BID DOCUMENTS COVER SHEET

CONTRACT DOCUMENTS

FOR

D-639 ADA Improvements – Phase 3 Architectural

AT

Diablo Valley College

321 Golf Club Road
Pleasant Hill, CA 94523

CONTRA COSTA COMMUNITY COLLEGE DISTRICT

DSA File # 7-C1, DSA Application # 01-117299

Sally Swanson Architects
220 Sansome Street, Suite 1100
San Francisco, CA 94104

March 2018
SECTION 00010

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SECTION 00015
PROJECT DIRECTORY

ARCHITECT:  Sally Swanson Architects
Sally Swanson, CEO
220 Sansome Street, Suite 1100
San Francisco, CA 94104
(415) 445-3045

OWNER:  Contra Costa Community College District
500 Court Street
Martinez, CA 94553
(925) 229-1000

CONSTRUCTION MANAGER:  Critical Solutions, Inc.
1801 Oakland Boulevard, Suite 300
Walnut Creek, CA 94596

END OF SECTION 00015
Notice to Bidders

D-639 ADA Improvements – Phase 3 Architectural
Diablo Valley College
321 Golf Club Road, Pleasant Hill, CA 94523

Notice is hereby given that the Governing Board of the Contra Costa Community College District (District), Martinez, California, will receive sealed bid proposals for the furnishing of all labor, materials, equipment, transportation and services for the construction of the project entitled D-639 ADA Improvements – Phase 3 Architectural.

Construction Cost Estimate (Range): $150,000.00 to $250,000.00
License Required: B-General Building Contractor

Scope:
This work consists of correcting various ADA barriers throughout the campus including but not limited to: relocating and/or installing cane detection elements, urinals, lavatories, toilet partitions, toilet accessories, modifying toilet compartments, installing auto door openers for restrooms at five different buildings. Work also includes adding cane detection element at bookstore counters. See Section 01140 for work restrictions affecting construction schedule.

The District does not provide hardcopies of bid documents or reimburse cost of printing, delivery, or any expenses related to the bidding process.

For information directly from the District, you may also log in to the District Website: http://www.4cd.edu/webapps/PurchasingViewBids/default.aspx. Project documents available include but are not limited to plans, specifications, addenda, bidders lists, bid results, etc., and can be viewed on this District webpage.

All questions related to this project must be in writing and are directed to:
Jovan Esprit, Contracts Manager
Contra Costa Community College District
500 Court St., Martinez, CA 94553
Email: jesprit@4cd.edu
Facsimile: 925-370-7512;

Each bid shall be made on the bid form, which is included in the Bid Documents and when submitted, shall be accompanied by a Bid Bond or Certified Cashier’s Check in the amount of 10% of bid (made payable to the Contra Costa Community College District). The District reserves the right to forfeit Bid Bond submitted for failure of the successful bidder to secure Payment & Performance Bonds.
IMPORTANT INFORMATION:

Pre-Bid Meeting and Job Walk, Date / Time: March 20, 2018 (Tuesday) at 10:00 AM (MANDATORY)
Pre-Bid Meeting and Job Walk, Location: Construction Mgt. Trailer – Engineering Technology Bldg.
Diablo Valley College
321 Golf Club Road
Pleasant Hill, CA 94523

Last Date / Time for
Bidder Requests for Information: March 29, 2018 (Thursday) prior to 5:00 PM
Last Day to Issue Addendum: April 3, 2018 (Tuesday)
Bids Due No Later Than, Date / Time: April 6, 2018 (Friday) prior to 2:00 PM
Bids Must Be Received at:
Contra Costa Community College District (Lobby)
500 Court St, Martinez, CA 94553
Attn: Jovan Esprit – Contracts Manager (CCCCD)

Bids must be received by the District prior to the time and by the date noted above. Bids that are not received by the District prior to the time and by the date noted above will not be accepted, and will be returned to the Bidder unopened.

The successful bidder will be required to furnish a labor and material bond in an amount equal to one hundred percent (100%) of the contract price and a faithful performance bond in an amount equal to one hundred percent (100%) of the contract price, said bonds to be secured from a surety company acceptable to the Contra Costa Community College District and authorized to execute such surety in the State of California.

This project is a public works project and is subject to prevailing wage rate laws. A copy of the prevailing rates of wages is on file with the Contracts & Purchasing Office of the Contra Costa Community College District. Said rates of wages shall be included in the contract for the work by this reference.

Attention is directed to Section 4100 through 4113 of the Public Contract Code concerning Subcontractors, with emphasis on Section 4104, known as the “Subletting and Subcontracting Fair Practices Act, effective July 1, 2014.

Attention is directed to Labor Code Section 1725.5 regarding Department of Industrial Relations (DIR) contractor registration process including registration criteria and implementation of DIR registration requirements. Labor Code Section 1771.7 establishes contractor’s obligation to submit Certified Pay Roll (CPR) to the Department of Labor and Standards Enforcement (DLSE) and public works monitoring and enforcement. Labor Code Section 1773.3 requires the District to submit a PWC-100 to DIR for all public works contract awarded effective January 1, 2015.

Attention is directed to Section 00600, Construction Agreement, Article 5, and GENERAL CONDITIONS, Article 8, paragraphs 8.4.1 and 8.4.2, regarding liquidated damages. Liquidated Damages shall be set for $1,000.00 Dollars for each calendar day the work is delayed beyond the Contract Substantial Completion date. The Governing Board of the Contra Costa Community College District reserves the right to reject any and all bids and/or waive any informality or irregularity in any bid received. No bidder may withdraw their Bid for a period of ninety (90) days after the date set for opening thereof.

END OF SECTION 00100
1.1 ISSUING OF DOCUMENTS
   A. Bidding Documents may be examined at the Contra Costa Community College District, 500 Court Street, Martinez, CA 94553. By Appointment: Georgette Stewart, Facilities Department, phone: (925)229-6847.

1.2 QUALIFICATIONS OF BIDDERS
   A. Bidders may be required to furnish evidence satisfactory to the District and the Architect that he has sufficient means and has had sufficient experience in the class of work called for to enable him to complete the Contract in a satisfactory manner.
   B. Bidders shall be Contractors properly licensed in accordance with the laws of the State of California.
   C. The successful Bidder shall furnish satisfactory Certificates of Insurance coverage as specified in the Contract Documents.

1.3 RECEIPT AND OPENING OF BIDS
   A. Contra Costa Community College District hereinafter referred to as the District, will receive Bids at the same time and place specified in the Notice inviting Bids.
   B. Complete the Bid Form included in the Project Manual.
   C. The envelopes containing the Bids shall be sealed, addressed to the District, and designated as “D-639 ADA Improvements – Phase 3 Architectural– Contra Costa Community College District”. The envelope shall contain the name and address of the Bidder.
   D. Bids that are mailed shall have the previously described envelope placed inside an envelope addressed to: CONTRA COSTA COMMUNITY COLLEGE DISTRICT, 500 Court Street, Martinez, CA 94553 ATTENTION: JOVAN ESPRIT, Contracts Manager. Bids should be mailed in time to be received prior to the time set forth in the Advertisement for Bids.
   E. Bids which are conditional (or which make alterations, omissions, or reservations to the terms of the Bidding Documents) may be rejected as non-responsive.
   F. All monetary figures are required, both in writing and in numerals. In event of conflict between written quotations and numerical quotations, written quotations shall govern.
   G. Type or print all bid data legibly in ink except signatures which shall be in script. Mistakes may be crossed out and corrections inserted, if each is initialed in ink by signer of Bid.
   H. Bidder’s business address and signature shall be on the Bid. A Bid by a partnership shall furnish the full names of partners and be signed in the partnership name by one member of the partnership, or by authorized representative, followed by the signature and designation of the person signing. Bids by corporations, with corporate seal affixed, shall be signed with the legal name of the corporation followed by the name of the state of incorporation and by the signature and designation of the person authorized to bind it to the matter. The name of
each person signing shall also be typed or printed below the respective signatures. When required by the District, satisfactory evidence of authority of the office signing in behalf of the corporation shall be furnished.

I. No Bids will be received after the date and time set forth in the Notice Inviting Bids.

1.4 BID SECURITY
   A. Submit with the Bid a Bid Security in the amount of 10 percent (10%) of the Bid.
   B. The District reserves the right to forfeit the Bid Bond submitted for failure of the successful bidder to secure Payment & Performance Bonds.

1.5 SURETY BONDS
   A. The successful Bidder shall furnish a Labor and Material Payment Bond in the amount equal to one hundred percent (100%) of the Contract Price and a faithful Performance Bond in the amount equal to 100 percent (100%) of the Contract Price as security for the successful performance of the work and payment of persons performing labor and furnishing materials. The Bonds shall be executed by a surety company or companies acceptable to the District and authorized to execute such in the State in which the Project is located and shall be furnished within 10 days after Notice of Acceptance of said Bid. Surety shall be made in favor of the District and shall cover the guarantee periods as well as the construction period.

1.6 WITHDRAWAL OR REVISIONS OF BID
   A. This Bid may be withdrawn or revised prior to the scheduled time for receipt. Bids not withdrawn prior to the scheduled time for receipt may not be withdrawn for a period of 90 days.

1.7 BID PROTESTS
   A. Inquiries or questions based on alleged patent ambiguity of the plans, specifications or estimate must be communicated as a bidder inquiry prior to bid opening. Any such inquiries or questions, submitted after bid opening, will not be treated as a bid protest.
   B. Bidder may file a protest with the District against the Bid of other Bidder or Bidders (“Bid Protest”) subject to the provisions of this Article. The procedures and time limits set forth in this Article are mandatory and are a Bidder’s sole and exclusive remedy in protesting other Bidders’ bids. Failure to comply with these procedures shall constitute a waiver of any right to pursue a Bid Protest, or to contest the District’s award of the contract for the work that is the subject of the Bid, in any legal proceeding before any authority with jurisdiction.
   C. Bid Protests and Responses shall be governed by the following time limitations:
      1. Bidder must deliver any Bid Protest to the District in writing before 2:00PM five (5) calendar days after the date of bid opening. The District will reject any Bid Protest not received by the District by this deadline. Bidder must concurrently deliver a copy of its Bid Protest to all Bidders against whose Bids the Bid Protest is directed. The Bidder must include with its Bid Protest written proof to the District’s satisfaction that Bidder has
delivered a copy of its Bid Protest to the other Bidder whose bid is the subject of the Bid Protest.

2. A Bidder whose Bid is the subject of a Bid Protest must deliver its written response, if any, (“Response”) to the District, before 2:00PM, ten (10) working days after the date of bid opening. The District will reject any Response not received by the District by this deadline.

D. Delivery of Bid Protest or Response:

1. Bidder may deliver a Bid Protest to the District by personal delivery or electronic transmission such as by facsimile. Bidder is solely responsible for ensuring that the District receives any Bid Protest or Response by the deadlines set forth herein.

2. The District will not consider Bid Protests or Responses by telephone conversation or any other non-written communication.

3. Bidder shall submit any Bid Protest or Response to:

   David Wetmore
   Contra Costa Community College District
   500 N. Court Street, Martinez, CA 94553
   dwetmore@4cd.edu

E. Content of Bid Protest:

1. A Bid Protest must state the basis for the protest and provide supporting evidence.

2. A Bid Protest must refer to the specific portion of the Bid that forms the basis of the protest.

3. A Bid Protest must include the name, address, and telephone number of the person representing the protesting Bidder.

4. A Bid Protest must be clearly identified as a Bid Protest.

1.8 AWARD AND REJECTION OF BIDS

A. In awarding or rejecting Bids, the District reserves the following rights:

1. Identification of successful Bidder will not be determined at time of opening Bids.

2. To obtain opinion of counsel on legality and sufficiency of bids.

3. To reject all Bids, to re-bid, or waive irregularities or informalities in a Bid, and to accept or reject alternates.

4. Request proof that the successful Bidder can provide performance and payment bonds as required.
1.9 EXAMINE DOCUMENTS AND VISIT SITE

A. Before submitting a Bid, the Bidder shall examine the Bidding Documents and visit the site of the work in order to ascertain existing conditions and limitations, including those of labor, and include in the Bid a sum to cover the cost of all items described in the Contract Documents.

B. No consideration will be granted for alleged misunderstanding of the materials to be furnished or work to be done. The tender of a Bid carries with it the agreement to terms and conditions referred to in the Contract Documents.

1.10 DISCREPANCIES, AMBIGUITIES, OR CONFLICTS

A. If the Bidder is in doubt as to the true meaning of any part of the Contract Documents; finds discrepancies, errors or omissions therein; or finds variances in any of the Contract Documents with applicable rules, regulations, ordinances and/or laws, a written request for an interpretation or correction thereof must be submitted to the District’s Contract Manager. Bidders are solely responsible for submitting to District’s Contract Manager such request. Ambiguities or inconsistencies arising as a result of separation of sections or portions of the drawings or specifications by or for subcontractor bidding shall not relieve the Contractor for providing the complete Work without increase to or adjustment in the Contract Price or the Time for performance. Interpretations or corrections of the Contract Documents will be by written addendum issued by the Architect. No person is authorized to render an oral interpretation or correction of any portion of the Contract Documents to any Bidder, and no Bidder is authorized to rely on any such oral interpretation or correction. Failure to request interpretation or clarification of any portion of the Contract Documents pursuant to the foregoing is a waiver of any discrepancy, defect or conflict therein.

1.11 ADDENDA

A. Cost for work included in any Addenda issued during the time of bidding shall be included in the Bid, and will become a part of the Contract. List Addenda received as indicated on the Bid Form.

1.12 FORM OF AGREEMENT

A. The form of agreement to be used for the Contract is provided by the District and is included in the Project Manual.

1.13 AWARD OF CONTRACT

A. The District will be allowed a period of ninety (90) days after Bid Opening Date for evaluating the Bids.

B. Bidders of record will be notified of the results of the District’s evaluation of bids and Award of Contract, if any.

C. The contractor shall begin work within ten (10) calendar days of receipt of Notice to Proceed.

END OF SECTION 00200
SECTION 00210
INFORMATION AVAILABLE TO BIDDERS

PART 1 - REPORT AND INFORMATION

1.1 Existence of reports, record drawings, and utility surveys: Contra Costa Community College District, its consultants, and prior contractors may have collected documents providing a general description of the site and conditions of the work. These documents may consist of geotechnical reports for and around the site, record drawings, utility drawings, and information regarding underground utilities. These reports, documents and other information are not part of the Contract Documents and do not show new work to be constructed, rather, they show existing conditions that Contractor may have to address as part of its construction planning.

1.2 Available Documentation: The following existing documentation is available for review through District office for this project:

A. As-Built Drawings as available

B. Campus Utility Maps


1.3 Contractor shall acknowledge and accept that the documents are not a part of the Contract Documents and are made available to bidders for reference only. The District and its representatives are not responsible for any and all discrepancies between the documents and the existing and actual as-built conditions, and do not guarantee the accuracy of the documents.

1.4 The District and Architect assume no responsibility for the completeness or accuracy of the documents or the records compiled there from and the interpretations made from the documents. There is no express or implied guarantee that the conditions indicated in the documents are representative of those existing throughout the building and/or site Conditions differing substantially from those indicated may be encountered.

END OF SECTION 00210
SECTION 00300
BID PROPOSAL FORM

PROJECT NUMBER / NAME: D-639 ADA Improvements – Phase 3 Architectural

CAMPUS / LOCATION: Diablo Valley College
321 Golf Club Road, Pleasant Hill, CA 94523

DISTRICT: CONTRA COSTA COMMUNITY COLLEGE DISTRICT
500 Court St, Martinez, CA 94553

Herein Referred to as "District"

1. INTRODUCTION

A. The Bidder proposes to perform the Work for the Contract Sum and within the proposed Contract Time, based upon an examination of the site and the Bid and Contract Documents.

B. The Bidder certifies this Bid is submitted in good faith.

C. The Bidder agrees that the Contract Sum and other proposed terms will be considered in evaluating Bids and may be negotiated and adjusted before awarding of Contract.

D. The signed copy of the Certification of the Visit to the Site shall be attached to the Bid Form Submittal.

E. A fully executed Statement of Bidder's Qualifications signed by an authorized officer of the Bidder submitting the Bid shall be attached to the Bid Form.

F. A fully executed Non-Collusion Affidavit signed by an authorized officer of the Bidder submitting Bid shall be attached to the Bid Form.

G. The District shall award the contract to the lowest responsive and responsible Bidder. The evaluation of the low bid shall be based on the total of Item 2.A Base Bid

2. CONTRACT SUM

A. BASE BID

For labor, materials, bonds, fixtures, equipment, tools, transportation, services, sales taxes and other costs necessary to complete the general construction in accordance with the Contract Documents, for a stipulated Contract Sum in the amount of:

____________________________________________ Dollars ($______________________)

B. ALLOWANCE #1
3. ADDITIVE ALTERNATES

A. NOT APPLICABLE

4. COMPLETION TIME

A. For establishing the Date of Substantial Completion, the contract time for the Base Bid shall be **60 calendar days** after date of the Notice to Proceed. Final Completion shall be 30 calendar days after the date of Substantial Completion.

B. The Bidder certifies that the Bid is based on the Contract Time for completion as stated above and in the Contract Documents. Bidder further certifies that the Base Bid amount is sufficient to cover all labor, materials, central office and construction site overhead, profit, and all other costs related to the completion of the Project for the entire Project construction time for both the General Contractor and all Subcontractors.

5. ADDENDA

A. The Bidder acknowledges receipt of the following Addenda and certifies the Bid has provided for all modifications and considerations required therein.

   None [  ]

   Addendum No.: ________ dated ________________

   Addendum No.: ________ dated ________________

   Addendum No.: ________ dated ________________

   Addendum No.: ________ dated ________________

   Addendum No.: ________ dated ________________

B. List of Additional Addenda Attached: Yes [  ] No. [  ].

6. DESIGNATION OF SUBCONTRACTORS

A. The Bidder has set forth a complete list indicating the type of work, name, and business address of each Subcontractor who will perform work in excess of one-half of one percent of the Contract Sum.
B. Any portion of the work in excess of the specified amount having no designated Subcontractor shall be performed by the Bidder.

C. Substitution of listed Subcontractors will not be permitted unless approved in advance by the District.

D. Prior to signing the Contract, the District reserves the right to reject any listed Subcontractor.

<table>
<thead>
<tr>
<th>Type of Work</th>
<th>Subcontractor’s Business Address</th>
<th>License #</th>
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E. Complete list of Subcontractors is attached: Yes [ ] No [ ]

F. Continuation list of Subcontractors is attached: Yes [ ] No [ ]

7. ACCEPTANCE AND AWARD

A. The District reserves the right to reject this Bid and to negotiate changes before or after execution of the Contract. This Bid shall remain open and shall not be withdrawn for a period of 90 days after Bid Opening date.

B. If written notice of acceptance of this Bid is mailed or delivered to the Bidder within 90 days after the date set for the receipt of this Bid, or other time before it is withdrawn, the Bidder will execute and deliver to the District a Contract prepared by District with the required Surety Bonds and Certificates of Insurance, within 10 days after personal delivery or deposit in the mail of the notification of acceptance.

C. Notice of acceptance or request for additional information may be addressed to the Bidder at the address provided.

8. BID SECURITY

A. The required 10 percent (10%) Bid Security for this Bid is attached in the form of:

( ) Bid Bond Issued By: ______________________________

Contra Costa Community College District
Diablo Valley College
D-639 ADA Improvement – Phase 3 Architectural
9. **BIDDER’S BUSINESS INFORMATION**

**A. Individual [ ]:** ____________________________

Personal Name: ____________________________

Business Name: ____________________________

Address: ____________________________

_________________________ Zip Code: __________

**Telephone:** ____________________________

Fax Number: ____________________________

**B. Partnership [ ]:** ____________________________

Co-partners’ Names: ____________________________

Business Name: ____________________________

Address: ____________________________

_________________________ Zip Code: __________

Telephone: ____________________________

Fax Number: ____________________________

**C. Corporation [ ]:** ____________________________

Firm Name: ____________________________

Address: ____________________________

_________________________ Zip Code: __________

Telephone: ____________________________
Fax Number: ________________________________

State of Incorporation: ________________________________

President: ________________________________

Secretary: ________________________________

Treasurer: ________________________________

Manager: ________________________________

D. **Power of Attorney:**
   
   Name: ________________________________

   Title: ________________________________

E. **Contractor License No.**

   State of ________________________________

F. Bidder is submitting this proposal on behalf of a Joint Venture. Names, license numbers, and relevant information are given on a separate attachment:

   Yes [ ] No [ ].

G. Upon request, furnish appropriate documentation to substantiate and/or support the data given.

10. The undersigned hereby certifies under penalty of perjury under the laws of the State of California that all the information submitted by the Bidder in connection with this Bid and all the representations herein made are true and correct.

   Executed this day of ________________________________

______________________________

Contractor’s License No.  Expiration Date

______________________________

Firm Name

______________________________

Signature

______________________________

By (Print or Type Name)

______________________________

Title
NONCOLLUSION AFFIDAVIT  
(TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID)  

State of California  
County of Contra Costa  

______________________, being first duly sworn, deposes and says that he or she is of ____________________________, the party 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 the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not in any manner, directly or indirectly, submitted his or her 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.  

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

Date: ____________________________ Signature: ____________________________  

State of California  
County of Contra Costa  

On ____________________________, before me, ____________________________, Notary Public personally appeared ____________________________, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.  

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing is true and correct.  

WITNESS my hand and official seal.  

Date: ____________________________ Signature: ____________________________  

[SEAL]  

END OF SECTION 00350
Contra Costa Community College District (District), in accordance with Public Contract Code Section 20651.5, requires each prospective bidder for a contract, as described under Section 20651, to complete and submit to the district a standardized questionnaire and financial statement in a form specified by the district, including a complete statement of the prospective bidder’s financial ability and experience in performing public works. The questionnaire and financial statement shall be verified under oath by the bidder in the manner in which civil pleadings in civil actions are verified. The questionnaire responses of prospective bidders and their financial statements shall not be deemed public records and shall not be open to public inspection. All information requested must be provided and be current as of the date of the Bid.

I, ________________________________________________ being first duly sworn, depose and say:

(Name)

I am the ___________________________ of __________________________________

(Title)      (Company / Entity)

Firm Name: __________________________________________ Check One:        ☐ Corporation

(as it appears on license)  ☐ Partnership
☐ Sole Proprietor
☐ Joint Venture

Contact Person: __________________________________________

Address: __________________________________________

Phone: __________________________ Fax: __________________________

Email: __________________________ Tax ID No.: __________________________

If firm is a sole proprietor or partnership:

Owner(s) of Company __________________________________________

Contractor’s License Number(s): (California State License Board Classification)

__________________________________________

__________________________________________

__________________________________________

Contra Costa Community College District

Diablo Valley College

D-639 ADA Improvements – Phase 3 Architectural

Section 00400 - Page 1 of 10

Statement of Bidder’s Qualifications
For Bidders That Are Corporations:

1a. Date incorporated: ________________________________

1b. Under the laws of what state: ________________________

1c. Provide all the following information for each person who is either (a) an officer of the corporation (president, vice president, secretary, treasurer), or (b) the owner of at least ten per cent of the corporation’s stock.

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Years with Co.</th>
<th>% Ownership</th>
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1d. Identify every construction firm that any person listed above has been associated with (as owner, general partner, limited partner or officer) at any time during the last five years.

**NOTE:** For this question, “owner” and “partner” refer to ownership of ten per cent or more of the business, or 10 per cent or more of its stock, if the business is a corporation.

<table>
<thead>
<tr>
<th>Person’s Name</th>
<th>Construction Firm</th>
<th>Dates of Person’s Participation with Firm</th>
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</table>
**For Bidders That Are Partnerships:**

1a. Date of formation: ________________________________________

1b. Under the laws of what state: _______________________________

1c. Provide all the following information for each partner who owns 10 per cent or more of the firm.

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Years with Partnership</th>
<th>% Ownership</th>
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</table>

1d. Identify every construction company that any partner has been associated with (as owner, general partner, limited partner or officer) at any time during the last five years.

**NOTE:** For this question, “owner” and “partner” refer to ownership of ten per cent or more of the business, or ten per cent or more of its stock, if the business is a corporation.

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<thead>
<tr>
<th>Person’s Name</th>
<th>Construction Company</th>
<th>Dates of Person’s Participation with Company</th>
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</table>
For Bidders That Are Sole Proprietorships:

1a. Date of commencement of business. ________________________________

1b. Tax ID number of company owner ________________________________

1c. Identify every construction firm that the business owner has been associated with (as owner, general partner, limited partner or officer) at any time during the last five years.

NOTE: For this question, “owner” and “partner” refer to ownership of ten per cent or more of the business, or ten per cent or more of its stock, if the business is a corporation.

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</table>

For Bidders That Intend to Make a Bid as Part of a Joint Venture:

1a. Date of commencement of joint venture. ________________________________

1b. Provide all of the following information for each firm that is a member of the joint venture that expects to bid on one or more projects:

<table>
<thead>
<tr>
<th>Name of Firm</th>
<th>% Ownership of Joint Venture</th>
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</tbody>
</table>
For All Bidders

2. Has there been any change in ownership of the firm at any time during the last five years?
   NOTE: A corporation whose shares are publicly traded is not required to answer this question.
   □ Yes □ No
   If “yes,” explain on a separate signed page (referring to this question).

3. Is the firm a subsidiary, parent, holding company or affiliate of another construction firm?
   NOTE: Include information about other firms if one firm owns 50 per cent or more of another,
   or if an owner, partner, or officer of your firm holds a similar position in another firm.
   □ Yes □ No
   If “yes,” explain on a separate signed page (referring to this question).

4. Are any corporate officers, partners or owners connected to any other construction firms?
   NOTE: Include information about other firms if an owner, partner, or officer of your firm
   holds a similar position in another firm.
   □ Yes □ No
   If “yes,” explain on a separate signed page (referring to this question).

5. List all California construction license numbers, classifications and expiration dates of the
   California contractor licenses held by your firm:
   ____________________________________________________________
   ____________________________________________________________
   If more space is needed add a separate signed page (referring to this question).

6. If any of your firm’s license(s) are held in the name of a corporation or partnership, list below
   the names of the qualifying individual(s) listed on the CSLB records who meet(s) the experience
   and examination requirements for each license.
   ____________________________________________________________
   ____________________________________________________________
   If more space is needed add a separate signed page (referring to this question).

7. Has your firm changed names or license number in the past five (5) years?
   □ Yes □ No
   If “yes,” explain on a separate signed page, including the reason for the change, and all former
   names under which the firm has conducted business.

8. Has any owner, partner or (for corporations) officer of your firm operated another construction
   firm under any other name in the last five (5) years?
   □ Yes □ No
   If “yes,” explain on a separate signed page (referring to this question), including the reason for
   the change.
9. Have you attached your latest copy of a REVIEWED OR AUDITED financial statement with accompanying notes and supplemental information?
   ☐ Yes ☐ No
   
   NOTE: A financial statement that is not either reviewed or audited is not acceptable. A letter verifying availability of a line of credit may also be attached; however, it will be considered as supplemental information only, and is not a substitute for the required financial statement.

10. Is the attached Financial Statement for the identical organization of the Bidder?
    ☐ Yes ☐ No
    
    If “no”, explain the relationship and financial responsibility of the organization whose financial statement of provided (i.e., parent/subsidiary, etc.)

    ______________________________________________________________________

    If more space is needed add a separate signed page (referring to this question).

11. Contractor possesses a VALID AND CURRENT California Contractor’s license for the project or projects for which it intends to submit a bid.
    ☐ Yes ☐ No

12. List the categories of work your firm typically performs with its own forces, and check the adjacent boxes of those categories of work that will be self-performed on this project

    ☐ ___________________________________ ☐ ___________________________________

    ☐ ___________________________________ ☐ ___________________________________

    ☐ ___________________________________ ☐ ___________________________________

13. On a separate signed page (referring to this question), list all construction projects your organization has in progress and for each project listed, state; (i) a general description of the work performed or to be performed by your organization; (ii) the owner's name, name of the owner's representative, the owner's address and telephone number; (iii) the project architect, address and telephone number; (iv) percent presently completed and (v) the scheduled completion date.

14. On a separate signed page (referring to this question), list all construction projects completed by your organization in the past three years, and for each project, state: (i) a general description of the work performed by your organization on the project; (ii) the owner's name, name of the owner's representative, the owner's address and telephone number; (iii) the initial and final contract amount; (iv) the initial and final dates of completion; and (v) whether the project was completed within contract time and contract budget.
15. Has a claim or other demand ever been made against your organization’s California Contractors License Bond?
☐ Yes ☐ No
If yes, on a separate signed page (referring to this question), state the following: (i) the name, address and telephone number of each person or entity making claim or demand; (ii) the date of each claim or demand; (iii) the circumstances giving rise to each such claim or demand; and (iv) the disposition of each such claim or demand.

16. Has a complaint ever been filed against your organization’s California Contractors License with the California Contractors State License Board (CSLB)?
☐ Yes ☐ No
If yes, on a separate signed page (referring to this question), state the following for each complaint: (i) the name, address and telephone number of each person or entity making the complaint; (ii) the date of each complaint; (iii) the circumstances giving rise to each such complaint; and (iv) the disposition of each such complaint, including without limitation, any disciplinary or other action imposed or taken by the California Contractors State License Board as a result of any such complaint.

17. Have any lawsuits or other proceedings ever been brought against your organization or any of its principals or officers in connection with any construction contract or construction project?
☐ Yes ☐ No
If “yes,” on a separate signed page (referring to this question) describe the circumstances, the amount or relief sought and the disposition of each such lawsuit or other proceeding.

18. Has your organization ever filed a lawsuit or initiated other proceedings in connection with any construction contract or construction project?
☐ Yes ☐ No
If “yes,” on a separate signed page (referring to this question) describe the circumstances, the amount or relief sought and the disposition of each such lawsuit or other proceeding.

19. Are there any judgments, orders or arbitration awards pending, outstanding or by which your organization or any of its officers or principals are bound by?
☐ Yes ☐ No
If “yes,” on a separate signed page (referring to this question) describe each such judgment, order or arbitration award and the present status of the satisfaction or discharge thereof.

20. Has any California State License Board (CSLB) license held by your firm, or its Responsible Managing Employee (RME) or Responsible Managing Officer (RMO) been suspended or revoked within the last five (5) years?
☐ Yes ☐ No

21. Has your organization ever failed to complete a construction contract?
☐ Yes ☐ No
If “yes,” on a separate signed page (referring to this question) state the following: (i) describe each such contract; (ii) the owner’s name, address and telephone number; (iii) a description of the project; and (iv) the circumstances of the failure to complete.
22. Has your organization ever been declared in default of a construction contract?
☐ Yes ☐ No
If “yes,” on a separate signed page (referring to this question) state the following: (i) describe each such contract; (ii) the owner’s name, address and telephone number; (iii) a description of the project; and (iv) the circumstances of the declaration of default.

23. Has a claim or other demand ever been asserted against any Bid Bond, Performance Bond or Labor and Material Payment Bond posted by your organization in connection with any construction contract or your submittal of a bid or proposal on a construction contract?
☐ Yes ☐ No
If “yes,” on a separate signed page (referring to this question) state the following: (i) state the name, address and telephone number of each such claimant; (ii) the date of the claim; and (iii) the disposition thereof.

24. At the time of submitting this qualification form, is your firm ineligible to bid on or be awarded a public works contract, or perform as a subcontractor on a public works contract, pursuant to either Labor Code section 1777.1 or Labor Code section 1777.7?
☐ Yes ☐ No

25. At any time during the last five (5) years, has your firm, or any of its owners, officers, or partners been convicted of a crime involving the awarding of a contract of a government or Public construction project, or the bidding or performance of a government or Public contract?
☐ Yes ☐ No

26. Has your firm or any of its owners, officers, or partners ever been convicted of a crime involving any federal, state, or local law related to bidding, awarding, or performance of any construction contract?
☐ Yes ☐ No

27. Has your firm or any of its owners, officers or partners ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or material misrepresentation to any public agency or entity in any way related to any construction contract?
☐ Yes ☐ No

28. Is your firm CURRENTLY the debtor in a bankruptcy case?
☐ Yes ☐ No

29. In the last twelve (12) months has your firm, or any firm with which any of your company's owners, officers or partners was associated, been debarred, disqualified, removed or otherwise prevented from bidding on, or completing, any government agency or public works project for any reason?
   NOTE: “Associated with” refers to another construction firm in which an owner, partner or officer of your firm held a similar position.
☐ Yes ☐ No
If YES, on a separate signed page (referring to this question) state the following: (i) describe each such project; (ii) the owner’s name, address and telephone number; (iii) the circumstances and specific reason given for being prevented from bidding on or completing the project.
30. Has your organization ever refused to sign a contract awarded to it?
   [ ] Yes [ ] No
   If YES, on a separate signed page (referring to this question) state the following: (i) describe each such contract; (ii) the owner's name, address and telephone number; (iii) a description of the project; and (iv) the circumstances of the refusal to sign the contract.

31. In the last twelve (12) months has your firm been denied an award of a public works contract based on a finding by a public agency that your company was NOT a responsible bidder?
   [ ] Yes [ ] No
   If YES, on a separate signed page (referring to this question) state the following: (i) describe each such contract; (ii) the owner's name, address and telephone number; (iii) a description of the project; and (iv) the circumstances of the determination.

32. Contractor has CURRENT workers' compensation insurance policy as required by the Labor Code or is legally self-insured pursuant to Labor Code section 3700 et. seq.
   [ ] Yes [ ] No
   [ ] Contractor is exempt from this requirement, because it has no employees

33. Within the last two (2) years has there ever been a period when your firm had employees but was without Workers’ Compensation insurance or state-approved self-insurance?
   [ ] Yes [ ] No

34. Attach to this statement true and correct copies of the following:
   34.1 Your organization's California Contractor’s License (the copy must clearly and legibly show: (i) the licensee name; (ii) the expiration date; and (iii) the classification(s) of licensure).
   34.2 The Contractor’s License Bond posted by your organization in connection with your organization's California Contractor’s License pursuant to California Business & Professions Code 7071.5 and 7071.6 (the copy must clearly and legibly show; (i) the Bond number or other information sufficient for identification; (ii) the name, address and telephone number of the Surety on the Bond; (iii) the signature of the individual executing the Bond on behalf of the Surety and if such individual's authority is conferred by a power of attorney or by such individual's authority is conferred by a power of attorney or by such individual's designation as an attorney in fact on behalf of the Surety, include a clear and legible copy of such power of attorney or attorney in fact designation; (iv) the principal on such Bond; and (v) the expiration date of such Bond).
   34.3 If your organization's California Contractor's License is issued by virtue of the qualification of a responsible managing employee or responsible managing officer of your organization, the Qualifier’s Bond, if required pursuant to California business & Professions Code 7071.9 (the copy must clearly and legibly show; (i) the bond number or other information sufficient for identification; (ii) the name, address and telephone number of the Surety on the Bond; (iii) the signature of the individual executing the Bond on behalf of the Surety and if such individual's authority is conferred by a power of attorney or by such individual's designation as an attorney in fact on behalf of the Surety, include a clear and
legible copy of such power of attorney or attorney in fact designation; (iv) the principal on such Bond; and (v) the expiration date of such Bond.

35. **Certification**

The responses to each and all of the foregoing are complete and accurate; there are no omissions of material fact or information such that would render any of the foregoing false or misleading; there are no misstatements of fact in any of the foregoing.

I, the undersigned, certify and declare that I have read all the foregoing answers to this Section and know their contents. The matters stated in the above answers are true of my own knowledge and belief, except as to those matters stated on information and belief, and as to those matters I believe them to be true. I declare under penalty of perjury under the laws of the State of California, that the foregoing is correct.

Dated: ______________

________________________________
(Printed Name)

________________________________
(Signature)

NOTARY PUBLIC

=====================================================================================  
ACKNOWLEDGEMENT (By Corporation, Partnership or Individual)

STATE OF CALIFORNIA  )
 ) ss.
COUNTY OF CONTRA COSTA  )

On ________________, before me, _____________________________, Notary Public, personally appeared ______________________________, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing is true and correct.

Witness my hand and official seal.

