in part, should the Contractor commit a material breach of the Contract Documents and not cure such breach within ten (10) calendar days of the date of notice from Owner to the Contractor demanding such cure; or, if such breach is curable but not curable within such ten (10) day period, within such period of time as is reasonably necessary to accomplish such cure. (In order for the Contractor to avail itself of a time period in excess of 10 calendar days, the Contractor must provide Owner within the ten (10) day period with a written plan acceptable to Owner that demonstrates actual resources, personnel and a schedule to promptly to cure said breach, and then diligently commence and continue such cure according to the written plan).
- B. In the event of termination by Owner for cause as provided herein, the Contractor shall deliver to Owner possession of the Work in its then condition including, without limitation, all designs, engineering, Project records, cost data of all types, plans and specifications and contracts with vendors and subcontractors, all other documentation associated with the Project, and all construction supplies and aids dedicated solely to performing the Work which, in the normal course of construction, would be consumed or only have salvage value at the end of the construction period. The Contractor shall remain fully liable for the failure of any Work completed and materials and equipment provided through the date of such termination to comply with the provisions of the Contract Documents. The provisions of this Section shall not be interpreted to diminish any right which Owner may have to claim and recover damages for any breach of the Contract Documents or otherwise, but rather, the Contractor shall compensate Owner for all loss, cost, damage, expense, and/or liability suffered by Owner as a result of such termination and/or failure to comply with the Contract Documents.
- C. In the event a termination for cause is later determined to have been made wrongfully or without cause, then the termination shall be treated as a termination for convenience, and the Contractor shall have no greater rights than it would have had following a termination for convenience. Any Contractor claim arising out of a termination for cause shall be made in accord with Article 12 herein. No other loss, cost, damage, expense or liability may be claimed, requested or recovered by the Contractor.

14.06 Termination Of Contract For Convenience

- A. Owner may terminate performance of the Work under the Contract Documents in accordance with this clause in whole, or from time to time in part, whenever Owner shall determine that termination is in Owner's best interest. Termination shall be effected by Owner delivering to the Contractor

notice of termination specifying the extent to which performance of the Work under the Contract Documents is terminated, and the effective date of the termination.

- B. Contractor shall comply strictly with Owner's direction regarding the effective date of the termination, the extent of the termination, and shall stop work on the date and to the extent specified.
- C. Contractor shall be entitled to a total payment on account of the Contract work so terminated measured by (i.) the actual cost to Contractor of Work actually performed, up to the date of the termination, with profit and overhead limited to twelve percent (12%) of actual cost of work performed, up to but not exceeding the actual contract value of the work completed as measured by the Schedule of Values and Progress Schedule, (ii.) offset by payments made and other contract credits. In connection with any such calculation, however, Owner shall retain all rights under the Contract Documents including, without limitation, claims, indemnities, or setoffs.
- D. Under no circumstances may Contractor recover legal costs of any nature, nor may Contractor recover costs incurred after the date of the termination.

14.07 Contingent Assignment Of Subcontracts

- A. Contractor hereby assigns to Owner each Subcontract for a portion of the Work, provided that:
 - 1. The assignment is effective only after Owner's termination of Contractor's right to proceed under the Contract Documents (or portion thereof relating to that Subcontract) as set forth herein.
 - 2. The assignment is effective only for the Subcontracts which Owner expressly accepts by notifying the Subcontractor in writing;
 - 3. The assignment is subject to the prior rights, if any, of the Surety, obligated by Document 00 6113.13 (Construction Performance Bond) provided under the Contract Documents, where the Surety exercises its rights to complete the Contract;
 - 4. After the effectiveness of an assignment, Contractor shall, at its sole cost and expense (except as otherwise provided in this Document 00 7200), sign all instruments and take all actions reasonably requested by Owner to evidence and confirm the effectiveness of the assignment in Owner; and
 - 5. Nothing in this Paragraph shall modify or limit any of Contractor's obligations to Owner arising from acts or omissions occurring before the effectiveness of any Subcontract assignment including, without limitation, all defense, indemnity and hold-harmless obligations arising from or related to the assigned Subcontract.

14.08 Remedies And Contract Integration

- A. Subject to Contract Documents provisions regarding Contractor claims, claim review, and claim resolution, and subject to the limitations therein, the exclusive jurisdiction and venue for resolving all claims, counter claims, disputes and other matters in question between Owner and Contractor arising out of or relating to Contract Documents, any breach thereof or the Project shall be the applicable court of competent jurisdiction located in the State and County where the Project is located. All Owner remedies provided in the Contract Documents shall be taken and construed as cumulative and not exclusive; that is, in addition to each and every other remedy herein provided; and in all instances Owner shall have any and all other equitable and legal rights and remedies which it would have according to law.
- B. The Contract Documents, any Contract Modifications and Change Orders, shall represent the entire and integrated agreement between Owner and Contractor regarding the subject matters hereof and thereof and shall constitute the exclusive statement of the terms of the parties' agreement. The Contract Documents, and any Contract Modifications and Change Orders, shall supersede any and all prior negotiations, representations or agreements, written or oral, express or implied, that relate in any way to the subject matter of the Contract Documents or written Modifications. Owner and Contractor represent and agree that, except as otherwise expressly provided in the Contract Documents, they are entering into the Contract Documents and any subsequent written Modification in sole reliance upon the information set forth or referenced in the Contract Documents or Contract Modifications; the parties are not and will not rely on any other information, which shall be inadmissible in any proceeding to enforce these documents.

- C. Either party's waiver of any breach or failure to enforce any of the terms, covenants, conditions or other provisions of the Contract Documents at any time shall not in any way affect, limit, modify or waive that party's right thereafter to enforce or compel strict compliance with every term, covenant, condition or other provision hereof, any course of dealing or custom of the trade or oral representations notwithstanding.
- D. Neither acceptance of the whole or any part of Work by Owner nor any verbal statements on behalf of Owner or its authorized agents or representatives shall operate as a waiver or modification of any provision of the Contract Documents, or of any power reserved to Owner herein nor any right to damages provided in the Contract Documents.

14.09 Interpretation.

- A. Should any part, term or provision of this Agreement or any of the Contract Documents, or any document required herein or therein to be executed or delivered, be declared invalid, void or unenforceable, all remaining parts, terms and provisions shall remain in full force and effect and shall in no way be invalidated, impaired or affected thereby. If the provisions of any law causing such invalidity, illegality or unenforceability may be waived, they are hereby waived to the end that this Agreement and the Contract Documents may be deemed valid and binding agreements, enforceable in accordance with their terms to the greatest extent permitted by applicable law. In the event any provision not otherwise included in the Contract Documents is required to be included by any applicable law, that provision is deemed included herein by this reference (or, if such provision is required to be included in any particular portion of the Contract Documents, that provision is deemed included in that portion).
- B. Contract Documents shall not be construed to create a contractual relationship of any kind between (i) Project Manager or any Owner's representative and Contractor; (ii) Owner and/or its Representatives and a Subcontractor, sub-Subcontractor, or supplier of any Project labor, materials, or equipment; or (iii) between any persons or entities other than Owner and Contractor.

a. 14.10 Patents

- A. Fees or claims for any patented invention, article or arrangement that may be used upon or in any manner connected with performance of the Work or any part thereof shall be included in the Bid price for doing the Work. Contractor shall defend, indemnify and hold harmless Owner and each of its officers, employees, consultants and agents including, without limitation, the Board and each Owner's Representative, from all damages, claims for damages, costs or expenses in law or equity, including attorney's fees, arising from or relating to any claim that any article supplied or to be supplied under the Contract Documents infringes on the patent rights, copyright, trade name, trademark, service mark, trade secret or other intellectual property right of any person or persons or that the person or entity supplying the article does not have a lawful right to sell the same. Such costs or expenses for which Contractor agrees to indemnify and hold harmless the above indemnities include but are not limited to any and all license fees, whether such fees are agreed by any indemnitee or ordered by a court or administrative body of any competent jurisdiction.

14.11 Substitution For Patented And Specified Articles

- A. Except as noted specifically in the instructions to Bidders or in Contract Documents, whenever in Specifications, material or process is designated by patent or proprietary name or by name of manufacturer, such designation shall be deemed to be used for purpose of facilitating description of material and process desired, and shall be deemed to be followed by the words "or Approved Equal" and Contractor may offer any substitute material or process that Contractor considers "equal" in every respect to that so designated and if material or process offered by Contractor is, in opinion of Owner, Equal in every respect to that so designated, its use will be approved. However, Contractor may utilize this right only by timely submitting Document 00 6325 (Substitution Request Form) as provided in Document 00 2113 (Instructions to Bidders). A substitution will be approved only if it is a true "or equal" item in every aspect of its design and quality including, without limitation, its dimensions, weights, service requirements, durability, functioning, impact on contiguous construction elements, overall schedule and design.

14.12 Interest Of Public Officers

- A. No representative, officer, or employee of Owner no member of the governing body of the locality in which the Project is situated, no member of the locality in which Owner was activated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the Project, during the tenure of the official or for one year thereafter, shall, as principal, agent, attorney or otherwise, be directly or indirectly interested, in the Contract Documents or the proceeds thereof.

14.13 Limit Of Liability

- A. OWNER, AND EACH OF ITS OFFICERS, BOARD MEMBERS, EMPLOYEES, CONSULTANTS AND AGENTS INCLUDING, WITHOUT LIMITATION, PROJECT MANAGER AND EACH OTHER OWNER REPRESENTATIVE, SHALL HAVE NO LIABILITY TO CONTRACTOR FOR SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, EXCEPT TO THE LIMITED EXTENT THAT THESE CONTRACT DOCUMENTS OR APPLICABLE PUBLIC CONTRACTING STATUTES MAY SPECIFY THEIR RECOVERY.

15 WORKING CONDITIONS AND PREVAILING WAGES

15.01 Use Of Site/Sanitary Rules

- A. All portions of the Work shall be maintained at all times in neat, clean and sanitary condition. Contractor shall furnish toilets for use of Contractor's and Subcontractors' employees on the Site where needed, and their use shall be strictly enforced. All toilets shall be properly secluded from public observation, and shall be located, constructed and maintained subject to Owner's approval.
- B. Contractor shall confine construction equipment, the storage of materials and equipment and the operations of workers to the Site and land areas identified in and permitted by Contract Documents and other land and areas permitted by applicable laws and regulations, rights of way, permits and easements or as designated by Owner, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, any improvement located thereon, or to Owner or occupant thereof resulting from the performance of Work.
- C. During the progress of the Work, Contractor shall keep the Site and the Project free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work, Contractor shall clean the site, remove all waste materials, rubbish and debris from and about the Site as well as all tools, appliances, construction equipment and machinery and surplus materials. Contractor shall leave the premises clean and ready for occupancy by Owner at Substantial Completion of Work. Contractor shall restore to original condition all property not designated for alteration by Contract Documents.
- D. Contractor shall not load nor permit any part of any structure or pavement to be loaded in any manner that will endanger the structure or pavement, nor shall Contractor subject any part of Work or adjacent property to stresses or pressures that will endanger it. Contractor shall conduct all necessary existing conditions investigation regarding structural, mechanical, electrical or any other system existing, shall perform Work consistent with such existing conditions, and shall have full responsibility for insufficiencies or damage resulting from insufficiencies of existing systems, equipment or structures to accommodate performing the Work.

b. 15.02 Protection Of Work, Persons, And Property

- i. A Contractor shall be responsible for initiating, maintaining and supervising all safety and site security precautions and programs in connection with Work, and shall develop and implement a site security and safety plan throughout construction. Contractor shall comply with all safety requirements specified in any safety program established by Owner, or required by state, federal or local laws and ordinances. Contractor shall be responsible for all theft or damage to Work, property or structures, and all injuries to persons, either on the Site or constituting the Work (e.g., materials in transit), arising from the performance of Work of the Contract Documents from a cause.
- ii. B. Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall

notify Owners of adjacent property and of Underground Facilities and utility Owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property.

- iii. C Contractor shall remedy all damage, injury or loss to any property referred to above in this Article, caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, supplier, or any other person or organization directly or indirectly employed by any of them to perform or furnish any Work or anyone for whose acts any of them may be liable. Contractor's duties and responsibility for safety and for protection of Work shall continue until such time as all the Work is completed and Final Acceptance of the Work. Owner and its agents do not assume any responsibility for collecting any indemnity from any person or persons causing damage to Contractor's Work.
- iv. D. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.
- E. Owner may, at its option, retain such moneys due under the Contract Documents as Owner deems necessary until any and all suits or claims against Contractor for injury to persons or property shall be settled and Owner receives satisfactory evidence to that effect.
- F. Work within the right-of-way lines of the city/town and/or State shall be done in accordance with the standards and specifications of the controlling agency. Permit for such work shall be obtained and paid for by the Contractor before executing the work within such right-of-ways.

15.03 Responsibility For Safety And Health

- v. A. Contractor shall ensure that its and each tier of Subcontractors' employees, agents and invitees comply with applicable health and safety laws while at the Site. These laws include the Occupational Safety and Health Act of 1970 and rules and regulations issued pursuant thereto, and Owner's safety regulations as amended from time to time. Contractor shall comply with all Owner directions regarding protective clothing and gear.
- B. Contractor shall be fully responsible for the safety of its and its Subcontractors' employees, agents and invitees on the Site. Contractor shall notify Owner, in writing, of the existence of hazardous conditions, property or equipment at the Site that are not under Contractor's control. Contractor shall be responsible for taking all the necessary precautions against injury to persons or damage to the property of Contractor, Subcontractors or persons from recognized hazards until the responsible party corrects the hazard.
- C. Contractor shall confine all persons acting on its or its Subcontractors' behalf to that portion of the Site where Work under the Contract Documents is to be performed, Owner-designated routes for ingress and egress thereto, and any other Owner-designated area. Except those routes for ingress and egress over which Contractor has no right of control, within such areas, Contractor shall provide safe means of access to all places at which persons may at any time have occasion to be present.

15.04 Emergencies

- vi. A. In emergencies affecting the safety or protection of persons or Work or property at the Site or adjacent thereto, Contractor, without special instruction or authorization from Owner, is obligated to act to prevent threat and damage, injury or loss, until directed otherwise by Owner. Contractor shall give Owner prompt written notice if Contractor believes that any significant changes in Work or variations from Contract Documents have been caused thereby. If Owner determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Change Order or Construction Change Directive will be issued to document the consequences of such action.

15.05 Use Of Roadways And Walkways

- vii. A. Contractor shall not unnecessarily interfere with use of any roadway, walkway or other facility for vehicular or pedestrian traffic. Before beginning any interference and only with Owner's prior concurrence, Contractor may provide detour or temporary bridge for traffic to pass around or over the interference, which Contractor shall maintain in satisfactory condition as long as interference continues. Unless otherwise provided in the Contract Documents, Contractor shall bear the cost of these temporary facilities.

15.06 Nondiscrimination

- viii. A. No person or entity shall discriminate in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sexual preference, or gender of such persons, except as provided in Government Code Section 12940. Every contractor for public works violating the provisions of Labor Code Section 1735 is subject to all the penalties imposed for a violation of Chapter 1, Part 7, Division 2 of the California Labor Code.

c. 15.07 Prevailing Wages And Working Hours

- A. Contractor shall pay to persons performing labor in and about Work provided for in the Contract Documents an amount equal to or more than the general prevailing rate of per diem wages for (i) work of a similar character in the locality in which the Work is performed and (ii) legal holiday and overtime work in said locality. The per diem wages shall be an amount equal to or more than the stipulated rates contained in a schedule that has been ascertained and determined by the Director of the State Department of Industrial Relations and Owner to be the general prevailing rate of per diem wages for each craft or type of workman or mechanic needed to execute this Contract. Contractor shall also cause a copy of this determination of the prevailing rate of per diem wages to be posted at each Site.
- B. Contractor shall forfeit, as a penalty to Owner, \$200.00 for each laborer, worker, or mechanic employed in performing labor in and about the Work provided for in the Contract Documents for each Day, or portion thereof, that such laborer, worker or mechanic is paid less than the said stipulated rates for any Work done under the Contract Documents by him or her or by any Subcontractor under him or her, in violation of Articles 1 and 2 of Chapter 1 of Part 7 of Division II of the Labor Code. The sums and amounts that are forfeited pursuant to this Paragraph and the terms of the Labor Code shall be withheld and retained from payments due to Contractor under the Contract Documents, pursuant to this Document 00 7200 and the Labor Code, but no sum shall be so withheld, retained or forfeited except from the final payment without a full investigation by either the State Department of Industrial Relations or by Owner. The Labor Commissioner pursuant to Labor Code Section 1775 shall determine the final amount of forfeiture.
- C. Contractor shall insert in every subcontract or other arrangement which Contractor may make for performance of Work or labor on Work provided for in the Contract, provision that Subcontractor shall pay persons performing labor or rendering service under subcontract or other arrangement not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed in the Labor Code.
- D. Contractor stipulates that it shall comply with all applicable wage and hour laws, including without limitation, Labor Code Sections 1776 and 1810-1815. Failure to so comply shall constitute a default under this Contract.
- E. Contractor and its Subcontractors shall be responsible for compliance with Labor Code Sections 1810-1815.
1. Eight hours of labor performed in execution of the Contract constitutes a legal day's work. The time of service of any worker employed on the Project is limited and restricted to 8 hours during any one calendar day, and 40 hours during any one calendar week.
 2. Contractor and its Subcontractors shall keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by him or her in connection with the Project. The record shall be kept open at all reasonable hours to the inspection Owner and to the Division of Labor Standards Enforcement.
 3. Contractor or its Subcontractors shall, as a penalty to Owner, forfeit twenty -five dollars (\$25) for each worker employed in the execution of the Contract Documents by the respective Contractor or Subcontractor for each calendar day during which the worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of Labor Code Sections 1810-1815.
 4. Work performed on the Project by employees of Contractor or its Subcontractors in excess of 8 hours per day, and 40 hours during any one week, shall be permitted upon compensation

for all hours worked in excess of 8 hours per day at not less than 1 1/2 times the basic rate of pay.

- F. Contractor and its Subcontractors shall be responsible for compliance with Labor Code Section 1776. Further, if this Contract is awarded on or after January 1, 2015, this Project is subject to prevailing wage compliance monitoring and enforcement by the Department of Industrial Relations.
1. Contractor and Subcontractors must keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the Work of the Contract Documents. Each payroll record shall contain or be verified by a written declaration as required by Labor Code Section 1776.
 2. The payroll records enumerated above must be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor as required by Labor Code Section 1776.
 - a. Contractor shall inform Owner of the location of records enumerated above, including the street address, city/town and county, and shall, within five working days, provide a notice of a change of location and address.
 - b. Contractor or Subcontractor has 10 days in which to comply subsequent to receipt of a written notice requesting the records enumerated above. In the event that the Contractor or Subcontractor fails to comply with the ten-day period, he or she shall, as a penalty to Owner on whose behalf the contract is made or awarded, forfeit \$100.00 for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due. Contractor is not subject to a penalty assessment pursuant to this Paragraph due to the failure of a Subcontractor to comply with this Paragraph.
 3. With each application for payment, Contractor shall also deliver certified payrolls to Owner as set forth above in this Document 00 7200 (General Conditions), and (if this Contract is awarded on or after April 1, 2015 or continues on or after January 1, 2016, or the Labor Commissioner otherwise directs) concurrently therewith (but in no event less frequently than monthly) directly to the Labor Commissioner in the format prescribed by the Labor Commissioner.
 4. Contractor shall post all jobsite notices if and when prescribed by regulation.

15.08 Environmental Controls

- i. A Contractor shall comply with all rules, regulations, ordinances, and statutes that apply to any Work performed under the Contract Documents including, without limitation, any toxic, water, stormwater management and soil pollution controls and air pollution controls specified in Government Code Section 11017. Contractor shall be responsible for insuring that Contractor's Employees, Subcontractors, and the public are protected from exposure to airborne hazards or contaminated water, soil, or other toxic materials used during or generated by activities on the Site or associated with the Project.

d. 15.09 Shoring Safety Plan

- A. Any conflict between this Paragraph and the Technical Specifications shall be resolved in favor of the most stringent requirement.
- B. At least five Days in advance of any excavation five feet or more in depth, Contractor shall submit to Owner a detailed plan showing the shoring, bracing and sloping design (including calculations) and other provisions to be made for worker protection from the hazard of caving ground during the excavation, as required by Labor Code Section 6705. A civil or structural engineer registered in California shall prepare and sign any plan that varies from the shoring system standards established by the State Construction Safety Orders.

- C. During the course of Work, Contractor shall be responsible for determining where sloping, shoring, and/or bracing is necessary and the adequacy of the design, installation, and maintenance of all shoring and bracing for all excavation, including any excavation less than five feet in depth. Contractor will be solely responsible for any damage or injuries that may result from excavating or trenching. Owner's acceptance of any drawings showing the shoring or bracing design or Work schedule shall not relieve Contractor of its responsibilities under this Paragraph.
- D. Appoint a qualified supervisory employee who shall be responsible to determine the sloping or shoring system to be used depending on local soil type, water table, stratification, depth, etc.

END OF DOCUMENT

DOCUMENT 00 7316

SUPPLEMENTARY CONDITIONS – INSURANCE AND INDEMNIFICATION

****FOR REVIEW AND APPROVAL BY OWNER’S RISK MANAGER****

ARTICLE 1 INSURANCE

1.01 At or before the date specified in Document 00 2113 (Instructions to Bidders), Contractor shall furnish to Owner satisfactory proof that Contractor has taken out for the entire period covered by the Contract the following classes of insurance in the form and with limits and deductibles specified below, unless otherwise specified in Contract Documents:

- A. Comprehensive General Liability Insurance covering claims for personal injury, bodily injury and property damage arising out of the Work and in a form providing coverage not less than that of a Standard Commercial General Liability Insurance policy (**Occurrence Form**). Such insurance shall provide for all operations and include independent contractors, products liability, completed operations for one year after Final Completion and acceptance of the final payment for the Work, contractual liability, and coverage for explosion, collapse, and underground hazards. The limits of such insurance shall not be coverage of less than **[\$5,000,000]** each occurrence, **[\$5,000,000]** general aggregate limit, and **[\$5,000,000]** aggregate for products and completed operations. The policy shall be endorsed to provide Broad Form Property Damage Coverage.\
- B. Comprehensive Automobile Liability Insurance covering all owned, non-owned, and hired vehicles. Such insurance shall provide coverage not less than the standard Comprehensive Automobile Liability policy with limits not less than **[\$2,000,000]** each person Bodily Injury, **[\$2,000,000]** each occurrence Bodily Injury, and **[\$2,000,000]** each occurrence Property Damage.
- C. All-Risk Course of Construction Insurance including damage to property owned by Owner, Contractor or third parties caused by fire. Insurance shall be in the amount of 100 percent of the completed value of the Work to be performed under this Contract. Deductible shall not exceed **[\$10,000.00]**. Each loss shall be borne by Contractor.
- D. Workers’ Compensation Insurance for all persons whom the Contractor may employ in carrying out Work contemplated under Contract Documents, in accordance with the Act of Legislature of State of California, known as “Workers’ Compensation Insurance and Safety Act,” approved May 26, 1913, and all acts amendatory or supplemental thereto, in the statutory amount.
- E. **[Optional]** Environmental Impairment Liability Insurance covering bodily injury and property damage utilizing an occurrence policy form, in an amount no less than **[\$1,000,000]** combined single limit for each occurrence.

1.02 If Contractor normally carries insurance in an amount greater than the minimum amounts required by Owner in Paragraph 1.01 above, that greater amount shall become the minimum required amount of insurance for purposes of the Contract. Therefore, Contractor hereby acknowledges and agrees that all insurance carried by it shall be deemed liability coverage for all actions it performs in connection with the Contract. .

The limits of insurance this Contract requires may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the Owner’s benefit, to the extent required by the Contract, before the Owner’s insurance or self-insurance may be called upon to protect Owner as a named insured.

1.03 All policies of insurance shall be placed with insurers acceptable to Owner. The insurance underwriter(s) for all insurance policies except Workers’ Compensation shall have an A. M. Best Company rating of **[A-, VIII]** or better, unless otherwise specified in Contract Documents. Required minimum amounts of insurance may be increased should conditions of Work, in opinion of Owner, warrant such increase. Contractor shall increase required insurance amounts upon direction by Owner.

All self-insured retentions (SIR) must be disclosed to the Owner for approval and shall not reduce the coverage limits. Insurance policies containing an SIR provision shall provide or be endorsed to provide that the SIR may be satisfied by either the named Contractor/named insured or the Owner.

- 1.04** Required Endorsements: The policies required under Document 00 7200 (General Conditions) and this Document 00 7316 (including any umbrella or excess liability policy(ies)) shall be endorsed as follows:
- A. Name Owner, its elected and/or appointed governing body and boards, employees, representatives, consultants, and agents, and Project Manager as additional insureds, but only with respect to liability arising out of the activities of the named insured. Additional insured language must be at least as broad as the Insurance Services Office (**ISO**) forms GC 20 38 04 13 and GC 20 37 04 13.
 - B. Each such policy shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limit of the insurance company's liability required hereunder. Should any of the policies identified herein contain a "cross-suits" exclusion, such exclusion must not apply to any additional insureds.
 - C. Insurance shall be primary to Owner and no other insurance or self-insured retention carried or held by Owner shall be called upon to contribute to a loss covered by insurance for the named insured.
 - D. All endorsements shall include the applicable policy number, the named insured(s) and policy terms.
 - E. Contractor or its insurance broker shall submit to Owner a copy of the "**Declarations Page**" for each policy identified under Paragraph 1.01 above. The Declarations Page shall include the name of the insurance carrier, the applicable policy number, the types of coverage and limits of insurance provided, the effective date(s) of the policy, the insurance broker's name and license number, and a list of all coverage forms and endorsements.
- 1.05** Certificates of insurance and endorsements shall have clearly typed thereon Owner Contract Number and title of Contract Documents. Written notice of cancellation, non-renewal, or reduction in coverage of any policy shall be mailed to Owner (Attention: Owner Risk Manager / Purchasing Agent) at the address listed in Document 00 5200 (Agreement), 60 Days in advance of the effective date of the cancellation, non-renewal, or reduction in coverage. Written notice of cancellation for non-payment shall be mailed within 10 Days of cancellation. Contractor shall maintain all insurance in full force and effect during entire period of performance of Contract Documents, including warranty and guarantee periods. However, Contractor may discontinue All-Risk Course of Construction Insurance after Final Payment, and shall maintain General Liability Insurance throughout the entire Extended Term specified Paragraph 1.01 above. At time of making application for extension of time, and during all periods exceeding the Contract Time resulting from any cause, Contractor shall submit evidence that insurance policies will be in effect during requested additional period of time. Upon Owner's request, Contractor shall submit to Owner, within 30 Days, copies of the actual insurance policies or renewals or replacements.
- 1.06** Contractor shall pay all insurance premiums, including any charges for required waivers of subrogation or the endorsement of additional insureds. If Contractor fails to maintain insurance, Owner may take out comparable insurance, and deduct and retain amount of premium from any sums due Contractor under Contract Documents, or require Contractor to reimburse Owner.
- 1.07** If injury occurs to any employee of Contractor, Subcontractor or sub-subcontractor for which the employee, or the employee's dependents in the event of employee's death, is entitled to compensation from Owner under provisions of the Workers' Compensation Insurance and Safety Act, as amended, or for which compensation is claimed from Owner, Owner may retain out of sums due Contractor under Contract Documents, amount sufficient to cover such compensation, as fixed by the Act, as amended, until such compensation is paid, or until it is determined that no compensation is due. If Owner is compelled to pay compensation, Owner may, in its discretion,

either deduct and retain from the Contract Sum the amount so paid, or require Contractor to reimburse Owner.

- 1.08** Nothing herein shall be construed as limiting in any way the extent to which Contractor or any Subcontractor may be held responsible for payment of damages resulting from their operations.
- 1.09** Except for Comprehensive General Liability Insurance, of which Subcontractors need only obtain \$1,000,000 in coverage, all Subcontractors shall maintain the same insurance required to be maintained by Contractor with respect to their portions of the Work unless otherwise indicated in Contract Documents, and Contractor shall cause the Subcontractors to furnish proof thereof to Owner within ten Days of Owner's request.
- 1.10** The following provisions apply to any licensed professional engaged by Contractor to perform portions of the Work (Professional).
- A. Each Professional shall maintain the following insurance, unless otherwise specified in Contract Documents:
- B. Professional Liability Insurance, insuring against professional errors and omissions arising from Professional's Work on the Project, in an amount not less than **[\$1,000,000]** combined single limit for each occurrence. If Professional cannot provide an occurrence policy, Professional shall provide insurance covering claims made as a result of performance of Work on this Project and shall maintain such insurance in effect for not less than two years following Final Completion of the Project.
1. Professional shall satisfy all other provisions of this Document 00 7316 relating to that insurance, including without limitation providing required insurance certificates (containing the required endorsements) before commencing its Work on the Project.
- 1.11** Contractor shall maintain insurance as required by this Agreement to the fullest amount allowed by law and shall maintain insurance for a minimum of five (5) years following completion of this project or service. In the event Contractor fails to obtain or maintain completed operations coverage as required by this Agreement, Owner at its sole discretion may purchase the coverage required and the cost will be paid by Contractor.

ARTICLE 2 RESPONSIBILITY OF CONTRACTOR AND INDEMNIFICATION

- 2.01** Owner and each of its officers, employees, consultants and agents including, without limitation, the Board, Project Manager and each Owner's Representative, shall not be liable or accountable in any manner for loss or damage that may happen to any part of the Work; loss or damage to materials or other things used or employed in performing the Work; injury, sickness, disease, or death of any person; or damage to property resulting from any cause whatsoever except their sole negligence, willful misconduct or active negligence, attributable to performance or character of the Work, and Contractor releases all of the foregoing persons and entities from any and all such claims.
- 2.02** To the furthest extent permitted by law (including, without limitation, Civil Code Section 2782), Contractor shall defend, indemnify, and hold harmless, Owner and each of its officers, employees, consultants and agents including, without limitation, the Board, Project Manager and each Owner's Representative, from claims, suits, actions, losses and liability of every kind, nature and description including, without limitation, claims and fines of regulatory agencies and attorney's fees and consultant's fees, directly or indirectly arising out of, connected with, or resulting from performance of the Work, failure to perform the Work, or condition of the Work that is caused in whole or part by any act or omission of Contractor, Subcontractors, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, resulting from any cause whatsoever except their sole negligence, willful misconduct, or active negligence.
- 2.03** With respect to third-party claims against Contractor, Contractor waives any and all rights to any type of express or implied indemnity including, without limitation, costs of defense, against Owner and each of its officers, employees, consultants and agents including, without limitation, Owner, the Board, Project Manager and each Owner's Representative. Owner shall provide timely notice

to Contractor of any third-party claim relating to the Contract Documents, in accordance with Public Contract Code Section 9201.

- 2.04** Approval or purchase of any insurance contracts or policies shall in no way relieve from liability nor limit the liability of Contractor, its Subcontractors of any tier, or the officers or agents of any of them. The Contractor's defense and indemnification obligations are undertaken in addition to, and shall not in any way be limited by, the insurance obligations contained herein.
- 2.05** To the furthest extent permitted by law (including, without limitation, Civil Code §2782), the indemnities, releases of liability and limitations of liability, claims procedures, and limitations of remedy expressed throughout Contract Documents shall apply even in the event of breach of Contract, negligence (active or passive), fault or strict liability of the party(ies) indemnified, released, or limited in liability, and shall survive the termination, rescission, breach, abandonment, or completion of the Work or the terms of the Contract Documents. If Contractor fails to perform any of these defense or indemnity obligations, Owner may in its discretion back charge Contractor for Owner's costs and damages resulting therefrom and withhold such sums from progress payments or other Contract moneys which may become due.
- 2.06** Contractor's obligations to defend and indemnify Owner shall survive the termination or completion of this Contract for the full period of time allowed by law.

END OF DOCUMENT

DOCUMENT 00 7380

APPRENTICESHIP PROGRAM

ARTICLE 1 COMPLIANCE REQUIRED

1.01 Contractor and Subcontractors shall comply with the requirements of California Labor Code Sections 1776, 1777.5, and 1777.6 concerning the employment of apprentices by Contractor or Subcontractors. Willful failure to comply may result in penalties, including loss of the right to Bid on or receive public works contracts.

ARTICLE 2 CERTIFICATION OF APPROVAL

2.01 California Labor Code Section 1777.5, as amended, requires a Contractor or Subcontractor employing tradespersons in any apprenticeable occupation to apply to the joint apprenticeship committee nearest the site of a public works project and which administers the apprenticeship program in that trade for a certification of approval. The certificate shall also fix the ratio of apprentices to journeypersons that will be used in performance of the Contract. The ratio of work performed by apprentices to journeypersons in such cases shall not be less than one *hour* of apprentices work for every five *hours* of labor performed by journeypersons (the minimum ratio for the land surveyor classification shall not be less than one apprentice for each five journeypersons), except:

- A. When unemployment for the previous three month period in the area exceeds an average of 15 percent;
- B. When the number of apprentices in training in the area exceeds a ratio of one to five;
- C. When a trade can show that it is replacing at least 1/30 of its membership through apprenticeship training on an annual basis state-wide or locally; or
- D. Assignment of an apprentice to any work performed under a public works contract would create a condition which would jeopardize his or her life or the life, safety, or property of fellow employees or the public at large or if the specific task to which the apprentice is to be assigned is of such a nature that training cannot be provided by a journeyman.

ARTICLE 3 FUND CONTRIBUTIONS

3.01 Contractor is required to make contributions to funds established for administration of apprenticeship programs if Contractor employs registered apprentices or journeypersons in any apprenticeable trade on such contracts and if other contractors on the public works site are making such contributions.

