Peralta Community College District

Project Manual for:

Bid No. 12-13/07

Merritt College
Building “A” Heating Upgrade

Located at:
Merritt College
12500 Campus Drive
Oakland, CA 94619

September 6, 2012

Peralta Community College District
Department of General Services
Johnnie Fudge, Facilities Project Manager
(510) 377-0748

Architect / Engineer:
Salas O’Brien
305 South 11th St.
San Jose, California 95112
Monterey- Oakland- Sacramento- Long Beach- Bloomington

Bid No.: 12-13/ 08
Advertisement Date: 10/25/12
Bid Date: 11/21/2012
(Project No.: 2741e)
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ARTICLE 1 – INVITATION TO BID

1.01 Notice Inviting Bids: Owner will receive sealed Bids at Peralta Community College District, Purchasing Department, 501 5th Avenue, Oakland, CA 94606 until **2 p.m. on Wednesday, November 21, 2012** for the following public work:

Peralta Community College District
Merritt College
Building – A Heating Upgrade Project

12500 Campus Drive
Oakland, CA 94619

1.02 Project Description: Awning fabrication and Installation at Building "A" Work shall be completed within **90 calendar Days** from the date when Contract Time commences to run.

Procurement of Bidding Documents: Bidding Documents contain the full description of the Work. Bidders may obtain Bidding Documents from

(Available for purchase)
ARC Northern California
1700 Jefferson Street,
Oakland, CA 94612
Tel. (510) 287-5485 Fax (510) 444-1264
www.e-arc.com
Email: oakland@e-arc.com
Attn: Christina

Note: The Bid and Contract Documents are available at ARC Northern California for non-refundable payment of the cost of reprographics and shipping per set. Payment shall be made to ARC Northern California.

(Available for viewing)

Department of General Services
Plan Room
Peralta Community College District
333 East 8th Street, Oakland, CA 94606

A copy of Contract Documents may be obtained online through the Peralta Website.

Website: www.peralta.edu
Click “Service Centers”, then click “Purchasing” and then click “List of Current RFPs/Bids” to download the bid packet.
1.03 **Bid shall be received** at 501 5th Street. For information pertaining to the Bidding Documents, please contact David Bui, District Buyer, (510) 466-7255.

   a. **Bid shall be received and reviewed at:**

   Peralta Community College District  
   Purchasing Department  
   Attn: **David Imada**  
   501 5th Avenue  
   Oakland, CA 94606  
   (510) 466-7225

1.04 **Instructions:** Bidders shall refer to Document 00 2000 Instructions to Bidders for required documents and items to be submitted in a sealed envelope for deposit into the Bid Box, located at 501 5th Avenue no later than the time and date set forth in Paragraph 1 above.

1.05 **Mandatory Pre-Bid Site Visit:** Owner will conduct a Mandatory Pre-Bid Conference and Site Visit at 10:00am on **Wednesday, November 8, 2012** at **Building A courtyard, 12500 Campus Drive, Oakland, CA 94619.** The Pre-Bid Conference and Site Visit will last approximately two hours.

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.

**ARTICLE 2 – LEGAL REQUIREMENTS**

2.01 **Required Contractor’s License(s):** A California “A or B” contractor’s license is required to bid this contract. Joint ventures must secure a joint venture license prior to award of this

2.02 **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.

2.03 **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.

**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 1000 (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 conduct Pre-Bid Conference and Site Visit at the date, time and location indicated in Document 00 1000 (Notice Inviting Bids), to consider such matters as Bidders may request and perform a Site Visit immediately following, at the Site. Bidders must attend Pre-Bid Conference and Site Visit and sign an attendance roster as a condition to bidding.
   B. The Site Visit may be the Bidders’ only opportunity to investigate conditions at the Site. Other Pre-Bid Site Visits may be scheduled at Owner’s sole discretion, depending on staff availability.

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.
   B. Bidders may examine any available existing conditions information (e.g., record documents, specifications, studies, drawings of previous work), as well as applicable environmental assessment information (if any) regarding the Project, at the District plan room, 333 East 8th Street. Contact Johnnie Fudge, (510) 377-0748 to schedule an appointment.

1.03 Bidder Questions and Answers
   A. Bidders must direct all questions about the meaning or intent of Bidding Documents to Owner in writing, via email jfudge@peralta.edu. 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 4000 (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 1000 (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 2000.
2.02 Bid Submission:
A. Owner will receive Bids in opaque sealed 10 inch x 13 inch envelopes, containing the required items described herein.
B. Bidders should mark their Bid envelopes using the name, address, identifying information and contract number, indicated in Document 00 1000 (Notice Inviting Bids).

2.03 Required Contents of “Envelope” – Bid Submittals”
A. Document 00 4000 (Bid Form). Bidders must submit Bids on Document 00 4000 (Bid Form) in accordance with the provisions of Document 00 4000. 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 (Subcontractor 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.

ARTICLE 3 - BID OPENING AND EVALUATION

3.01 Determination of Apparent Low Bidder
A. Owner will open each Bidders’ Envelope at the time and place indicated in Document 00 1000 (Notice Inviting Bids), initially evaluate them for responsiveness, and determine an Apparent Low Bidder as specified herein.
B. Apparent Low Bid will be determined solely on the total amount of all Bid items based on terms contained in Document 00 1000 (Notice Inviting Bids) and Document 00 4000 (Bid Form). All Bidders are required to submit Bids on all Bid items (including any alternates).
C. 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 4000 (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.

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 1000 (Notice Inviting Bids) must be submitted in writing to Purchasing Department address listed below, before 3:30 P.M. of the fifth Business Day following opening of the Bidders’ envelopes.

Peralta Community College District
Purchasing Department
Attn: David Imada
501 5th Avenue
Oakland, CA 94606
(510) 466-7225
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 sixty (60) 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 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 three originals.
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.
E. Insurance certificates and endorsements required by Document 00 7316 (Supplementary Conditions—Insurance): Submit one original set.
5.03 Failure to Execute and Deliver Documents:
   A. If Bidder to whom Contract is awarded, within the period described in this Document 00 2000, 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 1000 (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 § 3247.

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.

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 2000, only by written request for the withdrawal of Bid filed with Owner at Purchasing Department address listed below Bidder or its duly authorized representative shall execute request to withdraw Bid.

   Peralta Community College District
   Purchasing Department
   Attn: David Imada
   501 5th Avenue
   Oakland, CA 94606
   (510) 466-7225
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 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 are described in the Bidding Documents.

6.08 Definitions:

A. All abbreviations and definitions of terms used in this Document 00 2000 are set forth in Document 00 7200 (General Conditions) and Section 01 4200 (References and Definitions).

END OF DOCUMENT
TO THE BOARD OF TRUSTEES OF THE PERALTA COMMUNITY COLLEGE DISTRICT
THIS BID IS SUBMITTED BY:

____________________________________________________________________________________
(Firm/Company Name)

Re: Merritt College Building A Heating Upgrade Project at 12500 campus Drive, Project No.2741e, Bid No. 12-13/07

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with THE PERALTA COMMUNITY COLLEGE 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.

2. Bidder accepts all of the terms and conditions of the Contract Documents, Document 00 1000 (Notice Inviting Bids), and Document 00 2000 (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.

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

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<th>Addendum Number</th>
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<th>Signature of Bidder</th>
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4. 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:
All Bid items, including lump sums and unit prices, 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.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT</th>
<th>UNIT PRICE</th>
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<td>TOTAL BID PRICE</td>
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Total Bid Price: ____________________________________________ (Words)

5. Subcontractors for work included in all Bid items are listed on Document 00 4330 (Subcontractors List) submitted herewith.

6. The undersigned Bidder understands that Owner reserves the right to reject this Bid.

7. 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 4000 or at any other time thereafter before it is withdrawn, the undersigned Bidder will execute and deliver the documents required by Document 00 2000 (Instructions to Bidders) within the times specified therein.

8. Notice of Award or request for additional information may be addressed to the undersigned Bidder at the address set forth below.

9. 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 2000 (Instructions to Bidders), in the amount of ten percent (10%) of the Total Bid Price and made payable to THE PERALTA COMMUNITY COLLEGE DISTRICT.

10. 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).
11. 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.

12. 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)

__________________________________________
(Name/Title)
Officers Authorized to Sign Contracts

__________________________________________
(Name/Title)

__________________________________________
(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

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, the Peralta Community College District, 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, the said Principal is submitting a Bid for Owner Project No. 2314, Bid No. 12-13/ 08 , Laney Awning Project at 900 Fallon Street.

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, Guarantee, and all other endorsements, forms, and documents required under Document 00 2000 (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

INSTRUCTIONS

In order to register to undertake work for Owner, Bidder must:

1) Fill out this registration form completely; do not leave blanks.
2) Provide certificates of insurance or a letter evidencing coverage complying with Document 00 4513 (Statement of Qualifications).

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 [Supplementary Conditions – Insurance]):**

Carrier: 

Address: 

Phone and Fax: 

Policy Number: 

Policy Limits: $ 

A.M. Best Rating: 

**Professional Liability (if applicable, as required by Document 00 7316 [Supplementary Conditions – Insurance]):**

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 [Supplementary Conditions – Insurance]):**

Carrier: 

Bidder Registration Form  
MC Heating Upgrade Building A Project Document 00 4314 Bidder Registration Form
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
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 200 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
Subcontractors List

Bidder submits the following information as to the subcontractors Bidder intends to employ if awarded the Contract.

<table>
<thead>
<tr>
<th>Full Name of Subcontractor and Address of Mill or Shop</th>
<th>Description of Work: Reference To Bid Items</th>
<th>Subcontractor’s License No.</th>
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(Bidder to attach additional sheets if necessary)

END OF DOCUMENT
DOCUMENT 00 4513

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 1104.

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.

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 Questionnaire. Bidder shall include a completed Statement of Qualification Questionnaire in the form attached to this Document 00 4513 as Attachment "A".

B. Resumes of Proposed Key Personnel. Bidder shall provide a resume for each named Key Personnel of Bidder, 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 consort 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 oriole 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, 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 bold), 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
ATTACHMENT “A” – Statement of Qualification Questionnaire

Bidders shall complete the entire Statement of Qualification Questionnaire and submit it in accordance with Document 00 2000 (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.

CONTACT INFORMATION

Company Name: ____________________________________________

Owner of Company: ____________________________________________

Contact Person: ____________________________________________

Address: ____________________________________________

Phone: ___________ Fax: ___________

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 $1,000,000 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 ___

Bidder may be disqualified if any answer to questions 1, 2, or 6 is No. Bidder may be disqualified if any answer to questions 3, 4, or 5 is Yes.

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?
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. Has Bidder had any claims, litigation, or disputes ending in mediation or arbitration, or termination for cause associated with any project in the past 5 years? If yes, attach description of each instance including details of total claim amount, settlement amount, and Owner’s name and phone number.
   Yes _____ No _____

(BONDING)

9. 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? ______________________________________________
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 1.01B.

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Construction Cost ($</th>
<th>Year Completed</th>
<th>Name of Project Superintendent</th>
<th>Name of Project Manager</th>
<th>Name of Project Scheduler</th>
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</table>

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 1.01B. 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 D: 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
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 ____________________________, 201__

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
NON-COLLUSION AFFIDAVIT
PUBLIC CONTRACT CODE §7106

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

STATE OF CALIFORNIA  )
COUNTY OF ________________ ) ss.

_________________________________________________________________, 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 ____________________________, 201__

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
DOCUMENT 00 4546

BIDDER CERTIFICATIONS

TO BE EXECUTED BY ALL BIDDERS AND SUBMITTED WITH BID

The undersigned Bidder certifies to Owner as set forth in sections 1 through 5 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 Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this Contract.

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 Section 1773 of the California Labor Code, which requires the payment of prevailing wage on public projects. Also, that the Contractor and any subcontractors under the Contractor shall comply with California Labor Code §1776, regarding wage records, and with California Labor Code §1777.5, regarding the employment and training of apprentices. It is the Contractor's responsibility 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 Sections 1777.1 and 1777.7 of the California Labor Code and Contractor and Subcontractors and am eligible to bid and work on public works projects.

5. 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 the County will be relying on this certification if it awards the Contract to the undersigned.

BIDDER:

________________________________________
(Name of Bidder)

Date: ____________________, [201 ]

By:____________________________________
(Signature)

Name:___________________________________
(Print Name)

Its:_____________________________________
(Title)

END OF DOCUMENT
DOCUMENT 00 5100
NOTICE OF AWARD

Dated _____________________________

TO: _________________________________________

ADDRESS: ______________________________________

CONTRACT NO.: ______________________________

CONTRACT FOR: Peralta Community College District,
Merritt College Building A Heating Upgrade Project at 12500 Campus Drive,
Oakland, CA 94619

The Contract Sum of your contract is ______________________________________________________
_____________________________________________________________ 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, 201__].
   a. Deliver to Owner [four] 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 three originals of Document 00 6113.13 (Construction Performance
      Bond), executed by you and your surety.
   c. Deliver to Owner three 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 four original copies of Document 00 6536 (Guaranty), each executed by
      you.

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) with 4 copies
   of the Project Manual (including Specifications and Drawings) and 4 sets of full-size Drawings.

5. Before you may start any Work at the Site, you must attend a preconstruction conference. The
   preconstruction conference may be arranged through Johnnie Fudge, (510) 377-0748. Questions
   regarding bonds and insurance may be directed to Carol Reil, (510) 466-7339. All other inquiries
   regarding the Project should be directed to Johnnie Fudge, (510) 377-0748.
6. Upon commencement of the Work, you and each of your Subcontractors shall certify and provide Owner copies of payroll records on forms provided by the Division of Labor Standards Enforcement, in accordance with California Labor Code §1776.

OWNER

BY: ____________________________________
    (Title)

______________________________________
    (Print Name)

ATTEST: __________________________________
        Secretary

                                ______________________________
                                (Print Name)

AUTHORIZED BY [CITY / COUNTY / DISTRICT] RESOLUTION:

NO: _____________________________________

ADOPTED: ________________________________, [201__]

[Copy of Resolution Attached]

END OF DOCUMENT
DOCUMENT 00 5200

AGREEMENT

THIS AGREEMENT, dated this [date] day of [Month], [201__], by and between [Name of Contractor] whose place of business is located at [Address of Contractor] (“Contractor”), and [Insert Name of Owner] (“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:

Project No. 2741e, Bid No. 12-13/07

Merritt College Building A Heating Upgrades
at
12500 Campus Drive
Oakland, CA 94619

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.

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).

ARTICLE 2 - COMMENCEMENT AND COMPLETION OF WORK

2.01 Commencement of Work

A. Contractor shall commence Work on the date established in the Notice to Proceed.

B. Owner reserves the right to modify or alter the Commencement Date.

2.02 Completion of Work

A. Contractor shall achieve Substantial Completion of the entire Work within [_____] Days from the Commencement Date.

B. Contractor shall achieve Final Completion of the entire Work [_______] Days from the Commencement Date.

ARTICLE 3 - PROJECT REPRESENTATIVES

3.01 Owner's Project Manager

A. Owner has designated Johnnie Fudge as its Project Manager to act as Owner’s Representative in all matters relating to the Contract Documents.

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.

3.02 Contractor’s Project Manager
A. Contractor has designated [blank or other] as its Project Manager to act as Contractor’s Representative in all matters relating to the Contract Documents.

3.03 Architect/Engineer
A. WLC Architects Inc. furnished the Plans and Specifications and shall have the rights assigned to Architect/Engineer in the Contract Documents.
B. Architect/Engineer has designated [blank] as its project manager, to act as its representative for receiving and making communications authorized under the Contract Documents.

ARTICLE 4 - LIQUIDATED DAMAGES FOR DELAY IN COMPLETION OF WORK

4.01 Liquidated Damage Amounts
A. As liquidated damages for delay Contractor shall pay Owner ______________ dollars ($_______,00) for each Day that expires after the time specified herein for Contractor to achieve Substantial Completion of the entire Work, until achieved.
B. As liquidated damages for delay Contractor shall pay Owner ______________ dollars ($_______,00) for each Day that expires after the time specified herein for Contractor to achieve Final Completion of the entire Work, until achieved.

4.02 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 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 6536 Guaranty
Document 00 6530 Release of Claims
Document 00 6325 Substitution Request Form
Document 00 6290 Escrow Agreement for Security Deposits
Document 00 7200 General Conditions
Document 00 7201 Supplementary Conditions
Document 00 7202 Supplemental Conditions – Hazardous Materials
Document 00 7300 Labor Compliance Program [If Required by Funding Source]
Document 00 7316 Supplementary Conditions – Insurance
Document 00 7380 Apprenticeship Programs
Document 00 9113 Addenda
Specifications

Drawings listed in Drawing No. ______-______ OR [Maps, Drawings and Sketches listed in Document 00 0115 (if any)]

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).
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 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.

6.04 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, are deemed included in the Contract Documents and on file at Owner’s Office, and shall be made available to any interested party on request. Pursuant to California Labor Code §§ 1860 and 1861, in accordance with the provisions of Section 3700 of the Labor Code, every contractor will be required to secure the payment of compensation to his employees. Contractor represents that it is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers’ compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor shall comply with such provisions before commencing the performance of the Work of the Contract Documents.

6.05 This Agreement and the Contract Documents shall be deemed to have been entered into in the County of [____], 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 County of [____].

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

CONTRACTOR: [CONTRACTOR’S NAME]

By: ______________________________  By: ______________________________
    (Signature)                  (Signature)

Its: _______________________________  Its: ________________________________
Title (If Corporation: Chairman, President or Vice President)  Title (If Corporation: Secretary, Assistant Secretary, Chief Financial Officer or Assistant Treasurer)

OWNER: Peralta Community College District

By: ______________________________
    (Signature)

________________________________
    (Print Name)
(Title)

Attest: ________________________________
Secretary

______________________________
(Print Name)

APPROVED AS TO FORM AND LEGALITY
THIS __ DAY OF _____, [201__]

By: ________________________________
   Attorney for Owner

______________________________
(Print Name)

RESOLUTION NO. _______________________

END OF DOCUMENT
DOCUMENT 00 6113.13

CONSTRUCTION PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

1.01 THAT WHEREAS, The Peralta Community College District ("Owner"), a public agency of the State of California, has awarded to (Name of Contractor) as Principal Contract Number _______________ dated the ______ day of ____________, 20____ (the "Contract"), titled THE ______________________ PROJECT in the amount of $_______ ______, which Contract is by this reference made a part hereof, for the work of the following Contract:

(Describe Contract Work)

1.02 AND WHEREAS, Principal is required to furnish a bond in connection with the Contract, guaranteeing the faithful performance thereof;

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 to be paid to Owner or its successors and assigns; 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 heirs, executors, administrators, successors, or assigns approved by Owner, shall promptly and faithfully perform the covenants, conditions, and agreements of the Contract during the original term and any extensions thereof as may be granted by Owner, with or without notice to Surety, and during the period of any guarantees or warranties required under the Contract, and shall also promptly and faithfully perform all the covenants, conditions, and agreements of any alteration of the Contract made as therein provided, notice of which alterations to Surety being hereby waived, on Principal's part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify, defend, protect, and hold harmless Owner as stipulated in the Contract, then this obligation shall become and be null and void; otherwise it shall be and remain in full force and effect.

1.05 No extension of time, change, alteration, modification, or addition to the Contract, or of the work required thereunder, or work or actions by Owner to mitigate the damages resulting from any breach in performance by Contractor, shall release or exonerate Surety on this bond or in any way affect the obligation of this bond; and Surety does hereby waive notice of any such extension of time, change, alteration, modification, or addition.

1.06 Whenever Principal shall be and declared by Owner in default under the Contract, Surety shall promptly remedy the default, or shall promptly, and in no event later than thirty (30) days from notice:

A. Undertake through its agents or independent contractors (but having qualifications and experience reasonably acceptable to Owner), to complete the Contract in accordance with its terms and conditions and to pay and perform all obligations of Principal under the Contract, including without limitation, all obligations with respect to warranties, guarantees, indemnities, and the payment of liquidated damages; or

B. Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and, upon determination by Owner of the lowest responsible bidder, arrange for a contract between
such bidder and Owner and make available as work progresses (even though there should be a
default or a succession of defaults under the contract or contracts of completion arranged under
this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract
Sum, and to pay and perform all obligations of Principal under the Contract, including, without
limitation, all obligations with respect to warranties, guarantees, and the payment of liquidated
damages; but, in any event, Surety’s total obligations hereunder shall not exceed the amount set
forth in the third paragraph hereof. The term “balance of the Contract Sum,” as used in this
paragraph, shall mean the total amount payable by Owner to the Principal under the Contract and
any amendments thereto, less the amount paid by Owner to Principal.

1.07 Surety’s obligations hereunder are independent of the obligations of any other surety for the
performance of the 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 others.

1.08 Surety may not use Contractor to complete the Contract absent Owner’s Consent. Owner shall
have the right in its sole discretion to continue the work of the Contract, as necessary following a
default and/or termination, as necessary to prevent risks of personal injury, property damage or
delay to the Project.

1.09 No right of action shall accrue on this bond to or for the use of any person or corporation other
than Owner or its successors or assigns.

1.10 Surety shall join in any proceedings brought under the Contract upon Owner’s demand, and shall
be bound by any judgment.

1.11 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

Company: (Corp. Seal)
Signature: ____________________________
Name and Title: ____________________________
Address: ____________________________

SURETY

Company: (Corp. Seal)
Signature: ____________________________
Name and Title: ____________________________
Address: ____________________________

END OF DOCUMENT
DOCUMENT 00620

CONSTRUCTION LABOR AND MATERIAL PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS:

1.01 THAT WHEREAS, (Name of Owner) (“Owner”) has awarded to (Name of Contractor) as Principal Contract Number dated the day of , 20 (the “Contract”), titled THE PROJECT in the amount of $, which Contract is by this reference made a part hereof, for the work of the following Contract:

(Describe Contract Work)

A. 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;

B. 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.

C. 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 §3181, 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.

D. This bond shall inure to the benefit of any of the persons named in California Civil Code §3181, as to give a right of action to such persons or their assign in any suit brought upon this bond. The intent of this bond is to comply with the California Mechanic’s Lien Law.

E. 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.

F. 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.

G. 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

Company:  (Corp. Seal)

Signature

Name

Title

Street Address

City, State, Zip Code

SURETY

Company:  (Corp. Seal)

Signature

Name

Title

Street Address

City, State, Zip Code

END OF DOCUMENT
DOCUMENT 00 6290

ESCROW AGREEMENT FOR SECURITY DEPOSIT IN LIEU OF RETENTION

California Public Contract Code §22300

THIS ESCROW AGREEMENT ("Escrow Agreement") is made and entered into this __________ day of __________________________, 201__, by and between the Peralta Community College District, ("Owner"), whose address is 333 East 8th Street, Oakland, CA 94606, (Name of Contractor) ___________ ("Contractor"), whose place of business is located at (Contractor’s Address) __________, and [ ] Owner, as escrow agent OR [ ] (Name of Bank) ____________, a state or federally chartered bank in the State of California, whose place of business is located at ___________ ("Escrow Agent").

For the consideration hereinafter set forth, Owner, Contractor and Escrow Agent agree as follows:

1. Pursuant to California Public Contract Code §22300, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Owner pursuant to Contract Number __________ entered into between Owner and Contractor for The Merritt College Building A Heating Upgrade Project located at 12500 Campus Drive in the amount of $______________ dated ____________, 201__ (the "Contract"). Alternatively, on written request of Contractor, Owner shall make payments of the retention earnings directly to Escrow Agent. When Contractor deposits the securities as a substitute for Contract earnings, Escrow Agent shall notify Owner within ten Days of the deposit. The market value of the securities at the time of substitution shall be at least equal to the cash amount then required to be withheld as retention under terms of Contract between Owner and Contractor. Securities shall be held in name of ________________, and shall designate Contractor as the beneficial owner.

2. Owner shall make progress payments to Contractor for those funds which otherwise would be withheld from progress payments pursuant to Contract provisions, provided that Escrow Agent holds securities in form and amount specified in Paragraph 1 of this Document 00 6290.

3. When Owner makes payment(s) of retention earned directly to Escrow Agent, Escrow Agent shall hold said payment(s) for the benefit of Contractor until the time that the escrow created under this Escrow Agreement is terminated. Contractor may direct the investment of the payments into securities. All terms and conditions of this Escrow Agreement and the rights and responsibilities of the parties shall be equally applicable and binding when Owner pays Escrow Agent directly.

4. Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account, and all expenses of Owner. Such expenses and payment terms shall be determined by Owner, Contractor, and Escrow Agent.

5. Interest earned on securities or money market accounts held in escrow and all interest earned on that interest shall be for sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to Owner.

6. Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from Owner to Escrow Agent that Owner consents to withdrawal of amount sought to be withdrawn by Contractor.

7. Owner shall have the right to draw upon the securities in event of default by Contractor. Upon seven Days written notice to Escrow Agent from Owner of the default, Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by Owner.
8. Upon receipt of written notification from Owner certifying that the Contract is final and complete, and that Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.

9. Escrow Agent shall rely on written notifications from Owner and Contractor pursuant to Paragraphs 5 through 8, inclusive, of this Document 00 6290 and Owner and Contractor shall hold Escrow Agent harmless from Escrow Agent’s release and disbursement of securities and interest as set forth.

10. Names of persons who are authorized to give written notice or to receive written notice on behalf of Owner and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

**ON BEHALF OF OWNER:**

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Signature</th>
<th>Address</th>
<th>City/State/Zip Code</th>
</tr>
</thead>
</table>

**ON BEHALF OF CONTRACTOR:**

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Signature</th>
<th>Address</th>
<th>City/State/Zip Code</th>
</tr>
</thead>
</table>

**ON BEHALF OF ESCROW AGENT:**

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Signature</th>
<th>Address</th>
<th>City/State/Zip Code</th>
</tr>
</thead>
</table>

IN WITNESS WHEREOF, the parties have executed this Escrow Agreement by their proper officers on the date first set forth above.

**OWNER**

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Signature</th>
</tr>
</thead>
</table>

**CONTRACTOR**

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Signature</th>
</tr>
</thead>
</table>
At the time the Escrow Account is opened, Owner and Contractor shall deliver to Escrow Agent a fully executed counterpart of this Document 00 6290.

END OF DOCUMENT
DOCUMENT 00660

SUBSTITUTION REQUEST FORM

To: [___________, Peralta Community College District] [(510) ___-____]

Project: Peralta Community College District [Project Name] at [Project Address]

Contractor: 

Subcontractor/Supplier: 

Drawing Sheet Reference/Detail No: 

The undersigned Bidder submits for consideration the following equipment instead of the specified item for the above Project:

<table>
<thead>
<tr>
<th>Section</th>
<th>Paragraph</th>
<th>Specified Item</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Proposed Substitution:

The undersigned encloses the information required herein. If this Document 00660 is being submitted by a Bidder wishing to use “equal” item(s) as provided in Document 00200 (Instructions to Bidders), the undersigned Bidder must also enclose the technical information (other than cost) otherwise required for a post-Award of Contract Request for Substitution (“RFS”) under Section 01600 (Product Requirements). However, if this Document 00660 is being submitted under provisions of Contract Documents after Award of Contract, the undersigned Contractor must include all information required under Section 01600 (Product Requirements).

The undersigned has (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:

A. Does the substitution affect dimensions shown on Drawings?

B. Are the manufacturer’s guarantees and warranties on the proposed substitution items identical to those on the specified items? If there are differences, please specify each and every difference in detail.

C. What effect does the substitution have on other contractors, trades, or suppliers?
D. What are the differences between the proposed substitution and the specified item? If proposed substitution has a color or pattern, provide a color board showing proposed substitution in relation to the other adjacent colors and patterns.