________________________________
Notary Public

[SEAL]

=====================================================================================  
END OF SECTION 00400
PAYMENT BOND
(CALIFORNIA PUBLIC WORK)

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, the Contra Costa Community College District (sometimes referred to hereinafter as “Obligee”) has awarded to ______________________________ (hereinafter designated as the “Principal” or “Contractor”), an agreement for the work described as follows: ______________________________ (hereinafter referred to as the “Public Work”); and

WHEREAS, said Contractor is required to furnish a bond in connection with said Contract, and pursuant to California Civil Code Section 9550;

NOW, THEREFORE, We, _______________________________________, the undersigned Contractor, as Principal; and ______________________________, a corporation organized and existing under the laws of the State of ________________, and duly authorized to transact business under the laws of the State of California, as Surety, are held and firmly bound unto the Contra Costa Community College District and to any and all persons, companies, or corporations entitled by law to file stop notices under California Civil Code Section 9100, or any person, company, or corporation entitled to make a claim on this bond, in the sum of ______________________ Dollars ($_____________), said sum being not less than one hundred percent (100%) of the total amount payable by said Obligee under the terms of said Contract, for which payment will and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal, its heirs, executors, administrators, successors, or assigns, or subcontractor, shall fail to pay any person or persons named in Civil Code Section 9100; or fail to pay for any materials, provisions, or other supplies, used in, upon, for, or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Code, with respect to work or labor thereon of any kind; or shall fail to deduct, withhold, and pay over to the Employment Development Department, any amounts required to be deducted, withheld, and paid over by Unemployment Insurance Code Section 13020 with respect to work and labor thereon of any kind, then said Surety will pay for the same, in an amount not exceeding the amount herein above set forth, and in the event suit is brought upon this bond, also will pay such reasonable attorneys’ fees as shall be fixed by the court, awarded and taxed as provided in California Civil Code Sections 9550 et seq.

This bond shall inure to the benefit of any person named in Civil Code Section 9100 giving such person or his/her assigns a right of action in any suit brought upon this bond.

It is further stipulated and agreed that the Surety of this bond shall not be exonerated or released from the obligation of the bond by any change, extension of time for performance, addition, alteration or modification in, to, or of any contract, plans, or specifications, or agreement pertaining or relating to any scheme or work of improvement herein above described; or pertaining or relating to the furnishing of labor, materials, or equipment therefor; nor by any change or modification of any terms of payment or extension of time for payment pertaining or
relating to any scheme or work of improvement herein above described; nor by any rescission or attempted rescission of the contract, agreement or bond; nor by any conditions precedent or subsequent in the bond attempting to limit the right of recovery of claimants otherwise entitled to recover under any such contract or agreement or under the bond; nor by any fraud practiced by any person other than the claimant seeking to recover on the bond; and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given; and under no circumstances shall the Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of contract between the Obligee and the Contractor or on the part of any obligee named in such bond; that the sole condition of recovery shall be that the claimant is a person described in California Civil Code Sections 9100, and who has not been paid the full amount of his or her claim; and that the Surety does hereby waive notice of any such change, extension of time, addition, alteration or modification herein mentioned.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this____________ day of ____________, 20____.

PRINCIPAL/CONTRACTOR:

____________________________________

By: __________________________________

SURETY:

____________________________________

By: __________________________________

Attorney-in-Fact
IMPORTANT: THIS IS A REQUIRED FORM.

Surety companies executing bonds must possess a certificate of authority from the California Insurance Commissioner authorizing them to write surety insurance defined in California Insurance Code Section 105, and if the work or project is financed, in whole or in part, with federal, grant or loan funds, Surety’s name must also appear on the Treasury Department’s most current list (Circular 570 as amended).

Any claims under this bond may be addressed to:

(Name and Address of Surety) (Name and Address of agent or representative for service for service of process in California)

_________________________________________  ________________________________

_________________________________________  ________________________________

Telephone: ____________________________  Telephone: ____________________________

STATE OF CALIFORNIA )
) ss.
COUNTY OF )
)

On ___________________________ before me, ______________________________________,
(a Notary Public in and for said State, personally appeared
(insert name and title of the officer)
who proved to me on the basis of satisfactory evidence to
be the person(s) whose name(s) is/are subscribed to the within instrument as the Attorney-in-Fact of
the _____________________ (Surety) and acknowledged to me that he/she/they subscribed
the name of the _____________________ (Surety) thereto and his own name as Attorney-in-
Fact on the executed instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the
foregoing paragraph is true and correct.

WITNESS my hand and official seal.

______________________________ (SEAL)

Notary Public in and for said State

Commission expires: ____________________

NOTE: A copy of the power-of-attorney to local representatives of the bonding company must be attached hereto.
CONTRACT PERFORMANCE BOND
(CALIFORNIA PUBLIC WORK)

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, Contra Costa Community College District (sometimes referred to hereinafter as “Obligee”) has awarded to __________________________________________ (hereinafter designated as the “Principal” or “Contractor”), an agreement for the work described as follows: ____________________________________ (hereinafter referred to as the “Public Work”); and

WHEREAS, the work to be performed by the Contractor is more particularly set forth in that certain contract for said Public Work dated _____________ ____________________, (hereinafter referred to as the “Contract”), which Contract is incorporated herein by this reference; and

WHEREAS, the Contractor is required by said Contract to perform the terms thereof and to provide a bond both for the performance and guaranty thereof.

NOW, THEREFORE, we, ______________________________________, the undersigned Contractor, as Principal, and ________________________________, a corporation organized and existing under the laws of the State of ________________, and duly authorized to transact business under the laws of the State of California, as Surety, are held and firmly bound unto the Contra Costa Community College District in the sum of _______________________________________ Dollars ($_______________), said sum being not less than one hundred percent (100%) of the total amount payable by said Obligee under the terms of said Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the bounded Contractor, his or her heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in said Contract and any alteration thereof made as therein provided, on his or her part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill guarantees of all materials and workmanship; and indemnify, defend and save harmless the Obligee, its officers and agents, as stipulated in said Contract, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

The Surety, for value received, hereby stipulates and agrees that it shall not be exonerated or released from the obligation of this bond (either by total exoneration or pro tanto) by any change, extension of time, alteration in or addition to the terms of the contract or to the work to be performed there under or the specifications accompanying the same, nor by any change or modification to any terms of payment or extension of time for any payment pertaining or relating to any scheme of work of improvement under the contract. Surety also stipulates and agrees that it shall not be exonerated or released from the obligation of this bond (either by total exoneration or pro tanto) by any overpayment or underpayment by the Obligee that is based upon estimates
approved by the Architect. The Surety stipulates and agrees that none of the aforementioned changes, modifications, alterations, additions, extension of time or actions shall in any way affect its obligation on this bond, and it does hereby waive notice of any such changes, modifications, alterations, additions or extension of time to the terms of the contract, or to the work, or the specifications as well notice of any other actions that result in the foregoing.

Whenever Principal shall be, and is declared by the Obligee to be, in default under the Contract, the Surety shall promptly either remedy the default, or shall promptly complete the Contract through its agents or independent contractors, subject to acceptance and approval of such agents or independent contractors by Obligee as hereinafter set forth, 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 and the payment of liquidated damages; or, at Obligee’s sole discretion and election, Surety shall obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Obligee of the lowest responsible bidder, arrange for a contract between such bidder and the Obligee and make available as Work progresses (even though there should be a default or 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 price” (as hereinafter defined), 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. The term “balance of the Contract price,” as used in this paragraph, shall mean the total amount payable to Principal by the Obligee under the Contract and any modifications thereto, less the amount previously paid by the Obligee to the Principal, less any withholdings by the Obligee allowed under the Contract.

Surety expressly agrees that the Obligee may reject any agent or contractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Principal. Unless otherwise agreed by Obligee, in its sole discretion, Surety shall not utilize Principal in completing the Contract nor shall Surety accept a bid from Principal for completion of the work in the event of default by the Principal.

No final settlement between the Obligee and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

The Contractor and Surety shall remain responsible and liable for all patent and latent defects that arise out of or are related to the Contractor’s failure and/or inability to properly complete the Public Work as required by the Contract and the Contract Documents. The obligation of the Surety hereunder shall continue so long as any obligation of the Contractor remains.

Contractor and Surety agree that if the Obligee is required to engage the services of an attorney in connection with enforcement of the bond, Contractor and Surety shall pay Obligee’s reasonable attorneys’ fees incurred, with or without suit, in addition to the above sum.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including reasonable attorneys’ fees to be fixed by the Court.
IN WITNESS WHEREOF, we have hereunto set our hands and seals this ____ day of ____________, 2010.

PRINCIPAL/CONTRACTOR:

__________________________________________

By: ________________________________________

SURETY:

__________________________________________

By: ________________________________________  
Attorney-in-Fact

The rate of premium on this bond is ______________________________ per thousand.

The total amount of premium charged: $__________________________ (This must be filled in by a corporate surety).

IMPORTANT: THIS IS A REQUIRED FORM.

Surety companies executing bonds must possess a certificate of authority from the California Insurance Commissioner authorizing them to write surety insurance defined in California Insurance Code Section 105, and if the work or project is financed, in whole or in part, with federal, grant or loan funds, Surety’s name must also appear on the Treasury Department’s most current list (Circular 570 as amended).

Any claims under this bond may be addressed to:

(Name and Address of Surety) (Name and Address of agent or representative for service for service of process in California)

__________________________________________  ________________________________________

__________________________________________  ________________________________________

Telephone:__________________________     Telephone: ____________________________
STATE OF CALIFORNIA )
) ss.
COUNTY OF )

On __________________________ before me, ______________________________________
(insert name and title of the officer)

On __________________________, before me, _________________________, a Notary
Public in and for said State, personally appeared _______________________________, who
proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are
subscribed to the within instrument as the Attorney-in-Fact of the _____________________
(Surety) and acknowledged to me that he/she/they subscribed the name of the
_____________________ (Surety) thereto and his own name as Attorney-in-Fact on the
executed instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the
foregoing paragraph is true and correct.

WITNESS my hand and official seal.

__________________________
Notary Public in and for said State

Commission expires:______________

NOTE: A copy of the power-of-attorney to local representatives of the bonding company
must be attached hereto.
SECTION 00600
CONSTRUCTION AGREEMENT

CONTRACT NO. ____________________
(Construction Agreement)

====================================================================================================
This Agreement shall not be enforceable until ratified and approved by the Contra Costa Community College District’s Governing Board. The estimated board meeting date is April 25, 2018.

(§1.1) Parties: (Public Agency) CONTRA COSTA COMMUNITY COLLEGE DISTRICT
500 Court St, Martinez, CA 94553

(Contractor) ________________________________
Address: ________________________________
________________________________
________________________________

(§1.2) Effective Date: _______________________

(§1.3) The Work: D-639 ADA Improvements – Phase 3 Architectural

(§1.4) Completion Time: 60 calendar days from the Notice to Proceed

(§1.5) Liquidated Damages and Final Completion: $1,000.00 / per calendar day Remaining Work is delayed

(§1.6) Public Agency’s Agent: CONTRA COSTA COMMUNITY COLLEGE DISTRICT (“District”)

(§1.7) Contract Sum: _____MILLION_____THOUSAND,_____HUNDRED DOLLARS and NO CENTS ($00,000,000.00)

2. SCOPE OF WORK:
This work consists of correcting various ADA barriers throughout the campus including but not limited to: relocating and/or installing cane detective elements, urinals, lavatories, toilet partitions, toilet accessories, modifying toilet compartments, installing auto door openers for restrooms at five different buildings. Work also includes adding cane detective element at bookstore counters. Work will occur during the campus Summer break starting on May 29, 2018.

3. WORK CONTRACT, CHANGES
   (a) By their signatures below, effective on the above date, these parties promise and agree as set forth in this Agreement, incorporating by these references labor and materials contained in Section 2, Scope of Work.
   (b) Contractor shall, at Contractor’s own cost and expense, and in a workmanlike manner, fully and faithfully perform and complete the work; and will furnish all materials, labor, services, equipment, and transportation necessary, convenient and proper in order fairly to perform the requirements of this contract, all strictly in accordance with the Public Agency’s plans, drawings and specifications.
   (c) The work can be changed only with Public Agency’s prior written order specifying such change and its cost agreed to by the parties; and the Public Agency shall never have to pay more than specified in Section 1.7 without such an order.
4. **TIME: NOTICE TO PROCEED AND ACCEPTANCE**

(a) Contractor shall start this work as directed in the specifications or the Notice to Proceed and shall complete it as specified in Section 1, Completion Time.

(b) Partial Acceptance – If at any time during the prosecution of the project, the Contractor substantially completes the Phase of Work of the Project, the Contractor may request the District to make an inspection of the Phase of Work. If the District finds upon inspection that the Phase of Work has been satisfactorily completed in compliance with the contract, the District may accept that Phase of Work as being completed provided that the Contractor shall remain responsible for completion of any Remaining Work of such Phase of the Project. Phases of Work of the project eligible for the Partial Acceptance allowed in this paragraph shall be identified specifically in the Contract Documents as Phases of Work to be eligible for Partial Acceptance. Such Partial Acceptance shall in no way void or alter any of the terms of the Contract.

(c) Remaining Work after Substantial Completion. If the Architect or District determines that the work required by the Contract is Substantially Complete during any inspection conducted pursuant to this Agreement or Specification Section 01770, Contract Closeout Procedures, the Contractor shall be notified of that determination and the District shall determine if there is Remaining Work. A list of Remaining Work shall be issued only by the District or the Architect and only after the District has certified Substantial Completion. The District or Architect shall give the Contractor the necessary instructions for correction or completion of the Remaining Work, and the Contractor shall immediately comply with and execute such instructions within the Contract Time. Upon completion of the Remaining Work, another inspection shall be made that shall constitute the Final Inspection, provided the Remaining Work has been completed to the satisfaction of the District. If the remaining work has been completed to the satisfaction of the District, the District shall make the final acceptance and notify the Contractor in writing of this acceptance as of the date of Final Inspection.

(d) Final Acceptance – Upon due notice from the Contractor of completion of the entire project, the District shall make an inspection. If all construction provided for and contemplated by the contract is found to be completed to the District’s satisfaction then that inspection shall constitute the Final Inspection and the District shall notify the Contractor in writing of final acceptance effective as of the date of the Final Inspection.

(e) Default for failure to Complete Remaining Work In the event the Contract Time expires before the Remaining Work is completed to the satisfaction of the District, the District may provide notice to the Contractor that the Remaining Work shall be completed by Contractor to the satisfaction of the District within ten consecutive calendar days from the date of such notice. The failure of the Contractor to satisfactorily complete the Remaining Work within the ten days shall entitle to District to declare Contractor in default and thereafter terminate the Contract. The ten-day notice provided under this paragraph shall not be construed as adding any time to the Contract Time and is a time period solely for the purposes of providing notice of default.

(f) Application for Final Payment. After the Contractor has completed all Remaining Work to the satisfaction of the District and delivered all maintenance and operating instructions, schedules, guarantees, warranties, bonds, certificates of inspection, marked-up record documents and other documents as required by the Contract, and after the District or Architect has indicated that the work is acceptable, Contractor may make application for final payment following the Payments Procedures for progress payments. The final application for payment shall be accompanied by all documentation called for in the Contract Documents, together with
complete and legally effective releases or waivers (satisfactory to the District) of all liens arising out of or filed in connection with the work on the project.

(g) Final Payment and Acceptance. If the Architect determines that the work has been completed and the Contractor's other obligations under the Contract have been fulfilled, the Architect shall, within ten working days after receipt of the final application for payment, indicate in writing the Architect's recommendation of payment and present the application to District for payment. Thereupon the Architect shall prepare a Certificate of Final Completion. Otherwise, Architect shall return the application to Contractor indicating in writing the reasons for refusing to recommend final payment. Contractor shall make the corrections identified in the Architect's refusal to recommend final payment. Thirty days after presentation to District of the application and accompanying documentation, with the Architect's recommendation and notice of acceptability of the work, the amount recommended by Architect shall be come due and payable by District to Contractor.

5. LIQUIDATED DAMAGES

5.1 LIQUIDATED DAMAGES - SUBSTANTIAL COMPLETION

If the Contractor fails to complete this contract and this Work or Phase of Work within the time fixed therefore, allowance being made for contingencies as provided herein, Contractor becomes liable to the Public Agency for all its loss and damage there from; and because, from the nature of the case, it is and will be impracticable and extremely difficult to ascertain and fix the Public Agency's actual damage from any delay in performance hereof, it is agreed that Contractor will pay as liquidated damages to the Public Agency the reasonable sum specified in Section 1, the result of the parties' reasonable endeavor to estimate fair average compensation therefore, for each calendar day's delay in finishing said Work or Phase of Work; and if the same be not paid, Public Agency may, in addition to its other remedies, deduct the same from any money due or to become due Contractor under this Contract. If the Public Agency for any cause authorizes or contributes to a delay, suspension of work or extension of time, its duration shall be added to the time allowed for completion, but it shall not be deemed a waiver nor be used to defeat any right of the Agency to damages for non-completion or delay hereunder. Pursuant to Government Code Section 4215, the Contractor shall not be assessed liquidated damages for delay in completion of the work, when such delay was caused by the failure of the Public Agency or the owner of a utility to provide for removal or relocation of existing utility facilities.

5.2 LIQUIDATED DAMAGES-THE REMAINING WORK.

The Remaining Work, as such work is determined by the Public Agency or Public Agency's Representative, shall be completed within the Contract Time or any proper extension thereof granted by Public Agency. If the Contractor shall neglect, fail or refuse to complete the Remaining Work within the Contract Time or any proper extension thereof granted by the Public Agency, then the Contractor does hereby agree, as part consideration for the awarding of this Contract, to pay to the Public Agency the amount specified in the Contract, not as a penalty but as liquidated damages for the Remaining Work for each such breach of Contract set forth herein for each and every consecutive calendar day that the Contractor shall be in default after expiration of the Contract Time.

6. INTEGRATED DOCUMENTS

The plans, drawings and specifications and special provisions of the Public Agency's Notice Inviting Bids, and Contractor's accepted bid for this work are hereby incorporated into this Contract; and they are intended to cooperate, so that anything exhibited in the plans or drawings and not mentioned in the specifications or special provisions, or vice versa, is to be executed as if exhibited, mentioned and set forth in both, to the true intent and
meaning thereof when taken all together; and differences of opinion concerning these shall be finally determined by
the Public Agency.

7. PAYMENT

(a) For strict and literal fulfillment of these promises and conditions, and full compensation for all this work,
the Public Agency shall pay the Contractor the sum specified in Section 1, except that in unit price contracts
the payment shall be for finished quantities at unit bid prices.

(b) On or about the first day of each calendar month, the Contractor shall submit to the Public Agency a
verified application for payment, supported by a statement showing all materials actually installed during
the preceding month, the labor expended thereon, and the cost thereof; whereupon, after checking, the
Public Agency shall issue to Contractor a certificate for the amount determined to be due, minus five (5%)
percent thereof pursuant to the Public Agency’s General Terms and Conditions, but not until defective
work and materials have been removed, replaced and made good.

8. PAYMENTS WITHHELD

(a) The Public Agency or its agent may withhold any payment, or because of later discovered evidence nullify
all or any certificate for payment, to such extent and period of time only as may be necessary to protect
the Public Agency from loss because of:

(1) Defective work not remedied, or work not completed, or
(2) Claims filed or reasonable evidence indicating probable filing, or
(3) Failure to properly pay subcontractors or for material or labor, or
(4) Reasonable doubt that the work can be completed for the balance then unpaid, or
(5) Damage to another contractor, or
(6) Damage to the Public Agency, other than damage due to delays.

(b) The Public Agency shall use reasonable diligence to discover and report to the Contractor, as the work
progresses, the materials and labor which are not satisfactory to it, so as to avoid unnecessary trouble or
cost to the Contractor in making good any defective work or parts.

(c) Thirty-five (35) calendar days after Public Agency files its notice of completion of the entire work, it shall
issue a certificate to the Contractor and pay the balance of the contract price after deducting all amounts
withheld under this contract, provided the Contractor shows that all claims for labor and materials have
been paid, no claims have been presented to the Public Agency based on acts or omissions of the
Contractor, and no liens or withhold notices have been filed against the work or site, and provided there
are not reasonable indications of defective or missing work or of late-recorded notices of liens or claims
against Contractor.

9. INSURANCE

Before the commencement of the Work, the Contractor shall purchase from and maintain in a company or
companies lawfully authorized to do business in California as admitted carriers with a financial rating of at
least A status as rated in the most recent edition of Best’s Insurance Reports or as amended by the
Supplementary General Conditions, such insurance as will protect the Public Agency from claims set forth
below, which may arise out of or result from the Contractor’s operations under the Contract and for which
the Contractor may be legally liable, whether such operations are by the Contractor, by a Subcontractor, by
anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be
liable.

a. Claims for damages because of bodily injury, sickness, disease, or death of any person District would require
  indemnification and coverage for employee claim;
b. Claims for damages insured by usual personal injury liability coverage, which are sustained by a person as a result of an offense directly or indirectly related to employment of such person by the Contractor or by another person;
c. Claims for damages because of injury or destruction of tangible property, including loss of use resulting therefrom, arising from operations under the Contract Documents;
d. Claims for damages because of bodily injury, death of a person, or property damage arising out of the ownership, maintenance, or use of a motor vehicle, all mobile equipment, and vehicles moving under their own power and engaged in the Work;
e. Claims involving contractual liability applicable to the Contractor’s obligations under the Contract Documents, including liability assumed by and the indemnity and defense obligations of the Contractor and the Subcontractors; and
f. Claims involving Completed Operations, Independent Contractors’ coverage, and Broad Form property damage, without any exclusions for collapse, explosion, demolition, underground coverage, and excavating.
g. Claims involving sudden or accidental discharge of contaminants or pollutants.

Additional Insured Endorsement Requirement: The Contractor shall name, on any policy of insurance, the District, Architect, Inspector, the State of California, their officers, employees, agents and independent contractors as Additional Insured. Subcontractors shall name the Contractor, the District, Architect, Inspector, the State of California, their officers, employees, agents and independent contractors as Additional Insured.

The Additional Insured Endorsement included on all such insurance policies shall state that coverage is afforded the additional insured with respect to claims arising out of operations performed by or on behalf of the insured. If the Additional Insured have other insurance which is applicable to the loss, such other insurance shall be on an excess or contingent basis. The insurance provided by the Contractor must be designated in the policy as primary to any insurance obtained by the Public Agency. The amount of the insurer’s liability shall not be reduced by the existence of such other insurance.

Specific Insurance Requirement: Contractor shall take out and maintain and shall require all subcontractors, if any, whether primary or secondary, to take out and maintain:
a) Comprehensive General Liability Insurance with an aggregate of not less than $2,000,000.00; Per occurrence, $1,000,000.00
b) Automotive (any auto) where operated in amounts $1,000,000.00
c) Workers’ Compensation Insurance: $1,000,000.00; Contractor is aware of and complies with Labor Code Section 3700 and the Worker’s Compensation Law.

10. BONDS

Bond Requirements: Prior to commencing any portion of the Work, the Contractor shall furnish separate payment and performance bonds for its portion of the Work which shall cover 100% faithful performance of and payment of all obligations arising under the Contract Documents and/or guaranteeing the payment in full of all claims for labor performed and materials supplied for the Work. All bonds shall be provided by a corporate surety authorized and admitted to transact business in California as sureties.

To the extent, if any, that the Contract Price is increased in accordance with the Contract Documents, the Contractor shall, upon request of the Public Agency, cause the amount of the bonds to be increased accordingly and shall promptly deliver satisfactory evidence of such increase to the Public Agency. To the extent available, the bonds shall further provide that no change or alteration of the Contract Documents (including, without limitation, an increase in the Contract Price, as referred to above), extensions of time, or modifications of the time, terms, or conditions of payment to the Contractor will release the surety. If the Contractor fails to furnish the required bonds, the Public Agency may terminate the Contract for cause.
On signing this contract, Contractor shall deliver to Public Agency for approval good and sufficient bonds with sureties, in amount(s), specified in the specifications or special provisions, guaranteeing faithful performance of this contract and payment for all labor and materials hereunder.

11. **FAILURE TO PERFORM**

If the Contractor at any time refuses or neglects, without fault of the Public Agency or its agent(s), to supply sufficient materials or workers to complete this agreement and work as provided herein, for a period of ten days or more after written notice thereof by the Public Agency, the Public Agency may furnish same and deduct the reasonable expenses thereof from the contract price.

12. **LAWS APPLY: General**

Both parties recognize the applicability of various federal, state and local laws and regulations, especially Chapter 1 of Part 7 of the California Labor Code (beginning with Section 1720, and including Sections 1735, 1777.5, 1777.6, forbidding discrimination) and intend that this agreement complies therewith. The parties specifically stipulate that the relevant penalties and forfeitures provided in the Labor Code, especially in Sections 1775, 1776, and 1813, concerning prevailing wages and hours, shall apply to this agreement as though fully stipulated herein.

13. **SUBCONTRACTORS**

Public Contract Code Sections 4100-4113 are incorporated herein.

14. **WAGE RATES**

(a) Pursuant to Labor Code Section 1773, the Director of the Department of Industrial Relations has ascertained the general prevailing rates of wages per diem, and for holiday and overtime work, in the locality in which this work is to be performed, for each craft, specified in the call for bids for this work and are on file with the Public Agency, and are hereby incorporated herein.

(b) This schedule of wages is based on a working day of eight (8) hours unless otherwise specified; and the daily rate is the hourly rate multiplied by the number of hours constituting the working day. When less than that number of hours are worked, the daily wage range is proportionately reduced, but the hourly rate remains as stated.

(c) The Contractor, and all subcontractors, must pay at least these rates to all persons on this work, including all travel, subsistence, and fringe benefit payments provided for by applicable collective bargaining agreements. All skilled labor not listed above must be paid at least the wage scale established by collective bargaining agreement for such labor in the locality where such work is being performed. If it becomes necessary for the Contractor or any subcontractor to employ any person in a craft, classification or type of work (except executive, supervisory, administrative, clerical or other non-manual workers as such) for which no minimum wage rate is specified, the contractor shall immediately notify the Public Agency which shall promptly determine the prevailing wage rate therefore and furnish the Contractor with the minimum rate based thereon, which shall apply from the time of the initial employment of the person affected and during the continuance of such employment.

15. **HOURS OF LABOR**

Eight hours of labor in one calendar day constitutes a legal day's work, and no worker employed at any time on this work by the Contractor or by any subcontractor shall be required or permitted to work longer thereon except as provided in Labor Code Sections 1810-1815.

16. **APPRENTICES**

Contra Costa Community College District
Diablo Valley College
D-639 ADA Improvements – Phase 3 Architectural
Properly indentured apprentices may be employed on this work in accordance with Labor Code Sections 1777.5 and 1777.6, forbidding discrimination.

17. **PREFERENCE FOR MATERIALS**

The Public Agency desires to promote the industries and economy of Contra Costa County, and the Contractor therefore promises to use the products, workers, laborers and mechanics of this County in every case where the price, fitness and quality are at least equal.

18. **ASSIGNMENT**

This agreement binds the heirs, successors, assigns, and representatives of the Contractor; but Contractor cannot assign it in whole or in part, nor any monies due or to become due under it, without the prior written consent of the Public Agency and the Contractor's surety or sureties, unless they have waived notice of assignment.

19. **NO WAIVER BY PUBLIC AGENCY**

Inspection of the work and/or materials, or approval of work and/or materials inspected, or statement by any officer, agent or employee of the Public Agency indicating the work or any part thereof complies with the requirements of this contract, or acceptance of the whole or any part of said work and/or materials, or payments therefore, or any combination of these acts, shall not relieve the Contractor of Contractor's obligation to fulfill this contract as prescribed; nor shall the Public Agency be thereby stopped from bringing any action for damages or enforcement arising from the failure to comply with any of the terms and conditions hereof.

20. **HOLD HARMLESS AND INDEMNITY**

(a) Contractor promises to and shall hold harmless and indemnify from the liabilities as defined in this section.

(b) The indemnities benefited and protected by this promise are the Public Agency and its elective and appointive boards, commissions, officers, agents and employees.

(c) The liabilities protected against are any liability or claim for damage of any kind allegedly suffered, incurred or threatened because of actions defined below, including personal injury, death, property damage, inverse condemnation, or any combination of these, regardless of whether or not such liability, claim or damage was unforeseeable at any time before the Public Agency approved the improvement plan or accepted the improvements as completed, and including the defense of any suit(s) or action(s) at law or equity concerning these.

(d) The actions causing liability are any act or omission (negligent or non-negligent) in connection with the matters covered by this contract and attributable to the contractor, subcontractor(s), or any officer(s), agent(s), or employee(s) of one or more of them.

(e) Non-conditions: The promise and agreement in this section is not conditioned or dependent on whether or not any Indemnities has prepared, supplied, or approved any plan(s), drawing(s), specifications(s) or special provision(s) in connection with this work, has insurance or other indemnification covering any of these matters, or that the alleged damage resulted partly from any negligent or willful misconduct of any Indemnities.

21. **EXCAVATION**

Contractor shall comply with the provisions of Labor Code Section 6705, if applicable, by submitting to Public Agency a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during trench excavation.
22. **GOVERNMENT CODE SECTION 10532**

Contractor shall be subject to the examination and audit of the Auditor General for a period of three years after final payment under the contract.

23. **WARRANTY**

(a) In addition to any other warranties or guaranties in the Contract Documents, the Contractor warrants, except as provided in paragraph (i) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.

(b) This warranty shall continue for a period of 1 year from the date of final acceptance of the Work or Phase of Work, unless otherwise provided or extended in the Contract Documents. If the District takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the District takes possession.

(c) The Contractor shall remedy at the Contractor’s expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor’s expense any damage to District-owned or controlled real or personal property, when that damage is the result of—

   1. The Contractor’s failure to conform to contract requirements; or
   2. Any defect of equipment, material, workmanship, or design furnished.

(d) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor’s warranty with respect to work repaired or replaced will run for 1 year or as otherwise provided or extended from the date of repair or replacement.

(e) The District shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the District shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor’s expense.

(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall—

   1. Obtain all warranties that would be given in normal commercial practice;
   2. Require all warranties to be executed, in writing, for the benefit of the District, if directed by the District; and
   3. Enforce all warranties for the benefit of the District, if directed by the District.
(h) In the event the Contractor’s warranty under paragraph (b) of this clause has expired, the District may bring suit at its expense to enforce a subcontractor’s, manufacturer’s, or supplier’s warranty.

(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the District nor for the repair of any damage that results from any defect in District-furnished material or design.

(j) This warranty shall not limit the District’s rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud.

24. **CONSEQUENTIAL DAMAGES**

The Contractor and Public Agency waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes:

(a) Damages incurred by the Public Agency for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and

(b) Damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party’s termination. Nothing contained in this subparagraph shall be deemed to preclude an award of liquidated direct damages, when applicable, in accordance with the requirements of the Contract Documents.

25. **HAZARDOUS MATERIALS**

(a) If reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos, lead or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Public Agency in writing.

(b) The Public Agency shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to verify that it has been rendered harmless. The Public Agency shall furnish in writing to the Contractor the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of such material or substance or who are to perform the task of removal or safe containment of such material or substance. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written notification from the Public Agency and Contractor. The Contract Time shall be extended appropriately.

26. **SAFETY**

a. **Safety Programs.** In addition to and as required by other Sections of the Contract Documents, the Contractor shall be solely responsible for initiating, maintaining and supervising all safety programs required by applicable law, ordinance, regulation or governmental orders in connection with the performance of the Contract, or otherwise required by the type or nature of the Work. The Contractor’s safety program shall include all actions and programs necessary for compliance with California or federally statutorily mandated
workplace safety programs, including without limitation, compliance with the California Drug Free Workplace Act of 1990 (California Government Code §§8350 et seq.). Without limiting or relieving the Contractor of its obligations hereunder, the Contractor shall require that its Subcontractors similarly initiate and maintain all appropriate or required safety programs. Prior to commencement of Work, the Contractor shall meet with the campus Buildings and Grounds Manager, Project Manager, and Construction Manager to review Contractor’s safety precautions and implementation of safety programs during the Work.

b. Safety Precautions. In addition to and as required by other Sections of the Contract Documents, the Contractor shall be solely responsible for initiating and maintaining reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to: (i) employees on the Work and other persons who may be affected thereby; (ii) the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor’s Subcontractors or Sub-subcontractors; and (iii) other property or items at the site of the Work, or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction. The Contractor shall take adequate precautions and measures to protect existing roads, sidewalks, curbs, pavement, utilities, adjoining property and improvements thereon (including without limitation, protection from settlement or loss of lateral support) and to avoid damage thereto. Without adjustment of the Contract Price or the Contract Time, the Contractor shall repair, replace or restore any damage or destruction of the foregoing items as a result of performance or installation of the Work.

c. Safety Signs, Barricades. In addition to and as required by other Sections of the Contract Documents, the Contractor shall erect and maintain, as required by existing conditions and conditions resulting from performance of the Contract, reasonable safeguards for safety and protection of property and persons, including, without limitation, posting danger signs and other warnings against hazards, promulgating safety regulations and notifying Districts and users of adjacent sites and utilities.

d. Safety Notices. In addition to and as required by other Sections of the Contract Documents, the Contractor shall give or post all notices required by applicable law and comply with applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.
27. SIGNATURES AND ACKNOWLEDGEMENT

Public Agency, By: ________________________________
David Wetmore, Director of Purchasing and Contracts

Note to Contractor: (1) Execute acknowledgement form below, and (2) if a corporation, affix Corporate Seal.

Contractor, hereby also acknowledging awareness of and compliance with Labor Code S1861 concerning Worker’s Compensation Law.

Contractor:
By: ________________________________ (CORPORATE SEAL)
(Designate Official Capacity – COMPANY NAME)

___________________  _____________________
License Number   Federal ID Number

NOTARY PUBLIC

State of California ) ss. ACKNOWLEDGEMENT (By Corporation, Partnership or Individual)
County of Contra Costa

The person(s) signing above for Contractor, known to me in individual and business capacity as stated, personally appeared before me today and acknowledged that he/she/they executed it and that the corporation or partnership named above executed it.

Dated: ________________________________

END OF SECTION 00600
## GENERAL CONDITIONS

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ARTICLE 1

GENERAL CONDITIONS

1.1 BASIC DEFINITIONS

1.1.1 **Action of the Governing Board** is a vote of a majority of the District’s governing board.

1.1.2 **Approval** for a Contract, Agreement, or Change Order means written authorization through action of the governing board unless specific delegation of approval authority is delegated to a District representative.

1.1.3 **Approved.** The term “approved,” when used to convey Architect’s action on Contractor’s submittals, applications, and requests, is limited to Architect’s duties and responsibilities as stated in the Conditions of the Contract.

1.1.4 **Architect** means the architect, engineer, or other design professional engaged by the District to design and perform general observation of the work of construction and interpret the drawings and specifications for the Project.

1.1.5 **As shown, as indicated, as detailed** refer to drawings accompanying this specification.

1.1.6 **Bid/Bidders.** The term Bid and Proposal have the same meaning, and the same is true for Bidders and Proposers.

1.1.7 **Contract or Agreement.** When the terms are used in these General Conditions shall be references to the Contract Documents as defined herein.

1.1.8 **Contract Time.** Contract Time means the number of consecutive calendar days specified in the contract immediately after the date to commence work issued by Owner in the Notice to Proceed and includes both the time allowed for completion of the work required to achieve Substantial Completion and the time allowed to complete the Remaining Work.

1.1.9 **Contractor.** Whenever the term “Contractor” is used in the Contract or elsewhere in the Contract Documents, it refers to a person or entity that has an agreement directly with the District to perform any of the work for the Project. The term Contractor is referred to throughout the Contract Documents as if singular in number and masculine in gender and means a Contractor or his authorized representative. The term Contractor does not include any contractors under separate and direct contract with the District. A Subcontractor is a person or entity that has a direct or indirect contract with the Contractor to perform any of the Work at the site.

1.1.10 **Contractor’s Construction Schedule.** The document prepared by the Contractor, which details the events of construction and establishes completion dates for the various stages of the Work and the entire project.
1.1.11 **The Contract Documents.** The Contract Documents consist of the Agreement between District and Contractor (hereinafter the Agreement or Contract), Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, addenda issued prior to bid, instructions to bidders, notice to bidders, and the requirements contained in the Bid Documents, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is a written amendment to the Contract signed by parties, a Change Order, a Construction Change Directive, or a written order for a minor change in the Work issued by the Architect. The Contract Documents collectively form the Contract. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a written Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind between the Architect and Contractor, between the District and any Subcontractor or Sub-subcontractor, or between any persons or entities other than the District and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect’s duties.