ARTICLE 4 APPRENTICESHIP STANDARDS

4.01 Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of the California Department of Industrial Relations, or from the Division of Apprenticeship Standards and its branch offices.

END OF DOCUMENT

19. DOCUMENT 00 9113

ADDENDA

COASTSIDE FIRE PROTECTION DISTRICT

- a. **Station 41 South Lot Landscaping and Sidewalk Improvements_555 Obispo Rd, El Granada, CA 94018**

[DOCUMENT TO BE COMPLETED AS ADDENDA DURING BID PERIOD]

[If a conformed copy is created, delete bracketed line above and replace with the following:]

The following Addenda were issued, modifying the Project Manual:

Addendum No. 1, issued on **[date]**
Addendum No. 2, issued on **[date]**
[Continue as appropriate]

(Addenda have been incorporated into the conformed Project Manual.)

END OF DOCUMENT

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 1100

SUMMARY OF WORK

PART 1 GENERAL

1.01 Summary.

- A. Section includes Summary of Work and Work Restrictions including:
 - 1. Work Covered By Contract Documents
 - 2. Bid Item, Allowances and Alternates
 - 3. Specialty Items
 - 4. Work Under Other Contracts
 - 5. Future Work
 - 6. Work Sequence
 - 7. Work Days and Hours
 - 8. Shutdown for Discovery of Cultural Resources
 - 9. Cooperation of Contractor and Coordination with Other Work
 - 10. Partial Occupancy/Utilization Requirements
 - 11. Contractor Use of Site
 - 12. Air Quality Standards
 - 13. Construction Staking and Monument Protection
 - 14. Protection of Existing Structures and Underground Facilities
 - 15. Permits
 - 16. Owner-Furnished Products

1.02 Work Covered by Contract Documents.

- A. Work comprises of the construction of Owner's **Station 41 South Lot Landscaping and Sidewalk Improvements** located at **555 Obispo Rd, El Granada, CA 94018**. The Work includes, without limitation, a new defensible-space demonstration garden, accessible garden path, memorial bench, new welcome sign, sidewalk connection and street crossing improvements, and other miscellaneous work shown on the Plans and described in these specifications. Sidewalk and street crossing improvements are included in the project as alternate bids. Contract Documents fully describe the Work.
- B. The Work of this Contract comprises construction of all the Work indicated, described in the Specifications, or otherwise required by the Contract Documents. Unless provided otherwise in the Contract Documents, all risk of loss to Work covered by Contract Documents shall rest with Contractor until Final Acceptance of the Work. Cost of maintenance of systems and equipment prior to Final Acceptance will be considered as included in prices Bid and no direct or additional payment will be made therefore.
- C. For all Bid items, furnish and install all Work, including connections to existing systems, indicated and described in Specifications and all other Contract Documents. Work and requirements applicable to each individual Bid item, or unit of Work, shall be deemed incorporated into the description of each Bid item (whether Lump Sum or Unit Price). Any Bid item may be deleted from the Work and Contract Sum, in total or in part, prior to or after award of Contract without compensation in any form or adjustment of other Bid items or prices therefore.
- D. Allowance Work shall be done as Change Orders and as specified in Section 01 2600 (Modification Procedures). Identify Allowance Items (See Document 00 4113 [Bid Form]) work on the Progress Schedules and on Applications for Payment. The Amount given on Document 00 4113 (Bid Form) under each Allowance Item is the sum of money set aside for each Allowance Item. These amounts shall be included in the Contract Sum on the Bid Form. If the cost of Work done under any Allowance Item is less than the amount given on the Bid Form under that Allowance Item, the

Contract Sum shall be reduced by the difference between the amount given in the Bid Form and the cost of Work actually done.

1.03 Bid Items, Allowances and Alternates.

- A. Descriptions of Bid Items (listed by Bid item numbers):

BASE BID

20. Mobilization and Demobilization

Mobilization consists of preparatory work and operations, including but not limited to those necessary for the movement of personnel, equipment, supplies and incidentals to the project site; for the establishment of all facilities necessary for the work on the project; preparing product submittals and for all other work and operations which must be performed or cost incurred prior to beginning work on the various contract items on the project site as shown on the Plans, specified in the Project Specifications and directed by the Owner's representative.

The contract **LUMP SUM (LS)** price paid for **MOBILIZATION** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals, and for all the work involved in mobilization, including, but not limited to furnishing all contract bonds, public notification, temporary traffic control, temporary facilities for construction, staging provisions as specified in the State Standard Specifications and these Specifications, and as directed by the District's Representative.

21. Traffic Control

The contract **LUMP SUM (LS)** price for **TRAFFIC CONTROL** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, required for doing all the work involved in traffic control, complete in place, including flaggers, signage, traffic control plan, and other work, conforming to the provisions of this Section, as shown on the Plans, as directed by the District Representative, and as specified in these special provisions.

22. Stormwater Pollution Prevention

The contract **LUMP SUM (LS)** price for **STORMWATER POLLUTION PREVENTION** shall include full compensation for all labor, materials, tools, equipment, and incidentals required to prepare SWPPP plan as well as implementation of the plan, including erosion control BMP's complete and in place as shown in the Plans, specified in these Special Provisions, and as designated by the Engineer.

23. Demolition and Disposal

The contract **LUMP SUM (LS)** price for **DEMOLITION AND DISPOSAL** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for all work involved in demolition and disposal of all materials, debris as shown on the plans, as directed by the Districts Representative, and as specified in these Special Provisions

24. Clearing and Grubbing

The contract unit price paid per **SQUARE FOOT (SF)** for **CLEARING & GRUBBING** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, required for doing all the work involved in clearing and grubbing, complete in place, including trimming or removing

obstructing vegetation, limbing, root pruning, root grinding, cleanup, removing and disposing of rocks and boulders, off-haul and disposal of debris, protection of existing facilities, backfilling and compaction, as shown on the plans, as specified in the these specifications, and as directed by the Districts Representative..

25. **Excavate, Remove, Prep, Level Area for Path**

The contract **SQUARE FOOT (SF)** price for **EXCAVATE, REMOVE, PREP, LEVEL AREA FOR PATH** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for all work involved in excavating , stockpiling, transporting, dispose of excavated material on site, fill placement, moisture conditioning, and compacting in place as shown on the contract plans, drain rock, as directed by the Districts Representative, and as specified in these Special Provisions.

Full compensation for excavation below the original grade for new path shall be considered as included in the contract unit prices paid for the various paving items and no separate payment will be made therefore.

26. **6' High Temporary Construction Fence**

The contract **LINEAR FOOT (LF)** price for **6' HIGH TEMPORARY CONSTRUCTION FENCE** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals for doing all work involved including installing temporary chain link construction fencing at limit of work perimeter as specified in these Special Provisions and as directed by the District's Representative.

27. **GraniteCrete Path**

The contract unit price paid per **SQUARE FOOT (SF)** for **GRANITECRETE Path**, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved including installing new granitecrete path, including grading, edging as directed by the District representative .

28. **Timber Curb**

The contract unit price paid per **LINEAR FOOT (LF)** for **TIMBER CURB**, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved including installing new Timber Curbs.

29. **Aluminum Edging**

The contract unit price paid per **LINEAR FOOT (LF)** for **ALUMINUM EDGING**, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for completing all the work involved including installing new Aluminum edging.

30. **Rock Garden, Cobbles**

The contract unit price paid per **SQUARE FOOT (SF)** for **ROCK GARDEN, COBBLES**, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved including installing new Rock Garden Cobbles.

31. **Redwood Bench Including Frame and Footing**

The contract unit price paid per **EACH (EA)** for **REDWOOD BENCH INCLUDING FRAME AND FOOTING**, shall include full compensation for

furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved including installing new Redwood Bench.

32. **Nature Trail Signs**

The contract unit price paid per **EACH (EA)** for **NATURE TRAIL SIGNS**, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved including installing new Nature Trail Signs.

33. **Welcome Sign, Including Footing**

The contract unit price paid per **EACH (EA)** for **WELCOME SIGN INCLUDING FOOTING**, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved including installing new Welcome Sign.

34. **Soil Testing**

The contract **LUMP SUM (LS)** for **SOIL TESTING** shall include full compensation for testing and providing a soil report as required per planting specifications. Submission of soil report data and demonstration of providing soil amendments as recommended by soil report required.

35. **Soil Amendment**

The contract **LUMP SUM (LS)** for **SOIL TESTING** shall include full compensation for tilling existing soil to a depth of 12" and the incorporation of amendments. Submission of soil report data and demonstration of providing soil amendments as recommended by soil report required.

36. **Mulch**

The contract unit price paid per **LUMP SUMP (LS)** for **WOOD MULCH – 3" THICK LANDSCAPE AREAS** shall include all labor, materials, tools, services, equipment and appliances required to install mulch including but not limited to grading, subgrade preparation and mulch preparation as shown on the Plans, as specified in the State Standard Specifications, these Specifications and as directed by the District's representative.

37. **5-Gallon Shrubs**

The contract unit price paid per **EACH (EA)** for **5- GALLON SHRUBS** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in shrub planting, including excavation, grading, subgrade preparation, planting soil backfill, amending fertilizers and conditioners, planting, watering, and all other necessary items as shown on the Plans, as specified these Specifications and as directed by the District's Representative.

38. **1-Gallon Shrubs**

The contract unit price paid per **EACH (EA)** for **1-GALLON SHRUBS** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in shrub planting, including excavation, grading, subgrade preparation, planting soil backfill, amending fertilizers and conditioners, planting, watering, and all other necessary items as shown on the Plans, as specified in these Specifications and as directed by the District's Representative.

39. **1-Gallon Ground Cover**

The contract unit price paid per **EACH (EA)** for **1-GALLON GROUND COVER** shall include full compensation for furnishing all labor, materials, tools,

equipment, and incidentals, and for doing all the work involved in shrub planting, including excavation, grading, subgrade preparation, planting soil backfill, amending fertilizers and conditioners, planting, watering, and all other necessary items as shown on the Plans, as specified these Specifications and as directed by the District's Representative.

40. **Succulents**

The contract unit price paid per **EACH (EA)** for **SUCCULENTS** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in succulent planting, including excavation, grading, subgrade preparation, planting soil backfill, amending fertilizers and conditioners, planting, watering, and all other necessary items as shown on the Plans, as specified these Specifications and as directed by the District's Representative.

41. **Landscape Maintenance**

The contract **LUMP SUM (LS)** price for **LANDSCAPE MAINTENANCE – 30 DAY** shall include all labor, materials, services, equipment and appliances required for maintaining the installed planting and irrigation improvements, including, but not limited to seeding exposed soil areas lacking hydroseed, debris removal irrigation monitoring and programming, weed removal, fertilizing, as shown on the Plans, specified herein and directed by the District's Representative.

42. **Landscape Irrigation System**

The contract **LUMP SUM (LS)** price for **LANDSCAPE IRRIGATION SYSTEM** shall include full compensation for furnishing all labor, materials, services, tools, equipment, and incidentals, and for doing all the work involved in installing a working irrigation system, including but not limited to excavation, trenching, backfill, grading, temporary irrigation operations, installation of irrigation pipes and low voltage wires, valves, valve boxes, installation of controller, in-line drip, bubblers, fittings, testing and protecting and modifying or conforming to existing irrigation as needed, demolition of existing system, and all other area restoration as shown on the plans, as specified in the State Standard Specifications, these Specifications and as directed by the District's Representative.

43. **ALLOWANCE - County of San Mateo Encroachment Permit Fees**

The contract **LUMP SUM (LS)** price for **ALLOWANCE - COUNTY OF SAN MATEO ENCROACHMENT PERMIT** shall include an allowance to reimburse the contractor for the cost of permit fees for obtaining the permit. The Contractor shall apply for the permit from the County. The cost of applying for the permit shall not be paid from this item, it should be included in other items.

ALTERNATE BID 1 - SIDEWALK IMPROVEMENTS

A1. Mobilization and Demobilization

Mobilization consists of preparatory work and operations, including but not limited to those necessary for the movement of personnel, equipment, supplies and incidentals to the project site; for the establishment of all facilities necessary for the work on the project; preparing product submittals and for all other work and operations which must be performed or cost incurred prior to beginning work on the various contract items on the project site as shown on the Plans,

specified in the Project Specifications and directed by the Owner's representative.

The contract **LUMP SUM (LS)** price paid for **MOBILIZATION** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals, and for all the work involved in mobilization, including, but not limited to furnishing all contract bonds, public notification, temporary traffic control, temporary facilities for construction, staging provisions as specified in the State Standard Specifications and these Specifications, and as directed by the District's Representative.

A2. Traffic Control

The contract **LUMP SUM (LS)** price for **TRAFFIC CONTROL** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, required for doing all the work involved in traffic control, complete in place, including flaggers, signage, traffic control plan, and other work, conforming to the provisions of this Section, as shown on the Plans, as directed by the District Representative, and as specified in these special provisions.

A3. Stormwater Pollution Prevention

The contract **LUMP SUM (LS)** price for **STORMWATER POLLUTION PREVENTION** shall include full compensation for all labor, materials, tools, equipment, and incidentals required to prepare SWPPP plan as well as implementation of the plan, including erosion control BMP's complete and in place as shown in the Plans, specified in these Special Provisions, and as designated by the Engineer.

A4. Demolition

The contract **LUMP SUM (LS)** price for **DEMOLITION** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for all work involved in demolition and disposal of all materials, debris as shown on the plans, as directed by the Districts Representative, and as specified in these Special Provisions

A5. Excavate, Remove, Prep, Level Area for Sidewalk

The contract **SQUARE FOOT (SF)** price for **EXCAVATE, REMOVE, PREP, LEVEL AREA FOR SIDEWALK** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for all work involved in excavating , stockpiling, transporting, dispose of excavated material on site, fill placement, moisture conditioning, and compacting in place as shown on the contract plans, drain rock, as directed by the Districts Representative, and as specified in these Special Provisions.

Full compensation for excavation below the original grade for new sidewalk shall be considered as included in the contract unit prices paid for the various paving items and no separate payment will be made therefore.

A6. Sidewalk – County Std D-3

The contract **SQUARE FOOT (SF)** price for **SIDEWALK - CITY STD D-3** shall include full compensation for all labor, materials, tools, equipment, and incidentals for all work including, but not limited to, sawcutting, protection of facilities to remain in place, removal and disposal of existing materials disposal of surplus miscellaneous materials, installation and removal of formwork, furnishing, placing and curing concrete, any required jointing and dowels, restoration of surrounding improvements, clean-up and incidentals to complete work according to the Plans and Specifications.

- A7. **Curb and Gutter - County Std D-3**
The contract **LINEAR FOOT (LF)** price for **CURB AND GUTTER - COUNTY STD D-3** shall include full compensation for all labor, materials, tools, equipment, and incidentals for all work including, but not limited to, sawcutting of existing concrete along existing score lines, protection of facilities to remain in place, disposal of surplus miscellaneous materials, placing and removal of formwork, any required jointing and dowels, furnishing, placing and curing concrete, application of curing compound, flowline test, restoration of surrounding improvements clean-up and incidentals to complete work according to the Plans and Specifications.
- A8. **Deep Lift 16" AC Conform**
The contract **LINEAR FOOT (LF)** price for **DEEP LIFT 16" AC CONFORM** shall include full compensation for all labor, materials, tools, equipment, and incidentals required to complete all work associated with the deep lift 16" asphalt conform as shown in the Plans and Specifications.
- A9. **Curb Ramps**
The contract price per **EACH (EA)** price for **CURB RAMPS** shall include full compensation for all labor, materials, tools, equipment, and incidentals required to construct the curb ramps as shown in the Plans and Specifications, including the landing, flares, detectable warning surface, and conform sidewalk and curb and gutter as show per curb ramp details. Retaining curbs (if necessary) at the edge of sidewalk and at the back of certain curb ramps will not be measured separately and shall be included as part of the per each cost of the ramp. Ramp construction shall comply with the latest Caltrans Standard Plans slope and dimension requirements.
- A10. **Patch Asphalt**
The contract **SQUARE FOOT (SF)** price for **PATCH ASPHALT** shall include full compensation for all labor, materials, tools, equipment, and incidentals required to patch asphalt where indicated in the Plans.
- A11. **Remove and Reinstall Existing Roadside Sign on New Post - Street Sign**
The contract per **EACH (EA)** price for **REMOVE AND REINSTALL EXISTING ROADSIDE SIGN ON NEW POST - STREET SIGN** shall include full compensation for all labor, materials, tools, equipment, and incidentals required to complete the work as shown on the Plans.

ALTERNATE BID 2 – SIDEWALK AND CROSSWALK IMPROVEMENTS

- B1. **Mobilization and Demobilization**
Mobilization consists of preparatory work and operations, including but not limited to those necessary for the movement of personnel, equipment, supplies and incidentals to the project site; for the establishment of all facilities necessary for the work on the project; preparing product submittals and for all other work and operations which must be performed or cost incurred prior to beginning work on the various contract items on the project site as shown on the Plans, specified in the Project Specifications and directed by the Owner's representative.

The contract **LUMP SUM (LS)** price paid for **MOBILIZATION** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals, and for all the work involved in mobilization, including, but not limited to furnishing all contract bonds, public notification, temporary traffic control, temporary facilities for construction, staging provisions as specified in the State Standard Specifications and these Specifications, and as directed by the District's Representative.

B2. Traffic Control

The contract **LUMP SUMP (LS)** price for **TRAFFIC CONTROL** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, required for doing all the work involved in traffic control, complete in place, including flaggers, signage, traffic control plan, and other work, conforming to the provisions of this Section, as shown on the Plans, as directed by the District Representative, and as specified in these special provisions.

B3. Stormwater Pollution Prevention

The contract **LUMP SUM (LS)** price for **STORMWATER POLLUTION PREVENTION** shall include full compensation for all labor, materials, tools, equipment, and incidentals required to prepare SWPPP plan as well as implementation of the plan, including erosion control BMP's complete and in place as shown in the Plans, specified in these Special Provisions, and as designated by the Engineer.

B4. Demolition

The contract **LUMP SUMP (LS)** price for **DEMOLITION** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for all work involved in demolition and disposal of all materials, debris as shown on the plans, as directed by the Districts Representative, and as specified in these Special Provisions

B5. Excavate, Remove, Prep, Level area for Sidewalk

The contract **SQUARE FOOT (SF)** price for **EXCAVATE, REMOVE, PREP, LEVEL AREA FOR SIDEWALK** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for all work involved in excavating , stockpiling, transporting, dispose of excavated material on site, fill placement, moisture conditioning, and compacting in place as shown on the contract plans, drain rock, as directed by the Districts Representative, and as specified in these Special Provisions.

Full compensation for excavation below the original grade for new sidewalk shall be considered as included in the contract unit prices paid for the various paving items and no separate payment will be made therefore.

B6. Sidewalk – County Std D-3

The contract **SQUARE FOOT (SF)** price for **SIDEWALK - COUNTY STD D-3** shall include full compensation for all labor, materials, tools, equipment, and incidentals for all work including, but not limited to, sawcutting, protection of facilities to remain in place, removal and disposal of existing materials disposal of surplus miscellaneous materials, installation and removal of formwork, furnishing, placing and curing concrete, any required jointing and dowels, restoration of surrounding improvements, clean-up and incidentals to complete work according to the Plans and Specifications.

B7. Curb and Gutter – County Std D-3

The contract **LINEAR FOOT (LF)** price for **CURB AND GUTTER - COUNTY STD D-3** shall include full compensation for all labor, materials, tools, equipment, and incidentals for all work including, but not limited to, sawcutting of existing concrete along existing score lines, protection of facilities to remain in place, disposal of surplus miscellaneous materials, placing and removal of formwork, any required jointing and dowels, furnishing, placing and curing concrete, application of curing compound, flowline test, restoration of surrounding improvements clean-up and incidentals to complete work according to the Plans and Specifications.

B8. Deep Lift 16" AC Conform

The contract **LINEAR FOOT (LF)** price for **DEEP LIFT 16" AC CONFORM** shall include full compensation for all labor, materials, tools, equipment, and incidentals required to complete all work associated with the deep lift 16" asphalt conform as shown in the Plans and Specifications.

B9. Curb Ramps

The contract price per **EACH (EA)** price for **CURB RAMPS** shall include full compensation for all labor, materials, tools, equipment, and incidentals required to construct the curb ramps as shown in the Plans and Specifications, including the landing, flares, detectable warning surface, and conform sidewalk and curb and gutter as show per curb ramp details. Retaining curbs (if necessary) at the edge of sidewalk and at the back of certain curb ramps will not be measured separately and shall be included as part of the per each cost of the ramp. Ramp construction shall comply with the latest Caltrans Standard Plans slope and dimension requirements.

B10. Patch Asphalt

The contract **SQUARE FOOT (SF)** price for **PATCH ASPHALT** shall include full compensation for all labor, materials, tools, equipment, and incidentals required to patch asphalt where indicated in the Plans.

B11. Remove and Reinstall Existing Roadside on New Post - Bike Lane Sign

The contract per **EACH (EA)** price for **REMOVE AND REINSTALL EXISTING ROADSIDE SIGN ON NEW POST - BIKE LANE SIGN** shall include full compensation for all labor, materials, tools, equipment, and incidentals required to complete the work as shown on the Plans.

B12. Remove Thermoplastic Markings and Striping

The contract **LUMP SUM (LS)** price for **REMOVE THERMOPLASTIC MARKINGS AND STRIPING** shall include full compensation for all labor, materials, tools, equipment, and incidentals required to remove thermoplastic markings and striping as shown on the Plans, and as designated by the Engineer.

B13. Thermoplastic STOP Stencil A24D

The contract per **EACH (EA)** price for **THERMOPLASTIC STOP STENCIL A24D** shall include full compensation for all labor, materials, tools, equipment, and incidentals required to install Thermoplastic STOP Stencil A24D as shown in the Plans, and as designated by the Engineer.

B14. Thermoplastic Yellow Ladder Crosswalk A24F

The contract per **EACH (EA)** price for **THERMOPLASTIC YELLOW LADDER CROSSWALK A24F** shall include full compensation for all labor, materials, tools, equipment, and incidentals required to install Thermoplastic Yellow

Ladder Crosswalk A24F as shown in the Plans, and as designated by the Engineer.

B15. Thermoplastic STOP Bar 12-Inch White

The contract per **EACH (EA)** price for **THERMOPLASTIC STOP BAR 12-INCH WHITE** shall include full compensation for all labor, materials, tools, equipment, and incidentals required to install Thermoplastic STOP Bar 12-Inch White as shown in the Plans, and as designated by the Engineer.

B16. Thermoplastic Double Yellow Centerline Detail 22 A20A

The contract **LINEAR FOOT (LF)** price for **THERMOPLASTIC DOUBLE YELLOW CENTERLINE DETAIL 22 A20A** shall include full compensation for all labor, materials, tools, equipment, and incidentals required to install Thermoplastic Double Yellow Centerline Detail 22 A20A as shown in the Plans, and as designated by the Engineer.

1.04 Work Days and Hours.

- A. Work Days and hours: Monday-Friday inclusive, **8:30 AM–5:30 PM** local time.
- B. Work at the Site on weekends or holidays is not permitted, unless Contractor requests otherwise from Owner in writing at least 48 hours in advance and Owner approves in its sole discretion.

1.05 Shutdown for Discovery of Cultural Resources.

- A. If discovery is made of items of historical archaeological or paleontological interest, immediately cease all Work in the area of discovery. Archaeological indicators may include, but are not limited to, dwelling sites, locally darkened soils, stone implements or other artifacts, fragments of glass or ceramics, animal bones, human bones, and fossils. After cessation of excavation, immediately contact Owner. Do not resume Work until authorization is received from Owner. When resumed, excavation or other activities shall be as directed by Owner.

1.06 Cooperation of Contractor and Coordination with Other Work.

- A. Coordinate with Owner and any Owner forces, or other contractors and forces, as required by Document 00 7200 (General Conditions).

1.07 Contractor Use of Site.

- A. Confine operations at Site to areas permitted by Contract Documents, permits, ordinances, and laws. Do not unreasonably encumber Site with materials or equipment.
- B. Assume full responsibility for protection and safekeeping of products stored on premises. Move any stored products that interfere with operations of Owner or other contractor.
- C. Coordinate parking, storage, staging, and Work areas with Owner. Owner will provide a storage area for Contractor's equipment and materials. Do not store construction materials in the dripline of any tree.
- D. Prior to commencement of Work or excavation, Contractor and Owner shall jointly survey the area adjacent to the Project area making permanent note and record of such existing damage such as cracks, sags or other similar damage. This record shall serve as a basis for determination of subsequent damage to structures, conditions or other existing improvements due to Contractor's operations. All parties making the survey shall sign the official record of existing damage. Cracks, sags or damage of any nature to the adjacent Project area, not noted in the original survey but subsequently noted, shall be reported immediately to Owner.
- E. The Contractor shall follow all local ordinances in force during the duration of this Contract.
- F. It is essential that the Contractor perform the Work with as little interference and disturbance as possible to the surrounding neighborhood.

- G. When suspect materials, outside the scope of Work, are encountered during the Work or restoration process, the Contractor shall immediately contact the Project Manager for evaluation and approval of the methods for dealing with the material.

1.08 Air Quality Standards.

- A. Ensure that idling time for all heavy equipment is minimized to reduce on-Site emissions.
- B. Maintain equipment in good mechanical condition.
- C. Cover trucks hauling dirt.
- D. Limit dust emissions during periods of high winds (greater than 15 miles per hour).
- E. Replace ground cover in disturbed areas as soon as possible.
- F. Enclose, cover, water, or apply soil binders to exposed stockpiles.
- G. Remove earth tracked onto neighboring paved roads at least once daily.
- H. Limit equipment speed to 10 miles per hour in unpaved areas.

1.09 Construction Staking and Monument Protection.

- A. Notify Owner 3 Business Days prior to the need for initial staking. Owner will provide engineering surveys to establish construction stakes that in Owner's judgment are necessary to enable Contractor to proceed with the Work.
- B. If Contractor finds any additional staking necessary, notify Owner in writing 2 Business Days in advance. Owner shall have no liability for any inadequacy unless Contractor notifies Owner and Owner fails to cure within 3 Business Days of such notice.
- C. Contractor shall be responsible for laying out the Work, shall protect and preserve the established construction stakes and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Whenever Contractor knows or reasonably should know that any Work activity is likely to damage or destroy any construction stakes or property monuments, or require relocation because of necessary changes in grades or locations, provide at least 2 Business Days advance notice to Owner. In any event, notify Owner whenever any construction stakes or property monuments are lost or destroyed or require relocation because of necessary changes in grades or locations. Owner shall replace or repair construction stakes or property monuments at Contractor's expense.
- D. Perform brush clearing and traffic control, as necessary, in Owner's sole judgment.
- E. Illegible survey requests or requests for surveys without proper (at least 3 Business Days) notification, may result in delayed surveys. No extension of Contract Time will be allowed due to such delays.
- F. If Owner's survey crews are not available to perform the survey staking following proper notification, Contractor shall provide its own survey staking. Provide Owner with Contractor's survey staking information in writing within 3 Business Days after it becomes available to Contractor.

1.10 Geotechnical Data and Existing Conditions.

- A. Available Documentation: In accordance with, and subject to, the provisions of Document 00 3132 (Geotechnical Data and Existing Conditions), the following documentation is available for review. This information is not part of the Contract Documents.

(None)

1.11 Protection of Existing Structures and Underground Facilities.

- A. The Drawings may indicate existing above- and below-grade structures, drainage lines, storm drains, sewers, water lines, gas lines, electrical lines, hot water lines, and other similar items and

Underground Facilities that are known to Owner. At least 2 Business Days, or as otherwise noted, prior to commencement of excavation, notify the owners of the following Underground Facilities:

1. Sewer lines: Sewer Authority Mid-Coastside
Phone: (650) 726-0124
 2. Water/Sewer lines: Coastside County Water District
Phone: 650-726-4405
- B. Where overhead service to a structure, known to receive service, does not exist, then underground service shall be assumed to exist.
- C. Attention is also directed to the existence of overhead power and telephone lines.
- D. Perform pot-holing by hand within 24 inches (in any direction) of the Underground Facilities. This may be done on an area-by-area basis, but shall be accomplished at least 7 Days in advance of the date of construction within such area.
- E. No attempt has been made to locate private utilities on private property such as sprinkler irrigation systems or electrical conduits. Contact the property owners prior to construction.
- F. In addition to reporting, if a utility is damaged, Contractor must take appropriate action as provided in Document 00 7200 (General Conditions).
- G. Additional compensation or extension of time on account of utilities not indicated or otherwise brought to Contractor's attention including reasonable action taken to protect or repair damage shall be determined as provided in Document 00 7200 (General Conditions).

1.12 Permits.

- A. Permits, agreements, or written authorizations that are known by Owner to apply to this Project are listed below:
1. Encroachment Permit from County of San Mateo
- B. All other permits that may be required, such as electrical, mechanical, fire prevention, irrigation, grading, slope protection, tree cutting, etc., have not been applied for and shall be obtained by Contractor. Applicable permit fees will be reimbursed to the extent specified in Document 00 7200 (General Conditions).

1.13 Actual Damages for Permit Violations.

- A. In addition to damages which are impracticable or extremely difficult to determine, for which liquidated damages will be assessed as described in Document 00 5200 (Agreement) and Document 00 7200 (General Conditions), Owner may incur actual damages, including fines imposed by any regulatory agency, resulting from violation of legal or regulatory requirements where the violations result from Contractor's activities. Continuous operation of the **site** in compliance with legal or regulatory requirements is essential to avoid discharges that would violate applicable regulations. Violations or threatened violations may subject Owner to fines and/or other costs or civil liabilities.
- B. Contractor shall be liable for and shall pay Owner the amount of any actual losses in addition to liquidated damages or other remedies provided by the Contract Documents.
- C. The amount of liquidated damages provided in Document 00 5200 (Agreement) and Document 00 7200 (General Conditions) is not intended to include, nor does the amount include, any damages incurred by Owner for reasons other than those listed in that paragraph. Any money due or to become due to Contractor may be retained by Owner to cover both the liquidated and the actual damages described above and, should such money not be sufficient to cover such damages, Owner shall have the right to recover the balance from Contractor or its sureties.

PART 2 PRODUCTS

A. Owner's Responsibilities:

1. Arrange for and deliver Owner-reviewed Shop Drawings, Product Data, and Samples, to Contractor.
2. Arrange and pay for delivery to Site.
3. On delivery, inspect products jointly with Contractor.
4. Submit claims for transportation damage and replace damaged, Defective, or deficient items.
5. Arrange for manufacturers' warranties, inspections, and service.

B. Contractor's Responsibilities:

1. Review Owner-reviewed Shop Drawings, Product Data, and Samples.
2. Receive and unload products at Site; inspect for completeness or damage jointly with Owner.
3. Handle, store, install, and finish products.
4. Repair or replace items damaged after receipt.
5. Install into Project per Contract Documents.

PART 3 EXECUTION – NOT USED

[OPTION IF THERE ARE PERMITS: Permit copies follow this page numbered consecutively as 01 1100.1, 01 1100.2, etc.]

END OF SECTION

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 11 10 DEFINITIONS

PART 1 - GENERAL

1.1 DEFINITIONS

- A. The term "approved," where used herein, shall mean accepted for general conformance with the general design concept and general compliance with information included in the Contract Documents.
- B. The term "Landscape Architect," where noted herein, shall mean Royston Hanamoto Alley & Abey, Landscape Architects, or its authorized representative.
- C. The terms "if directed," "when directed," or "as directed," where used herein, shall mean if, when, or as directed by the Landscape Architect.
- D. The term "equal," where used herein, shall mean equal in the opinion of the Landscape Architect and accepted.
- E. The term "indicated," where used herein, shall mean indicated by graphic representations or notes or schedules on the Drawings, or other paragraphs or schedules in the Specifications or other Contract Documents.
- F. The term "Owner," where used herein, shall mean the Coastside Fire Protection District.
- G. The term "provide," where used herein, shall mean furnish and install complete.
- H. The terms "if required," "when required," or "as required," where used herein, shall mean if, when, or as required by the best building practices in the opinion of the Landscape Architect.
- I. The term "as selected," where used herein, shall mean as selected by the Landscape Architect.
- J. Unless otherwise stated in the Contract Documents, words which have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

1.2 DRAWINGS AND SPECIFICATIONS

- A. The Drawings and Specifications are integral documents and cannot be separated.
- B. In case of a difference between Drawings and Specifications or within either document itself in describing the work, the better quality, greatest quantity, or more costly work

will be assumed to be and shall be included in the Contract Price. The Landscape Architect will be the sole interpreter of the Contract Documents.

END OF SECTION

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 2000

44. MEASUREMENT AND PAYMENT

45. PART 1 – GENERAL

1.01 SUMMARY

- A. Section includes description of requirements and procedures for determining amount of Work performed and for obtaining payment for Work performed.

1.02 REFERENCES

- A. California Public Contract Code
- B. Code of Civil Procedure
- C. Government Code
- D. Civil Code

1.03 COMPOSITION AND SCOPE OF CONTRACT SUM

A. **Scope of Contract Sum**

- 1. The Contract Sum for performance of the Work under Contract Documents, or under any Bid item, allowance, or Alternate, shall include full compensation for all Work required under the Contract Documents, including without limitation, all labor, materials, taxes, transport, handling, storage, supervision, administration, and all other items necessary for the satisfactory completion of the Work, whether or not expressly specified or indicated, incidental work and unexpected expenses, and all terms, conditions, requirements and limitations set forth in the Contract Documents.
- 2. Contract Sum may be expressed as lump sum, unit price, GMP, allowance, or combination thereof.