E. Will granting the requested substitution cause any schedule delay? (If yes, please explain)

The undersigned Bidder certifies that the function, appearance, and quality of the proposed substitution are equivalent or superior to those of the specified item.

Submitted by:

Bidder/Contractor [note applicable]

Signature

For Use by PCCD:

_____ Accepted  _____ Accepted as Noted

_____ Not Accepted  _____ Received Too Late

By: PCCD’s Representative

Date: ____________________________

Address

City/State/Zip

Telephone: ____________________________

Date: ____________________________

Remarks: ____________________________

END OF DOCUMENT
AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS

THIS AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS ("Agreement and Release"), made and entered into this [date] day of [Month], [200__], by and between the Peralta Community College District ("District"), and [Name of Contractor] ("Contractor"), whose place of business is at [Address of Contractor].

RECATALS

A. The District and Contractor entered into Contract Number [insert number] (the "Contract") for construction of District [Project Name] located at [School Street Address], [City], California.

B. The Work under the Contract has been completed.

AGREEMENT

NOW THEREFORE, it is mutually agreed between the District 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, the District 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 the District as of the date of such payment.

3. Contractor acknowledges and hereby agrees that there are no unresolved or outstanding claims in dispute against the District arising from the Contract, except for the claims described in Paragraph 4 of this Document 00650. 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 the District, 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 00650. Nothing in this Agreement and Release shall limit or modify Contractor’s continuing obligations described in Paragraph 6 of this Document 00650.

4. The following claims submitted under Document 00700 (General Conditions), Article 12, are disputed (hereinafter, the “Disputed Claims”) and are specifically excluded from the operation of this Agreement and Release.
5. Consistent with California Public Contract Code §7100, Contractor hereby agrees that, in consideration of the payment set forth in Paragraph 2 of this Document 00650, Contractor hereby releases and forever discharges the District, 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 the District, any of the District’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 00650.

8. Contractor hereby waives the provisions of California Civil Code §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 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, the District, 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.

---

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

<table>
<thead>
<tr>
<th>CLAIM NO.</th>
<th>DATE SUBMITTED</th>
<th>DESCRIPTION OF CLAIM</th>
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11. All rights of the District 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 ***

PERALTA COMMUNITY COLLEGE DISTRICT

By: __________________________________________
    Signature

Name: _______________________________________
    Print

Its: _________________________________________
    Title

ATTEST:

___________________________________________
    Secretary

___________________________________________
    Print

[CONTRACTOR]

By: __________________________________________
    Signature

Name: _______________________________________
    Print

Its: _________________________________________
    Title

[CONTRACTOR]

By: __________________________________________
    Signature
Name: ________________________________________________

Print

Its: ___________________________________________________

Title

REVIEWED AS TO FORM:

Dated: ___________________________, [200__]

By: ______________________________________________________

Counsel for the District

Name: ________________________________________________

Print

END OF DOCUMENT
DOCUMENT 00 6536

GUARANTY

TO: The Peralta Community College District ("Owner"), for construction of THE Merritt College Building A Heating Upgrades Project located at 12500 Campus Drive, Oakland, CA 94619.

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

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.

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.

If within one year after the date of Final Acceptance of the Work completed, or such longer period of time as may be prescribed by laws or regulations, or by the terms of Contract Documents, 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 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.

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.

All abbreviations and definitions of terms used in this Agreement shall have the meanings set forth in the Contract Documents.

The foregoing Guaranty is in addition to any other warranties of Contractor contained in the Contract Documents, and not in lieu of, any and all other liability imposed on Contractor under the Contract Documents and at law with respect to Contractor’s duties, obligations, and performance under the Contract Documents. In the event of any conflict or inconsistency between the terms of this Guaranty and any warranty or obligation of the Contractor under the Contract Documents or at law, such inconsistency or conflict shall be resolved in favor of the higher level of obligation of the Contractor.

Date: ___________________________, 20____

Contractor's name

By: ___________________________

Signature

Guaranty

MC Heating Upgrades Building A Project Document 00 6536 Guaranty
# GENERAL CONDITIONS

Merritt College Building A Heating Upgrade Project

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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 terms and conditions referenced therein;
      3. Supplementary General Conditions (Document 00 7201 et seq), if included;
      4. General Conditions (Document 00 7200);
      5. Division 1 Specifications, if included;
      6. Drawings and Technical Specifications (Division 2 and above);
      7. Written numbers over figures, unless obviously incorrect;
      8. Figured dimensions over scaled dimensions;
      9. 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, California Public Contract Code §§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 (1) to be bound to the terms of Contract Documents and (2) 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 the materials to be used or Work to be performed under this Paragraph ten Business Days prior to furnishing such materials or performing such Work.

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

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 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
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 Architect/Engineer's Observation Of Work

A. Owner may engage an Architect/Engineer, an independent consultant or Project Manager (collectively for purposes of this Paragraph, "Project Manager/Architect") to assist in administering the Work. If so engaged, Project Manager/Architect 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. Project Manager/Architect will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences or procedures of construction, or for safety precautions and programs in connection with Work. Project Manager/Architect 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. Project Manager/Architect 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. Project Manager/Architect 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, Project Manager/Architect may recommend to Owner that it disapproves or rejects Work that Project Manager/Architect 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. Owner will also have
authority to require special inspection or testing of Work, whether or not the Work is fabricated, installed or completed.

D. Project Manager/Architect may conduct inspections to recommend to Owner the dates that Contractor has achieved Substantial Completion and Final Acceptance, and will receive and forward to Owner for review written warranties and related documents required by Contract Documents.

7.04 Owner's And Architect/Engineer's Exercise Of Contract Responsibilities

A. Owner, Project Manager, Architect/Engineer 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 and its agents, consultants, and employees 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. 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 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 but not limited to 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 Section 8546.7 of the California Government Code. 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 but not limited to, 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 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 Guarantees: Any guarantee 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, but not limited to, 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. 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 the correction or removal. If Contractor disagrees with Owner's calculations, it may make a
claim as provided in Article 12 of this Document 00 7200. Owner’s rights under this Paragraph shall be in addition to any other rights it may have under the Contract Documents or by law.

B. 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 order Contractor to replace any such Defective Work, or stop any portion of Work to permit Owner (at Contractor’s expense) to replace such Defective Work. These Owner rights 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.

9.04 Acceptance And Correction Of Defective Work By Owner

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.

B. Owner may correct and remedy deficiency 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 Project Manager/Architect’s consultants’ access to the Site to enable Owner to exercise the rights and remedies under this Paragraph. Contractor shall be responsible for all claims, costs, losses, damages, expenses and liabilities incurred or sustained by Owner in exercising such rights and remedies. A Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to 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 and damages caused by or resulting from the correction or removal. If Contractor disagrees with Owner’s calculations, Contractor may make a claim as provided in Article 12.

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, but not limited to, 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. 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.

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 provision 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.

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 but not limited to 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.

C. **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.

### 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 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 110% of the average number of rain days expected 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/Climsum.html), 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 .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.

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 (including but not limited to other Articles 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: (1) a narrative of pertinent events; (2) citation to contract provisions; (3) theory of entitlement; (4) complete pricing of all cost impacts; (5) a time impact analysis of all time delays that shows actual time impact on the critical path; (6) documentation supporting items 1 through 5; 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 Section 930.2 of the California Government Code, shall constitute a condition precedent to submission of a valid Government Code Claim under the California 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 12.3 above of the claims asserted. 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 3000 (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 3000 (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, but not limited to, 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, but not limited to, 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 California Government Code §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 but not limited to, 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 but not limited to claims, indemnities, or setoffs.

D. Under no circumstances may Contractor recover legal costs of any nature, nor may Contract 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 but not limited to 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 (1) Project Manager or any Owner’s representative and Contractor; (2) Owner and/or its Representatives and a Subcontractor, sub-Subcontractor, or supplier of any Project labor, materials, or equipment; or (3) between any persons or entities other than Owner and Contractor.

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, but not limited to, 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 2000 (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 but not limited to 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, BUT NOT LIMITED TO, 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.

ARTICLE 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.

15.02 Protection Of Work, Persons, And Property
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.

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.

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.

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 and/or Owner 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

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

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
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
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 Section 12940 of the California Government Code. Every contractor for public works violating the provisions of Section 1735 of the California Labor Code is subject to all the penalties imposed for a violation of Chapter 1, Part 7, Division 2 of the California Labor Code.

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 (1) work of a similar character in the locality in which the Work is performed and (2) 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, Fifty Dollars ($50.00) for each laborer, workman, 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, workman 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 California Labor Code. The sums and amounts which shall be forfeited pursuant to this Paragraph and the terms of the California Labor Code shall be withheld and retained from payments due to Contractor under the Contract Documents, pursuant to this Document 00 7200 and the California 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 California Labor Code §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 California Labor Code.

D. Contractor stipulates that it shall comply with all applicable wage and hour laws, including without limitation, California Labor Code §§ 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 §§ 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 workman 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 §§ 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.

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 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 $25.00 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. Contractor shall also deliver certified payrolls to Owner with each Application for Payment as set forth above in this Document 00 7200 (General Conditions).

15.08 Environmental Controls

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 California Government Code §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.

15.09 Shoring Safety Plan

A. Any conflict between this Paragraph and Division 2 of the 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 California Labor Code §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 7300

LABOR COMPLIANCE PROGRAM

Contractor and Subcontractors are responsible for complying with each and every applicable prevailing wage law and the Owner’s Labor Compliance Program.

ARTICLE 1 - LABOR COMPLIANCE PROGRAM

1.01 In accordance with California Labor Code §1771.7, Owner has established a Labor Compliance Program. This Labor Compliance Program is applicable to construction projects using funds from the Kindergarten-University Public Education Facilities Bond Acts of 2002, 2004 or 2006.

1.02 Owner received initial approval for its Labor Compliance Program from the California Department of Industrial Relations on [insert date].

1.03 All Contractors and Subcontractors providing workers or performing work on the Project shall comply with the Labor Compliance Program.

1.04 All Contractors and Subcontractors providing workers or performing work on the Project shall comply with all applicable wage and hour laws.

ARTICLE 2 - CONTACT INFORMATION

2.01 Owner’s Labor Compliance Program is administered by Padilla & Associates Inc., located at 1050 Marina Village Parkway, Suite 101-A, Alameda, CA 94501. (Compliance Administrator) The telephone number for the Compliance Administrator is Alex Dobrin, (310) 279-8830. All inquiries, questions or requests for assistance with regard to Owner’s Labor Compliance Program should be directed to the Compliance Administrator unless Owner directs otherwise.

ARTICLE 3 - WAGE RATES

3.01 Contractor shall post the applicable prevailing wage rates at each Project construction site.

ARTICLE 4 - NO DUTY TO CONTRACTOR OR SUBCONTRACTOR

4.01 The duty of Owner to carry out its Labor Compliance Program runs solely to the Director of the California Department of Industrial Relations and not to any worker, contractor, subcontractor or other party.

ARTICLE 5 - MANDATORY PRE-JOB CONFERENCE

5.01 Owner shall conduct a Pre-Job Conference at 10am on Tuesday, November 6, 2012 at Laney College Building L, 900 Fallon St., Oakland, CA 94607 to discuss federal and state labor law requirements applicable to the Project.

5.02 All Contractors and Subcontractors must attend this Mandatory Pre-Job Conference and sign an attendance roster as a condition to participating in the Project.

ARTICLE 6 - PAYMENT OF PREVAILING WAGE RATES

6.01 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 (1) work of a similar character in the locality in which the Work is performed and (2) 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.

6.02 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, a provision that each 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 California Labor Code.

6.03 The Contractor is responsible for ascertaining and complying with all current general prevailing wage rates for each craft, classification, or type of worker needed to execute the Contract including any rate changes that take effect during the term of the Contract.

6.04 The 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, a provision that each Subcontractor shall ascertain and comply with all current general prevailing wage rates for each craft, classification, or type of worker needed to perform the Work, including any rate changes that take effect during the term of such contract.

6.05 The limited exemption from paying prevailing wage rates pursuant to California Labor Code §1771.5 shall be applied to this Contract if the exemption criteria set forth therein are met.

ARTICLE 7 - LABOR CODE COMPLIANT PAYROLL RECORDS

7.01 Contractor must maintain accurate payroll records showing the name, address, social security number and work classification of each employee and owner performing Work on the Project. Contractor’s payroll records shall also set forth the straight time and overtime hours worked each day and each week, the fringe benefits and the actual per diem wage paid to each owner, journeyperson, apprentice worker or other employee employed in connection with the Project.

7.02 Each of Contractor’s payroll record shall be verified by a written declaration that it is made under penalty of perjury and stating that the information contained in the payroll record is true and correct and that the Contractor has complied with the requirements of California Labor Code §§1771, 1811 and 1815 for any Work performed by the Contractor’s employees on the Project.

7.03 The 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, a provision that each Subcontractor shall maintain accurate payroll records showing the name, address, social security number and work classification of each employee and owner performing Work on the Project. Subcontractor’s payroll records shall also set forth the straight time and overtime hours worked each day and each week, the fringe benefits and the actual per diem wage paid to each owner, journeyperson, apprentice worker or other employee employed in connection with the Project.

7.04 The 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, a provision that each Subcontractor shall verified by a written declaration that it is made under penalty of perjury and stating that the information contained in the payroll record is true and correct and that the Subcontractor has complied with the requirements of California Labor Code §§1771, 1811 and 1815 for any Work performed by the Subcontractor’s employees on the Project.

ARTICLE 8 - PAYROLL RECORD AVAILABILITY

8.01 The Contractor shall make available for inspection at all reasonable hours at the principal office of the Contractor, or shall furnish a certified copy, of all Contractor’s payroll records for its employees employed in connection with the Work upon request by an employee, employee representative, Owner, the Compliance Administrator or any other Owner representative, The Division of Labor Standards.
8.02 The 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, a provision that
each Subcontractor shall make available for inspection at all reasonable hours at the principal
office of the Subcontractor, or shall furnish a certified copy of all Subcontractor’s payroll records
for its employees employed in connection with the Work upon request by an employee, employee
representative, Owner, the Compliance Administrator or any other Owner representative, The
Division of Labor Standards.

8.03 If the principal office of the Contractor or Subcontractor is more than twenty-five miles from the
Project site, upon request from Owner, the Compliance Administrator or any other Owner
representative or a worker employee, Contractor or Subcontractor shall make a certified copy of
all Contractor’s or Subcontractor’s payroll records for its employees employed in connection with
the Work available for inspection at Owner’s office located at [address].

ARTICLE 9 - SUBMISSION OF WEEKLY PAYROLL RECORDS

9.01 Contractor shall submit to the Compliance Administrator a certified copy of all the Contractor’s
payroll records for its employees employed in connection with the Work on a weekly basis. The
certified payroll records for the preceding week shall be submitted on the [Wednesday] of the
following week. In the event that a legal holiday falls on [Wednesday], the certified payroll
records shall be submitted on the next business day.

A. If there was no work performed during a given week, Contractor’s certified payroll record shall be
annotated: “no work” for that week.

B. Contractor shall mark “final” on its last submitted payroll for the Project.

9.02 The 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, a provision that
each Subcontractor shall submit to the Compliance Administrator a certified copy of all the
Subcontractor’s payroll records for its employees employed in connection with the Work on a
weekly basis. The certified payroll records for the preceding week shall be submitted on the
[Wednesday] of the following week. In the event that a legal holiday falls on [Wednesday], the
certified payroll records shall be submitted on the next business day.

A. If there was no work performed during a given week, Subcontractor’s certified payroll record shall
be annotated: “no work” for that week.

B. Subcontractor shall mark “final” on its last submitted payroll for the Project.

ARTICLE 10 - AUDIT AND INVESTIGATION OF COMPLIANCE

10.01 Owner may conduct reasonable investigation of Contractor’s and/or Subcontractor’s compliance
with the requirements of California Labor Code §§1771, 1775, 1777..5, 1811, 1813 and 1815 and
any other applicable state or federal labor law. Not more than ten days after a written or oral
request from Owner, Compliance Administrator or any other Owner representative, Contractor
and/or Subcontractor shall provide legible copies of time cards, personnel sign in sheets, daily
logs payroll registers, paycheck stubs, cancelled paychecks or any other document requested to
authenticate or corroborate compliance with prevailing wage rate laws. Contractor and/or
Subcontractor shall make the originals of the requested documents available for inspection upon
request from Owner, the Compliance Administrator or any other Owner representative at all
reasonable hours at the principal office of the Contractor or Subcontractor or if the principal office
of the Contractor or Subcontractor is more than 25 miles from the Project site, at Owner’s office
located at [Insert Address].

10.02 Contractor and/or Subcontractor shall assist Owner, the Compliance Administrator or any other
Owner representative with any investigation or audit of Contractor and/or Subcontractor regarding
compliance with the prevailing wage rate laws.

10.03 Contractor and/or Subcontractor shall make its employees available for interviews by Owner, the
Compliance Administrator or any other Owner representative.
10.04 Neither Contractor nor Subcontractor shall take retaliatory measures against any worker on the Project for informing Owner or Compliance Administrator or Owner representative of, or responding to, any monitoring, investigation or audit of any violation or suspected violation of the prevailing wage rate laws.

10.05 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, the same terms as set forth in this Document 00 7300 Paragraphs 10 and each subpart thereto.

ARTICLE 11 - INADEQUATE OR DELINQUENT PAYROLL RECORDS

11.01 Payment under this Contract shall not be made when Contractor or Subcontractor payroll records are delinquent or inadequate.

11.02 Payroll records shall be considered delinquent if they are not submitted in compliance with Paragraph 9 of this Document 00 7300.

11.03 Payroll records shall also be considered delinquent if they are not submitted within ten days of any written request by Owner or Compliance Administrator or other Owner representative.

11.04 Payroll records shall be considered inadequate if one or more of the following conditions exists:

A. The record lacks the information required by California Labor Code §1776; or
B. The record contains the information required by California Labor Code §1776 but is not certified, or is certified by someone that is not an agent of the Contractor; or
C. A nonconforming record remains uncorrected for one payroll period after Owner or its designee has given Contractor notice of inaccuracies detected by Owner or its designee.

ARTICLE 12 - NAME AND ADDRESS OF BONDING COMPANY

12.01 Contractor shall provide Owner with the name and address of any bonding company issuing a bond that secures the payment of wages by the Contractor. If the name or address of any such bonding company changes over the term of this Contract, Contractor shall provide the new name and/or address of the bonding company to Owner in writing within ten days of such change. The writing shall be clearly identified as “Notice of Change in Bonding Company For Payment of Wages.”

12.02 The 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, a provision that each Subcontractor shall provide Owner with the name and address of any bonding company issuing a bond that secures the payment of wages by the Subcontractor. If the name or address of any such bonding company changes over the term of the Project, Subcontractor shall provide the new name and/or address of the bonding company to Owner in writing within ten days of such change. The writing shall be clearly identified as “Notice of Change in Bonding Company For Payment of Wages.”

ARTICLE 13 - NOTICE TO BONDING COMPANY

13.01 Contractor acknowledges and agrees that in the event that Owner or its Compliance Administrator or any other Owner representative, provides notice of withholding contract payment to the Contractor or Subcontractor, a copy of the notice may also be served on any of Contractor’s or Subcontractor’s bonding companies that issued a bond to securing payment of wages.

13.02 The 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, a provision that each Subcontractor shall acknowledges and agrees that in the event that Owner or its Compliance Administrator or any other Owner representative, provides notice of withholding contract payment to the Contractor or Subcontractor, a copy of the notice may also be served on any of Contractor’s or Subcontractor’s bonding companies that issued a bond to securing payment of wages.
ARTICLE 14 - NOTICE OF WITHHOLDING

14.01 Owner shall provide Contractor with notice of withholding contract payments.

14.02 Owner shall provide Contractor and Subcontractor with notice of withholding if withholding is due to Subcontractor.

ARTICLE 15 - REQUEST FOR REVIEW

15.01 The exclusive and only means for Contractor or Subcontractor to receive review of a decision by Owner to withhold payment for violations of the prevailing wage requirements is through the procedure set forth herein.

15.02 Contractor or Subcontractor may contest a finding that it has violated the prevailing wage requirement laws by submitted a writing clearly identified as “Request for Review” to Owner’s Labor Compliance Program personnel as identified in Paragraph 2 of this Document 00 7300 within sixty (60) days after service of the Notice to Withhold of Contract Payments.

15.03 The Request for Review must clearly identify the Notice of Withholding Contract Payments from which review is sought, including the date of the Notice of Withholding Contract Payments or it shall include a copy of the Notice of Withholding Contract Payments as an attachment.

15.04 The Request for Review must contain a complete statement of the basis for the protest.

15.05 The Request for Review must refer to the specific portion of the Notice to Withhold that forms the basis for the protest.

15.06 The Request for Review must include the name, address, and telephone number of the person representing the protesting party.

15.07 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, the same terms as set forth in this Document 00 7300 Paragraphs 15, 16 and 17 and each subpart thereto.

ARTICLE 16 - FAILURE TO REQUEST REVIEW SHALL RESULT IN FINAL JUDGMENT

16.01 Failure by the Contractor to submit a timely Request for Review may result in a final order which shall be binding on the Contractor, and which shall also be binding, with respect to the amount due, on the bonding company issuing a bond that secures the payment of wages by the Contractor and a surety on the bond.

16.02 Failure by the Subcontractor to submit a timely Request for Review may result in a final order which shall be binding on the Subcontractor, and which shall also be binding, with respect to the amount due, on the bonding company issuing a bond that secures the payment of wages by the Subcontractor and a surety on the bond.

ARTICLE 17 - NO INTERIM PAYMENT OF WITHHELD CONTRACT PAYMENTS

17.01 Pending a final order, or the expiration of the time period for seeking review of the Notice of Withholding of Contract Payments, Owner shall not disburse any Contract payments that have been withheld.

ARTICLE 18 - FAILURE TO COMPLY WITH LABOR LAWS MAY RESULT IN PENALTIES

18.01 Failure by Contractor or Subcontractor to pay every employee performing Work prevailing wages may result in the Contractor and/or Subcontractor being prohibited from bidding on public works projects for up to three years.

18.02 Failure by Contractor or Subcontractor to pay every employee performing Work prevailing wages may result in the Contractor and/or Subcontractor being prohibited from being awarded public works projects for up to three years.
18.03 Failure by Contractor or Subcontractor to pay every employee performing Work prevailing wages may result in a forfeiture of the unpaid wages by the Contractor or Subcontractor.

18.04 Failure by Contractor or Subcontractor to pay every employee performing Work prevailing wages may result in a forfeiture of up to $50.00 per each calendar day, or portion thereof, for each worker paid less than the prevailing wage rates.

18.05 Failure by Contractor or Subcontractor to submit certified copies of payroll records within ten days of a written request from Owner, the Compliance Administrator or any other Owner representative may result in a forfeiture of up to $25.00 per each calendar day, or portion thereof, for each worker until strict compliance is effectuated.

18.06 Failure by Subcontractor to pay every employee performing Work prevailing wages may result in withholdings, penalties and forfeitures being assessed against Contractor.

ARTICLE 19 - CONTRACTOR MUST MONITOR SUBCONTRACTOR COMPLIANCE

19.01 Contractor shall monitor the payment of the specified general prevailing rate of per diem wages to employees by each Subcontractor by periodically reviewing the certified payroll records of each Subcontractor.

ARTICLE 20 - CORRECTIVE ACTION BY CONTRACTOR REGARDING SUBCONTRACTOR

20.01 Once the Contractor is aware that any Subcontractor has failed to pay its workers the specified prevailing rate of wages, the Contractor shall diligently take corrective action to halt or rectify the failure, including but not limited to, retaining sufficient funds due the Subcontractor for Work performed on the Project.

ARTICLE 21 - AFFIDAVIT PRIOR TO FINAL PAYMENT TO SUBCONTRACTOR

21.01 Prior to making final payment to any Subcontractor for Work performed on the Project, Contractor shall obtain an affidavit signed under penalty of perjury from each Subcontractor that each Subcontractor has paid the specified general prevailing rate of per diem wages to its employees on the Project and any amounts due under California Labor Code §1813.

ARTICLE 22 - NOTICE OF PRIOR VIOLATIONS OF THE PREVAILING WAGE RATES

22.01 Contractor shall promptly notify Owner if Contractor has been barred from bidding for or working on public works projects for any reason.

22.02 Contractor shall promptly notify Owner if Contractor or a firm, corporation, partnership, or association in which the contractor has any interest has been found to have willfully violated the prevailing wage rate laws.

22.03 Contractor shall promptly notify Owner if Contractor or a firm, corporation, partnership, or association in which the contractor or has any interest has been found to have violated the public works chapter of the California Labor Code with an intent to defraud.

22.04 The term “any interest” shall have the meaning set forth in California Labor Code §1777.1(f) or any amendment thereto.

22.05 Notice shall be given by the Contractor to Owner before bidding closes or if Contractor is unaware until after bidding has closed, before the Contract is awarded or if the Contractor is unaware until after the Contract has been awarded then before it is executed and if the Contractor is unaware until after the Contract has been executed then not more than five calendar days after Contractor has notice of any kind that it has been found to have willfully violated the prevailing wage rate laws or found to have violated the public works chapter of the California Labor Code with an intent to defraud.

ARTICLE 23 - DEFINITIONS
23.01 All abbreviations and definitions of terms used in this Document 00 7300 are set forth in this Document 00 7300 or in Document 00 7200 (General Conditions) and Section 01 4200 (References and Definitions).

END OF DOCUMENT
SMALL LOCAL BUSINESS ENTERPRISE and SMALL EMERGING LOCAL BUSINESS ENTERPRISE PROGRAM

The District is committed to ensure equal opportunity and equitable treatment in awarding and managing its public contracts and has established an annual overall program goal of twenty-five percent participation for small local businesses. To facilitate opportunities for small local business, the District will use a maximum 5% bidding preference for SLBE and SELBE firms. The preference is only used for computation purposes to determine the winning bidder, the contract is awarded at the actual bid amount. Please review the following guidelines to see if your firm qualifies for the preference.

The 5% bidding preference for an SLBE and SELBE firms are for construction, personal and professional services, goods and services, maintenance, repairs, and operations where responsibility and quality are equal. The preference will be 5% of the bid amount of the lowest responsive responsible bidder, and may not exceed $50,000.00 for any bid.

A Non-SLBE/SELBE Prime Contractor who utilizes 25% of total bid amount, with SLBE or SELBE subcontractors (who meet the District's Definition of an SLBE and SELBE), can also receive a maximum of 4% bidding preference, not to exceed $50,000.00 for any bid. (See below Subcontractors section.)

Definitions:

SLBE: A Small Local Business Enterprise is a business that has not exceeded gross annual revenue of 8.5 million dollars for a construction firm, or 6 million dollars for goods and non-professional services firm, or 3 million dollars for architecture, engineering and professional services firm, for the past three consecutive years and meets the below geographic location requirements.

SELBE: A Small Local Emerging Business Enterprise is a business that has not exceeded gross annual revenue of 1.5 million dollars for the past three consecutive years and meets the below geographic location requirements.

Commercially Useful Function: Shall mean a business is directly responsible for providing the materials, equipment, supplies or services to the District as required by the contract solicitation. The business performs work that is normal for its business services and carries out its obligation by actually performing, managing, or supervising the work involved. The business is not Commercially Useful if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of SLBE or SELBE participation.

Geographic Location Requirements:

- The business must be located at a fixed, established commercial address located in the District's market area of Albany, Alameda, Berkeley, Emeryville, Oakland, or Piedmont, and not a temporary or movable office, a post office box, or a telephone answering service.