1.1.12 **Contractor, District, and Architect** are those mentioned as such in the Agreement. They are treated throughout the Contract Documents as if they are of singular number and neuter gender. Any reference to “Owner” shall mean “District.”

1.1.13 **Construction Manager.** Whenever the term “Construction Manager” or “CM” is used in the contract or elsewhere in the Contract Documents, it refers to the District assigned Construction Manager, or the District Project Manager if no CM is assigned.

1.1.14 **Days** means calendar days, unless otherwise noted as working days.

1.1.15 **Directed.** Terms such as “directed,” “requested,” “authorized,” “selected,” “approved,” “required,” and “permitted” mean directed by the Architect or the District, requested by the Architect or District, and similar phrases.

1.1.16 **District.** Whenever the term “District” is used in the Contract Documents, it refers to the Contra Costa Community College District or those persons designated by the District to act in/on its behalf.

1.1.17 **The Drawings** are graphic and pictorial portions of the Contract Documents prepared for the Project and approved changes thereto, wherever located and whenever issued, showing the design, location, and scope of the Work, generally including plans, elevations, sections, details, schedules, and diagrams as drawn or approved by the Architect.

1.1.18 **Emergency** shall be defined as a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. Emergency includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage.

1.1.19 **Exposed.** Whenever this term is used it shall be understood to mean any item or surface, exterior, or interior, which can be seen by a person outside the building, or seen by a person.
inside any usable space within the building during normal activity. Mechanical and electrical rooms, utility and service tunnels, air handling rooms, and penthouses or platforms shall be considered to have exposed surfaces, as shall the mechanical and electrical construction within them. The interior of closets and alcoves shall be considered exposed surfaces, and shall be finished to match the finish of the adjoining room or space, unless another finish is shown. The interiors of cabinets shall be considered exposed, but a finish different from that of the exterior may be permitted or specified. Spaces which are not normally occupied or used by occupants or building staff, such as shafts, hoistways, ceiling plenums, attics and crawl spaces shall be considered “concealed” spaces, unless finishes are shown or specified for their surfaces.

1.1.20 **Final Completion.** The date when all Work for the total project has been completed in accordance with the terms of the Contract Documents and has been inspected following completion of Work identified in the Punchlist Inspection and accepted by the Architect and the District.

1.1.21 **Furnish.** Whenever this term is used it shall be understood to mean “purchase and deliver to the project site” ready for unloading, unpacking, assembly, installation, and similar operations.

1.1.22 **Governing Dictionary.** The definitions of words used in these Specifications, which are not defined, The General Conditions, or in referenced standards, are as given in “The American Heritage Dictionary of the English Language”.

1.1.23 **Indicated.** The term “indicated” refers to graphic representations, notes, or schedules on Drawings or to other paragraphs or schedules in Specifications and similar requirements in the Contract Documents. Terms such as “shown,” “noted,” “scheduled,” and “specified” are used to help the user locate the reference.

1.1.24 **Inspector of Record** is the individual retained by the District in accordance with titles 21 and 24 of the California Code of Regulations and who will be assigned to the Project. May also be referred to as the Project Inspector.

1.1.25 **Install.** Whenever this term is used it shall be understood to mean “receive, unload, inventory, store and be responsible for at the project site, transport from point of receipt to final destination, protect, unpack, erect, install in place, anchor, connect, apply, and place in operation or finish, cleaning, complete for intended use.”

1.1.26 **Installer.** An installer is the Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations. Using a term such as “carpentry” does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as “carpenter.” It also does not imply that requirements specified apply exclusively to trades people of the corresponding generic name.

1.1.27 **Locality in which the work is performed** means the county in which the Project is located.
1.1.28 Option. Whenever this term is used it shall be understood to mean a choice from among the specified products or procedures which shall be made by the Contractor. The choice is not “whether” the work is to be performed, but “which” product or “which” procedure is to be used. The product or procedure chosen by the Contractor shall be provided at no increase in the cost to the District with no lessening of the Contractor’s responsibility for its performance. All or any options selected or proposed are still subject to all requirements for submittals and for approval of same.

1.1.29 Or Equal and Or Approved Equal. The terms “or equal” and “or approved equal” shall mean “or equal as approved in writing by the Architect”.

1.1.30 The Project is the complete construction of the Work performed in accordance with the Contract Documents.

1.1.31 The Project Manual. The Project Manual is the volume assembled for the Work which may include, without limitation, the bidding requirements, sample forms, Conditions of the Contract, and Specifications.

1.1.32 The Project Site. Project site is the space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.1.33 Provide shall include “provide complete in place,” that is “furnish and install.” Complete and ready for the intended use.

1.1.34 Punch List Inspection. The inspection performed by the Construction Manager, Architect and the District upon written notification by the Contractor that the Work is substantially complete.

1.1.35 Regulations. The term “regulations” includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.

1.1.36 Remaining Work. Remaining Work means the work required by the Contract, but not required for Substantial Completion, that the District or Architect determines has not been satisfactorily completed at the time of Substantial Completion, deferred commissioning requirements, deferred and seasonal testing, and all maintenance and operating instructions, schedules, reports, guaranties, warranties, bonds, certificates of inspection, marked-up record documents, prevailing wage compliance reports and all other documents as required by the Contract Documents. Remaining Work may also be referred to as Punch List work.

1.1.37 Safety Orders are those issued by any cognizant city, county, state or federal agency.

1.1.38 Site refers to the grounds of the Project as defined in the Contract Documents and such adjacent lands as may be directly affected by the performance of the Work.
1.1.39 **The Specifications.** The Specifications are that portion of the Contract Documents consisting of the written requirements for material, equipment, construction systems, instructions, quality assurance standards, workmanship, and performance of related services.

1.1.40 **Specification Language.** These Specifications are written in the imperative mood, as defined in the Construction Specifications Institute’s Manual of Practice. Imperative language is directed to the Contractor. The indicative mood is employed on occasion when such sentence structure is necessary to convey the intended meaning in a more accurate or understandable form. The text is streamlined, with the colon (:) employed as a symbol for the words “shall be”, “shall have”, “shall conform with”, “shall comply with”, or “shall meet the requirements of”. The colon is also used to separate a paragraph title or heading from the text that follows.

1.1.41 **Standards, Rules, and Regulations** referred to are recognized printed standards and shall be considered as one and a part of these specifications within limits specified. Federal, state and local regulations are incorporated into the Contract Documents by reference.

1.1.42 **Subcontractor,** as used herein, includes those having direct or indirect contracts with Contractor and ones who furnished labor, material or services for a special design according to drawings and specifications of this Work, but does not include ones who merely furnish material not so worked.

1.1.43 **Substantial Completion.** The date on which the Work or designated portion thereof, as certified by the District Project Manager and Architect, is sufficiently complete, in accordance with the Contract Documents, so the District, may occupy or utilize the Work or designated portion thereof for the use for which it is intended.

1.1.44 **Surety** is the person, firm, or corporation that executes as surety the Contractor’s Performance Bond and Payment Bond.

1.1.45 **Work of the Contractor or Subcontractor** shall include all labor, materials and equipment necessary for the Contractor to fulfill all of its obligations pursuant to the Contract Documents. It shall include the initial obligation of any Contractor or Subcontractor who performs any portion of the Work, to visit the Site of the proposed Work (a continuing obligation after the commencement of the Work), to fully acquaint and familiarize itself with the conditions as they exist and the character of the operations to be carried out under the Contract Documents, and make such investigation as it may see fit so that it shall fully understand the facilities, physical conditions, and restrictions attending the Work under the Contract Documents. Each such Contractor or Subcontractor shall also thoroughly examine and become familiar with the Drawings, Specifications, and associated bid documents before preparing and submitting any bid.

1.1.46 **Workers** includes laborers, workers, and mechanics.

### 1.2 EXECUTION, CORRELATION AND INTENT

#### 1.2.1 Correlation and Intent
1.2.1.1 Documents Complementary and Inclusive. The Contract Documents are complementary; what is required by one shall be as binding as if required by all. The Contract Documents will be construed in accordance with the laws of the State of California and applicable building codes and statutes of the City and/or County where the Project is located. The intent of the Contract Documents is to describe and provide for a functionally complete and operational Project (or part thereof) to be constructed in accordance with the Contract Documents. All Work, materials, and equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as necessary to properly execute and complete the Work to conform to the requirements of the Contract Documents and provide for a functionally complete and operational Project shall be provided by Contractor with no change in the Contract Sum or Contract Time. A typical or representative detail on the Drawings shall constitute the standard for workmanship and material throughout corresponding parts of the Work. Where necessary, and where reasonably inferable from the Drawings, Contractor shall adapt such representative detail for application to such corresponding parts of the Work with no change in the Contract Sum or Contract Time. The details of such adaptation shall be submitted to the City for approval. Repetitive features shown in outline on the Drawings shall be in exact accordance with corresponding features completely shown. All Contract Documents form the Contractor’s contract with the District. Any item of Work mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, shall be provided by Contractor as if shown or mentioned in both. Ambiguities or inconsistencies arising as a result of separation of sections or portions of the drawings or specifications by or for subcontractor bidding shall not relieve the Contractor for providing the complete Work at the Contract Price and within the Contract Time.

1.2.1.2 Coverage of the Drawings and Specifications. The Drawings and Specifications generally describe the Work to be performed by Contractor. Generally, the Specifications describe Work which cannot be readily indicated on the Drawings and indicate types, qualities, and methods of installation of the various materials and equipment required for the Work. It is not intended to mention every item of Work in the Specifications, which can be adequately shown on the Drawings, or to show on the Drawings all items of Work described or required by the Specifications even if they are of such nature that they could have been shown. All materials or labor for Work, which is shown on either the Drawings or the Specifications (or is reasonably inferable therefrom as being necessary to complete the Work), shall be provided by the Contractor to provide a complete project. It is intended that the Work be of sound, quality construction, and the Contractor shall be responsible for the inclusion of adequate amounts to cover installation of all items indicated, described, or implied in the portion of the Work to be performed by them.

1.2.1.3 Conflicts. In the event there is a discrepancy between the various Contract Documents, the more stringent, higher quality, and greater quantity of Work shall apply.

1.2.1.4 Conformance With Laws. Each and every provision of law required by law to be inserted in this Contract shall be deemed to be inserted herein, and the
Contract shall be read and enforced as though it were included herein, even if through mistake or otherwise any such provision is not inserted, or is not correctly inserted. Before commencing any portion of the Work, Contractor shall check and review the Drawings and Specifications for such portion for conformance and compliance with all laws, ordinances, codes, rules and regulations of all governmental authorities and public and municipal utilities affecting the construction and operation of the physical plant of the Project, all quasi-governmental and other regulations affecting the construction and operation of the physical plant of the Project, and other special requirements, if any, designated in the Contract Documents. Such checking shall include Title 21 and Title 24 of the California Code of Regulations, California Building Code, local utility, local water connection, local grading and all other applicable agencies. In the event Contractor observes any violation of any law, ordinance, code, rule or regulation, or inconsistency with the Contract Documents, Contractor shall, within five (5) days, notify Architect and District in writing of same and shall ensure that any such violation or inconsistency shall be corrected in the manner provided hereunder prior to the construction of that portion of the Project. The Contractor shall bear all expenses of correcting Work done contrary to said laws, ordinances, rules, and regulations if the Contractor performed same (1) without first consulting the Architect for further instructions regarding said Work or (2) disregarded the Architect’s instructions regarding said work.

1.2.1.5 Ambiguity and Inconsistency. Before commencing any portion of the Work, Contractor shall carefully examine all Drawings and Specifications and other information given to Contractor as to materials and methods of construction and other Project requirements. Contractor shall, within five (5) days, notify Architect and District in writing of any perceived or alleged error, inconsistency, conflict, ambiguity, or lack of detail or explanation in the Drawings and Specifications in the manner provided herein. If the Contractor or its Subcontractors, material or equipment suppliers, or any of their officers, agents, and employees performs, permits, or causes the performance of any Work under the Contract Documents, which it knows or should have known to be in error, inconsistent, or ambiguous, or not sufficiently detailed or explained, Contractor shall bear any and all costs arising therefrom including, without limitation, the cost of correction thereof without increase or adjustment to the Contract Price or the time for performance. If Contractor performs, permits, or causes the performance of any Work under the Contract Documents prepared by or on behalf of Contractor which is in error, inconsistent or ambiguous, or not sufficiently detailed or explained, Contractor shall bear any and all resulting costs, including, without limitation, the cost of correction, without increase to or adjustment in the Contract Price or the Time for performance. Ambiguities or inconsistencies arising as a result of separation of sections or portions of the drawings or specifications by or for subcontractor bidding shall not relieve the Contractor for providing the complete Work without increase to or adjustment in the Contract Price or the Time for performance.

1.2.2 Addenda and Deferred Approvals

1.2.2.1 Addenda are the changes in specifications, drawings, and contract documents, which have been authorized in writing by the District or Architect prior to receipt of bids, and which alter, explain, or clarify the contract documents. Addenda
shall govern over all other Contract Documents. Subsequent addenda issued shall govern over prior addenda unless otherwise specified in the addenda.

1.2.2.2 Deferred Approvals. Contract Documents which require deferred approval items are meant to be for illustration purposes only. Contractor is responsible for all deferred approval requirements set forth in the Contract Documents. Contractor is responsible to comply with all laws, building codes, and regulations necessary to obtain all necessary approvals, including those required from the Division of the State Architect (“DSA”) and the State Fire Marshall. Contractor shall not be granted an extension of time for failure to obtain necessary approvals due to failure to comply with laws, building codes, and other regulations (including Title 24 of the California Code of Regulations). Contractor shall schedule all deferred approval items in its progress schedule pursuant to Article 3. If Contractor fails to include deferred-approval items in its schedule which results in a critical path delay, then Contractor shall be subject to the assessment of liquidated damages.

1.2.2.3 Deferred Approval Requirements. Deferred approvals shall be submitted and processed pursuant to the requirements of Division 1 of the Specifications. All deferred approvals shall be prepared by Contractor or Contractor’s agent early enough so as to not delay the Project. Contractor is aware that Title 21 California Code of Regulations Section 17(g) and Title 24 California Code of Regulations Section 4-317 have specific requirements for deferred approval as to governing agencies and as to the Architect and Engineer for the Project. As a result, any delay associated with the time for approval by applicable agencies or by the Architect or Architect’s consultants shall be Contractor’s.

1.2.3 Specification Interpretation

1.2.3.1 Titles. The Specifications are separated into titled sections for convenience only and not to dictate or determine the trade or craft involved.

1.2.3.2 As Shown, Etc. Where “as shown,” “as indicated,” “as detailed,” or words of similar import are used, reference is made to the Drawings accompanying the Specifications unless otherwise stated. Where “as directed,” “as required,” “as permitted,” “as authorized,” “as accepted,” “as selected,” or words of similar import are used, the direction, requirement, permission, authorization, approval, acceptance, or selection by Architect is intended unless otherwise stated.

1.2.3.3 General Conditions. The General Conditions and supplementary general conditions are a part of each and every section of the Specifications.

1.2.3.4 Abbreviations. In the interest of brevity, the Specifications are written in an abbreviated form and may not include complete sentences. Omission of words or phrases such as “Contractor shall,” “shall be,” etc., are intentional. Nevertheless, the requirements of the Specifications are mandatory. Omitted words or phrases shall be supplied by inference in the same manner as they are when a “note” occurs on the Drawings. In the interest of brevity, the Contract Documents frequently omit modifying words such as “all” and “any” and articles such as “the” and “an,” but the fact that a
modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

1.2.3.5 Plural. Words in the singular shall include the plural whenever applicable or the context so indicates.

1.2.3.6 Metric. The Specifications may indicate metric units of measurement as a supplement to U.S. customary units. When indicated thus: 1” (25 mm), the U.S. customary unit is specific, and the metric unit is nonspecific. When not shown with parentheses, the unit is specific. The metric units correspond to the “International System of Units” (SI) and generally follow ASTM E 380, “Standard for Metric Practice.”

1.2.3.7 Standard Specifications. Any reference to standard specifications of any society, institute, association, or governmental authority is a reference to the organization’s standard specifications, which are in effect at the date of the Contractor’s proposal unless directed otherwise. If applicable specifications are revised prior to completion of any part of the Work, the Contractor may, if acceptable to Architect, perform such Work in accordance with the revised specifications. The standard specifications, except as modified in the Specifications for the Project, shall have full force and effect as though printed in the Specifications. Architect will furnish, upon request, information as to how copies of the standard specifications referred to may be obtained.

1.2.4 Rules of Document Interpretation

1.2.4.1 In the event of conflict within the drawings, the following rules shall apply:

(a) General Notes, when identified as such, shall be incorporated into other portions of Drawings.

(b) Schedules, when identified as such, are complementary with other notes and other portions of Drawings including those identified as General Notes.

(c) Larger scale drawings shall take precedence over smaller scale drawings.

(d) At no time shall the Contractor base construction on scaled drawings.

1.2.4.2 Specifications shall govern as to materials, workmanship, and installation procedures.

1.2.4.3 If Contractor observes that drawings and specifications are in conflict, Contractor shall, within five (5) days, notify the Architect in writing for the purposes of obtaining an interpretation of the Contact Documents.

1.2.4.4 In the case of conflict or inconsistencies, the order of precedence shall be as follows:

(a) General Conditions take precedence over Drawings and Specifications.

(b) Special Conditions take precedence over General Conditions.

(c) The Agreement shall take precedent over the Special Conditions.
1.3 OWNERSHIP AND USE OF ARCHITECT’S DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS

The Drawings, Specifications, and other contract documents for the Project are the property of the District and/or Architect pursuant to Education Code § 17316. The Contractor may retain one contract record set. Neither the Contractor nor any Subcontractor, or material or equipment supplier shall own or claim a copyright in the Drawings, Specifications, and other documents prepared by the Architect. All copies except the Contractor’s record set, shall be returned or properly accounted for upon completion of the Work. The Drawings, Specifications, and other documents prepared by the Architect, and copies thereof furnished to the Contractor are not to be used by the Contractor or any Subcontractor, Sub-subcontractor, or material or equipment supplier on other projects or for additions to this Project outside the scope of the Work. The District and/or Architect hereby grants the Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers a limited license to use applicable portions of the Drawings, Specifications, and other documents prepared for the Project in the execution of their Work under the Contract Documents. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the District’s property interest or other reserved right.

ARTICLE 2

DISTRICT

2.1 INFORMATION AND SERVICES REQUIRED OF THE DISTRICT

2.1.1 Site Survey.

If applicable, the District will furnish, at its expense, a legal description of the Site and a land survey showing the boundaries of the Site. Contractor shall be responsible for all surveys regarding location of construction, grading and site work.

2.1.2 Soils.

When required by the scope of the Project, the District will furnish, at its expense, the services of geotechnical engineers or consultants when reasonably required and deemed necessary by the Architect or as required by local or state codes. Such services, with written reports and appropriate written professional recommendations, may include test boring, test pits, soil bearing values, percolation tests, air and water pollution tests, and ground corrosion and resistivity tests, including necessary operations for determining subsoil, air, and water conditions.

2.1.3 Contractor Reliance.

If appropriate to the Work, a soils investigation report has been obtained from test holes at the Site, and such report is available for the Contractor’s use in preparing its bid and Work under this Contract. The soils report is provided for review. Any information obtained from such report or any other information given on drawings as to subsurface soil condition or to elevations of existing grades or
elevations of underlying rock is approximate only. If, during the course of Work under this Contract, Contractor encounters subsurface conditions which differ materially from those indicated in the soils investigation report, then Contractor shall notify the District within five (5) calendar days of discovery of the condition, and changes to the contract price may be made in accordance with Article 7 entitled “Changes in the Work.” Contractor agrees that no claim against District will be made by Contractor for damages and hereby waives any rights to damages in the event the Contractor fails to notify District within the five-day period mentioned above.

WARNING: DISTRICT DOES NOT WARRANT THE SOILS AT THE PROJECT SITE. SOILS INVESTIGATION REPORT IS PROVIDED FOR CONTRACTORS INFORMATION ONLY. CONTRACTOR HAS CONDUCTED AN INDEPENDENT INVESTIGATION OF THE PROJECT SITE AND THE SOILS CONDITIONS OF THE SITE. DISTRICT DOES NOT WARRANT THE SOILS CONDITIONS OF THE SITE AND CONTRACTOR IS FULLY RESPONSIBLE TO ASCERTAIN SITE CONDITIONS FOR THE PURPOSES OF DETERMINING CONSTRUCTION MEANS AND METHODS PRIOR TO COMMENCING CONSTRUCTION. THE SOILS INVESTIGATION REPORT IS NOT A CONTRACT DOCUMENT.

2.1.4 Utilities.

2.1.4.1 Regional Notification Center. Contractor, except in an emergency, shall contact the appropriate regional notification center at least two working days prior to commencing any excavation if the excavation will be conducted in an area or in a private easement which is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the District, and obtain an inquiry identification number from that notification center. No excavation shall be commenced and carried out by the Contractor unless such an inquiry identification number has been assigned to the Contractor or any subcontractor of the Contractor and the District has been given the identification number by the Contractor. Any damages arising from failure to make appropriate regional notification shall be at the sole risk of Contractor. Any delays caused by failure to make appropriate regional notification shall be at the sole risk of Contractor and shall not be considered for extension of time pursuant to Paragraph 8.4.

2.1.4.2 Utilities – Removal and Restoration

The District has endeavored to determine the existence of utilities at the Site of the Work from the records of the District of known utilities in the vicinity of the Work. The positions of these utilities as derived from such records are shown in the Contract Documents.

No excavations were made to verify the locations shown for underground utilities. The service connections to these utilities may not be shown on the drawings. It shall be the responsibility of the Contractor to determine the exact location of all service connections. The Contractor shall make its own investigations, including exploratory excavations, to determine the locations and type of service connections, prior to commencing work which could result in damage to such utilities. The Contractor shall immediately notify the District’s representative as to any utility discovered by Contractor in a different position than shown in the Contract Documents or which is not shown on the Contract Documents.
Contractor shall coordinate its Work with all utilities, including, but not limited to electricity, water, gas and telephone and meet with said utilities prior to the start of any work.

2.1.4.3 Other Utilities.

In case it should be necessary to remove, relocate, or temporarily maintain a utility because of interference with the Work, the work on the utility shall be performed and paid for as follows:

When it is necessary to remove, relocate or temporarily maintain a service connection, the cost of which is not required to be borne by the owner thereof, the Contractor shall bear all expenses incidental to the work on the service connection. The work on the service connection shall be done in a manner satisfactory to the owner thereof; it being understood that the owner of the service connection has the option of doing such work with his own forces or permitting the work to be done by the Contractor.

When it is necessary to remove, relocate, or temporarily maintain a utility which is in the position shown on the drawings, the cost of which is not required to be borne by the owner thereof, the Contractor shall bear all expenses incidental to the work on the utility. The work on the utility shall be done in a manner satisfactory to the owner thereof; it being understood that the owner of the utility has the option of doing such work with his own forces or permitting the work to be done by the Contractor.

When it is necessary to remove, relocate, or temporarily maintain a utility which is not shown on the drawings or is in a position different from that shown on the drawings and were it in the position shown on the drawings would not need to be removed, relocated, or temporarily maintained, and the cost of which is not required to be borne by the owner thereof, the District will make arrangements with the owner of the utility for such work to be done at no cost to the Contractor, or will require the Contractor to do such work in accordance with Article 7 or will make changes in the alignment and grade of the Work to obviate the necessity to remove, relocate, or temporarily maintain the utility. Changes in alignment and grade will be ordered in accordance with Article 7 herein.

No representations are made that the obligations to move or temporarily maintain any utility and to pay the cost thereof is or is not required to be borne by the owner of such utility, and it shall be the responsibility of the Contractor to investigate to find out whether said cost is required to be borne by the owner of the utility.

The right is reserved to governmental agencies and to owners of utilities to enter at any time upon any street, alley, right-of-way, or easement for the purpose of making changes in their property made necessary by the Work and for the purpose of maintaining and making repairs to their property.

2.1.5 Existing Utility Lines; Removal, Relocation.

2.1.5.1 Main or Trunkline Facilities

If the Contractor while performing the contract discovers utility facilities not identified by the District in the Contract Documents, Contractor shall, within five (5) days, notify the District and utility in writing.
The District has the responsibility to identify, with reasonable accuracy, main or trunkline facilities on the drawings and specifications. In the event that main or trunkline utility facilities are not identified with reasonable accuracy in the drawings and specifications, District shall assume the responsibility for their timely removal, relocation, or protection.

The owner of the public utility shall have the sole discretion to perform repairs or relocation work or permit the Contractor to do such repairs or relocation work at a reasonable price.

The Contractor shall exercise reasonable care and shall be compensated by the District for the actual verified field costs of locating, and removing, relocating, protecting or temporarily maintaining such main or trunkline utility facilities not indicated with reasonable accuracy in the drawings and specifications, and for equipment in use on the project necessarily idled during such work. This work shall be performed in accordance with Article 7 of these General Conditions.

Alternatively, District may make changes in the alignment and grade of the work to obviate the need to remove, relocate, or temporarily maintain the utility, in accordance with Article 7 or District may make arrangements with the owner of the utility for such work to be done at no cost to the Contractor.

The Contractor shall not be assessed a forfeiture for delay in completion of the Project when such delay is caused by the failure of the District or the owner of the utility to provide for the removal, relocation, protection or temporary maintenance of all such main or trunkline facilities not indicated with reasonable accuracy.

Nothing herein shall preclude the District from pursuing any appropriate remedy against the utility for delays which are the responsibility of the utility.

Nothing herein shall be construed to relieve the utility from any obligation as required either by law or by contract to pay the cost of removal or relocation of existing utility facilities.

2.1.5.2 Assessment. These subparagraphs shall not be construed to preclude assessment against the Contractor for any other delays in completion of the Work. Nothing in these subparagraphs shall be deemed to require the District to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the Site can be inferred from the presence of other visible facilities, such as buildings, or meter junction boxes on or adjacent to the Site.

2.1.5.3 Notification. If the Contractor, while performing Work under this Contract, discovers utility facilities not identified by the District in the Contract Documents, Contractor shall, within five (5) days, notify the District and the utility in writing. If Contractor fails to notify the District within five (5) days after discovery of any utility facilities not identified by District in the Contract Documents, Contractor waives all rights to be compensated for any extra Work or damages resulting from such discovered utilities.
2.1.6 Easements.

District shall secure and pay for easements for permanent structures or permanent changes in existing facilities, if any, unless otherwise specified in the Contract Documents.

2.2 DISTRICT’S RIGHT TO CARRY OUT THE WORK

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents, including, but not limited to:

1. Failure to supply adequate workers on the entire Project or any part thereof;
2. Failure to supply a sufficient quantity of materials;
3. Failure to perform any provision of this Contract;
4. Failure to comply with safety requirements, or due to Contractor is creation of an unsafe condition;
5. In the case of bona fide emergency;
6. Failure to order materials in a timely manner;
7. Failure to prepare deferred-approval items or shop drawings in a timely manner;
8. Failure to comply with Contractor’s schedule which would result in a delay to the critical path;

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents, and fails (within a five-day period after receipt of written notice or a shorter time period expressly stated in the written notice from the District in an emergency situation) to commence and continue correction of such default with diligence and promptness, the District may correct such deficiencies without prejudice to other remedies the District may have, including those set forth in Article 14 after providing five-day written notice to Contractor and Surety. If during this five (5) day period, Surety personally delivers notice to District that it intends to perform such work, District shall allow Surety seven (7) days to perform. In an emergency situation, the District may correct such deficiencies without prejudice to other remedies the District may have, including those set forth in Article 14 after providing 48 hours notice to the Contractor. In either case, the Contractor will be invoiced the cost of correcting such deficiencies, including compensation for additional services and expenses made necessary by such default, or neglect. The invoice amount shall be deducted from the next payment due the Contractor. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the District.
ARTICLE 3

THE CONTRACTOR

3.1 SUPERVISION AND CONSTRUCTION PROCEDURES

3.1.1 Contractor.

The Contractor shall continually supervise and direct the Work using the Contractor’s best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, procedures; and shall coordinate all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. The Contractor shall not perform the Work without utilizing the Contract Documents or, where required, approved shop drawings, product data, or samples for any such portion of the work. If any of the Work is performed by contractors retained directly by the District, Contractor shall be responsible for the coordination and sequencing of the work of those other contractors so as to avoid any impact on the project schedule pursuant to the requirements of Article 6 and Article 8. Specific duties of the Contractor shall include those set out in Section 43 of Title 21 of the California Code of Regulations and Section 4-343 of Title 24 of the California Code of Regulations. These duties include, but are not limited to the following:

(a) Responsibilities. It is the duty of the Contractor to complete the Work covered by his or her contract in accordance with the approved drawings and specifications. The Contractor in no way is relieved of any responsibility by the activities of the Architect, Engineer, Inspector or DSA in the performance of their duties.

(b) Performance of the work. The Contractor shall carefully study the approved drawings and specifications and shall plan its schedule of operations well ahead of time. If at any time it is discovered that work is being done which is not in accordance with the approved drawings and specifications, the contractor shall correct the work immediately. All inconsistencies or times which appear to be in error in the drawings and specifications shall promptly be called to the attention of the Architect or, Engineer, for interpretation or correction. Local conditions which may affect the structure shall be brought to the Architect’s attention at once. In no case, shall the instruction of the Architect be construed to cause work to be done which is not in conformity with the approved drawings, specifications, change orders, construction change directives, and as required by law.

The Contractor shall not carry on Work except with the knowledge of the Inspector of Record.

(c) Verified Reports. The Contractor shall make and submit to the District from time to time, verified reports as required in Section 36 of Title 21 and Section 4-366 of Title 24. Contractor shall fully comply with any and all reporting requirements of Education Code Sections 81147, et seq., in the manner prescribed by Title 24, as applicable.
3.1.2 Contractor Responsibility.

The Contractor shall be responsible to the District for acts and omissions of the Contractor’s employees, Subcontractors, material and equipment suppliers, and their agents, employees, invitees, and other persons performing portions of the Work under direct or indirect contract with the Contractor or any of its Subcontractors.

3.1.3 Obligations not Changed by Architect’s Actions.

The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect’s administration of the Contract or by tests, inspections, or approvals required or performed by persons other than the Contractor.

3.1.4 Acceptance/Approval of Work.

The Contractor shall be responsible to determine when any completed portions of the Work already performed under this Contract or provided pursuant to Article 6 are suitable to receive subsequent Work thereon.

3.1.5 Performance of Work With Own Force.

Contractor shall perform at least 15% of the Work, exclusive of supervisory and clerical work without the services of any subcontractor. Contractor shall supervise and direct the work competently and efficiently, devoting such attention thereto and applying such skills as may be necessary to perform the Work in accordance with the Contract Documents.

3.2 SUPERVISION

3.2.1 Full Time Supervision.

Unless personally present on the Project site where the Work is being performed, the Contractor shall keep on the Work at all times during its progress a competent construction Superintendent satisfactory to the District. The Superintendent shall be present on a full-time basis, shall be dedicated exclusively to the Project and shall not share superintendency duties with another project or job. The Superintendent shall not be replaced except with written consent of the District. The Superintendent shall represent the Contractor in its absence and shall be fully authorized to receive and fulfill any instruction from the Architect, the Inspector, the District or any other District representative. All Requests for Information shall be originated by the Superintendent and responses thereto shall be given to the Superintendent. No Work shall begin on any day by any Subcontractor or other person on the Project site until the Superintendent has arrived, or shall any Work continue during the day after the Superintendent has departed from the Project site. The Superintendent shall have authority to bind Contractor through the Superintendent’s acts. The Superintendent shall represent the Contractor, and communications given to the Superintendent shall be binding on the Contractor. Before commencing the Work, Contractor shall give written notice to District and Architect of the name and a Statement of Qualifications of such superintendent for District approval. Superintendent shall not be changed except with written consent of District, unless a superintendent proves to be unsatisfactory to
Contractor and ceases to be in its employ, in which case, Contractor shall notify District and Architect in writing. Contractor shall provide a replacement superintendent approved by the District prior to performing additional work.

3.2.2 Staff.

Notwithstanding other requirements of the contract documents, the Contractor and each Subcontractor shall: (1) furnish a competent and adequate staff as necessary for the proper administration, coordination, supervision, and superintendence of its portion of the Work; (2) organize the procurement of all materials and equipment so that the materials and equipment will be available at the time they are needed for the Work; and (3) keep an adequate force of skilled and fit workers on the job to complete the Work in accordance with all requirements of the Contract Documents.

3.2.3 Right to Remove.

District shall have the right, but not the obligation, to require the removal from the Project of any superintendent, staff member, agent, or employee of any Contractor, Subcontractor, material or equipment supplier.

3.3 LABOR AND MATERIALS

3.3.1 Contractor to Provide.

Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, material, equipment, tools, construction equipment and machinery, water, heat, air conditioning, utilities, transportation, and other facilities, services and permits necessary for proper execution and completion of the Work whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

3.3.2 Quality.

Unless otherwise specified, all materials and equipment to be permanently installed in the Project shall be new and shall be of the highest quality or as specifically stated in the Contract Documents. The Contractor shall, if requested, furnish satisfactory evidence as to kind and quality of all materials and equipment within ten (10) days of a written request by the District, including furnishing the District with bona fide copies of invoices for materials or services provided on the Project. All labor shall be performed by workers skilled in their respective trades, and shall be of the same or higher quality as with the standards of other school construction.

3.3.3 Replacement.

Any work, materials, or equipment, which do not conform to these requirements or the standards set forth in the Contract Documents, may be disapproved by the District, in which case, they shall be removed and replaced by the Contractor at no additional cost or extension of time to the District.
3.3.4 Discipline.

The Contractor shall enforce strict discipline and good order among the Contractor’s and Subcontractor’s employees, and other persons carrying out the Contract. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them. As used in this subsection, “unfit” includes any person who the District concludes is improperly skilled for the task assigned to that person, who fails to comply with the requirements of this article, or who creates safety hazards which jeopardize other persons and/or property.

3.3.5 Noise, Drugs, Tobacco, and Alcohol.

Contractor shall take all steps necessary to insure that employees of Contractor or any of its subcontractors’ employees do not use, consume, or work under the influence of any alcohol, tobacco or illegal drugs while on the project. Contractor shall further prevent any of its employees or its subcontractor employees from playing any recorded music devices or radios or wearing any radio headphone devices for entertainment while working on the project. Likewise, Contractor shall prevent its employees or subcontractor’s employees from bringing any animal onto the project. Contractors shall not violate any written school policies.

3.3.6 Delivery of Material.

Contractor shall place orders for materials or equipment so that the Work may be completed in accordance with the Construction schedule for the Work as set forth in Article 8 of this Agreement. Contractor shall, upon demand from the Architect, furnish to the Architect documentary evidence including, but not limited to purchase orders, invoices, bills of materials, work orders and bills of lading, showing that orders have been placed.

3.3.7 Liens and Other Security Interests of Subcontractors and Material Suppliers.

No material, supplies, or equipment for the Work shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in 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 all improvements and appurtenances constructed or placed thereon by it, to District free from any claims, security interests, liens, or charges. Contractor further agrees that neither it nor any person, firm, or corporation furnishing any materials or labor for any Work covered by this Contract shall have any right to place a lien upon the premises or any improvement or appurtenance thereof, except that Contractor may install metering devices or other equipment of a utility company or political subdivision, title to which is commonly retained by the utility company or political subdivision. In event of installation of any such metering device or equipment, Contractor shall advise District as to its owner within five (5) days of such installation in writing, prior to making the installation.

3.3.8 Title to Materials.

The title to new materials or equipment for the Work of this Contract, and attendant liability for its protection and safety, shall remain with Contractor until incorporated in the Work of this Contract and accepted by the District and Architect; no part of said materials shall be removed from its place of delivery unless specifically authorized in writing by the Architect.
storage, and Contractor shall keep an accurate inventory of all said materials and equipment in a manner satisfactory to the District or its authorized representative.