B. **Unit Price items**

- 1. Quantity of Work to be paid for under any item for which a unit price is fixed in Contract Documents shall be determined by Owner based on, so far as practicable, actual number of units satisfactorily completed, as determined by Owner and certified by Contractor, within prescribed or ordered limits, and no payment will be made for Work unsatisfactorily performed or done outside of limits.
- 2. Unit Prices shall apply to Work covered by unit prices so long as actual quantities performed on the Project are not less than 75 percent or greater than 125 percent of the estimated quantities bid or otherwise stated in the Contract Documents. If actual quantities exceed these parameters, then the unit price shall be adjusted by an amount to reflect the Contractor's incremental cost differential resulting from increased or decreased economies of scale.

C. **Lump Sum Items**

- 1. When estimated quantity for specific portion of Work is not indicated and/or Work is designated as lump sum, payment will be on a lump sum basis for Work satisfactorily completed in accordance with Contract Documents.
- 2. Payment for lump sum Work, or items of Work subject to a lump sum (e.g. without limitation, change order work), shall be made on the basis of satisfactory completion of such Work or work item, earned in progressive stages in accordance with the Contract Documents, up to but not exceeding the Contractor's percentage completion of the Work or item.

3. Lump sum items shall be paid based upon the approved Schedule of Values, which shall be used to measure progressive payments based upon satisfactory progress towards completion of the item.

D. Allowance Items

1. Allowances: Allowance Work will be authorized by Owner in writing, following change order procedures to determine cost, supporting documentation and authorization to proceed. Unused allowance amounts at Contract completion shall reduce the Contract price accordingly.

1.04 PAYMENT PROCEDURES

A. Schedule of Values:

1. Within ten Days from issuance of Notice of Award and prior to the Contractor's first Application for Payment, Contractor shall submit a detailed breakdown of its Bid by scheduled Work items and/or activities, including coordination responsibilities and Project Record Documents responsibilities. Where more than one Subcontractor comprises the work of a Work item or activity, the Schedule of Values shall show a separate line item for each subcontract. Contractor shall furnish such breakdown of the total Contract Sum by assigning dollar values (cost estimates) to each applicable Progress Schedule network activity, which cumulative sum equals the total Contract Sum. This breakdown shall be referred to as the Schedule of Values.
2. Contractor's overhead, profit, insurance, cost of bonds (except to the extent expressly identified in a Bid item) and/or other financing, as well as "**general conditions costs**," (e.g., Site cleanup and maintenance, temporary roads and access, off-Site access roads, temporary power and lighting, security, and the like), shall be prorated through all activities so that the sum of all the Schedule of Values line items equals Contractor's total Contract Sum, less any allowances designated by Owner. Scheduling, record documents and quality assurance control shall be separate line items.
3. Owner will review the breakdown in conjunction with the Progress Schedule to ensure that the dollar amounts of this Schedule of Values are, in fact, reasonable cost allocations for the Work items listed. Upon favorable review by Owner, Owner will accept this Schedule of Values for use. Owner shall be the sole judge of fair market cost allocations.
4. Owner will reject any attempt to increase the cost of early activities, i.e., "**front loading**," resulting in a complete reallocation of moneys until such front loading is corrected. Repeated attempts at front loading may result in suspension or termination of the Work for default, or refusal to process progress payments until such time as the Schedule of Values is acceptable to Owner.

B. Contractor's Requests for Progress Payments

1. If requested by Contractor, progress payments will be made monthly, under the following conditions:
2. On or before the 25th Day of each month, Contractor shall submit to Owner five copies of an Application for Payment for the cost of the Work put in place during the period from the last Day of the previous month to the end of the current month, along with one copy of an updated Progress Schedule. Such Applications for Payment shall be for the expected total value of activities completed or partially completed, based upon Schedule of Values prices (or Bid item prices if unit price) of all labor and materials incorporated in the Work up until midnight of the last Day of that one month period, less the aggregate of previous payments. Accumulated retainage shall be shown as separate item in payment summary. Owner and Contractor will reconcile any differences in the field, based on the reconciled monthly report sheets. If Contractor is late submitting its Application for Payment, that Application may be processed at any time during the succeeding one-month period, resulting in processing of Contractor's Application for Payment being delayed for more than a Day for Day basis.
3. Except as otherwise provided in a labor compliance program applicable to the Work or as otherwise required by Owner, concurrently with each Application for Payment, Contractor

shall submit to Owner Contractor's and its Subcontractors' certified payroll records required to be maintained pursuant to Labor Code Section 1776 for all labor performed during pay periods ending during the period covered by the Application for Payment.

4. No progress payment will be processed prior to Owner receiving all requested, acceptable schedule update information and certified payrolls, and in Owner's sole and absolute discretion, Owner may deny the entire Application for Payment for noncompliance.
5. Each Application for Payment shall list each Change Order and Construction Change Directive (**CCD**) executed prior to date of submission, including the Change Order/CCD Number, and a description of the Work activities, consistent with the descriptions of original Work activities. Contractor shall submit a monthly Change Order/CCD status log to Owner.
6. If Owner requires substantiating data, Contractor shall submit information requested by Owner, with cover letter identifying Project, Application for Payment number and date, and detailed list of enclosures. Contractor shall submit one copy of substantiating data and cover letter for each copy of Application for Payment submitted.
7. If Contractor fails or refuses to participate in monthly Work reconciliations or other construction progress evaluation with Owner, Contractor shall not receive current payment until Contractor has participated fully in providing construction progress information and schedule update information to Owner.

C. Owner's Review of Progress Payment Applications

1. Owner will review Contractor's Application for Payment following receipt and during the Progress Schedule and Billing Meeting. If adjustments need to be made to percent of completion of each activity, Owner will make appropriate notations and return to Contractor. Contractor shall revise and resubmit. All parties shall update percentage of completion values in the same manner, i.e., express value of an accumulated percentage of completion to date.
2. If Owner determines that portions of the Application for Payment are not proper or not due under the Contract Documents, then Owner may approve the other portions of the Application for Payment, and in the case of disputed items or Defective Work not remedied, may withhold up to 150 percent of the disputed amount from the progress payment.
3. Pursuant to California Public Contract Code Section 20104.50, if Owner fails to make any progress payment within 30 Days after receipt of an undisputed and properly submitted Application for Payment from Contractor, Owner shall pay interest to the Contractor equivalent to the legal rates set forth in subdivision (a) of Section 685.010 of the California Code of Civil Procedure. The 30-Day period shall be reduced by the number of Days by which Owner exceeds the seven-Day return requirement set forth herein.
4. As soon as practicable after approval of each Application for Payment for progress payments, Owner will pay to Contractor in manner provided by law, an amount equal to 95 percent of the amounts otherwise due as provided in the Contract Documents, or a lesser amount if so provided in Contract Documents and by law, provided that payments may at any time be withheld if, in judgment of Owner, Work is not proceeding in accordance with Contract, or Contractor is not complying with requirements of Contract, or to comply with stop notices or to offset liquidated damages accruing or expected. In Owner's sole discretion, if Contractor has failed to comply with either its Progress Schedule update or project record documents requirements, Owner may retain an additional 5% of any earned amounts until such requirements are satisfied.
5. Before any progress payment or final payment is due or made, Contractor shall submit satisfactory evidence that Contractor is not delinquent in payments to employees, Subcontractors, suppliers, or creditors for labor and materials incorporated into Work. This specifically includes, without limitation, conditional lien release forms for the current progress payment and unconditional release forms for past progress payments. This also includes copies of certified payroll from contractor and subcontractors for the current payment period.

D. Payment for Material and Equipment Not Yet Incorporated Into the Work

1. No payment shall be made for materials or equipment not yet incorporated into the Work, except as specified elsewhere in the Contract Documents or as may be agreed to by Owner

in its sole discretion. Where Contractor requests payment on the basis of materials and equipment not incorporated in the Work, Contractor must satisfy the following conditions:

2. The materials and/or equipment shall be delivered and suitably stored at the Site or at another local location agreed to in writing, for example, a mutually acceptable bonded and insured warehouse.
3. Full title to the materials and/or equipment shall vest in Owner at the time of delivery to the Site, warehouse or other storage location. Obtain a negotiable warehouse receipt, endorsed over to Owner for materials and/or equipment stored in an off-site warehouse. No payment will be made until such endorsed receipts are delivered to Owner.
4. Stockpiled materials and/or equipment shall be available for Owner inspection, but Owner shall have no obligation to inspect them and its inspection or failure to inspect shall not relieve Contractor of any obligations under the Contract Documents. Materials and/or equipment shall be segregated and labeled or tagged to identify these specific Contract Documents.
5. After delivery of materials and/or equipment, if any inherent or acquired defects are discovered, defective materials and/or equipment shall be removed and replaced with suitable materials and/or equipment at Contractor's expense.
6. At Contractor's expense, insure the materials and/or equipment against theft, fire, flood, vandalism, and malicious mischief, as well as any other coverages required under the Contract Documents.
7. Contractor's Application for Payment shall be accompanied by a bill of sale, invoice or other documentation warranting that Owner has received the materials and equipment free and clear of all liens and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect Owner interest therein, all of which must be satisfactory to Owner. This documentation shall include, without limitation, conditional releases of mechanics' liens and stop notices from all those providing materials and equipment as to which the Application for Payment relates, as well as unconditional releases of the same from the same as to the previous Application for Payment for which they have not already been provided. Amounts previously paid for materials and equipment prior to incorporation into the Work shall be deducted from amounts otherwise due Contractor as they are incorporated.

1.05 FINAL PAYMENT

A. Final Payment

1. As soon as practicable after all required Work is completed in accordance with Contract Documents, including punchlist, testing, record documents and Contractor maintenance after Final Acceptance, Contractor shall submit its Application for Final Payment.
2. Provided Contractor has met all conditions required for Final payment, Owner will pay to Contractor, in manner provided by law, unpaid balance of Contract Sum of Work (including, without limitation, retentions), or whole Contract Sum of Work if no progress payment has been made, determined in accordance with terms of Contract Documents, less sums as may be lawfully retained under any provisions of Contract Documents or by law.

B. Final Accounting

1. Prior progress payments and change orders shall be subject to audit and correction in the final payment.
2. Contractor and each assignee under an assignment in effect at time of final payment shall execute and deliver at time of final payment, and as a condition precedent to final payment, Document 00 6530 (Agreement and Release of Claims).

1.06 SUBSTITUTION OF SECURITIES

A. Public Contract Code Section 22300. In accordance with the provisions of Public Contract Code Section 22300, substitution of securities for any moneys withheld under Contract Documents to ensure performance is permitted under following conditions:

1. At request and expense of Contractor, securities listed in Section 16430 of the Government

Code, bank or savings and loan certificates of deposit, interest bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by Contractor and Owner which are equivalent to the amount withheld under retention provisions of Contract shall be deposited with Controller or with a state or federally chartered bank in California, as the escrow agent, who shall then pay such moneys to Contractor. Upon satisfactory completion of Contract, securities shall be returned to Contractor.

2. Alternatively, Contractor may request and Owner shall make payment of retentions earned directly to the escrow agent at the expense of Contractor. At the expense of Contractor, Contractor may direct the investment of the payments into securities and receive the interest earned on the investments upon the same terms provided for securities deposited by Contractor. Upon satisfactory completion of the work of the Contract Documents, Contractor shall receive from escrow agent all securities, interest, and payments received by the escrow agent from Owner. Consistent with Public Contract Code Section 7107(d), Contractor shall then pay to each Subcontractor, not later than seven Days after receipt of the payment, the respective amount of interest earned, net of costs attributed to retention withheld from each Subcontractor, on the amount of retention withheld to insure the performance of Contractor.
3. Contractor shall be beneficial owner of securities substituted for moneys withheld and shall receive any interest thereon.
4. Contractor may enter into an escrow agreement, form included in Contract Documents, as authorized under Public Contract Code Section 22300, specifying amount of securities to be deposited, terms and conditions of conversion to cash in case of default of Contractor, and termination of escrow upon completion of Contract Documents.
5. Public Contract Code Section 22300, in effect on Bid Day, is hereby incorporated in full by this reference and shall supersede anything inconsistent therewith.

ARTICLE 3 - PRODUCTS – NOT USED

ARTICLE 4 - EXECUTION – NOT USED

END OF SECTION

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 2600

MODIFICATION PROCEDURES

46. PART 1 – GENERAL

1.01 SUMMARY

- A. Section includes requirements that supplement the paragraphs of Document 00 7200 (General Conditions).
- B. Description of procedures for modifying the Contract Documents and determining costs for changes in Contract Sum or Contract Time.

1.02 PROCEDURES FOR CONTRACTOR INITIATED CHANGE ORDER

- A. Contractor-Initiated Change Proposal Request (**CPR**) and Procedures:
 - 1. Contractor may initiate changes by submitting a Change Proposal Request (**CPR**).
 - 2. Whenever Contractor elects or is entitled to submit a CPR, Contractor shall prepare and submit to Owner for consideration a CPR using a Cost Proposal acceptable to the District. All CPR's must contain a complete breakdown of costs of credits, deducts and extras; itemizing labor, materials, equipment, markup, bonds, insurance and taxes; and any requested changes to Contract Time. All Subcontractor Work shall be so indicated. Individual entries on the CPR form shall include applicable Schedule of Values code, with all amounts determined as provided herein. After receipt of a CPR with a detailed breakdown, Owner will act promptly thereon.
 - 3. If Owner accepts a CPR, Owner will prepare a Change Order for Owner and Contractor signatures.
 - 4. If CPR is not acceptable to Owner because it does not agree with Contractor's proposed cost and/or time, Owner will provide comments thereto. Contractor will then, within seven (7) Days (except as otherwise provided herein), submit a revised CPR.
 - 5. When necessity to proceed with a change does not allow Owner sufficient time to conduct a proper check of a CPR (or revised CPR), Owner may issue a Change Directive (**CD**) as provided below.
- B. Contractor-Initiated Request for Information (**RFI**) Procedures, Requirements and Limitations:
 - 1. Contractor may submit RFI's for clarifications in Owner-prepared Contract Documents, which may result in the Contractor submitting a CPR.
 - 2. Whenever Contractor requires information regarding the Project or Owner-prepared Contract Documents, or receives a request for such information from a Subcontractor, Contractor may prepare and deliver an RFI to Owner. Contractor shall use RFI format provided on approval by Owner. Contractor shall not issue an RFI to Owner solely to clarify Contractor-prepared Construction Documents. Contractor must submit time critical RFIs at least 30 days before scheduled start date of the affected Work activity. Contractor shall reference each RFI to an activity of Progress Schedule and shall note time criticality of the RFI, indicating time within which a response is required. Contractor's failure to reference RFI to an activity on the Progress Schedule and note time criticality on the RFI shall constitute Contractor's waiver of any claim for time delay or interruption to the Work resulting from any delay in responding to the RFI.
 - 3. Contractor shall be responsible for its costs to implement and administer RFIs throughout the Contract duration. Regardless of the number of RFIs submitted, Contractor shall not be entitled to additional compensation for the effort required to submit the RFIs. Contractor shall be responsible for Owner's administrative costs for answering RFIs where the answer could reasonably be found by reviewing the Contract Documents, as determined by Owner; at Owner discretion, such costs may be deducted from progress payments or final payment.

4. Owner will respond within ten (10) days from receipt of RFI with a written response to Contractor. Contractor shall distribute response to all appropriate Subcontractors.
5. If Contractor is satisfied with the response and does not request a change in Contract Sum or Contract Time, then the response shall be executed without a change.
6. If Contractor believes the response is incomplete, Contractor shall issue another RFI (with the same RFI number with the letter "A" indicating it is a follow-up RFI) to Owner clarifying original RFI. Additionally, Owner may return RFI requesting additional information should original RFI be inadequate in describing condition.

C. Time Requirements:

1. If Contractor believes that an Owner response to an RFI, submittal or other Owner direction, results in change in Contract Sum or Contract Time, Contractor shall notify Owner with the issuance of a preliminary CPR within 10 Days after receiving Owner's response or direction, and in no event after starting the disputed work or later than the time allowed under Article 12 of Document 00 7200 (General Conditions). If Contractor also requests a time extension, or has issued a notice of delay or otherwise requests a time extension with a CPR, then Contractor shall submit the TIE required in these Contract Documents, including Section 01 3200 (Progress Schedules and Reports), concurrently with the CPR and in no event later than 10 Days after providing the notice of delay.
2. If Contractor requires more time to accurately identify the required changes to the Contract Sum or Contract Time, Contractor may submit an updated and final CPR and TIE within 14 days of submitting the preliminary CPR.
3. If Owner agrees with Contractor's CPR and/or TIE, then Owner will prepare a Change Order for Owner and Contractor signatures. If Owner disagrees with Contractor, then Contractor may give notice of potential claim as provided in Article 12 of Document 00 7200 (General Conditions), and proceed thereunder.
4. Contractor must submit all CPR's (preliminary and final), notices of potential claim and Claims, and TIE's within the required time periods. Any failure to do so waives Contractor's right to submit a CPR or file a Claim.

D. Cost Estimate Information:

1. Contractor and subcontractors shall, upon Owner's request, permit inspection of the original unaltered cost estimates, subcontract agreements, purchase orders relating to the change, and documents substantiating all costs associated with its CPR or Claims arising from changes in the Work.

1.03 PROCEDURES FOR OWNER INITIATED CHANGE ORDERS

A. Owner Initiated Change Directives (CD):

1. Owner may, by Change Directive (CD) or initially by Instruction Bulletin or by following the procedures for disputed work herein, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, with or without adjustment to Contract Sum or Contract Time.
2. If at any time Owner believes in good faith that a timely Change Order will not be agreed upon using the foregoing procedures, or at any other time, Owner may issue a CD with its recommended cost and/or time adjustment (if any). Upon receipt of CD, Contractor shall promptly proceed with the change of Work involved and respond to Owner within ten (10) Days.
3. Contractor's response must be any one of following:
 - a. Return CD signed, thereby accepting Owner response, including adjustment to time and cost (if any).
 - b. Submit a (revised if applicable) Cost Proposal with supporting documentation (if applicable, reference original Cost Proposal number followed by letter A, B, etc. for each revision), if Owner so requests.
 - c. Give notice of intent to submit a claim as described in Article 12 of Document 00 7200 (General Conditions), and submit its claim as provided therein.

4. If CPR or the CD provides for an adjustment to any Contract Sum, the adjustment shall be based on one of the following methods:
 - a. Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation.
 - b. Contractor to proceed on cost reimbursable (force account) basis while negotiating towards a firm price.
 - c. Cost to be determined in a manner agreed.
5. Change Directive signed by Contractor indicates the agreement of Contractor therewith, including adjustment in Contract Sum or the method for determining them. Such agreement shall be effective immediately and shall be finalized as a Change Order. Where Owner authorizes CD work on a time and materials basis up to a maximum amount, then Contractor shall promptly advise Owner upon reaching 75% of such maximum amount, otherwise Contractor shall accept fully the risk of completing the CD work without exceeding such maximum amount.
6. If Contractor does not respond promptly or disagrees with the method for adjustment (or non-adjustment) in the Contract Sum, the method and the adjustment shall be determined by Owner on the basis of the Contract Documents and the reasonable expenditures and savings of those performing the Work attributable to the change. If the parties still do not agree on the proper adjustment due to a Change Directive, Contractor may file a Claim per Article 12 of Document 00 7200 (General Conditions) and/or Owner may direct the changed work through a unilateral change order. Contractor shall keep and present an itemized accounting in a manner consistent with the SOV, together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this paragraph shall be limited to those provided herein.
7. Pending final determination of cost to Owner, Contractor may include amounts not in dispute in its Applications for Payment. The amount of credit to be allowed by Contractor to Owner for a deletion or change which results in a net decrease in the Contract Sum shall be actual net cost as confirmed by Owner. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for Markup shall be figured on the basis of net increase, if any, with respect to that change.

B. Owner Initiated Change Order (CO) or Request for Proposal (RFP):

1. Owner may initiate changes in the Work or Contract Time by issuing a Request for Proposal (RFP) or Change Order (CO) to Contractor.
2. Owner may issue an RFP to Contractor. Any RFP will detail all proposed changes in the Work and request a quotation of changes in Contract Sum and Contract Time from Contractor.
3. In response to an RFP, Contractor shall furnish a Change Proposal Request (CPR) within twenty-one (21) Business Days of Owner's RFP. Upon approval of CPR, Owner may issue a Change Directive directing Contractor to proceed with extra Work.
4. If the parties agree on price and time for the work, the Owner will issue a Contact Change Order. If the parties do not agree on the price or time for a CPR, Owner may either issue a CD or decide the issue per Article 12 of Document 00 7200 (General Conditions). Contractor shall perform the changed Work notwithstanding any claims or disagreements of any nature.

1.04 PROCEDURES THAT APPLY TO CONTRACTOR- AND OWNER-INITIATED CHANGE ORDERS

A. Adjustment of Schedules to Reflect Change Orders or CDs:

1. Contractor shall revise Schedule of Values and Application for Payment forms to record each authorized Change Order or CD as a separate line item and adjust the Contract Sum as shown thereon prior to the next monthly pay period.
2. Contractor shall revise the Progress Schedules prior to the next monthly pay period, to reflect CO or CD.

3. Contractor shall enter changes in Project Record Documents prior to the next monthly pay period.
- B. Required Documentation for Adjustments to Contract Amounts:
1. For all changes and cost adjustments requested, Contractor shall provide documentation of change in Contract Amounts asserted, with sufficient data to allow evaluation of the proposal.
 2. In all requests for compensation, cost proposals, estimates, claims and any other calculation of costs made under the Contract Documents, Contractor shall breakout and quantify costs of labor, equipment and materials identified herein, for Contractor and subcontractors of any tier.
 3. Contractor shall, on request, provide additional data to support computations for:
 - a. Quantities of products, materials, labor and equipment.
 - b. Taxes, insurance, and bonds.
 - c. Justification for any change in Contract Time and new Progress Schedule showing revision due, if any.
 - d. Credit for deletions from Contract, similarly documented.
 4. Contractor shall support each claim or computation for additional cost, with additional information including:
 - a. Origin and date of claim or request for additional compensation.
 - b. Dates and times Work was performed and by whom.
 - c. Time records and wage rates paid.
 - d. Invoices and receipts for products, materials, equipment and subcontracts, similarly documented.
 - e. Credit for deletions from Contract, similarly documented.
- C. Responses and Disputes:
1. For all responses for which the Contract Documents do not provide a specific time period, recipients shall respond within a reasonable time.
 2. For all disputes arising from the procedures herein, Contractor shall follow Article 12 of Document 00 7200 (General Conditions).

1.05 COST DETERMINATION FOR CHANGES IN CONTRACT AMOUNTS

- A. Calculation of Total Cost of Extra Work:
1. Total cost of changed Work, extra Work or of Work omitted shall be the sum of three components defined immediately below as: Component 1 (Direct Cost of Construction or Direct Costs); Component 2 (Markup); and, Component 3 (Bonds, Insurance, Taxes)
 2. Component 1: Direct Costs of labor, equipment and materials, is calculated based upon actually incurred (or omitted) labor costs, equipment rental costs, and material costs, as defined herein;
 3. Component 2: Markup on such actually incurred Direct Costs, is applied in the percentages identified below; and
 4. Component 3: Actual additional costs for any additionally required bonds, insurance, and/or taxes by Contractor, Subcontractors, or other forces, defined herein, is calculated without markup.
 5. All amounts payable to Subcontractors under Components 1, 2, and 3: must be earned under the terms of the applicable Subcontracts; must be properly requested, documented and permitted under the terms of the applicable subcontract(s) and Contract Documents; and shall be payable only if changed Work complies with terms of Contract Documents.

1.06 MEASUREMENT OF DIRECT COST OF CONSTRUCTION (COST COMPONENT 1)

- A. Composition of Component 1 (Direct Cost of Construction):

1. Component 1 has three subcomponents, also referred to as labor, equipment, and materials (**LEM**):
 - a. Labor (Component 1A)
 - b. Equipment (Component 1B)
 - c. Materials (Component 1C)
- B. Measurement of Cost of Labor (Component 1A):
 1. Cost of Labor shall be calculated as: Cost of labor for workers (including forepersons when authorized by Owner) used in actual and direct performance of the subject work, whether employer is Contractor, Subcontractor or other forces, in the sum of the following:
 - a. Actual Wages: Actual wages paid shall include any employer payments to or on behalf of workers for health and welfare, pension, vacation, and similar purposes.
 - b. Labor surcharge: Payments imposed by local, county, state, and federal laws and ordinances, and other payments made to, or on behalf of, workers, other than actual wages as defined, such as worker's compensation insurance. Such labor surcharge shall not exceed generally accepted standards in the State for labor rates in effect on date upon which extra Work is accomplished.
 - c. Cost of labor shall include no other costs, fees or charges.
 2. Labor cost for operators of equipment owned and operated by Contractor or any Subcontractor, shall be no more than rates of such labor established by collective bargaining agreements for type of worker and location of Work, whether or not owner-operator (i.e., Contractor or Subcontractor) is actually covered by such an agreement.
 3. Cost of labor shall be recorded and documented in certified payroll records, maintained in the form customary and/or required in the State, and delivered to Owner weekly.
- C. Measurement of Cost of Equipment (Component 1B):
 1. Measurement of Component 1B (Cost of Equipment). Cost of Equipment shall be calculated as: Cost of equipment used in actual and direct performance of the subject work, whether by Contractor, Subcontractor or other forces. Cost of Equipment shall be calculated as herein described.
 2. For rented equipment, cost will be based on actual rental invoices, appropriate for the use and duration of the work. Equipment used on extra Work shall be of proper size and type. If, however, equipment of unwarranted size or type and cost is used, cost of use of equipment shall be calculated at rental rate for equipment of proper size and type, as determined by Owner.
 3. Equipment rental cost for Contractor or Subcontractor-owned equipment, shall be determined by reference to, and not in excess of, the generally accepted standards in the State for equipment rental rates in effect on date upon which extra Work is accomplished. If there is no applicable rate for an item of equipment, then payment shall be made for Contractor or Subcontractor-owned equipment at rental rate listed in the most recent edition of the Caltrans Standard Schedules and Specifications, and absent a rental rate therein, then the Association of Equipment Distributors (**AED**) book.
 4. In all cases, rental rates paid shall be deemed to cover cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals.
 5. Unless otherwise specified, manufacturer's ratings, and manufacturer-approved modifications, shall be used to classify equipment for determination of applicable rental rates. Individual pieces of equipment or tools not listed in said publication and having a replacement value of \$100 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefore as payment is included in payment for labor. Rental time will not be allowed while equipment is inoperative due to breakdowns.
 6. For equipment on Site, rental time to be paid for equipment shall be time equipment is in operation on extra Work being performed or on standby as approved by Owner. The following shall be used in computing rental time of equipment:

- a. When hourly rates are listed, less than 30 minutes of operation shall be considered to be ½ hour of operation.
 - b. When daily rates are listed, less than four hours of operation shall be considered to be ½ Day of operation.
 - c. Rates shall correspond to actual rates paid by Contractor, i.e., if Contractor pays lower weekly or monthly rates, then same shall be charged to Owner.
7. For equipment that must be brought to Site to be used exclusively on extra Work, cost of transporting equipment to Site and its return to its original location shall be determined as follows:
- a. Owner will pay for costs of loading and unloading equipment.
 - b. Cost of transporting equipment in low bed trailers shall not exceed hourly rates charged by established haulers.
 - c. Cost of transporting equipment shall not exceed applicable minimum established rates of California Public Utilities Commission or appropriate State Dept. of Transportation.
 - d. Owner will not make any payment for transporting and loading and unloading equipment if equipment is used on Work in any other way than upon extra Work.
 - e. Rental period may begin at time equipment is unloaded at Site of extra Work and terminate at end of the performance of the extra Work or Day on which Owner directs Contractor to discontinue use of equipment, whichever first occurs. Excluding Saturdays, Sundays, and Owner legal holidays, unless equipment is used to perform extra Work on such Days, rental time to be paid per Day shall be four hours for zero hours of operation, six hours for four hours of operation and eight hours for eight hours of operation, time being prorated between these parameters. Hours to be paid for equipment that is operated less than eight hours due to breakdowns, shall not exceed eight less number of hours equipment is inoperative due to breakdowns.
8. Employee vehicles are not part of Component 1A, rather, are included within Component 2 (Markup).
9. Cost of Equipment shall include no other costs, fees or charges.
- D. Measurement of Cost of Material (Component 1C):
1. Cost of Material shall be calculated as herein described. Cost of such materials will be cost to purchaser (Contractor, Subcontractor or other forces) from supplier thereof, except as the following are applicable:
 2. If cash or trade discount by actual supplier is offered or available to purchaser, it shall be credited to Owner notwithstanding fact that such discount may not have been taken.
 3. For materials salvaged upon completion of Work, salvage value of materials shall be deducted from cost, less discounts, of materials.
 4. If cost of a material is, in opinion of Owner, excessive, then cost of material shall be deemed to be lowest current wholesale price at which material is available in quantities concerned delivered to Site, less any discounts as provided in this Paragraph.
 5. Cost of Material shall include no other costs, fees or charges.

1.07 MEASUREMENT AND PAYMENT OF MARKUP (COST COMPONENT 2)

- A. Markup Percentages for Changed Work (Component 2):
1. Markup on Direct Cost of labor, materials and equipment for extra Work pursuant to the Contract Documents performed by Contractor shall be 15%.
 2. When extra Work is performed by Subcontractors, regardless of the number of tiers, total Markup on Component 1 Direct Costs shall be 20%. Contractor and its Subcontractors shall divide the 20% as they may agree.
 3. Under no circumstances shall the total Markup on any extra Work exceed 20%, stated as a percent of the Direct Cost of labor, equipment and materials. This limitation shall apply regardless of the actual number of subcontract tiers.
 4. On proposals covering both increases and decreases in Contract Sum, Markup shall be allowed on the net increase only as determined above. When the net difference is a deletion,

no percentage for Markup shall be allowed, but rather an appropriate percentage deduction shall be issued in the amount of the net difference.

B. Measurement and Payment of Markup (Component 2):

1. Markup (Component 2) provides complete compensation to Contractor and all Subcontractors for:
 - a. All Contractor and Subcontractor profit;
 - b. All Contractor and Subcontractor home-office overhead;
 - c. All Contractor and Subcontractor assumption of risk assigned to Contractor under the Contract Documents;
 - d. Subject to the qualifications below regarding self-performed work, all General Conditions and General Requirements of Contractor (and, if applicable, Subcontractors).
2. Profit. Compensation for profit included within Component 2 (Markup), includes without limitation: Fees of all types, nature and description; and Profit and margins of all types, nature and description.
3. Home Office Expenses. Compensation for home office expenses included within Component 2 (Markup), includes without limitation: Salaries and other compensation of any type of Contractor's and Subcontractor's personnel (management, administrative and clerical), and all direct and indirect operating, travel, payroll, safety, storage, quality control, maintenance and overhead costs of any nature whatsoever, incurred by Contractor and Subcontractors at any location other than the Project specific site office, including without limitation, Contractor's principal or branch offices; insurance premiums other than those for Project specific insurance directed by the Owner in a change order; all hardware, software, supplies and support personnel necessary or convenient for Contractor's capture, documentation and maintenance of its costs and cost accounting data and cost accounting and control systems and work progress reporting.
4. Assumption of Risk. Compensation for Contractor's and Subcontractor's assumption of risk under the Contract Documents, included within Component 2 (Markup), includes, without limitation, loss, cost, damage, expense or liability resulting directly or indirectly from any of the following causes (**unallowable costs**), for Contractor and Subcontractors of any tier: noncompliance with the Contract Documents, fault or negligence, defective or non-conforming Work, by Contractor or any Subcontractor or Vendor of any tier or anyone directly or indirectly employed by any of them, or for whose acts or omissions any of them are responsible or liable at law or under the Contract Documents; cost overruns of any type; costs in excess of any lump sum, not to exceed amount or GMP; costs resulting from bid or "buy out" errors, unallocated scope, or incomplete transfer of scope or contract terms to Subcontractors; any costs incurred by Contractor relating to a Change in the Work without a Change Order or Change Directive in accordance with the Contract Documents; costs for work or materials for which no price is fixed in the Contract Documents, unless it is expressly specified that such work or material is to be paid for as extra work.
5. General Conditions and Division 1 General Requirements. Compensation for Contractor's (and, if applicable Subcontractors') General Conditions and General Requirements Costs included within Component 2 (Markup) includes compensation for: Contractor's direct costs, without overhead or profit, for salaries and related forms of compensation and employer's costs for labor and personnel costs, of Contractor's employees and subconsultant's employees (if any), while and only to the extent they are performing Work at the Project Site, and all "General Requirements Costs" below. Personnel and Work compensated by this Component include, without limitation: All required Project management responsibilities; all on-site services; monthly reporting and scheduling; routine field inspection of Work; general superintendence; general administration and preparation of cost proposals, schedule analysis, change orders and other supporting documentation as necessary; salaries of project superintendent, project engineers, project managers, safety manager, other manager, timekeeper, and secretaries; all cost estimates and updates thereto; development, validation and updates to the project schedule; surveying; and estimating. General

Requirements Costs included within Component 2 (Markup) include, without limitation: all scheduling hardware, software, licenses, equipment, materials and supplies; purchase, lease or rental, build out, procurement, supporting equipment and maintenance of temporary on-Site facilities, Project field and office trailers and other temporary facilities, office equipment and supporting utilities; platforms, fencing, cleanup and jobsite security; temporary roads, parking areas, temporary security or safety fencing and barricades, etc.; all Contractor's motor vehicles used by any Contractor's personnel, and all costs thereof; all health and safety requirements, required by law or Owner procedures; all surveying; all protection of Work; handling and disposal fees; final cleanup; repair or maintenance; other incidental Work; all items, activities and function similar to any of those described above; all travel, entertainment, lodging, board and the like.