- If the business has an office outside of the District's market area as well as an office within the market area, the office within the District's market area must be staffed on a full time permanent basis with someone employed by the business.

- If requested, the business that has an office outside of the District's market area must provide proof of one or more past contracts citing the business address (such as contracts to perform work, to rent space or equipment, or for other business services) was within the District's market area at least one (1) year prior to the date of contract award. The one-year requirement does not apply to businesses whose sole establishment is located within the District's market area.
Subcontractors:

Non-SLBE/SELBE Prime Contractors who use subcontractors, who meet the district definitions of SLBE and SELBE, may receive a maximum of 4% bidding preference if the following conditions are met:

1. 25% of total bid amount is with Subcontractors who meet the District’s definition of an SLBE and SELBE. The Prime Contractor must list each Subcontractor on the Subcontractor List form, clearly identifying the SLBE and SELBE status and the Dollar Amount of work each subcontractor will perform.

2. The Subcontractors must provide a Commercially Useful Function.

3. The Prime Contractor must maintain the Subcontractor percentages (based on the quoted dollar amounts) indicated in the Subcontractor List form at the time the Contract is awarded and throughout the term of the Contract.

4. The Prime Contractor must fill out sign the SLBE/SELBE Self Certification Affidavit and return it with the bid documents, and 48 hours after the bid opening the Prime Contractor must submit signed SLBE/SELBE Self Certification Affidavit from each of the SLBE and SELBE subcontractors listed in the Subcontractor form. The Subcontractor must agree to provide the requested documentation to verify the SLBE/SELBE status.

5. No Substitutions can be made to the SLBE and SELBE subcontractor without the prior written approval of the District. The District will approve a subcontractor substitution on the following conditions:
   a. A written statement from the subcontractor agreeing to the substitution.
   b. When the subcontractor has been given a reasonable opportunity to execute the subcontract, yet fails to, or refuses to execute the subcontract, or refuses to satisfy contractual obligations.
   c. When the subcontractor becomes insolvent.
   d. When the District determines the work performed by the subcontractor is not in accordance with the contact agreement, or the subcontractor is substantially and unduly delaying or disrupting the progress of work.

Firms that meet the District criteria for an SLBE and SELBE can complete the below self-certification affidavit signed under penalty of perjury. Firms claiming SLBE and SELBE status in the self-certification affidavit will be required to submit proof of residency and revenue 48 hours after bid opening. Such proof shall consist of a copy of a contract to perform work, to rent space or equipment, or for other business services, executed from their local address, and the firm’s tax returns for the past three consecutive years.
SLBE/SELBE SELF CERTIFICATION AFFIDAVIT

I certify under penalty of perjury that my firm meets the District’s definition of a Small Local Business Enterprise or a Small Emerging Local Business Enterprise and resides in the geographic location of the District’s market area and qualifies for the below preference. The maximum preference will be five percent of the bid amount of the lowest responsible bidder, and may not exceed $50,000.00 for any bid. The preference is only used for computation purposes to determine the winning bidder; the contract is awarded at the actual bid amount. The District’s Contract Compliance Office will determine whether this requirement has been fulfilled. Bidders may only claim one of the below preferences.

<table>
<thead>
<tr>
<th>Certification Status</th>
<th>Preference</th>
<th>Preference Claimed (check only one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLBE</td>
<td>5% of lowest bid</td>
<td></td>
</tr>
<tr>
<td>SELBE</td>
<td>5% of lowest bid</td>
<td></td>
</tr>
<tr>
<td>25% of Subcontractors are SLBE/SELBE</td>
<td>4% of lowest bid</td>
<td></td>
</tr>
<tr>
<td>Not Applicable</td>
<td>None</td>
<td></td>
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</tbody>
</table>

1. I acknowledge and am hereby advised that upon a finding of perjury with the claims made in this self certification affidavit the District is authorized to impose penalties which may include any of the following:
   a) Refusal to certify the award of a contract
   b) Suspension of a contract
   c) Withholding of funds
   d) Revision of a contract for material breach of contract
   e) Disqualification of my firm from eligibility for providing goods and services to the Peralta Community College District for a period not to exceed five (5) years

2. I acknowledge and have been advised and hereby agree that my firm will be required to provide proof (and if applicable, my SLBE and SELBE Subcontractors will provide proof) of the status claimed on this self-certification affidavit 48 hours after bid opening. Proof of status claimed includes tax returns from the previous three years and past contracts to determine the size and geographical location of my firm.

3. I declare that the above provisions are attested to under penalty of perjury under the laws of the State of California.

Bid Number: ____________________ Bid Name: ____________________

Signed ____________________ Date ____________________

Printed or typed name ____________________ Title ____________________

Name of Company ____________________ Telephone ____________________ Fax ____________________

Small Local Business Enterprise and Emerging Enterprise Program 00730
Peralta Community College District

VENDOR'S QUESTIONNAIRE AND CERTIFICATE BY COMPLIANCE

The following information is requested for information purposes only. It will not be used in determining bid award.

Date

<table>
<thead>
<tr>
<th>Firm Name</th>
<th>Telephone</th>
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Business Fax Email Address Website

<table>
<thead>
<tr>
<th>Street Address</th>
<th>City/State</th>
<th>Zip Code+ 4®</th>
</tr>
</thead>
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<tr>
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</table>

Mailing Address City/State Zip Code + 4®

Type of Organization (Check one) Individual ☐ Partnership ☐ Corporation ☐

Name of Owner(s) State of Incorporation (if applicable)

Name of Partners (I) Indicate (G) General (L) Limited

Local Address

Amount of Annual Business

The District is identifying vendor ownership as follows:

<table>
<thead>
<tr>
<th></th>
<th>Asian-American (Chinese, Japanese, Korean, Vietnamese)</th>
<th>Black or African-American</th>
<th>Filipino</th>
<th>Latino (other than Mexican or Mexican-American)</th>
<th>Mexican or Mexican-American</th>
<th>Native American</th>
<th>Pacific Islander, other Asian</th>
<th>White</th>
<th>Disabled</th>
<th>Veteran</th>
<th>Women</th>
<th>Subcontractor</th>
<th>Employee</th>
<th>Apprentice</th>
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<tr>
<td>Total #</td>
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The District is identifying vendor workforce as follows:

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<tr>
<th></th>
<th>Asian-American (Chinese, Japanese, Korean, Vietnamese)</th>
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<td>Total #</td>
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</table>
Explain whether current workforce is racially and ethnically proportionate to the area from which the workforce is drawn (national, state, or local). Use separate sheet if necessary.

Detail steps taken by vendor since inception to assure non-discriminatory recruiting, hiring, and apprenticeship, placement, promotion, demotion, layoff and termination practices. Use separate sheet if necessary.

What are you interested in providing the District? (e.g., construction, consulting, goods or services).

Main Headquarters Office(s) Address/Telephone
(List all as applicable)

1. 
2. 
3. 

Total # of Employees ___

Local Office(s) Address/Telephone
(List all as applicable)

1. 
2. 
3. 

Total # of Employees ___

Name and list residential zip code for each employee, subcontractor, or apprentice for awarded contract

(Please use the Zip+4®) Use separate sheet as necessary

1. 
2. 
3. 
4. 
5. 
6.
DOCUMENT 00 7380

APPRENTICESHIP PROGRAM

ARTICLE 1 - COMPLIANCE REQUIRED

1.01 Contractor and Subcontractors shall comply with the requirements of California Labor Code §§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 §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 journeyperson.

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
DOCUMENT 00 9113

ADDENDA

PROJECT NO. 2314, BID NO. 12-13/08

Peralta Community College District
Merritt College Building A Heating Upgrade Project

12500 campus Drive Street
Oakland, CA 94619

[DOCUMENT TO BE COMPLETED AS ADDENDA DURING BID PERIOD]

END OF DOCUMENT
PART 1 GENERAL

1.01 PROJECT
A. Project Name: Building A Heating Upgrade.
B. Owner's Name: Peralta Community College District.
C. Engineer's Name: Salas O'Brien Engineers, Inc.
D. The Project consists of the alteration of the heating at Building A.

1.02 CONTRACT DESCRIPTION
A. Contract Type: A single prime contract based on a Stipulated Price as described in Invitation to Bid.

1.03 DESCRIPTION OF ALTERATIONS WORK
A. Scope of demolition and removal work is shown on drawings.
B. Scope of alterations work is shown on drawings.
C. HVAC: Replace existing system with new construction.
D. Electrical Power and Lighting: Alter existing and add new construction.

1.04 OWNER OCCUPANCY
A. Owner intends to continue to occupy portions of the existing building during the entire construction period.
B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
C. Schedule the Work to accommodate Owner occupancy.

1.05 CONTRACTOR USE OF SITE AND PREMISES
A. Construction Operations: Limited to areas noted on Drawings.
B. Arrange use of site and premises to allow:
   1. Owner occupancy.
C. Provide access to and from site as required by law and by Owner.
D. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
E. Limit shutdown of utility services to 4 hours at a time, arranged at least 24 hours in advance with Owner.

1.06 WORK SEQUENCE
A. Coordinate construction schedule and operations with Owner.

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION - NOT USED

END OF SECTION
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. Work Under Other Contracts
4. Future Work
5. Work Sequence
6. Work Days and Hours
7. Shutdown for Discovery of Cultural Resources
8. Cooperation of Contractor and Coordination with Other Work
9. Partial Occupancy/Utilization Requirements
10. Contractor Use of Site
11. Air Quality Standards
12. Construction Staking and Monument Protection
13. Protection of Existing Structures and Underground Facilities
14. Permits
15. Owner-Furnished Products

1.02 WORK COVERED BY CONTRACT DOCUMENTS
A. Work comprises of the construction of Owner’s Merritt College Building A Heating Upgrade Project located at Building A, 125000 Campus Drive, Oakland CA 94619. The Work includes, without limitation, demolition of 9 gas fired infrared radiant heaters, one unit heater, one fan coil unit, and 2 baseboard heaters including associated supports and connections. 9, new gas fired tubular infrared radiant heaters and 3 cabinet unit heaters shall be installed complete with all necessary piping valves wiring thermostats supports to provide complete installation. Installation includes start – up, programming and commissioning. 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 4000 [Bid Form]) work on the Progress Schedules and on Applications for Payment. The Amount given on Document 00 4000 (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 WORK DAYS AND HOURS
A. Work Days and hours: Monday-Friday inclusive, [7:00 a.m.-5:00 p.m.] 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.

1.04 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 city 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.

PART 2 – PRODUCTS- NOT USED

PART 3 – EXECUTION – NOT USED

END OF SECTION
DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 2000

MEASUREMENT AND PAYMENT

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 Procedures
C. Government 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 (if any) or as otherwise required by Owner, concurrently with each Application for Payment,
Contractor shall submit to the Owner the 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 §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 90 percent of the amounts otherwise due as provided in the Contract Documents, or a lesser amount if so provided in Contract Documents, 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, but not be limited to, 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. Contractor shall then pay to each Subcontractor, not later than 20 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.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION – NOT USED

END OF SECTION
SECTION 01 21 12
ALLOWANCES

PART 1 GENERAL
1.01 SECTION INCLUDES:
   A. Product/Installation Allowances
   B. Contract Sum Allowances

PART 2 PRODUCTS
2.01 PRODUCT/INSTALLATION ALLOWANCES
   A. This Section of the Specification sets forth the extent of Allowances described hereafter. Work performed under allowances shall conform fully to all applicable parts of these specifications and drawings.
      1. As shown on the bid form, Contractor shall include in the total amount, the base bid and all allowances stated in the Contract Documents.
      2. The Contractor shall cause the work/materials and critical path time covered by these allowances to be performed for such amounts and by such persons as the Owner may direct, but Contractor will not be required to employ persons against whom Contractor makes a reasonable objection. If the actual cost, when determined, is more than or less than the allowance, the contract sum shall be adjusted accordingly by Change Order.
      3. Cash allowances shall include complete work in place with all costs fully accounted for.
      4. Payment to the contractor shall be made as per normal payment procedures discussed in other portions of the Contract Documents.
      5. Payment to a Owner-designated third party shall be made by the Contractor as approved by the Owner. Contractor shall pay designated third party within 15 days of receipt of payment from the Owner.
      6. Funds unused in any allowance item will be credited to the contract by credit change order, and shall carry no contractor markup.

2.02 CONTRACT SUM ALLOWANCES
   A. The Allowances below correspond to the total allowance amounts defined on the Bid Form. In addition, each allowance item has applied to it a critical path duration that shall be included within the critical path schedule in anticipation of the Allowance activity (i.e. in order to accomplish the completion time as provided for in the Contract Documents, the critical path duration, below, shall be accommodated within the progress schedules defined elsewhere in these contract documents):
      1. Unforeseen Site Conditions:
         a. Cash Allowance:
            1) A cash allowance of $10,000 shall be available for the purpose of accommodating unforeseen site conditions.
         b. Critical Path Duration:
            1) Add 10 calendar days of critical path time.
      2. Unforeseen Hazardous Material Abatement:
         a. Cash Allowance:
            1) A cash allowance of $5,000 shall be available for proper handling of asbestos, lead, PCB or other hazardous materials which are not defined as part of the bid documents. This allowance is for work over and above that already defined in the Contract Documents.
         b. Critical Path Duration:
            1) Add 5 calendar days of critical path time.
      3. Facilities Services:
         a. Cash Allowance:


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1) A cash allowance of $5,000 shall be available for time applied by the Owner's trades (i.e. in the Facilities Department) in support of the Contractor or Contractors construction activities.

b. Critical Path Duration:
   1) Add 0 calendar days of critical path time.

END OF SECTION
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 amounts.

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 the form included in this Project Manual. All CPRs must contain a complete breakdown of costs of credits, deducts and extras; itemizing materials, labor, taxes, Markup 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 ten 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 herein concurrently with the CPR and in no event later than ten 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 CPRs, notices of potential claim or Claims 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(s)); Component 2 (Markup); and, Component 3 (bonds, insurance, taxes).

2. Component 1: Direct Cost(s) of labor, equipment and materials, is calculated based upon actually incurred (or omitted) labor costs, material costs and equipment rental 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 insurance, bonds, and/or taxes, defined herein, is calculated without Markup.

1.06 **MEASUREMENT OF DIRECT COST OF CONSTRUCTION (COST COMPONENT NO. 1)**

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

1. Component 1 has four subcomponents, also referred to as "LEMS":
   a. Labor (Component 1A)
   b. Equipment (Component 1B)
   c. Materials (Component 1C)
   d. Subcontractors (Component 1D)
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, 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. Equipment costs 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. Material costs shall include no other costs, fees or charges.

E. Measurement of Cost of Subcontractors (Component 1D):

1. Where reimbursed or calculated per the terms of the Contract Documents, change order or Change Directive, cost of Subcontractors shall be calculated as amounts earned by Subcontractors procured in compliance with the Contract Documents and approved by the Owner, provided such subcontractor earned amounts meet the following requirements:
   a. Such amounts are earned under the terms of the Subcontracts and the Work complies with the terms of the Contract Documents;
   b. Such amounts are properly requested, documented and permitted under the terms of the subcontract(s) and the Contract Documents.
   c. Total cost to Owner of Direct Costs of Construction (labor, equipment, materials), Markup, and costs of bonds, insurance and taxes, conform to contract limitations (i.e., totals paid by Owner do not exceed the 20% Markup limitation.).
1.07 MEASUREMENT AND PAYMENT OF MARK UP (COST COMPONENT 2)

A. Markup Percentages for Changed Work (Component 2):

1. Markup on Direct Cost of labor and materials for extra Work shall be 15%. Markup on Direct Cost of equipment for extra Work 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 not exceed 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 twenty (20) percent, 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 Mark Up (Component 2):

1. Mark Up (Component 2) provides complete compensation to Contractor for:
   a. All Contractor profit;
   b. All Contractor home-office overhead;
   c. All Contractor 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.

2. Profit. Compensation for profit included within Component 2 (Mark Up), 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 (Mark Up), includes without limitation: Salaries and other compensation of any type of Contractor’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 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 assumption of risk under the Contract Documents, included within Component 2 (Mark Up), 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 General Conditions and General Requirements Costs included within Component 2 (Mark Up), includes compensation to Contractor 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. 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; estimating. Compensation for Contractor’s General Requirements Costs included within Component 2 (Mark Up), compensates Contractor for its “General Requirements” Costs, including 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 the Markup component 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.

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 City sales taxes, shall be included. Federal and Excise tax shall not be included.

2. There is no mark up 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 LEMS) 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 costs, provided Contractor can demonstrate such additional costs are (i.) actually incurred performing the Work, (ii.) not compensated by the Markup allowed, 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, Subcontractor) 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.

1.010 MISCELLANEOUS REQUIREMENTS

A. 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 attached hereto. 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).

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION – NOT USED

END OF SECTION

COST PROPOSAL FORM FOLLOWS ON NEXT PAGE
COST PROPOSAL (CP)

Owner [Insert Project Name]  
Contract Number __________

CP Number: ____________________
Date: ________________________
In Response To ____________________
RFP #, etc.

To: [Insert Name of Owner]  
Attention: [______________]
[Insert Owner’s Address]
Phone: (___) ___-_____
Fax: (___) ___-_____

From: [Insert Contractor’s Name/Address]  
______________________________________________

This Cost Proposal is in response to the above-referenced ________ [insert RFP, etc. as applicable].  
Brief description of change(s):  
_____________________________________________

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<th>ITEM DESCRIPTION</th>
<th>PRIME CONTRACTOR</th>
<th>SUB 1</th>
<th>SUB 2</th>
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<td>Overhead &amp; Profit to Contractor for Subcontractor’s Work 5 percent</td>
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REQUESTED CHANGE IN CONTRACT TIME (DAYS)  
(Time Impact Evaluation Enclosed)

By Contractor:     Signature:    Date:  
______________________________________________  
______________________________________________  
______________________________________________
SECTION 01 30 00
ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL
1.01 SECTION INCLUDES
A. Preconstruction meeting.
B. Progress meetings.
C. Construction progress schedule.
D. Submittals for review, information, and project closeout.
E. Number of copies of submittals.
F. Submittal procedures.

1.02 PROJECT COORDINATION
A. Project Coordinator: Construction Manager.
B. Cooperate with the Project Coordinator in allocation of mobilization areas of site; for field offices and sheds, for vehicular access, traffic, and parking facilities.
C. During construction, coordinate use of site and facilities through the Project Coordinator.
D. Comply with Project Coordinator's procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.
E. Comply with instructions of the Project Coordinator for use of temporary utilities and construction facilities.
F. Coordinate field engineering and layout work under instructions of the Project Coordinator.
G. Make the following types of submittals to Engineer through the Project Coordinator:
1. Requests for interpretation.
2. Requests for substitution.
3. Shop drawings, product data, and samples.
4. Test and inspection reports.
5. Manufacturer's instructions and field reports.
6. Applications for payment and change order requests.
7. Progress schedules.
8. Coordination drawings.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION
3.01 PRECONSTRUCTION MEETING
A. Owner will schedule a meeting after Notice of Award.
B. Attendance Required:
1. Owner.
2. Engineer.
3. Contractor.
C. Agenda:
1. Execution of Owner-Contractor Agreement.
2. Submission of executed bonds and insurance certificates.
4. Submission of list of Subcontractors, list of Products, schedule of values, and progress schedule.
5. Designation of personnel representing the parties to Contractor and Engineer.
6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
7. Scheduling.

D. Record minutes and distribute copies within two days after meeting to participants, with one copy to Engineer, Owner, participants, and those affected by decisions made.

3.02 PROGRESS MEETINGS

A. Schedule and administer meetings throughout progress of the Work at maximum bi-monthly intervals.

B. Attendance Required: Job superintendent, major Subcontractors and suppliers, Owner, Engineer, as appropriate to agenda topics for each meeting.

C. Agenda:
   1. Review minutes of previous meetings.
   2. Review of Work progress.
   3. Field observations, problems, and decisions.
   4. Identification of problems that impede, or will impede, planned progress.
   5. Review of submittals schedule and status of submittals.
   6. Maintenance of progress schedule.
   7. Corrective measures to regain projected schedules.
   8. Planned progress during succeeding work period.
   10. Effect of proposed changes on progress schedule and coordination.
   11. Other business relating to Work.

D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Engineer, Owner, participants, and those affected by decisions made.

3.03 CONSTRUCTION PROGRESS SCHEDULE

A. Within 10 days after date of the Agreement, submit preliminary schedule defining planned operations for the first 60 days of Work, with a general outline for remainder of Work.

B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.

C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
   1. Include written certification that major contractors have reviewed and accepted proposed schedule.

D. Within 10 days after joint review, submit complete schedule.

E. Submit updated schedule with each Application for Payment.

3.04 SUBMITTALS FOR REVIEW

A. When the following are specified in individual sections, submit them for review:
   1. Product data.
   2. Shop drawings.
   3. Samples for selection.
   4. Samples for verification.

B. Submit to Engineer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.

C. Samples will be reviewed only for aesthetic, color, or finish selection.

D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 78 00 - CLOSEOUT SUBMITTALS.

3.05 SUBMITTALS FOR INFORMATION

A. When the following are specified in individual sections, submit them for information:

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01 30 00 - 2 ADMINISTRATIVE REQUIREMENTS
1. Design data.
2. Certificates.
3. Test reports.
4. Inspection reports.
5. Manufacturer's instructions.
6. Manufacturer's field reports.
7. Other types indicated.

B. Submit for Engineer's knowledge as contract administrator or for Owner. No action will be taken.

3.06 SUBMITTALS FOR PROJECT CLOSEOUT

A. When the following are specified in individual sections, submit them at project closeout:
   1. Project record documents.
   2. Operation and maintenance data.
   3. Warranties.
   5. As-Built Drawings.
   6. Other types as indicated.

3.07 NUMBER OF COPIES OF SUBMITTALS

A. Documents for Review:
   1. Small Size Sheets, Not Larger Than 8-1/2 x 11 inches: Submit the number of copies that Contractor requires, plus two copies that will be retained by Engineer.

B. Documents for Information: Submit two copies.

3.08 SUBMITTAL PROCEDURES

A. Transmit each submittal with approved form.
B. Identify Project, Contractor, Subcontractor or supplier, pertinent drawing and detail number, and specification section number, as appropriate on each copy.
C. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
D. Contractor shall verify both the field dimensions and the drawing layouts prior to submitting products for review to verify that installation is properly coordinated. It is the contractor's responsibility to submit products that are appropriate for the actual field conditions.
E. Deliver submittals to Engineer at business address.
F. Schedule submittals to expedite the Project, and coordinate submission of related items.
G. For each submittal for review, allow 15 calendar days excluding delivery time to and from the Contractor.
H. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
I. Provide space for Contractor and Engineer review stamps.
J. When revised for resubmission, identify all changes made since previous submission.
K. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
L. Submittals not requested will not be recognized or processed.
M. Engineer's review will result in the return of the submittal with one of the following marks:
   1. "No Exceptions - materials may be provided as described in the submittal.
   2. "Exceptions Noted, Resubmittal Not Required" - materials may be provided as described in the submittal, in accordance with comments or notes or additional requirements noted by the reviewer.
3. "Not Acceptable" - Materials are unacceptable and shall not be provided.
4. "Exceptions Noted, Resubmit" - Requires that the submittal be modified, according to requirements noted, and resubmitted.

N. Materials or equipment shall not be delivered to the jobsite without first obtaining a submittal which has the "No Exceptions" or "Exceptions Noted, Resubmittal Not Required" stamp mark.

END OF SECTION
DIVISION 1 GENERAL REQUIREMENTS

SECTION 01 3119

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, but not be limited to, 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 7 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 4 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 3 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 3230

PROGRESS SCHEDULES AND SUBMITTALS

PART 1 – GENERAL

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

1.02 CONTRACTOR TO SUBMIT PROGRESS SCHEDULES
A. Contractor shall submit original (baseline) progress schedule two weeks prior to the first Application for Payment.
B. Baseline Progress Schedule shall show Contractor’s construction and procurement activities, including but not limited to, 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.

1.03 SCHEDULE REQUIREMENTS.
A. Unless Owner agrees in writing otherwise, progress schedule shall be on Microsoft Project, Primavera P6, Suretrack, or equivalent software, 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’s progress schedule may be in the form of a CPM (arrow) diagram or, if Owner agrees in writing, a bar chart. The hard copies of the schedule supplied to Owner shall indicate the critical path of the Work (in red) and shall show a logical progression of the Work through completion within Contract Time.
C. Unless Owner agrees in writing otherwise, progress schedule 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. Owner has no obligation to accept an early completion schedule.

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 three-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 narrative explaining trade flow and construction flow changes and man-hour loading assumptions for major Work activities and/or Subcontractors.
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 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 requesting 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 the preparation of TIE’s, and the process of incorporating TIE’s into the current schedule update. 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

PART 1 – PART 1 GENERAL

1.01 SUMMARY

A. Section includes description of requirements and procedures for submittals.

1.02 SCHEDULE OF SUBMITTALS

A. Contractor shall prepare for Owner’s review and acceptance prior to commencement of work on the Site, for purposes of contract administration, a schedule of submittals (also referred to as a submittal register) required to complete the Work, prepared by Contractor and accepted by Owner for contract administration. Schedule of submittals shall include, for each submittal: the specification or drawing reference requiring the submittal, if applicable; the material, item, or process for which the submittal is required; the submittal number and identifying title of the submittal; the Contractor’s anticipated submission date and the approval need date.

B. Contractor shall update monthly the schedule of submittals to reflect actual submission and acceptance dates for submittals. Review by Owner of schedule of submittals does not excuse Contractor of obligation to supply, schedule and coordinate all submittals required by the Contract Documents.

1.03 CONTRACTOR TO SUBMIT SHOP DRAWINGS, PRODUCT DATA AND SUBMITTALS.

A. Contractor shall review for compliance with Contract Documents, approve and submit to Owner Shop Drawings, Product Data, Samples and similar submittals required by Contract Documents.

B. Contractor shall schedule and submit concurrently submittals covering component items forming a system or items that are interrelated. Contractor shall include certifications to be submitted with the pertinent drawings at the same time.

C. Contractor shall coordinate scheduling, sequencing, preparing and processing of all submittals with performance of work so that work will not be delayed by submittal processing.

D. Submittals shall specifically identify any Work depicted that does not conform to the Contract Documents.

1.04 OWNER REVIEW OF SHOP DRAWINGS, PRODUCT DATA AND SUBMITTALS.

A. After review by Owner of each Submittal, material will be returned to Contractor with actions defined as follows:

1. NO EXCEPTIONS TAKEN - Accepted subject to its compatibility with general design concept of the Work, future Submittals and additional partial Submittals for any portions of the Work not covered in this Submittal. Does not constitute acceptance or deletion of specified or required items not shown on the Submittal.

2. MAKE CORRECTIONS NOTED (NO RESUBMISSIONS REQUIRED) - Same as item 1 above, except that minor corrections as noted shall be made by Contractor.

3. REVISE AS NOTED AND RESUBMIT - Rejected because of major inconsistencies or
errors that shall be resolved or corrected by Contractor prior to subsequent review by Owner.

4. **REJECTED - RESUBMIT** - Submitted material does not conform to Drawings and/or Specifications in major respect, i.e.: wrong size, model, capacity, or material.