3.3.9 Assemblies.

For all material and equipment specified or indicated in the Drawings, the Contractor shall provide all labor, materials, equipment, and services necessary for complete assemblies and complete working systems. Incidental items not indicated on the Drawings, nor mentioned in the Specifications, that can legitimately and reasonably be inferred to belong to the Work described, or be necessary in good practice to provide a complete assembly or system, shall be furnished as though itemized in the Contract Documents in every detail. In all instances, material and equipment shall be installed in strict accordance with each manufacturer’s most recent published recommendations and specifications.

3.4 WARRANTY

3.4.1 The Contractor warrants to the District and Architect that material and equipment furnished under the Contract will be of the highest quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. Contractor’s warranty and guaranty to District includes, but is not limited to the following representations:

3.4.1.1 In addition to any other warranties and guaranties provided elsewhere, Contractor shall, and hereby does, warrant all Work after the date of Notice of Completion of Work by District and shall repair or replace any or all such work, together with any other work, which may be displaced in so doing that may prove defective in workmanship or materials within a one (1) year period from date of completion as defined in Public Contract Code Section 7107(c) without expense whatsoever to District, ordinary wear and tear, unusual abuse or neglect excepted. District will give notice of observed defects with reasonable promptness. Contractor shall notify District upon completion of repairs.

3.4.1.2 In the event of failure of Contractor to comply with above mentioned conditions within one week after being notified in writing, District is hereby authorized to proceed to have defects repaired and made good at expense of Contractor who hereby agrees to pay costs and charges therefore immediately on demand.

3.4.1.3 If, in the opinion of the District, defective Work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the District, the District will attempt to give the notice required by this Article. If the Contractor cannot be contacted or does not comply with the District’s requirements for correction within a reasonable time as determined by the District, the District may, notwithstanding the provisions of this article, proceed to make such correction or attention which shall be charged against Contractor. Such action by the District will not relieve the Contractor of the guarantee provided in this Article or elsewhere in this Contract.
3.4.1.4 This Article does not in any way limit the guarantee on any items for which a longer warranty or guaranty is specified or on any items for which a manufacturer gives a guarantee for a longer period. Contractor shall furnish District all appropriate guaranty or warranty certificates upon completion of the project.

3.4.2 Format - All Warranties/Guaranties and shall include:

3.4.2.1 Contractor, subcontractor, and equipment supplier shall provide Warranties and Guaranties on their original company letterhead with original signature.

3.4.2.2 Contractor shall provide original Warranties and Guaranties. Photo copies, fax and e-mail copies are not acceptable.

3.4.3 Preparation

3.4.3.1 Contractor shall obtain warranties and guaranties, executed in duplicate by each applicable and/or responsible subcontractor(s), supplier(s), and manufacturer(s), within fifteen (15) days after Notice of Substantial Completion of the applicable Work or Phase of Work. Except for items put into use with District’s permission, Contractor shall leave date of beginning of time of warranty or guaranty blank until the date of completion is determined by District.

3.4.3.2 Contractor’s Response to Construction Warranty and Guaranty Service Requirements: Following oral or written notification by the District, respond to construction warranty and guaranty service requirements within 24 hours, or earlier in case of emergency.

3.4.4 Warranty and/or Guaranty Tags.

At the time of installation, tag each warranted or guaranteed item with a durable, oil and water resistant tag approved by the Contracting Officer. Attached each tag with a copper wire and spray with a silicone waterproof coating. The date of Substantial Completion and the Contractor Authorized signature must remain blank until the date the District makes a determination of Substantial Completion. Show the following information on the tag:

**WARRANTY/GUARANTY INFORMATION – [insert project number and name on actual tag]**

a. Type of product/material______________________________.
b. Model number__________________________________________.
c. Serial number____________________________________________.
d. Contract number__________________________________________.
e. Warranty/Guaranty period______(months) from_________to__________________.
f. Inspector’s signature__________________________________________.
g. Construction Contractor__________________________________________.
Address______________________________________________________.
Telephone number_____________________________________________.
h. Warranty or Guaranty contact__________________________________________.
Address______________________________________________________.
Telephone number_____________________________________________.
j. WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE
DURING THE WARRANTY PERIOD.

3.5 TAXES

Contractor will pay all applicable Federal, State, and local taxes on all materials, labor, or services furnished by it, and all taxes arising out of its operations under the Contract Documents. District is exempt from Federal Excise Tax, and a Certificate of Exemption shall be provided upon request.

3.6 PERMITS, FEES AND NOTICES

3.6.1 Payment.

The Contractor shall secure and pay for all permits and governmental fees, licenses, and inspections necessary for proper execution and completion of the Work which are necessary after execution of the Contract and are legally required by any authority having jurisdiction over the Project, except those required by the Division of the State Architect (DSA). District shall be responsible for all testing and inspection as required by the DSA on-site or within the distance limitations set forth in Paragraph 13.5.2, unless a different mileage range is specified in the Special Conditions.

3.6.2 Compliance.

The Contractor shall comply with and give notices required by any law, ordinance, rule, regulation, and lawful order of public authorities bearing on performance of the Work.

3.6.3 Responsibility.

The Contractor shall perform all Work in conformance with every applicable law, statute, ordinance, building code, rule or regulation. The Contractor shall assume full responsibility for such Work and shall bear the attributable cost of correction or project delay.

3.7 [RESERVED]

3.8 CONTRACTOR’S CONSTRUCTION SCHEDULES

3.8.1 Requirements.

(a) Within ten (10) calendar days after being awarded the contract, Contractor shall submit a progress schedule for District’s approval. The schedule shall not exceed time limits set forth in the Contract Documents and shall comply with all of the scheduling requirements as set forth in the Specifications. Failure to submit a schedule or submittal of a schedule which shows completion of the Work beyond the specified completion date shall be deemed a material breach by the Contractor. The schedule must indicate the beginning and completion of all phases of construction and shall use the “critical path method” (commonly called CPM) for the value reporting, planning and scheduling, of all Work required under the Contract Documents. The scheduling is necessary for the District’s adequate monitoring of the progress of the Work.
and shall be prepared in accordance with the time frame described in Article 8 of the General Conditions. The architect may disapprove of any schedule or require modification to it if, in the opinion of the Architect or District, adherence to the progress schedule will not cause the Work to be completed in accordance with the Agreement.

(b) Contractor shall not submit a schedule showing early completion without indicating float time through the date set for Project completion by District. Contractor’s schedule shall account for all days past early completion as float which belongs to both District and Contractor. Usage of float shall not entitle Contractor to any delay claim or damages due to delay.

(c) Contractor shall not be granted an extension of time for failure to obtain necessary approvals for deferral approvals due to failure to comply with laws, building codes, and other regulations (including Title 24 of the California Code of Regulations). Contractor shall schedule all deferred approval items and shop drawings in its progress schedule. If Contractor fails to include deferred approval items and shop drawings in its schedule which results in a critical path delay, then Contractor shall be subject to the assessment of liquidated damages.

(d) In addition to providing a schedule update every thirty (30) days, the Contractor, if requested by the Architect or District, shall provide revised schedules within ten (10) days if, at any time, the Architect or District, consider the completion date to be in jeopardy because of “activities behind schedule.” The additional schedule shall include a new arrow or precedence diagram and schedule reports conforming to the requirements above, designed to show how the Contractor intends to accomplish the Work to meet the completion date. The form and method employed by the Contractor shall be the same as for the original initial schedule. The Contractor shall modify any portions of the schedule that become infeasible because of “activities behind schedule” or for any other valid reason. An activity that cannot be completed by its original latest completion date shall be deemed to be behind schedule. If Contractor submits a revised schedule showing an earlier completion date for the Project, Architect’s acceptance of this revised schedule shall not entitle Contractor to any delay claim or damages due to any such revised schedule.

3.8.2 Failure to Meet Requirements.

Failure of the Contractor to provide proper schedules as required by this Article and Article 9 is a material breach of the contract and grounds for termination pursuant to Article 14. The District, at its sole discretion, may choose, instead, to withhold, in whole or in part, any progress payments or retention amounts otherwise payable to the Contractor.

3.9 [RESERVED]

3.10 DOCUMENTS AND SAMPLES AT THE SITE

The Contractor shall maintain at the Site for the District one current copy of the International Building Code, Titles 19, 21 and 24 of the California Code of Regulations and one record copy of the Drawings, Specifications, Addenda, Change Orders, and other Modifications, in good order and marked currently to record changes and selections made during construction. In addition, the Contractor shall maintain at the Site approved Shop Drawings, Product Data, Samples, and similar required submittals.
These documents shall be available to the Architect and shall be delivered to the Architect for delivery to the District upon completion of the Work.

3.11 SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND SUBSTITUTIONS

3.11.1 Submittals defined.

3.11.1.1 Shop Drawings. The term “shop drawings” as used herein means drawings, diagrams, schedules, and other data, which are prepared by Contractor, Subcontractors, manufacturers, suppliers, or distributors illustrating some portion of the Work, and includes: illustrations; fabrication, erection, layout and setting drawings; manufacturer’s standard drawings; schedules; descriptive literature, instructions, catalogs, and brochures; performance and test data including charts; wiring and control diagrams; and all other drawings and descriptive data pertaining to materials, equipment, piping, duct and conduit systems, and methods of construction as may be required to show that the materials, equipment, or systems and their position conform to the requirements of the Contract Documents. The Contractor shall obtain and submit with shop drawings all seismic and other calculations and all product data from equipment manufacturers. “Product data” as used herein are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate a material, product, or system for some portion of the Work. As used herein, the term “manufactured” applies to standard units usually mass-produced, and “fabricated” means items specifically assembled or made out of selected materials to meet individual design requirements. Shop drawings shall: establish the actual detail of all manufactured or fabricated items, indicate proper relation to adjoining work, amplify design details of mechanical and electrical systems and equipment in proper relation to physical spaces in the structure, and incorporate minor changes of design or construction to suit actual conditions.

3.11.1.2 Samples. The term “samples” as used herein are physical examples furnished by Contractor to illustrate materials, equipment, or quality and includes natural materials, fabricated items, equipment, devices, appliances, or parts thereof as called for in the Specifications, and any other samples as may be required by the Architect to determine whether the kind, quality, construction, finish, color, and other characteristics of the materials, etc., proposed by the Contractor conform to the required characteristics of the various parts of the Work. All Work shall be in accordance with the approved samples.

3.11.1.3 Contractor’s Responsibilities. Contractor shall obtain and shall submit all required shop drawings, samples, etc., in accordance with Contractor’s “Schedule for Submission of Shop Drawings and Samples” as required in the scheduling portion of the General Conditions at Articles 3.8 or the Specifications with such promptness as to cause no delay in its own Work or in that of any other contractor or subcontractor but in no event later than ninety (90) days after the execution of the Contract. No extensions of time will be granted to Contractor or any Subcontractor because of its failure to have shop drawings and samples submitted in accordance with the Schedule. Each Subcontractor shall submit all shop drawings, samples, and manufacturer’s descriptive data for the review of the District, the Contractor, and the Architect through the Contractor. By submitting shop drawings, product data, samples, etc., the Contractor represents that it has determined and verified all materials, field measurements, catalog numbers, related field construction criteria, and other relevant data in connection with each such submission, and that it has checked, verified, and coordinated the information contained within such submittals with the requirements of the Work and of the Contract.
Documents, including the construction schedule. The submission of the shop drawings, product data, samples, etc., shall not deviate from the requirements of the Contract Documents including detailing and design intent which is specifically outlined in Contract Documents except as specifically authorized by the Architect or through an accepted substitution pursuant to Paragraph 3.10.4. All deviations from the Contract Documents shall be narratively described in a transmittal accompanying the shop drawings. However, shop drawings shall not be used as a means of requesting a substitution, the procedure for which is defined in Paragraph 3.10.4, “Substitutions.” Review by District and Architect shall not relieve the Contractor or any Subcontractor from its responsibility in preparing and submitting proper shop drawings in accordance with the Contract Documents. Any submission, which in Architect’s opinion is incomplete, contains errors, or has been checked superficially will be returned unreviewed by the Architect for resubmission by the Contractor. Contractor shall stamp, sign, and date each submittal indicating its representation that the submittal meets all of the requirements of the Contract Documents and evidence Contractor’s review through execution of the following stamp to be placed on each shop drawings:

“The contractor has reviewed and approved the field dimensions and the construction criteria, and has also made written notation regarding any information in the shop drawings that does not conform to the contract documents. This shop drawing has been coordinated with all other shop drawings received to date by contractor and this duty of coordination has not been delegated to subcontractors, material suppliers, the Architect, or the engineers on this project.

___________________________
Signature of Contractor and date”

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

3.11.2 Drawing Submission Procedure.

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

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

3.11.2.3  Corrections. The Contractor shall make all corrections required by Architect and shall resubmit, as required by Architect, corrected copies of shop drawings or new samples until approved. Contractor shall direct specific attention in writing or on resubmitted shop drawings to revisions other than the corrections required by the Architect on previous submissions. Professional services required for more than one (1) re-review of required submittals of shop drawings, product data, or samples are subject to charge to the Contractor pursuant to Paragraph 4.4.

3.11.2.4  Approval Prior to Commencement of Work. No portion of the Work requiring a shop drawing or sample submission or other submittal shall be commenced until the submission has been reviewed by Contractor and Architect and approved by Architect unless specifically directed in writing by the Architect. All such portions of the Work shall be in accordance with approved shop drawings and samples.

3.11.3  Sample Submissions Procedure.

3.11.3.1  Samples Required. In case a considerable range of color, graining, texture, or other characteristics are anticipated in finished products, a sufficient number of samples of the specified materials shall be furnished by the Contractor to indicate the full range of characteristics which will be present in the finished products; and products delivered or erected without submittal and approval of a full range of samples shall be subject to rejection. Except for range samples, and unless otherwise called for in the various sections of the Specifications, samples shall be submitted in duplicate. All samples shall be marked, tagged, or otherwise properly identified with the name of the submitting party, the name of the Project, the purpose for which the samples are submitted and the date, and shall be accompanied by a letter of transmittal containing similar information, together with the Specification section number. Each tag or sticker shall have clear space for the review stamps of Contractor and Architect.

3.11.3.2  Labels and Instructions. All samples of materials shall be supplied with the manufacturer’s descriptive labels and application instructions.

3.11.3.3  Architect’s Review. The Architect will review and, if appropriate, approve submissions and will return them to the Contractor with the Architect’s stamp and signature applied thereto, indicating the timing for review and appropriate action in compliance with the Architect’s (or District’s) standard procedures.

3.11.3.4  Record Drawings and Annotated Specifications. The Contractor will prepare and maintain on a current basis an accurate and complete set of Record Drawings clearly showing all changes, revisions to specifications and substitutions during construction, including, without Contra Costa Community College District  Section 00700 - Page 25
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limitation, field changes and the final location of all electrical and mechanical equipment, utility lines, ducts, outlets, structural members, walls, partitions, and other significant features, and Annotated Specifications showing clearly all changes, revisions, and substitutions during construction. A copy of such Record Drawings in Autocad (or most current version required by OPSC) and Annotated Specifications will be delivered to District in accordance with the Contractor's approved construction schedule. In case a specification allows Contractor to elect one of several brands, makes, or types of material or equipment, the annotations shall show which of the allowable items the Contractor has furnished. The Contractor will update the Record Drawings and Annotated Specifications as often as necessary to keep them current, but no less often than weekly. The Record Drawings and Annotated Specifications shall be kept at the Site and available for review and inspection by the District and the Architect. On completion of the Work and prior to Application for Final Payment, the Contractor will provide one complete set of Record Drawings in Autocad (or most current version required by OPSC) and Annotated Specifications to the District, certifying them to be a complete and accurate reflection of the actual construction conditions of the Work.

3.11.3.5 Equipment Manuals. Contractor shall obtain and furnish three (3) complete sets of manuals containing the manufacturers' instructions for maintenance and operation of each item of equipment and apparatus furnished under the Contract Documents and any additional data specifically requested under the various sections of the Specifications for each division of the Work. The manuals shall be arranged in logical, sequential order, labeled, indexed, and placed in three-ring binders. At the completion of its Work, the Contractor shall certify, by endorsement thereon, that each of the manuals is complete, accurate, and covers all of its Work. Prior to submittal of Contractor's Application for Final Payment, and as a further condition to its approval by the Architect, each Subcontractor shall deliver the manuals, arranged in logical, sequential order, labeled, indexed, endorsed, and placed in three-ring binders, to the Contractor, who shall assemble these manuals for all divisions of the Work, review them for completeness, and submit them to the District through the Architect.

3.11.3.6 District's Property. All shop drawings, computer disks, annotated specifications, samples and other submittals shall become the District's property upon receipt by the District or Architect.

3.11.4 Substitutions.

3.11.4.1 One Product Specified. Unless the Specifications state that no substitution is permitted, whenever the Contract Documents indicate any specific article, device, equipment, product, material, fixture, patented process, form, method, or type of construction or any specific name, make, trade name, or catalog number, with or without the words “or equal,” such specification shall be deemed to be used for the purpose of facilitating description of the material, process, or article desired and shall be deemed to be followed by the words “or equal” unless the Contract Documents specify “no substitution allowed”, “no equal”, “no equivalent”, “to match campus standard”, or other language with similar meaning, in which case no substitutions will be allowed. Pursuant to Paragraph 3.11.4.3, the Contractor may, unless otherwise stated, at time of bid offer any material, process, article, etc., which shall be materially equal or better in every respect to that so indicated or specified (“Specified Item”) and will completely accomplish the purpose of the Contract Documents.
3.11.4.2  

**Products Specified Which are Commercially Unavailable.** If the Contractor fails to make a request for substitutions for products, prior to the submission of its bid, and such products subsequently become commercially unavailable, the Contractor may request a substitution for such commercially unavailable item. The decision to grant this request is solely at the District’s discretion. The written approval of the District, consistent with the procedure for Change Orders, shall be required for the use of a proposed substitute material. The District may condition its approval of the substitution upon the delivery to District of an extended warranty or guaranty or other assurances of adequate performance of the substitution as well as an equitable deduction in the contract price should the substituted item cost less than the Specified Item. All risks of delay due the approval of a requested substitution by the DSA, or any other governmental agency having jurisdiction, shall be on the requesting party. All additional costs, all procurement and construction delays, and all costs for review by the Architect or its consultants shall be the responsibility of the Contractor and will be deducted from Contractor’s pay request.

3.11.4.3  

**Substitution Request Form.** Requests for substitutions of products, materials, or processes in place of a Specified Item must be submitted in writing on the District’s Substitution Request Form (“Request Form”) at the time of submitting bids to the District, except as provided for in Paragraph 3.11.4.2.

The Request Form must be accompanied by evidence as to whether the proposed substitution:

1. Is equal in quality/service/ability to the Specified Item;
2. Will entail no changes in detail, construction, and scheduling of related work;
3. Will be acceptable in consideration of the required design and artistic effect;
4. Will provide no cost disadvantage to the District;
5. Will require no excessive or more expensive maintenance, including adequacy and availability of replacement parts; and
6. Will required no change of the construction schedule.

3.11.4.4  

In completing the Request Form, the bidder must state, with respect to each requested substitution, whether the bidder will agree to provide the Specified Item in the event that the District denies the bidder’s request for such requested substitution. In the event that the bidder has agreed in the Request Form to provide the Specified Item and the District denies the bidder’s requested substitution for a Specified Item, the bidder shall provide the Specified Item without any additional cost or charge to the District.

3.11.4.5  

After bids are opened, the apparent lowest bidder shall provide, within five (5) days of opening such bids, any and all Drawing, Specifications, samples, performance data, calculations, and other information, as may be required to assist the Architect and the District in determining whether the proposed substitution is acceptable. The burden of establishing these facts shall be upon the bidder.

3.11.4.6  

After the District’s receipt of such evidence by the bidder, the District will make its final decision as to whether the bidder’s request for substitution for any Specified Items will be granted. The decision as to whether a proposed request for substitution is equal to a Specified Item shall be at the sole discretion of the District. Any request for substitution that is granted by the District shall be documented and processed through a Change Order. The District may condition its approval of any substitution upon delivery to the District of an extended warranty or guaranty or other
assurances of adequate performance of the substitution. Any and all risks of delay due to approval by the DSA or any other governmental agency having jurisdiction shall be on the bidder.

3.11.4.7 If the Architect and District accept a proposed substitution, the Contractor agrees to pay for all engineering and design services, including, without limitation, compensation to the Architect and affected engineers for their required time to process such substitution through the Division of the State Architect, if required, and to make all changes and adjustments in materials or the work of all trades directly or indirectly affected by the substituted item or items at no cost to the District.

3.12 INTEGRATION OF WORK

3.12.1 Scope.

The Contractor shall be responsible for cutting, fitting, or patching to complete the Work and to make all parts fit together properly. Contractor shall be responsible for ensuring that all trades are coordinated and scheduled so as to ensure the timely and proper execution of the work. When modifying existing work or installing new Work adjacent to existing work, Contractor shall match, as closely as conditions of Site and materials will allow, the finishes, textures, and colors of the original work, refinishing existing work at no additional cost to District. All cost caused by defective or ill-timed work shall be borne by Contractor. Contractor shall be solely responsible for protecting existing work on adjacent properties and shall obtain all required permits for shoring and excavations near property lines.

3.12.2 Structural Members.

New or existing structural members and elements, including reinforcing bars and seismic bracing, shall not be cut, bored, or drilled except by written authority of the Architect. Work done contrary to such authority is at the Contractor’s risk and subject to replacement at its own expense without reimbursement under the Contract. Schedule delays resulting from Agency approvals for unauthorized work shall be the Contractor’s responsibility.

3.12.3 Subsequent Removal.

Permission to patch any areas or items of the Work shall not constitute a waiver of the District’s or the Architect’s right to require complete removal and replacement of the areas of items of the Work if, in the opinion of the Architect or the District, the patching does not satisfactorily restore quality and appearance of the Work or does not otherwise conform to the Contract Documents.

3.13 CLEANING UP

3.13.1 Contractor’s Responsibility.

Contractor at all times shall keep premises free from debris such as waste, dust, excess water, storm water runoffs, rubbish, and excess materials and equipment. Contractor shall not leave debris under, in, or about the premises, but shall promptly remove same from the premises and dispose of it in a lawful manner. Disposal receipts or dump tickets shall be furnished to the Architect within five (5) days of request. Upon completion of Work, Contractor shall clean interior and exterior of buildings, including fixtures, equipment, walls, floors, ceilings, roofs, window sills and ledges, horizontal
projections, and any areas where debris has collected, so surfaces are free from foreign material or
discoloration; Contractor shall clean and polish all glass, plumbing fixtures, equipment, finish hardware
and similar finish surfaces. Upon completion of the Work, Contractor shall also remove temporary
utilities, fencing, barricades, planking, sanitary facilities and similar temporary facilities from Site.

Contractor shall remove rubbish and debris resulting from the Work on a daily basis. Contractor
shall maintain the structures and Site in a clean and orderly condition at all times until acceptance of the
project by the District. Contractor shall keep its access driveways and adjacent streets, sidewalks,
gutters and drains free of rubbish, debris and excess water by cleaning and removal each day.

3.13.1.1 In addition to the general cleaning, the following special
cleaning shall be done at the completion of the work in accordance with the
specifications including, but not limited to:

(a) Remove putty stains from glazing, then wash and polish glazing.
(b) Remove marks, stains, fingerprints and other soil or dirt from painted, stained or
decorated work.
(c) Remove temporary protection and clean and polish floors and waxed surfaces.
(d) Clean and polish hardware and plumbing trim; remove stains, dust, dirt, plaster and
paint.
(e) Remove spots, soil, plaster and paint from tile work, and wash tile.
(f) Clean all fixtures and equipment, remove excess lubrication, clean light fixtures and
lamps, polish metal surfaces.
(g) Vacuum-clean carpeted surfaces.
(h) Remove debris from roofs, down spout and drainage system.

3.13.2 Failure to Cleanup.

If the Contractor fails to clean up as provided in the Contract Documents, the District may do so,
and the cost thereof shall be the responsibility of the Contractor and deducted from the next progress
payment.

3.14 ACCESS TO WORK

The Contractor shall provide the District, the Architect, Engineers and the Inspector of Record,
access to the Work in preparation and progress wherever located. Contractor shall provide safe and
proper facilities for such access so that District’s representatives may perform their functions.

3.15 ROYALTIES AND PATENTS

3.15.1 Payment and indemnity for Infringement.

Contractor shall hold and save the District and its officers, agents, and employees, the Architect,
and the Architect’s consultants harmless from liability of any nature or kind, including cost and expense,
for or on account of any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the contract, including its use by the District, unless otherwise specifically provided in the contract documents, and unless such liability arises from the sole negligence, or active negligence, or willful misconduct of the District, the Architect, or the Architect’s consultants.

3.15.2 Review.

The review by the Architect of any method of construction, invention, appliance, process, article, device, or material of any kind shall be for its adequacy for the Work and shall not be an approval for the use by the Contractor in violation of any patent or other rights of any person or entity.

3.16 **INDEMNIFICATION**

3.16.1 Contractor.

Contractor shall defend, indemnify and hold harmless District, Architect, Inspector, the State of California and their officers, employees, agents and independent contractors from all liabilities, claims, actions, liens, judgments, demands, damages, losses, costs or expenses of any kind arising from death, personal injury, property damage or other cause based or asserted upon any act, omission, or breach connected with or arising from the progress of Work or performance of service under this Agreement or the Contract Documents. As part of this indemnity, Contractor shall protect and defend, at its own expense, District, Architect, Inspector, the State of California and their officers, employees, agents and independent contractors from any legal action including attorneys fees or other proceeding based upon such act, omission, or breach.

Furthermore, Contractor agrees to and does hereby defend, indemnify and hold harmless District, Architect, Inspector, the State of California and their officers, employees, agents and independent contractors from every claim or demand made, and every liability, loss, damage, expense or attorneys fees of any nature whatsoever, which may be incurred by reason of:

(a) Liability for (1) death or bodily injury to persons; (2) damage or injury to, loss (including theft), or loss of use of, any property; (3) any failure or alleged failure to comply with any provision of law or the Contract Documents; or (4) any other loss, damage or expense, sustained by any person, firm or corporation or in connection with the Work called for in this Agreement or the Contract Documents, except for liability resulting from the sole or active negligence, or the willful misconduct of the District.

(b) Any bodily injury to or death of persons or damage to property caused by any act, omission or breach of Contractor or any person, firm or corporation employed by Contractor, either directly or by independent contract, including all damages or injury to, loss (including theft), or loss of use of, any property, sustained by any person, firm or corporation, including District, arising out of or in any way connected with Work covered by this Agreement or the Contract Documents, whether said injury or damage occurs either on or off District property, but not for any loss, injury, death or damages caused by the sole or active negligence or willful misconduct of the District.
(c) Any dispute between Contractor and Contractor’s subcontractors/supplies/sureties, including, but not limited to, any failure or alleged failure of the Contractor (or any person hired or employed directly or indirectly by the Contractor) to pay any Subcontractor or Materialman of any tier or any other person employed in connection with the Work and/or filing of any stop notice or mechanic’s lien claims.

Contractor, at Contractor’s own expense, cost, and risk, shall defend any and all claims, actions, suits, or other proceedings that may be brought or instituted against the District, its officers, agents or employees, on or founded upon any cause, damage, or injury identified herein Section 3.16.1 and shall pay or satisfy any judgment that may be rendered against the District, its officers, agents or employees in any action, suit or other proceedings as a result thereof.

Contractor shall ensure that its contract with each of its subcontractors contains provisions requiring the subcontractors to defend, indemnify and hold harmless the District, Architect, Inspector, the State of California to a minimum level as set forth in this Article and consistent with the language of 3.16.1.

The Contractor’s and Subcontractors’ obligation to defend, indemnify and hold harmless the District, Architect, Inspector, the State of California and their officers, employees, agents and independent contractors hereunder shall include, without limitation, any and all claims, damages, and costs for the following: (1) any damages or injury to or death of any person, and damage or injury to, loss (including theft), or loss of use of, any property; (2) breach of any warranty or guaranty, express or implied; (3) failure of the Contractor or Subcontractors to comply with any applicable governmental law, rule, regulation, or other requirement; and (4) products installed in or used in connection with the Work.

3.17 SUBMISSION OF DAILY REPORTS

3.17.1 General.

At the close of each working day, the Contractor shall submit a daily report to the District and the Inspector, on forms approved by the District, together with applicable delivery tickets, listing all labor, materials, and equipment involved for that day. An attempt shall be made to reconcile the report daily, and it shall be signed by a District representative and the Contractor. In the event of disagreement, pertinent notes shall be entered by each party to explain points which cannot be resolved that day. Each party shall retain a signed copy of the report. Reports by subcontractors or others shall be submitted through the Contractor.

3.17.2 Labor.

The report required by Paragraph 3.17.1 shall show names of workers, classifications, hours worked and hourly rate. Project superintendent expenses are not allowed.

3.17.3 Materials.

The report required by Paragraph 3.17.1 shall describe and list quantities of materials used and unit costs.
3.17.4 Equipment.

The report required by Paragraph 3.17.1 shall show type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable, and hourly/daily cost. Move-on and move-off fees, if allowable, shall be noted.

3.17.5 Other Services and Expenditures.

Other services and expenditures shall be described in detail as the District requires.

3.18 EXECUTION OF THE WORK

3.18.1 Examination.

3.18.1.1 Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record all observations in writing.

3.18.1.2 Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.

3.18.1.3 Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.

3.18.1.4 Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.18.2 Existing Site and/or Building Conditions.

The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning Work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.

Before construction, verify the location and points of connection of all utility services for each Phase of the Work and the entire Project.

3.18.3 Existing Utilities.

The existence and location of underground and other utilities and construction indicated in the Contract Documents as existing are not guaranteed. Prior to beginning the Work investigate and verify the existence and location of all underground utilities and/or other improvements affecting the Work.

3.18.3.1 Before construction, verify the location and invert all elevations at points of connection of sanitary sewer, storm sewer, and water-service piping; and all underground electrical services.

3.18.3.2 Furnish location data for work related to Project that must be performed by public utilities serving Project site.
3.18.4 Preparation.

Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a written request for information (RFI) to the District and Architect.

Existing Utility Information: Furnish information to the District and Architect that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Contractor shall coordinate with authorities having jurisdiction.

Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, Contractor shall investigate and verify all dimensions of other construction by field measurements before fabrication. Contractor shall coordinate fabrication schedule with construction progress to avoid delaying the Work.

Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Contract Documents. Contractor shall be responsible for all coordination and measurements including means and methods of Construction.

3.18.5 Construction Layout.

Verification: Before proceeding to lay out the Work, Contractor shall verify layout information and Field condition in relation to the Contract documents. Notify District and Architect immediately of any discrepancies.

3.18.6 Installation.

General Contractor shall locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

3.18.6.1 Make vertical work plumb and make horizontal work level.

3.18.6.2 Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.

3.18.6.3 Conceal pipes, ducts, and wiring in furnished areas, unless otherwise indicated.

3.18.6.4 Maintain minimum headroom clearance of eight feet in spaces without a suspended ceiling.
3.18.7 Contractor shall comply with manufacturer’s written instructions and recommendations for installing products in applications indicated.

3.18.8 Contractor shall install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for performance until accepted by District.

3.18.9 Contractor shall conduct construction operations so no part of the Work is subjected to damage or loading in excess of that expected during normal conditions of occupancy.

3.18.10 Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.

3.18.11 Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.

3.18.12 Allow for building movement, including thermal expansion and contraction.

3.18.13 Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

3.18.14 Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

3.18.15 Hazardous Materials: Use only products, cleaners, and installation materials that are not classified as or considered hazardous.

3.18.16 District-Installed Products

3.18.16.1 Site Access: Provide access to Project site for District’s construction forces.

3.18.16.2 Coordination: Coordinate construction and operations of the Work with work performed by District construction forces.

3.18.16.3 Construction Schedule: Inform District of Contractor’s preferred construction schedule for District’s portion of the Work. Adjust construction schedule based on a mutually agreeable timetable. Notify District and Architect if changes to schedule are required due to differences in actual construction progress.

3.18.16.4 Pre-installation Conferences: Include District’s construction forces at pre-installation conferences covering portions of the Work that are to receive District’s work. Attend pre-installation conferences conducted by District’s construction forces if portions of the Work depend on District’s construction forces.
3.19 **DSA VERIFIED REPORTS AND CERTIFICATE OF COMPLIANCE**

3.19.1 **Contractor Actions.**

The Contractor acknowledges and agrees that a material obligation of the Contractor under the Contract Documents is the completion by the Contractor of all actions and activities which by the Contract Documents or by operation of applicable law, code, rule or regulation are the responsibility of the Contractor relating to DSA reporting requirements pursuant to Education Code §81141 (including amendments thereto) and issuance of DSA’s Certificate of Compliance for the Project pursuant to Education Code §81147 (including amendments thereto) upon completion of Project construction. The foregoing shall include without limitation, the timely preparation, completion and filing of Verified Reports during Project construction and the filing of the Final Verified Report with DSA within ten (10) days of the determination of Project Final Completion. The Contractor shall provide the Project Inspector, Architect, Construction Manager retained by the District for the Project and the District with copies of all Verified Reports completed by the Contractor and submitted to DSA; such copies shall be provided to the Project Inspector, Architect, the Construction Manager and the District concurrently with the Contractor’s submission thereof to DSA.

3.19.2 **Final Verified Report Retention.**

Notwithstanding any provision of the Contract Documents to the contrary, the completion and filing of the Final Verified Report with DSA by the Contractor is an express condition precedent to the District’s disbursement of Twelve Thousand Dollars ($12,000) of the Contract Price due the Contractor under this Agreement (“the Final Verified Report Retention”). The Final Verified Report Retention is in addition to, and not in lieu of, retention withheld and retained by the District from Progress Payments disbursed to the Contractor during Project construction. The District’s disbursement of the Final Verified Report Retention to the Contractor shall be made by the District within thirty (30) days of the presentation by the Contractor to the Project Inspector, Architect, Construction Manager and District of reasonably satisfactory written evidence that the Contractor has filed the Contractor’s Final Verified Report with DSA in accordance with the preceding and the submission of a billing statement by the Contractor to the District for payment of the Final Verified Report Retention. If the Contractor fails to file the Final Verified Report with DSA within ten (10) days of the determination of Project Final Completion, notwithstanding the preparation or filing of such Final Verified Report by the Contractor thereafter, the District may in the sole and exclusive discretion of the District retain and withhold from disbursement to the Contractor all or any part of the Final Verified Report Retention as damages for the failure of the Contractor to have timely discharged its obligations hereunder.

3.20 **NOISE CONTROL**

The Contractor shall be responsible for the installation and maintenance of noise reducing devices on construction equipment. Contractor shall comply with the requirements of the city and county having jurisdiction with regard to noise ordinances governing construction sites and activities. Construction equipment noise is subject to the control of the Environmental Protection Agency’s Noise Control Program (Part 204 of Title 40, Code of Federal Regulations). If classes are in session at any point...
during the progress of the Project, and, in the District’s reasonable discretion, the noise from such Work disrupts or disturbs the students or faculty or the normal operation of the college, at the District’s request, the Contractor shall schedule the performance of all such Work around normal campus hours or make other arrangements so that the Work does not cause such disruption or disturbance. In no event shall Contractor have a right to receive additional compensation or an extension to the contract time as a result of any such rescheduling or the making of such arrangements. These controls shall be implemented during site preparation and construction.

ARTICLE 4

ADMINISTRATION OF THE CONTRACT

4.1 ARCHITECT

4.1.1 Replacement of Architect.

In the case of the termination of the Architect, the District may appoint an architect or another construction professional or may perform such functions with its own licensed professional personnel. The status of the replacement Architect under the Contract Documents shall be the same as that of the former architect.

4.2 ARCHITECT’S ADMINISTRATION OF THE CONTRACT

4.2.1 Status.

Pursuant to Titles 24 and 21 of the California Code of Regulations and as required pursuant to the Field Act, Education Code 81130 et. seq. the Architect will provide administration of the Contract Documents and the Work, and will be a District representative during construction, as well as during the one (1) year period following the commencement of any warranties or guaranties. The Architect will have authority to act on behalf of the District only to the extent provided in the Contract Documents.