6. Personnel compensated by the Markup Component do not include workers of foreman level or below in the case of self-performed work; rather, such personnel shall be treated as a Direct Cost of Construction. Costs compensated by Component 2 (Markup) do not include temporary measures specifically required by the changed work, not otherwise required or ongoing in the prosecution of the Work, that commence specifically to support the changed work and conclude with the completion of the changed work. Such costs shall be treated as Direct Costs of Construction. Examples of General Requirements costs that this component may not cover are the following: temporary barricades or fencing of specific areas required specifically for the changed work; cranes required specifically for the changed work; and extra security required specifically for the changed work.

1.08 MEASUREMENT AND PAYMENT OF BONDS, INSURANCE, TAXES (COMPONENT 3)

A. Measurement of Bonds, Insurance, Taxes (Component 3):

1. Component 3 (Bonds, Insurance, Taxes) consists of the cost of bonds, insurance and taxes, also referred to as **BIT**. All State sales and use taxes, applicable County and applicable local sales taxes, shall be included. Federal and Excise tax shall not be included.
2. There is no markup on BIT.

1.09 EFFECT OF PAYMENT

A. Change Order Compensation is All Inclusive.

1. Except as provided expressly below regarding changes that extend the Contract Time, payment of calculated cost of extra work constitutes full and complete compensation for costs or expense arising from the extra Work, and is intended to be all inclusive.
2. Payment for Direct Cost of Construction (Component 1 or LEM) is intended to be all-inclusive. Any costs or risks not delineated within cost of labor, equipment or materials herein, shall be deemed to be within the costs and risks encompassed by the applicable Markups and unallowable in any separate amount.
3. Payment of Markup (Component 2) is intended to be all-inclusive. Contractor waives claims for any further or different payment of cost and risk items delineated herein, other than the allowable percentage markup on costs set forth in the Contract Documents; such separate, further or different cost or risk items shall be unallowable, waived and liquidated within the allowable percentage markup.
4. Contractor shall recover no other costs or markups on extra work of any type, nature or description.

B. Exception for Changes Extending the Contract Time.

1. Where a change in the Work extends the Contract Time, Contractor may request and recover additional, actual direct LEM costs, provided Contractor can demonstrate such additional costs are (i.) actually incurred performing the Work, (ii.) not compensated by Component 2 (Markup), and (iii) directly result from the extended Contract Time. Contractor shall make such request and provide such documentation following all required procedures,

documentation and time requirements in the Contract Documents, and subject to all contract limitations of liability. Contractor may not seek or recover such costs using formulas (e.g., Eichleay).

C. Limits of Liability/Accord and Satisfaction.

1. The foregoing limits of compensation apply in all cases of claims for changed Work, whether calculating Change Proposal Requests, Change Orders or CDs, or calculating claims and/or damages of all types, and applies even in the event of fault, negligence, strict liability, or tort claims of all kinds, including strict liability or negligence. Contractor may recover no other costs arising out of or connected with the performance of extra Work, of any nature.
2. Under no circumstances may Contractor claim or recover special, incidental or consequential damages against Owner, its representatives or agents, whether arising from breach of contract, negligence, strict liability or other tort or legal theory, unless specifically and expressly authorized in the Contract Documents.
3. No change in Work shall be considered a waiver of any other condition of Contract Documents. No claim shall be made for anticipated profit, for loss of profit, for damages, or for extra payment whatever, except as expressly provided for in Contract Documents.
4. Accord and Satisfaction: Every Change Order and accepted CD shall constitute a full accord and satisfaction, and release, of all Contractor (and if applicable, Subcontractors) claims for additional time, money or other relief arising from or relating to the subject matter of the change including, without limitation, impacts of all types, cumulative impacts, inefficiency, overtime, delay and any other type of claim. Contractor may elect to reserve its rights to disputed claims arising from or relating to the changed Work at the time it signs a Change Order or approves a CD, but must do so expressly in a writing delivered concurrently with the executed Change Order or approved CD, and must also submit a Claim for the reserved disputed items pursuant to Article 12 of Document 00 7200 (General Conditions) no later than thirty (30) days after Contractor's first written notice of its intent to reserve rights. Execution of any Change Order or CD shall constitute Contractor's representation of its agreement with this provision.

1.10 MISCELLANEOUS REQUIREMENTS

Owner-Furnished Materials.

1. Owner reserves right to furnish materials as it deems advisable, and Contractor shall have no claims for costs and Markup on such materials.

B. Records And Certification.

1. All charges shall be recorded daily and summarized in Change Proposal Request form acceptable to District. Contractor or authorized representative shall complete and sign form each day. Contractor shall also provide with the form: the names and classifications of workers and hours worked by each; an itemization of all materials used; and a list by size type and identification number of equipment and hours operated.
2. Owner shall have the right to audit all records in possession of Contractor relating to activities covered by Contractor's claims for modification of Contract, including CD Work. This right shall be specifically enforceable, and any failure of Contractor to voluntarily comply shall be deemed an irrevocable waiver and release of all claims then pending that were or could have been subject to Article 12 of Document 00 7200 (General Conditions).

END OF SECTION

47. DIVISION 1 GENERAL REQUIREMENTS

48. SECTION 01 3119

49. PROJECT MEETINGS

PART 1 – GENERAL

1.01 SUMMARY

- A. Section includes description of required project meetings.

1.02 PRECONSTRUCTION CONFERENCE

- A. Preconstruction Conference. Owner will call for and administer Preconstruction Conference at time and place to be announced (usually the week prior to start of Work at the Site). Contractor, all major Subcontractors, and major suppliers shall attend Preconstruction Conference. Agenda may include, without limitation, the following items:

1. Schedules
2. Personnel and vehicle permit procedures
3. Use of premises
4. Location of the Contractor's on-Site facilities
5. Security
6. Housekeeping
7. Submittal and RFI procedures
8. Inspection and testing procedures, on-Site and off-Site
9. Utility shutdown procedures
10. Control and reference point survey procedures
11. Injury and Illness Prevention Program
12. Contractor's Initial Progress Schedule
13. Contractor's Schedule of Values
14. Contractor's Schedule of Submittals
15. Jurisdictional agency requirements
16. Owner will distribute copies of minutes to attendees. Attendees shall have seven Days to submit comments or additions to minutes. Minutes will constitute final memorialization of results of Preconstruction Conference.

1.03 WEEKLY PROJECT MEETINGS

- A. Owner will schedule and administer weekly progress meetings throughout duration of Work. Progress meetings will be held weekly unless otherwise directed by Owner. Meetings shall be held at Owner's Offices unless otherwise specified in Contract Documents.
 1. Owner's Representative will prepare agenda and distribute it four Days in advance of meeting to Contractor.
 2. Participants with agenda items shall present them.
 3. The Architect/Engineer and other responsible entities shall attend meetings unless otherwise specified in Contract Documents or provided by Owner.
 4. Owner shall record and distribute the meeting minutes. Minutes shall be distributed by the Owner to the Contractor within three business days after the meeting. Contractor shall distribute the minutes to those affected by decisions made at meeting. Attendees shall have five business days to submit comments or additions to the minutes. Minutes shall constitute final memorialization of results of meeting.
 5. Progress meetings shall be attended by Contractor's job superintendent, major Subcontractors and suppliers, Owner, and others as appropriate to agenda topics for each meeting.
 6. Agenda may contain the following items, as appropriate:

- a. Review, revise as necessary, and approve previous meeting minutes
- b. Review of Work progress since last meeting
- c. Status of Construction Work Schedule, delivery schedules, adjustments
- d. Submittal, RFI, and Change Order status
- e. Review of the Contractor's safety program activities and results, including report on all serious injury and/or damage accidents
- f. Other items affecting progress of Work

1.04 PROGRESS SCHEDULE AND BILLING MEETINGS

- A. A meeting will be held on approximately the 20th of each month to review the schedule update submittal and progress payment application.
- B. At this meeting, at a minimum, the following items will be reviewed:
 1. Percent complete of each activity;
 2. Time impact evaluations for Change Orders and Time Extension Request;
 3. Actual and anticipated activity sequence changes;
 4. Actual and anticipated duration changes; and
 5. Actual and anticipated Contractor delays.
- C. These meetings are considered a critical component of overall monthly schedule update submittal and Contractor shall have appropriate personnel attend. At a minimum, Contractor's General Superintendent and Scheduler shall attend these meetings.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION – NOT USED

END OF SECTION

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 3200

PROGRESS SCHEDULES AND REPORTS

50. PART 1 – GENERAL

1.01 SUMMARY

- A. Section includes description of requirements and procedures for submitting progress schedules and submittals.

I.02 CONTRACTOR TO SUBMIT BASELINE AND PROGRESS SCHEDULES

- A. Contractor shall submit an Initial Contract Schedule ***no later than the Pre-Construction Kickoff Meeting.*** Contractor's Initial Contract Schedule is subject to Owner's review and comments. The approved Initial Contract Schedule shall be referred to as the **Baseline Schedule**.
- B. Contractor's Baseline Schedule and progress schedules shall show Contractor's construction and procurement activities including, without limitation, equipment procurement and delivery (Contractor and Owner supplied), activities with Subcontractors and suppliers, major submittal reviews, commissioning of systems, use of major equipment on site, and necessary interface with Owner and third parties required to complete the Work in a timely manner and in accordance with Contract Time.

a. 1.03 SCHEDULE REQUIREMENTS.

- A. Unless Owner agrees in writing otherwise, progress schedule shall be on Primavera P6, most current version of Sure Track, or equivalent software acceptable to Owner, as Owner may specify, which Contractor shall prepare and supply to Owner, with all datapoint entries completed for start dates, necessary work activities, durations (not longer than 21 calendar days), and logic ties.
- B. Contractor shall develop a network plan and schedule for the Project demonstrating complete fulfillment of all Contract requirements, shall keep the network plans up to date in accordance with the requirements of this Section 01 3200, and shall utilize the Critical Path Method (CPM) in planning, coordinating, performing and reporting the work under this contract, including all activities of Subcontractors, equipment vendors, and suppliers, and in assisting Owner in monitoring the progress of the Work.
- C. CPM network is a graphic depiction of the Contractor's construction plan, showing the sequential steps needed to reach completion of the Work within the prescribed Contract Time. It shall depict events and tasks as activities, and their interrelationships, and shall recognize the progress that must be made on one activity before subsequent activities can begin. These activities shall be logically represented in a CPM network showing their interrelationships in a chronological fashion. As each activity has a time allocation, the completed network shall show the critical path of activities that must be completed on time if the entire Project is not to be delayed. It shall also be possible to identify the earliest and latest start and finish times for each activity if the overall Project is not to be delayed. Therefore, the CPM network shall be comprehensive and shall include all interdependencies and interactions required to perform the Work of the Project.
- D. **Contractor's Baseline Schedule and progress schedules shall be in the form of a CPM (arrow) diagram or, if Owner agrees in writing, a bar chart. IF THIS LATTER OPTION IS USED, NEED TO MODIFY OR DELETE ¶¶ 1.02 B AND C.]** Contractor shall provide Owner with native format electronic schedules and hard copies of the Baseline Schedule, schedule updates, and lookahead schedules. All electronic and hard copies of the schedule that Contractor provides to Owner shall indicate the critical path of the Work (in red) and shall show a logical progression of the Work through ***[Substantial and Final]*** completion within Contract Time.
- E. Unless Owner agrees in writing otherwise, progress schedules shall also show early and late start and finish dates and total available float (float to the successor activity's late start date) for each

activity.

- F. Owner has no obligation to accept an early completion schedule.

b. 1.04 MONTHLY UPDATES

- A. Contractor's progress schedule shall be updated monthly to reflect actual progress. The schedule shall be subject to Owner's review and acceptance for use in monitoring Contractor's Work and evaluating Applications for Payment.
- B. Contractor shall supply Owner with an electronic copy of the updated progress schedule with each monthly payment application. Contractor shall provide Owner with two-week lookahead schedules weekly, showing in detail and activities and resources scheduled for the immediate two week period.

1.05 RECOVERY SCHEDULE

- A. Owner may request a recovery schedule should Contractor fall 21 or more Days behind any schedule Milestone, which schedule shall show Contractor's plan and resources committed to retain Contract completion dates.
- B. The recovery schedule shall show the intended critical path. If Owner requests, Contractor shall also:
 - 1. Secure and demonstrate appropriate Subcontractor and supplier consent to the recovery schedule.
 - 2. Submit a written plan and narrative explaining on trade flow and construction flow changes and man-hour loading assumptions for major Work activities and/or Subcontractors.

c. 1.06 TIME IMPACT EVALUATION (TIE) FOR CHANGE ORDERS, TIME EXTENSIONS AND DELAYS

- A. When Contractor requests a time extension for any reason, Contractor shall submit a TIE, in accordance with Article 11 of Document 00 7200 and Section 01 2600, Article 1.02.C that provides information justifying the request and stating the extent of the adjustment requested for each specific change or alleged delay. Each TIE shall be in a form and content that is acceptable to Owner and that includes both a written narrative and a schedule diagram depicting how the changed Work or other impact affects other schedule activities. The schedule diagram shall show how Contractor proposes to incorporate the changed Work or other impact in the schedule and how it impacts the current Schedule update critical path or otherwise. Contractor is also responsible for establishing time extensions based on the TIE's impact on the critical path. The diagram shall be tied to the main sequence of scheduled activities to enable Owner to evaluate the impact of changed Work to the scheduled critical path.
- B. Contractor is responsible for all costs associated with preparing TIE's, and the process of incorporating TIE's into the current schedule update. Contractor shall provide Owner with four copies of each TIE.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION – NOT USED

END OF SECTION

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 3300

SUBMITTALS

51. PART 1 – GENERAL

1.1 DESCRIPTION

- A. Section Includes:
1. Progress schedule.
 2. Submittal schedule.
 3. Products list.
 4. Project directory.
 5. Shop drawings.
 6. Product data.
 7. Samples.
 8. Colors.
 9. Operating and maintenance manuals.
 10. Field samples and mock-ups.
 11. Submittal procedures.
 12. Requests for Information (RFI's).
 13. Final distribution of submittals.

1.2 RELATED WORK

- A. Comply with the requirements specified in addition to submittal review procedures and requirements of the Agreement.
- B. Do not commence any portion of the Work requiring submission of a shop drawing, product datum, or sample until the submittal has been reviewed and accepted by Architect.
- C. Shop drawings, product data, and samples are in no case to be considered Contract Documents but are to be treated only as instruments of convenience and facility to further the progress of the Work.
- D. Shop drawings, product data, samples and supporting data shall be prepared by Contractor or its suppliers but shall be submitted to Architect by Contractor as instruments of the Contractor.
1. Contractor shall check the drawings of its suppliers as well as its own drawings before submitting them to Architect.
 2. Contractor shall ascertain that shop drawings, product data, and samples meet all requirements of the Contract Documents and also conform to the structural and space conditions. If shop drawings, product data, and samples show variations from Contract Documents, whether because of standard shop practice or other reasons, Contractor shall make special mention thereof in its letter of transmittal.

3. Contractor shall be fully responsible for observing the need for and making changes in arrangement and manner of installation of piping, connections, wiring, and similar items that may be required by equipment it proposes to supply, both as pertains to its own work and work affected under other parts, headings, or Divisions of the Contract Documents.
 4. Prior to submittal to Owner's Representative, each shop drawing, product datum, and sample submitted for review shall be stamped, dated, and signed by Contractor, verifying that it has been checked by Contractor to be in accordance with the Contract Documents. Submittals not signed by Contractor will be returned without review by the Architect.
- E. Miscellaneous systems not specifically specified but installed to meet code requirements or for other reasons are subject to Architect review prior to installation.

1.3 PROGRESS SCHEDULE

- A. Prepare a comprehensive schedule of basic operations of the entire Project in the form of a Critical Path (CPM) network or other appropriate method acceptable to the Owner.
 1. Indicate critical dates for submission of specified shop drawings, product data, samples, and certificates. Allow ample time for review by Architect.
 2. Include decision dates for products specified by allowance and for selection of colors/finishes.
- B. The schedule shall be the basis for establishing starting and completing dates of Work for the Project.
- C. Conform to accepted schedule, and arrange work in such a manner that it will be installed in accordance with the schedule.
- D. Establish a program to reevaluate and update the schedule periodically in accordance with requirements of the Project. Submit first schedule 2 weeks after Notice to Proceed or as otherwise directed.
- E. Coordinate letting of subcontracts, material purchases, delivery of materials, sequence of operations, and similar activities to conform to accepted schedule, and furnish proof of conformance as may be required by Owner.
- F. In case Owner determines, after consultation with Architect, that Contractor fails or refuses to take appropriate and necessary measures to complete the Work in accordance with the accepted schedule or within time to which such completion may be extended, the Contract, or any part thereof, may be terminated under the provisions of the Agreement.

1.4 COORDINATION

- A. Coordinate submittals with performance of construction activities.
- B. Coordinate each submittal with other submittals and related activities that require sequential activities.

- C. Coordinate transmittal of different types of submittals for related parts of the Work to avoid delays in processing when concurrent coordination is required.
 - 1. The Architect and the Owner's Representative reserve the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

1.5 SUBMITTAL SCHEDULE

- A. Contractor shall prepare and submit to Owner's Representative a "Submittal Schedule" showing schedule dates of submittals and date required for return of submittals to Contractor.
- B. Dates on "Submittal Schedule" shall be agreed upon by both Architect and Contractor.
- C. Within reason and when submittal items are not schedule critical, the Contractor shall bundle items within the same Specification section into a single Submittal.**
- D. Contractor shall provide in schedule a minimum of 10 working days Architect to review and check submittals as may be necessary.
 - 1. No extension of time will be granted because of Contractor's failure to make submittals to allow for minimum 10 working days for review and processing by Architect.
 - 2. Based on the number and complexity of submittals at any one time Architect review period may be longer than 10 days.
 - 3. Submittals delivered to the Architect after 2 PM will be noted as received on the next business day.
- E. Schedule shall be updated on a monthly basis.

1.6 PRODUCTS LIST

- A. **Within 14 calendar days** after execution of the Contract, submit to Architect a complete list of products as required in each Specification Section.
- B. Tabulate list of products by each Specification Section. Allow space on the tabulated list sheet for Architect's stamp and Architect's notation adjacent to each product/item.
- C. For products specified under reference standards, include with listing of each product:
 - 1. Name and address of manufacturer.
 - 2. Trade name.
 - 3. Model or catalog designation.
 - 4. Manufacturer's data.
 - a. Performance and test data.
 - b. Reference Standards.

1.7 PROJECT DIRECTORY

- A. After execution of the Contract but prior to commencement of Work, Contractor shall submit to Architect a Project Directory listing subcontractors and vendors on the Project and giving a brief description of their scope of work, firm name, contact person, address, phone number, and fax number.

1.8 SHOP DRAWINGS

- A. Shop drawings shall be drawn to scale and shall be completely dimensioned. Show plan and sections as necessary clearly to show construction detail and methods.
- B. Sheet size shall not exceed the size of the Construction Drawing Set.
- C. Entitle shop drawings with name of the Project and list applicable divisions, sections, article, or reference on each sheet.
- D. Submit separate items on separate sheets.

1.9 PRODUCT DATA

- A. Manufacturer's standard drawings shall be modified to delete information which is not applicable and shall be supplemented to provide additional information where so required.
- B. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations, and other standard descriptive data shall:
 - 1. Have each copy clearly marked to identify pertinent materials, products, models, finishes, etc.
 - 2. Show clearly standard options included.
 - 3. Show dimensions and clearances required.
 - 4. Show performance characteristics and capacities.
 - 5. Show wiring diagrams and controls, and show necessary rough-in requirements for utility services and connections, where applicable.
 - 6. Include manufacturer's installation instructions on 8.5-inch-x-11-inch format.
- C. Identify each item of product data by reference to sheet and detail numbers of Contract Drawings and/or specific reference to Sections and Paragraphs of the Specifications.
- D. Where product data, as submitted, contains extraneous information, unmarked options, or is incomplete, it will be returned to Contractor without review.

1.10 SAMPLES

- A. Contractor shall forward to Owner's Representative, at its own expense, samples designated for use on the Project. Include material, equipment, textures, colors, and fabrics in sizes and quantities as required by the Drawings and Specifications or as requested by Architect. Where there is an expected range of color or texture variations for the specified item, submit sufficient number of samples to illustrate range.

- B. Review of samples is only for general conformance with the design concept of the project and general compliance with information included in the contract documents. Contractor is responsible for correlating and confirming dimensions at the job site, choice of fabrication processes and techniques of construction, coordination of his work with that of other trades and performing the work in a safe and satisfactory manner. The Landscape Architect has not reviewed and is not responsible for substitutions and/or deviations from the contract documents not clearly noted as a substitution by the Contractor and specifically accepted by the Landscape Architect in writing.
- C. Submit and resubmit samples until accepted by Architect.
- D. No review of a sample shall be taken in itself to change or modify the Contract requirement.
- E. Finishes, materials, and workmanship in the completed Project shall match accepted samples.
- F. Samples of value will be returned to Contractor, when requested in writing at time of submittal, for its use in the Project after review, analysis, comparison, or testing as may be required by Architect.
- G. No samples shall be incorporated into the Work, unless otherwise specified or specific approval is given by Architect and Owner.

1.11 COLORS

- A. Unless the color and pattern are shown or specified, whenever a choice of color or pattern is available in a specified product, submit accurate color charts and pattern charts to Architect for review and selection.
- B. Completely describe the relative costs and capabilities of each color and pattern, unless available colors and patterns have identical costs and wearing capabilities.

1.12 OPERATING AND MAINTENANCE MANUALS

- A. Prepare and submit in accordance with Section 01 77 00, "Closeout Procedures."

1.13 FIELD SAMPLES AND MOCK-UPS

- A. Erect at Project site at a location specified and/or as directed by Architect.
- B. Provide field samples or mock-ups as required by individual Sections.
- C. Size of Area: As specified in individual Section.
- D. Each sample and mock-up shall be complete and finished.
 - 1. Materials, colors, and textures shall be installed and/or applied to certain on-site trial areas.

2. Contractor shall adjust materials, colors, and textures in these trial areas until acceptable to the Owner's Representative and approved for final finish.
3. When these representative areas are finished as directed, final review by the Architect will be given.
4. Construct or prepare as many additional samples or mock-ups required, as directed by Architect, until desired qualities are obtained.
5. Do not start work represented by field samples or mock-ups until Architect has accepted the field samples or mock-ups.
6. Accepted samples and mock-ups shall serve as the standard of quality for similar work throughout the Project.
7. Finished work shall match accepted field samples and mock-ups.

E. Accepted field samples and mock-ups may remain as part of installed Work, unless otherwise specified.

1.14 SUBMITTAL PROCEDURES - SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

- A. Submit shop drawings, technical literature, mill reports, certificates, material lists, and samples as specified in the Agreement and Specification Sections.
1. Subcontractors shall make submittals to Contractor.
 2. Contractor shall make submittals to the Owner's Representative unless otherwise directed. The Owner's Representative will distribute submittals to the Architect and relevant Consultants. Where submittals are sent to Consultants, a copy will also be sent to the Architect.
 3. Consultants will return submittals to the Owner's Representative.
 4. The Architect will return reviewed submittals to the Contractor.
- B. Identification:
1. Properly identify each submittal with name of Project, Contractor, subcontractor, and date.
 2. Accompany each submittal by an acceptable transmittal form referring to Project name and Specifications Section number, and paragraph number, when applicable, for identification of each item.
 3. Consecutively number shop drawings for each Section of work; retain numbering system throughout all revisions.
 4. Allow clear space on each drawing, product datum, and sample for stamp of Contractor and Architect. Where clear space is not available on samples, submit with tags or stickers attached.
- C. Stamp each shop drawing, product datum, and sample to certify that it has been coordinated and checked for completeness and compliance with requirements of the Work, Project, and Contract Documents.
- D. Architect Review:
1. General:
 - a. Except for finish, color, and other aesthetic matters left to Architect's decision by Contract Documents, Architect review of shop drawings, product data, and samples is only for Contractor's convenience in following work and does not relieve Contractor from responsibility for deviations from requirements of Contract Documents.

- b. Do not construe Architect review as a complete check or relief from responsibility for errors of any sort in shop drawings or schedules or from necessity of furnishing work required by Contract Documents that may not have been shown on shop drawings.
 - c. Architect's and Consultant's review of a separate item does not indicate review of complete assembly in which it functions.
 2. Submittals not stamped by Contractor and submittals which, in Architect's opinion, are incomplete, contain numerous errors, or have not been checked or have only been checked superficially will be returned to Contractor for re-submittal.
 3. Processing:
 - a. Architect will review shop drawings, product data, and samples in accordance with agreed upon "Submittal Schedule" and will return them to Owner with Architect 's stamp.
 - b. Notations by Architect which increase Contract cost or time of completion shall be brought to Architect 's attention in writing before proceeding with work.
 - c. Each submittal will be stamped indicating appropriate action as specified below.
- E. Copies required in each submittal shall be as follows:
 1. Shop Drawings: One electronic copy.
 2. Product Data: One electronic copy
 3. Samples: Four each, unless otherwise specified under applicable Specification Sections or requested.
- F. Action and Distribution:
 1. Typically, Architect will stamp submittals "No Exceptions Taken, Proceed," "Make Corrections Noted, Proceed," "Revise and Resubmit," or "Rejected, See Remarks."
 - a. When stamped "No Exceptions Taken, Proceed," Contractor is advised that fabrication, manufacture, or construction may proceed, provided that it complies with the Contract Documents.
 - b. When stamped "Make Corrections Noted, Proceed," Contractor is advised that fabrication, manufacture, or construction may proceed, provided that it complies with Architect notations and the Contract Documents. Submittal shall not be revised and resubmitted.
 - c. When stamped "Revise and Resubmit," Contractor is advised that no work shall be fabricated, manufactured, or constructed; Contractor shall make a new submission.
 - d. When stamped "Rejected," Contractor is advised that no work shall be fabricated, manufactured, or constructed; the submittal is unacceptable, do not proceed with selection.
 2. Architect will review design-build submittals for general compliance with the design concept of the Project and compliance with the performance specifications and reference drawings provided for bid purposes. The Architect's review or comments as respects a specific item shall not indicate approval of an assembly of which the item is a component, nor shall it relieve the Contractor of his responsibilities for the means, methods, sequences, or safety of the construction.

3. Architect 's reviewed submittal will be returned to Owner's Representative for distribution. Returned items will consist of the following:
 - a. For Owner's Representative:
 - b. One copy of all submittals.
 - c. For Contractor:
 - d. One reproducible.
 - e. Two copies of product data.
 - f. Two samples.

G. Use of Submittals:

1. Work shall be fabricated, manufactured, or constructed only from submissions stamped by the Architect with "No Exceptions Taken, Proceed" and "Make Corrections Noted, Proceed" or submissions stamped with similar instructions by Owner's Consultants.
2. If for any reason Contractor cannot comply with the notations, Contractor shall resubmit submittal.

1.15 REQUESTS FOR INFORMATION (RFI'S)

- A. RFI's shall be submitted by subcontractors to the Contractor who shall then assign the request an RFI number and forward the request on to the Architect with a copy to the Owner's Representative.
- B. Subcontractors shall submit RFI's to the Architect only through the General Contractor.
- C. The Contractor shall be responsible for assuring there aren't excessive RFI's by subcontractors.
 1. Subcontractors and/or Contractor shall state their interpretation of the Contract documents or propose their solution for conflict resolution in the RFI.
 2. The Architect's response to RFI's will confirm a stated interpretation or otherwise interpret the design intent and may include furnishing an alternative conflict resolution.
- D. Form for submittal of an RFI shall be acceptable to the Architect.
- E. Contractor shall periodically submit to the Architect a list of RFI's, the date submitted and received, and notation of status.

1.16 FINAL DISTRIBUTION AFTER REVIEW

- A. In addition to required copies of submittals from Contractor, subcontractors, suppliers, and fabricators, Contractor shall make distribution to:
 1. Job site file.
 2. Project Record Documents file.

END OF SECTION

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 4100

REGULATORY REQUIREMENTS

52. PART 1 – GENERAL

1.01 SUMMARY

A. Section includes:

1. Regulatory requirements applicable to Contract Documents
2. Required provisions under Local Agency Disputes Act
3. Required references under federal law

1.02 GENERAL

A. Compliance with Laws

1. Conform to all applicable codes, laws, ordinances, rules and regulations, which shall have full force and effect as though printed in full in these Specifications. Codes, laws, ordinances, rules, regulations and ordinances (**Regulatory Requirements**) are not furnished to Contractor, because Contractor is assumed to be familiar with these requirements.
2. Any listing of Regulatory Requirements for hazardous waste abatement Work in the Contract Documents is supplied to Contractor as a courtesy and shall not limit Contractor's responsibility for complying with all applicable Regulatory Requirements having application to the Work. Where conflict among the Regulatory Requirements or with these Specifications occurs, the most stringent requirements shall be used.
3. Specific reference in the Specifications to codes and regulations or requirements of regulatory agencies shall mean the latest printed edition of each adopted by the regulatory agency in effect at the time of the opening of Bids, except as may be otherwise specifically stated in the Contract Documents.

B. Precedence

1. Where specified requirements differ from Regulatory Requirements, the more stringent requirements shall take precedence. Where Drawings or Specifications require or describe products or execution of better quality, higher standard or greater size than required by Regulatory Requirements, then Drawings and Specifications shall take precedence so long as such increase is legal. Where no requirements are identified on Drawings or in Specifications, comply with all Regulatory Requirements of governing authorities having jurisdiction.
2. Should any conditions develop not covered by the Contract Documents wherein the finished Work will not comply with current codes, a Change Order detailing and specifying the required Work shall be submitted to and approved by Owner before proceeding with the Work.

1.03 REGULATORY REQUIREMENTS

A. Applicable Codes

1. Codes that apply to Contract Documents include all Codes applicable to construction, including, **WITHOUT LIMITATION**, the following:
 - a. California Building Code (2013 Edition or latest applicable code) as amended by applicable local ordinances for all construction work.
 - b. California Electrical Code (2013 Edition or latest applicable code) as amended by applicable local ordinances for all construction work.

- c. California Plumbing Code (2013 Edition or latest applicable code) as amended by applicable local ordinances for plumbing, sewage disposal and health requirements.
- d. California Mechanical Code (2013 Edition or latest applicable code) as amended by applicable local ordinances for all construction work.
- e. California Fire Code (2013 Edition or latest applicable code) as amended by applicable local ordinances for all construction work.
- f. California Administrative Code Titles 15, 19 and 24 (with California amendments), and Americans with Disabilities Act (ADA) accessibility guidelines, whichever is more stringent.
- g. All State laws and city/town and County Ordinances, rules of the State or city/town or County Health Departments, rules of the National Board of Fire Underwriters and National Fire Protection Associations, and local power company regulations for mechanical and electrical work.

B. Applicable Laws, Statutes, Ordinances, Rules, And Regulations

- 1. During prosecution of Work to be done under Contract Documents, Contractor shall comply with applicable laws, ordinances, rules and regulations including, without limitation, the following:
 - a. Federal:
 - 1) Americans With Disabilities Act of 1990
 - 2) 29 CFR, Section 1910.1001, Asbestos
 - 3) 40 CFR, Subpart M, National Emission Standards for Asbestos
 - 4) Executive Order 11246
 - 5) Federal Endangered Species Act
 - 6) Clean Water Act
 - b. State of California:
 - 1) Code of Regulations, Titles 5, 8, 17, 19, 21, 22, 24 and 25
 - 2) Public Contract Code
 - 3) Health and Safety Code
 - 4) Government Code
 - 5) Labor Code
 - 6) Civil Code
 - 7) Code of Civil Procedure
 - 8) CPUC General Order 95, Rules for Overhead Electric Line Construction
 - 9) CPUC General Order 128, Rules for Construction of Underground Electric Supply and Communications Systems
 - 10) Cal/OSHA
 - 11) OSHA: Hazard Communications Standards
 - 12) California Endangered Species Act
 - 13) Water Code
 - 14) Fish and Game Code
 - c. State of California Agencies:
 - 1) State and Consumer Services Agency
 - 2) Office of the State Fire Marshall
 - 3) Office of Statewide Health Planning and Development (if applicable)
 - 4) Department of Fish and Game
 - 5) All Air Quality Management Districts with jurisdiction
 - 6) All Regional Water Quality Control Boards with jurisdiction
 - 7) Division of the State Architect (if applicable)
 - d. All Local Agencies with jurisdiction (cities, counties, fire departments)

C. **Change Orders and Claims:**

1. The Public Contract Code including, without limitation, Section 7105(d)(2), and the California Government Code Section 930.2, et seq., apply to all contract procedures for changes, time extensions, change orders (time or compensation) and claims. Federal law (*U.S. v. Holpuch* 326 U.S. 234) shall supplement California law on the enforceability of these requirements.
2. Any change, waiver, or omission to implement contract change order and claim procedures shall have no legal effect unless expressly permitted in a fully executed change order approved by Contractor and Owner and approved as to form by their respective legal counsel.

D. **Required Provisions On Contract Claim Resolution**

Any claim arising under this contract which the Contractor wishes to assert against Owner shall be governed by California Public Contract Code Section 9204. Claims which do not exceed three hundred seventy-five thousand dollars (**\$375,000**) are also subject to the provisions of Article 1.5 of the California Public Contract Code (commencing with Section 20104). Pursuant to California Public Contracts Code Section 9204, claims shall be resolved as follows:

(d) (1) (A) Upon receipt of a claim pursuant to this section, the public entity to which the claim applies shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, a public entity and a contractor may, by mutual agreement, extend the time period provided in this subdivision.