B. Favorable review will not constitute acceptance by Owner of any responsibility for the accuracy, coordination, or completeness of the Submittals. Accuracy, coordination, and completeness of Submittals shall be sole responsibility of Contractor, including responsibility to back-check comments, corrections, and modifications from Owner’s review before fabrication. Contractor, Subcontractors, or suppliers may prepare Submittals, but Contractor shall ascertain that Submittals meet requirements of Contract Documents, while conforming to structural space and access conditions at point of installation. Owner’s review will be only to assess if the items covered by the Submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as indicated by the Contract Documents. Favorable review of Submittal, method of Work, or information regarding materials and equipment Contractor proposes to furnish shall not relieve Contractor of responsibility for errors therein and shall not be regarded as assumption of risks or liability by Owner, or any officer or employee thereof, and Contractor shall have no claim under Contract Documents on account of failure or partial failure or inefficiency or insufficiency of any plan or method of Work or material and equipment so accepted. Favorable review shall be considered to mean merely that Owner has no objection to Contractor using, upon Contractor’s own full responsibility, plan or method of Work proposed, or furnishing materials and equipment proposed.

C. Unless otherwise specified, Owner’s review will not extend to the means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

D. Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been favorably reviewed by the Owner; otherwise, any such Work is at Contractor’s sole risk.

**PART 2 – PRODUCTS – NOT USED**

**PART 3 – EXECUTION – NOT USED**

END OF SECTION
SECTION 01 40 00
QUALITY REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Control of installation.
   B. Tolerances.
   C. Testing services.
   D. Manufacturers' field services.

1.02 SUBMITTALS
   A. Testing Agency Qualifications:
      1. Prior to start of Work, submit agency name, address, and telephone number, and names of full time registered Engineer and responsible officer.
   B. Test Reports: After each test/inspection, promptly submit two copies of report to Engineer and to Contractor.
      1. Include:
         a. Date issued.
         b. Project title and number.
         c. Name of inspector.
         d. Date and time of sampling or inspection.
         e. Identification of product and specifications section.
         f. Location in the Project.
         g. Type of test/inspection.
         h. Date of test/inspection.
         i. Results of test/inspection.
         j. Conformance with Contract Documents.
         k. When requested by Engineer, provide interpretation of results.
   2. Test report submittals are for Engineer's knowledge as contract administrator for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents, or for Owner's information.
   C. Certificates: When specified in individual specification sections, submit certification by the manufacturer and Contractor or installation/application subcontractor to Engineer, in quantities specified for Product Data.
      1. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
      2. Certificates may be recent or previous test results on material or product, but must be acceptable to Engineer.
   D. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the Owner's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
   E. Manufacturer's Field Reports: Submit reports for Engineer's benefit as contract administrator or for Owner.
      1. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

1.03 TESTING AND INSPECTION AGENCIES
   A. As indicated in individual specification sections, Owner or Contractor shall employ and pay for services of an independent testing agency to perform other specified testing.
   B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

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C. Contractor Employed Agency:
   1. Testing Equipment: Calibrated at reasonable intervals either by NIST or using an NIST established Measurement Assurance Program, under a laboratory measurement quality assurance program.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.

B. Comply with manufacturers' instructions, including each step in sequence.

C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.

D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

E. Have Work performed by persons qualified to produce required and specified quality.

F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.

G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.02 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

3.03 TESTING AND INSPECTION

A. See individual specification sections for testing required.

B. Testing Agency Duties:
   1. Provide qualified personnel at site. Cooperate with Engineer and Contractor in performance of services.
   2. Perform specified sampling and testing of products in accordance with specified standards.
   3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
   4. Promptly notify Engineer and Contractor of observed irregularities or non-conformance of Work or products.
   5. Perform additional tests and inspections required by Engineer.
   6. Submit reports of all tests/inspections specified.

C. Limits on Testing/Inspection Agency Authority:
   1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
   2. Agency may not approve or accept any portion of the Work.
   3. Agency may not assume any duties of Contractor.
   4. Agency has no authority to stop the Work.

D. Contractor Responsibilities:
   1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
   2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.

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QUALITY REQUIREMENTS
3. Provide incidental labor and facilities:
   a. To provide access to Work to be tested/inspected.
   b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
   c. To facilitate tests/inspections.
   d. To provide storage and curing of test samples.
4. Notify Engineer and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.

E. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by Engineer.

F. Re-testing required because of non-conformance to specified requirements shall be paid for by Contractor.

3.04 MANUFACTURERS' FIELD SERVICES
   A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment as applicable, and to initiate instructions when necessary.
   B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

3.05 DEFECT ASSESSMENT
   A. Replace Work or portions of the Work not conforming to specified requirements.
   B. If, in the opinion of Engineer, it is not practical to remove and replace the Work, Engineer will direct an appropriate remedy or adjust payment.

END OF SECTION
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, 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, but not limited to, the following:
      a. California Building Code (2007 Edition or latest applicable code) as amended by
         applicable local ordinances for all construction work.
b. California Electrical Code (2007 Edition or latest applicable code) as amended by applicable local ordinances for all construction work.

c. California Plumbing Code (2007 Edition or latest applicable code) as amended by applicable local ordinances for plumbing, sewage disposal and health requirements.

d. California Mechanical Code (2007 Edition or latest applicable code) as amended by applicable local ordinances for all construction work.

e. International Fire Code (2006 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 and County Ordinances, rules of the State or City 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, but not limited to, 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) California Code of Regulations, Titles 5, 8, 17, 19, 21, 22, 24 and 25
      2) California Public Contract Code
      3) California Health and Safety Code
      4) California Government Code
      5) California Labor Code
      6) California Civil Code
      7) California 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
      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 having jurisdiction)

   d. All Local Agencies with jurisdiction (cities, counties, fire departments)
C. Change Orders and Claims:

1. The California Public Contract Code, including but not limited to 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

1. The California Public Contract Code specifies required provisions on resolving contract claims less than $375,000, which are set forth below, and constitute a part of this Contract.

2. For the purposes of this section, “Claim” means a separate demand by Contractor of $375,000 or less for (1) a time extension, (2) payment or money or damages arising from Work done by or on behalf of Contractor arising under the Contract Documents and payment of which is not otherwise expressly provided for or the Claimant is not otherwise entitled to, or (3) an amount the payment of which is disputed by Owner. In order to qualify as a Claim, the written demand must state that it is a Claim submitted under paragraph 12 of Document 00 7200 (General Conditions) and be submitted in compliance with all requirements of Document 00 7200 (General Conditions), paragraph 12. Separate Claims which total more than $375,000 do not qualify as a “separate demand of $375,000 or less,” as referenced above, and are not subject to this section.

3. A voucher, invoice, payment application, or other routine or authorized form of request for payment is not a Claim for purposes of this section. If such request is disputed as to liability or amount, then the disputed portion of the submission may be converted to a Claim under this section by submitting a separate claim in compliance with Contract Documents claim submission requirements.

4. Caution. This section does not apply to tort claims and nothing in this section is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Chapter 1 and Chapter 2 of Part 3 of Division 3.6 of Title 1 of the California Government Code.

5. Procedure:

a. The Claim must be in writing, submitted in compliance with all requirements of Document 00 7200 (General Conditions), paragraph 12, including, but not limited to, the time prescribed by and including the documents necessary to substantiate the Claim, pursuant to Document 00 7200 (General Conditions), paragraph 12.3. Claims must be filed on or before the day of final payment. Nothing in this section is intended to extend the time limit or supersede notice requirements for the filing of claims as set forth in Document 00 7200 (General Conditions), paragraph 12 or elsewhere in the Contract Documents.

b. For Claims of fifty thousand dollars ($50,000) or less, Owner shall respond in writing within forty-five (45) days of receipt of the Claim, or Owner may request in writing within thirty (30) days of receipt of the Claim, any additional documentation supporting the Claim or relating to any defenses or claims Owner may have against Claimant. If additional information is thereafter required, it shall be requested and provided in accordance with this section upon mutual agreement of Owner and Claimant. Owner’s written response to the Claim, as further documented, shall be submitted to Claimant within fifteen (15) days after receipt of further documentation or within a period of time no greater than taken by Claimant in producing the additional information, whichever is greater.

c. For Claims over Fifty Thousand Dollars ($50,000) and less than or equal to $375,000: Owner shall respond in writing within sixty (60) days of receipt of the Claim, or Owner may request in writing within thirty (30) days of receipt of the Claim,
any additional documentation supporting the Claim or relating to any defenses or claims Owner may have against Claimant. If additional information is thereafter required, it shall be requested and provided in accordance with this section, upon mutual agreement of Owner and Claimant; Owner’s written response to the Claim, as further documented, shall be submitted to Claimant within thirty (30) days after receipt of further documentation or within a period of time no greater than taken by Claimant in producing the additional information, whichever is greater.

d. Meet and Confer: If Claimant disputes Owner’s written response, or Owner fails to respond within the time prescribed above, Claimant shall notify Owner, in writing, either within fifteen (15) days of receipt of Owner’s response or within fifteen (15) days of Owner’s failure to timely respond, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon demand Owner will schedule a meet and confer conference within thirty (30) days for settlement of the dispute.

e. Following the meet and confer conference, if the Claim or any portion remains in dispute, Claimant may file a claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the California Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time Claimant submits its written claim as set forth herein, until the time that Claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process.

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.

PART 2 – PRODUCTS – NOT USED

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.
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.


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.


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 Document 00 7201 (Supplementary Conditions).


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. Day: One calendar day of 24 hours measured from midnight to the next midnight, unless the word “day” is specifically modified to the contrary.

28. 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 but not limited to 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.

29. Division of State Architect: A division of the State of California providing, design and construction oversight for K–12 schools and community colleges, and developing and maintaining accessibility standards and codes utilized in public and private buildings throughout the State of California.

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.


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 but not limited to, 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 §3093, 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 byphenyls.

51. Phase: A specified portion of the Work (if any) specifically identified as a Phase in Document 00 5200 (Agreement) or Document 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 Manager: If used elsewhere in the Contract Documents, “Project Manager” shall mean a person representing the Owner in the administration of the Contract Documents. Project Manager may be an employee of or an independent consultant to Owner. When
Project Manager is referred to within the Contract Documents and no Project Manager has in fact been designated, then the matter shall be referred to Owner. The term Project Manager shall be construed to include employees of Project Manager and/or employees that Project Manager supervises. When the designated Project Manager is an employee of Owner, his or her authorized representatives on the Project will be included under the term Project Manager. 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.


57. 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.

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.


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.


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. 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.

73. 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.

74. 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).

75. 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
PART 1 GENERAL

1.01 SECTION INCLUDES
A. General product requirements.
B. Transportation, handling, storage and protection.
C. Product option requirements.
D. Substitution limitations and procedures.
E. Maintenance materials, including extra materials, spare parts, tools, and software.

1.02 REFERENCE STANDARDS
A. NFPA 70 - National Electrical Code; National Fire Protection Association; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.03 SUBMITTALS
A. Proposed Products List: Submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
   1. Submit within 15 days after date of Agreement.
   2. For products specified only by reference standards, list applicable reference standards.
B. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
C. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

PART 2 PRODUCTS

2.01 NEW PRODUCTS
A. Provide new products unless specifically required or permitted by the Contract Documents.
B. Do not use products having any of the following characteristics:

2.02 PRODUCT OPTIONS
A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

2.03 MAINTENANCE MATERIALS
A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
B. Deliver to Project site; obtain receipt prior to final payment.

PART 3 EXECUTION

3.01 SUBSTITUTION PROCEDURES
A. A Substitution is a change from one product or material to another of equal or like value, quality, features, appearance or durability. The burden of proof is on the submitter and the determination of equality rests solely with the Owner's Representative and Owner. In general, substitutions will be considered and indicated in the "Conditions" or when the cost differential and benefit is favorable to the Owner without affecting the final results of the Project. All
"Requests for Substitutions" must be accompanied by a completed request form. See enclosed form at the end of this section.

B. Within a period of fifteen (15) calendar days after award of Contract, the Owner's Representative will consider formal requests from the Contractor for substitution of products in place of those specified.

C. After end of that period, requests will be considered only in case of product unavailability or other conditions beyond the control of Contractor.

D. Product unavailability shall be verified in writing by manufacturer.

E. A request for substitution constitutes a representation that the submitter:
   1. Has investigated proposed product and determined that it is equal or better than the specified product in all aspects.
   2. Will provide the same warranty for the substitution as for the specified product.
   3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to the Owner.
   4. Waives claims for additional costs or time extension which may subsequently become apparent.
   5. Will reimburse Owner's Representative for review or redesign services associated with approval and re-approval by authorities.

F. Submit separate Requests for each substitution with requirements stated in Contract Documents:
   1. Complete data substantiating compliance of proposed substitution with requirements stated in Contract Documents:
      a. Product identification, including manufacturer's name and address.
      b. Manufacturer's literature identifying:
         1) Product's description.
         2) Reference Standards.
         3) Performance and test data.
         4) Samples: as applicable.
         5) Name and address of similar projects on which product has been used; and date of each installation.
   2. Itemized comparison of the proposed substitution with product specified; list significant variations. Provide tabbed and marked manufacturer's data for specified product and the substitution for documentation.
   3. Data relating to changes in Construction Schedule.
   4. Any effect of substitution on separate Contracts.
   5. List of changes required in other work or products.
   6. Detailed cost data comparing proposed substitution with product specified.
   7. Designation of availability of required license fees or royalties.

G. Substitutions will not be considered for acceptance when:
   1. They are indicated or implied on Shop Drawings or product data submittals without a formal request from Contractor.
   2. They are requested directly by a Subcontractor.
   3. Acceptance will require substantial revision of Contract Documents.
   4. Insufficient information is available.

H. Products and materials described on the Drawings and in these Specifications are known to be available at the time of bidding. Failure on the part of the Contractor to procure, receive and store such products and materials will not be considered as a basis for substitution or an increase in the Contract Price.

I. Should the Contractor fail to furnish specified products or materials in a timely manner and such products or materials are no longer available, the Contractor shall furnish such substitution as
determined by the Owner's Representative to be equal to the original Specification at no additional cost to the Owner.

J. The Owner shall assume no responsibility for failure on the part of the Contractor to provide the specified products or materials.

K. Substitute products shall not be ordered or installed without prior written review by the Owner's Representative.

L. Owner's Representative shall determine acceptability of proposed substitutions and reserves the right to reject proposals due to insufficient information or to reject proposals, if, in the Owner's Representative's judgment, the proposed substitution does not meet the aesthetic criteria of the specified materials.

M. Compensation: Contractor shall reimburse Owner for compensation paid to the Owner's Representative for evaluation of substitution proposals made during construction, whether or not substitution is accepted by Owner.

3.02 TRANSPORTATION AND HANDLING
A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.

B. Transport and handle products in accordance with manufacturer's instructions.

C. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.

D. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.

E. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

F. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.03 STORAGE AND PROTECTION
A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.

B. Store and protect products in accordance with manufacturers' instructions.

C. Store with seals and labels intact and legible.

D. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.

E. For exterior storage of fabricated products, place on sloped supports above ground.

F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

G. Prevent contact with material that may cause corrosion, discoloration, or staining.

H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.

I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION

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PRODUCT REQUIREMENTS
11522 - Building A Heating Upgrade

SECTION 01 70 00
EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Examination, preparation, and general installation procedures.
B. Cutting and patching.
C. Cleaning and protection.
D. Starting of systems and equipment.
E. Demonstration and instruction of Owner personnel.
F. Closeout procedures, except payment procedures.

1.02 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
   1. Structural integrity of any element of Project.
   2. Efficiency, maintenance, or safety of any operational element.
   4. Work of Owner or separate Contractor.
   5. Include in request:
      a. Identification of Project.
      b. Location and description of affected work.
      c. Necessity for cutting or alteration.
      d. Description of proposed work and products to be used.
      e. Alternatives to cutting and patching.
      f. Effect on work of Owner or separate Contractor.
      g. Written permission of affected separate Contractor.
      h. Date and time work will be executed.

PART 2 PRODUCTS

2.01 PATCHING MATERIALS

A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
C. Examine and verify specific conditions described in individual specification sections.
D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

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3.02 PREPARATION
  A. Clean substrate surfaces prior to applying next material or substance.
  B. Seal cracks or openings of substrate prior to applying next material or substance.
  C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 LAYING OUT THE WORK
  A. Promptly notify Engineer of any discrepancies discovered.

3.04 GENERAL INSTALLATION REQUIREMENTS
  A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
  B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
  C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
  D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
  E. Make neat transitions between different surfaces, maintaining texture and appearance.

3.05 CUTTING AND PATCHING
  A. Whenever possible, execute the work by methods that avoid cutting or patching.
  B. Perform whatever cutting and patching is necessary to:
     1. Complete the work.
     2. Fit products together to integrate with other work.
     3. Provide openings for penetration of mechanical, electrical, and other services.
     4. Match work that has been cut to adjacent work.
     5. Repair areas adjacent to cuts to required condition.
     6. Repair new work damaged by subsequent work.
     7. Remove samples of installed work for testing when requested.
     8. Remove and replace defective and non-conforming work.
  C. Execute cutting and patching to complete the work, to uncover work to install improperly sequenced work, to remove and replace defective or non-conforming work, to remove samples of installed work for testing, to provide openings in the work for penetration of mechanical and electrical work, to execute patching to complement adjacent work, and to fit Products together to integrate with other work.
  D. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
  E. Employ skilled and experienced installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
  F. Restore work with new products in accordance with requirements of Contract Documents.
  G. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
  H. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material, to full thickness of the penetrated element.
  I. Patching:
     1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
     2. Match color, texture, and appearance.
     3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

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J. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections. Repair substrate prior to patching finish. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

3.06 PROGRESS CLEANING
A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.07 PROTECTION OF INSTALLED WORK
A. Protect installed work from damage by construction operations.
B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
E. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
F. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.

3.08 DEMONSTRATION AND INSTRUCTION
A. Demonstrate operation and maintenance of products to Owner's personnel two weeks prior to date of Substantial Completion.
B. Provide a qualified person who is knowledgeable about the Project to perform demonstration.
C. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
D. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

3.09 ADJUSTING
A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.10 FINAL CLEANING
A. Execute final cleaning after Substantial Completion but before making final application for payment.
   1. Clean areas to be occupied by Owner prior to final completion before Owner occupancy.
B. Use cleaning materials that are nonhazardous.
C. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
D. Clean site; sweep paved areas, rake clean landscaped surfaces.
E. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.
F. Clean Owner-occupied areas of work.

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3.11 CLOSEOUT PROCEDURES

A. Make submittals that are required by governing or other authorities.
   1. Provide copies to Engineer and Owner.

B. Notify Engineer when work is considered ready for Substantial Completion.

C. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Engineer's review.

D. Notify Engineer when work is considered finally complete.

E. Complete items of work determined by Engineer's final inspection.

F. The Engineer will make only two (2) inspections to determine substantial completion. If these inspections determine that the work is not substantially complete, either because of major items not completed or an excessive number of punchlist items, successive inspections requested by the Contractor shall be charged to the Contractor at a rate of $400.00 per person per half day.

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 but not limited to, 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
SECTION 01 78 00
CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Project Record Documents.
B. Operation and Maintenance Data.
C. Warranties and bonds.
D. As-Built Drawings

1.02 SUBMITTALS

A. Project Record Documents: Submit documents to Engineer with claim for final Application for Payment.

B. Operation and Maintenance Data:
1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Engineer will review draft and return one copy with comments.
2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
3. Submit one copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Engineer comments. Revise content of all document sets as required prior to final submission.
4. Submit two sets of revised final documents in final form within 10 days after final inspection.

C. Warranties and Bonds:
1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.

D. As-Built Drawings:
1. Submit two compact disks with electronic as-built drawings in AutoCad 2008 or newer. Include all pen settings.
2. Submit two opaque copies and one reproducible original of drawings to Engineer.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PROJECT RECORD DOCUMENTS

A. Maintain on site one set of the following record documents; record actual revisions to the Work:
  1. Drawings.
  2. Addenda.
  3. Change Orders and other modifications to the Contract.
B. Ensure entries are complete and accurate, enabling future reference by Owner.
C. Store record documents separate from documents used for construction.
D. Record information concurrent with construction progress.
E. Record Drawings: Legibly mark each item to record actual construction including:
   1. Field changes of dimension and detail.
   2. Details not on original Contract drawings.

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CLOSEOUT SUBMITTALS
3.02 OPERATION AND MAINTENANCE DATA

A. For Each Product or System: List names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.

B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.

C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.

D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.03 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

A. For Each Item of Equipment and Each System:
   1. Description of unit or system, and component parts.
   2. Identify function, normal operating characteristics, and limiting conditions.
   3. Include performance curves, with engineering data and tests.
   4. Complete nomenclature and model number of replaceable parts.

B. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.

C. Include color coded wiring diagrams as installed.

D. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.

E. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.

F. Provide servicing and lubrication schedule, and list of lubricants required.

G. Include manufacturer's printed operation and maintenance instructions.

H. Include sequence of operation by controls manufacturer.

I. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.

J. Provide control diagrams by controls manufacturer as installed.

K. Provide Contractor's coordination drawings, with color coded piping diagrams as installed.

L. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.

M. Include test and balancing reports.

N. Additional Requirements: As specified in individual product specification sections.

3.04 OPERATION AND MAINTENANCE MANUALS

A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.

B. Prepare data in the form of an instructional manual.

C. Binders: Commercial quality, 8-1/2 by 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.

D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.

E. Provide tabbed dividers for each separate product and system, with typed description of product and major component parts of equipment.
F. Text: Manufacturer's printed data, or typewritten data on 24 pound paper.
G. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
H. Arrange content by systems under section numbers and sequence of Table of Contents of this Project Manual.
I. Contents: Prepare a Table of Contents for each volume, with each product or system description identified, in three parts as follows:
   1. Part 1: Directory, listing names, addresses, and telephone numbers of Engineer, Contractor, Subcontractors, and major equipment suppliers.
   2. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
      a. Significant design criteria.
      b. List of equipment.
      c. Parts list for each component.
      d. Operating instructions.
      e. Maintenance instructions for equipment and systems.
   3. Part 3: Project documents and certificates, including the following:
      a. Shop drawings and product data.
      b. Water balance reports.
      c. Photocopies of warranties and bonds.

3.05 WARRANTIES AND BONDS
A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
B. Verify that documents are in proper form, contain full information, and are notarized.
C. Co-execute submittals when required.
D. Retain warranties and bonds until time specified for submittal.

3.06 AS BUILT DRAWINGS
A. Prepare as-built drawings utilizing AutoCad 2008 or later. Use nationally recognized drawing standards, including layer management and organization.
B. Engineer will provide original design drawing files for starting point of as-builts.
C. Drawings shall indicate actual installed location, elevation, orientation, size and features of all equipment and materials installed under this contract.
D. Revise all sheets from the design drawings as required to reflect actual construction. This includes but is not limited to all diagrams, panel schedules, equipment schedules, controls points lists, floor plans, elevations, profiles and sequences.
E. As Built drawings for underground utilities shall include showing and marking of all utilities crossed, whether shown on Contract Drawings or not. Information for existing utilities shall include utility type, size, depth or elevation, and station number or location to permanent, fixed above ground features.

END OF SECTION
It is the policy of the Peralta Community College District (Board Policy 2.40, Environmental Sustainability), to purchase products or services that help to minimize the adverse effects on human health and the environment, when compared to other products and services that serve the same purpose with comparable efficacy. The District recognizes that environmentally responsible purchasing will help create and sustain markets for environmentally sustainable products, and is committed to encouraging the procurement of products with high recycled content, FSC certified lumber, Energy Star rated equipment, low and no VOC paints, low-toxicity cleaning supplies and Green Seal approved chemicals, and will promote contracting with businesses in close proximity, to reduce our carbon footprint and to promote the District’s SLBE program.

For Operation and Construction services the District is committed to:

- **Utilizing LEED** (Leadership in Energy and Environmental Design) or equivalent certification criteria as follows:
  - All new building projects shall qualify for at least LEED NC Silver certification and shall strive for higher levels of certification, especially where overall long-term building operations, student learning, and worker productivity savings can be realized through doing so.
  - All renovation projects over 10,000 square feet shall meet basic “LEED Existing Building” certification standards.
- **Maximizing energy efficiency** throughout the District, in particular, heating, cooling, lighting, information technology, mechanical, and water systems. It is the goal of the District to reduce dramatically our energy consumption for existing buildings and for all new buildings to exceed the State of California Building Code Title 24 energy efficiency requirements by no less than 35%.
- **Reduction of water consumption** for all uses, including for irrigation and domestic purposes.
- **Waste source reduction** and the re-use of materials. The District encourages all contractors to re-use and recycle as much construction and demolition debris as possible, and only when it is not feasible to do so, dispose of it in a landfill. All contractors must adhere to the District’s Construction Debris Reporting Requirements.
- **Sustainable landscaping and grounds design**, construction and maintenance practices which promote integrated pest management and use of drought tolerant, fire safe, and native vegetation types.

All public work projects must adhere to the District Environmental Sustainability Policy 2.40. The formal policy is available for download at www.peralta.edu; click on the District Services Center tab and then Purchasing to view the environmentally sustainable purchasing policy.

**Signature**

I acknowledge and agree to adhere to the District’s Environmental Sustainability policy.

Contractor Name: ______________ Title: _______________________________

Authorized Signature: ______________________________ Date: _______________
SPECIFICATIONS

Building A Heating Upgrade
Project #11522

Merritt Community College
12500 Campus Drive

PERALTA COMMUNITY COLLEGE DISTRICT
OAKLAND, CA. 94619

Approval Stamps

MECHANICAL ENGINEER
John Salas
Salas O’Brien Engineers, Inc.
305 South 11th Street
San Jose, Ca. 95112

ELECTRICAL ENGINEER
Thomas Jun
Salas O’Brien Engineers, Inc.
305 South 11th Street
San Jose, Ca. 95112

DIVISION OF THE STATE ARCHITECT

STATE OF CALIFORNIA
REGISTRATION NO: 990566
REGISTRATION NO: 913920
STATE OF CALIFORNIA
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SUMMARY

PART 1 GENERAL

1.01 PROJECT
A. Project Name: Building A Heating Upgrade.
B. Owner's Name: Peralta Community College District.
C. Engineer's Name: Salas O'Brien Engineers, Inc.
D. The Project consists of the alteration of the heating at Building A.

1.02 CONTRACT DESCRIPTION
A. Contract Type: A single prime contract based on a Stipulated Price as described in Invitation to Bid.

1.03 DESCRIPTION OF ALTERATIONS WORK
A. Scope of demolition and removal work is shown on drawings.
B. Scope of alterations work is shown on drawings.
C. HVAC: Replace existing system with new construction.
D. Electrical Power and Lighting: Alter existing and add new construction.

1.04 OWNER OCCUPANCY
A. Owner intends to continue to occupy portions of the existing building during the entire construction period.
B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
C. Schedule the Work to accommodate Owner occupancy.

1.05 CONTRACTOR USE OF SITE AND PREMISES
A. Construction Operations: Limited to areas noted on Drawings.
B. Arrange use of site and premises to allow:
   1. Owner occupancy.
C. Provide access to and from site as required by law and by Owner.
D. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
E. Limit shutdown of utility services to 4 hours at a time, arranged at least 24 hours in advance with Owner.

1.06 WORK SEQUENCE
A. Coordinate construction schedule and operations with Owner.

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION - NOT USED

END OF SECTION
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SECTION 01 21 12
ALLOWANCES

PART 1 GENERAL
1.01 SECTION INCLUDES:
   A. Product/Installation Allowances
   B. Contract Sum Allowances

PART 2 PRODUCTS
2.01 PRODUCT/INSTALLATION ALLOWANCES
   A. This Section of the Specification sets forth the extent of Allowances described hereafter. Work performed under allowances shall conform fully to all applicable parts of these specifications and drawings.
      1. As shown on the bid form, Contractor shall include in the total amount, the base bid and all allowances stated in the Contract Documents.
      2. The Contractor shall cause the work/materials and critical path time covered by these allowances to be performed for such amounts and by such persons as the Owner may direct, but Contractor will not be required to employ persons against whom Contractor makes a reasonable objection. If the actual cost, when determined, is more than or less than the allowance, the contract sum shall be adjusted accordingly by Change Order.
      3. Cash allowances shall include complete work in place with all costs fully accounted for.
      4. Payment to the contractor shall be made as per normal payment procedures discussed in other portions of the Contract Documents.
      5. Payment to a Owner-designated third party shall be made by the Contractor as approved by the Owner. Contractor shall pay designated third party within 15 days of receipt of payment from the Owner.
      6. Funds unused in any allowance item will be credited to the contract by credit change order, and shall carry no contractor markup.