4.2.2 Site Visits.

The Architect will visit the Site at intervals necessary in the judgment of the Architect to become generally familiar with the progress and quality of the Work and to determine in general if the Work is being performed in accordance with the Contract Documents.

4.2.3 Limitations of Construction Responsibility.

The Architect shall not have control over, charge of, or be responsible for construction means, methods, techniques, schedules, sequences or procedures, fabrication, procurement, shipment, delivery, receipt, installation, or for safety precautions and programs in connection with the Work, since these are solely the Contractor’s responsibility under the Contract Documents. The Architect shall not be responsible for the Contractor’s, Subcontractors’, material or equipment suppliers’, or any other person’s schedules or failure to carry out the Work in accordance with the Contract Documents. The Architect shall not have control over or charge of acts or omissions of the Contractor, Subcontractors, their agents or employees, or any other persons or entities performing or supplying portions of the
Work. The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract Documents, or by tests, inspections, or approvals required or performed by persons other than the Contractor.

4.2.4 Communications Facilitating Contract Administration.

Except as otherwise provided in the Contract Documents the Contractor shall communicate through the District representative. The District representative shall be promptly informed, and shall receive copies of all written communications. Contractor shall not rely upon any communications from the District that is not from the District’s representative. Communications by and with the Architect’s consultants shall be through the Architect. Communications by and with Subcontractors and material or equipment suppliers shall be through the Contractor.

4.2.5 Payment Applications.

The Architect will review and make recommendations to the District regarding the amounts due the Contractor on the Certificates for Payment pursuant to Article 9 and subject to the Inspector’s approval and Architect’s observation.

4.2.6 Rejection of Work.

In addition to the rights, duties, and obligations of the Inspector under this Article, the Architect may recommend to the District that the District reject Work which does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable to achieve the intent of the Contract Documents, the Architect may recommend to the District that the District require additional inspection or testing of the Work in accordance with Paragraph 13.5, whether or not such Work is fabricated, installed, or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons performing portions of the Work.

4.2.7 Warranties and Guaranties Upon Completion.

The Architect, in conjunction with the District and Inspector will conduct field reviews of the Work to determine the date of completion, shall receive and forward to the District for the District’s review and records written warranties, guaranties, and related documents required by the Contract and assembled by the Contractor, and will issue a final Certificate for Payment when the Architect believes the Work has been completed in compliance with the requirements of the Contract Documents. The handling by the Architect of such warranties, guaranties, maintenance manuals, or similar documents shall not diminish or transfer to the Architect any responsibilities or liabilities required by the Contract Documents of the Contractor or other entities, parties, or persons performing or supplying the Work.

The Architect will conduct a field review of the Contractor’s comprehensive list of items to be completed or corrected (final punch list) and one (1) follow-up field review if required. The cost incurred by the District for further field reviews or the preparation of further punch lists by the Architect shall be invoiced to the Contractor and deducted from the final payment.
4.2.8 Interpretation.

The Architect will interpret and decide matters concerning performance and requirements of the Contract Documents.

4.2.9 Additional Instructions.

4.2.9.1 Typical Parts and Sections. Whenever typical parts or sections of the Work are completely detailed on the Drawings, and other parts or sections which are essentially of the same construction are shown in outline only, the complete details shall apply to the Work which is shown in outline.

4.2.9.2 Dimensions. Dimensions of Work shall not be determined by scale or rule. Figured dimensions shall be followed at all times. If figured dimensions are lacking on Drawings, Architect shall supply them on request. The Architect’s decisions on matters relating to aesthetic effect will be final.

4.3 INSPECTOR OF RECORD

4.3.1 General.

One or more project inspectors employed by the District and approved by the Division of the State Architect will be assigned to the Work in accordance with the requirements of Title 24 of the California Code of Regulations. The Inspector(s) duties are as specifically defined in Title 24.

4.3.2 Inspector’s Duties.

All Work shall be under the observation of the Inspector. The Inspector shall have free access to any or all parts of the Work at any time. The Contractor shall furnish the Inspector such information as may be necessary to keep the Inspector fully informed regarding progress and manner of Work and character of materials. Such observations shall not, in any way, relieve the Contractor from responsibility for full compliance with all terms and conditions of the Contract, or be construed to lessen to any degree the Contractor’s responsibility for providing efficient and capable superintendence. The Inspector is not authorized to make changes in the drawings or specifications nor shall the Inspector’s approval of the Work and methods relieve the Contractor of responsibility for the correction of subsequently discovered defects, or from its obligation to comply with the Contract Documents.

4.3.3 Inspector’s Authority to Reject or Stop Work.

The Inspector shall have the authority to reject Work whenever provisions of the Contract Documents are not being complied with, and Contractor shall instruct its Subcontractors and employees accordingly. In addition, the Inspector may stop any Work that poses a probable risk of harm to persons or property. The Contractor shall instruct its employees, Subcontractors, material and equipment suppliers, etc., accordingly. The absence of any Stop Work order or rejection of any portion of the Work shall not relieve the Contractor from any of its obligations pursuant to the Contract Documents.
4.3.4 Inspector’s Facilities.

Within seven (7) days after notice to proceed, the Contractor shall provide the Inspector with the temporary facilities as required under Division 1 of the Specifications.

4.3.5 Testing Times.

The District will provide inspection and testing at its cost during the normal eight (8) hour day Monday through Friday (except holidays). Work by the Contractor outside of the normal eight (8) hour day shall constitute an authorization from the Contractor to the District to provide inspection and testing as required outside of the normal eight (8) hour day. Contractor shall reimburse District for any additional costs associated with inspection and testing (including re-inspection and re-testing) outside the normal eight-hour day and for any retests caused by the Contractor.

4.4 RESPONSIBILITY FOR ADDITIONAL CHARGES INCURRED BY THE DISTRICT FOR PROFESSIONAL SERVICES

If at any time prior to the completion of the requirements under the Contract Documents, the District is required to provide or secure additional professional services for any reason by any act of the Contractor, the Contractor shall be invoiced by the District for any costs incurred for any such additional services, which costs shall be deducted from the next progress payment. Such invoicing shall be independent from any other District remedies and shall not be considered a waiver of any District rights or remedies. If payments then or thereafter due to the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the District. Additional services shall include, but shall not be limited to, the following:

(a) Services made necessary by the default of the Contractor.
(b) Services made necessary due to the defects or deficiencies in the Work of the Contractor.
(c) Services required by failure of the Contractor to perform according to any provision of the Contract Documents.
(d) Services in connection with evaluating substitutions of products, materials, equipment, Subcontractors’ proposed by the Contractor, and making subsequent revisions to drawings, specifications, and providing other documentation required (except for the situation where the specified item is no longer manufactured or available).
(e) Services for evaluating and processing claims submitted by the Contractor in connection with the Work outside the established Change Order process.
(f) Services required by the failure of the Contractor to prosecute the Work in a timely manner in compliance within the specified time of completion.
(g) Services in conjunction with the testing, adjusting, balancing and start-up of equipment other than the normal amount customarily associated for the type of Work involved.
(h) Services in conjunction with more than one (1) re-review of submittals of shop drawings, product data, samples, etc.
4.5 DISPUTES

4.5.1 Decision of Architect.

Disputes between District and Contractor involving money or time, including those alleging an error or omission by the Architect, shall be referred initially to the Architect for action as provided in Paragraph 4.5.2. A decision by the Architect, as provided in Paragraph 4.5.5, shall be required as a condition precedent to proceeding with remedies set forth in Paragraph 4.5.6 as to all such matters arising prior to the date final payment is due, regardless of whether such matters relate to execution and progress of the Work, or the extent to which the Work has been completed. The decision by the Architect in response to a Claim shall not be a condition precedent to the remedies under Paragraph 4.5.2 through 4.5.5 in the event: (1) the position of Architect is vacant; (2) the Architect has not received evidence or has failed to render a decision within agreed time limit; (3) the Architect has failed to take action required under Paragraph 4.6.4 within thirty (30) days after the Claim is made, forty-five (45) days have passed after the Claim has been referred to the Architect; or (4) the Claim relates to a Stop Notice Claim not arising from any extra change order or Construction Change Directive for which approval has not been provided.

4.5.2 Architect’s Review.

The Architect will review Claims and take one or more of the following preliminary actions within ten (10) days of receipt of a Claim: (1) request additional supporting data from the Claimant; (2) submit a schedule to the parties indicating when the Architect expects to take action; (3) reject the Claim in whole or in part, stating reasons for rejection; (4) recommend approval of the Claim; or (5) suggest a compromise. The Architect may also, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim.

4.5.3 Documentation if Resolved.

If a Claim has been resolved, the Architect will prepare or obtain appropriate documentation.

4.5.4 Actions if Not Resolved.

If a Claim has not been resolved and all documentation requested pursuant to Paragraph 4.5.2 has been provided, the party making the Claim shall, within ten (10) days after the Architect’s preliminary response, take one or more of the following actions: (1) modify the initial Claim; (2) notify the Architect that the initial Claim stands; or (3) supplement with additional supporting data.

4.5.5 Architect’s Written Decision.

If a Claim has not been resolved after consideration of the foregoing and of other evidence presented by the parties or requested by the Architect, the Architect will notify the parties in writing that the Architect’s decision will be made within twenty (20) days. Upon expiration of such time period, the Architect will render to the parties its written decision relative to the Claim, including any change in the Contract Sum or Contract Time or both. The Architect may, but is not obligated to, notify the surety and request the surety’s assistance in resolving the controversy.
4.5.6 Continuing Contract Performance.

Pending final resolution of a Claim, including, negotiation, mediation, arbitration, or litigation, the Contractor shall proceed diligently with performance of the Contract, and the District shall continue to make any undisputed payments in accordance with the Contract. If the dispute is not resolved, Contractor agrees it will neither rescind the contract nor stop the progress of the work, but Contractor’s sole remedy shall be to submit such controversy to determination by a court of competent jurisdiction in the county where the project is located, after the project has been completed, and not before. At the District’s sole option, the District may submit individual disputes for binding arbitration and Contractor agrees to the resolution determined for each individual dispute by Arbitrator, including resolution of time and delays. If binding arbitration is utilized for individual disputes, such resolution is full and final as to that particular Claim.

4.5.7 Claims for Concealed Trenches or Excavations Greater Than Four Feet Below the Surface.

When any excavation or trenching extends greater than four feet below the surface or if any condition involving hazardous substances are encountered:

(a) Immediately upon discovery, The Contractor shall promptly, and before the following conditions are disturbed, notify the District, by telephone and in writing, of the condition except:

1. If such condition is a hazardous waste condition, and Contractor’s bid includes removal or disposal of hazardous substances. Material that the Contractor believes may be a material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing law. In such case, the notice bulletin procedures of Article 7 apply.

2. Subsurface or latent physical conditions at the Site differing from those indicated.

3. Unknown physical conditions at the Site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract.

(b) The District shall investigate the conditions, and if District finds that the conditions do materially so differ, do involve hazardous waste, and cause a decrease or increase in the Contractor’s cost of, or the time required for, performance of any part of the Work shall issue a change order or construction change directive under the procedures described in the Contract.

(c) In the event that a dispute arises between the District and the Contractor whether the conditions materially differ, involve hazardous waste, or cause a decrease or increase in the Contractor’s cost of, or time required for, performance of any part of the work, the Contractor shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all Work to be performed under the Contract. The Contractor shall retain any and
all rights provided either by Contract or by law which pertain to the resolution of disputes and
protests between the contracting parties.

4.5.8 Claims for Extension of Time.

If Contractor and District cannot agree upon an extension of time, whether compensable or not,
then Contractor must have first completed the procedures set forth in Paragraph 8.4. Upon completion
of the procedures set forth under Paragraph 8.4, Contractor must then comply with the requirements in
this Article including those set forth under Paragraph 4.5.9.

4.5.9 Claims Procedures.

4.5.9.1 Procedure applicable to all Claims:

(a) Definition of Claim: A “Claim” means a separate demand by the Contractor for (1) time
extension, (2) payment of money or damages arising from Work done by or on behalf of the
Contractor pursuant to the CONTRACT and payment of which is not otherwise expressly
provided for or the Claimant is not otherwise entitled to, or (3) and amount the payment of
which is disputed by the District.

(b) Filing Claim is Not Basis To Discontinue Work: The Contractor shall promptly comply
with Work under the Contract or Work requested by the District even though a written Claim
has been filed. The Contractor and the District shall make good faith efforts to resolve any and
all Claims that may arise during the performance of the Work covered by this contract.

(c) Claim Notification: The Contractor shall within seven (7) calendar days after the Claim
arises, submit a notification, in writing, with the District stating clearly the basis for the Claim. If
the notification is not submitted within seven (7) days after the Claim arises, the Contractor shall
be deemed to have waived all right to assert the Claim, and the Claim shall be denied. Claims
submitted after the final payment date shall also be considered null and void by the District. All
Claims shall be reviewed pursuant to Paragraph 4.5.1, 4.5.2, and 4.5.5. In order to qualify as a
Claim, the written notice must state that it is a Claim submitted under this paragraph of these
General Conditions.

(d) Formal Claim Appeal Submission: If the Contractor does not concur with the District’s
decision regarding the Claim Notification, the Contractor will issue a formal Claim Appeal within
fourteen (14) days of receipt of the District’s decision and all detailed information in support of
the Claim Appeal within thirty (30) days. All appeals shall be submitted before final payment. If
the Claim Appeal is not submitted within fourteen (14) calendar days and detailed information
within thirty (30) days, the Contractor shall be deemed to have waived its right to assert the
Claim and the Claim shall be denied. Contractor’s failure to submit any detailed information
which is in the possession of Contractor shall render such information inadmissible by
Contractor at trial or arbitration.

(e) Appeal Claim Format: The Contractor shall provide all written detailed documentation
which supports the Claim, including but not limited to: arguments, justifications, cost,
estimates, schedule analysis and detailed documentation. The format of the Claim Appeal shall
be as follows:

(1) Cover letter.
(2) Summary of factual basis of Claim and amount of Claim.

(3) Summary of the basis of the Claim, including the specific clause and section under the Contract under which the Claim is made.

(4) Documents relating to the Claim, including:
   a. Specifications
   b. Drawings
   c. Clarifications (RFI’s)
   d. Other relevant information
   e. Analysis of claim merit.
   f. Analysis of claim cost.
   g. For Claims relating to time extensions, an analysis and supporting documentation evidencing any effect upon the critical path.
   h. Certification.
   i. Chronology of events and related correspondence.
   j. Daily reports and logs.

(f) Certification: The Contractor (and subcontractors, if applicable) shall submit with the Claim a certification under penalty of perjury:
   (1) That the Contractor has reviewed the Claim and that such Claim is made in good faith;
   (2) Supporting data are accurate and complete to the best of the Contractor’s knowledge and belief;
   (3) The amount requested accurately reflects the amount of compensation for which the Contractor believes the District is liable.
   (4) That the Contractor is familiar with Government Code Sections 12650 et seq. and Penal Code Section 72 and that false Claims can lead to substantial fines and/or imprisonment.

(g) Signature of Certification: If the Contractor is not an individual, the certification shall be executed by an officer or general partner of the Contractor having overall responsibility for the conduct of the Contractor’s affairs.

(h) Mandatory Claim Appeal Procedure: The Contractor’s Claim Appeal shall be denied if it fails to provide the written basis of the Claim and certification as set forth herein.

(i) District May Request Additional Information: Within thirty (30) days of receipt of the Claim Appeal and the information under this Article, the District may request in writing any additional documentation supporting the Claim or documentation relating to defenses to the Claim which the District may assert.

4.5.9.2 Binding Arbitration of Individual Claim Issues. At the District’s sole option, the District may submit individual disputes, or Claims, to binding arbitration and
Contractor agrees to the resolution determined for each individual dispute by Arbitrator, including resolution of time and delays. If binding arbitration is utilized, such resolution is a full and final resolution of the particular Claim or dispute. Under no circumstances may the Contractor stop work, rescind its contract or otherwise slow the progress of Work during resolution of individual Claims in binding Arbitration.

4.5.9.3 Resolution of Disputes in Court of Competent Jurisdiction. If Claims are not resolved under the procedure set forth and pursuant to Article 4.5.9.2, such Claim or controversy shall be submitted to a court in the county of competent jurisdiction after the Project has been completed, and not before.

4.5.9.4 Warranties, Guaranties and Obligations. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guaranties and obligations imposed upon Contractor by the General Conditions and amendments thereto; and all of the rights and remedies available to District and Architect thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by laws or regulations by special warranty or guaranty or by other provisions of the Contract Documents, and the provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply.

ARTICLE 5

SUBCONTRACTORS

5.1 DEFINITIONS

5.1.1 Subcontractual Relations

By appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the same obligations and responsibilities, assumed by Contractor pursuant to the Contract Documents. Each subcontract agreement shall preserve and protect the rights of the District and the Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound. Upon written request of the Subcontractor, the Contractor shall identify to the Subcontractor the terms and conditions of the proposed subcontract agreement, which may be at variance with the Contract Documents. Subcontractors shall similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.
5.1.2 Subcontractor Licenses.

All subcontractors shall be properly licensed by the California State Licensing Board.

5.1.3 Substitution of Subcontractor

Substitution of Subcontractors shall be permitted only as authorized under Public Contract Code §§ 4107 et. Seq. Any substitutions of Subcontractors shall not result in any increase in the Contract Price or result in the granting of any extension of time for the completion of the Project.

5.1.4 Contingent Assignment of Subcontracts and Other Contracts

Each subcontract and other contract or agreement for any portion of the Work is hereby assigned by the Contractor to the District provided that:

(a) Such assignment is effective only after termination of this contract with the Contractor by the District as provided herein and only for those subcontracts and other contracts and agreements that the District accepts by notifying the Subcontractor or Materialman (as may be applicable) in writing; and

(b) Such assignment is subject to the prior rights of the Surety(ies) obligated under the Payment Bond and Performance Bond.

The Contractor shall include adequate provisions for this contingent assignment of subcontracts and other contracts and agreements in each such document.

ARTICLE 6

CONSTRUCTION BY DISTRICT OR BY SEPARATE CONTRACTORS

6.1 DISTRICT’S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

6.1.1 Separate Contracts.

(a) District reserves the right to let other contracts in connection with this Work. Contractor shall afford other contractors reasonable opportunity for (1) introduction and storage of their materials; (2) access to the Work; and (3) execution of their work. Contractor shall properly connect and coordinate its work with that of other Contractors.

(b) If any part of Contractor’s Work depends on proper execution or results of any other contractor, the Contractor shall inspect and within seven (7) days or less, report to Architect, in writing, any defects in such work that render it unsuitable for proper execution of Contractor’s work. Contractor will be held accountable for damages to District for that work which it failed to inspect or should have inspected. Contractor’s failure to inspect and report shall constitute its acceptance of other contractors’ work as fit and proper for reception of its work, except as to defects which may develop in other contractors’ work after execution of Contractor’s work.
(c) To ensure proper execution of its subsequent Work, Contractor shall measure and inspect Work already in place and shall at once report to the Architect in writing any discrepancy between executed Work as built and the Contract Documents.

(d) Contractor shall ascertain to its own satisfaction the scope of the Project and nature of any other contracts that have been or may be awarded by District in prosecution of the Project and the potential impact of such work on Contractor’s schedule.

(e) Nothing herein contained shall be interpreted as granting to Contractor the exclusive occupancy at the site of Project. Contractor shall not cause any unnecessary hindrance or delay to any other contractor working on the Project Site. If execution of any contract by the District is likely to cause interference with Contractor’s performance of its contract, District shall decide which contractor shall cease work temporarily and which contractor shall continue, or whether work can be coordinated so that contractors may proceed simultaneously.

(f) District shall not be responsible for any damages suffered or extra costs incurred by Contractor resulting directly or indirectly from award or performance or attempted performance of any other contract or contracts at the Project, or caused by any decision or omission of District respecting the order of precedence in performance of contracts.

6.1.2 District’s Right to Carry Out the Work.

See Paragraph 2.2.

6.1.3 Designation as Contractor.

When separate contracts are awarded to contractors on the Project Site, the term “Contractor” in the Contract Documents in each case shall mean the Contractor who executes each separate District/Contractor Agreement.

6.1.4 Contractor Duties.

The Contractor shall have overall responsibility to reasonably coordinate and schedule Contractor’s activities with the activities of the District’s own forces and of each separate contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other separate contractors and the District in reviewing their construction schedules when directed to do so. The Contractor shall make any revisions to the construction schedule and Contract Sum deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, separate contractors, and the District until subsequently revised. Additionally, Contractor shall coordinate with Architect and District inspector to ensure timely and proper progress of work.

6.2 CONSTRUCTIVE OWNERSHIP OF PROJECT SITE AND MATERIAL

Upon commencement of Work, the Contractor becomes the constructive owner of the entire site, improvements, material and equipment on Project site. Contractor must ensure proper safety and storage of all materials and assumes responsibility as if Contractor was the owner of the Project site. All risk of loss or damage shall be borne by Contractor during the Work until the date of Completion. As
construction owner, Contractor must carry adequate insurance in case of calamity and is not entitled to rely on the insurance requirements as set forth in this agreement as being adequate coverage in case of calamity.

6.3 **DISTRICT’S RIGHT TO CLEAN UP**

If a dispute arises among the Contractor, separate contractors, and the District as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish as described in Paragraph 3.12, the District may clean up and allocate the cost among those it deems responsible.

**ARTICLE 7**

**CHANGES IN THE WORK**

7.1 **CHANGES**

7.1.1 **No Changes Without Authorization.**

There shall be no change whatsoever in the drawings, specifications, or in the Work without an executed Change Order, Construction Change Directive, or order by the Architect for a minor change in the Work as herein provided. District shall not be liable for the cost of any extra work or any substitutions, changes, additions, omissions, or deviations from the Drawings and Specifications unless the District’s Governing Board has authorized the same and the cost thereof approved in writing by Change Order or executed Construction Change Directive. No extension of time for performance of the Work shall be allowed hereunder unless claim for such extension is made at the time changes in the Work are ordered, and such time duly adjusted in writing in the Change Order. The provisions of the Contract Documents shall apply to all such changes, additions, and omissions with the same effect as if originally embodied in the Drawings and Specifications. Notwithstanding anything to the contrary in this Article 7, all Change Orders shall be prepared and issued by the Architect and shall become effective when executed by the District’s Governing Board, the Architect, and the Contractor.

Should any Change Order result in an increase in the Contract price, the cost of such Change Order shall be agreed to, in writing, in advance by Contractor and District and be subject to the monetary limitations set forth in Public Contract Code Section 20659. In the event that Contractor proceeds with any change in Work without first notifying District and obtaining the Architect’s and District’s consent to a Change Order, Contractor waives any claim of additional compensation for such additional work.

**CONTRACTOR UNDERSTANDS, ACKNOWLEDGES, AND AGREES THAT THE REASON FOR THIS NOTICE REQUIREMENT IS SO THAT DISTRICT MAY HAVE AN OPPORTUNITY TO ANALYZE THE WORK AND DECIDE WHETHER THE DISTRICT SHALL PROCEED WITH THE CHANGE ORDER OR ALTER THE PROJECT SO THAT SUCH CHANGE IN WORK BECOMES UNNECESSARY.**
7.1.2 Architect Authority.

The Architect will have authority to order minor changes in the Work not involving any adjustment in the Contract Sum, or an extension of the Contract Time, or when a change which is inconsistent with the intent of the Contract Documents. Such changes shall be effected by written Change Order and shall be binding on the District and the Contractor. The Contractor shall carry out such written orders promptly.

7.2 CHANGE ORDERS (“CO”)

A CO is a written instrument prepared by the Architect and signed by the District (as authorized by the District’s Governing Board), the Contractor, the Architect, and the DSA (if necessary), stating their agreement upon all of the following:

(a) A description of a change in the Work;
(b) The amount of the adjustment in the Contract Sum, if any; and
(c) The extent of the adjustment in the Contract Time, if any.

7.3 CONSTRUCTION CHANGE DIRECTIVE

7.3.1 Definition.

A Construction Change Directive is a written order prepared by the Architect and signed by the District and the Architect, directing a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Sum or Contract Time, or both. The District may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions within. If applicable, the Contract Sum and Contract Time will be adjusted accordingly. In the case of a Construction Change Directive being issued, Contractor must commence Work immediately or delays from failure to perform Construction Change Directive shall be the responsibility of Contractor. Any dispute as to the sum of Construction Change Directive or timing of payment, shall be resolved pursuant to Paragraph 4.5.

7.3.2 Use to Direct Change

A Construction Change Directive shall be used in the absence of agreement on the terms of a CO. A copy of a proposed form is provided at the end of this Article.

7.4 REQUEST FOR INFORMATION (“RFI”)

7.4.1 Definition.

An RFI is a written request prepared by the Contractor requesting the Architect to provide additional information necessary to clarify or amplify an item which the Contractor believes is not clearly shown or called for in the drawings or specifications, or to address problems which have arisen under field conditions.
7.4.2 Scope.

The RFI shall reference all the applicable Contract Documents including specification section, detail, page numbers, drawing numbers, and sheet numbers, etc. The Contractor shall make suggestions and interpretations of the issue raised by the RFI. An RFI cannot modify the Contract Cost, Contract Time, or the Contract Documents.

7.4.3 Response Time.

The Architect must respond to a RFI within a reasonable time after receiving such request. If the Architect’s response results in a change in the Work, then such change shall be effected by a written CO or Construction Change Directive, if appropriate. If the Architect cannot respond to the RFI within a reasonable time, the Architect shall notify the Contractor, with a copy to the Inspector and the District, of the amount of time that will be required to respond.

7.4.4 Costs Incurred.

The Contractor shall be responsible for any costs incurred for professional services, which shall be deducted from the next progress payment, if an RFI requests an interpretation or decision of a matter where the information sought is equally available to the party making such request. District, at its sole discretion, shall invoice Contractor for all such professional services arising from this Article.

7.5 REQUEST FOR PROPOSAL (“RFP”)

7.5.1 Definition.

An RFP is a written request prepared by the Architect requesting the Contractor to submit to the District and the Architect an estimate of the effect of a proposed change on the Contract Price and the Contract Time.

7.5.2 Scope.

An RFP shall contain adequate information, including any necessary drawings and specifications, to enable Contractor to provide the cost breakdowns required by Paragraph 7.7. The Contractor shall not be entitled to any Additional Compensation for preparing a response to an RFP, whether ultimately accepted or not.

7.6 CHANGE ORDER REQUEST (“COR”)

7.6.1 Definition.

A COR is a written request prepared by the Contractor requesting that the District and the Architect issue a CO based upon a proposed change called for in an RFP or a claim pursuant to Paragraph 4.5.
7.6.2 Changes in Price.

A COR shall include breakdowns per Paragraph 7.7 to validate any change in Contract Price due to proposed change or claim.

7.6.3 Changes in Time.

A COR shall also include any additional time required to complete the Project. Any additional time requested shall not be the number of days to make the proposed change, but must be based upon the impact to the Project Schedule as defined in Paragraph 3.8 of the General Contract. If contractor fails to request a time extension in a COR, then the Contractor is thereafter precluded from requesting or claiming a delay.

7.7 COST OF CHANGE ORDERS

7.7.1 Scope.

Within ten (10) days after a request is made for a change that impacts the Contract Sum as defined in Paragraph 9.1, the critical path, or the Contract Time as defined in Paragraph 8.4.2, the Contractor shall provide the District and the Architect, with a written estimate of the effect of the proposed CO upon the Contract Sum and the actual cost of construction, which shall include a complete itemized cost breakdown of all labor and material showing actual quantities, hours, unit prices, and wage rates required for the change, and the effect upon the Contract Time of such CO. Changes may be made by District by an appropriate written CO, or, at the District’s option, such changes shall be implemented immediately upon the Contractor’s receipt of an appropriate written Construction Change Directive.

District may, as provided by law and without affecting the validity of this Agreement, order changes, modification, deletions and extra work by issuance of written Construction Change Directives from time to time during the progress of the Project, contract sum being adjusted accordingly. All such work shall be executed under conditions of the original Agreement except that any extension of time caused thereby shall be adjusted at time of ordering such change. District has discretion to order changes on a “time and material” basis with adjustments to time made after Contractor has justified through documentation the impact on the critical path of the Project.

7.7.2 Determination of Cost.

The amount of the increase or decrease in the Contract Price from a CO, if any, shall be determined in one or more of the following ways as applicable to a specific situation:

(a) Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation. If an agreement cannot be reached within fifteen (15) days after submission and negotiation of Contractor’s proposal, Contractor may submit pursuant to Paragraph 7.7.3. Submission of sums which have no basis in fact are at the sole risk of Contractor and may be a violation of the False Claims Act set forth under Government Code Section 12650 et. seq.);
(b) By unit prices contained in Contractor’s original bid and incorporated in the Project documents or fixed by subsequent agreement between District and Contractor;

(c) Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee. However, in the case of disagreement, Contractor must utilize the procedure under section 7.7.3; or

(d) By cost of material and labor and percentage of overhead and profit. If the value is determined by this method the following requirements shall apply:

1. Basis for Establishing Costs.

   a. Labor will be the actual cost for wages prevailing locally for each craft or type of workers at the time the extra Work is done, plus employer payments of payroll taxes and insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State, or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. The use of a labor classification which would increase the extra Work cost will not be permitted unless the Contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.

   b. Materials shall be at invoice or lowest current price at which such materials are locally available and delivered to the Site in the quantities involved, plus sales tax, freight, and delivery.

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

   c. Tool and Equipment Rental. No payment will be made for the use of tools which have a replacement value of $250 or less.

      Regardless of ownership, the rates to be used in determining equipment rental costs shall not exceed listed rates prevailing locally at equipment rental agencies or distributors at the time the Work is performed.

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

      Necessary loading and transportation costs for equipment used on the extra Work shall be included. If equipment is used intermittently and, when not in use, could be returned to its rental source at less expense to the District than holding it at the Work Site, it shall be returned unless the Contractor elects to keep it at the Work Site at no expense to the District.
All equipment shall be acceptable to the Inspector, in good working condition, and suitable for the purpose for which it is to be used. Manufacturer’s ratings and modifications shall be used to classify equipment, and equipment shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

d. Other Items. The District may authorize other items which may be required on the extra work. Such items include labor, services, material, and equipment which are different in their nature from those required by the Work, and which are of a type not ordinarily available from the Contractor or any of the Subcontractors. Invoices covering all such items in detail shall be submitted with the request for payment.

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

f. Overhead. Overhead, including direct and indirect costs, shall be submitted with the COR and include: home office overhead, off-site supervision, CO preparation/negotiation/research, time delays, project interference and disruption, additional guaranty and warranty durations, on-site supervision, additional temporary protection, additional temporary utilities, additional material handling costs, and additional safety equipment costs.

### 7.7.3 Format for Proposed Cost Change.

The following format shall be used as applicable by the District and the Contractor to communicate proposed additions and deductions to the Contract. A copy of a proposed Construction Change Directive form is provided at the end of this Article.

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<tr>
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<th>EXTRA</th>
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<td>(a) Material (attach itemized quantity and unit cost plus sales tax)</td>
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<td>(b) Labor (attach itemized hours and rates)</td>
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<td>(c) Equipment (attach invoices)</td>
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<td>(d) Subtotal</td>
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<tr>
<td>(e) If Subcontractor performed Work, add Subcontractor’s overhead and profit to portions performed by Sub-contractor, not to exceed fifteen percent (15%) of item (d).</td>
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(f) Liability and Property Damage Insurance, Worker’s, Compensation Insurance, Social Security, and Unemployment Taxes, not to exceed as follows: FICA @ 6.2% - with a wage ceiling of $84,900; Medicare @ 1.45% - no wage ceiling; FUTA @ .8% - with a wage ceiling of $7,000; ETT and SUI @ 2.3% - with a wage ceiling of $7,000; Workers’ Compensation @ 5.94%; Liability and Property Damage @ 2.5%. **Total not-to-exceed is 19.19%**. *(Note: Modifications to these percentages will be evaluated and possibly modified only on a case-by-case basis and only after proper proof of alternate percentages are documented and approved in advance. In addition, as wage ceilings are met, those corresponding percentages must drop from the “burden” calculations).*

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(g) **Subtotal**

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(h) **General Contractor’s Overhead and Profit:**
Not to exceed fifteen percent (15%) of Item (g) if Contractor performed the work. No more than five percent (5%) of Item (g) if Subcontractor performed the work. If work was performed by Contractor and Subcontractors, portions performed by Contractor shall not exceed fifteen percent (15%) if Item (g), and portions performed by Subcontractor shall not exceed five percent (5%) of Item (g)

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(i) **Subtotal**

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(j) Bond not to exceed one percent (1%) of Item (g)

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(k) **TOTAL**

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(l) **Time**

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The undersigned Contractor approves the foregoing Construction Change Directive as to the changes, if any, and the contract price specified for each item and as to the extension of time allowed, if
any, for completion of the entire work on account of said Construction Change Directive, and agrees to furnish all labor, materials and service and perform all work necessary to complete any additional work specified therein, for the consideration stated herein. It is understood that said Construction Change Directive shall be effective when approved by the Governing Board of the District.

It is expressly understood that the value of such extra Work or changes, as determined by any of the aforementioned methods, expressly includes any and all of the Contractor’s costs and expenses, both direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project. Any costs, expenses, damages or time extensions not included are deemed waived.

The Contractor expressly acknowledges and agrees that any change in the Work performed shall not be deemed to constitute a delay or other basis for claiming additional compensation based on theories including, but not limited to, acceleration, suspension or disruption to the Project.

7.7.4 Deductive Change Orders

All deductive Change Order(s) must be prepared pursuant to Paragraph 7.7.3. Contractor will be allowed a maximum of 5% total profit and overhead. If subcontractor work is involved, subcontractors shall be entitled to a maximum of 5% profit and overhead on the deducted work. Any deviation from this Article shall not be allowed.

7.7.5 Discounts, Rebates, and Refunds.

For purposes of determining the cost, if any, of any change, addition, or omission to the Work hereunder, all trade discounts, rebates, refunds, and all returns from the sale of surplus materials and equipment shall accrue and be credited to the Contractor, and the Contractor shall make provisions so that such discounts, rebates, refunds, and returns may be secured, and the amount thereof shall be allowed as a reduction of the Contractor’s cost in determining the actual cost of construction for purposes of any change, addition, or omissions in the Work as provided herein.

7.7.6 Accounting Records.

With respect to portions of the Work performed by COs and Construction Change Directives on a time-and-materials, unit-cost, or similar basis, the Contractor shall keep and maintain cost-accounting records satisfactory to the District, which shall be available to the District on the same terms as any other books and records the Contractor is required to maintain under the Contract Documents.

7.7.7 Notice Required.

If the Contractor desires to make a claim for an increase in the Contract Price, or any extension in the Contract Time for completion, it shall notify the District pursuant to Paragraph 4.5 and this Article. No claim shall be considered unless made in accordance with this subparagraph. Contractor shall proceed to execute the Work even though the adjustment may not have been agreed upon. Any change in the Contract Price or extension of the Contract Time resulting from such claim shall be authorized by a CO.
7.7.8 Applicability to Subcontractors.

Any requirements under this Article 7 shall be equally applicable to COs or Construction Change Directives issued to Subcontractors by the Contractor to the same extent required by the Contractor.

7.7.9 Alteration to Change Order Language.

Contractor shall not alter Change Orders or reserve time in Construction Change Directives. Contractor shall execute finalized Change Orders and proceed under Paragraph 7.7.7 and Paragraph 4.5 with proper notice. If Contractor intends to reserve time, without an approved CPM schedule prepared pursuant to Paragraph 3.8 then Contractor may be prosecuted pursuant to the False Claim Act.

ARTICLE 8

TIME

8.1 DEFINITIONS

8.1.1 Contract Time.

Unless otherwise provided, Contract Time is the period of time, in calendar days, including authorized adjustments, allotted in the Contract Documents for Completion of the Work.

8.1.2 Notice to Proceed.

District may give a notice to proceed within three (3) months of the award of the bid by District. Once Contractor has received the notice to proceed, Contractor shall complete the Work in the period of time referenced in the Contract Documents.

In the event that District desires to postpone the giving of the notice to proceed beyond this three-month period, it is expressly understood that with reasonable notice to the Contractor, the giving of the date to proceed may be postponed by District. It is further expressly understood by Contractor, that Contractor shall not be entitled to any Claim of additional compensation as a result of the postponement of the giving of the notice to proceed.