(B) The claimant shall furnish reasonable documentation to support the claim, pursuant to Document 00 7200 (General Conditions), Article 12.

(C) If the public entity needs approval from its governing body to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the public entity shall have up to three days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the claimant a written statement identifying the disputed portion and the undisputed portion.

(D) Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. If the public entity fails to issue a written statement, paragraph (3) shall apply.

(2) (A) If the claimant disputes the public entity's written response, or if the public entity fails to respond to a claim issued pursuant to this section within the time prescribed, the claimant 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 public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(B) 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 public entity shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity 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 public entity and the claimant sharing the

associated costs equally. The public entity and claimant shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.

(C) 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.

(D) Unless otherwise agreed to by the public entity and the contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.

(E) This section does not preclude a public entity from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this section does not resolve the parties' dispute.

(3) Failure by the public entity to respond to a claim from a contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the public entity's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.

(4) Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.

(5) If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a public entity because privity of contract does not exist, the contractor may present to the public entity a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that the contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the public entity shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the contractor shall notify the subcontractor in writing as to whether the contractor presented the claim to the public entity and, if the original contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) a public entity may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.

Nothing in this section shall impose liability upon a public entity that makes loans or grants available through a competitive application process, for the failure of an awardee to meet its contractual obligations.

E. Compliance With Americans With Disabilities Act

1. Contractor acknowledges that, pursuant to the Americans with Disabilities Act (**ADA**), programs, services and other activities provided by a public entity to the public, whether directly or through a Contractor, must be accessible to the disabled public. Contractor shall provide the services specified in the Contract Documents in a manner that complies with the ADA and any and all other applicable federal, state and local disability rights legislation. Contractor agrees not to discriminate against disabled persons in the provision of services, benefits or activities provided under the Contract Documents and further agrees that any violation of this prohibition on the part of Contractor, its employees, agents or assigns shall constitute a material breach of the Contract Documents.

F. Compliance With IRCA

1. Contractor acknowledges that Contractor, and all subcontractors hired by Contractor to perform services under this Agreement, are aware of and understand the Immigration Reform and Control Act (**IRCA**). Contractor is and shall remain in compliance with the IRCA and shall ensure that any subcontractors hired by Contractor to perform services under this Agreement are in compliance with the IRCA. In addition, Contractor agrees to indemnify, defend and hold harmless Owner, its agents, officers and employees, from any liability, damages or causes of action arising out of or relating to any claims that Contractor's employees, or employees of any subcontractor hired by Contractor, are not authorized to work in the United States for Contractor or its subcontractor and/or any other claims based upon alleged IRCA violations committed by Contractor or Contractor's subcontractors.

a. PART 2 – PRODUCTS – NOT USED

53. PART 3 – EXECUTION – NOT USED

END OF SECTION

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 4200

REFERENCES AND DEFINITIONS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Reference standards, abbreviations, symbols, and definitions used in Contract Documents.
2. Full titles are given in this Section for standards cited in other Sections of Specifications.

1.02 REFERENCE TO STANDARDS AND SPECIFICATIONS OF TECHNICAL SOCIETIES; REPORTING AND RESOLVING DISCREPANCIES

A. References

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard, specification, manual, code, or laws or regulations in effect at the time of opening of Bids, except as may be otherwise specifically stated in the Contract Documents.
2. If during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any such law or regulation applicable to the performance of the Work or of any such standard, specification, manual, or code or of any instruction of any supplier, Contractor shall report it in writing at once to Owner's Representative and Architect/Engineer, and Contractor shall not proceed with the Work affected thereby until consent to do so is given by Owner.

B. Precedence

1. Except as otherwise specifically stated in the Contract Documents or as may be provided by Change Order, CCD, or Supplemental Instruction, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. The provisions of any such standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. The provisions of any such laws or regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such law or regulation).
2. No provision of any such standard, specification, manual, code, or instruction shall be effective to change the duties and responsibilities of Owner, Owner's Representative, Architect/Engineer or Contractor, or any of their Subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents, nor shall it be effective to assign to Owner, Architect/Engineer, or any of their consultants, agents, representatives or employees any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

C. Referenced Grades, Classes, and Types:

1. Where an alternative or optional grade, class, or type of product or execution is included in a reference but is not identified in Drawings or in Specifications, provide the highest, best, and greatest of the alternatives or options for the intended use and prevailing conditions.

D. Edition Date of References:

1. When an edition or effective date of a reference is not given, it shall be understood to be the current edition or latest revision published as of the date of opening Bids.
2. All amendments, changes, errata and supplements as of the effective date shall be included.

- E. ASTM and ANSI References:** Specifications and Standards of the American Society for Testing and Materials (ASTM) and the American National Standards Institute (ANSI) are identified in the Drawings and Specifications by abbreviation and number only and may not be further identified by title, date, revision, or amendment. It is presumed that Contractor is familiar with and has access to these nationally- and industry-recognized specifications and standards.

1.03 DEFINITIONS

A. Meaning of Words and Phrases

Wherever any of the words or phrases defined below, or a pronoun used in place thereof, is used in any part of the Contract Documents, it shall have the meaning here set forth. Where abbreviations and symbols are used, such abbreviations and symbols shall be given their common meaning in the construction industry. In the Contract Documents, the neuter gender includes the feminine and masculine, and the singular number includes the plural.

While Owner has made an effort to identify all defined terms with initial caps, the following definitions shall apply regardless of case unless the context otherwise requires:

1. Addenda: Written or graphic instruments issued prior to the opening of Bids, which clarify, correct, or change the bidding requirements or the Contract Documents. Addenda shall not include the minutes of the Pre-Bid Conference and/or Site Visit.
2. Agreement (Document 00 5200): Agreement is the basic Contract Document that binds the parties to construction Work. Agreement defines relationships and obligations between Owner and Contractor and by reference incorporates Conditions of Contract, Drawings, and Specifications and contains Addenda and all Modifications subsequent to execution of Contract Documents.
3. Alternate: Work added to or deducted from the base Bid, if accepted by Owner.
4. Application for Payment: Written application for monthly or periodic progress or final payment made by Contractor complying with the Contract Documents.
5. Approved Equal: Approved in writing by Owner as being of equivalent quality, utility and appearance.
6. Architect/Engineer: If used elsewhere in the Contract Documents, "Architect/Engineer" shall mean a person (or that person's firm) holding a valid California State Architect's or Engineer's license representing the Owner in the administration of the Contract Documents. Architect/Engineer may be an employee of or an independent consultant to Owner. When Architect/Engineer is referred to within the Contract Documents and not an employee of Owner, Architect/Engineer shall be construed to include employees of Architect/Engineer and/or employees that Architect/Engineer supervises. When the designated Architect/Engineer is an employee of Owner, his or her authorized representatives on the Project will be included under the term Architect/Engineer. If Architect/Engineer is an employee of Owner, Architect/Engineer is the beneficiary of all Contractor obligations to Owner, including without limitation, all releases and indemnities. Architect/Engineer may also be referred to as Architect or Engineer.

7. Asbestos: Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by OSHA or Cal/OSHA.
8. Bid: The offer or proposal of the Bidder submitted on the prescribed form(s) setting forth the prices for the Work to be performed.
9. Bidder: One who submits a Bid.
10. Bidding Documents: All documents comprising the Project Manual (including all documents and Specification Sections listed in Document 00 0110 [Table of Contents]), including documents supplied for bidding purposes only and Contract Documents.
11. Board: The governing body of the Owner.
12. Business Day: Any Day other than Saturday, Sunday, and the following days that have been designated as holidays by Owner. If a holiday falls on a Saturday, the preceding Friday will be the holiday. If a holiday falls on a Sunday, the following Monday will be the holiday.
 - a. New Year's Day, January 1;
 - b. Martin Luther King Jr.'s Birthday, third Monday in January;
 - c. Lincoln's Birthday, February 12;
 - d. Presidents' Day, third Monday in February;
 - e. Memorial Day, last Monday in May;
 - f. Independence Day, July 4;
 - g. Labor Day, first Monday in September;
 - h. Veterans' Day, November 11;
 - i. Thanksgiving Day, as designated by the President;
 - j. The Day following Thanksgiving Day;
 - k. Christmas Day, December 25; and
 - l. Each day appointed by the Governor of California and formally recognized by the Governing Board as a day of mourning, thanksgiving, or special observance.
13. By Owner: Work that will be performed by Owner or its agents at the Owner's expense.
14. By Others: Work that is outside scope of Work to be performed by Contractor under this Contract, which will be performed by Owner, other contractors, or other means.
15. Change Order: A written instrument prepared by Owner and signed by Owner and Contractor, stating their agreement upon all of the following:
 - a. a change in the Work;
 - b. the amount of the adjustment in the Contract Sum, if any; and
 - c. the amount of the adjustment in the Contract Time, if any.
16. Code Inspector: A local or state agency responsible for the enforcement of applicable codes and regulations.
17. Concealed: Work not exposed to view in the finished Work, including within or behind various construction elements.
18. Construction Change Directive (CCD): A written order prepared and signed by Owner, directing a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Sum or Contract Time, or both.
19. Contract Amount: a change order price, line item price, Contract Sum, or other price assigned to a scope of work.
20. Contract Conditions or Conditions of the Contract: Consists of two parts: General Conditions and Supplementary Conditions.
 - a. General Conditions are general clauses that are common to the Owner Contracts, including Document 00 7200 (General Conditions).
 - b. Supplementary Conditions modify or supplement General Conditions to meet specific requirements for Contract Documents, including Documents 00 7300, *et seq.* (Supplementary Conditions).

21. Contract Documents and Contract: Contract Documents and Contract shall consist of the documents identified as the Contract Documents in Document 00 5200 (Agreement), plus all changes, Addenda, and modifications thereto.
22. Contract Modification: Either:
 - a. a written amendment to Contract signed by Contractor and Owner; or
 - b. a Change Order; or
 - c. a Construction Change Directive; or
 - d. a written directive for a minor change in the Work issued by Owner.
23. Contract Sum: The sum stated in the Agreement and, including authorized adjustments, the total amount payable by Owner to Contractor for performance of the Work and the Contract Documents. The Contract Sum is also sometimes referred to as the Contract Price or the Contract Amount.
24. Contract Time: The number or numbers of Days or the dates stated in the Agreement to achieve Substantial Completion of the Work or designated Milestones; and/or to achieve Final Completion of the Work so that it is ready for final payment and is accepted.
25. Contractor: The person or entity identified as such in the Agreement and referred to throughout the Contract Documents as if singular in number and neutral in gender. The term "Contractor" means the Contractor or its authorized representative.
26. Contractor's Employees: Persons engaged in execution of Work under Contract as direct employees of Contractor, as Subcontractors, or as employees of Subcontractors.
27. County: The County in which Owner is located.
28. Day: One calendar day of 24 hours measured from midnight to the next midnight, unless the word "day" is specifically modified to the contrary.
29. Defective: An adjective which, when modifying the word "Work," refers to Work that is unsatisfactory or unsuited for the use intended, faulty, or deficient, that does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents (including, without limitation, approval of Samples and "or equal" items), or has been damaged prior to final payment (unless responsibility for the protection thereof has been assumed by Owner). Unapproved substitutions are defective. Owner is the judge of whether Work is Defective.
30. Drawings: The graphic and pictorial portions of Contract Documents, wherever located and whenever issued, showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.
31. Equal: Equal in opinion of Owner. Burden of proof of equality is responsibility of Contractor.
32. Final Acceptance or Final Completion: Owner's acceptance of the Work as satisfactorily completed in accordance with Contract Documents. Requirements for Final Acceptance/Final Completion include, but are not limited to:
 - a. Final cleaning is completed.
 - b. All systems having been tested and accepted as having met requirements of Contract Documents.
 - c. All required instructions and training sessions having been given by Contractor.
 - d. All Project Record Documents having been submitted by Contractor, reviewed by Owner, and accepted by Owner.
 - e. All punch list Work, as directed by Owner, having been completed by Contractor.
 - f. Generally all Work, except Contractor maintenance after Final Acceptance/Final Completion, having been completed to satisfaction of Owner.
33. Force Account: Work directed to be performed without prior agreement as to lump sum or unit price cost thereof, and which is to be billed at cost for labor, materials, equipment, taxes, and other costs, plus a specified percentage for overhead and profit.
34. Exposed: Work exposed to view in the finished Work, including behind louvers, grilles, registers and various other construction elements.

35. Furnish: Supply only, do not install.
36. Indicated: Shown or noted on the Drawings.
37. Install: Install or apply only, do not furnish.
38. Latent: Not apparent by reasonable inspection including, without limitation, the inspections and research required as a condition to bidding under Document 00 7200 (General Conditions).
39. Law: Unless otherwise limited, all applicable laws including without limitation all federal, state, and local laws, statutes, standards, rules, regulations, ordinances, and judicial and administrative decisions.
40. Material: This word shall be construed to embrace machinery, manufactured articles, materials of construction (fabricated or otherwise), and any other classes of material to be furnished in connection with Contract, except where a more limited meaning is indicated by context.
41. Milestone: A principal event specified in Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all Work.
42. Modification: Same as Contract Modification.
43. Not in Contract or "NIC": Work that is outside the scope of Work to be performed by Contractor under Contract Documents.
44. Notice of Completion: Shall have the meaning provided in California Civil Code Section 9202, and any successor statute.
45. Off Site: Outside geographical location of the Project.
46. Owner: Owner is defined in Document 00 5200 (Agreement).
47. Owner-Furnished, Contractor Installed: Items furnished by Owner at its cost for installation by Contractor at its cost under Contract Documents.
48. Owner's Representative(s): See Document 00 5200 (Agreement).
49. Partial Utilization: Use by Owner of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all of the Work.
50. PCBs: Polychlorinated biphenyls.
51. Phase: A specified portion of the Work (if any) specifically identified as a Phase in Document 00 5200 (Agreement) or Section 01 1100 (Summary).
52. Product Data: That information (brochures, catalog sheets, manufacturer's cut sheets, etc.) supplied by vendors having technical and commercial characteristics of the supplied equipment or materials and accompanying commercial terms such as warranties, instructions, and manuals.
53. Progress Report: A periodic report submitted by Contractor to Owner with progress payment invoices accompanying progress schedule. See Document 00 7200 (General Conditions).
54. Project: Total construction of which Work performed under Contract Documents may be whole or part.
55. Project Manual: Project Manual consists of Bidding Requirements, Agreement, Bonds, Certificates, Contract Conditions, Drawings, and Specifications.
56. Project Record Documents: All Project deliverables required under the Contract Documents, including without limitation, as built drawings; Installation, Operation, and Maintenance Manuals; and Machine Inventory Sheets.
57. Proposal: A Bid.
58. Provide: Furnish and install.
59. Request for Information (RFI): A document prepared by Contractor requesting information regarding the Project or Contract Documents. The RFI system is also a means for Owner to submit Contract Document clarifications or supplements to Contractor.

60. Request for Proposals (RFP): A document issued by Owner to Contractor whereby Owner may initiate changes in the Work or Contract Time as provided in Contract Documents.
61. Request for Substitution (RFS): A document prepared by Contractor requesting substitution of materials as permitted and to the extent permitted in Contract Documents.
62. RFI-Reply: A document consisting of supplementary details, instructions, or information issued by Owner that clarifies or supplements Contract Documents, and with which Contractor shall comply. RFI-Replies do not constitute changes in Contract Sum or Contract Time except as otherwise agreed in writing by Owner. RFI-Replies will be issued through the RFI administrative system.
63. Samples: Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
64. Shop Drawings: All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
65. Shown: As indicated on Drawings.
66. Site: The particular geographical location of Work performed pursuant to the Contract Documents.
67. Specifications: The written portion of the Contract Documents consisting of requirements for materials, equipment, construction systems, standards, and workmanship for the Work; performance of related services.
68. Specified: As written in Specifications.
69. Subcontractor: A person or entity that has a direct contract with Contractor to perform a portion of the Work at the Site. The term Subcontractor is referred to throughout the Contract Documents as if singular in number and neutral in gender and means a Subcontractor or an authorized representative of the Subcontractor. The term Subcontractor does not include a separate contractor or subcontractors of a separate contractor.
70. Substantial Completion: The Work (or a specified part thereof) has progressed to the point where, in the opinion of Owner as evidenced by a notice or certificate of Substantial Completion, the Work is sufficiently complete, in accordance with Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended, and unperformed or incomplete work elements are minor in nature; or if no such certificate is issued, when the Work (or specified part) is complete and ready for final payment as evidenced by written recommendation of Owner for final payment. The terms “**Substantially Complete**” and “**Substantially Completed**” as applied to all or part of the Work refer to Substantial Completion thereof.
71. Supplemental Instruction: A written directive from Owner to Contractor ordering alterations or Modifications that do not result in change in Contract Sum or Contract Time, and do not substantially change Drawings or Specifications.
72. Technical Specifications: Specification Sections included within Division 02 and above.
73. Testing and Special Inspection Agency: An independent entity engaged to inspect and/or test the workmanship, materials, or manner of construction of buildings or portions of buildings, to determine if such construction complies with the Contract Documents and applicable codes.
74. TIE: Time Impact Evaluation; see Section 01 2600 (Modification Procedures). May also be referred to as Time Impact Analysis (**TIA**).
75. Underground Facilities: All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities that have been installed underground to furnish any of the following services or materials: electricity, gases, chemicals, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems, or water.

76. Unit Price Work: Shall be the portions of the Work for which a unit price is provided in Document 00 5200 (Agreement) or Section 01 1100 (Summary).
77. Work: The entire completed construction, or the various separately identifiable parts thereof, required to be furnished under the Contract Documents within the Contract Time. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents including everything shown in the Drawings and set forth in the Specifications. Wherever the word “work” is used, rather than the word “Work,” it shall be understood to have its ordinary and customary meaning.

B. Other Defined Terms

The following terms are not necessarily identified with initial caps; however they shall have the meaning set forth below:

1. Wherever words “as directed,” “as required,” “as permitted,” or words of like effect are used, it shall be understood that direction, requirements, or permission of Owner is intended. Words “sufficient,” “necessary,” “proper,” and the like shall mean sufficient, necessary, or proper in judgment of Owner. Words “approved,” “acceptable,” “satisfactory,” “favorably reviewed,” or words of like import, shall mean approved by, or acceptable to, or satisfactory to, or favorably reviewed by Owner.
2. Wherever the word “may” or “ought” is used, the action to which it refers is discretionary. Wherever the word “shall” or “will” is used, the action to which it refers is mandatory.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION – NOT USED

END OF SECTION

DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 7700

CONTRACT CLOSEOUT

PART 1 GENERAL

1.01 Summary.

A. Section describes requirements and procedures for:

1. Project cleaning
2. Testing of equipment and systems
3. Substantial Completion
4. Final Completion
5. Close Out
6. Warranties

1.02 Substantial Completion.

A. Removal of Temporary Construction Facilities and Project Cleaning.

1. Prior to Substantial Completion inspection: remove temporary materials, equipment, services, and construction; clean all areas affected by the Work; clean and repair damage caused by installation or use of temporary facilities; restore permanent facilities used during construction to specified condition.

B. Equipment and Systems.

1. Prior to Substantial Completion, Contractor shall start up, run for periods prescribed by Owner, operate, adjust and balance all manufactured equipment and Project systems including, without limitation, mechanical, electrical, safety, fire, and controls.
2. Demonstrate that such equipment and systems conform to contract standards and manufacturer's guarantees. Where applicable, use testing protocols specified, and if the contract is silent, then consistent with manufacturer's recommendations and industry standards.

C. Procedure for Substantial Completion.

1. When Contractor considers Work or designated portion of the Work as Substantially Complete, submit written notice to Owner, with list of items remaining to be completed or corrected and explanation of why such items do not prevent Owner's beneficial use and occupancy of the Work for its intended purposes. Within reasonable time, Owner will inspect to determine status of completion.
2. Should Owner determine that Work is not Substantially Complete, Owner will promptly notify Contractor in writing, listing all defects and omissions. Contractor shall remedy deficiencies and send a second written notice of Substantial Completion. Owner will reinspect the Work. If deficiencies previously noted are not corrected on reinspection, then pay the cost of the reinspection.
3. When Owner concurs that Work is Substantially Complete, Owner will issue a written notice or certificate of Substantial Completion, accompanied by Contractor's list of items to be completed or corrected as verified by Owner.
4. Manufactured units, equipment and systems that require startup must have been started up and before a notice or certificate of Substantial Completion will be issued.
5. A punch list examination will be performed upon Substantial Completion. One follow-up review of punch list items for each discipline will be provided. If further Site visits are required to review punch list items due to incompleteness of the Work by Contractor, Contractor will reimburse Owner for costs associated with these visits.

1.03 Final Completion.

A. Requirements.

1. Final Completion occurs when Work meets requirements for Owner's Final Acceptance.

B. Procedure.

1. When Contractor considers Work is Finally Complete, submit written certification that:
 - (a) Contractor has inspected Work for compliance with Contract Documents, and all requirements for Final Acceptance have been met.
 - (b) Except for Contractor maintenance after Final Acceptance, Work has been completed in accordance with Contract Documents and deficiencies listed with Certificate of Substantial Completion have been corrected. Equipment and systems have been tested in the presence of Owner, and are operative.
 - (c) Project Record Documents are completed and turned over to Owner, and Work is complete and ready for final inspection.
2. In addition to submittals required by Contract Documents, provide submittals required by governing authorities and submit final statement of accounting giving total adjusted Contract Sum, previous payments, and sum remaining due.
3. Should Owner determine that Work is incomplete or Defective, Owner promptly will so notify Contractor, in writing, listing the incomplete or Defective items. Contractor shall promptly remedy the deficiencies and notify the Owner when it is ready for reinspection.

C. Final Adjustments of Accounts.

1. Submit a final statement of accounting to Owner, showing all adjustments to the Contract Sum and complete and execute Document 00 6530 (Agreement and Release of Claims).
2. If so required, Owner shall prepare a final Change Order for submittal to Contractor, showing adjustments to the Contract Sum that were not previously made into a Contract Modification.

D. Warranties.

1. Execute Contractor's Submittals and assemble warranty documents, and Installation, Operation, and Maintenance Manuals, executed or supplied by Subcontractors, suppliers, and manufacturers. Provide table of contents and assemble in 8½ inches by 11 inches three-ring binder with durable plastic cover, appropriately separated and organized. Assemble in Specification Section order.
2. Submit material prior to final Application for Payment. For equipment put into use with Owner's permission during construction, submit within 14 Days after first operation. For items of Work delayed materially beyond Date of Substantial Completion, provide updated Submittal within 14 Days after acceptance, listing date of acceptance as start of warranty period.
3. Warranty Forms: Submit drafts to Owner for approval prior to execution. Forms shall not detract from or confuse requirements or interpretations of Contract Documents. Warranty shall be countersigned by manufacturers. Where specified, warranty shall be countersigned by Subcontractors and installers.
4. Rejection of Warranties: Owner reserves right to reject unsolicited and coincidental product warranties that detract from or confuse requirements or interpretations of Contract Documents.
5. Term of Warranties: For materials, equipment, systems, and workmanship, warranty period shall be one year minimum from date of Final Completion of entire Work except where:
 - (a) Detailed Specifications for certain materials, equipment or systems require longer warranty periods.
 - (b) Materials, equipment or systems are put into beneficial use of Owner prior to Final Completion as agreed to in writing by Owner.

E. Warranty of Title.

1. No material, supplies, or equipment for Work under Contract shall be purchased subject to any chattel mortgage, security agreement, or under a conditional sale or other agreement by which an interest therein or any part thereof is retained by seller or supplier. Contractor warrants good title to all material, supplies, and equipment installed or incorporated in Work and agrees upon completion of all Work to deliver premises, together with improvements and appurtenances constructed or placed thereon by Contractor, to Owner free from any claim, liens, security interest, or charges, and further agrees that neither Contractor nor any person, firm, or corporation furnishing any materials or labor for any Work covered by Contract shall have right to lien upon premises or improvement or appurtenances thereon. Nothing contained in this paragraph, however, shall defeat or impair right of persons furnishing materials or labor under bond given by Contractor for their protection or any rights under law permitting persons to look to funds due Contractor in hands of Owner.

F. Turn-In. Contract Documents will not be closed out and final payment will not be made until all keys issued to Contractor during prosecution of Work and letters from property owners, pursuant to Contract Documents, are turned in to Owner.

G. Release of Claims. Contract Documents will not be closed out and final payment will not be due or made until Document 00 6530 (Agreement and Release of Claims) is completed and executed by Contractor and Owner.

H. Fire Inspection Coordination. Coordinate fire inspection and secure sufficient notice to Owner to permit convenient scheduling (if applicable).

I. Building Inspection Coordination. Coordinate with Owner a final inspection for the purpose of obtaining an occupancy certificate (if applicable).

PART 2– PRODUCTS NOT USED

PART 3– EXECUTION NOT USED

END OF SECTION

TECHNICAL SPECIFICATIONS

06 20 10	SITE CARPENTRY
32 33 00	SITE FURNISHINGS
32 84 00	IRRIGATION
32 90 00	PLANTING
	GRANITECRETE SPECIFICATION- COMMERCIAL NON-VEHICULAR

RHAA Landscape Architects

**SECTION 06 20 10
SITE CARPENTRY**

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Provide all labor, equipment and materials for the installation of site carpentry, including but not limited to benches, signs, and path edging as shown on the drawings and specified.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM A123 Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - 2. ASTM A307 Standard Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength.
 - 3. ASTM D1761 Standard Test Methods for Mechanical Fasteners in Wood.
 - 4. ASTM D1037 Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials.
- B. Federal Specifications (FS):
 - 1. FS FF-S-111D Screws, Wood.
 - 2. FF-S-325 Expansion Shields.
- C. American National Standards Institute (ANSI):
 - 1. ANSI B18.2.1 Square and Hex Bolts and Screws, Inch Series.
- D. International Code Council (ICC):
 - 1. ICC Report ESR 1190, Trex Wood-Polymer Composite Lumber.
 - 2. California Building Code (CBC)

1.3 QUALITY ASSURANCE

- A. Douglas Fir: As graded by a certified grading agency approved by the USDA American Lumber Standards Committee.
- B. Cedar: As graded by a certified grading agency approved by the USDA American Lumber Standards Committee.
- C. Lumber: Grade stamp to contain symbol of grading agency, mill number or name, grade of lumber, species of species grouping or combination designation, rules under which grades, where applicable, and condition of seasoning at time of manufacture.
- D. Pressure Treatment of Wood: In accordance with the American Wood Preservers Institute (AWPI) Standards.

- E. Glue Laminated Members: Stamp each glued laminated member with an identifying number and furnish certificates of inspection to show grade and species of lumber, slope of grain, type of glue and any other pertinent information for each member.
- F. Poles and Posts: Shall conform to American National Standards Institute specifications and dimensions for wood poles 05.1-1972, and poles shall be selected for uniformity and appearance with maximum taper of 1-inch per 10 linear feet.
- G. Preservative-treated Lumber: Lumber shall be pressure-treated for "Below Grade Use" in conformance with AWWA Standard C-2.
- H. Abbreviations: AD - air dried. KD - kiln dried. VG - vertical grain. FG - flat grain. RWD - redwood. DF - Douglas Fir. PT - pressure-treated. All wood surfaced, four sides, unless otherwise designated "rough".

1.4 PROTECTION

- A. Lumber shall be stored in neat stacks at the site unless it is to be used immediately. All lumber shall be piled so that it may be readily inspected and shall be handled in a manner that will avoid injury or breakage.
- B. Immediately upon delivery to jobsite, place materials in area protected from weather.
- C. Take special care when handling.
- D. Store lumber on a flat surface with skids above ground as necessary to prevent warping.
- E. When stacking palletted units, start supports at each end and spaced 24" o. c.
- F. Line up supports vertically.

1.5 SUBMITTALS

- A. Submit listed submittals in accordance with Section 01 33 00.
- B. Certifications
 - 1. Pressure-treated wood: Submit certification by treating plant stating chemicals and process used, net amounts of slats retained, and conformance with applicable standards.
 - 2. Submit manufacturer's certificate decking products meet or exceed specified requirements.

PART 2 - MATERIALS

2.1 LUMBER

- A. Except where otherwise noted, all lumber shall conform to the allowable characteristics permitted within the applicable grading rule. No splits, checks, holes, decay or other irregularities will be permitted except characteristic of that grade.

- B. Wood products in this section that have been identified through research as being available from FSC-certified sources and should be specified on a line-by-line basis as "FSC-certified." FSC-certified companies can be found at info.fsc.org.
- C. Lumber shall be as follows
 - 1. Unless otherwise indicated on drawings or specified, lumber shall be Douglas Fir No. 1
 - 2. Welcome Sign to be an approximately 3' x 7' locally-sourced, reclaimed wood slab, Monterey Cyprus, or approved equal, as coordinated with District
 - 3. Bench planks to be 8' long 2x10 nominal planks, locally-sourced, reclaimed lumber, or approved equal
 - 4. Nature trail signs: posts to be pressure-treated Douglas fir, sign itself to be locally-sourced reclaim lumber, western red cedar, sealed with oil-based sealer, or approved equal, as coordinated with District.
 - 5. Douglas fir-Larch shall be pressure-treated No. 1 common grade or better, S4S.
 - 6. Posts shall be pressure-treated, Douglas fir-Larch, and sized as indicated on the Drawings. Pressure treat Douglas fir with "ACQ". Treat all posts for "below ground use" (.60 lbs. per cubic foot) in conformance with AWPA requirements.
 - 7. Pressure Treated Lumber shall be incised on all sides unless shown otherwise.
 - 8. Plywood, CDX, planed finish, 3/4" thickness,

2.2 PRESERVATIVE-TREATED LUMBER CONNECTOR SCREWS

- A. Self-taping galvanized flat head deck screws

2.3 ACCESSORIES

- A. All hardware used to fasten onto Preservative-treated Lumber shall be galvanized steel.
- B. Hardware: Provide all necessary nails, screws, clips and bolts required for proper installation of wood and wood composite lumber decking. Sizes and quantities as required by code authority having jurisdiction, unless more stringent requirements specified elsewhere.
 - 1. Bolts, Exterior Use:
 - a. Material Standard: Comply with ASTM A307, with standard washers.
 - b. Finish: Galvanized, ASTM A123.
 - c. Size: As shown.
 - 2. Lag Screws:
 - a. Material Standard: Comply with ANSI B18.2.1.
 - b. Finish: Hot dipped galvanized for exterior use.
 - 3. Expansion Shields:
 - a. Material Standard: Comply with Fed Spec. FF-S-325, Type 1, Group III, Self-drilling.
 - 4. Nails, General:
 - a. Material Standard: Comply with ASTM F1667.
 - b. Type: Common unless otherwise indicated.
 - c. Finish: Hot dipped galvanized for exterior use.
 - 5. Square-Head-Drive Self-Taping Screws for attaching wood composite decking.
 - a. Trimscrews or equal.

6. Welcome Sign
 - a. Simpson strong tie CPTZ concealed post base, CPT66Z (3)
7. Nature Trail Signs
 - a. Fossil Industries Single Wood Post 12" X 12" Mounting Plate, WPP1212-30 (6)

2.4 PRESERVATIVE

- A. Preservative-treated Lumber shall be pressure-treated for "Below Grade Use" with ACQ, 0.60 retention, in conformance with AWPA Standard.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Site Verification of Conditions:
 1. Verify that site conditions are acceptable for installation of materials.
 2. Do not proceed with installation of wood and wood composite lumber until unacceptable conditions are corrected.

3.2 INSTALLATION

- A. Workmanship shall be first class throughout. All lumber (except Wood Composite Lumber) shall be accurately cut and framed to a close fit and shall have even bearing over the entire contact surface. All joints shall be square and tight unless otherwise shown. No shimming will be permitted in making joints. Work shall be free of hammer marks, dents or other disfiguration. Nails and other hardware to be sized per U.C.B. Nailing Schedule and to be seated flush unless otherwise shown. Counter-sink finishing nails 1/16 inch. Holes for bolts shall be bored with a bit 1/16 inch larger than the bolt. Holes for lag screws shall be bored with a bit not larger than the base of the thread (75% of the diameter).
- B. Lumber Selection: Select individual pieces so that knots and obvious minor defects will not interfere with connections.
- C. Install members with crown and tight knots up.
- D. Cut joists, rafters and beams as required to provide a full even and horizontal seating on the support, unless otherwise shown, do not overcut.
- E. Do not use lumber with end splits greater than the following:
 1. Joists 2x: Split length greater than 1/2 the wide face of the member.
 2. Beams and headers: Split length greater than thickness of member.
 3. Structural blocking: Split length greater than thickness of member.
- F. Limit notches and bored holes in joist and beams as follows:
 1. Not permitted unless detailed on the Drawings or approved by the Structural Engineer.
 2. Notches in bottom or in top at cantilever or continuous span not permitted.

3. Notches in top shall not exceed 1/6th the depth and shall not be located in the middle 1/3 of span.
4. Bored holes shall not exceed 1-1/2" nor 1/5 of the depth in diameter and shall not be within 2" of top or bottom.

G. Fastening:

1. Use such fastenings and connections as required to connect members securely together or to structure.
2. Minimum nailing, not otherwise shown or noted, shall conform to CBC Table 2304.9.1.
3. Penetration of nails or spikes into piece receiving point shall be not less than 1/2 length of nail or spike, except, that 16 penny nails may be used to connect pieces of 2" thickness.
4. Drive nails and spikes no closer together than 2/3 their depth nor closer to edge of member than 1/4 their depth.
5. Place nails, bolts and other connector without splitting wood.
6. Predrill holes whenever nailing tends to split wood. Replace all split members.
7. All nuts and screws shall be tightened when placed and retightened at completion of the job or immediately prior to closing in.
8. Nuts shall be secured against loosening.