2.02 CONTRACT SUM ALLOWANCES
   A. The Allowances below correspond to the total allowance amounts defined on the Bid Form. In addition, each allowance item has applied to it a critical path duration that shall be included within the critical path schedule in anticipation of the Allowance activity (i.e. in order to accomplish the completion time as provided for in the Contract Documents, the critical path duration, below, shall be accommodated within the progress schedules defined elsewhere in these contract documents):
      1. Unforeseen Site Conditions:
         a. Cash Allowance:
            1) A cash allowance of $10,000 shall be available for the purpose of accommodating unforeseen site conditions.
         b. Critical Path Duration:
            1) Add 10 calendar days of critical path time.
      2. Unforeseen Hazardous Material Abatement:
         a. Cash Allowance:
            1) A cash allowance of $5,000 shall be available for proper handling of asbestos, lead, PCB or other hazardous materials which are not defined as part of the bid documents. This allowance is for work over and above that already defined in the Contract Documents.
         b. Critical Path Duration:
            1) Add 5 calendar days of critical path time.
      3. Facilities Services:
         a. Cash Allowance:
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1) A cash allowance of $5,000 shall be available for time applied by the Owner's trades (i.e. in the Facilities Department) in support of the Contractor or Contractors construction activities.

b. Critical Path Duration:
   1) Add 0 calendar days of critical path time.

END OF SECTION
SECTION 01 30 00
ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Preconstruction meeting.
B. Progress meetings.
C. Construction progress schedule.
D. Submittals for review, information, and project closeout.
E. Number of copies of submittals.
F. Submittal procedures.

1.02 PROJECT COORDINATION

A. Project Coordinator: Construction Manager.
B. Cooperate with the Project Coordinator in allocation of mobilization areas of site; for field offices and sheds, for vehicular access, traffic, and parking facilities.
C. During construction, coordinate use of site and facilities through the Project Coordinator.
D. Comply with Project Coordinator’s procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.
E. Comply with instructions of the Project Coordinator for use of temporary utilities and construction facilities.
F. Coordinate field engineering and layout work under instructions of the Project Coordinator.
G. Make the following types of submittals to Engineer through the Project Coordinator:
   1. Requests for interpretation.
   2. Requests for substitution.
   3. Shop drawings, product data, and samples.
   4. Test and inspection reports.
   5. Manufacturer's instructions and field reports.
   6. Applications for payment and change order requests.
   7. Progress schedules.
   8. Coordination drawings.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PRECONSTRUCTION MEETING

A. Owner will schedule a meeting after Notice of Award.
B. Attendance Required:
   1. Owner.
   2. Engineer.
   3. Contractor.
C. Agenda:
   1. Execution of Owner-Contractor Agreement.
   2. Submission of executed bonds and insurance certificates.
   4. Submission of list of Subcontractors, list of Products, schedule of values, and progress schedule.
   5. Designation of personnel representing the parties to Contract[]and Engineer.
6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
7. Scheduling.

D. Record minutes and distribute copies within two days after meeting to participants, with one copy to Engineer, Owner, participants, and those affected by decisions made.

3.02 PROGRESS MEETINGS
A. Schedule and administer meetings throughout progress of the Work at maximum bi-monthly intervals.
B. Attendance Required: Job superintendent, major Subcontractors and suppliers, Owner, Engineer, as appropriate to agenda topics for each meeting.
C. Agenda:
   1. Review minutes of previous meetings.
   2. Review of Work progress.
   3. Field observations, problems, and decisions.
   4. Identification of problems that impede, or will impede, planned progress.
   5. Review of submittals schedule and status of submittals.
   6. Maintenance of progress schedule.
   7. Corrective measures to regain projected schedules.
   8. Planned progress during succeeding work period.
  10. Effect of proposed changes on progress schedule and coordination.
  11. Other business relating to Work.

D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Engineer, Owner, participants, and those affected by decisions made.

3.03 CONSTRUCTION PROGRESS SCHEDULE
A. Within 10 days after date of the Agreement, submit preliminary schedule defining planned operations for the first 60 days of Work, with a general outline for remainder of Work.
B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
   1. Include written certification that major contractors have reviewed and accepted proposed schedule.
D. Within 10 days after joint review, submit complete schedule.
E. Submit updated schedule with each Application for Payment.

3.04 SUBMITTALS FOR REVIEW
A. When the following are specified in individual sections, submit them for review:
   1. Product data.
   2. Shop drawings.
   3. Samples for selection.
   4. Samples for verification.
B. Submit to Engineer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
C. Samples will be reviewed only for aesthetic, color, or finish selection.
D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 78 00 - CLOSEOUT SUBMITTALS.

3.05 SUBMITTALS FOR INFORMATION
A. When the following are specified in individual sections, submit them for information:

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1. Design data.
2. Certificates.
3. Test reports.
4. Inspection reports.
5. Manufacturer's instructions.
6. Manufacturer's field reports.
7. Other types indicated.

B. Submit for Engineer's knowledge as contract administrator or for Owner. No action will be taken.

3.06 SUBMITTALS FOR PROJECT CLOSEOUT

A. When the following are specified in individual sections, submit them at project closeout:
   1. Project record documents.
   2. Operation and maintenance data.
   3. Warranties.
   5. As-Built Drawings.
   6. Other types as indicated.

3.07 NUMBER OF COPIES OF SUBMITTALS

A. Documents for Review:
   1. Small Size Sheets, Not Larger Than 8-1/2 x 11 inches: Submit the number of copies that Contractor requires, plus two copies that will be retained by Engineer.

B. Documents for Information: Submit two copies.

3.08 SUBMITTAL PROCEDURES

A. Transmit each submittal with approved form.
B. Identify Project, Contractor, Subcontractor or supplier, pertinent drawing and detail number, and specification section number, as appropriate on each copy.
C. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
D. Contractor shall verify both the field dimensions and the drawing layouts prior to submitting products for review to verify that installation is properly coordinated. It is the contractor's responsibility to submit products that are appropriate for the actual field conditions.
E. Deliver submittals to Engineer at business address.
F. Schedule submittals to expedite the Project, and coordinate submission of related items.
G. For each submittal for review, allow 15 calendar days excluding delivery time to and from the Contractor.
H. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
I. Provide space for Contractor and Engineer review stamps.
J. When revised for resubmission, identify all changes made since previous submission.
K. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
L. Submittals not requested will not be recognized or processed.
M. Engineer's review will result in the return of the submittal with one of the following marks:
   1. "No Exceptions - materials may be provided as described in the submittal.
   2. "Exceptions Noted, Resubmittal Not Required" - materials may be provided as described in the submittal, in accordance with comments or notes or additional requirements noted by the reviewer.
3. "Not Acceptable" - Materials are unacceptable and shall not be provided.
4. "Exceptions Noted, Resubmit" - Requires that the submittal be modified, according to requirements noted, and resubmitted.

N. Materials or equipment shall not be delivered to the jobsite without first obtaining a submittal which has the "No Exceptions" or "Exceptions Noted, Resubmittal Not Required" stamp mark.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Control of installation.
   B. Tolerances.
   C. Testing services.
   D. Manufacturers' field services.

1.02 SUBMITTALS
   A. Testing Agency Qualifications:
      1. Prior to start of Work, submit agency name, address, and telephone number, and names of full time registered Engineer and responsible officer.
   B. Test Reports: After each test/inspection, promptly submit two copies of report to Engineer and to Contractor.
      1. Include:
         a. Date issued.
         b. Project title and number.
         c. Name of inspector.
         d. Date and time of sampling or inspection.
         e. Identification of product and specifications section.
         f. Location in the Project.
         g. Type of test/inspection.
         h. Date of test/inspection.
         i. Results of test/inspection.
         j. Conformance with Contract Documents.
         k. When requested by Engineer, provide interpretation of results.
      2. Test report submittals are for Engineer's knowledge as contract administrator for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents, or for Owner's information.
   C. Certificates: When specified in individual specification sections, submit certification by the manufacturer and Contractor or installation/application subcontractor to Engineer, in quantities specified for Product Data.
      1. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
      2. Certificates may be recent or previous test results on material or product, but must be acceptable to Engineer.
   D. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the Owner's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
   E. Manufacturer's Field Reports: Submit reports for Engineer's benefit as contract administrator or for Owner.
      1. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

1.03 TESTING AND INSPECTION AGENCIES
   A. As indicated in individual specification sections, Owner or Contractor shall employ and pay for services of an independent testing agency to perform other specified testing.
   B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
C. Contractor Employed Agency:
   1. Testing Equipment: Calibrated at reasonable intervals either by NIST or using an NIST established Measurement Assurance Program, under a laboratory measurement quality assurance program.

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION

3.01 CONTROL OF INSTALLATION
   A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
   B. Comply with manufacturers' instructions, including each step in sequence.
   C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
   D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
   E. Have Work performed by persons qualified to produce required and specified quality.
   F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
   G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.02 TOLERANCES
   A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
   B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.
   C. Adjust products to appropriate dimensions; position before securing products in place.

3.03 TESTING AND INSPECTION
   A. See individual specification sections for testing required.
   B. Testing Agency Duties:
      1. Provide qualified personnel at site. Cooperate with Engineer and Contractor in performance of services.
      2. Perform specified sampling and testing of products in accordance with specified standards.
      3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
      4. Promptly notify Engineer and Contractor of observed irregularities or non-conformance of Work or products.
      5. Perform additional tests and inspections required by Engineer.
      6. Submit reports of all tests/inspections specified.
   C. Limits on Testing/Inspection Agency Authority:
      1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
      2. Agency may not approve or accept any portion of the Work.
      3. Agency may not assume any duties of Contractor.
      4. Agency has no authority to stop the Work.
   D. Contractor Responsibilities:
      1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
      2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
3. Provide incidental labor and facilities:
   a. To provide access to Work to be tested/inspected.
   b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
   c. To facilitate tests/inspections.
   d. To provide storage and curing of test samples.
4. Notify Engineer and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
   E. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by Engineer.
   F. Re-testing required because of non-conformance to specified requirements shall be paid for by Contractor.

3.04 MANUFACTURERS' FIELD SERVICES
   A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment as applicable, and to initiate instructions when necessary.
   B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

3.05 DEFECT ASSESSMENT
   A. Replace Work or portions of the Work not conforming to specified requirements.
   B. If, in the opinion of Engineer, it is not practical to remove and replace the Work, Engineer will direct an appropriate remedy or adjust payment.

END OF SECTION
SECTION 01 60 00
PRODUCT REQUIREMENTS

PART 1 GENERAL
1.01 SECTION INCLUDES
A. General product requirements.
B. Transportation, handling, storage and protection.
C. Product option requirements.
D. Substitution limitations and procedures.
E. Maintenance materials, including extra materials, spare parts, tools, and software.

1.02 REFERENCE STANDARDS
A. NFPA 70 - National Electrical Code; National Fire Protection Association; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.03 SUBMITTALS
A. Proposed Products List: Submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
   1. Submit within 15 days after date of Agreement.
   2. For products specified only by reference standards, list applicable reference standards.
B. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
C. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

PART 2 PRODUCTS
2.01 NEW PRODUCTS
A. Provide new products unless specifically required or permitted by the Contract Documents.
B. Do not use products having any of the following characteristics:

2.02 PRODUCT OPTIONS
A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

2.03 MAINTENANCE MATERIALS
A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
B. Deliver to Project site; obtain receipt prior to final payment.

PART 3 EXECUTION
3.01 SUBSTITUTION PROCEDURES
A. A Substitution is a change from one product or material to another of equal or like value, quality, features, appearance or durability. The burden of proof is on the submitter and the determination of equality rests solely with the Owner's Representative and Owner. In general, substitutions will be considered and indicated in the "Conditions" or when the cost differential and benefit is favorable to the Owner without affecting the final results of the Project. All
"Requests for Substitutions" must be accompanied by a completed request form. See enclosed form at the end of this section.

B. Within a period of fifteen (15) calendar days after award of Contract, the Owner's Representative will consider formal requests from the Contractor for substitution of products in place of those specified.

C. After end of that period, requests will be considered only in case of product unavailability or other conditions beyond the control of Contractor.

D. Product unavailability shall be verified in writing by manufacturer.

E. A request for substitution constitutes a representation that the submitter:
   1. Has investigated proposed product and determined that it is equal or better than the specified product in all aspects.
   2. Will provide the same warranty for the substitution as for the specified product.
   3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to the Owner.
   4. Waives claims for additional costs or time extension which may subsequently become apparent.
   5. Will reimburse Owner's Representative for review or redesign services associated with approval and re-approval by authorities.

F. Submit separate Requests for each substitution with requirements stated in Contract Documents:
   1. Complete data substantiating compliance of proposed substitution with requirements stated in Contract Documents:
      a. Product identification, including manufacturer's name and address.
      b. Manufacturer's literature identifying:
         1) Product's description.
         2) Reference Standards.
         3) Performance and test data.
         4) Samples: as applicable.
         5) Name and address of similar projects on which product has been used, and date of each installation.
   2. Itemized comparison of the proposed substitution with product specified; list significant variations. Provide tabbed and marked manufacturer's data for specified product and the substitution for documentation.
   3. Data relating to changes in Construction Schedule.
   4. Any effect of substitution on separate Contracts.
   5. List of changes required in other work or products.
   6. Detailed cost data comparing proposed substitution with product specified.
   7. Designation of availability of required license fees or royalties.

G. Substitutions will not be considered for acceptance when:
   1. They are indicated or implied on Shop Drawings or product data submittals without a formal request from Contractor.
   2. They are requested directly by a Subcontractor.
   3. Acceptance will require substantial revision of Contract Documents.
   4. Insufficient information is available.

H. Products and materials described on the Drawings and in these Specifications are known to be available at the time of bidding. Failure on the part of the Contractor to procure, receive and store such products and materials will not be considered as a basis for substitution or an increase in the Contract Price.

I. Should the Contractor fail to furnish specified products or materials in a timely manner and such products or materials are no longer available, the Contractor shall furnish such substitution as
determined by the Owner’s Representative to be equal to the original Specification at no additional cost to the Owner.

J. The Owner shall assume no responsibility for failure on the part of the Contractor to provide the specified products or materials.

K. Substitute products shall not be ordered or installed without prior written review by the Owner’s Representative.

L. Owner’s Representative shall determine acceptability of proposed substitutions and reserves the right to reject proposals due to insufficient information or to reject proposals, if, in the Owner’s Representative’s judgment, the proposed substitution does not meet the aesthetic criteria of the specified materials.

M. Compensation: Contractor shall reimburse Owner for compensation paid to the Owner’s Representative for evaluation of substitution proposals made during construction, whether or not substitution is accepted by Owner.

3.02 TRANSPORTATION AND HANDLING

A. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.

B. Transport and handle products in accordance with manufacturer’s instructions.

C. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.

D. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.

E. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

F. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.03 STORAGE AND PROTECTION

A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.

B. Store and protect products in accordance with manufacturers’ instructions.

C. Store with seals and labels intact and legible.

D. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.

E. For exterior storage of fabricated products, place on sloped supports above ground.

F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

G. Prevent contact with material that may cause corrosion, discoloration, or staining.

H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.

I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION
SECTION 01 70 00  
EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Examination, preparation, and general installation procedures.
B. Cutting and patching.
C. Cleaning and protection.
D. Starting of systems and equipment.
E. Demonstration and instruction of Owner personnel.
F. Closeout procedures, except payment procedures.

1.02 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
   1. Structural integrity of any element of Project.
   2. Efficiency, maintenance, or safety of any operational element.
   4. Work of Owner or separate Contractor.
   5. Include in request:
      a. Identification of Project.
      b. Location and description of affected work.
      c. Necessity for cutting or alteration.
      d. Description of proposed work and products to be used.
      e. Alternatives to cutting and patching.
      f. Effect on work of Owner or separate Contractor.
      g. Written permission of affected separate Contractor.
      h. Date and time work will be executed.

PART 2 PRODUCTS

2.01 PATCHING MATERIALS

A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
C. Examine and verify specific conditions described in individual specification sections.
D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.
3.02 PREPARATION
A. Clean substrate surfaces prior to applying next material or substance.
B. Seal cracks or openings of substrate prior to applying next material or substance.
C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 LAYING OUT THE WORK
A. Promptly notify Engineer of any discrepancies discovered.

3.04 GENERAL INSTALLATION REQUIREMENTS
A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.
C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
E. Make neat transitions between different surfaces, maintaining texture and appearance.

3.05 CUTTING AND PATCHING
A. Whenever possible, execute the work by methods that avoid cutting or patching.
B. Perform whatever cutting and patching is necessary to:
   1. Complete the work.
   2. Fit products together to integrate with other work.
   3. Provide openings for penetration of mechanical, electrical, and other services.
   4. Match work that has been cut to adjacent work.
   5. Repair areas adjacent to cuts to required condition.
   6. Repair new work damaged by subsequent work.
   7. Remove samples of installed work for testing when requested.
   8. Remove and replace defective and non-conforming work.
C. Execute cutting and patching to complete the work, to uncover work to install improperly sequenced work, to remove and replace defective or non-conforming work, to remove samples of installed work for testing, to provide openings in the work for penetration of mechanical and electrical work, to execute patching to complement adjacent work, and to fit products together to integrate with other work.
D. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
E. Employ skilled and experienced installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
F. Restore work with new products in accordance with requirements of Contract Documents.
G. Fit work air tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
H. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material, to full thickness of the penetrated element.
I. Patching:
   1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
   2. Match color, texture, and appearance.
   3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.
J. Patch or replace portions of existing surfaces which are damaged, lifted, discolored, or showing other imperfections. Repair substrate prior to patching finish. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

3.06 PROGRESS CLEANING
A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
C. Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
D. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.07 PROTECTION OF INSTALLED WORK
A. Protect installed work from damage by construction operations.
B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
E. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
F. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.

3.08 DEMONSTRATION AND INSTRUCTION
A. Demonstrate operation and maintenance of products to Owner's personnel two weeks prior to date of Substantial Completion.
B. Provide a qualified person who is knowledgeable about the Project to perform demonstration.
C. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
D. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

3.09 ADJUSTING
A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.10 FINAL CLEANING
A. Execute final cleaning after Substantial Completion but before making final application for payment.
   1. Clean areas to be occupied by Owner prior to final completion before Owner occupancy.
B. Use cleaning materials that are nonhazardous.
C. Remove all labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.
D. Clean site; sweep paved areas, rake clean landscaped surfaces.
E. Remove waste, surplus materials, trash/rubbish, and construction facilities from the site; dispose of in legal manner; do not burn or bury.
F. Clean Owner-occupied areas of work.

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EXECUTION AND CLOSEOUT REQUIREMENTS
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3.11 CLOSEOUT PROCEDURES

A. Make submittals that are required by governing or other authorities.
   1. Provide copies to Engineer and Owner.

B. Notify Engineer when work is considered ready for Substantial Completion.

C. Submit written certification that Contract Documents have been reviewed, work has been
   inspected, and that work is complete in accordance with Contract Documents and ready for
   Engineer’s review.

D. Notify Engineer when work is considered finally complete.

E. Complete items of work determined by Engineer’s final inspection.

F. The Engineer will make only two (2) inspections to determine substantial completion. If these
   inspections determine that the work is not substantially complete, either because of major items
   not completed or an excessive number of punchlist items, successive inspections requested by
   the Contractor shall be charged to the Contractor at a rate of $400.00 per person per half day.

END OF SECTION
SECTION 01 78 00
CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Project Record Documents.
B. Operation and Maintenance Data.
C. Warranties and bonds.
D. As-Built Drawings

1.02 SUBMITTALS

A. Project Record Documents: Submit documents to Engineer with claim for final Application for Payment.

B. Operation and Maintenance Data:
   1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Engineer will review draft and return one copy with comments.
   2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
   3. Submit one copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Engineer comments. Revise content of all document sets as required prior to final submission.
   4. Submit two sets of revised final documents in final form within 10 days after final inspection.

C. Warranties and Bonds:
   1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
   2. Make other submittals within 10 days after Date of Substantial Completion, prior to final Application for Payment.
   3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 10 days after acceptance, listing the date of acceptance as the beginning of the warranty period.

D. As-Built Drawings:
   1. Submit two compact disks with electronic as-built drawings in AutoCad 2008 or newer. Include all pen settings.
   2. Submit two opaque copies and one reproducible original of drawings to Engineer.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 PROJECT RECORD DOCUMENTS

A. Maintain on site one set of the following record documents; record actual revisions to the Work:
   1. Drawings.
   2. Addenda.
   3. Change Orders and other modifications to the Contract.

B. Ensure entries are complete and accurate, enabling future reference by Owner.

C. Store record documents separate from documents used for construction.

D. Record information concurrent with construction progress.

E. Record Drawings : Legibly mark each item to record actual construction including:
   1. Field changes of dimension and detail.
   2. Details not on original Contract drawings.
3.02 OPERATION AND MAINTENANCE DATA
A. For Each Product or System: List names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

3.03 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS
A. For Each Item of Equipment and Each System:
   1. Description of unit or system, and component parts.
   2. Identify function, normal operating characteristics, and limiting conditions.
   3. Include performance curves, with engineering data and tests.
   4. Complete nomenclature and model number of replaceable parts.
B. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
C. Include color coded wiring diagrams as installed.
D. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
E. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting: disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
F. Provide servicing and lubrication schedule, and list of lubricants required.
G. Include manufacturer's printed operation and maintenance instructions.
H. Include sequence of operation by controls manufacturer.
I. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
J. Provide control diagrams by controls manufacturer as installed.
K. Provide Contractor's coordination drawings, with color coded piping diagrams as installed.
L. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
M. Include test and balancing reports.
N. Additional Requirements: As specified in individual product specification sections.

3.04 OPERATION AND MAINTENANCE MANUALS
A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.
B. Prepare data in the form of an instructional manual.
C. Binders: Commercial quality, 8-1/2 by 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
D. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
E. Provide tabbed dividers for each separate product and system, with typed description of product and major component parts of equipment.
F. Text: Manufacturer's printed data, or typewritten data on 24 pound paper.

G. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

H. Arrange content by systems under section numbers and sequence of Table of Contents of this Project Manual.

I. Contents: Prepare a Table of Contents for each volume, with each product or system description identified, in three parts as follows:
   1. Part 1: Directory, listing names, addresses, and telephone numbers of Engineer, Contractor, Subcontractors, and major equipment suppliers.
   2. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
      a. Significant design criteria.
      b. List of equipment.
      c. Parts list for each component.
      d. Operating instructions.
      e. Maintenance instructions for equipment and systems.
   3. Part 3: Project documents and certificates, including the following:
      a. Shop drawings and product data.
      b. Water balance reports.
      c. Photocopies of warranties and bonds.

3.05 WARRANTIES AND BONDS
A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.

B. Verify that documents are in proper form, contain full information, and are notarized.

C. Co-execute submittals when required.

D. Retain warranties and bonds until time specified for submittal.

3.06 AS BUILT DRAWINGS
A. Prepare as-built drawings utilizing AutoCad 2008 or later. Use nationally recognized drawing standards, including layer management and organization.

B. Engineer will provide original design drawing files for starting point of as-bults.

C. Drawings shall indicate actual installed location, elevation, orientation, size and features of all equipment and materials installed under this contract.

D. Revise all sheets from the design drawings as required to reflect actual construction. This includes but is not limited to all diagrams, panel schedules, equipment schedules, controls, points lists, floor plans, elevations, profiles and sequences.

E. As Built drawings for underground utilities shall include showing and marking of all utilities crossed, whether shown on Contract Drawings or not. Information for existing utilities shall include utility type, size, depth or elevation, and station number or location to permanent, fixed above grade features.

END OF SECTION
SESSION 09 90 00
PAINTING AND COATING

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Surface preparation.
B. Field application of paints and other coatings.
C. Surfaces to be finished are indicated in this section and on the Drawings.

1.02 REFERENCE STANDARDS

1.03 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide complete list of all products to be used, with the following information for each:
   1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
   2. Cross-reference to specified paint system(s) product is to be used in; include description of each system (copy of relevant MPI Manual page is acceptable).

1.04 FIELD CONDITIONS
A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
C. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

PART 2 PRODUCTS

2.01 MANUFACTURERS
A. Provide all paint and coating products used in any individual system from the same manufacturer; no exceptions.
B. Provide all paint and coating products from the same manufacturer to the greatest extent possible.

2.02 MATERIALS - GENERAL
A. Volatile Organic Compound (VOC) Content:
   1. Provide coatings that comply with the most stringent requirements specified in the following:
   2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
   1. Provide ready mixed paints and coatings, except field-catalyzed coatings.
2. Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

2.03 PAINT SYSTEMS

A. Provide Premium Grade systems (2 top coats) as defined in MPI Architectural Painting Specification Manual, except as otherwise indicated.

B. Where a specified paint system does not have a Premium Grade, provide Custom Grade system.

2.04 EXTERIOR PAINT SYSTEMS

A. Ferrous- Flat- Acrylic: Surfaces:
   1. Prime Coat: KM 1725 - Kel_guard 100% Acrylic Metal Primer.
   2. First Coat: KM 1240 - Acrylic Exterior Flat Finish
   3. Finish Coat: KM 1240 - Acrylic Exterior Flat Finish

B. Ferrous-Semi Gloss - Acrylic:
   1. Prime Coat: KM 1725 - Kel_guard 100% Acrylic Metal Primer.
   2. First Coat: KM 1250 -
   3. Finish Coat: KM 1250 -

C. Galvanized Steel and Aluminum - Flat - Acrylic:
   1. Surface Preparation: Kelly Moore JASCO
   2. Prime Coat: KM 1725 - Kel_guard 100% Acrylic Metal Primer.
   3. Finish Coat: Two coats KM 1240 -

D. Galvanized Steel and Aluminum - Semi-Gloss - Acrylic:
   1. Surface Preparation: Kelly Moore JASCO
   2. Prime Coat: KM 1725 - Kel_guard 100% Acrylic Metal Primer.
   3. Finish Coat: Two coats KM 1250

2.05 INTERIOR PAINT SYSTEMS

A. Interior Gypsum Board: Eggshell Surfaces:
   1. First Coat: KM 971 - Acry-Plex Interior PVA Primer/Sealer.
   2. Second Coat: KM 1500 - Enviro Coat Interior Acrylic Eggshell Enamel
   3. Third Coat: KM 1500 - Enviro Coat Interior Acrylic Eggshell Enamel

B. Interior Gypsum Board: Semi-Gloss Surfaces:
   2. First Coat: KM 1520 - Enviro Coat Interior Acrylic Semi-Gloss Enamel

C. Metal Piping: Ferrous Metals
   1. Prime Coat: KM 1725 - Kel-Guard 100% Acrylic Metal Primer
   2. First Coat: KM 1520 - Enviro Coat Interior Acrylic Semi-Gloss Enamel

D. Metal Piping: Galvanized Metals
   1. Prime Coat: KM 1725 - Kel-Guard 100% Acrylic Metal Primer
   2. First Coat: KM 1520 - Enviro Coat Interior Acrylic Semi-Gloss Enamel

PART 3 EXECUTION

3.01 SCOPE - SURFACES TO BE FINISHED

A. Coordinate with District for the latest paint standards and incorporate their standard with this section.

B. Paint all exposed surfaces except where indicated not to be painted or to remain natural; the term "exposed" includes areas visible through permanent and built-in fixtures when they are in place.