If the Contractor believes that a postponement will cause a hardship to Contractor, Contractor may terminate the contract with written notice to District within 10 days after receipt by Contractor of District’s notice of postponement. It is further understood by Contractor that in the event that Contractor terminates the Contract as a result of postponement by the District, the District shall only be obligated to pay Contractor for the Work that Contractor had performed at the time of notification of postponement. Should Contractor terminate the contract as a result of a notice of postponement, District shall have the authority to award the contract to the next lowest responsible bidder.
8.1.3 Computation of Time.

The term “day” as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

The Contractor will only be allowed a time extension for unusually severe weather if it results in precipitation or other conditions which in the amount, frequency, or duration is in excess of the norm at the location and time of year in question as established by National Oceanic and Atmospheric Administration (NOAA) weather data. No less than Zero (0) work days allocated equally across the Contract Time will be identified as non-working weather days in the contractor’s schedule for the entire contract period of performance. The weather days shall be shown on the schedule and if not used will become float for the Project’s use. A day-for-day extension will only be allowed for those days in excess of the norm. The Contractor is expected to work seven (7) days per week (if necessary, irrespective of inclement weather), to maintain access, and to protect the Work under construction from the effects of inclement weather.

If the weather is unusually severe and is in excess of the NOAA data norm and prevents the Contractor from beginning work at the usual daily starting time, or prevents the Contractor from proceeding with seventy-five (75%) of the normal labor and equipment force towards completion of the day’s current controlling item on the accepted schedule for a period of at least five hours, and the crew is dismissed as a result thereof, the Architect will designate such time as unavoidable delay and grant one (1) work-day extension.

8.2 HOURS OF WORK.

8.2.1 Sufficient Forces.

Contractors and Subcontractors shall continuously furnish sufficient forces to ensure the prosecution of the Work in accordance with the Construction Schedule.

8.2.2 Performance During Working Hours.

Work shall be performed during regular working hours as permitted by the appropriate governmental agency except that in the event of an emergency, or when required to complete the Work in accordance with job progress, Work may be performed outside of regular working hours with the advance written consent of the District and approval of any required governmental agencies.

8.2.3 Costs for After Hours Inspections.

If the Contract Documents require Work to be done outside the Inspector’s regular working hours, the costs of any after hour inspections, shall be borne by the District.

If the District allows the Contractor to do Work outside regular working hours for the Contractor’s convenience, or if required to maintain schedule, the costs of any inspections required outside regular working hours shall be invoiced to the Contractor by the District and deducted from the next Progress Payment.
If the Contractor elects to perform Work outside the Inspector’s regular working hours, costs of any inspections required outside regular working hours shall be invoiced to the Contractor by the District and deducted from the next Progress Payment.

8.3 PROGRESS AND COMPLETION.

8.3.1 Time of the Essence.

Time limits stated in the Contract Documents are of the essence to the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

8.4 EXTENSIONS OF TIME – LIQUIDATED DAMAGES

8.4.1 Liquidated Damages.

Contractor and District hereby agree that the exact amount of damages for failure to complete the Work within the time specified is extremely difficult or impossible to determine. If the Work is not completed within the time specified in the Contract Documents, it is understood that the District will suffer damage. It being impractical and uneconomical to determine the amount of actual damage, it is agreed the Contractor shall pay to District as fixed and liquidated damages, and not as a penalty, the amount specified in the Construction Agreement for each calendar day of delay in completion. Any liquidated damages recovered by the District shall not, however, limit the District’s right to separately recover any actual out-of-pocket damages it suffers due to Contractor’s delay. Contractor and his surety shall be liable for the amount thereof pursuant to Government Code section 53069.85.

8.4.2 Excusable Delay.

Contractor shall not be charged for liquidated damages because of any delays in completion of Work which are not the fault or negligence of Contractor or its subcontractors, including acts of God, as defined in Public Contract Code Section 7107, acts of enemy, epidemics and quarantine restrictions. Contractor shall within five (5) calendar days of beginning of any such delay notify District in writing of causes of delay; thereupon District shall ascertain the facts and extent of delay and grant extension of time for completing Work when, in its judgment, the findings of fact justify such an extension. Extensions of time shall apply only to that portion of Work affected by delay, and shall not apply to other portions of Work not so affected. An extension of time may only be granted after proper compliance with Paragraph 3.8 requiring preparation and submission of a properly prepared CPM schedule.

No extended overhead, general conditions costs, impact costs, out-of-sequence costs or any other type of compensation, by any name or characterization, shall be paid to the Contractor for any delay to any activity not designated as a critical path item on the latest approved Project schedule.

The Contractor shall notify the Architect in writing of any anticipated delay and its cause, in order that the Architect may take immediate steps to prevent, if possible, the occurrence or continuance of delay, and may determine whether the delay is to be considered avoidable or
unavoidable, how long it continues, and to what extent the prosecution and completion of the Work
might be delayed thereby.

In the event the Contractor requests an extension of Contract time for unavoidable delay, such
request shall be submitted in accordance with the provisions in the Contract Documents governing
changes in work. When requesting time, i.e., extensions, for proposed Change Orders, they must be
submitted with the proposed Change Order with full justification and documentation. If the Contractor
fails to submit justification with the proposed Change Order it waives its right to a time extension at a
later date. Such justification must be based on the official Contract schedule as updated at the time of
occurrence of the delay or execution of Work related to any changes to the scope of work. The
justification must include, but is not limited to, the following information:

(a) The duration of the activity relating to the changes in the Work and the resources
    (manpower, equipment, material, etc.) required to perform these activities within the stated
duration.

(b) Logical ties to the official Contract schedule for the proposed changes and/or delay
    showing the activity/activities in the schedule whose start or completion dates are affected by
    the change and/or delay. (A fragment of any delay of over ten (10) days must be provided.)

The Contractor and District understand and expressly agree that insofar as Public Contract Code Section
7102 may apply to changes in the Work or delays under this contract, the actual delays and damages, if
any, and time extensions are intended to, and shall provide, the exclusive and full method of
compensation for changes in the Work and construction delays.

8.4.3 Notice by Contractor Required.

The Contractor shall within five (5) calendar days of beginning of any such delay notify the
District in writing of causes of delay with justification and supporting documentation. District will then
ascertain the facts and extent of the delay and grant an extension of time for completing the Work
when, in its judgment, the findings of fact justify such an extension. Extensions of time shall apply only
to that portion of the Work affected by the delay and shall not apply to other portions of the Work not
so affected. The sole remedy of Contractor for extensions of time under Paragraph 8.4.2 shall be an
extension of the Contract Time at no cost to the District.

Claims relating to time extensions shall be made in accordance with applicable provisions of
Article 7.

8.4.4 No Additional Compensation for Delays within Contractor’s Control

CONTRACTOR IS AWARE THAT GOVERNMENTAL AGENCIES, SUCH AS THE DEPARTMENT OF
GENERAL SERVICES, GAS COMPANIES, ELECTRICAL UTILITY COMPANIES, WATER DISTRICTS AND
OTHER AGENCIES MAY HAVE TO APPROVE CONTRACTOR PREPARED DRAWINGS OR APPROVE A
PROPOSED INSTALLATION. CONTRACTOR HAS INCLUDED DELAYS AND DAMAGES WHICH MAY
BE CAUSED BY SUCH AGENCIES IN CONTRACTOR’S BID. THUS, CONTRACTOR IS NOT ENTITLED
TO MAKE CLAIM UPON THE DISTRICT FOR DAMAGES OR DELAYS ARISING FROM THE DELAYS
CAUSED BY SUCH AGENCIES. FURTHERMORE, THE CONTRACTOR HAS SCHEDULED FOR SUCH
DELAYS AND IS NOT ENTITLED TO AN EXTENSION OF TIME FOR DELAYS CAUSED BY GOVERNMENTAL AGENCIES WHICH CONTRACTOR MUST OBTAIN APPROVALS FROM AND, THUS, CONTRACTOR IS NOT ENTITLED TO AN EXTENSION OF TIME.

CONTRACTOR SHALL ONLY BE ENTITLED TO COMPENSATION FOR DELAY WHEN THE FOLLOWING CONDITIONS ARE MET: (1) THE DISTRICT IS RESPONSIBLE FOR THE DELAY; (2) THE DELAY IS UNREASONABLE UNDER THE CIRCUMSTANCES INVOLVED; AND (3) THE DELAY WAS NOT WITHIN THE CONTEMPLATION OF DISTRICT AND CONTRACTOR.

ARTICLE 9

PAYMENTS AND COMPLETION

9.1 CONTRACT SUM

The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the District to the Contractor for performance of the Work under the Contract Documents.

9.2 COST BREAKDOWN

9.2.1 Required Information.

On forms or software programs (e.g., Microsoft Project or Primavera) approved by the District, the Contractor shall furnish the following:

(a) Within seven (7) days of the award of the Contract, a detailed breakdown of the Contract Price (hereinafter “Schedule of Values”) for each Project or Site;

(b) Within seven (7) days of the award of the Contract, a schedule of estimated monthly payment requests due the Contractor showing the values and construction time of the various portions of the Work to be performed by it and by its Subcontractors or material and equipment suppliers containing such supporting evidence as to its correctness as the District may require;

(c) Within seven (7) days of the award of the Contract, the name, address, telephone number, teletypewriter number, California State Contractors License number, classification and monetary value of all Subcontracts for parties furnishing labor, material, or equipment for completion of the Project.

9.2.2 District Approval Required.

The District shall review all submissions received pursuant to Paragraph 9.2.1 in a timely manner. All submissions must be approved by the District before becoming the basis of any payment. Contractor may request to District representation, prior to submission, to submit information required by paragraph 9.2.1 in a spreadsheet (Microsoft Excel) format. Approval of an alternate format is entirely at District’s discretion.
9.3 PROGRESS PAYMENTS

9.3.1 Payments to Contractor.

Within thirty (30) days after approval of the Request for Payment, Contractor shall be paid a sum equal to ninety-five percent (95%) of the value of the Work performed (as certified by Architect and Inspector and verified by Contractor) up to the last day of the previous month, less the aggregate of previous payments. The value of the Work completed shall be Contractor’s best estimate. No inaccuracy or error in said estimate shall operate to release the Contractor, or any surety upon any bond, from damages arising from such Work, or from the District’s enforcement of each and every provision of this Contract, and the District shall have the right subsequently to correct any error made in any estimate for payment.

The Contractor shall not be entitled to have any payment requests processed, or be entitled to have any payment made for work performed, so long as any lawful or proper direction given by the District concerning the Work, or any portion thereof, remains incomplete.

The SOV items of Work shall include a prorated portion of Contractor’s home office and field office overhead, profit, insurance, (except to the extent expressly identified in a Proposal Item) and/or other financing, as well as General Conditions costs, (e.g., Site cleanup and maintenance, temporary roads, access, signage off-Site access roads, temporary power and lighting, security, and the like). The SOV shall not include separate line items for labor, submittals, or other non-Work items unless expressly identified in these Contract Documents.

Costs for each item of Work shall be indicated on a single line that breaks out labor, materials, and equipment for that item of Work, with all items noted in the paragraph above prorated into each line. Unless otherwise allowed, the SOV shall reflect that the District shall only pay for installed items of Work at the Project site. All other costs shall be prorated through all activities and all Phases of the Project so that the sum of all Schedule of Values line items equals the total Contract Price.

Notwithstanding anything to the contrary stated above, the Contractor may include in its Request for Payment the value of any structural steel, mail order materials, G.F.R.C. panels and other such custom-made materials prepared specifically for the Project and unique to the Project so long as all of the following requirements are satisfied:

(a) No payment shall be made for materials stored off-site without the written approval of the District to be given or withheld in the District’s sole discretion;

(b) Title to such materials shall be vested in the District as evidenced by documentation satisfactory in form and substance to the District, including, without limitation, recorded financing statements, UCC filings and UCC searches;

(c) With each Contractor Request for Payment, the Contractor shall submit to the District a written list identifying each location where materials are stored off-site (which must be a bonded warehouse) and the value of the materials at each location. The Contractor shall procure insurance satisfactory to the District (in its reasonable discretion) for materials stored off-site in an amount not less than the total value thereof;
(d) The consent of any Surety shall be obtained to the extent required prior to payment for any materials stored off-site;

(e) Representatives of the District shall have the right to make inspections of the storage areas at any time; and

(f) Such materials shall be (1) protected from diversion, destruction, theft and damage to the reasonable satisfaction of the District; (2) specifically marked for use on the Project; and (3) segregated from other materials at the storage facility.

9.3.2 Purchase of Materials and Equipment.

The Contractor is required to order, obtain, and store materials and equipment sufficiently in advance of its Work at no additional cost or advance payment from District to assure that there will be no delays.

9.3.3 No Waiver.

No payment by District hereunder shall be interpreted so as to imply that District has inspected, approved, or accepted any part of the Work. Notwithstanding any payment, the District may enforce each and every provision of this Contract. The District may correct any error subsequent to any payment.

9.3.4 Issuance of Certificate of Payment.

The Architect shall, within seven (7) days after receipt of the Contractor’s Application for Payment, either approve such payment or notify the Contractor in writing of the Architect’s reasons for withholding approval in whole or in part as provided in Paragraph 9.6. The review of the Contractor’s Application for Payment by the Architect is based on the Architect’s observations at the Site and the data comprising the Application for Payment that the Work has progressed to the point indicated and that, to the best of the Architect’s knowledge, information, and belief, the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to (1) an evaluation of the Work for conformance with the Contract Documents, (2) results of subsequent tests and inspections, (3) minor deviations from the Contract Documents correctable prior to completion, and (4) specific qualifications expressed by the Architect. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified.

9.4 APPLICATIONS FOR PROGRESS PAYMENTS

9.4.1 Procedure.

9.4.1.1 Application for Progress. On or before the fifth (5th) day of each calendar month during the progress of the Work, Contractor shall submit to the Architect an itemized Application for Progress Payment for operations completed in accordance with the Schedule of Values. Such application shall be notarized, if required, and supported by the following or such portion thereof as Architect requires:
(a) The amount paid to the date of the Application to the Contractor, to all its Subcontractors, and all others furnishing labor, material, or equipment for its Contract;
(b) The amount being requested under the Application for Payment by the Contractor on its own behalf and separately stating the amount requested on behalf of each of the Subcontractors and all others furnishing labor, material, and equipment under the Contract;
(c) The balance that will be due to each of such entities after said payment is made;
(d) A certification that the Record Drawings and Annotated Specifications are current;
(e) Itemized breakdown of work done for the purpose of requesting partial payment;
(f) An updated construction schedule in conformance with Paragraph 3.8;
(g) The additions to and subtractions from the Contract Price and Contract Time;
(h) A summary of the retentions held;
(i) Material invoices, evidence of equipment purchases, rentals, and other support and details of cost as the District may require from time to time;
(j) The percentage of completion of the Contractor’s Work by line item; and
(k) An updated Schedule of Values from the preceding Application for Payment.

9.4.2 Prerequisites for Progress Payments.

9.4.2.1 First Payment Request. The following items, if applicable, must be completed before the first payment request will be accepted for processing:

(a) Installation of the Project sign;
(b) Receipt by Architect of submittals;
(c) Installation of field office;
(d) Installation of temporary facilities and fencing;
(e) Submission of documents listed in the Paragraph 9.2 relating to Cost Breakdown;
(f) Preliminary schedule analysis, due within 10 days after Notice to Proceed;
(g) Contractor’s Construction Schedule (Progress Schedule to be CPM based in conformance with Paragraph 3.8);
(h) Schedule of unit prices, if applicable;
(i) Submittal Schedule;
(j) Copies of necessary permits;
(k) Copies of authorizations and licenses from governing authorities;
(l) Initial progress report;
(m) Surveyor qualifications;
Written acceptance of District’s survey of rough grading, if applicable;

List of all subcontractors, with names, license numbers, telephone numbers, and scope of work;

All bonds and insurance endorsements; and

Resumes of General Contractor’s Project Manager, and if applicable, job site Secretary, Record Documents Recorder, and job site Superintendent.

9.4.2.2 Second Payment Request. The second payment request will not be processed until all submittals and shop drawings have been accepted for review by the Architect.

9.4.2.3 All Payment Requests. No payment requests will be processed unless Contractor has submitted copies of the Certified Payroll records for the Work which correlates to the payment request and a proper CPM schedule pursuant to Paragraph 3.8 is submitted.

9.4.2.4 Any payments made to Contractor where criteria set forth in Paragraph 9.4.2.1 or 9.4.2.2 have not been met shall not constitute a waiver of said criteria by District. Instead, such payment shall be construed as a good faith effort by District to resolve differences so Contractor may pay its Subcontractors and suppliers and that Contractor agrees that failure to submit such items may constitute a breach of contract by Contractor and may subject Contractor to termination.

9.5 WARRANTY OF TITLE

The Contractor warrants title to all work. The Contractor further warrants that all work is free and clear of liens, claims, security interests, or encumbrances in favor of the Contractor, Subcontractors, material and equipment suppliers, or other persons or entities making a claim by reason of having provided labor, materials, and equipment relating to the Work. Failure to keep work free of liens, claims, security interests or encumbrances is grounds to make a claim against Contractor’s payment and performance bond to immediately remedy and defend.

If a lien or stop notice of any nature should at any time be filed against the Work or any District property, by any entity which has supplied material or services at the request of the Contractor, Contractor and Contractor’s surety shall promptly, on demand by District and at Contractor’s and surety’s own expense, take any and all action necessary to cause any such lien or stop notice to be released or discharged immediately therefrom.

If the Contractor fails to furnish to the District within ten (10) calendar days after demand by the District, satisfactory evidence that a lien or stop notice has been so released, discharged, or secured, then District may discharge such indebtedness and deduct the amount required therefor, together with any and all losses, costs, damages, and attorney’s fees and expense incurred or suffered by District from any sum payable to Contractor under the Contract.

9.6 DECISIONS TO WITHHOLD PAYMENT

9.6.1 Reasons to Withhold Payment.

The District may withhold payment in whole, or in part, to the extent reasonably necessary to protect the District if, in the District’s opinion, the representations to the District required by Paragraph
9.4 cannot be made. The District may withhold payment, in whole, or in part, to such extent as may be necessary to protect the District from loss because of, but not limited to:

(a) Defective Work not remedied;
(b) Stop Notices served upon the District;
(c) Liquidated damages assessed against the Contractor;
(d) The cost of completion of the Contract if there exists reasonable doubt that the Work can be completed for the unpaid balance of any Contract Price or by the completion date;
(e) Damage to the District or other contractor;
(f) Unsatisfactory prosecution of the Work by the Contractor;
(g) Failure to store and properly secure materials;
(h) Failure of the Contractor to submit on a timely basis, proper and sufficient documentation required by the Contract Documents, including, without limitation, acceptable monthly progress schedules, shop drawings, submittal schedules, schedule of values, product data and samples, proposed product lists, executed Construction Change Directives, and verified reports;
(i) Failure of the Contractor to maintain record drawings;
(j) Erroneous estimates by the Contractor of the value of the Work performed, or other false statements in an Application for Payment;
(k) Unauthorized deviations from the Contract Documents;
(l) Failure of the Contractor to prosecute the Work in a timely manner in compliance with established progress schedules and completion dates.
(m) Failure to properly pay prevailing wages as defined in Labor Code section 1720, et seq.;
(n) Failure to properly maintain or clean up the Site;
(o) Payments to indemnify, defend, or hold harmless the District;
(p) Any payments due to the District including but not limited to payments for failed tests, or utilities changes or permits;
(q) Failure to submit an acceptable schedule in accordance with Paragraph 3.8; or
(r) Failure to pay Subcontractor or suppliers as required by Paragraph 9.8.1.

9.6.2 Reallocation of Withheld Amounts.

District may, in its discretion, apply any withheld amount to payment of outstanding claims or obligations as defined in Paragraphs 9.6.1 and 9.5. In so doing, District shall make such payments on behalf of Contractor. If any payment is so made by District, then such amount shall be considered as a payment made under Contract by District to Contractor and District shall not be liable to Contractor for such payments made in good faith. Such payments may be made without prior judicial determination of
claim or obligation. District will render Contractor an accounting of such funds disbursed on behalf of Contractor.

If Contractor defaults or neglects to carry out the Work in accordance with the contract documents or fails to perform any provision thereof, District may, after ten (10) calendar days written notice to the Contractor and without prejudice to any other remedy make good such deficiencies. The District shall adjust the total Contract price by reducing the amount thereof by the cost of making good such deficiencies. If District deems it inexpedient to correct Work which is damaged, defective, or not done in accordance with Contract provisions, an equitable reduction in the Contract price (of at least 150% of the estimated reasonable value of the nonconforming work) shall be made therefor.

9.6.3 Payment After Cure.

When the grounds for declining approval are removed, payment shall be made for amounts withheld because of them. No interest shall be paid on any retainage or amounts withheld due to the failure of the Contractor to perform in accordance with the terms and conditions of the Contract Documents.

9.7 NONCONFORMING WORK

Contractor shall promptly remove from premises all Work identified by District as failing to conform to the Contract whether incorporated or not. Contractor shall promptly replace and re-execute its own Work to comply with the Contract without additional expense to District and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

If Contractor does not remove such Work which has been identified by District as failing to conform to the Contract Documents within a reasonable time, fixed by written notice, District may remove it and may store the material at Contractor’s expense. If Contractor does not pay expenses of such removal within ten (10) calendar days’ time thereafter, District may, upon ten (10) calendar days’ written notice, sell such materials at auction or at private sale and shall account for net proceeds thereof, after deducting all costs and expenses that should have been borne by Contractor.

9.8 SUBCONTRACTOR PAYMENTS

9.8.1 Payments to Subcontractors.

No later than ten (10) days after receipt, or pursuant to Business and Professions Code Section 7108.5 and Public Contract Code section 7107, the Contractor shall pay to each Subcontractor, out of the amount paid to the Contractor on account of such Subcontractor’s portion of the Work, the amount to which said Subcontractor is entitled. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.
9.8.2 No Obligation of District for Subcontractor Payment.

The District shall have no obligation to pay, or to see to the payment of, money to a Subcontractor except as may otherwise be required by law.

9.8.3 Payment Not Constituting Approval or Acceptance.

An approved Request for Payment, a progress payment, or partial or entire use or occupancy of the Project by the District shall not constitute acceptance of Work not in accordance with the Contract Documents.

9.8.4 Joint Checks.

District shall have the right, if necessary for the protection of the District, to issue joint checks made payable to the Contractor and Subcontractors and material or equipment suppliers. The joint check payees shall be responsible for the allocation and disbursement of funds included as part of any such joint payment. In no event shall any joint check payment be construed to create any contract between the District and a Subcontractor of any tier, any obligation from the District to such Subcontractor, or rights in such Subcontractor against the District.

9.9 PROJECT RECORD DOCUMENTS

This section includes administrative and procedural requirements for Project Record Documents, including but not limited to the following where applicable:

9.9.1 Record Drawings
9.9.2 Record Specifications
9.9.3 Record Product Data
9.9.4 Record MEP & Structural coordination documents
9.9.5 Project Record Documents include, but are not limited to, the following:
   9.9.5.1 Marked-up copies of Drawings
   9.9.5.2 Marked up copy of the Project Specifications
   9.9.5.3 Marked-up copies of Shop Drawings
   9.9.5.4 Newly prepared Drawings and Specifications
   9.9.5.5 Marked-up Product Data submittals
   9.9.5.6 Field records, such as photographs, for variable and concealed conditions
   9.9.5.7 Record information for Work that is only schematically shown
   9.9.5.8 Maintenance forms for equipment

Contractor shall dedicate one complete full size set of the Contract Drawings and one complete Project Manual for use in recording as-built conditions.
Contractor shall submit to District in hard copy one original and two copies of all Project Record Documents. In addition, one electronic copy in electronic media format shall be submitted to District. District reserves the right to require resubmittal in accordance with these General Conditions if the documents are inaccurate or incomplete, or otherwise fail to meet the requirements of these Contract Documents.

9.9.6 Project Record Drawings

Mark-up Procedure: During the construction period, maintain a complete, current set of full size blackline prints of Contract Drawings and Shop Drawings for Project Record Documents purposes. Label each document (on first sheet or format page) "Project Record" in 2-inch high printed letters. Keep all record documents current.

A reference by number to a Change Order, CCD, RFI, RFQ, RFP, Field Order or other such document is not acceptable as sufficient record information on any record document. Do not conceal any Work until required record information has been recorded.

Contractor shall mark Record Drawings to indicate the actual installation where the installation varies appreciably from the installation shown originally. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later. Items required to be marked include, but are not limited to:

9.9.6.1 Dimensional changes to the Contract Drawings (horizontal and/or vertical)
9.9.6.2 Revisions or any modification to details shown on the Contract Drawings
9.9.6.3 Depths of various elements of foundations in relation to main floor level or survey datum.
9.9.6.4 Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
9.9.6.5 Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
9.9.6.6 Locations of underground work, points of connection with existing utilities, changes in direction, valves, manholes, catch basins, capped stub outs, invert elevations and similar items
9.9.6.7 Final, actual numbering of each electrical circuit
9.9.6.8 Revisions to routing of piping and conduits
9.9.6.9 Revisions to electrical circuitry
9.9.6.10 Actual equipment locations
9.9.6.11 Duct size and routing
9.9.6.12 Changes made by Change Order, CCD, ASI, or any other directive

9.9.6.13 Details not on original Contract Drawings

Contractor shall mark completely and accurately Project Record Drawing prints of Contract Drawings or Shop Drawings, whichever is the most capable of showing actual physical conditions. Where Shop Drawings are marked, show cross-reference on Contract Drawings location.

Contractor shall mark Project Record Drawing sets with red, erasable colored pencil; use other colors to distinguish between changes for different categories of the Work at the same location.

Contractor shall be responsible for Mark-up: Where feasible, the individual or entity who obtained Project Record Drawing data, whether the individual or entity is the installer, Subcontractor or similar entity, is required to prepare the mark-up on Project Record Drawings. Contractor shall prepare Record Drawings: Immediately prior to inspection for Certification of Substantial Completion of the Work, review completed marked-up Project Record Drawings with District, Project Inspector, Construction Manager, and Architect to ensure accuracy of information. Once accuracy of information is confirmed, prepare and submit a full set of as-built Contract Drawings and Shop Drawings.

Incorporate changes and additional information previously marked on print sets. Delete, redraw, and/or add details and notations where applicable. Identify and date each Drawing; include the printed designation "PROJECT RECORD DRAWING" and the date prepared in a prominent location on each Drawing.

Distribution: Whether or not changes and additional information were recorded, organize and bind original marked-up set of prints that were maintained during the construction period into manageable sets. Bind the set with durable paper cover sheets, with appropriate identification, including titles, dates and other information on cover sheets and submit to District.

9.9.7 Project Record Specification

Contractor shall, during the construction period, maintain one copy of the Project Specifications, including all addenda and all other modifications issued for Project Record Documents purposes.

Contractor shall mark the Project Record specifications to indicate the actual installation where the installation varies substantially from that indicated in Specifications and/or modifications issued. Note related Project Record Drawing information, where applicable. Give particular attention to substitutions, selection of product options, Change Order and Construction Change Directive Work, and information on concealed installation that would be difficult to identify, measure, and record later.

9.9.8 Project Record Product Data

Contractor shall, during the construction period, maintain one copy of each Project Record Product Data submittal for "Project Record Document" purposes.
Contractor shall arrange Project Record Product Data by Specification Section number, and provide names, addresses, fax numbers, emails addresses, and telephone number of Subcontractors and suppliers. Information to be provided includes:

9.9.8.1 Trade Names
9.9.8.2 Model or type numbers
9.9.8.3 Assembly diagrams
9.9.8.4 Operating instructions
9.9.8.5 Cleaning instructions
9.9.8.6 Maintenance instructions
9.9.8.7 Recommended spare parts
9.9.8.8 Product data

9.9.9 Miscellaneous Project Record Submittals

Refer to other Specification Sections for miscellaneous record keeping requirements and submittals. Immediately prior to Substantial Completion of the Work complete miscellaneous records and place in good order, properly identified, ready for use and reference. Submit to the District for District’s records, in Adobe PDF format.

9.9.10 Electronic Media Format

Electronic Media Format: Electronic media format for all Project Record Documents shall be Adobe PDF, with chapter markers and/or bookmarks inserted in place of the equivalent hard copy section tabs. Electronic copy shall include all tables, charts, drawings, codes and all other matters reflected in hard copies. Electronic media files shall be delivered on a unique CD-ROM or flash drive.

9.10 COMPLETION OF THE WORK

9.10.1 Contract Closeout Submittals include, but are not limited to:

9.10.1.1 Project record documents.
9.10.1.2 Operating and maintenance manuals and data
9.10.1.3 Warranties, guaranties, and bonds

9.10.2 Initial Punch List and Inspection

When Contractor considers Work to be Substantially Complete, submit written notice to District’s Representative requesting an Initial Inspection and listing items remaining to be completed or corrected listed by room number and item number (hereinafter “Initial Punch List”). The Contractor and/or its Subcontractors shall proceed promptly to complete and correct items on the list without waiting for District review of the Initial Punch List and inspection of the Work. Failure to include an item
on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

The Contractor shall not submit a notice requesting an Initial Inspection unless the Work is Substantially Complete.

9.10.2.1 Before calling for final inspection, Contractor shall determine that the following Work has been performed:

a. The Work has been completed.
b. All life safety items are completed and in working order.
c. Mechanical and electrical Work complete, fixtures in place, connected and ready for tryout and test.
d. Electrical circuits scheduled in panels and disconnect switches labeled.
e. Painting and special finishes complete.
f. Doors complete with hardware, cleaned of protective film relieved of sticking or binding and in working order.
g. Tops and bottoms of doors sealed.
h. Floors waxed and polished as specified.
i. Broken glass replaced and glass cleaned.
j. Grounds cleared of Contractor’s equipment, raked clean of debris, and trash removed from Site.
k. Work cleaned, free of stains, scratches, and other foreign matter, replacement of damaged and broken material.
l. Finished and decorative work shall have marks, dirt and superfluous labels removed.
m. Final cleanup.

9.10.2.2 Furnish a letter to District stating that a responsible representative of District [give name and position] has been instructed in working characteristics of mechanical and electrical equipment.

Should District’s Representatives determine that Work is not Substantially Complete, the Architect or Project Manager will promptly notify Contractor in writing, listing Work that must be completed prior to Substantial Completion. Any inspection list that is submitted to the District that does not result in a District determination of Substantial Completion will not be considered an accepted Initial Punch List. If the Work or Phase of Work is determined to not be Substantially Complete, Contractor shall complete all Work as directed prior to requesting an additional Initial Inspection by the District to determine Substantial Completion per this Specification Section.

Upon receipt of the Contractor’s Initial Punch List, and not before, the Architect, Project Manager, and Inspector will make an Initial Inspection to determine whether the Work, or Phase of Work, is Substantially Complete.

9.10.2.3 1. All fire and life safety items, manufactured units, equipment and systems that require startup must have been started, run, tested, and
operational for periods prescribed by the Contract Documents before a request for Initial Inspection is accepted by the District.

9.10.2.4 2. If additional Initial Inspections are required to review Initial Punch List items due to incompleteness of the Work by Contractor, Contractor will reimburse District for all costs associated with these inspections if additional services fees by District consultants are required. The costs of such District additional service fees will be deducted from the Contract Sum by Change Order.

9.10.3 Substantial Completion

When District determines that the Work is Substantially Complete, District will issue a Certificate of Substantial Completion, accompanied by Final Punch List of items to be completed or corrected as verified and/or appended by Architect and District.

When the Work is Substantially Complete, the District will file a Notice of Completion.

9.10.3.1 Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work unless otherwise provided in the Notice of Completion.

9.10.3.2 The Notice of Completion shall be submitted to the Contractor for their written acceptance of responsibilities assigned to them in such Notice prior to District filing the Notice of Completion for purposes of initiating the release of Retention for the Work or Phase of Work.

9.10.3.3 The District shall withhold from Contractor payment the value of remaining Work, Work to be corrected, incomplete Work, and an amount identified for Punch List Work, and as otherwise identified in Public Contract Code.

The Contractor shall complete the items listed in the Final Punch List within ten (10) working days of the Certificate of Substantial Completion. The Contractor shall execute the Work such that the District can occupy the Work within seven (7) calendar days of the date of the Certificate of Substantial Completion.

9.10.4 Final Inspection

When Contractor considers the items listed in the Final Punch List to be complete the Contractor shall submit written notice to District’s Representative requesting a Final Inspection.

Operations and Maintenance Manuals and Warranty and Guaranty documents. At least ten (10) days prior to final inspection, three (3) copies of complete operations and maintenance manuals, repair parts lists, service instructions for all electrical and mechanical equipment, and equipment warranties shall be submitted. All installation, operating, and maintenance information and drawings shall be bound in 8½” x 11” binders. Provide a table of contents in front and all items shall be indexed with tabs. Each manual shall also contain a list of subcontractors, with their addresses and the names of persons to contact in cases of emergency. Identifying labels shall provide names of manufactures, their addresses, ratings, and capacities of equipment and machinery. Additional requirements for Operations and Maintenance manuals may be found in other Specifications and Sections of the Contract Documents.
Upon receipt of the Contractor’s request for Final Inspection, and not before, the Contractor, Architect, and Project Manager, shall meet to go over the Contract Documents to identify the administrative requirements for contract close-out.

9.10.4.1 The Project Manager will prepare a list of requirements remaining for administrative close-out and shall provide the list to the Contractor. This list may be general in nature, and shall not serve to relieve the Contractor from any of the administrative requirements of the Contract.

9.10.4.2 The Contractor shall complete all items on the administrative close-out list within twenty-one (21) days.

Subsequent to the meeting to identify administrative close-out requirements, Architect, Project Manager, Campus Representatives, and Inspector will inspect the Work to determine whether the Work identified on the Final Punch List is complete.

If additional Final Inspections are required to review the Final Punch List items due to incompleteness of the Work by Contractor, Contractor will reimburse District for all costs associated with these inspections if additional services fees by District consultants are required. The costs of such District additional service fees will be deducted from the Contract Sum by Change Order.

When the Architect determines that all final punch list items have been completed, a final Project Inspection Report will be issued. Any outstanding administrative close-out requirements will be identified and a value for withholding from Progress Payment or Final Payment will be assigned.

The Project Inspector (IOR), the Project Manager, and the Contractor shall, at all times, be together during all inspections. The Contractor shall give 24-hour notice to the District for such inspections.

9.10.5 Final Completion

Final Completion occurs when all Work meets all requirements of the Contract Documents. When Contractor considers all Work complete and all close-out requirements have been performed, submitted, and accepted, submit written certification to District that:

9.10.5.1 Contractor has inspected Work for compliance with Contract Documents, and all requirements for Final Acceptance have been met.

9.10.5.2 Except for Contractor maintenance and Deferred or Seasonal Testing, after Final Acceptance, all Work has been completed in accordance with Contract Documents and deficiencies listed with any Certificate of Substantial Completion have been corrected. Equipment and systems have been tested in the presence of Architect, Project Inspector (IOR), Project Manager, Construction Manager, and District Representatives and are operative.

Should District determine that the Work is incomplete or defective or that administrative requirements have not been completed:
9.10.5.3 District’s Representative promptly will so notify Contractor, in writing, listing the incomplete or defective items.

9.10.5.4 Contractor shall promptly remedy all incomplete and/or defective Work and notify the District when it is ready for re-inspection. District’s Representatives will then re-inspect the Work. If deficiencies previously noted are found not to be corrected, Contractor shall pay all District costs for the re-inspection.

9.10.5.5 When District determines that all Work and requirements are complete under the Contract Documents, District or Project Manager will request Contractor to make a request for Final Payment.

9.11 PARTIAL OCCUPANCY OR USE

9.11.1 District’s Rights.

The District may occupy or use any completed or partially completed portion of the Work at any stage. The District and the Contractor shall agree in writing to the responsibilities assigned to each of them for payments, security, maintenance, heat, utilities, damage to the Work, insurance, the period for correction of the Work, and the commencement of warranties required by the Contract Documents. If District and Contractor cannot agree as to responsibilities such disagreement shall be resolved pursuant to Paragraph 4.5.1. When the Contractor considers a portion complete, the Contractor shall prepare and submit a Punch List to the District as provided under Paragraph 9.9.1.