3.3 PRESERVATIVES:

- A. Apply specified preservative to all wood in contact with ground. Moisture content of wood at time of application shall not exceed 25%. When any framing, cutting or boring of treated wood (field cuts) is performed after treatment, swab all cuts, dips and holes thoroughly with heavy application of the same preservative specified for the treatment of the lumber. Install cut end above grade only.
- B. Bolts 5/8" and less in diameter shall be fitted with cut washers, and all bolts and lag screws over 5/8" in diameter shall be fitted with cast or malleable iron washers unless otherwise shown on the Drawings. Select bolt length to fit situation. Where bolts project beyond nut, cut off to a point 1/8" from nut and paint same day with heavy coat of Zinc Chromate primer paint and one coat of Aluminum finish paint (to match the galvanized bolt finish, unless otherwise noted). Bolts to be hot dip galvanized.
- C. Stainless steel hardware with stainless steel screws and bolts may be used in lieu of hot dip galvanized. Do not mix stainless steel with galvanized steel hardware.
- D. Exposed nails in exterior work shall be hot-dipped galvanized except where specified otherwise.

3.4 PROTECTION

- A. Protect installed work from damage due to subsequent construction or other activity on the site.

END OF SECTION

**SECTION 32 33 00
SITE FURNISHINGS**

PART 1 - GENERAL

1.1 1.1 DESCRIPTION

- A. Furnish and install all site furnishings shown on drawings and specified in accordance with the manufacturer's instructions and as shown on the drawings and as specified.
- B. Related requirement specifications elsewhere:
 - 1. Section 32 13 12, SITE CONCRETE
 - 2. Section 32 14 12, CONCRETE UNIT PAVING

1.2 REFERENCES

- A. Perform work in accordance with all applicable laws, codes and regulations required by the City and the State of California.
- B. Manufacturer's Instructions:
 - 1. Where required in the Specifications that materials, products, processes, equipment or the like to be installed or applied in accordance with manufacturer's instructions, directions or specifications, or words to this effect, it shall be constructed to mean that said application or installation shall be in strict accordance with printed instructions furnished by the manufacturer of the material for use under conditions similar to those at the job site.
 - 2. All site furnishings shall be anchored or otherwise secured to prevent movement, unless stated otherwise. Provide concrete footings, corrosion resistant clips, etc. as accepted by the Owner's Representative.
- C. Reference Standards:
 - 1. State of California, Business and Transportation Agency, Department of Transportation: "Standard Specifications."
 - 2. Manufacturers' specifications and recommendations.

1.3 COORDINATION

- A. Coordinate items of other trades. Contractor shall be responsible for the proper installation of all accessories embedded in concrete and for the provision of connections, holes, openings, etc., necessary to the execution of the work of the trades.

1.4 SUBMITTALS: Section 01 33 00

- A. Benches, including required leveling spacers.

PART 2 - MATERIALS

2.1 BENCH

- A. Frame: Kay Park 2SG2-8, 2 3/8" OD, galvanized steel frame finish, designed for 8' long 2x10 nominal planks, planks sourced separately by contractor.

2.2 WOOD STUMP STOOLS

- A. Three locally-sourced, reclaimed wood stump stools, as coordinated with District.

PART 3 - EXECUTION

3.1 GENERAL INSTALLATION

- A. Install manufactured items in accordance with the manufacturer's instruction and as shown in the drawings and as specified herein.
- B. Perform all work in accordance with all applicable laws, codes and regulations required by State of California and San Mateo County.
- C. Set all work true and square, plumb and level. Remove and replace any wood that splits during or after erection until acceptance. Keep nailing neatly lined up.
- D. Fabricate wood in as long pieces as practical unless otherwise indicated. End joints shall occur at supports. Keep all work clean, accurately cut, closely fitted and set to the required lines and levels. Blunt exposed edges by sanding or with plane.
- E. Place washer under the head and nut of bolts where same bear on wood, except head of carriage bolt. Drill bolt holes same diameter as bolt.
- F. Size bolts to fit flush with nuts. Countersink nuts and bolts as detailed.
- G. Hammers with scored faces shall not be used in nailing.
- H. Supply all miscellaneous metal units and install as specified herein under the Sections entitled "Miscellaneous Metalwork" and "Galvanizing." Hot-dip galvanize all metal fastenings, angles, etc., after complete fabrication.
- I. Galvanized metal that is cut, damaged or modified after fabrication shall be immediately painted with Zinc-rich paint to prevent rusting.
- J. Touch up paint any damaged surfaces to match original finish as accepted by Owner's Representative.
- K. Set site furniture, level. Provide spacers under furniture to level as specified herein and acceptable to Owner's Representative
- L. Transport, store and handle precast units and manufactured items in a manner to avoid hairline cracks, staining or other damage. Store units free of the ground and protected from mud or rain splashes. Cover units, secure covers firmly, and protect the units from dust, dirt or other staining material.

3.2 BENCHES

- A. Install level and in accordance with the manufacturer's instruction and as shown.

3.3 CLEANUP, per Section 01 77 00.

END OF SECTION

SECTION 02810

IRRIGATION

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The work in this section consists of furnishing, layout and installing an irrigation system complete, including certification of irrigation system installation as required by the State of California Model Water Ordinance described herein.
- B. Related work specified elsewhere includes:
 - 1. Section 02110, PLANT PROTECTION
 - 2. Section 02300, EARTHWORK.
 - 3. Section 02900, PLANTING.
 - 4. Division 16, ELECTRICAL stub-out(s) for controller(s).

1.02 CALIFORNIA MODEL WATER EFFICIENT LANDSCAPE ORDINANCE REQUIREMENTS

- A. Contractor shall be familiar with and follow the State of California Model Water Ordinance, California Code of Regulations, Title 23 Waters, Division 2, Department of Water Resources, Chapter 2.7. Also, the Contractor is responsible to follow all local water ordinances.
- B. Pursuant to the requirements of the California Model Water Efficient Landscape Ordinance, the Contractor shall submit a Certification of Installation to the Local Jurisdiction /water purveyor as described in the construction documents and these specifications. Certification shall at a minimum include the following documents:
 - PART 1. Project Information Sheet
 - PART 2. Certification of Installation according to the landscape documentation package.
 - PART 3. Irrigation Scheduling and Controller Programming
 - PART 4. Schedule of Landscape and Irrigation
 - PART 5. Landscape Irrigation Audit Report
 - PART 6. Soil Management/Analysis Report with verifying implementation, see Planting Specification for analysis requirements.

1.03 QUALITY ASSURANCE

- A. Manufacturer's Specifications: Follow manufacturer's current printed specifications and drawings in all cases where the manufacturers of articles used in the Contract furnish directions covering points not specified or shown in the drawings.

- B. Ordinances and Regulations: All local, municipal and state laws, codes and regulations governing or relating to all portions of this work are hereby incorporated into and made a part of these Specifications. Anything contained in these Specifications shall not be construed to conflict with any of the above codes, regulations or requirements of the same. However, when these Specifications and Drawings call for or describe materials, workmanship or construction of a better quality, higher standard, or larger size than is required by the above codes and regulations, the provisions of these Specifications and Drawings shall take precedence. Furnish without extra charge additional materials and labor required to comply with above rules and regulations.
- C. References, Codes and Standards:
1. AB 325 and 1881 State of California Model Water Efficient Landscape Ordinance, California Code of Regulations Title 23.
 2. California Environmental Quality Act (CEQA)
 3. Water Use Classification of Landscape Species (WUCOLS).
 4. American Society of Irrigation Consultants (ASIC) Design Guidelines.
 5. California Landscape Standards, California Landscape Contractors Association, (CLCA) Sacramento, California.
 6. CAL-OSHA, title 8, Subchapter 4-Construction Safety Orders and Subchapter 7-General Industry Safety Orders.
 7. California Electric Code.
 8. California Plumbing Code (UPC) published by the Association of Western Plumbing Officials.
 9. NFPA 24, Section 10.4, Depth of Cover.
 10. Underwriters Laboratories (UL): Electrical wiring, controls, motors and devices, UL listed and so labeled.
 11. American Society of Testing Materials (ASTM).
- D. Furnish without extra charge any additional material and labor when required by the compliance with all above mentioned codes and regulations, though the work be not mentioned in these specifications or shown on the drawings.
- E. Experience: Assign a full-time employee to the job as supervisor for the duration of the Contract with a certified landscape technician, irrigation certification through CLCA or minimum of four (4) years experience in landscape irrigation installation.
1. Labor Force: Provide a landscape installation and maintenance force thoroughly familiar with, and trained in, the work to be accomplished to perform the task in a competent, efficient manner acceptable to the Owner's Representative.

F. Explanation of Drawings:

1. Due to the scale of the Drawings, it is not possible to indicate all piping offsets, fittings, sleeves, etc., which may be required. Carefully investigate the conditions affected all of the work and plan accordingly, and furnish all required fittings. Install system in such a manner to avoid conflicts with planting, utilities and architectural features.
2. Do not install the irrigation system as shown on the Drawings when it is obvious in the field that obstructions, grade differences or discrepancies in arc dimensions exist that might not have been considered in engineering. Bring such obstruction or differences to the attention of the Owner's Representative. Notify and coordinate irrigation Work with applicable contractors for location and installation of piping and sleeves through or under walls, pavement and structures. In the event this notification is not given, the Contractor shall assume full responsibility for any revision necessary.

G. Trench Interference with Tree Root Systems:

1. Where it is necessary to excavate adjacent to existing trees, the Contractor shall comply with Section 02110, PLANT PROTECTION for the protection of existing vegetation.
2. Where Irrigation is shown within the drip line of existing trees, Contractor shall determine in the field where irrigation can be installed without impacting or damaging existing roots. Contractor shall layout exact proposed trench locations or equipment and review locations with the Arborist and Owner. Adjust the system as required to avoid damage to tree roots and as directed by the Arborist and Owner.
3. Excavation within the drip line shall be done by hand only, with no exceptions unless approved or directed by the Arborist or Owner.
4. All roots 2 inch (50mm) and larger in diameter, except directly in the path of pipe or conduit, shall be tunneled under and shall be heavily wrapped with burlap, to prevent scarring or excessive drying.
5. Where a ditching machine is run close to trees having roots smaller than 2 inch (50 mm) in diameter, the wall of the trench adjacent to the tree shall be hand trimmed, making clean cuts through.
6. The Contractor is responsible for securing the services of a Certified Arborist at no cost to the Owner.

1.04 PROTECTION OF EXISTING STRUCTURES AND UTILITIES

- A. The Drawings show, if applicable, existing above and below grade structures and utilities that are known to the Owner. Locate known existing installations before proceeding with construction operations that may cause damage to such installations. Existing installations shall be kept in service where possible and damage to them shall be

repaired with no adjustment of Contract Sum. Verify with Owner if As Built drawings are available.

- B. If other structures or utilities are encountered, request Owner's Representative to provide direction on how to proceed with the Work. If a structure or utility is damaged, take appropriate action to ensure the safety of persons and property.

1.05 SUBMITTALS, in accordance with Section 01300.

A. Materials List:

1. Submit required copies of the cut sheets and a complete list of materials proposed for installation, along with any proposed substitutions clearly identified and obtain the Owner Representative's written approval thereof before proceeding. Use only accepted materials and items of equipment.
2. List all materials by manufacturer's name and model number.
3. Submit to Local Water Purveyor with copy to the Owner Certification of Installation as required by the State of California Model Water Ordinance.

B. Substitutions:

1. If the Contractor desires to substitute a product, he shall list each item and note it as a "substitution" and provide the following information:
 - a. Descriptive information describing its similarities to the specified product.
2. If the product is approved and, in the opinion of the Owner's Representative, the substituted product does not perform as well as the specified product, the Contractor shall replace it with the specified product at no additional cost to the Owner.

C. Operations and Maintenance Manuals:

1. Prior to the final acceptance of the irrigation system, furnish three (3) individually bound Operation and Maintenance Manuals to the Owner's Representative for use by the Owner. The manuals shall contain complete enlarged drawings, diagrams and spare parts lists of all equipment installed showing manufacturer's name and address. In addition, each Service Manual shall contain the following:
 - a. Index sheet indicating the Contractor's name, address and phone number.
 - b. Copy of the Landscape Irrigation Audit
 - c. Copy of the 12-month irrigation schedule and estimate of annual water consumption
 - d. Copies of equipment warranties and certificates.

- e. List of equipment with names, addresses and telephone numbers of all local manufacturer representatives.
 - f. Complete operating and maintenance instructions in sufficient detail to permit operating personnel to understand, operate and maintain all equipment.
 - g. Parts list of all equipment such as controllers, valves, solenoids and heads.
- D. Record Drawings, per Section 01730:
- 1. Dimension the location of the following items from two (2) permanent points of reference such as building corners, sidewalks, road intersections, etc.:
 - a. Connection to existing water lines/meter.
 - b. Connection to electrical power.
 - c. Gate valves.
 - d. Routing of sprinkler pressure lines (a dimension at least every 100 feet and as required to identify all changes in direction and location).
 - e. Remote control valves.
 - f. Routing of control valves.
 - g. Quick coupling valves.
 - h. All sleeve locations.
 - i. Routing of all control wiring.
 - j. Include all invert elevations below 12".
 - 2. Deliver a reproducible record drawing to the Architect within seven (7) working days before the date of final review. Delivery of the record drawings shall not relieve the Contractor of the responsibility of furnishing required information in the future.
- E. Controller Plan:
- 1. Provide one Irrigation Diagram plan in each controller housing. The plan shall show the area controlled by each valve in different colors and for orientation, any major permanent structure such as buildings and roads.
 - 2. Charts to be waterproof and hermetically sealed between two pieces of transparent 10 mil thick plastic and installed in each controller on the door as accepted by the Owner's Representative no later than the time of the coverage test of the irrigation system.

- F. Maintenance Material - supply the following tools to the Owner:
1. Three (3) sets of specialized tools required for removing, disassembling and adjusting each type of sprinkler, valve or other equipment supplied on this project.
 2. Two (2) keys for each type of equipment enclosure.
 3. Two (2) keys for each type of automatic controller.
 4. Two (2) keys for each type of valve (including square type key for valves larger than 2")
 5. Two (2) quick-coupler keys and matching hose swivels for each type of quick-coupling valve installed.
 6. All lock keys shall be keyed alike.

1.06 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Furnish and deliver materials in manufacturer's packaging, bearing original legible labeling.
- B. The Contractor is cautioned to exercise care in handling, loading, unloading, and storing PVC pipe and fittings. All PVC pipe shall be transported in a vehicle which allows the length of the pipe to lie flat so as not to subject it to undue bending or concentrated external load at any point. Any section of pipe that has been dented, cracked, or otherwise damaged shall be discarded and, if installed, shall be replaced with new piping.

1.07 SEQUENCING AND SCHEDULING

- A. Acceptance: Do not install main line trenching prior to acceptance by Owner's Representative of rough grades completed under another Section.
- B. Coordination: Coordinate with the work of other sections to insure the following sequence of events:
 1. Sleeves and Conduits: Installation of all sleeves and conduits to be located under paving and through walls prior to placement of those materials.
 2. Coordinate work schedule with Owner to avoid disruption of landscape maintenance of existing landscaping.
 3. Install piping prior to soil preparation (planting soil amendment installation).

1.08 WARRANTY, per Section 017836.

- A. In addition to manufacturer's guarantees and warranties, work shall be warranted for one (1) year from date of final acceptance against defects in material, equipment and workmanship. Warranty shall also cover repair of damage to any part of the premises

resulting from leaks or other defects in materials, equipment and workmanship to the satisfaction of the Owner.

- B. Include a copy of the warranty form in the Operation and Maintenance Manual.

1.09 OPERATION

- A. Routine: Inspect and adjust all spray heads and control valves including raising or lowering of spray head heights to accommodate plant growth and weather conditions.
- B. Controller: Inspect regularly for power interruption and reset clock as required. Adjust station timing to accommodate changes in plant growth and weather conditions.
- C. System Failure: Perform all repairs within one (1) operating period. Replacements to match removed products and materials in all respects. Report promptly all damage not resulting from Contractor's operations. Repair all damage caused by Contractor at no expense to Owner.
- D. Climate Change: Set and program automatic controllers in response to seasonal requirements and requirements of newly planted materials.

PART 2 - PRODUCTS

2.01 PIPE

- A. Pressure Main Line Pipe and Fittings: All PVC fittings shall bear the manufacturer's trademark name, material designation, size, applicable I.P.S. schedule and NSF seal of approval.
- B. All main line pipe shall be solvent welded and shall be schedule 40 unless shown otherwise on the Drawings.
 - 1. PVC Pressure Rated Pipe: ASTM D2241 NSF approved Type I, Grade I, solvent welded PVC with an appropriate standard dimension ratio (S.D.R.).
 - 2. PVC Scheduled Pipe: ASTM D1785 NSF approved, Type I,
 - 3. Grade I, solvent welded PVC.
 - 4. PVC Solvent-weld Fittings: ASTM D2466 Schedule 40, 1-2, II-I NSF approved.
 - 5. Solvent Cement and Primer for PVC solvent-weld pipe and fittings: Type and installation methods prescribed by the manufacturer.
 - 6. Connections between Main Lines and RCVs: Schedule 80 PVC (threaded both ends) nipples and fittings unless required otherwise by local jurisdiction.
 - 7. Valves 2-inch and larger shall be flanged only.
 - 8. Copper pipe shall be Type K or Red Brass where threaded joints are required and Type L otherwise.

9. All lateral line pipe shall be solvent welded and shall be schedule 40 unless shown otherwise on the Drawings.

2.02 CONTROLLER(S):

- A. System to be programmed to connect to existing controller at fire station.

2.03 CONTROL WIRES

- A. Provide control wires as recommended by controller manufacturer.
- B. Connections between automatic controllers and the solenoid-operated electric control valves shall be made with direct burial copper wire 14- AWG-UF 600 volt (minimum size). Pilot wires shall be a color other than white, and shall be a different color for each automatic controller with wires sharing a common trench. Common wires shall be white in color, with a different color stripe for each controller with wiring sharing the same common trench. No stripe is required if multiple controller wiring is not present.
- C. Size of wire shall conform to the remote control valve manufacturer's specification for control wire sizes, but in no case shall the control wire be smaller than #14. Runs over 2,000 lineal feet shall be #12- AWG-UF 600 volt copper wire.
- D. All wire splices are to be made within a valve box, with a copper crimp-type connector, and a "3-M" #DBY splice kit or Rain Bird "DBTWC25".
- E. Use continuous control wiring between controllers and remote control valves (no splices).
- F. Provide polyurethane tag at valve solenoid control wire that shows the controller number and station number. Also refer to valve box lid identification.

2.04 REMOTE CONTROL VALVE: As shown on Drawings and with the following minimum requirements:

- A. Provide decoder at each remote control valve as recommended by 2-wire controller manufacturer.
- B. Remote control valves shall be those normally manufactured for irrigation systems and shall have a slow, consistent speed of closure through entire closing operation, including last portion. To ensure this, the effective diaphragm working area/valve seating opening ratio must be a minimum 3 to 1.
- C. Shall be mechanically self-cleaning to help prevent diaphragm or solenoid port plugging. To ensure this, the flush rod should be tapered to vary the size of the port opening as the diaphragm raises and lowers, thus allowing trapped material to escape. Rod is to be finished with a serrated surface to help scrub trapped material out. Screens not acceptable.
- D. Shall have removable valve seat so valve can be repaired without removal from irrigation line.
- E. Shall have ability to operate manually without the use of wrenches or special keys.

- F. Shall have one-piece solenoid that attaches directly to valve without shunts or clips that can be lost.
- G. Shall have cross top handle to adjust maximum travel of diaphragm to allow "tuning" of valve and closure.

2.05 BOX FOR REMOTE CONTROL VALVE

- A. Rectangular black plastic valve box - Ametek, Carson, Christy, Rain Bird or accepted equal with non-hinged bolt down black colored lid marked "irrigation. Box body shall have knock outs. Do not saw cut body. The minimum size box is as shown on Drawings. Increase box size as required to fit. Valve box lids are to indicate the controller letter and station number of valve as accepted by Owner's Representative. Also refer herein to required polyurethane tag at valve solenoid control wire under Control Wires. Locate the identification in center of the lid. Provide separate box for each valve. Provide H/20 Loading concrete boxes with bolt-down concrete lids for all valves that occur in paved areas.

2.06 ISOLATION/GATE VALVE:

- A. Valves 3 inches and smaller: 125 lb. WSP bronze gate valve with screw-in bonnet, non-rising stem and solid wedge disc, NIBCO T-113 K, or approved equal. Valves shall be line size.
- B. Valves larger than 2": shall have square nut stem and o-ring connections for key operation.

2.07 BOX FOR QUICK COUPLER & ISOLATION VALVE

- A. 10" diameter black plastic, Ametek, Brooks, Christy, Rain Bird with bolt down black lid marked "irrigation," or accepted equal. Avoid locating valve in paved areas. Provide H/20 Loading concrete box with bolt-down concrete lid if valve is located in paved area. Obtain location approval by Owner's Representative.

2.08 DRIP IRRIGATION

- A. Drip Manifold:
 1. Pressure Regulator: Preset at 30 psi outlet pressure, 3/4" female threaded inlet and outlet, by RainBird, Torro or equal.
 2. Emitters: Xeri-Bug (XB Series) by RainBird, Toro EZ Drip Series, or equal.
 3. Flexible PVC: ASTM D2287 algae-resistant flexible PVC as recommended by manufacturer of Drip Emitters.
 4. Drip tubing: Conform to A. S. A. E. standards for minimum inside diameter and wall thickness, Minimum 2% carbon black, Salco 3/4" AR Drip PVC flexible drip hose, or equal.

5. 3/4" Y-filter, 200 mesh.
6. Toro DL 2000 Air/Vacuum Relief Valves and In-line Spring Check Valves.
7. 3/4" manual PVC ball valve with extra 3' of hose coiled in valve box.
8. Drip system in accordance with "RainBird Xerigation Low-Volume Landscape Irrigation Design Manual" and as shown on the drawings as required for a complete working system.

2.09 SUBSURFACE DRIP IRRIGATION

- A. As specified herein and as shown on the drawings and in accordance with manufacturer's recommendations. Provide all miscellaneous valves, filters fittings etc. required for a complete, operable system including the following:
 1. Emitters shall be Rain Bird XF-SDI with "Copper Shield" technology. Drip system in accordance with "RainBird Xerigation Low-Volume Landscape Irrigation Design Manual" and as shown on the drawings as required for a complete working system.
 2. Or Toro DL 2000 Techline, in-line Teflon impregnated emitter with Netafim Automatic Flush Valves, Toro DL 2000 Air/Vacuum Relief Valves in accordance with "Toro DL-2000 Low-Volume Irrigation Bidding Specifications and Design Details" and as shown on the drawings as required for a complete working system.
- B. Drip Valve Assembly: Size valve box large enough and deep enough to contain assembly and allow convenient access and easy removal of filter screen. Position filter pointed down, approximately 45 degrees.
- C. Pressure regulator: Size regulator in accordance with flow rate. Do not over size. Use factory pre-set regulator at 30 PSI.

2.10 SWING JOINTS

- A. Quick Coupling Valve: Dura 1-inch 1-A2-1-11-18 pre-assembled swing joint with O-rings and Dura quick lock to receive stabilizing rod.

2.11 CONDUIT/SLEEVES

- A. Sleeving shall be Schedule 40 PVC pipe sleeves and a minimum of two times the aggregate diameter of all pipes contained within the sleeve. Provide vertical sweep for all electrical conduit on each side of hardscape and terminate ends at 12" minimum depth and 12" from hardscape surface.

2.12 Y-STRAINER

- A. "Y"-Strainer upstream of remote control valves, Brass, 100 mesh.

2.13 RCV IDENTIFICATION TAGS

- A. Plastic or brass tags with valve number, approximately 2" by 2" with number imprinted, as accepted by Owner.

2.14 MISCELLANEOUS INSTALLATION MATERIALS

- A. Solvent Cement and Primers for Solvent-weld Joints: Make and type approved by manufacturer(s) of pipe and fittings. Maintain cement proper consistency throughout use.
- B. Pipe and Joint Compound: Permatex: Do not use on sprinkler inlet port.

2.15 MISCELLANEOUS EQUIPMENT/ACCESSORIES

- A. Concrete for equipment pads: Poured-in-place Class A concrete per Section 90 of the Caltrans Standard Specifications.
- B. Sleeves and Conduits: See Drawings.
- C. Key(s) for Quick-Coupling Valves:
 - 1. Type: Same manufacturer as Quick-Coupling Valve.

2.26 OTHER EQUIPMENT: As shown on Drawings and required for a fully functional irrigation system.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Sleeves and Conduits: Verify that all installed sleeving and conduits are undisturbed and are free of defects or errors introduced by the work of other sections.
- B. Water Meter/Water Pressure: Test and verify that existing water pressure is the minimum pressure at maximum system g.p.m. to operate the irrigation system as indicated on the drawings.
- C. Stub-outs: Verify that all stub-outs to be provided under another contract are correctly sized, located and installed as noted on Drawings.
- D. Notification: Submit written notification to Owner's Representative within ten (10) working days of above inspections describing all acceptable and non-acceptable site conditions.

3.02 CONNECTIONS TO SERVICES

- A. Provide and coordinate connection to water meter.
- B. Provide and coordinate connection of irrigation controller to electrical power source.

3.03 EXCAVATING & TRENCHING

- A. Prior to trenching, layout main and lateral line locations within Drip Line of trees and review locations with Owner's Representative. Relocate any lines that may interfere with existing root systems to avoid or reduce damage to root systems as accepted by Owner's Representative.
- B. Refer to 1.03 QUALITY ASSURANCE above and Section 02100 TREE PROTECTION for more information.
- C. Dig trenches wide enough to allow a minimum of three inches (3") between parallel pipe lines. Provide a minimum cover from finish grade as shown in drawings.

3.04 INSTALLATION

- A. Install irrigation system components in accordance with this Section, with the Drawings, with the manufacturer's recommendations, and with established industry standards. The Contractor shall do nothing that may jeopardize any manufacturer warranty.
- B. Conduits and Sleeves:
 - 1. Coordination: Provide conduits and sleeves and coordinate installation with other trades.
 - 2. Extent: Install conduits and sleeves where control wires and pipes pass under paving or through walls as shown on Drawings. Extend twelve inches (12") beyond edges of paving and walls and cap ends until ready for use.
- C. Pipeline Assembly:
- D. Install pipe and fittings in accordance with manufacturer's current printed Specifications.
- E. Clean all pipes and fittings of dirt, scale and moisture before assembly.
- F. Solvent-welded Joints for PVC Pipes:
 - 1. Solvents: Use solvents and methods specified by pipe manufacturer.
 - 2. Curing Period: Minimum of one (1) hour before applying any external stress on the piping and at least 24 hours before placing the joint under water pressure.
- G. Threaded Joints for Plastic Pipes:
 - 1. Use Permatex on all threaded PVC fittings except sprinkler heads and quick coupler valve ACME threads.
 - 2. Joining: Use strap-type friction wrench only. Do not use metal-jawed wrench. Assemble finger tight plus one or two turns.
- H. Laying of Pipe:

1. Bedding On-grade: Remove from trench all rocks or clods. Bed pipe in at least 2 inches of soil excavated from trench. Backfill on all sides of piping to provide a uniform bearing.
 2. Snaking: Snake pipe from side to side of trench bottom to allow for expansion and contraction. Minimum allowance for snaking is one (1) additional foot per 100 ft. of pipe.
 3. Moisture Restrictions: Do not lay PVC pipe when there is water in the trench. Do not assemble PVC pipe unless the pipe is dry.
- I. Control Valves:
1. Install in valve boxes where shown on Drawings and group together where practical. Install box flush with finish grade, not necessarily level. If valve occurs in drainage swale, relocate out of drainage swale as approved by Owner's Representative.
 2. Where two or more valves are installed adjacent to each other, provide at least six inches (6") separation. Align boxes in a row, perpendicular with pavement edge.
 3. Permanently mark valve box lid with 2" black valve number and controller letter or with numbered metal tag inside box as approved by Owner's Representative.
- J. Install "Y"-Strainer upstream of remote control valves at backflow preventer with two pressure gauges, one upstream and one downstream of each strainer/filter.
- K. Irrigation Head Installation
1. Pop-up Spray Heads:
 - a. Place all spray heads in planting areas with top of heads set to finish grade or top of mulch as required.
 - b. Place part-circle pop-up sprinkler heads two inches (2") from edge of and flush with top of adjacent walks, header boards, curbs and mowing bands or paved areas and 12 inches (12") from building foundations at time of installation.
 2. Drip Irrigation:
 - a. Install system in accordance with "RainBird Landscape Irrigation Design and Specifications Xerigation Products and Details" or equal and as shown on the Drawings as required for a complete working system.
 - b. Install Toro DL 2000 Air/Vacuum Relief Valves at high points in system.
 - c. Install manual PVC ball valve with extra 3' of hose coiled in valve box at end(s) of collector laterals so that entire system will flush and be free of dirt and debris.

L. Automatic Controller:

1. General: Install with lock box cutoff switch per local code and manufacturer's current printed specifications. Provide each controller with its own independent low voltage common ground wire.
2. Connection to Valves: Connect remote control valves to controller in clockwise sequence to correspond with station setting beginning with Stations 1, 2, 3, etc.
3. Labeling: Affix controller letter (i.e., "A") on inside of controller cabinet door with minimum of one-inch (1") high permanent letter.
4. Irrigation Diagram: Affix a non-fading, waterproof copy of irrigation diagram to cabinet door below controller name. Irrigation diagram to be sealed between two plastic sheets, 20 mil. minimum thickness. Use a legible reduced copy of the Record Drawing for the irrigation diagram clearly showing all valves operated by the controller, station, number, valve size, and type of planting irrigated. Color code area operated by each valve.

M. Control Wiring:

1. General: Install control wires in common trenches with sprinkler mains and laterals wherever possible. Lay to the bottom side of pipe line. Provide looped slack at valves. Snake wires in trench to allow for contraction of wires. Tie wires in bundles at 10 ft. intervals.
2. Extra Length: Provide 30 inches (30") extra control wire at each remote control valve splice to facilitate the removal of the remote control bonnet to finish grade without cutting wires.
3. Size: Minimum size of wire is to be determined strictly by the manufacturer's current printed specifications for remote control valves, but not smaller than #14.
4. Splicing: Crimp control wire splices at remote control valves. Seal with specified splicing materials. In-line splices will be allowed only on runs exceeding 2500 feet and only in junction boxes.

N. Closing of Pipe and Flushing of Lines:

1. Capping: Cap or plug all openings as soon as lines have been installed to prevent entrance of materials that would obstruct the pipe. Leave in place until removal is necessary for completion of installation.

O. Rain Shutoff Switch:

1. Install switch in area not affected by irrigation or rain shadow. Provide wires in rigid conduit as accepted by Owner's Representative.

P. Detection Wire and Warning Tape:

1. Install a bare # 12 copper wire or greater on top of the PVC supply line for the purpose of possible future mine detection search.
 2. Install a continuous PVC irrigation mainline warning tape 12" above the supply line.
- Q. RCV Identification Tags:
1. Install in remote control valve box as recommended by manufacturer and as accepted by Owner's Representative.
- R. Miscellaneous Equipment
1. Install miscellaneous equipment with concrete footings, brackets, etc., as required and as recommended by manufacturer.

3.05 FIELD QUALITY CONTROL

- A. Testing of Irrigation System:
1. Make hydrostatic tests with risers capped when welded PVC joints have cured at least 24 hours. Center load piping with backfill to prevent pipe from moving under pressure. Keep all couplings and fittings exposed.
 2. Install two (2) pressure gauges at opposite ends of main line system. Pump system up to a minimum of 125 psi the day preceding the scheduled test and verify that pressure is holding. Inspect system early following day and immediately notify Owner's Representative if the test confirmation must be postponed.
 3. Apply continuous static water pressure of 125 psi in accordance with Caltrans Standard Specifications Section 20-5.03H, except after a drop in pressure (5 psi maximum), then the pressure must stabilize and remain stable for a one (1) hour minimum period before acceptance of the test.
 4. Leaks detected during tests shall be repaired and test repeated until system passes tests at no additional cost to Owner.
- B. Irrigation Audit Report with Certificate of Completion:
1. Per the requirements of the California Model Water Efficient Landscape Ordinance, the Contractor shall perform an irrigation audit and provide a report with certificate of completion to the local agency that may include, but is not limited to: inspection, system tune-up, system test with distribution uniformity, reporting overspray or run off that causes overland flow, and preparation of an irrigation schedule. Irrigation audits shall be conducted by a CLIA Certified landscape Irrigation Auditor by the Irrigation Association. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance.
- C. Adjustment of the System:

1. Flush and adjust all spray heads for optimum performance and to prevent overspray onto walks, roadways and buildings. Adjust the arc and radius as applicable.
2. Include as a part of the work any nozzle changes or arc adjustments necessary due to daytime windy conditions during grass establishment period. After plants have been established and watering can be performed during calm early morning or evening hours, make any required adjustments to nozzles and arcs.
3. Set all irrigation heads perpendicular to finished grades unless otherwise noted on the drawings.
4. When the irrigation system is completed and before planting, perform a coverage test in the presence of the Owner's Representative to determine if the water coverage for planting areas is adequate.
5. Test controllers individually in the presence of the Owner's Representative and the Landscape Architect. Demonstrate that all control valves operate electronically. Provide vehicles and radio equipment as necessary to expedite this process.
6. Demonstrate to Owner's Representative that irrigation scheduling programmed into controller is adequate for plant requirements without causing runoff, and that scheduling capacities of controller are utilized.