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PAINTING AND COATING
C. Paint the surfaces described in PART 2; indicated on the Drawings, and as follows:
1. If a surface, material, or item is not specifically mentioned, paint in the same manner as similar surfaces, materials, or items, regardless of whether colors are indicated or not.
2. Paint surfaces behind movable equipment and furnishings the same as similar exposed surfaces.
3. Paint surfaces to be concealed behind permanently installed fixtures, equipment, and furnishings, using primer only, prior to installation of the permanent item.
4. Paint back sides of access panels and removable and hinged covers to match exposed surfaces.
5. Paint all insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, mechanical equipment, and electrical equipment occurring in finished areas to match background surfaces, unless otherwise indicated.
6. Paint equipment, piping, conduit, and exposed duct work in utility areas in colors according to the color coding scheme indicated.
7. Paint shop-primed mechanical and electrical items occurring in finished areas.
8. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.
9. Paint interior surfaces of air ducts and convectors and baseboard heating cabinets with flat, nontoxic black paint where visible through registers, grilles, or louvers.

D. Do Not Paint or Finish the Following Items:
1. Items fully factory-finished unless specifically noted; factory-primed items are not considered factory-finished.
2. Items indicated to receive other finish.
3. Items indicated to remain naturally finished.
4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.

3.02 EXAMINATION
A. Verify that surfaces are ready to receive Work as instructed by the product manufacturer.
B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
C. Test shop-applied primer for compatibility with subsequent cover materials; report incompatible primer conditions and submit recommended changes for Engineer’s approval.

3.03 PREPARATION
A. Prepare surfaces as specified in MPI Architectural Painting Specification Manual and as follows for the applicable surface and coating; if multiple preparation treatments are specified, use as many as necessary for best results; where the Manual references external standards for preparation (e.g. SSPC standards), prepare as specified in those standards; comply with coating manufacturer’s specific preparation methods or treatments, if any.
B. Coordinate painting work with cleaning and preparation work so that dust and other contaminants do not fall on newly painted, wet surfaces.
C. Surface Appurtenances: Prior to preparing surfaces or finishing, remove electrical plates, hardware, light fixtures, light fixture trim, escutcheons, machined surfaces, fittings, and similar items already installed that are not to be painted.
1. If removal is impractical or impossible because of the size or weight of the item, provide surface-applied protection before preparation and finishing.
2. After completing painting in each space or area, reinstall items removed using workers skilled in the trades involved.
D. Surfaces: Correct defects and clean surfaces which affect work of this section. Remove or repair existing coatings that exhibit surface defects.
E. Marks: Seal with shellac those which may bleed through surface finishes.

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PAINTING AND COATING
F. Impervious Surfaces: Remove mildew by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.

3.04 APPLICATION

A. Apply products in accordance with manufacturer's instructions and as specified or recommended by MPI Manual, using the preparation, products, sheens, textures, and colors as indicated.
   1. Remove, refinish, or repaint work not complying with requirements.

B. Do not apply finishes over dirt, rust, scale, grease, moisture, scuffed surfaces, or other conditions detrimental to formation of a durable coating film; do not apply finishes to surfaces that are not dry.

C. Use applicators and methods best suited for substrate and type of material being applied and according to manufacturer's instructions.
   1. Brush Application: Use brushes best suited for the type of material applied; use brush of appropriate size for the surface or item being painted; produce results free of visible brush marks.
   2. Roller Application: Use rollers of carpet, velveteen texture, or high-pile sheep's wool as recommended by manufacturer for material and texture required.
   3. Spray Application: Use airless spray equipment with orifice size as recommended by manufacturer for material and texture required.
   4. Where application method is listed in the MPI Manual for the paint system that application method is required; otherwise any application method recommended by manufacturer for material used and objects to be painted is acceptable.

D. Minimum Coating Thickness: Apply paint materials no thinner than manufacturer's recommended spreading rate; provide total dry film thickness of entire system as recommended by manufacturer.
   1. Number of coats and film thickness required are the same regardless of application method.
   2. If undercoats, stains, or other conditions show through final coat of paint, apply additional coats until paint film is of uniform finish, color, and appearance.
   3. Give special attention to ensure edges, corners, crevices, welds, and exposed fasteners receive dry film thickness equivalent to that of flat surfaces.

E. Apply finish to completely cover surfaces with uniform appearance without brush marks, runs, sags, laps, ropiness, holidays, spotting, cloudiness, or other surface imperfections.
   1. Before applying finish coats, apply a prime coat of material recommended by manufacturer, unless the surface has been prime coated by others; where evidence of suction spots or unsealed areas in first coat appear, recoat primed and sealed surfaces to ensure finish coat with no burn through or other defects due to insufficient sealing.
   2. Apply first coat to surface that has been cleaned, pretreated, or otherwise prepared as soon as practical after preparation and before subsequent surface deterioration.
   3. Do not apply succeeding coats until the previous coat has cured as recommended by manufacturer.
   4. Do not recoat until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and application of another coat will not cause the undercoat to lift or lose adhesion.
   5. If manufacturer's instructions recommend sanding to produce a smooth, even surface, sand between coats.
   6. Before applying next coat vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.

3.05 CLEANING AND PROTECTION

A. Collect waste material which may constitute a fire hazard, place in closed metal containers, and remove daily from site.
B. At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from site.

C. Protect other work, whether being painted or not, against damage by painting. Correct damage by cleaning, repairing or replacing, and repainting as approved by Engineer.

D. Provide "Wet Paint" signs to protect newly painted finishes. Remove temporary protective wrappings provided by others to protect their work after completing painting operations.

E. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces. Comply with procedures specified in MPI Manual.

END OF SECTION
SECTION 22 10 05
PLUMBING PIPING

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Pipe, pipe fittings, valves, and connections for piping systems.
   1. Gas.

1.02 REFERENCE STANDARDS
A. ASME B16.3 - Malleable Iron Threaded Fittings; The American Society of Mechanical Engineers; 1998 (R2006).
C. ASME B31.2 - Fuel Gas Piping; The American Society of Mechanical Engineers; 1968.
D. ASME B31.9 - Building Services Piping; The American Society of Mechanical Engineers; 2008 (ANSI/ASME B31.9).
E. ASME (BPV IX) - Boiler and Pressure Vessel Code, Section IX - Welding and Brazing Qualifications; The American Society of Mechanical Engineers; 2010.
J. MSS SP-110 - Ball Valves Threaded, Socket-Welding, Solder Joint, Grooved and Flared Ends; Manufacturers Standardization Society of the Valve and Fittings Industry, Inc.; 1996.

1.03 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide data on pipe materials, pipe fittings, valves, and accessories. Provide manufacturers catalog information. Indicate valve data and ratings.
C. Pipe Test Reports: Submit pipe pressure test reports for all piping installed under this contract indicating that piping systems have been tested in accordance with the California Plumbing Code.

1.04 QUALITY ASSURANCE
A. Perform work in accordance with applicable codes.
B. Valves: Manufacturer’s name and pressure rating marked on valve body.
C. Welding Materials and Procedures: Conform to ASME (BPV IX) and applicable state labor regulations.
D. Welder Qualifications: Certified in accordance with ASME (BPV IX).

1.05 REGULATORY REQUIREMENTS
A. Perform Work in accordance with State of California plumbing code.

1.06 DELIVERY, STORAGE, AND HANDLING
A. Accept valves on site in shipping containers with labeling in place. Inspect for damage.
B. Provide temporary protective coating on cast iron and steel valves.
C. Provide temporary end caps and closures on piping and fittings. Maintain in place until installation.
D. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the work, and isolating parts of completed system.

1.07 FIELD CONDITIONS
A. Do not install underground piping when bedding is wet or frozen.

PART 2 PRODUCTS

2.01 NATURAL GAS PIPING, ABOVE GRADE
A. Steel Pipe: ASTM A53/A53M Schedule 40 black.
   3. Connectors: The 36" ANSI Z21.24/CSA 6.10 flexible connector furnished with the heater must be used. There are no deviations allowed.

2.02 FLANGES, UNIONS, AND COUPLINGS
A. Unions for Pipe Sizes 3 Inches and Under:
   1. Ferrous pipe: Class 150 malleable iron threaded unions.

2.03 PIPE HANGERS AND SUPPORTS
A. Provide hangers and supports that comply with MSS SP-58.
   1. If type of hanger or support for a particular situation is not indicated, select appropriate type using MSS SP-58 recommendations.
   2. Overhead Supports: Individual steel rod hangers attached to structure or to trapeze hangers.

2.04 BALL VALVES
A. Manufacturers:
   4. Substitutions: See Section 01 60 00 - Product Requirements.

B. Construction, 4 Inches and Smaller: MSS SP-110, Class 150, 400 psi CWP, bronze, two piece body, stainless steel ball, regular port, teflon seats and stuffing box ring, blow-out proof stem, lever handle , threaded.

C. Valves for use with natural gas shall be in constructed per applicable ANSI, ASME and CSA standards for service and pressure required. Chrome plated brass ball acceptable for gas use.

PART 3 EXECUTION

3.01 EXAMINATION
A. Verify that excavations are to required grade, dry, and not over-excavated.

3.02 PREPARATION
A. Ream pipe and tube ends. Remove burrs. Bevel plain end ferrous pipe.
B. Remove scale and dirt, on inside and outside, before assembly.
C. Prepare piping connections to equipment with flanges or unions.

3.03 INSTALLATION
A. Install and test all plumbing piping systems in strict accordance with the California Plumbing Code.
B. Install in accordance with manufacturer's instructions.
C. Group piping whenever practical at common elevations.

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D. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc rich primer to welding.

E. Prepare exposed, unfinished pipe, fittings, supports, and accessories ready for finish painting.

F. Install valves with stems upright or horizontal, not inverted.

G. Pipe Hangers and Supports:
   1. Install in accordance with ASME B31.9.
   2. Place hangers within 12 inches of each horizontal elbow.
   3. Use hangers with 1-1/2 inch minimum vertical adjustment. Design hangers for pipe movement without disengagement of supported pipe.
   4. Prime coat exposed steel hangers and supports including hangers and supports located in suspended ceiling spaces.

3.04 APPLICATION
   A. Paint per 09 90 00.
   B. Test per California Plumbing Code.

3.05 SCHEDULES
   A. Pipe Hanger Spacing:
      1. Metal Piping:
         a. Pipe size: 1/2 inches to 1-1/4 inches:
            1) Maximum hanger spacing: 6.5 ft.
            2) Hanger rod diameter: 3/8 inches.
         b. Pipe size: 1-1/2 inches to 2 inches:
            1) Maximum hanger spacing: 10 ft.
            2) Hanger rod diameter: 3/8 inch.

END OF SECTION
SECTION 23 05 53
IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT

PART 1 GENERAL
1.01 SECTION INCLUDES
A. Nameplates.
B. Pipe Markers.

1.02 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.

PART 2 PRODUCTS
2.01 IDENTIFICATION APPLICATIONS
A. Unit Heaters: Nameplates.
B. Infrared Radiant Heaters: Nameplates.
C. Piping: Pipe markers.

2.02 NAMEPLATES
A. Manufacturers:
   4. Substitutions: See Section 01 60 00 - Product Requirements.
   7. Background Color: Black.

2.03 PIPE MARKERS
A. Manufacturers:
   5. Substitutions: See Section 01 60 00 - Product Requirements.
B. Color: Conform to ASME A13.1.
C. Plastic Tape Pipe Markers: Flexible, vinyl film tape with pressure sensitive adhesive backing and printed markings: minimum information indicating flow direction arrow and identification of fluid being conveyed.
D. Color code as follows:
   1. Heating: Green with white letters.
   2. Natural Gas: Yellow with black letters.

PART 3 EXECUTION
3.01 PREPARATION
A. Degrease and clean surfaces to receive adhesive for identification materials.

3.02 INSTALLATION
A. Install nameplates with corrosive-resistant mechanical fasteners, or adhesive. Apply with sufficient adhesive to ensure permanent adhesion and seal with clear lacquer.
B. Install plastic tape pipe markers complete around pipe in accordance with manufacturer's instructions.

END OF SECTION

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IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT
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SECTION 23 05 93
TESTING, ADJUSTING, AND BALANCING FOR HVAC

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Testing, adjustment, and balancing of hydronic systems.
B. Measurement of final operating condition of HVAC systems.

1.02 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. TAB Plan: Submit a written plan indicating the testing, adjusting, and balancing standard to be followed and the specific approach for each system and component.
   1. Include at least the following in the plan:
      a. List of all air flow, water flow, sound level, system capacity and efficiency measurements to be performed and a description of specific test procedures, parameters, formulas to be used.
      b. Copy of field checkout sheets and logs to be used, listing each piece of equipment to be tested, adjusted and balanced with the data cells to be gathered for each.
      c. Discussion of what notations and markings will be made on the duct and piping drawings during the process.
      d. Final test report forms to be used.
      e. Procedures for formal deficiency reports, including scope, frequency and distribution.
C. Final Report: Indicate deficiencies in systems that would prevent proper testing, adjusting, and balancing of systems and equipment to achieve specified performance.
   1. Revise TAB plan to reflect actual procedures and submit as part of final report.
   2. Submit draft copies of report for review prior to final acceptance of Project. Provide final copies for Engineer and for inclusion in operating and maintenance manuals.
   3. Include actual instrument list, with manufacturer name, serial number, and date of calibration.
   4. Form of Test Reports: Where the TAB standard being followed recommends a report format use that; otherwise, follow ASHRAE Std 111.
   5. Units of Measure: Report data in both I-P (inch-pound) and SI (metric) units.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

A. Test Instruments:
   1. Balancing Contractor shall provide all necessary test instruments required to take readings including, but not limited to: Pressure gauges, thermometers, humidity instruments, sling psychrometers, flow meter read out instruments (differential pressure gauges, etc.), air flow hoods, pitot tubes, anemometers, ammeters, voltmeters, tachometers, sound level meters, vibration analyzers, etc., as required to perform measurements required to perform the work of this section and applicable Commissioning specifications. These instruments are considered to be the property of the balancing contractor and required for usual performance of testing and balancing work. No allowance will be made for contractor’s failure to provide adequate test instruments.
B. Incidental Equipment and Materials:
   1. Balancing Contractor shall provide at his own expense incidental and/or temporary equipment required to make such readings as required for the performance of this work. Such incidentals include but are not limited to: pipe nipples, couplings, tees, elbows, plugs and caps, gauge valves, teflon tape, and other miscellaneous fittings required to make readings required for balancing work. Incidental materials and fittings shall be removed and the facility restored to 'as found' condition after completion of readings and balancing activities.

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C. Tools and Labor:
   1. Balancing Contractor shall provide all tools and labor required to effect necessary readings for balancing work, including but not limited to electric drill and bits, wrenches, pliers, screwdrivers, teflon tape, flashlights, rags, pocket knife or leatherman, pencils, pens, test forms, paper, and other minor tools required for work of this section.
   2. Provide labor to alter minor piping and other systems to allow temporary installation of test gages and thermometers, etc., required to make necessary readings. This includes removal of plugs on pump castings and temporary installation of piping, valves, gauges and nipples required to attach pressure gauges for readings, drilling required holes in ductwork and subsequent installation of plugs to allow ductwork pitot tube traverses, connections to flow elements, including a reasonable effort to clear obstructions from test ports, etc. Remove temporary fittings, valves and gauges at completion of readings and restore equipment to 'as found' condition.

PART 3 EXECUTION
3.01 GENERAL REQUIREMENTS
   A. Initial measurement of the Heating Hot Water distribution at the building must be made prior to any alterations to the Heating Hot Water distribution. Coordinate with plant facilities for any adjustments to the plant to compensate for any additional flow required.
   B. Perform total system balance in accordance with one of the following:
      1. AABC MN-1, AABC National Standards for Total System Balance.
      5. Maintain at least one copy of the standard to be used at project site at all times.
   C. Begin work after completion of systems to be tested, adjusted, or balanced and complete work prior to Substantial Completion of the project.
   D. TAB Agency Qualifications:
      1. Company specializing in the testing, adjusting, and balancing of systems specified in this section.
      2. Having minimum of three years documented experience.

3.02 EXAMINATION
   A. Verify that systems are complete and operable before commencing work. Ensure the following conditions:
      1. Systems are started and operating in a safe and normal condition.
      2. Temperature control systems are installed complete and operable.
      3. Proper thermal overload protection is in place for electrical equipment.
      4. Fans are rotating correctly.
      5. Air coil fins are cleaned and combed.
      6. Hydronic systems are flushed, filled, and vented.
      7. Pumps are rotating correctly.
      8. Proper strainer baskets are clean and in place.
      9. Service and balance valves are open.
   B. Submit field reports. Report defects and deficiencies that will or could prevent proper system balance.

3.03 PREPARATION
   A. Hold a pre-balancing meeting at least one week prior to starting TAB work.
      1. Require attendance by all installers whose work will be tested, adjusted, or balanced. Required attendance by personnel that will actually be performing the balancing work.

3.04 ADJUSTMENT TOLERANCES
   A. Hydronic Systems: Adjust to within plus or minus 10 percent of design.

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TESTING, ADJUSTING, AND BALANCING FOR HVAC
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3.05 RECORDING AND ADJUSTING
   A. Ensure recorded data represents actual measured or observed conditions.
   B. Permanently mark settings of valves, dampers, and other adjustment devices allowing settings to be restored. Set and lock memory stops.
   C. After adjustment, take measurements to verify balance has not been disrupted or that such disruption has been rectified.
   D. Leave systems in proper working order, replacing belt guards, closing access doors, closing doors to electrical switch boxes, and restoring thermostats to specified settings.

3.06 WATER SYSTEM PROCEDURE
   A. After systems are balanced, work with the controls contractor to determine optimal final setpoint of pump system static pressure controls. Final setpoint shall be determined by supplying design water flow to all zones with no valves throttling.
   B. Adjust water systems to provide required or design quantities.
   C. Effect adjustment of water distribution systems by means of balancing cocks, valves, and fittings. Do not use service or shut-off valves for balancing unless indexed for balance point.
   D. Where available pump capacity is less than total flow requirements or individual system parts, full flow in one part may be simulated by temporary restriction of flow to other parts.

3.07 SCOPE
   A. Test, adjust, and balance the following:
      1. Cabinet Unit Heaters

3.08 MINIMUM DATA TO BE REPORTED
   A. Cabinet Unit Heaters:
      1. Identification/number
      2. Location
      3. Service
      4. Manufacturer
      5. Motor:
         a. Manufacturer
         b. Model/Frame
         c. HP/BHP
         d. Phase, voltage, amperage; nameplate, actual, no load
         e. RPM
         f. Service factor
      6. Air flow, design and actual
      7. Water flow, design and actual
      8. Water pressure drop, design and actual
      9. Entering water temperature, design and actual
     10. Leaving water temperature, design and actual
     11. Entering air temperature, design and actual
     12. Leaving air temperature, design and actual
     13. Air pressure drop, design and actual

END OF SECTION
SECTION 23 07 13
DUCT LINER

PART 1 GENERAL
1.01 SECTION INCLUDES
A. Duct Liner.

1.02 REFERENCE STANDARDS

1.03 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide product description, thermal characteristics, list of materials and thickness for each service, and locations.
C. Manufacturer's Instructions: Indicate installation procedures necessary to ensure acceptable workmanship and that installation standards will be achieved.

1.04 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing products of the type specified in this section with not less than three years of documented experience.
B. Applicator Qualifications: Company specializing in performing the type of work specified in this section, with minimum three years of experience and approved by manufacturer.

1.05 DELIVERY, STORAGE, AND HANDLING
A. Accept materials on site in original factory packaging, labelled with manufacturer's identification, including product density and thickness.
B. Protect insulation from weather and construction traffic, dirt, water, chemical, and mechanical damage, by storing in original wrapping.

1.06 FIELD CONDITIONS
A. Maintain ambient temperatures and conditions required by manufacturers of adhesives, mastics, and insulation cements.
B. Maintain temperature during and after installation for minimum period of 24 hours.

PART 2 PRODUCTS
2.01 REQUIREMENTS FOR ALL PRODUCTS OF THIS SECTION
A. Surface Burning Characteristics: Flame spread/Smoke developed index of 25/50, maximum, when tested in accordance with ASTM E 84, NFPA 255, or UL 723.

2.02 DUCT LINER
A. Manufacturers:
   4. Substitutions: See Section 01 60 00 - Product Requirements.

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B. Insulation: Incombustible glass fiber complying with ASTM C 1071; flexible blanket, rigid board, and preformed round liner board; with acrylic polymer shown to be fungus and bacteria resistant by testing to ASTM G 21 impregnated surface and edge coat.
   1. Apparent Thermal Conductivity: Maximum of 0.25 at 75 degrees F.
   2. Service Temperature: Up to 250 degrees F.
   3. 1 inch Thickness: 0.45.

C. Fungus Resistance of Surface and Edge Coating: No visible growth, measured in accordance with ASTM G 21.

D. Adhesive: Waterproof, fire-retardant type, ASTM C916.
   1. Manufacturers:
      a. Carlisle Hardcast Model Glas-Grip GG-901.

E. Liner Fasteners: Galvanized steel, welded with integral or press-on head.

PART 3 EXECUTION

3.01 EXAMINATION
   A. Verify that ducts have been tested before applying insulation materials.
   B. Verify that surfaces are clean, foreign material removed, and dry.

3.02 INSTALLATION
   A. Install in accordance with manufacturer's instructions.
   B. Install in accordance with NAIMA National Insulation Standards.

END OF SECTION
SECTION 23 07 19
HVAC PIPING INSULATION

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Piping insulation.

1.02 REFERENCE STANDARDS
   B. ASTM B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate
      [Metric]; 2007.
   E. ASTM C795 - Standard Specification for Thermal Insulation for Use in Contact with Austenitic
      Stainless Steel; 2008.
   G. NFPA 255 - Standard Method of Test of Surface Burning Characteristics of Building Materials;
   H. UL 723 - Standard for Test for Surface Burning Characteristics of Building Materials;

1.03 SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
   B. Product Data: Provide product description, thermal characteristics, list of materials and
      thickness for each service, and locations.
   C. Manufacturer's Instructions: Indicate installation procedures that ensure acceptable
      workmanship and installation standards will be achieved.

1.04 QUALITY ASSURANCE
   A. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in
      this section with not less than three years of documented experience.
   B. Applicator Qualifications: Company specializing in performing the type of work specified in this
      section with minimum three years of experience.

1.05 DELIVERY, STORAGE, AND HANDLING
   A. Accept materials on site, labeled with manufacturer's identification, product density, and
      thickness.

1.06 FIELD CONDITIONS
   A. Maintain ambient conditions required by manufacturers of each product.
   B. Maintain temperature before, during, and after installation for minimum of 24 hours.

PART 2 PRODUCTS

2.01 REQUIREMENTS FOR ALL PRODUCTS OF THIS SECTION
   A. Surface Burning Characteristics: Flame spread/Smoke developed index of 25/50, maximum,
      when tested in accordance with ASTM E 84, NFPA 255, or UL 723.

2.02 GLASS FIBER
   A. Manufacturers:
4. Substitutions: See Section 01 60 00 - Product Requirements.

B. Insulation: ASTM C547 and ASTM C 795; rigid molded, noncombustible.
   1. 'K' value: ASTM C177, 0.24 at 75 degrees F.
   2. Maximum service temperature: 850 degrees F.
   3. Maximum moisture absorption: 0.2 percent by volume.

C. Vapor Barrier Jacket: White kraft paper with glass fiber yarn, bonded to aluminized film; moisture vapor transmission when tested in accordance with ASTM E96/E96M of 0.02 perm-inches.

D. Tie Wire: 0.048 inch stainless steel with twisted ends on maximum 12 inch centers.

2.03 JACKETS

A. Canvas Jacket: UL listed 6 oz/sq yd plain weave cotton fabric treated with dilute fire retardant lagging adhesive.
   1. Lagging Adhesive:
      a. Compatible with insulation.

   1. Thickness: 0.016 inch sheet.
   2. Finish: Smooth.
   4. Fittings: 0.016 inch thick die shaped fitting covers with factory attached protective liner.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that piping has been tested before applying insulation materials.
B. Verify that surfaces are clean and dry, with foreign material removed.

3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions.
B. Install in accordance with NAIMA National Insulation Standards.
C. Exposed Piping: Locate insulation and cover seams in least visible locations.
D. Continue insulation through walls, sleeves, pipe hangers, and other pipe penetrations. Finish at supports, protrusions, and interruptions.
E. Pipe Exposed in Mechanical Equipment Rooms or Finished Spaces (less than 10 feet above finished floor): Finish with All Service Jacket.

3.03 SCHEDULE

A. Heating Systems: Glass fiber insulation with all service jacket:
   1. Required glass fiber insulation thickness for all heating system piping listed herein (based on Title 24):
      a. 105 to 140 degrees F: Through 4" pipe size - 1" thickness; Above 4" pipe size - 1-1/2" thickness.
      b. 141 to 200 degrees F: All pipe sizes - 1-1/2" thickness.
      c. 201 to 250 degrees F: Through 2" pipe size - 1-1/2" thickness; 2-1/2" through 6" pipe size - 2" thickness; Above 6" pipe size - 3-1/2" thickness.
      d. 251 to 350 degrees F: Through 1" - 2" thickness; Above 1" through 4" pipe size - 2-1/2" thickness; Above 4" pipe size - 3-1/2" thickness.
      e. Above 350 degrees F: Through 2" pipe size - 2-1/2" thickness; 2-1/2" through 4" pipe size - 3" thickness; Above 4" pipe size - 3-1/2" thickness.

END OF SECTION

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HVAC PIPING INSULATION
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Pipe and pipe fittings for:
   1. Heating water piping system.
B. Valves:
   1. Ball valves.
   2. Balancing valves.
C. Test ports:
   1.

1.02 REFERENCE STANDARDS
A. ASME B16.3 - Malleable Iron Threaded Fittings; The American Society of Mechanical Engineers ; 1998 (R2006).
C. ASME B16.22 - Wrought Copper and Copper Alloy Solder Joint Pressure Fittings; The American Society of Mechanical Engineers ; 2001 (R2005).
D. ASME B31.9 - Building Services Piping; The American Society of Mechanical Engineers ; 2008 (ANSI/ASME B31.9).
J. AWS A5.8/A5.8M - Specification for Filler Metals for Brazing and Braze Welding; American Welding Society ; 2004 and errata.

1.03 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Shop Drawings: Submit complete shop drawings for piping system showing all fittings, elevations, pipe accessories, hanger locations and all connected equipment. Submit on reproducible velum, and compact disk. Drawings shall be produced in AutoCad 2008 or later release.
C. Product Data: Include data on pipe materials, pipe fittings, valves, and accessories. Provide manufacturers catalogue information. Indicate valve data and ratings.
D. Piping Pressure Test Reports: Provide piping pressure test reports indicating:
   1. Owner
   2. Project Address
   3. Project Name
   4. Testing Contractor
   5. Pipe Segment Tested
   6. Pipe Size, Service and material (including wall thickness information (schedule, SDR, etc.)
   7. Test Medium
   8. Date and Time of Test Start
   9. Starting Pressure and Temperature of Test Medium
10. Starting Ambient Temperature
11. Date and Time of Test End
12. Ending Pressure and Temperature of Test Medium
13. Ending Ambient Temperature
14. Observations and Conclusions

E. As-Built Drawings: At project closeout, provide as-built drawings of the piping systems installed. Drawings shall be prepared using AutoCad 2008 or later release. Submit two reproducible copies and two complete sets of drawing files on a compact disc.