9.11.2 Inspection Prior to Occupancy or Use.

Immediately prior to such partial occupancy or use, the District, the Contractor, and the Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

9.11.3 No Waiver.

Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of the Work not complying with the requirements of the Contract Documents.

9.12 COMPLETION AND FINAL PAYMENT

9.12.1 Final Inspection.

Contractor shall comply with all Punch List and Inspection procedures under Paragraph 9.10, and maintain the presence of project superintendent and project manager until the punch list is complete to ensure proper and timely completion of the punch list. Under no circumstances shall Contractor demobilize its forces prior to completion of the punch list. Upon receipt of Contractor’s written notice that all of the Punch List items have been fully completed and the Work is ready for final inspection and acceptance, Architect shall inspect the Work and shall submit to Contractor and District a
final inspection report noting the work, if any, required in order to complete in accordance with the Contract Documents. Absent unusual circumstances, this report shall consist of the Punch List items not yet satisfactorily completed.

Upon completion of the Work contained in the final inspection report, the Contractor shall notify the District and Architect, who shall again inspect such Work. If the Architect and the District finds the Work contained in such final inspection report acceptable under the Contract Documents and, therefore, the Work fully completed, it shall notify Contractor, who shall then submit to the Architect its final Application for Payment.

Upon receipt and approval of such final Application for Payment, the Architect shall issue a final Certificate of Payment stating that to the best of its knowledge, information, and belief, and on the basis of its observations, inspections, and all other data accumulated or received by the Architect in connection with the Work, such Work has been completed in accordance with the Contract Documents. The District shall thereupon inspect such Work and either accept the Work as complete or notify the Architect and the Contractor in writing of reasons why the Work is not complete. Upon acceptance of the Work of the Contractor as fully complete (which, absent unusual circumstances, will occur when the Punch List items have been satisfactorily completed), the District shall record a Notice of Completion with the County Recorder, and the Contractor shall, upon receipt of payment from the District, pay the amounts due Subcontractors.

9.12.2 Retainage.

The retainage, less any amounts disputed by the District or which the District has the right to withhold Pursuant to Paragraph 9.6, shall be paid after approval of the District by the Architect’s Certificate of Payment, after the satisfaction of the conditions set forth in Article 9, and after thirty-five (35) days after the acceptance of the Work and recording of the Notice of Completion by District. No interest shall be paid on any retainage, or on any amounts withheld due to a failure of the Contractor to perform, in accordance with the terms and conditions of the Contract Documents, except as provided to the contrary in any Escrow Agreement between the District and the Contractor pursuant to Public Contract Code § 22300.

9.12.3 Procedures for Application for Final Payment.

9.12.3.1 Prerequisites for Final Payment. The following conditions must be fulfilled prior to Final Payment:

(a) A full and final waiver or release of all Stop Notices in connection with the Work shall be submitted by Contractor, including a release of Stop Notice in recordable form, together with (to the extent permitted by law) a copy of the full and final release of all Stop Notice rights.

(b) The Contractor shall have made all corrections to the Work which are required to remedy any defects therein, to obtain compliance with the Contract Documents or any requirements of applicable codes and ordinances, or to fulfill any of the orders or directions of District required under the Contract Documents.
(c) Each Subcontractor shall have delivered to the Contractor all written guarantees, warranties, applications, and bonds required by the Contract Documents for its portion of the Work.

(d) Contractor must have completed all requirements set forth in Paragraph 9.9.1.2.

(e) Architect shall have issued a Final Certificate of Payment.

(f) The Contractor shall have delivered to the District all manuals and materials required by the Contract Documents.

(g) The Contractor shall have completed final clean up as required by Paragraph 3.12.

9.13 SUBSTITUTION OF SECURITIES

The District will permit the substitution of securities in accordance with the provisions of Public Contract Code section 22300.

ARTICLE 10

PROTECTION OF PERSONS AND PROPERTY

10.1 SAFETY PRECAUTIONS AND PROGRAMS

10.1.1 Contractor Responsibility.

The Contractor is constructive owner of Project site. The Contractor shall be responsible for all damages to persons or property that occur as a result of its fault or negligence in connection with the prosecution of this Contract and shall take all necessary measures and be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance by the District. All work shall be solely at the Contractor’s risk, with the exception of damage to the work caused by “acts of God” as defined in Public Contract Code Section 7105(b)(2).

Contractor shall take, and require subcontractor to take, all necessary precautions for safety of workers on the Work and shall comply with all applicable federal, state, local and other safety laws, standards, orders, rules, regulations, and building codes to prevent accidents or injury to persons on, about, or adjacent to premises where Work is being performed and to provide a safe and healthful place of employment. In addition to meeting all requirements of OSHA, Cal-OSHA, state, and local codes, Contractor shall furnish, erect and properly maintain at all times, as directed by District or Architect or required by conditions and progress of work, all necessary safety devices, safeguards, construction canopies, signs, audible devices for protection of the blind, safety rails, belts and nets, barriers, lights, and watchmen for protection of workers and the public, and shall post danger signs warning against hazards created by such features in the course of construction. Contractor shall designate a responsible member of its organization on the Work, whose duty shall be to post information regarding protection and obligations of workers and other notices required under occupational safety and health laws, to comply with reporting and other occupational safety requirements, and to protect the life, safety and health of workers. The name and position of person so designated shall be reported to District by Contractor. Contractor shall correct any violations of safety laws, rules, orders, standards, or
regulations. Upon the issuance of a citation or notice of violation by the Division of Occupational Safety and Health, such violation shall be corrected promptly.

The Contractor and Subcontractors shall continuously protect the Work, the District’s property, and the property of others, from damage, injury, or loss arising in connection with operations under the Contract Documents. The Contractor and Subcontractors, at their own expense, shall make good any such damage, injury, or loss, except such as may be solely due to, or caused by, agents or employees of the District.

10.1.2 Subcontractor Responsibility.

Contractor shall require that Subcontractors participate in, and enforce, the safety and loss prevention programs established by the Contractor for the Project, which will cover all Work performed by the Contractor and its Subcontractors. Each Subcontractor shall designate a responsible member of its organization whose duties shall include loss and accident prevention, and who shall have the responsibility and full authority to enforce the program. This person shall attend meetings with the representatives of the various Subcontractors employed to ensure that all employees understand and comply with the programs.

10.1.3 Cooperation.

All Subcontractors and material or equipment suppliers, shall cooperate fully with Contractor, the District, and all insurance carriers and loss prevention engineers.

10.1.4 Accident Reports.

Subcontractors shall immediately, within two (2) days, report in writing to the Contractor all accidents whatsoever arising out of, or in connection with, the performance of the Work, whether on or off the Site, which caused death, personal injury, or property damage, giving full details and statements of witnesses. In addition, if death or serious injuries or serious damages are caused, the accident shall be reported within four (4) days by telephone or messenger. Contractor shall thereafter immediately, within two (2) days, report the facts in writing to the District and the Architect giving full details of the accident.

10.1.5 First-Aid Supplies at Site.

The Contractor will provide and maintain at the Site first-aid supplies which complies with the current Occupational Safety and Health Regulations.

10.1.6 Material Safety Data Sheets and Compliance with Proposition 65.

(a) Contractor is required to have material safety data sheets available in a readily accessible place at the job site for any material requiring a material safety data sheet per the Federal “hazard communication” standard, or employees’ “right-to-know law.” The Contractor is also required to properly label any substance brought into the job site, and require that any person working with the material, or within the general area of the material, is informed of the hazards of the substance and follows proper handling and protection procedures.
Contractor is required to comply with the provisions of California Health and Safety Code section 25249, et seq., which requires the posting and giving of notice to persons who may be exposed to any chemical known to the State of California to cause cancer. The Contractor agrees to familiarize itself with the provisions of this section, and to comply fully with its requirements.

10.1.7 Non-Utilization of Asbestos Material.

NO ASBESTOS OR ASBESTOS-CONTAINING PRODUCTS SHALL BE USED IN THIS CONSTRUCTION OR IN ANY TOOLS, DEVICES, CLOTHING, OR EQUIPMENT USED TO EFFECT THIS CONSTRUCTION.

Asbestos and/or asbestos-containing products shall be defined as all items containing, but not limited to, chrysotile, amosite, anthophyllite, tremolite, and actinolite.

Any or all material containing greater than one-tenth of one percent (>.1%) asbestos shall be defined as asbestos-containing material.

All Work or materials found to contain asbestos or Work or material installed with asbestos-containing equipment will be immediately rejected and this Work will be removed at no additional cost to the District.

Decontamination and removal of Work found to contain asbestos or Work installed with asbestos-containing equipment shall be done only under supervision of a qualified consultant, knowledgeable in the field of asbestos abatement and accredited by the Environmental Protection Agency.

The asbestos removal contractor shall be an EPA accredited contractor qualified in the removal of asbestos and shall be chosen and approved by the asbestos consultant, who shall have sole discretion and final determination in this matter.

The asbestos consultant shall be chosen and approved by the District, who shall have sole discretion and final determination in this matter.

The Work will not be accepted until asbestos contamination is reduced to levels deemed acceptable by the asbestos consultant.

Interface of Work under this Contract with work containing asbestos shall be executed by the Contractor at his risk and at his discretion, with full knowledge of the currently accepted standards, hazards, risks, and liabilities associated with asbestos work and asbestos-containing products. By execution of this Contract, the Contractor acknowledges the above and agrees to hold harmless District and its assigns for all asbestos liability which may be associated with this work and agrees to instruct his employees with respect to the above-mentioned standards, hazards, risks, and liabilities.
10.2  **SAFETY OF PERSONS AND PROPERTY**

10.2.1 The Contractor.

The Contractor shall take reasonable precautions for the safety of, and shall provide reasonable protection to prevent damage, injury, or loss to:

(a) Employees on the Work and other persons who may be affected thereby;

(b) The Work, material, and equipment to be incorporated therein, whether in storage on or off the Site, under the care, custody, or control of the Contractor or the Contractor’s Subcontractors or Sub-subcontractors; and

(c) Other property at the Site or adjacent thereto such as trees, shrubs, lawns, walks, pavement, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

Contractor is constructive owner of Project site as more fully discussed in Paragraph 6.2.

10.2.2 Contractor Notices.

The Contractor shall give notices and comply with applicable laws, ordinances, rules, regulations, and lawful orders of public authorities bearing on the safety of persons or property or their protection from damage, injury, or loss.

10.2.3 Safety Barriers and Safeguards.

The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations, and notifying owners and users of adjacent sites and utilities.

10.2.4 Use or Storage of Hazardous Material.

When use or storage of explosives, other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel. The Contractor shall notify the District any time that explosives or hazardous materials are expected to be stored on Site. Location of storage shall be coordinated with the District and local fire authorities.

10.2.5 Protection of Work.

The Contractor and Subcontractors shall continuously protect the Work, the District’s property, and the property of others, from damage, injury, or loss arising in connection with operations under the Contract Documents. The Contractor and Subcontractors, at their own expense, shall make good any such damage, injury, or loss, except such as may be solely due to, or caused by, agents or employees of the District.
The Contractor, at Contractor’s expense, will remove all mud, water, or other elements as may be required for the proper protection and prosecution of its Work.

Contractor shall take adequate precautions to protect existing roads, sidewalks, curbs, pavements, utilities, adjoining property and structures (including, without limitation, protection from settlement or loss of lateral support), and to avoid damage thereto, and repair any damage thereto caused by construction operations. All permits, licenses, or inspection fees required for such repair Work shall be obtained and paid for by Contractor.

10.2.6 Requirements for Existing Sites.

Contractor shall (unless waived by the District in writing):

(a) When performing construction on existing sites, become informed and take into specific account the maturity of the students on the Site; and perform Work which may interfere with campus routine before or after campus hours, enclose working area with a substantial barricade, and arrange Work to cause a minimum amount of inconvenience and danger to students and faculty in their regular campus activities. The Contractor shall comply with specifications and directives of the District regarding the timing of certain construction activities in order to avoid unnecessary interference with the campus’ functions.

(b) Provide substantial barricades around any shrubs or trees indicated to be preserved.

(c) Deliver materials to building area over route designated by Architect.

(d) Take preventive measures to eliminate objectionable dust, noise, or other disturbances.

(e) Confine apparatus, the storage of materials, and the operations of workers to limits indicated by law, ordinances, permits or directions of Architect; and not interfere with the Work or unreasonably encumber premises or overload any structure with materials; and enforce all instructions of District and Architect regarding signs, advertising, fires, and smoking and require that all workers comply with all regulations while on the Project site.

(f) Take care to prevent disturbing or covering any survey markers, monuments, or other devices marking property boundaries or corners. If such markers are disturbed by accident, they shall be replaced by an approved land surveyor or civil engineer and all maps and records required therefrom shall be filed with county and local authorities, at no cost to the District. All filing and plan check fees shall be paid by Contractor.

(g) Provide District on request with Contractor’s written safety program and safety plan for each site.

10.2.7 Shoring and Structural Loading.

The Contractor shall not impose structural loading upon any part of the Work under construction or upon existing construction on or adjacent to the Site in excess of safe limits, or loading such as to result in damage to the structural, architectural, mechanical, electrical, or other components of the Work. The design of all temporary construction equipment and appliances used in construction of the Work and not a permanent part thereof, including, without limitation, hoisting equipment, cribbing, shoring, and temporary bracing of structural steel, is the sole responsibility of the Contractor.
All such items shall conform with the requirements of governing codes and all laws, ordinances, rules, regulations, and orders of all authorities having jurisdiction. The Contractor shall take special precautions, such as shoring of masonry walls and temporary tie bracing of structural steel work, to prevent possible wind damage during construction of the Work. The installation of such bracing or shoring shall not damage the Work in place or the Work installed by others. Any damage which does occur shall be promptly repaired by the Contractor at no cost to the District.

10.2.8 Conformance Within Established Limits.

The Contractor and Subcontractors shall confine their construction equipment, the storage of materials, and the operations of workers to the limits indicated by laws, ordinances, permits, and the limits established by the District or the Contractor, and shall not unreasonably encumber the premises with construction equipment or materials.

10.2.9 Subcontractor Enforcement of Rules.

Subcontractors shall enforce the District’s and the Contractor’s instructions, laws, and regulations regarding signs, advertisements, fires, smoking, the presence of liquor, and the presence of firearms by any person at the Site.

10.2.10 Site Access.

The Contractor and the Subcontractors shall use only those ingress and egress routes designated by the District, observe the boundaries of the Site designated by the District, park only in those areas designated by the District, which areas may be on or off the Site, and comply with any parking control program established by the District, such as furnishing license plate information and placing identifying stickers on vehicles.

10.3 EMERGENCIES

10.3.1 Emergency Action.

In an emergency affecting the safety of persons or property, the Contractor shall take any action necessary, at the Contractor’s discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 7.

10.3.2 Accident Reports.

The Contractor shall promptly report in writing to the District all accidents arising out of or in connection with the Work, which caused death, personal injury, or property damage, giving full details and statements of any witnesses in conformance with Article 10.1.4. In addition, if death, serious personal injuries, or serious property damages are caused, the accident shall be reported in accordance with Paragraph 10.1.4, immediately by telephone or messenger to the District.
10.4 **HAZARDOUS MATERIALS**

10.4.1 Discovery of Hazardous Materials.

In the event the Contractor encounters or suspects the presence on the job site of material reasonably believed to be asbestos, polychlorinated biphenyl (PCB), or any other material defined as being hazardous by § 25249.5 of the California Health and Safety Code, which has not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the District and the Architect in writing, whether or not such material was generated by the Contractor or the District. The Work in the affected area shall not thereafter be resumed, except by written agreement of the District and the Contractor, if in fact the material is asbestos, polychlorinated biphenyl (PCB), or other hazardous material, and has not been rendered harmless. The Work in the affected area shall be resumed only in the absence of asbestos, polychlorinated biphenyl (PCB), or other hazardous material, or when it has been rendered harmless by written agreement of the District and the Contractor.

If hazardous materials are encountered, they shall be handled in accordance with applicable local, state and federal regulation which may include: (1) CCR Title 8, Division 4, Chapter 4, Sections 5163 through 5167 and 5192 (Hazardous Waste Operations and Emergency Response); (2) CCR Title 22, Division 4.5, Chapters 10 through 13 and 18 (Environmental Health Standards for Management of Hazardous Waste); and (3) CCR Title 23, Division 3, Chapter 15 (Discharges of Hazardous Waste to Land).

Should the discovery of contaminants cause delay to Contractor’s operation, extension of Contract Time will be granted by District in accordance with these General Conditions. Contractor may not be entitled to damages or additional payment due to such delays. District may, if it believes appropriate in its sole discretion, grant an extension of Contract Time.

The Contractor shall take all measures to avoid and/or mitigate delays due to Hazardous Materials/Waste finds such as; avoiding the area of the find and proceeding with other work on the project; developing “work around” plans; and documenting his best efforts to avoid and/or mitigate delays.

10.4.2 Hazardous Material Work Limitations.

In the event that the presence of hazardous materials is suspected or discovered on the Site (except in cases where asbestos and other hazardous material work in the Contractor’s responsibility), the District shall retain an independent testing laboratory to determine the nature of the material encountered and whether corrective measures or remedial action is required. The Contractor shall not be required pursuant to Article 7 to perform without consent any Work in the affected area of the Site relating to asbestos, polychlorinated biphenyl (PCB), or other hazardous material, until any known or suspected hazardous material has been removed, or rendered harmless, or determined to be harmless by District, as certified by an independent testing laboratory and approved by the appropriate government agency.
10.4.3 Indemnification by Contractor for Hazardous Material Caused by Contractor.

In the event the hazardous materials on the Project Site is caused by the Contractor, the Contractor shall pay for all costs of testing and remediation, if any, and shall compensate the District for any additional costs incurred as a result of Contractor’s generation of hazardous material on the Project Site. In addition, the Contractor shall defend, indemnify and hold harmless District and its agents, officers, and employees from and against any and all claims, damages, losses, costs and expenses incurred in connection with, arising out of, or relating to, the presence of hazardous material on the Project Site.

10.4.4 Terms of Hazardous Material Provision.

The terms of this Hazardous Material provision shall survive the completion of the Work and/or any termination of this Contract.

ARTICLE 11

INSURANCE AND BONDS

11.1 CONTRACTOR’S LIABILITY INSURANCE

11.1.1 Insurance Requirements.

Before the commencement of the Work, the Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in California as admitted carriers with a financial rating of at least an A status as rated in the most recent edition of Best’s Insurance Reports or as amended by the Supplementary General Conditions, such insurance as will protect the District from claims set forth below, which may arise out of or result from the Contractor’s operations under the Contract and for which the Contractor may be legally liable, whether such operations are by the Contractor, by a Subcontractor, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

(a) Claims for damages because of bodily injury, sickness, disease, or death of any person District would require indemnification and coverage for employee claim;
(b) Claims for damages insured by usual personal injury liability coverage, which are sustained by a person as a result of an offense directly or indirectly related to employment of such person by the Contractor or by another person;
(c) Claims for damages because of injury or destruction of tangible property, including loss of use resulting therefrom, arising from operations under the Contract Documents;
(d) Claims for damages because of bodily injury, death of a person, or property damage arising out of the ownership, maintenance, or use of a motor vehicle, all mobile equipment, and vehicles moving under their own power and engaged in the Work;
(e) Claims involving contractual liability applicable to the Contractor’s obligations under the Contract Documents, including liability assumed by and the indemnity and defense obligations of the Contractor and the Subcontractors; and

(f) Claims involving Completed Operations, Independent Contractors’ coverage, and Broad Form property damage, without any exclusions for collapse, explosion, demolition, underground coverage, and excavating. (XCU)

(g) Claims involving sudden or accidental discharge of contaminants or pollutants.

11.1.2 Subcontractor Insurance Requirements.

The Contractor shall require its Subcontractors to take out and maintain similar public liability insurance and property damage insurance required under Paragraph 11.1.1 in like amounts. A “claims made” or modified “occurrence” policy shall not satisfy the requirements of Paragraph 11.1.1 without prior written approval of the District.

11.1.3 Additional Insured Endorsement Requirements.

The Contractor shall name, on any policy of insurance required under Paragraph 11.1, the District, Architect, Inspector, the State of California, their officers, employees, agents and independent contractors as additional insureds. Subcontractors shall name the Contractor, the District, Architect, Inspector, the State of California, their officers, employees, agents and independent contractors as additional insureds. The Additional Insured Endorsement included on all such insurance policies shall be a CG 2010 (11/85) or CG 2010 (10/93) form and state that coverage is afforded the additional insured with respect to claims arising out of operations performed by or on behalf of the insured. If the additional insureds have other insurance which is applicable to the loss, such other insurance shall be on an excess or contingent basis. The insurance provided by the Contractor pursuant to 11.1.1 must be designated in the policy as primary to any insurance obtained by the District. The amount of the insurer’s liability shall not be reduced by the existence of such other insurance.

11.1.4 Specific Insurance Requirements.

Contractor shall take out and maintain and shall require all subcontractors, if any, whether primary or secondary, to take out and maintain:

1. Comprehensive General Liability Insurance with a combined single limit per occurrence of not less than $1,000,000.00 and $2,000,000.00 project specific aggregate, or Commercial General Liability Insurance (including automobile insurance) which provides limits of not less than:

   (a) Per occurrence (combined single limit) ................................. $1,000,000.00
   (b) Project Specific Aggregate (for this project only) .................. $2,000,000.00
   (c) Products and Completed Operations ..................................... $1,000,000.00

2. Insurance Covering Special Hazards
The following Special hazards shall be covered by riders or riders to above mentioned public liability insurance or property damage insurance policy or policies of insurance, in amounts as follows:

(a) Automotive and truck where operated in amounts ............... $1,000,000.00
(b) Material Hoist where used in amounts ............................ $1,000,000.00
(c) Explosion, Collapse and Underground (XCU coverage) ................................................................. $1,000,000.00

3. In addition, provide Excess Liability Insurance coverage in the amount of Two Million Dollars ($2,000,000.00).

11.2 WORKERS’ COMPENSATION INSURANCE

During the term of this Contract, the Contractor shall provide workers’ compensation insurance for all of the Contractor’s employees engaged in Work under this Contract on or at the Site of the Project and, in case any of the Contractor’s Work is subcontracted, the Contractor shall require the Subcontractor to provide workers’ compensation insurance for all the Subcontractor’s employees engaged in Work under the subcontract. Any class of employee or employees not covered by a Subcontractor’s insurance shall be covered by the Contractor’s insurance. In case any class of employees engaged in Work under this Contract on or at the Site of the Project is not protected under the Workers’ Compensation laws, the Contractor shall provide or cause a Subcontractor to provide adequate insurance coverage for the protection of those employees not otherwise protected. The Contractor shall file with the District certificates of insurance as required under Paragraph 11.6 and in compliance with Labor Code § 3700.

11.3 BUILDER’S RISK/ “ALL RISK” INSURANCE

11.3.1 Course-of-Construction Insurance Requirements.

The Contractor, during the progress of the Work and until final acceptance of the Work by District upon completion of the entire Contract, shall maintain Builder’s Risk, Course of Construction or similar first party property coverage issued on a replacement cost value basis consistent with the total replacement cost of all insurable Work and the Project included within the Contract Documents. Coverage is to insure against all risks of accidental direct physical loss, and must include, by the basic grant of coverage or by endorsement, the perils of vandalism, malicious mischief (both without any limitation regarding vacancy or occupancy), fire, sprinkler leakage, civil authority, sonic boom, earthquake, flood, collapse, wind, lightning, smoke and riot. The coverage must include debris removal, demolition, increased costs due to enforcement of building ordinance and law in the repair and replacement of damage and undamaged portions of the property, and reasonable costs for the Architect’s and engineering services and expenses required as a result of any insured loss upon the Work and Project which is the subject of the Contract Documents, including completed Work and Work in progress, to the full insurable value thereof. Such insurance shall include the District and the Architect as additional named insureds, and any other person with an insurable interest as designated by the District.
The Contractor shall submit to the District for its approval all items deemed to be uninsurable. The risk of the damage to the Work due to the perils covered by the “Builder’s Risk/All Risk” Insurance, as well as any other hazard which might result in damage to the Work, is that of the Contractor and the surety, and no claims for such loss or damage shall be recognized by the District nor will such loss or damage excuse the complete and satisfactory performance of the Contract by the Contractor.

11.4 **FIRE INSURANCE**

Before the commencement of the Work, the Contractor shall procure, maintain, and cause to be maintained at the Contractor’s expense, fire insurance on all Work subject to loss or damage by fire. The amount of fire insurance shall be sufficient to protect the Project against loss or damage in full until the Work is accepted by the District.

11.5 **OTHER INSURANCE**

The Contractor shall provide all other insurance required to be maintained under applicable laws, ordinances, rules, and regulations.

11.6 **PROOF OF INSURANCE**

The Contractor shall not commence Work nor shall it allow any Subcontractor to commence Work under this Contract until all required insurance and certificates have been obtained and delivered in duplicate to the District for approval subject to the following requirements:

(a) Certificates and insurance policies shall include the following clause:

“This policy shall not be non-renewed, canceled, or reduced in required limits of liability or amounts of insurance until notice has been mailed to the District. Date of cancellation or reduction may not be less than thirty (30) days after the date of mailing notice.”

(b) Certificates of insurance shall state in particular those insured, the extent of insurance, location and operation to which the insurance applies, the expiration date, and cancellation and reduction notices.

(c) Certificates of insurance shall clearly state that the District and the Architect are named as additional insureds under the policy described and that such insurance policy shall be primary to any insurance or self-insurance maintained by District.

(d) The Contractor and its Subcontractors shall produce a certified copy of any insurance policy required under this Section upon written request of the District.

11.7 **COMPLIANCE**

In the event of the failure of any contractor to furnish and maintain any insurance required by this Article 11, the Contractor shall be in default under the Contract. Compliance by Contractor with the requirement to carry insurance and furnish certificates or policies evidencing the same shall not relieve
the Contractor from liability assumed under any provision of the Contract Documents, including, without limitation, the obligation to defend and indemnify the District and the Architect.

11.8 WAIVER OF SUBROGATION

Contractor waives (to the extent permitted by law) any right to recover against the District for damages to the Work, any part thereof, or any and all claims arising by reason of any of the foregoing, but only to the extent that such damages and/or claims are covered by property insurance and only to the extent of such coverage (which shall exclude deductible amounts) by insurance actually carried by the District.

The provisions of this section are intended to restrict each party to recovery against insurance carriers only to the extent of such coverage and waive fully and for the benefit of each, any rights and/or claims which might give rise to a right of subrogation in any insurance carrier. The District and the Contractor shall each obtain in all policies of insurance carried by either of them, a waiver by the insurance companies thereunder of all rights of recovery by way of subrogation for any damages or claims covered by the insurance.

11.9 PERFORMANCE AND PAYMENT BONDS

11.9.1 Bond Requirements.

Unless otherwise specified in the Contract Documents, prior to commencing any portion of the Work, the Contractor shall furnish separate payment and performance bonds for its portion of the Work which shall cover 100% faithful performance of and payment of all obligations arising under the Contract Documents and/or guaranteeing the payment in full of all claims for labor performed and materials supplied for the Work. All bonds shall be provided by a corporate surety authorized and admitted to transact business in California as sureties.

To the extent, if any, that the Contract Price is increased in accordance with the Contract Documents, the Contractor shall, upon request of the District, cause the amount of the bonds to be increased accordingly and shall promptly deliver satisfactory evidence of such increase to the District. To the extent available, the bonds shall further provide that no change or alteration of the Contract Documents (including, without limitation, an increase in the Contract Price, as referred to above), extensions of time, or modifications of the time, terms, or conditions of payment to the Contractor will release the surety. If the Contractor fails to furnish the required bonds, the District may terminate the Contract for cause.

11.9.2 Surety Qualification.

Only bonds executed by admitted Surety insurers as defined in Code of Civil Procedure § 995.120 shall be accepted. Surety must be a California-admitted surety and listed by the U.S. Treasury with a bonding capacity in excess of the Project cost.
11.9.3 Alternate Surety Qualifications.

If a California-admitted surety insurer issuing bonds does not meet these requirements, the insurer will be considered qualified if it is in conformance with § 995.660 of the California Code of Civil Procedure and proof of such is provided to the District.

ARTICLE 12

UNCOVERING AND CORRECTION OF WORK

12.1 UNCOVERING OF WORK

12.1.1 Uncovering Work for Required Inspections.

If a portion of the Work is covered without Inspector or Architect approval or not in compliance with the Contract Documents, it must, if required in writing by the Inspector or the Architect, be uncovered for the Inspector’s or the Architect’s observation and be replaced at the Contractor’s expense without change in the Contract Sum or Time.

12.1.2 Costs for Inspections not Required.

If a portion of the Work has been covered which the Inspector or the Architect has not specifically requested to observe prior to its being covered, the Inspector or the Architect may request to see such Work, and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncover and replacement shall, by appropriate Change Order, be charged to the District. If such Work is not in accordance with Contract Documents, the Contractor shall pay such costs unless the condition was caused by the District or a separate contractor, in which event the District shall be responsible for payment of such costs to the Contractor.

12.2 CORRECTION OF WORK

12.2.1 Correction of Rejected Work.

The Contractor shall promptly correct the Work rejected by the Inspector or the District upon recommendation of the Architect as failing to conform to the requirements of the Contract Documents, whether observed before or after Completion and whether or not fabricated, installed, or completed. The Contractor shall bear costs of correcting the rejected Work, including additional testing, inspections, and compensation for the Inspector’s or the Architect’s services and expenses made necessary thereby.

12.2.2 One-Year Warranty or Guaranty Corrections.

If, within one (1) years after the date of Completion of the Work or a designated portion thereof, or after the date for commencement of warranties and guaranties established under this Contract, or by the terms of an applicable special warranty or guaranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the District to do so unless the District has previously given the Contractor a written acceptance of such condition.
This period of one (1) years shall be extended with respect to portions of the Work first performed after Completion by the period of time between Completion and the actual performance of the Work. This obligation under this Paragraph 12.2.2 shall survive acceptance of the Work under the Contract and termination of the Contract. The District shall give such notice promptly after discovery of the condition.

12.2.3 District’s Rights if Contractor Fails to Correct.

If the Contractor fails to correct nonconforming Work within a reasonable time, the District may correct it, pursuant to Article 9.

ARTICLE 13

MISCELLANEOUS PROVISIONS

13.1 GOVERNING LAW AND REGULATIONS

The Contract shall be governed by the law of the place where the Project is located.
13.1.1 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 Proposals, except as may be otherwise specifically stated in the Contract Documents.

13.1.2 No change order shall be considered for any change in any applicable federal, state or local code or regulation if similar language existed in an alternate applicable regulation in force at the time of opening of Bids.

13.1.3 Contractor shall not allow design or construction of any conditions wherein the finished Work will not comply with current applicable codes. No change order shall be considered by District for the Work correction of any Work not complying with code.

13.1.4 This section shall cover the general requirements for regulatory requirements pertaining to the Work and is supplementary to all other regulatory requirements mentioned or referenced elsewhere in the Contract Documents.

13.1.5 Code, laws, ordinances, rules and regulations referred to shall have full force and effect as though printed in full in these Specifications. Code, laws, ordinances, rules and regulations are not furnished to Contractor because Contractor is assumed to be and shall be familiar with these requirements, including readily available access to these requirements. The listing of applicable codes, laws, and regulations 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 laws, regulations or ordinances having application to the Work. Where conflict among the requirements or with these Specifications occurs, the most stringent requirements shall be used with no change in Contract Sum or Contract Time.

13.1.6 Contractor shall conform to all applicable federal, state, and local codes, laws, ordinances, rules and regulations, whether or not referenced in the Contract Documents.

13.1.7 Precedence:

13.1.7.1 Where specified requirements differ from the requirements of applicable codes, ordinances and standards, the more stringent requirements shall take precedence.

13.1.7.2 Where Contract Documents require or describe products or execution of better quality, higher standard or greater size than required by applicable codes, ordinances and standards, Contract Documents shall take precedence so long as such increase is legal.

13.1.7.3 Where no requirements are identified on Contract Documents, comply with all requirements of applicable codes, ordinances and standards of governing authorities have jurisdiction.
13.2 **SUCCESSORS AND ASSIGNS**

The District and the Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to the other party hereto and to partners, successors, assigns, and legal representatives of such other party in respect to covenants, agreements, and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

13.3 **WRITTEN NOTICE**

In the absence of specific notice requirements in the Contract Documents, written notice shall be deemed to have been duly served if delivered in person to the individual, member of the firm or entity, or to an officer of the corporation for which it was intended, or if delivered at or sent by registered or certified mail to the last business address known to the party giving notice.

13.4 **RIGHTS AND REMEDIES**

13.4.1 **Duties and Obligations Cumulative.**

Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

13.4.2 **No Waiver.**

No action or failure to act by the Inspector, the District, or the Architect shall constitute a waiver of a right or duty afforded them under the Contract Documents, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.

13.5 **TESTS AND INSPECTIONS**

13.5.1 **Compliance.**

Tests, inspections, and approvals of portions of the Work required by the Contract Documents will comply with Title 24, and with all other laws, ordinances, rules, regulations, or orders of public authorities having jurisdiction.

13.5.2 **Independent Testing Laboratory.**

The District will select and pay an independent testing laboratory to conduct all tests and inspections required by regulatory agencies. Selection of the materials required to be tested shall be made by the laboratory and not by the Contractor. All costs for all other tests shall be included in the Bid Price and shall be paid for by the Contractor. Any costs or expenses of inspection or testing required by regulatory agencies, incurred outside of a fifty (50) mile radius from the Project Site or not located in...
a contiguous county to the Site, whichever distance is greater, shall be paid for by the District, invoiced by the District to the Contractor, and deducted from the next Progress Payment.

13.5.3 Contractor Responsibilities

13.5.3.1 All sampling shall be done by the laboratory exclusively. Samples shall be selected by laboratory personnel. Allow proper time for selecting samples, and making tests or considerations.

13.5.3.2 Cooperate with laboratory personnel, and provide access to work and to manufacturer’s facilities.

13.5.3.3 Provide incidental labor and facilities to provide access to work to be tested, as selected by laboratory personnel at the site or at source of products to be tested, to facilitate tests and inspections, and for storage and curing of test samples.

13.5.3.4 Schedule all tests and inspections with the testing and inspections firm and to notify Project Manager and Project Inspector a minimum of 3 working days prior to expected time for operations requiring inspection and testing services. Do not allow work to be covered prior to inspection and testing.

13.5.3.5 Cooperate fully with the testing laboratory’s personnel and with special inspectors in inspection any part of the construction and in taking any samples of materials required to be tested. Provide access to the work.

13.5.3.6 Alert the testing laboratory 3 working days in advance as to the times and location of the required sampling, tests and inspections so as to not delay the work of the project, and make sure that the required sampling, tests inspections are promptly completed.

13.5.4 Test/Inspection Reports: Contractor paid non-DSA related test/inspection reports.

13.5.4.1 Reports will comply with Section 4-335(d), Part 1, Title 24, CCR.

13.5.4.2 Include every test and inspection made regardless of whether such tests and inspections indicate that the material and procedures are satisfactory or unsatisfactory.

13.5.4.3 Include records of special sampling operations as required.

13.5.4.4 Indicate that materials were sampled and tested in accordance with requirements of CCR regulations and Construction Documents.

13.5.4.5 Indicate specified design strength of materials such as masonry, concrete and steel.

13.5.4.6 State whether or not materials and procedures comply with requirements of the Construction Documents.

13.5.4.7 Submit copies of reports to DSA, Construction Manager, District, Architect, Project Inspector, Structural Engineer, Civil Engineer, Soils Engineer and Contractor within 14 days of tests. Submit copies of reports of non-complying materials and procedures immediately.
13.5.5 Advance Notice to Inspector.

The Contractor shall notify the Inspector a sufficient time in advance of its readiness for required observation or inspection so that the Inspector may arrange for same. The Contractor shall notify the Inspector a sufficient time in advance of the manufacture of material to be supplied under the Contract Documents which must, by terms of the Contract Documents, be tested in order that the Inspector may arrange for the testing of the material at the source of supply.