3.06 IRRIGATION SCHEDULING AND CONTROLLER PROGRAMMING

- A. Per the requirements of the California Model Water Efficient Landscape Ordinance All irrigation schedules and programs shall be developed, managed and evaluated to utilize the minimum amount of water required to maintain plant health.
- B. Irrigation controller Scheduling and Programming Parameters to be conducted by a CLCA Certified Irrigation manager and submitted to the local agency as part of the Certificate of Completion.
- C. Parameters used to set the automatic controller shall be developed for each of the following:
 1. Plant establishment period
 2. Established landscape period
 3. Temporary irrigated area (if applicable)
- D. Each irrigation schedule shall consider for each station all of the following that apply:
 1. Irrigation interval (days between irrigation)
 2. Irrigation run times (hours or minutes per irrigation event to avoid runoff)
 3. Number of cycle starts required for each irrigation event to avoid runoff

4. Amount of applied water scheduled to be applied on a monthly basis
 5. Application rate setting
 6. Root depth setting
 7. Plant type setting
 8. Soil type
 9. Slope factor setting
 10. Shade factor setting
 11. Irrigation uniformity or efficiency setting
- E. Total annual applied water shall be less than or equal to Maximum Applied Water Allowance (MAWA). Actual irrigation schedules shall be regulated by automatic irrigation controllers using current reference evapotranspiration data (CIMIS or soil moisture sensor data).
- F. BACKFILL AND COMPACTING
1. General: After system is operating and required tests and reviews have been made, backfill excavations and trenches with clean soil, free of debris.
 2. Backfill for All Trenches: Regardless of the type of pipe covered, compact to minimum 95% density under pavements and 85% under planted areas.
 3. Finishing: Dress off areas to finish grades. Re-dress any areas which subsequently settle.
 4. Owner's testing agency will test backfill compaction in areas under paving.
- G. MAINTENANCE
1. The entire sprinkler irrigation system shall be under full automatic operation for a period of 2 days prior to any planting.
 2. The Owner's Representative reserves the right to waive or shorten the operation period.
 3. Maintain/repair system for full duration of plant maintenance period.
 4. Pursuant to the requirements of the California Model Water Efficient Landscape Ordinance, the Owner is to provide a regular maintenance schedule with certificate of completion to the local water agency including, but not limited to: routine inspection, adjustment and repair of the system and its components, aerating and dethatching turf areas, replenishing mulch, fertilizing, pruning, weeding, removing and obstruction to emission devices. Operation of the irrigation system outside the normal watering window is allowed for auditing and system maintenance. Systems

to be maintained to meet or exceed an average landscape irrigation efficiency of 0.71.

H. REVIEWS PRIOR TO ACCEPTANCE

1. Notify the Owner's Representative in advance for the following reviews, according to the time indicated:
 - a. Supply line pressure test and control wire installation - 72 hours.
 - b. Coverage and controller test - 72 hours.
 - c. Final review - 7 days.
2. No reviews will commence without record drawings, without completing previously noted corrections, or without preparing the system for review.

3.07 . FINAL CLEANING, per section 017423 and FINAL CLOSEOUT REVIEW, per section 017716.

- A. Operate each system in its entirety for the Owner's Representative at time of final review. Any items deemed not acceptable by the Owner's Representative shall be reworked to the complete satisfaction of the Owner's Representative.
- B. Provide evidence to the Owner's Representative that the Owner has received all accessories and equipment as required before final review can occur.
- C. Final acceptance and start of warranty period will occur no earlier than the end of the plant maintenance period.
- D. For time of final review, Contractor shall arrange a meeting with the Owner's maintenance personnel to demonstrate the operation of the irrigation systems automatically in order to verify acceptance and to familiarize the maintenance personnel with the system and recommended programming.

END OF SECTION

**SECTION 32 90 00
PLANTING**

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Provide planting work and planting maintenance complete as shown on the drawings and as specified including staking and layout of the landscaping, including soil sampling as required by the State of California Model Water Ordinance.
- B. Related work specified elsewhere includes:
 - 1. Section 32 84 00, IRRIGATION

1.2 QUALITY ASSURANCE

- A. Reference Standards:
 - 1. All local, municipal and state laws, codes and regulations relating to all portions of this work are to be incorporated as part of these Specifications. These specifications shall not be construed to conflict with any of the above codes, regulations or requirements. The Specifications and Drawings shall take precedence when they call for materials, workmanship or construction of a better quality or higher standard than required by the above mentioned codes and regulations. Furnish without extra charge additional materials and labor required to comply with above rules and regulations.
 - 2. State of California Model Water Ordinance
 - 3. Bay Area Stormwater Management Agencies Association (BASMAA) Regional Biotreatment Soil Specifications.
 - 4. Public utility agency having jurisdiction over the project work.
 - 5. "American Standards for Nursery Stock," American Association of Nurseryman, 230 Southern Building, Washington, D.C. 20005.
 - 6. International Society of Arboriculture, Guide for Plant Appraisal, latest version.
 - 7. US Composting Council Compost Analysis Program (CAP)
 - 8. US Composting Council (USCC) Seal of Testing Assurance (STA) program.
 - 9. Test Methods for the Evaluation of Composting and Compost (TMECC)
 - 10. Manufacturer's recommendations.
- B. Qualifications:
 - 1. Experience: Assign a full-time employee to the job as foreperson for the duration of the Contract who is certified landscape technician, certification through CLCA or minimum of five (5) years experience in landscape installation and maintenance supervision, with experience or training in turf management, entomology, pest control, soils, fertilizers and plant identification
 - 2. Labor Force: Provide a landscape installation and maintenance force thoroughly familiar with, and trained in, the work necessary to complete the tasks described herein in a competent, efficient manner acceptable to the Owner.
- C. Requirement

1. Site Visit: At beginning of work, visit and walk the site with the Owner's Representative to clarify scope of work and understand existing project/site conditions.
2. Supervision: The foreperson shall directly supervise the work force at all times and be present during the entire installation. Notify Owner's Representative of all changes in supervision.
3. Identification: Provide proper identification at all times for landscape maintenance firm's vehicles and a labor force uniformly dressed in a manner satisfactory to Owner's Representative.
4. Protect all existing and new plants from construction activities, deer & rodents: Contractor shall be responsible for protection of all planting per Part 3.

D. Plant Material Standards:

1. Quality and Size of Plants: Conform to the State of California Grading Code of Nursery Stock, No. 1 grade. Use only nursery-grown stock which is free from insect pests and diseases.
2. Comply with federal and state laws requiring inspection for plant diseases and infestations, including Phytophthora. Submit inspection certificates required by law with each shipment of plants, and deliver certificates to the Owner. Obtain clearance from the County Agricultural Commissioner as required by law, before planting plants delivered from outside the County in which planted.

E. Soils & Amendment Testing

1. All soils & amendments to be tested for suitability by one of the following accredited soil testing laboratories (or approved equal). Components of the test shall include all major nutrients, pH, salinity, boron, sodium, micronutrients, copper, zinc, manganese and iron, adsorption rate, organic content and texture. The laboratory report shall include recommendations for adjusting fertilizer and amendment quantities.

Lucchesi Plant & Soil Consulting

Los Gatos, CA (408) 337-2575

Waypoint Analytical, Inc.

4741 E. Hunter Ave, Suite A, Anaheim, CA 92807; (717) 282-8777

Control Laboratories

42 Hangar Way, Watsonville, CA 95076; (831) 724-5422

Perry Laboratory

424 Airport Boulevard , Watsonville, CA 95076; (831) 722-7606

Wallace Laboratories, LLC

365 Coral Circle, El Segundo, CA 02345; (310) 615-0016

2. Upon approval of the laboratory's report by the Landscape Architect, the recommendations in the report shall become a part of the Specifications and the soil preparation procedures, quantities of soil amendment, fertilizer and other additives shall be adjusted to conform with the report at no additional cost to the owner. Note that there is a minimum quantity of organic amendment specified elsewhere in this specification section.

3. Significant issues with soil quality will require soil to be retested in the locations identified on Soil Analysis Plan, prior to proceeding with plant installation, to ensure that the recommendations in the report have been followed and the In-Situ Topsoil is horticulturally suitable as described in Part 2.

1.3 DEFINITIONS

- A. Subsoil: Soil beneath the level of subgrade; soil beneath the topsoil layers of a naturally occurring soil profile, typified by less than 1 percent organic matter and few soil organisms. Subsoil is defined as either existing site soil located below the topsoil prior to construction activities, or select fill used for rough grading during construction. Subsoil cannot be considered for use as planting soil.
- B. Surface Soil: Soil that is present at the top layer of the existing soil profile. In undisturbed areas, surface soil is typically called "topsoil," but in disturbed areas such as urban environments, the surface soil can be subsoil.
- C. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil; the zone where plant roots grow. Its appearance is generally friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects larger than 2 inches (50 mm) in diameter; and free of weeds, roots, toxic materials, or other non-soil materials.
- D. Planting Soil: Approved existing topsoil or imported planting soil, meeting the requirements herein. Subsoil cannot be considered for use as planting soil.

1.4 SUBMITTALS, per Section 01 33 00.

- A. The following shall be submitted to the landscape architect for approval prior to the installation of landscape materials and products.
 1. Manufacturer's Technical data sheets for fertilizers and all other products and materials listed herein.
 2. Manufacturer's technical data sheets for amendments. Reports to be dated no more than 3 months prior to soil preparation.
 3. 1-pint samples of imported soils, organic amendments/compost, mulches, and cobbles.
- B. Submit planting soil and organic amendment laboratory reports a minimum of [3] weeks prior to beginning soil prep. See below for required soil analysis reports.
- C. Required Soil Analysis Reports. Reports to be dated no more than [3] months prior to soil preparation.
 1. Soil Analysis Plan: Contractor to submit annotated plan showing confirmed locations of all required soil tests. Each location is to be identified with a unique label.
 2. Existing Planting Soil Analysis: After approval of the Soil Analysis Plan, rough grading, and topsoil placement, contractor to obtain [3] representative samples of in situ topsoil taken from approved site locations at depth of 4" to 6" below finish grade and submit to an accredited soils testing laboratory for "horticultural

- suitability" analysis, including particle size, infiltration rate, and evaluation of physical and chemical properties of soil and recommendations for adding amendments and fertilizers to the soil.
3. Imported Planting Soil Analysis: Contractor to submit an " horticultural suitability" analysis report from an accredited soils testing laboratory, including particle size, infiltration rate, and evaluation of physical and chemical properties of soil and recommendations for adding amendments and fertilizers to the soil. Soil to conform to requirements in Part 2.
 4. Amended Planting Soil Analysis: Significant issues with soil quality will require soil to be retested in the locations identified on Soil Analysis Plan, prior to proceeding with plant installation, to ensure that the recommendations in the report have been followed and the final Planting Soil is horticulturally suitable as described in Part 2.
- D. The Contractor is responsible to follow all local water ordinances and make available to the local agency the soil analysis report and verification of its implementation as required.
 - E. Delivery Receipts upon request by Owner, provide delivery receipts for quantities of soil & amendments delivered to the site.
 - F. Representative photos of trees with measuring pole and plant species (unless trees or plants previously tagged at nursery by landscape architect). Identified and dated photos of trees and plants to be the trees and plants delivered to site and not a stock photograph.
 - G. Entire plant quantity delivered to the site. Plants to be reviewed prior to installation during a single site visit.
- 1.5 WARRANTY AND REPLACEMENT
- A. Maintenance Period: See Part 3.
 - B. Warrant the work against weed growth for a period of four (4) months after application of Pre-Emergence Weed Killer.
 - C. Warrant all plants to be in a healthy, thriving condition until the end of the maintenance period, and deciduous trees, shrubs and vines beyond that time until active growth is evident.
 - D. Replace all dead and damaged plants and plants not in a vigorous condition immediately upon discovery and as directed by the Owner's Representative and at no cost to the owner. Install replacement plants before the final acceptance of the maintenance period in the size specified.
 - E. Warrant all products, prepared soils and plant material installed and maintained by contractor against defects for a period of one year after final acceptance of the maintenance period.

PART 2 - PRODUCTS

2.1 EXISTING PLANTING SOIL (ON-GRADE):

- A. Existing Planting Soil is defined as on-site topsoil that is either to be removed and stockpiled for reuse or to remain in place during construction. Satisfactory planting soil shall be free of subsoil, clay, lumps, stones, and other objects over 4" in diameter, and without weeds, roots, and other objectionable material. The soil shall be fertile, friable, natural, productive soil containing a normal amount of humus, and shall be capable of sustaining healthy plant life. Soil shall not be infested with nematodes or with other noxious animal life or toxic substances. Soil shall be obtained from well-drained, arable land, and shall be of an even texture. Soil shall not be taken from areas on which are growing any noxious weeds such as morning glory, equisetum, or Bermuda grass, etc.
- B. If herbicide contamination is suspected then a radish/ryegrass growth trial must be performed. Consult with Landscape Architect prior to decision to test or not.
- C. Amended Planting Soils are to conform with the following target levels. Elements are expressed as mg/kg dry soil or mg/l for saturation extract.

pH value	6.5-7.9,	iron	4-15 mg/kg
lime	none present	manganese	0.6-3.0 mg/kg
salinity (ECe)	0.5-3 milli-mho/cm	zinc	1-3 mg/kg
chloride	<150 ppm	copper	0.2-3.0 mg/kg
nitrate	20-30 ppm	boron	0.2-0.5 mg/kg
SAR	<3	magnesium	25-100 mg/kg
phosphorus	8-20 mg/kg	sodium	<200 mg/kg
potassium	60-180 mg/kg	sulfur	25-100 mg/kg

- D. If sufficient on-site surface topsoil is not available, contractor to provide imported planting soil as specified below. Placement of dissimilar soils shall be coordinated with irrigation zones by the contractor to maintain separate valves for dissimilar soils.
- E. Submit soil analysis report from an approved soils laboratory for approval by the Landscape Architect. Refer to Part 1 for soil testing requirements.

2.2 IMPORTED PLANTING SOIL (ON-GRADE):

- A. Imported planting soil shall be screened and shall be free of subsoil, heavy or stiff clay, rocks, gravel, brush, roots, weeds, noxious seeds, sticks, trash, and other deleterious substances.
- B. Imported Planting Soils are to conform with the following target levels. Elements are expressed as mg/kg dry soil or mg/l for saturation extract.

pH value	6.5-7.9,	iron	4-15 mg/kg
lime	none present	manganese	0.6-3.0 mg/kg
salinity (ECe)	0.5-3 milli-mho/cm	zinc	1-3 mg/kg
chloride	<150 ppm	copper	0.2-3.0 mg/kg
nitrate	20-30 ppm	boron	0.2-0.5 mg/kg
SAR	<3	magnesium	25-100 mg/kg
phosphorus	8-20 mg/kg	sodium	<200 mg/kg
potassium	60-180 mg/kg	sulfur	25-100 mg/kg

- C. The silt and clay content of Imported Planting Soil shall not exceed that of the existing soil it is to be placed over. Except where otherwise required, it shall be a "Sandy Loam" as classified in accordance with USDA Standards with a combined total of between 25% to 40% Clay and Silt.
- D. Submit soil analysis report from an approved soils laboratory for approval by the Landscape Architect. Refer to Part 1 for soil testing requirements.
- E. Following approval of the sample, provide a one-half cubic yard sample, which shall be stored at the site of work for comparison with sample and subsequent loads of soil. The comparison sample shall be protected by a cover until the installation of all soil has been completed and accepted.

2.3 ORGANIC AMENDMENT FOR PLANTING SOILS (ON-GRADE):

- A. Ground Redwood or Ground Fir Bark with the following properties:

<u>Percent Passing</u>	<u>Sieve Designation</u>	
100	9.51 mm	3/8"
50-60	6.35 mm	1/4"
20-40	4.76 mm	No. 4
0-20	2.38 mm	No. 8 8 mesh

Redwood Sawdust

Dry bulk density, lbs. per cu. yd.	260-280
Nitrogen stabilized - dry weight basis	0.4% minimum
Salinity (ECe):	4.0 maximum
Organic Content:	90% minimum
Reaction (pH):	4.0 minimum

Ground Fir and/or Pine Bark

Dry bulk density, lbs. per cu. yd.	350 minimum
Nitrogen stabilized - dry weight basis,	0.5% minimum
Salinity (ECe):	4.0 maximum
Organic Content:	90% minimum
Reaction (pH):	4.0 minimum

- B. Submit sample, product's technical data sheet, and analysis report from an approved soils laboratory for approval by the Landscape Architect. The analysis report should include compliance to the specifications above and directions for product use.

- C. Contractor may use Composted Yard Waste Amendment in lieu of the above specified Organic Amendment pending approval of product' technical data sheet.

2.4 COMPOSTED YARD WASTE AMENDMENT FOR PLANTING SOILS (ON-GRADE):

- A. The above ORGANIC AMENDMENT FOR PLANTING SOILS (ON-GRADE) is the specified organic amendment material. Acceptance of Composted Yard Waste Amendment in lieu of the above specified amendment material will be considered if the in situ planting soil salinity and soil structure is favorable for the inclusion of recycled yard waste organic matter, as approved by the Landscape Architect.
- B. The composted yard waste amendment shall be a mixture of feedstock materials including green material consisting of chipped, shredded, or ground vegetation and mixed food waste, or clean processed recycled wood products. Single source, biosolids (sewage waste) compost will not be acceptable.
- C. The addition of the compost shall result in a final ECe of the amended soil of less than 4.0 dS/m @ 25 degrees C. as determined in a saturation extract. Use the following table to determine the maximum allowable Ece (dS/m of saturation extract) of compost at desired use rate and allowable Ece increase.

DESIRED USE RATE		MAXIMUM ALLOWABLE Ece INCREASE FROM AMENDMENT		
Cu. Yds. Amendment Per 1000 Sq. Ft. for Incorporation to 6" depth	Volume percentage of amendment	1 dS/m	2 dS/m	3 dS/m
		Maximum ECe of Compost		
1	5	14	28	42
2	11	7	14	21
3	16	5	9.5	14
4	22	3.5	7	10.5
5	27	3	5.5	8.5
6	32	2.5	4.5	7

Example: Specification calls for 6 cu. Yrds. Compost per 1000 sq. ft. for incorporation to 6" depth, and site soil has an ECe of 2.0. In order to avoid exceeding ECe of 4 in final blend, compost ECe shall be less than 4.5 dS/m.

- D. Composted Yard Waste Soil Amendment properties to conform to the following:

1. Gradation:

<u>% Passing by weight</u>	<u>Sieve Designation</u>
90	1/2"
85-100	9.51 mm 3/8"
50-80	2.38 mm No. 8
0-40	500 micron No. 35

2. Organic Content: Minimum 50% based on dry weight and determined by ash method. Minimum 250 lbs. organic matter per cubic yard of compost.

3. Carbon to nitrogen ratio: Maximum 35:1 if material is claimed to be nitrogen stabilized.
 4. pH: 5.5 – 8.0 as determined in saturated paste.
 5. Soluble Salts: See D. above.
 6. Moisture Content: 35-60%.
 7. Contaminants: The compost shall be free of contaminants such as glass, metal and visible plastic. Heavy metals, fecal coliform and Salmonella shall not exceed levels outlined as acceptable in the California integrated waste management regulations.
 8. Maturity: Physical characteristics suggestive of maturity include:
 - a. Color: Dark brown to black.
 - b. Acceptable Odor: None, soil-like, or musty.
 - c. Unacceptable Odor: Sour, ammonia or putrid.
 - d. Particle Characterization: Identifiable wood pieces are acceptable, but the balance of the material shall be soil-like without recognizable grass or leaves.
- E. Submit sample, product's technical data sheet, and analysis report from an approved soils laboratory for approval by the Landscape Architect. The analysis report should include compliance to the specifications above, directions for product use, and a list of ingredients. It is the Contractor's responsibility to secure test of the proposed composted yard waste amendment (2 quart sample) and submit to a Soils Laboratory for evaluation and recommendations. The composted yard waste amendment sample shall be a grab sample from the currently available material that has been tested within the last 30 days and shall include the composter's Compost Technical Data Sheet that includes lab analytical test results and directions for product use along with list of ingredients. Refer to Part 1 for soil testing requirements.
- F. Based on the Soils Laboratory evaluation, the addition of composted yard waste amendment shall not be acceptable if it creates a leaching requirement.

2.5 PLANTS

- A. Plant the variety, quantity and size indicated on drawings. The total quantities indicated on the drawings are considered approximate and furnished for convenience only. Contractor shall perform plant quantity calculations and provide all plants shown on the drawings.
- B. Measure trees and shrubs with branches in normal position. Height and spread dimensions indicated refer to the main body of the plant, and not from branch tip to tip.
- C. Take precautions to ensure that the plants will arrive at the site in proper condition for successful growth. Protect plants in transit from windburn and sunburn. Protect and maintain plants on site by proper storage and watering.
- D. Install healthy, shapely and well rooted plants with no evidence of having been root-bound, restricted or deformed.
- E. Tag plants of the type or name indicated and in accordance with the standard practice recommended by the American Association of Nurserymen.

- F. Substitutions will not be permitted, except as follows:
1. If proof is submitted to the Landscape Architect that any plant specified is not obtainable, a proposal will be considered for use of nearest equivalent size or variety with an equitable adjustment of contract price.
 2. Substantiate and submit proof of plant availability in writing to the Landscape Architect within 10 days after the effective date of Notice to Proceed.
- G. Tree Form
1. Trees shall have a symmetrical form as typical for the species/cultivar and growth form.
 2. Central Leader for Single Trunk Trees: Trees shall have a single, relatively straight central leader and tapered trunk, free of co-dominant stems and vigorous, upright branches that compete with the central leader. Preferably, the central leader should not have been headed; however, in cases where the original leader has been removed, an upright branch at least ½ the diameter of the original leader just below the pruning point shall be present.
 3. Potential Main Branches: Branches shall be evenly distributed radially around and appropriately spaced vertically along the trunk, forming a generally symmetrical crown typical for the species.
 4. Headed temporary branches should be distributed around and along the trunk as noted above and shall be no greater than 3/8" diameter, and no greater than ½ diameter of the trunk at point of attachment.
- H. Tree Trunk
1. Trunk diameter and taper shall be sufficient so that the tree will remain vertical without the support of a nursery stake.
 2. Trunk shall be free of wounds (except properly-made pruning cuts), sunburned areas, conks (fungal fruiting-bodies), wood cracks, bleeding areas, signs of boring insects, galls, cankers and/or lesions.
 3. Tree trunk diameter at 6" above the soil surface shall be within the diameter range shown for each container size below, except where shown otherwise:
- | <u>Container</u> | <u>Trunk Diameter</u> | <u>Soil level from Container Top</u> |
|------------------|-----------------------|--------------------------------------|
| 5 gallon | 0.5" to 0.75" | 1.25 to 2" |
| 15 gallon | 0.75" to 1.0" | 1.75 to 2.75" |
| 24" Box | 1.5" to 2.5" | 2.25 to 3" |
| 36" Box | >2.5" | 2.25 to 3" |
| 60" Box | >2.5" | 3-6" |
4. Tree trunks shall be undamaged and uncut with all old abrasions and cuts completely callused over. Do not prune plants prior to delivery.
- I. Tree Roots
1. Trunk root collar (root crown) and large roots shall be free of circling and/or kinked roots. Contractor may be required to remove soil near the root collar in order to verify that circling and/or kinked roots are not present.
 2. The tree shall be well rooted in the container. When the trunk is lifted the trunk and root system shall move as one and the rootball shall remain intact.
 3. The top-most roots or root collar shall be within 1" above or below the soil surface. The soil level in the container shall be within the limits shown in above table.
 4. The rootball periphery shall be free of large circling and bottom-matted roots.

5. On grafted or budded trees, there shall be no suckers from the root stock.

2.6 FERTILIZERS

A. General Landscape Fertilizers

Commercial fertilizer, pelleted or granular form, conform to the requirements of Chapter 7, Article 2, of the Agricultural Code of the State of California for fertilizing materials as follows:

Type A:

6% Nitrogen, 20% Phosphorus Acid and 20% Potash, (6-20-20)

Type B:

21 gram planting tablets 20% Nitrogen, 10% Phosphoric Acid and 5% Potash (20-10-5) available from Agriform or 10gm BestPacks packets 20% Nitrogen, 10% Phosphoric Acid and 5% Potash (20-10-5) available from Best Fertilizer Co.

Type C (Maintenance Fertilizer)

Complete fertilizer 21% Nitrogen, 7% Phosphoric Acid and 14% Potash (21-7-14).

If commercial fertilizer having the above analysis is not obtainable, other similar commercial fertilizer may be used providing it meets the approval of the Landscape Architect.

2.7 IRON OR FERROUS SULFATE: Dry form.

- A. Essential 20% Ferrous (Iron) Sulfate. A soluble product that can be broadcast or incorporated. Analysis of 20% Iron, 18% Sulfur.

2.8 EROSION CONTROL NETTING

- A. New, with a uniform, open plain-weave, flame-retardant mesh. The mesh shall be [natural brown-tan] and made from unbleached single jute yarn. The yarn shall be of loosely twisted construction and shall not vary in thickness by more than one-half its normal diameter. Furnish jute mesh in rolled strips to meet the following requirements:
 - Width: 48 inches, with a tolerance of one-inch wider or narrower.
 - Not less than 78 warp ends per width.
 - Not less than 41 weft ends per yard.

2.9 LANDSCAPE EDGING

- A. Aluminum Edging, 3/16" X 4" by 8' black anodized finish with 12" min long stakes set 1/2" below grade at each joint and maximum 4' spacing, in-line joints without offset or double thickness, by Permaloc, Sure-Loc or approved equal.
- B. Wood Edging, 6x6 pressure-treated landscape timbers, with recessed #4 rebar stakes with maximum 4' spacing, for path edging and minor retaining

2.10 TREE STAKES

- A. Lodge pole pine logs, clean, smooth, un-treated.
- B. Unless otherwise shown on drawings, provide two-inch (2") diameter by eight feet (8') long for trees less than 8' high and 1" caliper.
- C. Unless otherwise shown on drawings, provide three-inch (3") diameter by eight to ten feet (8' - 10') long for trees greater than 8' high and 1" caliper.
- D. 2" O.D. Lodge pole tree stakes, painted black
- E. 2" O.D schedule 40 Galvanized steel pipe

2.11 TREE TIES

- A. Unless otherwise shown on drawings, provide rubber strap, 24-inch minimum length without sharp edges adjacent to trunk, V.I.T. cinch-tie, Dublin, CA, (818)882-9530, or approved equal.
- B. Black corded rubber tree ties w/ clips by greensleeves.com
- C. Biodegradable VStrap webbing by Treestrap.

2.12 TREE GUYING SYSTEM:

- A. For trees up to 3" caliper, 3/16" galvanized steel cable, with rubber tree collar, 12" minimum long, and secured with cable clamp, and attached to anchor for below-grade location, Duckbill Model 40 DTS, or approved equal.
- B. For trees 3" to 6" caliper, 3/16" galvanized steel cable with rubber tree collar, 18" minimum long, and secured with cable clamp, 3" take-up eye to eye turnbuckle, and attached to anchor for below-grade location, Duckbill Model 68 DTS, or approved equal.
- C. Rootball guying system with three dead man anchors per tree as shown on drawings.

2.13 MULCH

- A. Organic Mulch:
 - 1. Fir tree or pine tree bark, dark in color; 3/4-inch to 1-inch size.
 - 2. Decorative Fir bark, dark in color; [Small 1/4-inch to 3/4-inch] [Medium 1/2-inch to 1-1/2-inch] [Large 1-1/2-inch to 3-inch] size.
 - 3. Walk-On Bark; Coarsely shredded White Fir, Red Fir or Pine bark.
 - 4. Redwood Bark; Single grind (Coarse) Coast Redwood Bark (Gorilla Hair)
 - 5. Redwood Bark; Double grind (Fine) Coast Redwood Bark
 - 6. Cedar mulch by American Soil and Stone
 - 7. Forest floor bark mulch by American Soil and Stone
- B. Submit samples of rock mulch for approval by Landscape Architect until acceptable to Owner, at no extra cost.

2.14 COBBLES

- A. Smooth 2"-8" tan river cobbles, Lin Creek or equal.

PART 3 - EXECUTION

3.1 PLANT PROTECTION AND REPLACEMENT

- A. Inspect and protect all existing and new plants and trees against damage from construction activities, erosion, trespass, insects, rodents, deer, disease, etc. and provide proper safeguards, including trapping of rodent and applying protective sprays and fencing to discourage deer browsing. Maintain and keep all temporary barriers erected to prevent trespass.
- B. Repair all damaged planted areas. Replace plants and re-seed or re-sod turf immediately upon discovery of damage or loss.

3.2 TOPSOIL STRIPPING AND STOCKPILING

- A. Strip existing planting soil to whatever depths encountered in areas that may be compacted due to construction activities and in a manner to prevent intermingling with the underlying subsoil or other objectionable material. Topsoil stripping is limited to area outside "Drip Line" of existing trees to remain and areas indicated on drawings and as approved by the Owner's Representative.
- B. Remove heavy growths of grass from areas before stripping.
- C. Stockpile existing planting soil in storage piles in areas shown, or where designated by Owner. Construct storage piles to freely drain surface water. Cover storage piles if required to prevent windblown dust.
- D. If herbicide contamination is suspected then a radish/ryegrass growth trial must be performed. Consult with Landscape Architect prior to decision to test or not.

3.3 LIME TREATED SOIL

- A. If site work includes Lime Treatment of the subsoil, the Contractor shall remove full depth of treated soil beyond 12" from structure(s) and replace with approved planting soil.
- B. Following removal of lime treated material, scarify subgrade to a minimum depth of 6 inches and test for drainage.
- C. Test subgrade in all planting areas for drainage by flooding with minimum 4-inch depth of water puddle and verify complete absorption of standing water within two hours. If standing water is still present after two hours, provide perforated pipe and drain rock "French Drain" system in bottom of non-draining planters and connect to storm drainage system, as accepted by Owner's Representative prior to backfilling with approved planting soil.

3.4 GENERAL PREPARATION OF PLANTING SOIL

- A. Submit soil analysis report of amended soils from an approved soils laboratory for approval by the Landscape Architect. Refer to Part 1 for soil testing requirements.
- B. All planting soils to be amended as specified in soil laboratory analysis report(s).
- C. Provide a minimum of [12"] depth of amended planting soil in all planting areas, or more where shown or specified otherwise. Install soil in maximum [12"] lifts. Compact each lift prior to installing subsequent lifts.
- D. Thoroughly wet down the planting areas to settle the soil and confirm irrigation coverage and operation. Allow soil to dry so as to be workable as described herein.
- E. After the rototill work, float areas to a smooth, uniform grade as indicated on the drawings. Slope all planting areas to drain. Roll, scarify, rake and level as necessary to obtain true, even planting surfaces. Remove rocks, sticks and debris 1 inch and larger in size in turf areas and 2 inches or larger in shrub and ground cover areas. Secure approval of the grade by the Landscape Architect before any planting.
- F. Prior to planting, soil shall be loose and friable to a minimum depth of [12"] with a relative maximum compaction of 85%. Rip and scarify any overly compacted and re-compacted planting areas (in two directions full depth of compacted soil) prior to planting.
- G. Water settling, puddling, and jetting of soil and backfill materials as a compaction method is not acceptable.
- H. Prior to planting, soil shall be moist, but not so moist that it sticks to a hand shovel. Do not work planting soil in a wet or muddy condition or dump or spread in areas where subgrade is not in proper condition.
- I. Provide planting soil as a final lift in all planting areas within and adjacent to paved areas and other construction where native site soil has been covered by engineered fill and/or base rock. Unless otherwise shown or specified, finish grade in planting islands shall be crowned with a minimum 2% pitch to drain.
- J. Finish Grade: Hold finish grade and/or mulch surface in planting areas 1/2-inch below adjacent pavement surfaces, tops of curbs, manholes, etc. The subgrade of the mulch in mulched planting areas shall be a minus 2 inches at a distance of 12 to 18 inch from the edge of pavement. Drag finish grade to a smooth, even surface. Grade to form all swales and berms. Pitch grade with uniform slope to catch basins, streets, curb, etc., to ensure uniform surface drainage. Areas requiring grading include adjacent transition areas that shall be uniformly sloped between finish elevations. Slope surface away from walls so water will not stand against walls or buildings. Control surface water to avoid damage to adjoining properties or to finished work on the site. Take required remedial measures to prevent erosion of freshly graded areas.
- K. Planting operations shall be performed only during periods when beneficial results can be obtained. When excessive moisture or other unsatisfactory conditions prevail, the work shall be stopped until conditions are satisfactory.

3.5 PREPARATION OF IN-SITU PLANTING SOIL

- A. In-Situ Planting Soil is defined as top soil left in its original place and undisturbed during construction activities which is to receive new planting
- B. Except within tree driplines, rip all planting areas in two directions full depth to a minimum of 12" into undisturbed native subsoil prior to amending. Scarification of any planting area which cannot be accomplished with a tractor shall be accomplished by an alternative method approved by the Owner's Representative to the specified depth to ensure proper percolation/drainage.
- C. Inspect planting areas and remove all base rock and other foreign material. Verify placement of planting soil within dripline of trees with Owner's Representative.
- D. Test depth of loose soil with hand shovel in presence of Owner's Representative in several locations as directed.
- E. After acceptance of the planting condition, uniformly mix and amend soil with required fertilizers, nutrients, etc. per specifications herein and recommendations given in soils reports.
- F. In the case of a contradiction between the quantity of organic amendment required by the soils laboratory analysis and the specified quantity below, the greater of the two quantities shall take precedence. Spread organic amendment, iron and Type A fertilizer evenly over installed and rough graded on-site topsoil in all planting areas including turf, ground cover and shrub areas at the following rates:
 - 1. Organic Amendment: 6 cubic yards per 1,000 square feet
 - 2. Fertilizer: Type A (6-20-20) at 20 lbs. per 1,000 square feet.
 - 3. Iron Sulfate: 10 lbs. per 1,000 square feet
- G. Rototill above additives into soil 8-12" inches deep. Keep iron sulfate off pavement and other surfaces to prevent rust staining. Correct all rust damage to work.
- H. Final planting soil shall have a pH range of 6.5 to 7.5.