1.04 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing products of the type specified in this section, with minimum three years of documented experience.
B. Installer Qualifications: Company specializing in performing work of the type specified in this section, with minimum three years of experience.

1.05 DELIVERY, STORAGE, AND HANDLING
A. Provide temporary end caps and closures on piping and fittings. Maintain in place until installation.
B. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the work, and isolating parts of completed system.

PART 2 PRODUCTS
2.01 HYDRONIC SYSTEM REQUIREMENTS
A. Comply with ASME B31.9 and applicable federal, state, and local regulations.
B. Piping: Provide piping, fittings, hangers and supports as required, as indicated, and as follows:
   1. Where more than one piping system material is specified, provide joining fittings that are compatible with piping materials and ensure that the integrity of the system is not jeopardized.
   2. Use non-conducting dielectric connections whenever joining dissimilar metals.
C. Pipe-to-Valve and Pipe-to-Equipment Connections: Use flanges or unions to allow disconnection of components for servicing; do not use direct welded, soldered, or threaded connections.
D. Valves: Provide valves where indicated and as follows:
   1. For shut-off and to isolate parts of systems or vertical risers, use ball valves.

2.02 HEATING WATER PIPING, ABOVE GROUND
A. Copper Tube: ASTM B88 (ASTM B88M), Type L (B), drawn, using one of the following joint types:
      a. Solder: ASTM B32 lead-free solder, HB alloy (95-5 tin-antimony) or tin and silver.
      b. Braze: AWS A5.8/A5.8M BCuP copper/silver alloy.

2.03 UNIONs, FLANGES, AND COUPLINGS
A. Unions for Pipe 2 Inches and Under:
   1. Ferrous Piping: 150 psig malleable iron, threaded.
   2. Copper Pipe: Bronze, soldered joints.
B. Flanges for Pipe Over 2 Inches:
   1. Ferrous Piping: 150 psig forged steel, slip-on.
   2. Copper Piping: Bronze.

2.04 BALL VALVES
A. Manufacturers:
B. Up To and Including 2 Inches:
   1. Bronze two piece body, stainless steel ball, teflon seats and stuffing box ring, lever handle, threaded ends.

2.05 BALANCING VALVES
A. Manufacturers:
B. Construction:
   1. 1/2" to 2" Pipe Size
      a. Bronze body, brass ball construction with glass and carbon filled TFE seat rings. Valves to have differential pressure read-out ports across valve seat area. Read-out ports shall have integral EPT insert and check valve. Valve bodies shall have 1/4" tapped drain/purge point. Valve to have memory stop feature and integral calibrated nameplate with position indication. 300 psig design pressure, NPT connections. 250 F operating temperature.

2.06 TEST PORTS
A. Manufacturer’s: Pete’s Plug; www.petesplug.com.
B. 1/4" or 1/2" brass fitting and cap for receiving 1/8" outside diameter pressure or temperature probe with Nordel core for temperatures up to 275 degrees F.

PART 3 EXECUTION
3.01 PREPARATION
A. Ream pipe and tube ends. Remove burrs. Bevel plain end ferrous pipe.
B. Remove scale and dirt on inside and outside before assembly.
C. Prepare piping connections to equipment using jointing system specified.
D. Keep open ends of pipe free from scale and dirt. Protect open ends with temporary plugs or caps.
E. After completion, fill, clean, and treat systems.

3.02 INSTALLATION
A. Install in accordance with manufacturer’s instructions.
B. Route piping in orderly manner, parallel to building structure, and maintain gradient.
C. Group piping whenever practical at common elevations.
D. Slope piping and arrange to drain at low points.
E. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.
F. Pipe Hangers and Supports:
   1. Install in accordance with ASME B31.9.
G. Provide access where valves and fittings are not exposed.
H. Install valves with stems upright or horizontal, not inverted.

3.03 TESTING
A. Unless otherwise noted, hydrostatically test all piping installed under this contract to 1-1/2 times the normal working pressure or 150 psig, whichever is higher for a period of not less than 4 hours with no visible signs of leakage.
B. Provide necessary caps or blinds to protect equipment not rated for test pressure (safety valves, regulators, etc.).

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HYDRONIC PIPING
C. Pneumatic Testing:
   1. Pneumatic testing is expressly prohibited on any non-metallic piping.
   2. Other than as excepted above, pneumatic testing will not be considered without written consent from Owner or Engineer, and substantiation as to why hydrotesting is inapplicable. Additional testing requirements and measures may be required for a pneumatic test and will be considered on a case-by-case basis.

D. Reports: Submit test reports for all pipeline sections tested per Submittals requirements in Part 1 of this specification.

END OF SECTION
1.01 SECTION INCLUDES
A. Metal ductwork.
B. Duct cleaning.

1.02 REFERENCE STANDARDS
C. SMACNA (DCS) - HVAC Duct Construction Standards - Metal and Flexible; Sheet Metal and Air Conditioning Contractors’ National Association ; 2005.
D. SMACNA Guidelines for Seismic Restraints of Mechanical Systems

1.03 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide data for duct materials.
C. Shop Drawings: Indicate duct fittings, particulars such as gages, sizes, welds, and configuration prior to start of work.

1.04 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this section, with minimum three years of documented experience.
B. Installer Qualifications: Company specializing in performing the type of work specified in this section, with minimum three years of documented experience.

1.05 FIELD CONDITIONS
A. Do not install duct sealants when temperatures are less than those recommended by sealant manufacturers.
B. Maintain temperatures within acceptable range during and after installation of duct sealants.

PART 2 PRODUCTS
2.01 DUCT ASSEMBLIES

2.02 MATERIALS
A. Galvanized Steel for Ducts: Hot-dipped galvanized steel sheet, ASTM A653/A653M FS Type B, with G60/Z180 coating.
B. Joint Sealers and Sealants: Non-hardening, water resistant, mildew and mold resistant.
   1. Type: Heavy mastic or liquid used alone or with tape, suitable for joint configuration and compatible with substrates, and recommended by manufacturer for pressure class of ducts.
   2. Surface Burning Characteristics: Flame spread of zero, smoke developed of zero, when tested in accordance with ASTM E84.
C. All Ducts: Galvanized steel, unless otherwise indicated.
D. Outside Air Intake: 1/2 inch w.g. pressure class, galvanized steel.

2.03 DUCTWORK FABRICATION
A. Fabricate and support in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible, and as indicated.
B. Provide duct material, gages, reinforcing, and sealing for operating pressures indicated.
C. Increase duct sizes gradually, not exceeding 15 degrees divergence wherever possible; maximum 30 degrees divergence upstream of equipment and 45 degrees convergence downstream.
D. Fabricate continuously welded round and oval duct fittings in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible.

PART 3 EXECUTION

3.01 INSTALLATION
A. Install, support, and seal ducts in accordance with SMACNA HVAC Duct Construction Standards - Metal and Flexible.
B. Install in accordance with manufacturer's instructions.
C. During construction provide temporary closures of metal or taped polyethylene on open ductwork to prevent construction dust from entering ductwork system.
D. Duct sizes indicated are inside clear dimensions. For lined ducts, maintain sizes inside lining.
E. Locate ducts with sufficient space around equipment to allow normal operating and maintenance activities.
F. Install ductwork in accordance with SMACNA Guidelines for Seismic Restraints of Mechanical Systems.

3.02 CLEANING
A. Clean duct systems with high power vacuum machines. Protect equipment that could be harmed by excessive dirt with filters, or bypass during cleaning. Provide adequate access into ductwork for cleaning purposes.

END OF SECTION
SECTION 23 33 00
AIR DUCT ACCESSORIES

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Backdraft dampers - metal.
B. Louvers.
C. Duct access doors.

1.02 REFERENCE STANDARDS
B. SMACNA (DCS) - HVAC Duct Construction Standards - Metal and Flexible; Sheet Metal and Air Conditioning Contractors' National Association; 2005.

1.03 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.

1.04 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this section, with minimum three years of documented experience.

1.05 DELIVERY, STORAGE, AND HANDLING
A. Protect dampers from damage to operating linkages and blades.

PART 2 PRODUCTS

2.01 BACKDRAFT DAMPERS - METAL
A. Manufacturers:
4. Substitutions: See Section 01 60 00 - Product Requirements.

B. Multi-Blade, Parallel Action Gravity Balanced Backdraft Dampers: Galvanized steel, with center pivoted blades of maximum 6 inch width, with felt or flexible vinyl sealed edges, linked together in rattle-free manner with 90 degree stop, steel ball bearings, and plated steel pivot pin; adjustment device to permit setting for varying differential static pressure.

2.02 LOUVERS
A. Type: 4 inch deep with blades on 45 degree slope with center baffle and return bend, heavy channel frame, 1/2 inch square mesh screen over exhaust and 1/2 inch square mesh screen over intake.

B. Fabrication: 12 gage thick extruded aluminum, welded assembly, with factory prime coat finish.

C. Color: To be selected by School from manufacturer's standard range.

2.03 DUCT ACCESS DOORS
A. Manufacturers:
3. Substitutions: See Section 01 60 00 - Product Requirements.

B. Fabrication: Rigid and close-fitting of galvanized steel with sealing gaskets and quick fastening locking devices. For insulated ducts, install minimum 1 inch thick insulation with sheet metal cover.
1. Less Than 12 inches Square: Secure with sash locks.
2. Up to 18 inches Square: Provide two hinges and two sash locks.
C. Access doors with sheet metal screw fasteners are not acceptable.

PART 3 EXECUTION

3.01 INSTALLATION

A. Install accessories in accordance with manufacturer's instructions, NFPA 90A, and follow SMACNA HVAC Duct Construction Standards - Metal and Flexible.

B. Provide duct access doors for inspection and cleaning before filters, coils, fans, and elsewhere as indicated. Provide minimum 8 x 8 inch size for hand access, size for shoulder access, and as indicated. Provide 4 x 4 inch for balancing dampers only. Review locations prior to fabrication.

END OF SECTION
SECTION 23 55 33
INFRARED RADIANT HEATERS

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Tubular infrared heaters.

1.02 REFERENCE STANDARDS

1.03 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide manufacturer's literature and data indicating rated capacities, weights, accessories, electrical nameplate data, and wiring diagrams.
C. Shop Drawings: Indicate assembly, required clearances, and locations and sizes of field connections.
D. Manufacturer's Instructions: Indicate rigging, assembly, and installation instructions.
E. Operation and Maintenance Data: Include manufacturer's descriptive literature, operating instructions, maintenance and repair data, and parts listing.
F. Warranty: Submit manufacturers warranty and ensure forms have been filled out in Owner's name and registered with manufacturer.

1.04 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing the type of products specified in this section, with minimum three years of documented experience.

1.05 WARRANTY
A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
B. Provide five year manufacturers warranty for heat exchangers.

PART 2 PRODUCTS

2.01 TUBULAR INFRARED HEATERS
A. Manufacturers:
   2. Substitutions: See Section 01 60 00 - Product Requirements.
B. Infrared Heaters: Tubular type; packaged, partially factory assembled, pre-wired unit consisting of cabinet, burner, heat exchanger, radiant tube, reflector, controls; for natural gas.
C. Heat Exchanger: Aluminized tubular steel combustion chamber with aluminized steel tube with aluminum reflector.
D. Vent: Venting shall be with Type B galvanized sheet metal single wall venting except when penetrating through the roof; roof penetrations require Type B double wall venting.
E. Gas Burner:
   1. Two stage gas control.
   2. Gas Burner: Forced draft type with adjustable combustion air supply.
   3. Gas valve provides 100 percent safety gas shut-off; 24 volt combining pressure regulation, safety pilot, manual set (On-Off), pilot filtration, automatic electric valve.
   4. Electronic pilot ignition, with electric spark igniter.
   5. Non-corrosive burner air blower with permanently lubricated motor.

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INFRARED RADIANT HEATERS
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6. Gas Burner Safety Controls: Thermo-couple sensor prevents opening of solenoid gas valve until pilot flame is proven and stops gas flow on ignition failure.

F. Operating Control:
   1. Programmable wall mounted thermostat.
      b. Thermostat shall modulate two stage heaters.
      c. Thermostat shall be programmable
         1) 7 day programming.
         2) 4 periods per day.
         3) Night setback function.
      d. Power shall be 24V.
      e. Thermostat shall cycle two stage burner to maintain room temperature setting.
      f. Thermostat shall be capable of controlling multiple heaters.
      g. Thermostat shall have a multimode keyboard lockout with user programmable 3 Digit Code.

G. Performance:
   1. Refer to Schedule. Gas heating capacities are sea level ratings.

PART 3 EXECUTION

3.01 EXAMINATION
   A. Verify that space is ready for installation of units and openings are as indicated on shop drawings.
   B. Verify that proper power supply is available.
   C. Verify that proper fuel supply is available for connection.

3.02 INSTALLATION
   A. Install in accordance with NFPA 90A.
   B. Install gas fired units in accordance with NFPA 54 and applicable codes.
   C. Provide vent connections in accordance with NFPA 211.
   D. Provide start-up and

3.03 STARTUP
   A. Prepare and start infrared radiant heaters and thermostats.
   B. Set initial set points and time of day schedule.
   C. Commission infrared radiant heater and thermostat operation.

3.04 TRAINING
   A. Provide onsite training of facilities staff in operating infrared radiant heaters and thermostats.

END OF SECTION
SECTION 23 81 01
CABINET UNIT HEATERS

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Cabinet unit heaters.

1.02 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide typical catalog of information including arrangements.
C. Shop Drawings:
   1. Indicate cross sections of cabinets, grilles, bracing and reinforcing, and typical elevations.
   2. Submit schedules of equipment and enclosures typically indicating length and number of pieces of element and enclosure, corner pieces, end caps, cap strips, access doors, pilaster covers, and comparison of specified heat required to actual heat output provided.
   3. Indicate mechanical and electrical service locations and requirements.,
D. Manufacturer's Instructions: Indicate installation instructions and recommendations.
E. Project Record Documents: Record actual locations of components and locations of access doors in radiation cabinets required for access or valving.
F. Operation and Maintenance Data: Include manufacturers descriptive literature, operating instructions, installation instructions, maintenance and repair data, and parts listings.
G. Warranty: Submit manufacturer's warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.03 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience.
B. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.

1.04 WARRANTY
A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
B. Provide five year manufacturers warranty for fan-coil unit.

PART 2 PRODUCTS

2.01 CABINET UNIT HEATERS
A. Manufacturers:
   2. Substitutions: See Section 01 60 00 - Product Requirements.
B. Coils: Evenly spaced aluminum fins mechanically bonded to copper tubes, designed for 100 psi and 220 degrees F.
C. Cabinet: 8 gauge electro galvanneal steel with exposed corners and edges rounded, easily removed panels, glass fiber insulation and integral air outlet and inlet grilles.
   1. Field installed leveling legs shall be provided.
   2. Panels shall use tamper resistant fasteners.
D. Finish: Factory applied baked enamel of eggshell color on visible surfaces of enclosure or cabinet. Field paint per Section 09 90 00.
E. Fans: Centrifugal forward-curved double-width wheels, statically and dynamically balanced, direct driven.
F. Motor: Tap wound multiple speed permanent split capacitor with sleeve bearings, resiliently mounted.

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1. Factory assembled disconnect switch shall be provided.

G. Operating Control:
   1. Programmable wall mounted thermostat.
      b. Thermostat shall have a lockable security door.
      c. Power: 24 VAC.
      d. Thermostat shall be capable of controlling fan speed.
      e. Thermostat shall be capable of controlling a two way control valve.

H. Capacity: As Scheduled, based on 65 degree F entering air temperature, 180 degree F average water temperature.

PART 3 EXECUTION

3.01 INSTALLATION
   A. Install in accordance with manufacturer’s instructions.
   B. Install equipment exposed to finished areas after walls and ceiling are finished and painted. Do not damage equipment or finishes.
   C. Protection: Provide finished cabinet units with protective covers during balance of construction.
   D. Cabinet Unit Heaters: Install as indicated. Coordinate to assure correct recess size for recessed units.
   E. Painting: Final painting to be performed in the field. See Section 09 90 00. Color selected by School.

3.02 STARTUP
   A. Prepare and start cabinet unit heaters and thermostats.
   B. Set initial set points and time of day schedule.
   C. Commission cabinet heater and thermostat operation.

3.03 TRAINING
   A. Provide onsite training of facilities staff in operating cabinet unit heaters and thermostats.

END OF SECTION
SECTION 26 05 01
MINOR ELECTRICAL DEMOLITION

PART 1 GENERAL
1.01 SECTION INCLUDES
A. Electrical demolition.

PART 2 PRODUCTS
2.01 MATERIALS AND EQUIPMENT
A. Materials and equipment for patching and extending work: As specified in individual sections.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify field measurements and circuiting arrangements as shown on Drawings.
B. Verify that abandoned wiring and equipment serve only abandoned facilities.
C. Demolition drawings are based on casual field observation and existing record documents.
D. Report discrepancies to Owner before disturbing existing installation.
E. Beginning of demolition means installer accepts existing conditions.

3.02 PREPARATION
A. Disconnect electrical systems in walls, floors, and ceilings to be removed.
B. Coordinate utility service outages with utility company.
C. Provide temporary wiring and connections to maintain existing systems in service during construction. When work must be performed on energized equipment or circuits, use personnel experienced in such operations.
D. Existing Electrical Service: Maintain existing system in service until new system is complete and ready for service. Disable system only to make switchovers and connections. Minimize outage duration.
   1. Obtain permission from Owner at least 24 hours before partially or completely disabling system.
   2. Make temporary connections to maintain service in areas adjacent to work area.
E. Existing Fire Alarm System: Maintain existing system in service until new system is accepted. Disable system only to make switchovers and connections. Minimize outage duration.

3.03 DEMOLITION AND EXTENSION OF EXISTING ELECTRICAL WORK
A. Remove, relocate, and extend existing installations to accommodate new construction.
B. Remove abandoned wiring to source of supply.
C. Remove exposed abandoned conduit, including abandoned conduit above accessible ceiling finishes. Cut conduit flush with walls and floors, and patch surfaces.
D. Disconnect abandoned outlets and remove devices. Remove abandoned outlets if conduit servicing them is abandoned and removed. Provide blank cover for abandoned outlets that are not removed.
E. Disconnect and remove electrical devices and equipment serving utilization equipment that has been removed.
F. Repair adjacent construction and finishes damaged during demolition and extension work.
G. Maintain access to existing electrical installations that remain active. Modify installation or provide access panel as appropriate.
H. Extend existing installations using materials and methods compatible with existing electrical installations, or as specified.

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3.04 CLEANING AND REPAIR

A. Clean and repair existing materials and equipment that remain or that are to be reused.

B. Panelboards: Clean exposed surfaces and check tightness of electrical connections. Replace damaged circuit breakers and provide closure plates for vacant positions. Provide typed circuit directory showing revised circuiting arrangement.

C. Luminaires: Remove existing luminaires for cleaning. Use mild detergent to clean all exterior and interior surfaces; rinse with clean water and wipe dry. Replace lamps, ballasts and broken electrical parts.

END OF SECTION
SECTION 26 05 10
ELECTRICAL GENERAL PROVISIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Furnish all labor, materials, apparatus, tools, equipment, transportation, temporary construction and special or occasional services as required to make a complete working electrical installation, as shown on the drawings or described in these specifications.

1.02 REFERENCES

A. Reference to codes, standards, specifications and recommendations of technical societies, trade organizations and governmental agencies shall mean the latest edition of such publications adopted and published prior to submittal of the bid proposed. Such codes or standards shall be considered a part of this specification as though fully repeated herein.

B. When codes, standards, regulations, etc., allow work of lesser quality or extent than is specified under this Division, nothing in said codes shall be construed or inferred as reducing the quality, requirements or extent of the drawings and specifications.

C. California Code of Regulations (CCR) Title 24, Part 3, Basic Electrical Requirements, State Building Standards Electrical Code

D. National Fire Protection Association (NFPA).

E. Equipment and materials specified under this Division shall conform to the following standards where applicable:
   1. UL Underwriters’ Laboratories
   2. ASTM American Society for Testing Materials
   3. CMB Certified Ballast Manufacturers
   4. IPCEA Insulated Power Cable Engineer Assoc.
   5. NEMA National Electrical Manufacturer’s Assn.
   6. ANSI American National Standards Institute
   7. ETL Electrical Testing Laboratories

F. All base material shall be ASTM and/or ANSI standards.

G. All electrical apparatus furnished under this Section shall conform to National Electrical Manufacturers Association (NEMA) standards and the NEC and bear the Underwriters’ Laboratories (UL) label where such label is applicable.

1.03 SUBMITTALS

A. See Division 1 for submittal procedures.

B. Where items are noted as "or equal" a product of equal design, construction and performance will be considered. Contractor must submit all pertinent test data, catalog cuts and product information required to substantiate that the product is in fact equal. Refer to Division 1, General Requirement for additional requirements. Only one substitution will be considered for each product specified.

C. Submittals shall consist of detailed shop drawings, specifications, "catalog cuts" and data sheets containing physical and dimensioned information, performance data, electrical characteristics, material used in fabrication, material finish and shall clearly indicate those optional accessories which are included and those which are excluded. Furnish one reproducible and 4 prints of each shop drawing.

1.04 CUTTING, PAINTING AND PATCHING

A. Structural members shall in no case be drilled, bored or notched in such a manner that will impair their structural value. Cutting of holes, if required, shall be done with core drill and only with the approval of the Engineer.

B. Cutting and digging shall be under the direct supervision of the General Contractor. Include as necessary for the work in this section.
C. The contractor shall be responsible for returning any surface from which he has removed equipment or devices to the condition and finish of the adjacent surfaces.

1.05 SUPERVISION

A. Contractor shall personally or through an authorized and competent representative constantly supervise the work from beginning to completion and, within reason, keep the same workmen and foreman on the project throughout the project duration.

1.06 PROTECTION

A. Keep conduits, junction boxes, and outlet boxes, and other openings closed to prevent entry of foreign matter: cover fixtures, equipment, and apparatus and protect against dirt, paint, water, chemical, or mechanical damage, before and during construction period. Restore to original condition any fixture, apparatus, or equipment damaged prior to final acceptance, including restoration of damaged shop coats of paint, before final acceptance. Protect bright finished surfaces and similar items until in service. No rust or damage will be permitted.

1.07 EXAMINATION OF SITE

A. The Contractor shall visit the site and determine the locale, working conditions, conflicting utilities, and the conditions in which the electrical work will take place. No allowances will be made subsequently for any costs which may be incurred because of any error or omission due to failure to examine the site and to notify the Engineer of any discrepancies between drawings and specifications and actual site conditions. Schedule visits at least 1 week in advance with Owner's Maintenance staff.

1.08 ENVIRONMENTAL REQUIREMENTS

A. After other work such as sanding, painting etc. has been completed, clean lighting fixtures, panelboards, switchboards, and other electrical equipment to remove dust, dirt, and grease, or other marks, and leave work in clean condition.

1.09 VOLTAGE CHECK

A. At completion of job, check voltage at several points of utilization on the system which has been installed under this contract. During test, energize all loads installed. Measure 3-Phase voltages and note percentage differences. Submit report to Engineer. Include copy in O&M Manual.

1.10 TESTS

A. Perform tests as specified to prove installation is in accordance with contract requirements. Perform tests in the presence of the Engineer and furnish test equipment, facilities, and technical personnel required to perform tests. Tests shall be conducted during the construction period and at completion to determine conformity with applicable codes and with these Specifications. Tests, in addition to specific system test described elsewhere, shall include:

1. Insulation Resistance: All 600 volt insulation shall be tested at 1,000 volts D.C for one minute on all feeder and branch circuit conductors including the neutral, and make a typed record of all readings to be included in the maintenance instructions. The direct current amperes shall be recorded at start and at one minute. The value shall be declining and not more than one microampere.

2. Circuit Continuity: Test all feeder and branch circuits for continuity. Test all neutrals for improper ground.

B. Equipment Operations: Test motors for correct operation and rotation.

C. Product Failure: Any products which fail during the tests or are ruled unsatisfactory by the Engineer shall be replaced, repaired, or corrected as prescribed by the Engineer at the expense of the Contractor. Tests shall be performed after repairs, replacements, or corrections until satisfactory performance is demonstrated.

D. Miscellaneous: Include all test results in the maintenance manual. Cost, if any, for all tests shall be paid by the Contractor.

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1.11 DRAWINGS
   A. Layout: General layout shown on the drawing shall be followed except where other work may conflict with the drawings.
   B. Accuracy:
      1. Drawings for the work under this section are diagrammatic.
      2. Contractor shall verify lines, levels, and dimensions shown on the drawings and shall be responsible for the accuracy of the setting out of work and for its strict conformance with existing conditions at the site.
      3. Contractor shall insure reconnection of existing equipment and circuits affected by contract demolition whether or not reconnection is specifically shown on the contract documents.

1.12 PROJECT RECORD DRAWINGS
   A. Refer to General Conditions for contractual requirements. Provide project record drawings as required by the General Provisions of the specifications and as required herein. Such drawings shall fully represent installed conditions including actual locations of outlets, true panelboard connections following phase balancing routines, correct conduit and wire sizing as well as routing, revised fixture schedule listing the manufacturer and products actually installed and revised panel schedule. All changes to drawings shall be made by qualified draftspersons to match existing linework and lettering as close as possible. When all the changes have been made to the trade drawings, contractor shall produce one (1) full size (E-Size) updated set of trade drawing(s) utilizing AutoCad 2008 or newer and supply one (1) set of Compact Discs (CD's) reflecting same.

1.13 MAINTENANCE AND OPERATING INSTRUCTIONS
   A. Furnish to the Engineer four (4) hard back 3-ring binders containing all bulletins, operating and maintenance instructions and part lists and other pertinent information for each and every piece of equipment furnished under this specification. Include service telephone numbers. Each binder shall be indexed into sections and labeled for easy reference. Bulletins containing more information than the equipment concerned shall be properly stripped and assembled.
   B. At the time of completion, a period of not less than eight hours shall be allotted by the Contractor for instruction of building operating and maintenance personnel in the use of all systems. All personnel shall be instructed at one time, the Contractor making all necessary arrangements with manufacturer's representative. The equipment manufacturer shall be requested to provide product literature and application guides for the user's reference. Costs, if any for the above services shall be paid by the Contractor.

1.14 WARRANTIES
   A. Furnish to the Engineer four (4) hard back 3-ring binders containing all warranties of every piece of equipment furnished under this specification. Include terms and limitations of warranties, contact names, addresses, and telephone numbers of manufacturer. Each binder shall be indexed into sections and labeled for easy reference for each equipment warranty.

1.15 EXTRA MATERIALS
   A. See Division 1 - Product Requirements, for additional provisions.
   B. All special tools for proper operation and maintenance of the equipment provided under this Section shall be delivered to the District's representative.

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION
3.01 WORKMANSHIP
   A. Preparation, handling, and installation shall be in accordance with manufacturer's written instructions and technical data particular to the product specified and/or accepted equal except as otherwise specified. Coordinate work and cooperate with others in furnishing and placing
this work. Work to reviewed shop drawings for work done by others and to field measurements as necessary to properly fit the work.

B. Conform to the National Electrical Contractor's Association "Standard of Installation" for general installation practice.