3.6 PREPARATION OF IMPORTED PLANTING SOIL (ON-GRADE)

- A. Uniformly distribute and spread Subsoil or select fill in planting areas to achieve rough grading and compact to a maximum of 85% relative compaction.
- B. Except within tree driplines, rip all planting areas in two directions full depth to a minimum of 12" into undisturbed native subsoil prior to backfilling. Scarification of any planting area which cannot be accomplished with a tractor shall be accomplished by an alternative method approved by the Owner's Representative to the specified depth to ensure proper percolation/drainage.
- C. Thoroughly water-settle subsoil to required subgrade prior to installing Top Soil.

- D. Prior to placing planting soil secure the Owner's Representatives acceptance of the planting areas subgrade condition. Test depth of loose soil with hand shovel in presence of Owner's Representative in several locations as directed.
- E. After acceptance of the planting areas subgrade condition, uniformly distribute and spread planting soil backfill over scarified subgrade in planting areas as specified.
- F. Mix and amend soil with required fertilizers, nutrients, etc. per specifications herein and recommendations given in soils reports.

3.7 ALUMINUM EDGING

- A. Install as shown in drawings in continuous strips as indicated and in accordance with manufacturer's recommendations with stakes spaced 48 inches on center maximum and at all joints.

3.8 WOOD EDGING

- A. Install in continuous, smooth alignment as indicated with stakes spaced 48 inches on center maximum and at all joints.

3.9 TREE AND SHRUB PLANTING

- A. Mark tree and shrub locations on site using stakes, gypsum or similar approved means and secure location approval by the Landscape Architect before plant holes are dug. Adjust location as required prior to planting.
- B. Review location of plants in relationship to irrigation heads and adjust location(s) that interfere with the function of the spray heads. Adjust locations as required to ensure that the plant roots receive the proper amount of water in order for the plants to thrive.

- C. Excavate tree, shrub and vine pits as follows:

	<u>Width</u>	<u>Depth</u>
Boxed Trees	Box + 24"	Box depth
Canned Trees (15 gc)	Can + 18"	Can depth
Canned Shrubs/Vines (1- 5 gc)	Can + 12"	Can depth

- D. Test drainage of plant beds and tree pits by filling with water (minimum 6"). The retention of water in planting beds and plant pits for more than two (2) hours shall be brought to the attention of the Landscape Architect. If rock, underground construction work, tree roots, poor drainage, or other obstructions are encountered in the excavation of plant pits, alternate locations may be selected by Landscape Architect.
- E. Break and loosen the sides and bottom of tree pits to ensure root penetration and water test hole for drainage as required above.
- F. Excavate plant hole or tree pit keeping excavated planting soil layer on the surface when backfilling around the plant. Carefully set plants as detailed without damaging the rootball. Superficially cut edge roots vertically on three sides. Remove bottom of plant boxes before planting. Remove sides of boxes after positioning the plant and partially backfilling.

- G. Set plants in backfill with top of the rootball 1 inch above finished grade of adjacent soil. Backfill remainder of hole and soak thoroughly by jetting with a hose and pipe section. Water backfill until saturated the full depth of the hole.
- H. Backfill plant holes with mix as specified, free from rocks, clods or lumpy material. Backfill native soil free of soil amendments under rootball and foot tamp to prevent settlement. Backfill remainder of the hole with soil mix and place plant tablets or packets (Type B fertilizer) 3 inches below finish grade and 1/2-inch from roots at the following rates:

1 gallon can plant	-	1 tablet or packet
5 gallon can plant	-	3 tablets or packet
15 gallon can plant	-	6 tablets or packet
24-inch box plant	-	6 tablets or packet
36-inch box plant	-	8 tablets or packet

- I. Except for acid loving plants (Azaleas, Rhododendrons, Ferns, Camellias, etc.), use a soil mix of 2 parts soil from the hole, and 1 part amendment with iron added at the following rates:

1 gallon can plants	-	iron, 1/4 cup
5 gallon can plants	-	iron, 1/3 cup
15 gallon can plants	-	iron, 1/2 cup
24" box and larger	-	iron, 1 cup

For acid loving plants (Azaleas, Rhododendrons, Ferns, Camellias, etc.), mix 1 part soil from the hole and 1 part amendment to use a backfill around the plants.

Mix the iron, amendment and soil thoroughly for use in the top 8 inches of backfill around plants. For acid loving plants, mixture to be 1/2 soil from the hole and 1/2 amendment.

- J. Remove any soil from top of plant rootballs and secure Landscape Architect's approval of rootball height prior to mulching.
- K. After approval of rootball height, install mulch as required below.
- L. Stake and/or guy trees as detailed. Drive stake(s) until solid (at least 12" beyond bottom of rootball) and remove excess stake protruding above top tree tie to prevent rubbing against branches. Avoid driving stakes through rootball. If subgrade does not accept stakes to a stable degree, delete stakes and guy the trees as specified herein and as detailed. Locate tree ties to avoid contact with tree branches. Locate top tie at tree flex point.
- M. Build watering basin berms around trees and shrubs to drain through rootball. Basins are not required around trees in turf areas. Water backfill until saturated the full depth of the hole.

3.10 GROUND COVER PLANTING

- A. Plant in neat, straight, parallel and staggered rows as indicated on plan. Plant first row one-half required ground cover spacing behind adjacent curbs, structures, or other plant bed limits. Plant ground cover to edge of water basins of adjacent trees and shrubs.

3.11 MULCH

- A. Except where rock mulch is required, mulch all tree, shrub and ground cover areas with organic mulch to a 3-inch depth, except mulch to 2-inch depth where planting with ground cover plants from flats.
- B. Hold bark mulch away from base (trunk) of plant 4" or as directed by the Landscape Architect.
- C. Individual trees and/or shrubs planted in non-irrigated areas shall, at minimum, receive bark mulch over their watering basin and berm.
- D. Install rock mulch to depth as detailed, minimum 2-inches for full coverage of soil surface, whichever is greater.

3.12 WATERING

- A. Water all trees, shrubs and ground cover immediately after planting. Apply water to all plants as often and in sufficient amount as conditions may require to keep the plants in a healthy vigorous growing condition until completion of the Contract. Provide supplemental hand watering of trees and shrubs, as required, to maintain a moist root zones throughout plant establishment period.

3.13 PRE-MAINTENANCE PERIOD REVIEW AND APPROVAL OF PLANTING

- A. Maintain plants from time of delivery to site until final acceptance of landscape installation.
- B. Receive approval of the installed planting prior to commencement of planting establishment maintenance period. Notify the Landscape Architect or Owner's Representative a minimum of seven (7) days prior to requested review. Before the review, complete the following:
 1. Complete all construction work.
 2. Present all planted areas neat and clean with all weeds removed and all plants installed and appearing healthy.
 3. Plumb all trees and tree and shrub supports.
 4. No partial approvals will be given.

3.14 PLANTING ESTABLISHMENT MAINTENANCE

- A. General Requirements
 1. **Maintenance Period:** The planting establishment maintenance period required shall be **30 calendar days** after all planting and irrigation is complete, turf is installed/seeded, and as approved by Owner's representative. A longer period may be required if the turf is not thick, vigorous and even and has been mowed a

minimum of 4 times, or if the plant material is not acceptably maintained during the maintenance period. The start of the maintenance period to be confirmed by Owner's representative. Contractor to notify landscape architect of start and end dates of maintenance period. The maintenance period may be suspended at any time upon written notice to the Contractor that the landscaping is not being acceptably maintained, and the day count suspended until the landscape is brought up to acceptable standards as determined by the Owner Representative.

2. Planting establishment maintenance immediately follows, coincides with, and is continuous with the planting operations, and continues through turf installation, and after all planting is complete and accepted; or longer where necessary to establish acceptable stands of thriving plants.
3. Protect all areas against damage, including erosion, trespass, insects, rodents, disease, etc. and provide proper safeguards. Maintain and keep all temporary barriers erected to prevent trespass.
4. Keep all walks and paved areas clean. Keep the site clear of debris resulting from construction or maintenance activities.
5. Repair all damaged planted areas, and replace plants and resod turf immediately upon discovery of damage or loss.
6. Check sprinkler systems at each watering; adjust coverage and clean heads immediately. Adjust timing of sprinkler controller to prevent flooding.
7. Maintain adequate moisture depth in soil to ensure vigorous growth. Check rootball of trees and shrubs independent of surrounding soils and hand water as required.
8. Keep contract areas free from weeds by cultivating, hoeing or hand pulling. Use of chemical weed killers will not relieve the Contractor of the responsibility of keeping areas free of weeds at all times.

B. Tree and Plant Maintenance

1. Maintain during the entire establishment period by regular watering, cultivating, weeding, repair of stakes and ties, and spraying for insect pests. Prune when requested by the Landscape Architect.
2. Keep watering basins in good condition and weed-free at all times.
3. Replace all damaged, unhealthy or dead trees, shrubs, grasses, vines and ground covers with new stock immediately; size as indicated on the drawings.

C. Fertilizing:

1. Upon approval and after submitting fertilizer delivery tags, maintenance fertilization shall begin 30 days after planting is complete. Fertilize all turf and ground cover areas by broad-casting Type C (21-7-14) fertilizer at the rate of 5 lbs. per 1,000 square feet evenly throughout. Reapply every forty-five (45) days until acceptable.
2. During the winter, for quick turf greening effect, calcium nitrate (15.5-0-0) may be applied at the rate of 6 lbs. per 1,000 square feet.
3. Early spring and fall substitute a complete fertilizer such as 15-15-15 applied at the rate of 6 lbs. per 1,000 square feet, to help insure continuing adequate phosphorus and potassium.
4. Apply ammonium sulfate fertilizer as necessary to maintain vigorous, green grass between fertilizations mentioned above.
5. Observe plant's color, and if a soil pH imbalance is suspected, take soil samples and obtain laboratory analysis for confirmation. Take necessary action

recommended in laboratory analysis such as top dressing with soil sulfur, leaching soil, etc.

3.15 FINAL PLANTING REVIEW AND ACCEPTANCE

- A. At the conclusion of the Maintenance Period, schedule a final review with the Owner, the Owner's maintenance person, and/or the Landscape Architect. On such date, all project improvements and all corrective work shall have been completed. If all project improvements and corrective work are not completed, continue the planting establishment maintenance period at no additional cost to the Owner until all work has been completed. This condition will be waived by the Owner under such circumstances wherein the Owner has granted an extension of time to permit the completion of a particular portion of the work beyond the time of completion set forth in the Agreement.
- B. Submit written notice requesting review at least 10 days before the anticipated review.
- C. Prior to review, weed and restore all planted areas, mow and edge turf, plumb trees and tree supports, clear the site of all debris and present in a neat, orderly manner.

END OF SECTION

GraniteCrete Specification Guide
For Park Trail Systems, Commercial Pedestrian
Pathways and Commercial Patio Areas -
Non-Vehicular

Revision Date: December 6, 2023

RHAA Revision: 5/17/2024

CRUSHED AGGREGATE BLENDED WITH GRANITECRETE ADMIXTURE
SURFACING

FOR MORE INFORMATION: Contact GraniteCrete Incorporated, www.granitecrete.com, email info@granitecrete.com, or call (800) 670-0849.

PART 1: General

1.1 SUMMARY

- A.** Section Includes: Crushed aggregate blended with GraniteCrete admixture surfacing

1.2 REFERENCES

- A.** ASTM C136-Sieve Analysis of Fine and Coarse Aggregates
- B.** ASTM D2419- Sand Equivalent Value of Soils and Fine Aggregates
- C.** Caltrans Standard Specifications for Public Works Construction

1.3 SEQUENCING

- A. Do not install work specified in this section prior to acceptance of earth moving. Coordinate work specified in this section with work specified in other sections to minimize cutting of - and operation of - heavy equipment over newly-installed surfacing.
- B. Submit in accordance with Section: Submittal Procedures
 - a. Manufacturer's product data sheet and installation instructions indicating that product complies with specifications for:
 - i. Crushed aggregate blended with GraniteCrete admixture surfacing
 - ii. Edging per planting specifications 32 90 00
 - b. Submit a quart jar size sample of crushed aggregate in manufacturers standard color with admixture in color Desert Sand.

1.4 QUALITY ASSURANCE/FIELD QUALITY CONTROL

- A. GraniteCrete installation differs from the installation of concrete or traditional decomposed granite binders.
 - 1. GraniteCrete offers paid consulting services, in either a half-day (four hours) or full-day (eight hours) block + travel.
 - 2. A GraniteCrete representative must be on-site at the beginning of any installation to train the crew in the procedures for achieving an excellent GraniteCrete installation. Or, GraniteCrete must sign off on the installer (in writing) prior to installation.
 - 3. The installation instructions in this Specification Guide are meant as a guide for bidding purposes and will be superseded by the approved Submittal of installation instructions from GraniteCrete, Inc., and any field direction provided by the company representative.
 - 4. GraniteCrete, Inc. does not offer a warranty on any installation - even if completed by an Approved Installer - only on the product, bag-to-bag.

B. Porous Base Rock Testing:

1. Testing shall occur during installation at 4 ton increments of shipping for sieve conformance. Results shall be submitted prior to completion of the stone base installation.
 - a. The stone field area shall have a permeable rate no less than 14" per hour. The testing shall be per Din 8035 Part 7, ASTM 2434 (constant head), or ASTM F2898 testing methods.
 - b. In addition to the lab testing, after installation of any aggregate base cross-section, designed to conduct rainfall to the sub-soils and/or under-drain system, the finished aggregate base shall be tested, *in situ* for infiltration rate, using method ASTM F2898. **The test shall be performed by a registered Geotechnical Engineer or certified agronomist.**
2. The Contractor is responsible to meet this performance specification, before proceeding with installation, and shall bear the cost of the on-site testing and the cost of any additional work necessary to achieve compliance with the specification.
3. All test results shall be logged and documented by the Owner's Technical Representative or Geotechnical Engineer. If at any time the processed stone base does not meet specifications, it shall be the Contractor's responsibility to restore, at his expense, the processed stone base to the required grade, cross-section and density.
4. After the contractor has independently confirmed compliance with all the above tolerances (planarity and elevation verified by a licensed surveyor and compaction, gradation, & permeability verified by Geotechnical Engineer, he shall notify the appropriate party and schedule a final inspection for approval. The contractor shall make available an orbital laser system to the Inspection Team for the inspection process.
5. The compaction rate for porous base rock should be 88%. The compaction rate for non-porous base rock should be 95%.

C. Standard Specifications: Shall mean the California Department of Transportation Standard Specifications, latest active edition.

1.5 MOCK-UP

- A.** Construct mockup of 4 square feet minimum of crushed aggregate blended with GraniteCrete admixture surfacing, including base course and edging, at location approved by Owner's Representative. Build

mockup 14 days prior to installation. Intent of the mockup is to demonstrate surface finish, texture, color and standard of workmanship

- B.** Notify Owner's Representative 14 days in advance of mockup construction.
- C.** Allow Owner's Representative to view and obtain approval of mock-up before proceeding with rest of crushed aggregate blended with GraniteCrete admixture surfacing.
- D.** Approved mock-up may remain as first in place construction.

1.6 DELIVERY, STORAGE, AND HANDLING

- A.** Deliver all GraniteCrete Admixture materials in original, unopened packaging. Protect materials and aggregate from contamination with foreign matter. Store under a waterproof cover and protect from dampness.

1.7 FIELD CONDITIONS

- A.** Do not install crushed aggregate blended with GraniteCrete admixture surfacing when the sub-base is wet at saturated field capacity.
- B.** Do not install GraniteCrete materials during rainy conditions or below 40 degrees Fahrenheit.

PART 2: PRODUCTS

2.1 CRUSHED AGGREGATE BLENDED WITH GRANITECRETE ADMIXTURE SURFACING MATERIALS.

A. Acceptance Manufacturer:

1. Specification is based on products by GraniteCrete, Inc.
419 Webster Street, Suite 202
Monterey, CA 93940
Phone: (800) 670-0849; Fax: (800) 670-0849
www.granitecrete.com

GraniteCrete admixture is an all-natural product and does not contain

oils, polymers, resins, or enzymes.

2. Substitutions: Products by other manufacturers that comply with specifications will be considered in accordance with submittal procedures.

B. Decomposed Granite (DG), crushed aggregate.

1. DG shall have a 3/8" maximum gradation, produced from naturally friable rock/granite with enough fines to produce a smooth walking surface. Materials should be free from clay lumps, organic matter, and deleterious material. Blends of coarse sand and rock dust are not acceptable.
2. Use a single supply source for the entire quantity required.
3. Gradation, in accordance with ASTM C136:
4. Color: Should have gold to yellow hues. To be selected by Owner's Representative from manufacturer's standard colors.
5. Supplier: Vineyard Rock Products, Hollister, CA. - (831) 637-6443 Or equal.

C. Aggregate binder: Provide GraniteCrete Admixture. Color: Desert Sand

2.2 BASE COURSE MATERIAL

A. Class II Permeable Base Rock.

- B.** Soft stone materials (i.e. sandstone, limestone and shale materials) are not suitable. Stone supplier shall certify that all supplied stone will be clean of this type of stone. All types of stone shall meet the following stability requirements.

TEST METHOD	CRITERIA
LA Abrasion (Calif. Test 211)	Not to exceed 40
Durability Index (Calif. Test 229)	Not less than 40

In addition, if stone stability to water and vehicles is in question, Owner has the right to perform additional testing to ensure material shall adhere to requirements of Caltrans Section 68, as well as additional applicable ASTM tests.

- C. All testing fees shall be paid for by the Contractor.
- D. Permeable Stone: Stone base materials shall be washed, 100% fractured, by mechanical means, with elongated characters on each individual particle larger than 1/4". Materials shall be devoid of mineral fines. All particles smaller than 1/4" shall be produced by manufactured means only. Rounded sands or aggregates are prohibited.
- E. Delivery Moisture Content: Processed stone shall contain 90% to 110% of the optimum moisture content to ensure that fines do not migrate in transit or during placement and to facilitate proper compaction. The contractor shall ensure that aggregate leaving the source plant meets this requirement. The contractor is required to apply water to the processed stone on site to attain and maintain this minimum moisture content.
- F. Aggregate or aggregate blends of permeable stone shall conform to the following gradation (**please note this is for base rock, not for GraniteCrete**):

SIEVE	Sieve Sizes Metric (mm)	Percent Passing by Weight* Intended Result	Range
1"	25.0	100	100
3/4"	19.0	100	90-100
3/8"	9.52	78	40-100
No. 4	4.75	36	25-40
No. 8	2.36	26	18-33
No. 30	0.600	11	5-15
No. 50	0.300	6	2-10
No. 200	0.075	2	0-5
Durability Index (CTM# 229)		40 min	
Sand Equivalent (CTM# 217)		70	
LA Rattler (CTM# 211)		500 Revs,	less than or = 40%

* AASHTO Test Method T-27

- G. Specs for 3/8" minus and 3/4" minus Crushed Aggregate Following ASTM D 1140-17: Crushed aggregate must be free from contaminants that would

discolor or be deleterious to crushed aggregate blended with GraniteCrete admixture surfacing.

100% fractured on all sides with no rounded particles
Sieve 200 - Non-expansive Clay Fines - not to exceed 18%

The below test is for 3/8" minus stone, at approximately 90% compaction when tested.

Sieve Size	% Passing Sieve Ranges	
1/2"	100	100
3/8"	95	98
#4	85	90
#8	75	85
#16	55	70
#30	38	57
#50	24	33
#100	15	24
#200	9	18
#400	0	9

2.3 ACCESSORIES

- A. Water: Free from contaminants that would discolor or be deleterious to crushed aggregate blended with GraniteCrete admixture surfacing.

Installation: Do not use a vibratory plate to compact the GraniteCrete. Use a lawn roller filled with water to compact the GraniteCrete. It is highly recommended to use a volumetric truck for larger installations. If possible, screeding and the use of a paver is highly recommended.

PART 3: EXECUTION

3.1 EXAMINATION

- A.** Examine grading and subsoil conditions. Do not proceed until conditions are acceptable per the architect's specifications.

3.2 PREPARATION

- A.** Excavation: Excavate to depth required so edges of crushed aggregate blended with GraniteCrete admixture surfacing will match adjacent grades and have a maximum cross slope of 1 percent. [Remove excavated soil from site.]
- B.** Sub-grade Preparation: Comply with Caltrans Standard Specifications Section 301-1 – “Sub-grade Preparation.”
- C.** Base Course Installation: Class II permeable base rock at 90% compaction.
- D.** Edging: Install flush with crushed aggregate blended with GraniteCrete admixture. Provide sufficient stakes to secure in place.

3.3 INSTALLATION: There are two installation methods for GraniteCrete: “Dry” and

“Wet.”

The **dry method** is for installations up to 6,000 square feet. The **wet method** is for installations over 6,000 square feet and may require the use of a volumetric truck. Discretion for the means and methods to use is ultimately the responsibility of the installer.

GRANITECRETE INSTALLATION – GENERAL

A. Mixing method:

1. Installations less than 500 square feet may be mixed on-site.
2. Installations 500 square feet and over up to 6,000 square feet, must be delivered pre-mixed to the site from a GraniteCrete Inc. approved pre-mix facility. Approved retailers and pre-mix facilities can be found on the company website www.granitecrete.com.
3. For installations over 6,000 square feet, it is highly recommended to use a volumetric truck.
4. The volumetric truck must be calibrated for the GraniteCrete mixture. Contact GraniteCrete, Inc. at info@granitecrete.com for a list of approved volumetric truck operators.

The following installation instructions have been developed to help ensure a blemish-free, high-quality installation. While GraniteCrete looks similar to concrete, the installation of GraniteCrete follows a different procedure. For best results, follow the instructions below carefully. For assistance, contact GraniteCrete, Inc. at info@granitecrete.com.

Installation Depth (also known as “lift”)

For **commercial/non-vehicular applications** – such as pedestrian walkways, bicycle paths, and patios – GraniteCrete is installed as a 3-inch thick layer (lift) over a 4-inch subgrade of base rock. Compaction rates for all applications are 88%–92%.

Please note: GraniteCrete compacts approximately 25%, or ¼” per 1” of lift.

Measurements

An online calculator to assist you with estimating the amount of material needed to complete your project can be found on the GraniteCrete website here:
<https://www.granitecrete.com/paving-materials-estimator/>

Please note this is **only** an estimator and GraniteCrete, Inc is not responsible for the quantity of materials at the job-site.

GraniteCrete: Commercial /Non-vehicular Application - - (2 bag mixture) One cubic yard of aggregate/decomposed granite and two (85 lbs) sacks of GraniteCrete admixture combined covers 108 square feet at a 3-inch thickness. Note: Aggregate/decomposed granite should be 3/8" minus material and follow our sieve percentages in this Specification Guide within a +/- 5% range.

Class II Base Rock: Commercial/Non-vehicular Application - After final compaction, baserock should have a 4-inch depth.

Mixing Ratios

GraniteCrete: Commercial/Non-Vehicular Application - (2 bag/3-inch lift, 3 bag/2-inch lift mixture) The aggregate/decomposed granite (DG) is mixed with GraniteCrete admixture at a 17:1 ratio (17 units of DG to 1 unit of GraniteCrete, measured in volume).

Installation Instructions - "Dry" Method

- 1. Class II Base Rock:** Moisten and compact base rock on the entire installation area to an even depth of 4-inch. A vibratory plate can be used to compact the base rock; it should **not** be used to compact the GraniteCrete.
- 2. GraniteCrete:** Wheelbarrow the prepared GraniteCrete/DG mixture to the installation site and place a layer of the mixture to one-half of the desired final lift. Be sure to spread the mixture out before proceeding to step 3; this will ensure the mixture is moistened and mixed thoroughly.
- 3. Moisten the material with a hose end trigger sprayer attachment, **avoiding puddling - oversaturation is detrimental and will negatively affect the integrity of the finished product.**** Rake area lightly to evenly distribute water

throughout the mix or "lift". Walking on the area is perfectly acceptable; initial compaction can be performed by walking on the edges and corners.

4. Add dry-mixed material as needed to get to your desired grade. Repeat step 3.
5. Proper moisture content can be checked by clenching your fist around the GraniteCrete, when the mixture just stays together and the color just starts to transfer to your hand, GraniteCrete is ready to compact.
6. **Compaction:** After proper moisture is achieved for compaction, hand tamp (with a 10" hand tamp) around benches, sign posts, corners, boulders, et cetera. Pay particular attention to corners and edges to ensure tight compaction.
7. Make several passes with a 36" lawn roller (filled with water). Compact until there are no visible marks from compaction. Hand tamp out any imperfections with a 6" wooden masonry float. **Pay particular attention to ensure accuracy in grading.**
8. Make sure to keep your 10" hand tamp, lawn roller, and wooden floats clean at all times. Fill in any divots with fresh, loose material (removing any larger stone) and hand tamp with the wooden floats to match the existing finish.
9. When laying GraniteCrete in batches, be sure to use the **cold joint** method below to ensure a blemish-free installation.
10. **Finishing:** If desired, lightly sweep the finished surface in a perpendicular pattern with a medium-bristled push broom. Then make several passes with the lawn roller until the desired surface texture is achieved. Make sure to keep the drum clean at all times. Remove spoils off the surface.
11. **DO NOT ALLOW GRANITECRETE TO DRY DURING INSTALLATION. MIST LIGHTLY WITH A HOSE END SPRAY HEAD AS NECESSARY OR COVER WITH A PLASTIC TARP.**
12. The final step for a GraniteCrete installation is a dampening with water of all newly-installed and compacted GraniteCrete materials. Using a shower head/spray hose attachment, moisten the entire newly-installed GraniteCrete area - **avoid puddling**. For best results, moisten all newly-installed GraniteCrete paving a second time the following 1 to 5 days, as practical. **Slow curing of GraniteCrete is important to avoid cracking.**

Make sure there is no direct application of uncontrolled water (e.g. irrigation or sprinkler water) prior to final curing.

You may walk on GraniteCrete immediately after installation. However, like concrete, GraniteCrete gets stronger with time. Ideally, traffic should stay off the newly-installed GraniteCrete areas for a minimum of 48 hours.

Newly installed GraniteCrete paving surfaces are fully cured in 28 days. At that time, the entire surface should be blown or swept off to eliminate loose surface materials. Minor cracking may take place. However, over time, the aggregate fines will fill in the minor cracks and they should disappear. Occasional blowing off of the surface will help to minimize loose surface materials.

Cold Joint Methods

Cold joints can be used at the end of the work day.

Method One:

1. "Between pours," stop at an area that makes the joint location look intentional. Take a chalk snap line just back from loose GraniteCrete into the compacted area and create a chalk line. Use either a masonry blade - or a square-nose shovel - and cut a straight line across the installation.
2. Continue with installation: Dampen the prior installation area. Place newly mixed GraniteCrete into the area, being careful not to overlap existing compacted material. Place a three foot length of 2"x4" carefully along the edge of the new pour and compact by hitting/tapping the board with a single jack. Then, take a

medium-bristled push broom and very lightly "feather" the two pours together.

Method Two:

1. Place a 2"X4" or 2"X6" piece of wood across the installation, loosely stake it, and finish compacting the material. Leave the board in place overnight.
2. The next day, carefully lift the wood up and away from the installed GraniteCrete. Continue the installation process as per step 2 under Method One, making sure to dampen the prior installation area.

Method Three: (Suggested for large open edges at the end of the work day)

1. Install steel edging at a location that looks "intentional" and aesthetically "makes sense." Permanently install using the stakes provided. Completely finish the first day's work.
2. The next day, simply continue with the installation. Make sure to dampen the prior installation area first. Leave the edging in place. Again, being careful not to leave any new material on the previously installed GraniteCrete.

Recommended Equipment

Tools	Materials
(3) Rounded point or flat edge shovels for moving product	GraniteCrete Admixture bags (85 lbs.)
6 cubic foot cement mixer for mixing small installations	3/8" minus aggregate/ decomposed granite
Wheelbarrow for moving material	Class II Base Rock or Class II Permeable Base
8" or 10" hand-tamps for compacting edges and corners, step back fills, and small areas	Curbing or Header Board materials (if desired)
Hose with a shower spray nozzle for moistening dry product	Water source
Landscape and asphalt rake with flat edge for finish grading	
Heavy lawn roller filled with water to compact	
Medium bristled push broom for finishing	
(2-3) 6"-9" wooden masonry float for finishing (1) 6"-9" steel float for cleaning hand tamp and roller	

Please refer to our website for further information:

<https://www.granitecrete.com/installation/>

3.4 Important Notes:

- A. Do not allow GraniteCrete to dry during installation. Mist lightly with a hose end spray head as necessary - **avoid puddling** - or cover with plastic tarp.
- B. Non-compacted - or poorly-compacted - GraniteCrete top layer will result in loose and pebbled materials. Edge and corner compaction may require special

attention with a hand tamp during installation.

- C. Non-compacted - or poorly-compacted - base rock may result in failure of the top layer of GraniteCrete.
- D. Squeeze the mixture in your fist and open your hand. When the color has just started to transfer onto your hand and the mixture just begins to stay together in a clump, it's ready for installation. Excessive moisture level may result in "sticky" materials complicating the quality of the finish surface or proper compaction - if you squeeze the mixture and water oozes out, it is too damp. If the material is too wet, it may be placed on the bottom of the installation, with material that has a better moisture content on top.
- E. Aggregate/decomposed granite materials should meet the sieve specifications in this Specification Guide and be free of contaminants.
- F. Surface shall follow the overall contours of the landscape. Flat areas shall be sloped for drainage. Slope 2.0% percent minimum to drain away from structures.
- G. Please Note: 3/8" minus aggregate comes in different colors. GraniteCrete™ samples reflect the use of a Golden Granite decomposed aggregates. Mock-ups using your local aggregate source is strongly suggested.
- H. Saw cut expansion joints every 5' in narrower paths, every 12' in wider paths, and at every engineered stress area. Wait 48 hours before cutting.
- I. Cover finished surface to achieve maximum curing period. See Section 3.5.
- J. Minimum Compacted Thickness (See Section Details):
 - 1. [Light Vehicular and Emergency Vehicle Access] : [4] inches.
- K. Completed, finished surface shall be of consistent quality and free of deleterious materials such as organic materials, nails, stones, and loose material. Surface shall not have depressions or humps greater than [1/4] inch in ten feet. Cold joints, if any, should be inconspicuous.
- L. **Pay particular attention to ensure accuracy in grading.** If grading issues occur during installation, they need to be addressed right away. You cannot wait until the end to fix grading issues.

3.5 CURING PERIOD / PROTECTION

- A. Do not allow traffic on crushed aggregate blended with GraniteCrete admixture surfacing for a minimum of 72 hours after placement or until compacted crushed aggregate blended with GraniteCrete admixture surfacing has fully cured. [Cover for extended curing period]. If the temperature is below 50 degrees Fahrenheit, extend this to 5 days. If rain is in the forecast during the curing period, cover the product with plastic.
- A. Protect crushed aggregate blended with GraniteCrete admixture surfacing from damage until project completion. [Repair damaged areas to match specified requirements].

3.6 MAINTENANCE & REPAIRS

- A. Follow manufacturer's recommendations.
- B. Maintenance: Depending on the end user's desired finish surface, maintenance may require occasional blowing off or brooming of paved surface - DO NOT use a pressure washer to clean GraniteCrete. Depending on quality of compaction at time of installation, a thin veneer of loose aggregate material is typical after the full 28 days cure period. If cracking appears in a GraniteCrete surface, broom loose aggregate "fines" into cracks and compact with a rubber mallet.
- C. Repair: When repairing GraniteCrete it is important to use the original aggregate/decomposed granite and the original GraniteCrete Admixture color to match previously installed materials. If the paved surface has large areas of raveled material (loose aggregate/decomposed granite) the initial installation may not have been properly compacted, or blended materials did not have optimum moisture content during installation. **GraniteCrete must not be allowed to dry prior to final compaction.** The following are suggestions for repair of raveled materials:
 1. For large loose/raveled areas, a minimum of 2 inches of GraniteCrete can be saw-cut at agreed length, removed, and re-installed. Repeat the installation steps.
 2. In areas that collapse/fail due to equipment weight, re-form and re-install with original materials as per specifications.

3. Minor Crack Repair - With Sand Mixture:

Use a fine mesh sand - typically sold as “playground sand” or “play sand.” Mix the sand and GraniteCrete together as though the sand is decomposed granite (use the same ratio as was used for the GraniteCrete installation). This will create a dry mix, similar to polymeric sand. Apply the sand mixture down into the crack using the appropriate tool (trowel, shovel, broom, et cetera). Fill the crack $\frac{3}{4}$ of the way to the top grade. Usually at the point post-installation that cracks begin to be seen, you will also see loose material on top. Sweep that loose material into the remaining $\frac{1}{4}$ top of the void. Try to not leave any sand mixture/patch material on the top of the installation - you want it as clean as possible; you can use a blower to help remove the sand mixture. Once the surface is clear of patch material, carefully wet the material. The cracks should virtually disappear.