3.02 INSTALLATION

A. Install in accordance with manufacturer's instructions.

END OF SECTION
SECTION 26 05 12
BASIC MATERIAL AND METHODS

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Conduit, raceways and fittings.
B. Wires and Cables for 600 Volts and less.
C. Wire connections.
D. Wire devices.
E. Outlet boxes.
F. Pull and junction boxes.
G. Disconnect Switches.
H. Fuses.
I. Supporting Devices.
J. Identifying Devices.
K. Grounding and Bonding

1.02 SUBMITTALS
A. Submit in accordance with the requirements of Division 1 the following items:
B. A list of conduit types indicating where each type of conduit will be used. Indicate conduit manufacturers and fittings to be used.
C. Wires and Cables.
D. Wiring Devices and Plates
E. Nameplates, including engraving schedules where engraved plates are specified.
F. Fused disconnect switches.

1.03 QUALITY ASSURANCE
A. Conform to requirements of NFPA 70.
B. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.

1.04 REFERENCES
B. ANSI C80.3 - Electrical Metallic Tubing, Zinc Coated - latest edition.
C. ANSI C80.5 - Rigid Aluminum Conduit - latest edition.
D. NECA (INST) - Standard of Installation; National Electrical Contractors Association - latest edition.
E. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies; latest edition.
G. NEMA TC 2 - Electrical Plastic Tubing (EPT) and Conduit (EPC-40 and EPC-80) - latest edition.
PART 2 PRODUCTS

2.01 CONDUIT, RACEWAYS AND FITTINGS

A. Rigid Steel Conduit
   1. Rigid steel conduit shall be full weight, pipe size, finished inside and out by hot-dip galvanizing after fabrication, and shall conform with ANSI C80.1 and UL.
   2. Couplings shall be electroplated steel.
   3. Insulating Bushings: Threaded polypropylene or thermo-setting phenolic rated 150°C minimum.
   4. Insulated grounding Bushings: Threaded cast malleable iron body with insulated throat and steel "lay-in" ground lug with compression screw.
   5. Insulated Metallic Bushings: Threaded cast malleable iron body with plastic insulated throat rated 150°C.
   6. Running threads are not acceptable.

B. Electrical Metallic Tubing (EMT):
   1. Conduit: Conduit shall be formed of cold rolled strip steel, and shall comply with ANSI C80.3 and UL requirements.
   2. Couplings: Electroplated steel, UL listed rain and concrete tight through 1-1/4" trade size. All EMT fittings shall be compression type.
   3. Connectors: Steel, gland compression type with insulated plastic throat, 150°C temperature rated. All EMT fittings shall be compression type.

C. Liquid Tight Flexible Metal Conduit:
   1. Conduit: Conduit shall be fabricated in continuous lengths from galvanized steel strip, spirally wound. Flexible conduit, except where installed in concealed dry locations, shall be liquid tight with plastic jacket extruded over the outer zinc coating. No aluminum substitute will be accepted.
   2. Fittings: Connectors shall be the screw clamp on screw-in (Jake) variety with cast malleable iron bodies and threaded male hubs with insulated throat or insulated bushings. Set screw type connectors are not acceptable. Liquid tight fittings shall be of cadmium plated cast malleable iron, with insulated throat.

D. Rigid Non-Metallic Conduit:
   1. Conduit and fittings shall be homogeneous plastic material free from visible cracks, holes or foreign inclusions. The conduit bore shall be smooth and free of blisters, nicks or other imperfections which could damage conductors or cables.

2.02 WIRING AND CABLES

A. Acceptable manufacturers: Southwire, or approved equal.

B. Conductor material: All wire and cable shall be insulated, stranded copper conductors. Soft drawn annealed copper wire 98% conductivity, bearing the UL label.

C. Minimum conductor size: AWG No. 12 for all power and lighting branch circuits. AWG No. 14 for all signal and control circuits.

D. Color Coding: System conductors shall be identified as to voltage and phase connections by means of color impregnated insulation or approved colored marking tape as follows:

E. For 120/240 volt, single phase, 3 wire system.
   1. Phase A - Black
   2. Phase B - Red
   3. Phase C - Orange for High Leg (208v to neutral)
   4. Neutral - White
   5. Ground - Green

F. For 120/208 volt, 3 phase, 4 wire systems.
   1. Phase A - Black

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2. Phase B - Red
3. Phase C - Blue
4. Neutral - White
5. Ground - Green

G. for 277/480 Volt, 3 phase, 4 wire system
1. Phase A - Brown
2. Phase B - Orange
3. Phase C - Yellow
4. Neutral - Grey
5. Ground - Green

H. Secondary Wire and Cable, 0 to 600 Volts;
1. NEC Type THWN, or Type XHHW for feeders and branch circuits in wet or dry locations. NEC type THHN for branch circuits in dry locations.

2.03 WIRE CONNECTION
A. Wire Joints: Wires in sizes from #18 to #8 AWG, stranded conductor, with insulation rated 105 degrees C, or less shall be joined with electrical spring connectors of three part construction incorporating a non-restricted, zinc coated steel spring enclosed in a steel shell with an outer jacket of vinyl plastic with a flexible insulating skirt.

B. Mechanical Compression Connectors and Taps: Stranded conductors from #6 AWG to 750 Kcmil shall be joined or tapped using bolted pressure connectors having cast bronze compression bolts. Fittings shall be wide range-taking and designed to facilitate the making of parallel taps, tees, crosses or end-to-end connections. Split-bolt connectors will not be acceptable.

C. Fixture Connections: Splice fixture wire to circuit wiring with solderless connectors as specified above in paragraph A.

D. Terminating Lugs: Conductors from size No. 6 AWG to 750 Kcmil, copper, shall be terminated using tin plated hydraulically operated crimping tools and dies as stipulated by the lug manufacturer. Lugs shall be 3M "Scotchlok" series 30000, Burny Type Ya-L series, or equal.

E. Splicing and Insulating Tape (600 volts and below): General purpose electrical tape shall be suitable for temperatures from minus 18 degrees C to 105 degrees C, shall be black, ultraviolet proof, self-extinguishing, 7 mil thick vinyl with a dielectric strength of 10,000 volts. Apply 4 layers half-lap with 2" over-lay on each conductor.

F. Insulating Putty (600 volts and below): Pads or rolls of non-corrosive, self-fusing, one eight inch thick rubber putty with PVC backing sheet. Putty shall be suitable for temperatures from minus 17.8 degrees C to 37.8 degrees C and shall have a dielectric strength of 570 volts/mil minimum.

G. Insulating Resin: Two Part liquid epoxy resin with resin and catalyst in pre measured, sealed mixing pouch. Resin shall have a set up time of approximately 30 minutes at 21.1 degrees C, and shall have thermal and dielectric properties equal to the insulation properties of the cables immersed in the resin.

H. Terminal Strip Connectors: Terminate wire in locking tongue style, pressure type, solderless lug where applicable.

2.04 WIRING DEVICES
A. Switches: Specification grade, flush mounting, quiet operating AC type, with toggle operator, heat resistant plastic housing and self grounding metal strap. Silver or silver alloy contact. Rated 20A at 120-277V and capable of full capacity on tungsten or fluorescent lamp load. Design for up to #10 wire. Use single pole, double pole, three-way, four-way, lighted, pilot, or keyed type, as indicated on drawings or required. Provide white color unless otherwise noted. Manufacturer: Leviton, Arrow Hart, or Hubbell.

B. Receptacles: Specification grade, flush mounting receptacles with nylon face. High grade brass allow triple wipe contacts. Provide 2 pole, 3 wire grounding type with a green colored
brass hexagonal equipment grounding screw. Grounding shall be rivetless, single piece brass with no mechanical connections in the primary path between point of ground wire termination and ground blades. Use 20A rated receptacles, white in color, unless otherwise noted. Manufacturer: Leviton, Arrow Hart, or Hubbell.

1. Isolated Ground - Provide separate path to ground, with orange faceplate or triangle to indicated isolated ground
2. GFCI - Equipped with diagnostic indicator for miswiring.
3. Weatherproof - GFCI type, outdoor rated, with metal lockable while in use cover

C. Faceplates: Provide nylon cover faceplates for wall receptacles, outlets, and switches. Include thermal mounting screws that match plate and device color. Manufacturer: Leviton, Arrow Hart, or Hubbell.

2.05 OUTLET BOXES

A. Standard outlet boxes: Galvanized, die formed or drawn steel, knock-out type of size and configuration best suited to the application indicated on the plans. Minimum box size, 4 inch square by 1-1/2 inch deep, indoor use. FS cast boxes are required for outdoor use.

B. Cast Metal Outlet Boxes: FS/FD cast boxes are required for outdoor use. Malleable iron alloy with threaded hubs and mounting lugs as required. Boxes shall be furnished with cast cover plates of the same material as the box and neoprene cover gaskets. Thomas and Betts, Crouse-Hinds, Appleton or equal.

C. Conduit Outlet Bodies: Cadmium plated, cast iron alloy. Obround conduit outlet bodies with threaded conduit hubs and neoprene gasketed, cast iron covers. Outlet bodies shall be used to facilitate pulling of conductors or to make changes in conduit direction only. Splices are not permitted in conduit outlet bodies. Thomas and Betts, Crouse Hinds Form 8 Condulets, Appleton form 35 Unillets, or equal.

2.06 PULL AND JUNCTION

A. Sheet Metal Boxes: Use standard outlet or concrete ring boxes wherever possible; otherwise use minimum 15 gauge get metal, NEMA 1 boxes, sized to code requirements with covers secured by cadmium plated machine screws located 6 inches on centers. Circle AW Products, Hoffman Engineering Co., or equal.

B. Cast Metal Boxes: Use standard cast malleable iron outlet or device boxes wherever possible; otherwise use cadmium plated, cast malleable iron junction boxes with bolt-on, interchangeable conduit hub plates with neoprene gaskets. Appleton FS/FD series; Crouse Hinds FS/FD series, or equal.

2.07 DISCONNECT SWITCHES

A. All disconnect switches shall be heavy-duty type and have the number of poles, voltage rating, and horsepower rating as required by the motor or equipment. Disconnect switches shall be in enclosures to suit conditions, NEMA 3R for outdoor and NEMA 1 for indoor. Disconnect switches shall be fused unless otherwise noted on the drawings. As manufactured by: Square D - Class 3110, ITE Siemens, or equal.

2.08 FUSES

A. Dual Element, Time Delay, UL Class RK5. Rejection type. Size and Voltage as indicated on equipment. Bussman, Little Fuse, or approved equal.

2.09 ELECTRICAL SUPPORTING DEVICES

A. Concrete Fasteners: Hilti Kwik Bolt TZ or equal, self drilling expansion type concrete anchor.

B. Conduit Straps: Hot-dip galvanized, cast malleable iron, two hole type strap with cast clamps and spacers as required. OZ/Gedney, Thomas & Betts, or equal.

C. Construction Channel: 1-1/2 inch by 1-1/2 inch 12 gauge galvanized steel channel with 17/32 inch diameter bolt holes, 1-1/2 inch on center, in the base of the channel. Kindorf 905 series, Unistrut P-1000-HS or equal.
D. Cable Ties and Clamps: Thomas and Betts Co. "Ty-Raps" Panduit "Pan-Ty" or equal one piece, nylon, reusable type fastening ties.

E. Fasteners (General): Wood screws for fastening to wood. Machine screws for fastening to steel. Toggle bolts for fastening to hollow concrete block, gypsum board, or plaster walls. Expansion anchors for attachments to pre-poured concrete.

2.10 IDENTIFYING DEVICES
A. Nameplates: Type NP: Engraved black bakelite, 1 inch by 3-1/2 inch, 1/8 inch high white letters, machine screw retained. For permanent identification of all switchboards, panelboards, circuit breakers in separate enclosures, motor starters, relays, time switches, disconnect switches and other cabinet-enclosed apparatus including terminal cabinets or match existing as closely as possible.

B. Legend Plates: Type LP: Die-stamped metal legend plate with mounting hole and positioning key for attachment to panel mounted operators' devices. Engraved paint-filled characters as specified.

C. Wire & Terminal Markers: Self-adhering, pre-printed vinyl with self-laminating wrap around strip. Markers shall be legible after termination. Brady B191 series, Thomas & Betts WSL series or equal.

D. Conductor Phase Markers: Thomas & Betts WCCHAS series or similar in addition to colored marking as specified under this section of the specifications.

2.11 GROUNDING AND BONDING
A. Ground Rods
1. Manufacturer: Blackburn, Erico, or approved Equal
2. Size: 3/4" x 10' Ground Rods

B. Grounding Electrode Conductor, 2/0 for foundation foots, and per NEC.

C. Grounding Well - Christy Box, G5 Traffic Valve Box.

PART 3 EXECUTION
3.01 CONDUIT AND RACEWAY APPLICATIONS
A. Rigid Steel Conduit: Use rigid steel conduit for the following locations or conditions:
   1. All exterior applications
   2. All conduits larger than 2" trade diameter.
   3. All conduits indoor below eight (8) feet above finished floor.

B. Electrical Metallic Tubing (EMT): EMT is allowed for the following conditions:
   1. Interior only and above eight (8) feet from finished floor.
   2. Interior only and when entering a panel from above.

C. Liquidtight Flexible Metallic Conduit: Use Liquidtight for the following conditions:
   1. In damp and wet locations for connections to motors, transformers, vibrating equipment and machinery.
   2. Connections to all pump motors, flow switches, and similar devices.

D. Rigid Non-Metallic Conduit, Polyvinyl Chloride (PVC) Schedule 40:
   1. Underground installation.

3.02 CONDUIT INSTALLATION
A. General
   1. All conduit runs shown on the plans are sized based on the use of rigid steel conduit and THWN copper conductors. If conductor type is changed the contractor shall be responsible for resizing conduits to meet code. In no case is conduit to be sized smaller than 3/4" trade diameter.
   2. Low voltage wiring shall be installed in conduit, minimum 3/4" trade diameter.
   3. Conduits shall be tightly covered and well protected during construction using metallic bushings and bushing "pennies" to seal open ends.
4. In making joints in rigid steel conduit, ream conduit smooth after cutting and threading.
5. Clean any conduit in which moisture or any foreign matter has collected before pulling in conductors. Paint all field threaded joints to prevent corrosion.
6. In all empty conduits or ducts, install an 1100 pound tensile strength polyethylene pulling rope.
7. Conduit systems shall be electrically continuous throughout. Install code size, uninsulated, copper grounding conductors in all conduit runs, grounding conductor shall be bonded to conduit, equipment frames and properly grounded.

B. Layout:
1. All new conduits shall be concealed. Any field conditions that does not allow concealment of conduits shall be reviewed with the Engineer prior to rough-in.
2. Locations of conduit runs shall be planned in advance of the installation and coordinated with concrete work, plumbing and framing.
3. Where practical install conduits in groups in parallel vertical or horizontal runs and at elevations that avoid unnecessary off-sets.
4. Low voltage conduit shall be grouped separately and labelled every 10 ft interval as to system (i.e. fire, control, etc)
5. Exposed conduit shall be run parallel or at right angles to the centerlines of the columns and beams.
6. Conduits shall not be placed closer than 12 inches from a parallel hot water or steam line or three inches from such lines crossing perpendicular to the runs.
7. In long runs of conduit, provide sufficient pull boxes per NEC inside buildings to facilitate pulling wires and cables. Support pull boxes from structure independent of conduit supports. These pull boxes are not shown on the plans.

C. Supports:
1. All raceway systems shall be secured to building structures using specified fasteners, clamps and hangers spaced according to Code.
2. Support single runs of conduit using two hole pipe straps. Where run horizontally on walls in damp or wet locations, install "clamp blocks" to space conduit off the surface.
3. Multiple conduit runs shall be supported using "trapeze" hangers fabricated from 3/8 inch diameter, threaded steel rods secured to building structures. Fasten conduit to construction channel with standard two hole pipe clamps. Provide lateral seismic bracing for hangers.
4. Installation
   a. Locate and install anchors, fasteners, and supports in accordance with NECA "Standard of Installation".
      1) Do not fasten supports to pipes, ducts, mechanical equipment, or conduit.
      2) Do not drill or cut structural members.
   b. Rigidly weld support members or use hexagon-head bolts to present neat appearance with adequate strength and rigidity. Use spring lock washers under all nuts.
   c. Install surface-mounted cabinets and panelboards with minimum of four anchors.
   d. In wet and damp locations use steel channel supports to stand cabinets and panelboards 1 inch off wall.
   e. Use sheet metal channel to bridge studs above and below cabinets and panelboards recessed in hollow partitions.

D. Terminations and Joints:
1. Raceways shall be joined using specified couplings or transition couplings where dissimilar raceway systems are joined.
2. Rigid conduit connection to enclosures shall be made by Myers type grounding hubs only. EMT connections to enclosures shall be made with compression connector with grounding lock-nuts or bushings.
3. Conduit terminations exposed at weatherproof enclosures and cast outlet boxes shall be made watertight using appropriate connectors and hubs.
4. Install expansion couplings where any conduit crosses a building separation or expansion joint.
5. Install cable sealing bushings on all conduits originating outside the building walls and terminating in switchgear, cabinets or gutters inside the building. Install cable sealing bushings or caulk conduit terminations in all grade level or below grade exterior pull, junction or outlet boxes.

E. Penetrations:
1. Furnish and install metal sleeves for all exposed interior conduit runs passing through concrete floors or walls. Following conduit installation, seal all penetrations using non-iron bearing, chloride free, non-shrinking, dry-pack, grouting compound.
2. Install specified watertight conduit entrance seals and membrane clamps at all below grade wall and floor penetrations. Conduits penetrating exterior building walls and building floor slab shall be insulated rigid steel.
3. Conduits penetrating rated walls, floors, etc. shall be fireproofed.

3.03 CABLE AND WIRE INSTALLATION

A. Examination
1. Verify that interior of building has been protected from weather.
2. Verify that mechanical work likely to damage wire and cable has been completed.
3. Verify that raceway installation is complete and supported.
4. Verify that field measurements are as indicated.

B. Preparation
1. In existing conduits that will be reused, pull out existing conductors.
2. Completely and thoroughly swab raceway before installing wire.
3. Use 50/50 solution of Simple Green. Use CO2 to blow water and soap into conduit - let soak to break up dried out pulling compounds, then pull conductors. Pull one conductor at a time if will not pull all out together.

C. General:
1. Conductors shall not be in conduit until all work of any nature that may cause injury is completed. Care should be taken in pulling conductors that insulation is not damaged. U.L. approved non-petroleum base and insulating type pulling compound shall be used as needed.
2. All cables shall be installed and tested in accordance with manufacturer’s requirements and warranty.
3. Block and tackle, power driven winch or other mechanical means shall not be used in pulling conductors of size smaller than AWG # 1.

D. Splicing and Terminating:
1. All aspects of splicing and terminating shall be in accordance with cable manufacturer’s published procedures.
2. Make up all splices in outlet boxes with connectors as specified herein with separate tails of correct color to be made up to splice. Provide at least six (6) inches of tails packed in box after splice is made up.
3. All wire and cable in panels, control centers and equipment enclosures shall be bundled and clamped.
4. Encapsulate splices in exterior outlet, junction and pull boxes using insulating resin kits. All splices for exterior equipment in pump rooms shall be made up watertight.
5. Insulate mechanical compression tape AWG # 1/0 and larger using pre-molded, snap-on insulating boots or specified conformable insulating putty overlapped with two half-lapped layers of insulating tape.

E. Identification:
1. Securely tag all branch circuits, noting the purpose of each. Mark conductors with vinyl wrap-around markers. Where more than two conductors run through a single outlet, mark each circuit with the corresponding circuit number at the panelboard.
2. Color code conductors size #6 and larger using specified phase color markers and identification tags.
3. All terminal strips are to have each individual terminal identified with specified vinyl markers.
4. All identification shall be legible and readable after completion of installation.
5. Provide labeling for all switches and receptacle outlets. Self-adhering machine clear tape with black letters.

3.04 INSTALLATION:

A. Route wire and cable as required to meet project conditions.
   1. Wire and cable routing indicated is approximate unless dimensioned.
   2. Where wire and cable destination is indicated and routing is not shown, determine exact routing and lengths required.
   3. Include wire and cable of lengths required to install connected devices within 10 ft of location shown.

B. Install wire and cable in accordance with the NECA "Standard of Installation."

C. Use wiring methods indicated.

D. Pull all conductors into raceway at same time.

E. Use suitable wire pulling lubricant for building wire 4 AWG and larger.

F. Protect exposed cable from damage.

G. Support cables above accessible ceiling, using spring metal clips or metal cable ties to support cables from structure or ceiling suspension system. Do not rest cable on ceiling panels.

H. Use suitable cable fittings and connectors.

I. Neatly train and lace wiring inside boxes, equipment, and panelboards.

J. Clean conductor surfaces before installing lugs and connectors.

K. Make splices, taps, and terminations to carry full ampacity of conductors with no perceptible temperature rise.

L. Terminate aluminum conductors with tin-plated aluminum-bodied compression connectors only. Fill with anti-oxidant compound before installing conductor.

M. Use suitable reducing connectors or mechanical connector adaptors for connecting aluminum conductors to copper conductors.

N. Use split bolt connectors for copper conductor splices and taps, 6 AWG and larger. Tape uninsulated conductors and connector with electrical tape to 150 percent of insulation rating of conductor.

O. Use solderless pressure connectors with insulating covers for copper conductor splices and taps, 8 AWG and smaller.

P. Use insulated spring wire connectors with plastic caps for copper conductor splices and taps, 10 AWG and smaller.

Q. Trench and backfill for direct burial cable installation as specified in Underground Structure Section. Install warning tape along entire length of direct burial cable.

R. Identify and color code wire and cable. Identify each conductor with its circuit number or other designation indicated.

3.05 ELECTRICAL CONNECTIONS

A. Make electrical connections in accordance with equipment manufacturer's instructions.

B. Make conduit connections to equipment using flexible conduit. Use liquidtight flexible conduit with watertight connectors in damp or wet locations.

C. Connect heat producing equipment using wire and cable with insulation suitable for temperatures encountered.
D. Provide receptacle outlet to accommodate connection with attachment plug.
E. Provide cord and cap where field-supplied attachment plug is required.
F. Install suitable strain-relief clamps and fittings for cord connections at outlet boxes and equipment connection boxes.
G. Install disconnect switches, controllers, control stations, and control devices to complete equipment wiring requirements.
H. Install terminal block jumpers to complete equipment wiring requirements.
I. Install interconnecting conduit and wiring between devices and equipment to complete equipment wiring requirements.

3.06 INSTALLATION OF BOXES
A. General:
   1. Leave no un-used openings in any box. Install close-up plugs as required to seal openings.
   2. Exposed outlet boxes and boxes in damp or wet locations shall be cast metal with gasketed cast metal cover plates.
B. Box Layout:
   1. Outlet boxes shall be installed at the locations and elevations shown on the drawings or specified herein. Make adjustments to locations as required by structural conditions and to suit coordination requirements of other trades.
   2. Install junction or pullboxes where required to limit bends in conduit runs to not more than 360 degrees or where pulling tension achieved would exceed the maximum allowable for the cable to be installed. Consult wire and cable manufacturer.

3.07 INSTALLATION OF WIRING DEVICES
A. General
   1. Install all devices flushmounted unless otherwise noted on the drawings. Comply with layout drawings for general locations. Consult Engineer or Owner's Representative for locations that have conflict with other devices or manner not suitable for installation. Avoid placing devices behind open doors.
   2. Align devices horizontally and vertically. Device plates shall be aligned vertically with tolerance of 1/16". All four edges of device plates shall be in contact with the wall surface.
   3. Mounting height as indicated on the drawings and according to ADA requirements.
   4. Install device plates on all outlet boxes. Provide blank plates for all empty, spare, and boxes for future use.
   5. Securely fasten devices into boxes and attach appropriate cover plates.
   6. Caulk around edges or outdoor device plates and boxes when rough wall surfaces prevent raintight seal. Use caulking materials approved by Engineer. Fireproof around opening of devices located or penetrating firerated construction assemblies.
   7. Fireproof around opening of devices located or penetrating firerated construction assemblies.
B. Switches
   1. Where switches are indicated to be installed near doors, corner walls, etc. mount not less than 2 inches and not more than 18" from trim. Verify exact location with Architect or Engineer prior to rough-in.
   2. Coordinate the location of switches to insure locations at the strike side of doors.
   3. Furnish and install engraved legend of each switch that controls exhaust fans, motors, equipment systems, etc. not located within sight of the controlling switch.
   4. Ganging of Switches - provide barriers for switches of difference phases and voltages. Otherwise switches shall be gauged in one faceplate.
C. Receptacles
   1. Mount receptacles vertically with U-shaped ground position on bottom.
2. Do not combine GFCI protected circuits with other circuits in the same raceway. Limit number of GFI protect circuits in any one raceway to a maximum of one (1) circuit.

D. Identification
   1. Label all outlets and switches. Mark each wiring device where circuits and panel supply is derived from.
   2. All identification shall be legible and readable after completion of installation

3.08 INSTALLATION OF FUSES AND DISCONNECT SWITCHES
   A. Fuses shall be installed where noted on plans. Sizes are based on design data provided by equipment mfg. Listed or labeled equipment must be in accordance with instructions included in the listing or labeling. Be sure to observe maximum branch circuit fuse size labels.
   B. Disconnect switches shall be mounted on the equipment, where possible. Coordinate with mechanical contractor to ensure switches are not mounted on a removable access panel.
   C. Label each disconnect fuse with equipment tag as indicated in the single line diagram, or as directed.

3.09 ELECTRICAL EQUIPMENT GROUNDING
   A. Ground non-current carrying metal parts of electrical equipment enclosures, frames, conductor raceways or cable trays to provide a low impedance path for line-to-ground fault current and to bond all non-current carrying metal parts together. Install a ground conductor in each raceway system in addition to conductors shown. Equipment ground conductor shall be electrically and mechanically continuous from the electrical circuit source to the equipment to be grounded. Size ground conductors per NEC 250 unless larger conductors are shown on the drawings.
   B. Grounding conductors shall be identified with green insulation, except where a bare ground conductor is specified. Where green insulation is not available, on larger sizes, black insulation shall be used and suitably identified with green tape at each junction box or device enclosure.
   C. Install metal raceway couplings, fittings and terminations secure and tight to insure good ground continuity. Provide insulated grounding bushing and bonding jumper where metal raceway is not directly attached to equipment metal enclosure and at concentric knock-outs.
   D. Motors shall be connected to equipment ground conductors with a conduit grounding bushing and with a bolted solderless lug connection on the metal frame.
   E. Conduit terminating in concentric knockouts at panelboards, cabinets and gutters shall have insulated grounding bushings and bonding jumpers installed interconnecting all such conduits and the panelboard cabinet, gutter, etc.
   F. Performance:
      1. Measure the resistance to ground of each ground rod before connection to the other ground rods. The resistance shall not exceed 25 ohms.
         a. A single electrode which does not have a resistance to ground of 25 ohms or less shall be augmented by additional electrode(s).
      2. Measure the resistance to ground of the total ground system with all connections completed. The resistance shall not exceed 2 ohms for primary services or 5 ohms for secondary services.
      3. Tests of the resistance to ground shall be made using either the three point method or the fall-of-potential method.
      4. Perform a continuity check from equipment ground bus bars and ground lugs to the ground system.

3.10 BONDING
   A. Bonding shall be provided to assure electrical continuity and the capacity to conduct safely any fault current likely to be imposed.
   B. Bonding shall be in accordance with NEC Article 250, Part V.
3.11 WORKMANSHIP
   A. Preparation, handling, and installation shall be in accordance with manufacturer's written
      instructions and technical data particular to the product specified and/or accepted equal except
      as otherwise specified. Coordinate work and cooperate with others in furnishing and placing
      this work. Work to reviewed shop drawings for work done by others and to field measurements
      as necessary to properly fit the work.
   B. Conform to the National Electrical Contractor's Association "Standard of Installation" for general
      installation practice.

3.12 INSTALLATION
   A. Install in accordance with manufacturer's instructions.

END OF SECTION