13.5.6 Testing Off-Site.

Any material shipped by the Contractor from the source of supply, prior to having satisfactorily passed such testing and inspection or prior to the receipt of notice from said Inspector that such testing and inspection will not be required, shall not be incorporated in the Work.

13.5.7 Additional Testing or Inspection.

If the Inspector, the Architect, the District, or public authority having jurisdiction determines that portions of the Work require additional testing, inspection, or approval not included under Paragraph 13.5.1, the Inspector will, upon written authorization from the District, make arrangements for such additional testing, inspection, or approval. The District shall bear such costs except as provided in Paragraph 13.5.7.

13.5.8 Costs for Retesting.

If such procedures for testing, inspection, or approval under Paragraphs 13.5.1 and 13.5.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, the Contractor shall bear all costs arising from such failure, including those of re-testing, re-inspection, or re-approval, including, but not limited to, compensation for the Architect’s services and expenses. Any such costs shall be paid by the District, invoiced to the Contractor, and deducted from the next Progress Payment.

13.5.9 Retesting Covered Work.

Re-examination of previously tested and inspected work may be ordered by the District, Architect, or by the Project Inspector. The Contractor shall uncover such work if retesting is ordered. If work is found in accordance with Contract Documents, the District will pay costs of uncovering, removing, retesting and replacing. If work is found not in accordance with Contract Documents, the District will deduct the cost of retesting from the Contract Sum by Change Order and the Contractor will bear the costs of uncovering, removing and replacing work.

13.5.10 Costs for Premature Test.

In the event the Contractor requests any test or inspection for the Project and is not completely ready for the inspection, the Contractor shall be invoiced by the District for all costs and expenses resulting from that testing or inspection, including, but not limited to, the Inspector’s and Architect’s fees and expenses, and the amount of the invoice of shall be deducted from the next Progress Payment.
13.6 **TRENCH EXCAVATION**

13.6.1 Trenches Greater Than Five Feet.

Pursuant to Labor Code § 6705, if the Contract Price exceeds $25,000 and involves the excavation of any trench or trenches five (5) feet or more in depth, the Contractor shall, in advance of excavation, submit to the District or a registered civil or structural engineer employed by the District or Architect, a detailed plan showing the design of shoring for protection from the hazard of caving ground during the excavation of such trench or trenches.

13.6.2 Excavation Safety.

If such plan varies from the Shoring System Standards established by the Construction Safety Orders, the plan shall be prepared by a registered civil or structural engineer, but in no case shall such plan be less effective than that required by the Construction Safety Orders. No excavation of such trench or trenches shall be commenced until said plan has been accepted in writing by the District or by the person to whom authority to accept has been delegated by the District.

13.6.3 No Tort Liability of District.

Pursuant to Labor Code § 6705, nothing in this Article shall impose tort liability upon the District or any of its employees.

13.6.4 No Excavation Without Permits.

The Contractor shall not commence any excavation Work until it has secured all necessary permits including the required CAL OSHA excavation/shoring permit. Any permits shall be prominently displayed on the Site prior to the commencement of any excavation.

13.7 **WAGE RATES, TRAVEL, AND SUBSISTENCE**

13.7.1 Wage Rates.

Pursuant to the provisions of Article 2 (commencing at § 1720), Chapter 1, Part 7, Division 2, of the Labor Code, the District has obtained the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this public works project is to be performed for each craft, classification, or type of worker needed for this Project from the Director of the Department of Industrial Relations (“Director”). These rates are on file at the administrative office of the DISTRICT and are also available from the Director of the Department of Industrial Relations. Copies will be made available to any interested party on request. The Contractor shall post a copy of such wage rates at appropriate, conspicuous, weatherproof points at the Site.

Any worker employed to perform work on the Project, but such work is not covered by any classification listed in the published general prevailing wage rate determinations or per diem wages determined by the Director of the Department of Industrial Relations, shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly corresponds to the employment of such person in such classification.
13.7.2 Holiday and Overtime Pay.

Holiday and overtime work, when permitted by law, shall be paid for at the rate set forth in the prevailing wage rate determinations issued by the Director of the Department of Industrial Relations or at least one and one-half (1½) times the specified basic rate of per diem wages, plus employer payments, unless otherwise specified in the contract documents or authorized by law.

13.7.3 Wage Rates Not Affected by Subcontracts.

The Contractor shall pay and shall cause to be paid each worker engaged in the execution of the Work on the Project not less than the general prevailing rate of per diem wages determined by the Director, regardless of any contractual relationship which may be alleged to exist between the Contractor or any Subcontractor and such workers.

13.7.4 Per Diem Wages.

The Contractor shall pay and shall cause to be paid to each worker needed to execute the Work on the Project per diem wages including, but not limited to, employer payments for health and welfare, pensions, vacation, travel time and subsistence pay as provided for in Labor Code §1773.1.

13.7.5 Forfeiture and Payments.

Pursuant to Labor Code §1775 and the District’s Labor Compliance Program, the Contractor shall forfeit to the District, not more than Fifty Dollars ($50.00) for each calendar day, or portion thereof, for each worker paid less than the prevailing wages rates as determined by the Director of the Department of Industrial Relations, for the work or craft in which the worker is employed for any Work done under the Agreement by the Contractor or by any Subcontractor under it. The amount of the penalty shall be determined by the Labor Commissioner and shall be based on consideration of: (1) whether the Contractor or Subcontractor’s failure to pay the correct rate of per diem wages was a good faith mistake and, if so, the error was promptly and voluntarily correct upon being brought to the attention of the Contractor or Subcontractor; and (2) whether the Contractor or Subcontractor has a prior record of failing to meet its prevailing wage obligations. Further details regarding the enforcement of paying prevailing wage rates, reporting violations, withholding contract payments, forfeitures and hearing to review withholding of contract payments are set forth in the District’s Labor Compliance Program.

13.8 RECORDS OF WAGES PAID

13.8.1 Payroll Records.

(a) Pursuant to §1776 of the Labor Code, each Contractor and Subcontractor shall keep an accurate payroll record showing the name, address, social security number, work classification and 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 Project.

(b) All payroll records shall be certified and submitted to the District with each application for payment, but shall not be submitted less than once per month. All payroll records shall be
available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:

(1) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.

(2) A certified copy of all payroll records shall be made available for inspection or furnished upon request to a representative of District, the Division of Labor Standards Enforcement or the Division of Apprenticeship Standards of the Department of Industrial Relations.

(3) A certified copy of all payroll records shall be made available upon request by the public for inspection or for copies thereof. However, a request by the public shall be made through the District, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to Paragraph (2) above, the requesting party shall, prior to being provided the records, reimburse the costs, according to law for the preparation by the Contractor, Subcontractor(s), and the entity through which the request was made. The public shall not be given access to such records at the principal office of the Contractor.

(c) The certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the Division of Labor Standards Enforcement.

(d) The Contractor or Subcontractor(s) shall file a certified copy of all payroll records with the entity that requested such records within 10 calendar days after receipt of a written request.

(e) Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the District, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or obliterated to prevent disclosure of an individual's name, address and social security number. The name and address of the Contractor awarded the Contract or the Subcontractor(s) performing the Contract shall not be marked or obliterated. Any copy of records made available for inspection by, or furnished to, a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (Section 175a of Title 29 of the United States Code) shall be marked or obliterated only to prevent disclosure of an individual's name and social security number.

(f) The Contractor shall inform the District of the location of all payroll records, including the street address, city and county, and shall, within five working days, provide a notice of a change of location and address.

(g) The Contractor or Subcontractor(s) shall have 10 calendar days in which to comply subsequent to receipt of a written notice requesting payroll records. In the event that the Contractor or Subcontractor(s) fails to comply within the 10-day period, the Contractor or Subcontractor(s) shall, as a penalty to the District, forfeit Twenty-Five Dollars ($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.

Responsibility for compliance with this Article and the District’s Labor Compliance Program shall rest upon the Contractor.

13.8.2 Withholding of Contract Payments & Penalties.

The District may withhold or delay contract payments to the Contractor and/or any Subcontractor if:

(a) The required prevailing rate of per diem wages determined by the Director of the Department of Industrial Relations is not paid to all workers employed on the Project; or

(b) The Contractor or Subcontractor(s) fail to submit all required certified payroll records with each application for payment, but not less than once per month; or

(c) The Contractor or Subcontractor(s) submit incomplete or inadequate payroll records; or

(d) The Contractor or Subcontractor(s) fail to comply with the Labor Code requirements concerning apprentices; or

(e) The Contractor or Subcontractor(s) fail to comply with the District’s Labor Compliance Program; or

(f) The Contractor or Subcontractor(s) fail to comply with any applicable state laws governing labor on public works projects.

Any withholding of contract payments and penalties are set forth in the District’s Labor Compliance Program.

13.9 APPRENTICES

13.9.1 Apprentice Wages and Definitions.

All apprentices employed by the Contractor to perform services under the Contract shall be paid the standard wage paid to apprentices under the regulations of the craft or trade for which he or she is employed, and as determined by the Director of the Department of Industrial Relations, and shall be employed only at the Work of the craft or trade to which he or she is registered. Only apprentices, as defined in §3077 of the Labor Code, who are in training under apprenticeship standards that have been approved by the Chief of the Division of Apprenticeship Standards and who are parties to written apprenticeship agreements under Chapter 4 (commencing with §3070) of Division 3, are eligible to be employed under this Contract. The employment and training of each apprentice shall be in accordance with the apprenticeship standards and apprentice agreements under which he or she is training, or in accordance with the rules and regulations of the California Apprenticeship Council.
13.9.2 Employment of Apprentices.

Contractor agrees to comply with the requirements of Labor Code §1777.5. The Contractor awarded the Project, or any Subcontractor under him or her, when performing any of the Work under the Contract or subcontract, employs workers in any apprenticeable craft or trade, the Contractor and Subcontractor shall employ apprentices in the ratio set forth in Labor Code §1777.5. The Contractor or any Subcontractor must apply to any apprenticeship program in the craft or trade that can provide apprentices to the Project site for a certificate approving the Contractor or Subcontractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected. However, the decision of the apprenticeship program to approve or deny a certificate shall be subject to review by the Administrator of Apprenticeship. The apprenticeship program or programs, upon approving the Contractor or Subcontractor, shall arrange for the dispatch of apprentices to the Contractor or Subcontractor. The Contractor or Subcontractor covered by an apprenticeship program’s standards shall not be required to submit any additional application in order to include additional public works contracts under that program. “Apprenticeable craft or trade” as used in this Article means a craft or trade determined as an apprenticeable occupation in accordance with the rules and regulations prescribed by the California Apprenticeship Council. The ratio of work performed by apprentices to journeyman employed in a particular craft or trade on the Project shall be in accordance with Labor Code §1777.5.

13.9.3 Submission of Contract Information.

Prior to commencing work on the Project, the Contractor and Subcontractors shall submit contract award information to the applicable apprenticeship program(s) that can supply apprentices to the Project and make the request for the dispatch of apprentices in accordance with the Labor Code. The information submitted shall include an estimate of journeyman hours to be performed under the Contract, the number of apprentices proposed to be employed, and the approximate dates the apprentices would be employed. A copy of this information shall also be submitted to the District. Within 60 days after concluding work on the Project, the Contractor and Subcontractors shall submit to the District, if requested, and to the apprenticeship program a verified statement of the journeyman and apprentice hours performed on the Project.

13.9.4 Apprentice Fund.

The Contractor or any Subcontractor under him or her, who, in performing any of the Work under the Contract, employs journeymen or apprentices in any apprenticeable craft or trade shall contribute to the California Apprenticeship Council the same amount that the Director determines is the prevailing amount of apprenticeship training contributions in the area of the Project. The Contractor and Subcontractors may take as a credit for payments to the California Apprenticeship Council any amounts paid by the Contractor or Subcontractor to an approved apprenticeship program that can supply apprentices to the Project. The Contractor and Subcontractors may add the amount of the contributions in computing his or her bid for the Contract.

13.9.5 Prime Contractor Compliance.

The responsibility of compliance with Article 13 and §1777.5 of the Labor Code for all apprenticeable occupations is with the Prime Contractor. Any Contractor or Subcontractor that Contra Costa Community College District Diablo Valley College
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knowingly violates the provisions of this Article or Labor Code §1777.5 shall be subject to the penalties set forth in Labor Code §1777.7 and the District’s Labor Compliance Program.

13.10 ASSIGNMENT OF ANTITRUST CLAIMS

13.10.1 Application.

Pursuant to Government Code § 4551, in entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or Subcontractor offers and agrees to assign to the District 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 the purchase 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 the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties. If the District receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under Chapter 11 (commencing with § 4550) of Division 5 of Title 1 of the Government Code, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the District any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the District as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.

13.10.2 Assignment of Claim.

Upon demand in writing by the assignor, the District shall, within one (1) year from such demand, reassign the cause of action assigned pursuant to this Article if the assignor has been or may have been injured by the violation of law for which the cause of action arose and the District has not been injured thereby or the District declines to file a court action for the cause of action.

13.11 STATE AUDIT

Pursuant to and in accordance with the provisions of Government Code § 10532, or any amendments thereto, all books, records, and files of the District, the Contractor, or any Subcontractor connected with the performance of this Contract involving the expenditure of state funds in excess of Ten Thousand Dollars ($10,000.00), including, but not limited to, the administration thereof, shall be subject to the examination and audit of the Office of the Auditor General of the State of California for a period of three (3) years after final payment is made under this Contract. Contractor shall preserve and cause to be preserved such books, records, and files for the audit period.

13.12 NOT USED
13.13 **INDUSTRY STANDARDS**

13.13.1 Applicability of Standards.

Unless the Contract Documents specify more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

13.13.2 Publication Dates.

Comply with standards in effect as of date of the Contract Documents, unless otherwise indicated.

13.13.3 Conflicting Requirements.

If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.

13.13.4 Minimum Quantity or Quality Levels.

The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

13.13.5 Copies of Standards.

Each entity engaged in construction on Project must be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not contained within the Contract Documents. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source and make them available on request.

13.13.6 Abbreviations and Acronyms for Industry Organizations.

Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale Research's "Encyclopedia of Associations" or in Columbia Books' "National Trade & Professional Associations of the U.S."
13.14 **PRODUCTS**

13.14.1 All products are to be new and not previously incorporated into or used in any other project or facility. Products salvaged or recycled from other projects are not considered new products and are not permitted.

13.14.2 The term product, as used in the Contract Documents, includes materials, equipment, systems, and like terms of similar intent.

13.14.3 Products include materials, machinery, components, equipment, fixtures and systems forming the Work and purchased for incorporation into the Work.

13.14.4 Do not reuse materials and/or equipment removed from existing premises except as specifically permitted by the Contract Documents.

13.14.5 Provide interchangeable components of the same manufacturer, for similar components.

13.14.6 Named products are items identified in the Contract Documents by manufacturer’s product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.

13.14.7 **TRANSPORTATION AND HANDLING**

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

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

13.14.8 **SHIPPING REQUIREMENTS**

13.14.8.1 Preparation for Shipment: All equipment shall be suitably packaged to facilitate handling and to protect against damage during transit and storage. All equipment shall be protected from exposure to the elements and shall be kept dry at all times.

13.14.8.2 Painted and coated surfaces shall be protected against impact, abrasion, discoloration, and other damage. Painted and coated surfaces which are damaged prior to acceptance of equipment shall be repainted to the satisfaction of District at the expense of Contractor.

13.14.9 **PRODUCT DELIVERY, STORAGE, AND HANDLING**

13.14.9.1 Store products only in staging area per provisions of the Contract Documents.
13.14.9.2  Handle, store, and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate-controlled enclosures.

13.14.9.3  For exterior storage of fabricated products, place on appropriate supports, above ground.

13.14.9.4  Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.

13.14.9.5  Deliver, store and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.

13.14.9.6  Contractor shall comply with the following without limitation:

(a)  Contractor shall bear the responsibility for delivery of equipment, spare parts, special tools, and materials to the Site and shall comply with the requirements specified herein and provide required information concerning the shipment and delivery of the materials specified in the Contract Documents.

(b)  Electrical equipment and all equipment with antifriction or sleeve bearings shall be stored in weather-tight structures maintained at a temperature above 60 degree Fahrenheit. Electrical equipment controls and insulation shall be protected against moisture and water damage. All space heaters furnished in or with equipment shall be connected and operated continuously or according to manufacturer's requirements.

(c)  Equipment and materials shall not have any pitting, rust, decay, or other deleterious effects of storage when installed in the Work.

(d)  Store products to allow for inspection, measurement, and/or counting of units.

(e)  Store materials in a manner that will not endanger adjacent Work.

(f)  Store products that are subject to damage by the elements, under cover in a weather-tight enclosure above ground, with ventilation adequate to prevent condensation.

(g)  Store cementitious products and materials on elevated platforms.

(h)  Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
ARTICLE 14

TERMINATION OR SUSPENSION OF THE CONTRACT

14.1 TERMINATION BY THE CONTRACTOR FOR CAUSE

14.1.1 Grounds for Termination.

The Contractor may terminate the Contract if the Work is stopped for a period of thirty (30) consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons performing portions of the Work for whom the Contractor is contractually responsible, for only the following reasons:

(a) Issuance of an order of a court or other public authority having jurisdiction; or

(b) An act of government, such as a declaration of national emergency.

14.1.2 Notice of Termination.

If one of the above reasons exists, the Contractor may, upon written notice of seven (7) additional days to the District, terminate the Contract and recover from the District payment for Work executed and for reasonable costs verified by the Architect with respect to materials, equipment, tools, construction equipment, and machinery, including reasonable overhead, profit, and damages.

14.2 TERMINATION BY THE DISTRICT FOR CAUSE

14.2.1 Grounds for Termination.

The District may terminate the Contractor and/or this Contract for the following reasons:

(a) Persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials;

(b) Persistently or repeatedly is absent, without excuse, from the job site;

(c) Fails to make payment to Subcontractors, suppliers, materialmen, etc.;

(d) Persistently disregards laws, ordinances, rules, regulations, or orders of a public authority having jurisdiction; or

(e) Becomes bankrupt or insolvent, including the filing of a general assignment for the benefit of creditors; or

(e) Otherwise is in substantial breach of a provision of the Contract Documents.

14.2.2 Notification of Termination.

When any of the above reasons exist, the District may, without prejudice to any other rights or remedies of the District and after giving the Contractor and the Contractor’s surety, if any, written notice of seven (7) days, except in the event of an emergency or critical path delay to the schedule in
which case the District may give written notice of forty-eight (48) hours, terminate the Contract and may, subject to any prior rights of the surety:

(a) Take possession of the Project and of all material, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;

(b) Accept assignment of Subcontracts. Contractor acknowledges and agrees that if the District (in its sole and absolute discretion) decides to takeover completion of the Project, the Contractor agrees to immediately assign all subcontracts to the District which the District has chosen to accept; and

(c) Complete the Work by any reasonable method the District may deem expedient, including contracting with a replacement contractor or contractors.

14.2.3 Payments Withheld.

If the District terminates the Contract for one of the reasons stated in Paragraph 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is complete. All costs associated with the termination and completion of the Project shall be the responsibility of the Contractor and/or its surety.

14.2.4 Payments Upon Completion.

If the unpaid balance of the Contract Sum exceeds costs of completing the Work, including compensation for professional services and expenses made necessary thereby, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the District. The amount to be paid to the Contractor, or District, as the case may be, shall be certified by the Architect upon application. This payment obligation shall survive completion of the Contract.

14.3 TERMINATION OF CONTRACT BY DISTRICT (CONTRACTOR NOT AT FAULT)

14.3.1 Termination for Convenience.

District may terminate the Contract upon fifteen (15) calendar days of written notice to the Contractor and use any reasonable method the District deems expedient to complete the project, including contracting with replacement contractor or contractors, if it is found that reasons beyond the control of either the District or Contractor make it impossible or against the District’s interest to complete the work. In such a case, the Contractor shall have no claims against the District except: (1) the actual cost for labor, materials, and services performed which may be documented through timesheets, invoices, receipts, or otherwise, and (2) ten percent (10%) profit and overhead, and (3) five percent (5%) termination cost of the total of items (1) and (2). Contractor acknowledges and agrees that if the District (in its sole and absolute discretion) decides to takeover completion of the Project, the Contractor agrees to immediately assign all subcontracts to the District which the District has chosen to accept.
14.3.2 Non-Appropriation of Funds/ Insufficient Funds.

In the event that sufficient funds are not appropriated to complete the Project or the DISTRICT determines that sufficient funds are not available to complete the Project, DISTRICT may terminate or suspend the completion of the Project at any time by giving written notice to the Contractor. In the event that the DISTRICT exercises this option, the DISTRICT shall pay for any and all work and materials completed or delivered onto the site for which value is received, and the value of any and all work then in progress and orders actually placed which cannot be canceled up to the date of notice of termination. The value of work and materials paid for shall include a factor of fifteen percent (15%) for the Contractor’s overhead and profit and there shall be no other costs or expenses paid to Contractor. All work, materials and orders paid for pursuant to this provision shall become the property of the DISTRICT. DISTRICT may, without cause, order Contractor in writing to suspend, delay or interrupt the Project in whole or in part for such period of time as DISTRICT may determine. Adjustment shall be made for increases in the cost of performance of the Agreement caused by suspense, delay or interruption.

14.4 REMEDIES OTHER THAN TERMINATION

If a default occurs, the District may, without prejudice to any other right or remedy, including, without limitation, its right to terminate the Contract pursuant to Article 14.2, do any of the following:

(a) Permit the Contractor to continue under this Contract, but make good such deficiencies or complete the Contract by whatever method the District may deem expedient, and the cost and expense thereof shall be deducted from the Contract Price or paid by the Contractor to the District on demand;

(b) If the workmanship performed by the Contractor is faulty or defective materials are provided, erected or installed, then the District may order the Contractor to remove the faulty workmanship or defective materials and to replace the same with work or materials that conform to the Contract Documents, in which event the Contractor, at its sole costs and expense, shall proceed in accordance with the District’s order and complete the same within the time period given by the District in its notice to the Contractor; or

(c) Initiate procedures to declare the Contractor a non-responsible bidder for a period of two to five years thereafter.
All amounts expended by the District in connection with the exercise of its rights hereunder shall accrue interest from the date expended until paid to the District at the maximum legal rate. The District may retain or withhold any such amounts from the Contract Price. If the Contractor is ordered to replace any faulty workmanship or defective materials pursuant to Paragraph (b) above, the Contractor shall replace the same with new work or materials approved by the Architect and the District, and, at its own cost, shall repair or replace, in a manner and to the extent the Architect and the District shall direct, all work or material that is damaged, injured or destroyed by the removal of said faulty workmanship or defective material, or by the replacement of the same with acceptable work or materials. In no event shall anything in this Paragraph be deemed to constitute a waiver by the District of any other rights or remedies that it may have at law or in equity, it being acknowledged and agreed by the Contractor that the remedies set forth in this Paragraph are in addition to, and not in lieu of, any other rights or remedies that the District may have at law or in equity.

END OF SECTION 00700
SECTION 00800
SUPPLEMENTARY GENERAL CONDITIONS

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. See Section 00100 Notice Inviting Bid for the general description.
B. Drawings and Specifications
C. Refer to Section 01010 for Summary of Work

1.2 REFERENCES

A. The publications listed below form a part of this specification by reference.

1. Current California Occupational Safety and Health Act Regulations
2. Current California Occupational Safety and Health Construction Safety Orders
3. This work will be contracted using the District’s Short Form Construction Agreement; See Section 00600.

1.3 SUBMITTALS

A. Provide submittals in the format, and as described below:

1. Submittals shall be submitted to the District, electronically in PDF format, within seven (7) Calendar Days from the Notice to Proceed, except as otherwise noted.
2. Submit three (3) original (not less than 8-1/2” x 11”, nor more than 30” x 42”) wet-signed, and one (1) color PDF file for submittals that require shop drawings, unless otherwise directed by District and accepted by the Electrical Engineer.
3. Submittals that require local and State agency approval, shall conform to this Specification and the requirements of the local or State agency.
4. District will review and provide a response to submittals within seven (7) calendar days (excluding holidays). Submittals that include design documents prepared by a licensed California Engineer will be submitted for the District’s records. Any District review and response to the Contractor’s design documents by a licensed California Engineer will be for format and general compliance only. Contractor and Contractor’s licensed California Engineer are responsible for compliance with all applicable State of California codes, laws and regulations applicable to this project.

B. Provide submittals for all equipment, if any, listed on the drawings, or required in the specifications.

C. The Schedule of Values, shall be submitted to the District within seven (7) calendar days after the Notice of Award. The Schedule of Values shall be broken down by the following minimum categories:

1. Mobilization
2. Demolition
3. Plumbing
4. Electrical
5. Finishes
6. Fixtures
7. Hardware / Trim
8. As-Built Drawings

The District will only pay for Work installed at the Site.

D. CPM construction schedule shall be submitted within seven (7) calendar days from the Contract Award date. District and Contractor shall meet and review the schedule. The Notice to Proceed will not be issued until the District accepts the schedule or accepts it with conditional changes. Below are the minimum activity types that shall be included in the schedule:

1. Contractor Submittals
2. Submittal Reviews by District
3. Procurement and Fabrication activities
4. Construction activities corresponding to the Schedule of Values
5. Sequence of facility / building restroom shut downs
6. Substantial Completion Milestone
7. Project Closeout Activities.
8. Final Completion Milestone

E. Submittals are for review of conformance with the requirements of the Contract.

F. Staging and Temporary Fencing area: Area is very limited for staging material and equipment. Contractor cannot stage material, equipment or vehicles on the soccer field or the softball field. The area east of the softball field and up to the existing canal fence is the main area anticipated for staging material and equipment. Contractor and the District representative will review the Contractor’s proposed staging plan, and can discuss other areas of staging of material and equipment, if necessary.

### 1.4 SUBSTITUTIONS.

A. **One Product Specified.** Unless the Specifications state that no substitution is permitted, whenever the Contract Documents indicate any specific material, product, thing or service, or any specific name, make, trade name, or catalog number, with or without the words “or equal,” such specification shall be deemed to be used for the purpose of facilitating description of the material, product, thing or service desired and shall be deemed to be followed by the words “or equal” unless the Contract Documents specify “no substitution allowed”, “no equal”, “no equivalent”, or other language with similar meaning, in which case
no substitutions will be allowed. Pursuant to Paragraph 1.3.F.3, the Contractor may, unless otherwise stated, within three (3) work days after the bid opening, submit a substitution request for any material, product, thing or service, which shall be materially equal or better in every respect to that so indicated or specified (“Specified Item”) and will completely accomplish the purpose of the Contract Documents.

1. **Products Specified which are Commercially Unavailable.** If the Contractor fails to make a request for substitutions for products, within three (3) work days after bid opening, and such products subsequently become commercially unavailable, the Contractor may request a substitution for such commercially unavailable item. The decision to grant this request is solely at the District’s discretion. The written approval of the District, consistent with the procedure for Change Orders, shall be required for the use of a proposed substitute material. The District may condition its approval of the substitution upon the delivery to District of an extended warranty or guaranty or other assurances of adequate performance of the substitution as well as an equitable deduction in the contract sum should the substituted item cost less than the Specified Item. All risks of delay due the approval of a requested substitution by the District, DSA, or any other governmental agency having jurisdiction, shall be on the requesting party. All additional costs, all procurement and construction delays, and all costs for review by the Architect or its consultants shall be the responsibility of the Contractor and will be deducted from Contractor’s pay request.

B. **Substitution Request Form.** Requests for substitutions of materials, products, things or services in place of a Specified Item must be submitted to the District in writing on the District’s Substitution Request Form (“Request Form”) within three (3) work days after bid opening, except as provided for in Paragraph 1.3.F.1.

1. The Substitution Request Form must be accompanied by evidence as to whether the proposed substitution:
   
   (a) Is equal in quality/service/ability to the Specified Item;
   (b) Will entail no changes in detail, construction, and scheduling of related work;
   (c) Will be acceptable in consideration of the required design and artistic effect;
   (d) Will provide no cost disadvantage to the District;
   (e) Will require no excessive or more expensive maintenance, including adequacy and availability of replacement parts; and
   (f) Will required no change of the construction schedule.

2. In completing the Substitution Request Form, the bidder shall state, with respect to each requested substitution, that the bidder will agree to provide the Specified Item in the event that the District denies the bidder’s request for such requested substitution. In the event the District denies the bidder’s requested substitution for a Specified Item, the bidder shall provide the Specified Item without any additional cost or charge to the District and waives all rights to submit a claim.

C. **After Bid Opening.** After bids are opened, the apparent lowest bidder shall provide, within three (3) days of opening such bids, all Drawing, Specifications, samples, performance data,
calculations, and other information, as may be required to assist the Design Consultant and the District in determining whether the proposed substitution is acceptable. The burden of establishing these facts shall be upon the bidder.

1. After the District’s receipt of such evidence by the bidder, the District will make its final decision as to whether the bidder’s request for substitution for any Specified Items will be granted. The decision as to whether a proposed request for substitution is equal to a Specified Item shall be at the sole discretion of the District. Any request for substitution that is granted by the District shall be documented and processed through a Change Order. The District may condition its approval of any substitution upon delivery to the District of an extended warranty or guaranty or other assurances of adequate performance of the substitution. All risks of delay due to approval by the District, DSA or any other governmental agency having jurisdiction shall be on the bidder.

2. If the Design Consultant and District accept a proposed substitution, the Contractor agrees to pay for all District expenses, including but not limited to Division of the State Architect fees, engineering and design services, compensation to the Design Consultant for their required time to process such substitution through the Division of the State Architect, if required, and to make all changes and adjustments in materials or the work of all trades directly or indirectly affected by the substituted item or items at no cost to the District.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Contractor Provided Materials: The Contractor provided materials shall include any associated equipment and appurtenances required for performing the contract properly and in accordance with the equipment manufacturer's literature.

B. All materials shall be new, unless otherwise authorized or specified in the scope of work of this specification.

PART 3 - EXECUTION AND RELATED REQUIREMENTS

3.1 GENERAL

A. Work Restrictions: Contractor shall maintain a safe path of travel for all pedestrians and vehicles during construction. Contractor is required to provide safety barricades and alternative routes of travel for pedestrians and vehicles at all times, unless otherwise approved by the District. Anytime the Contractor anticipates it will block and divert existing paths of travel for pedestrians or vehicles, it shall provide a hard copy plan along with proposed wayfinding signage for review by the District at least 5 work days prior to such blockage and diversion. Said plan shall be reviewed and approved by the District prior to commencement of this work by the Contractor.

B. Contractor shall provide temporary chain link fencing, six feet high, around the construction site through substantial completion to deter access by students, faculty and the public.
C. Contractor will be allowed to have access and use Campus utilities for temporary water and electricity, but Contractor shall be responsible to investigate prior to bid, and for all work necessary to connect to existing utilities for temporary use.

D. Contractor shall provide temporary sanitary facilities for use of all workers throughout the course of the contract duration. Contractor shall comply with the minimum requirements of the Contra Costa Health Department. Contractor is not permitted to use any Campus toilet facilities.

E. Scheduling and Coordination: Before commencing work on a specific area, the Contractor shall confirm that all requirements have been met pertaining to scheduling of the work. The Contractor shall further determine that all required notices have been given. The work shall be prosecuted in such a manner as to cause the least interference with the normal functions of the campus activity. Prior to beginning any work, the Contractor shall meet with the District and the Contractor’s schedule shall be approved as noted in Article 1.3D above.

F. Protection required to prevent damage to adjacent areas, equipment, fixtures and finishes shall be provided. Damage to items while accomplishing the work shall be repaired or replaced with new items at no additional cost to the District.

G. Staging Area: Contractor shall stage its equipment, vehicles and materials on College property as noted above.

H. Interruption of Utilities Services: Interruptions shall be kept to a minimum and shall be at such times and duration as approved ahead of time by the District. No interruption shall occur unless scheduled with the District and approved in advance as to time and duration of such interruption. No utility interruptions that impact building operation during classes will be allowed, and these types of interruptions, if any, shall be scheduled for after normal hours when classes are not in session.

I. Material, equipment, tools and workmen shall be scheduled and delivered to the Site in a timely manner to avoid delay in the work. Materials provided shall be inspected by the Contractor to make certain they are in compliance with the specifications and are free from defects and damage.

J. Workmanship: Skilled personnel shall execute in a careful, neat, and proficient manner and in compliance with accepted trade practices for all work. All work shall be executed in accordance with Cal/OSHA standards and safety orders. And all work on this contract shall comply with all Local, State, and Federal Environmental Laws.

K. Incidental Work: Minor incidental materials and work not specifically mentioned herein, but necessary for the proper completion of the specified work, shall be provided without additional cost to the District.

L. Administrative Forms: District shall provide its standard forms for use by Contractor.

3.2 EXISTING CONDITIONS & DRAWINGS

A. See Section 00210, Information Available to Bidders for documents available for review by the Contractor and its subcontractors prior to and after bid.
3.3 FIELD VERIFICATION AND MEASUREMENTS
A. Contractor shall field verify existing conditions above ground and below ground prior to demolition trenching and grading activities. Contractor shall review its plan of work with the District prior to commencing demolition, grading or trenching activities.

3.4 WORK BY CALIFORNIA LICENSED ENGINEER
A. No work by a California licensed Engineer employed by the Contractor is anticipated for this project.
B. Note that modifications to existing building structures, fire systems, or ADA changes not shown on the Contract Documents and subsequently discovered during the course of construction, will require DSA approval. Contractor will be granted a non-compensable time extension for the duration it takes to obtain DSA approval if this work should happen to fall on the schedule critical path. A change order will be negotiated for added direct labor field construction costs, if any.

3.5 SITE WORK
A. Existing Work: Protect existing work which is to remain in place, be reused, or remain the property of the District. Repair items that are to remain and are damaged during performance of the work to their original condition or replace with new.
B. Existing Utilities: Contractor shall review existing as-built drawings and layout the Press Box foundation system and other hardscape to avoid existing underground utilities, or relocate utilities as necessary. Contractor is responsible for any repair of damage to existing utilities back to original condition or replace with new.
C. Dust and Debris Control: Prevent the spread of dust and debris generated by the Work, and avoid the creation of a nuisance or hazard in the surrounding area. Waste and debris resulting from the Work being performed shall be removed on a daily basis. Promptly remove, and legally dispose of all debris to an offsite location.
D. Hazmat Work: The Contractor shall notify the District immediately if unforeseen hazardous materials are discovered during the course of construction. Contractor shall remove said hazardous materials as required by law, and a change order will be issued for the cost to remove and legally dispose of said materials.
E. Disposal of Equipment and Materials: Contractor is responsible for removal and disposal of all construction debris.

3.6 PROJECT CLOSEOUT REQUIREMENTS (After Substantial Completion & Before Final Completion)
A. Refer to the Drawings and Specifications listed in Section 00010, Table of Contents for requirements, and these Supplementary General Conditions.
B. Provide final clean-up of Site prior to Final Completion.
C. Warranty
   1. The Contractor warrants to the District that material and equipment furnished under the Contract will be of the highest quality and new unless otherwise required or
permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform to the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. Contractor’s warranty and guaranty to District includes, but is not limited to the following representations:

a. In addition to any other warranties and guaranties provided elsewhere, Contractor shall, and hereby does, warrant all Work after the Certificate of Substantial Completion date issued by District and shall repair or replace any or all such work, together with any other work, which may be displaced in so doing that may prove defective in workmanship or materials within a one (1) year period from date of completion as defined in Public Contract Code Section 7107(c) without expense whatsoever to District, ordinary wear and tear, unusual abuse or neglect excepted. District will give notice of observed defects with reasonable promptness. Contractor shall notify District upon completion of repairs.

b. In the event of failure of Contractor to comply with above mentioned conditions within one week after being notified in writing, District is hereby authorized to proceed to have defects repaired and made good at expense of Contractor who hereby agrees to pay costs and charges therefore immediately on demand.

c. If, in the opinion of the District, defective Work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the District, the District will attempt to give the notice required by this Article. If the Contractor cannot be contacted or does not comply with the District’s requirements for correction within a reasonable time as determined by the District, the District may, notwithstanding the provisions of this article, proceed to make such correction or attention which shall be charged against Contractor. Such action by the District will not relieve the Contractor of the guarantee provided in this Article or elsewhere in this Contract.

d. This Article does not in any way limit the guarantee on any items for which a longer warranty or guaranty is specified or on any items for which a manufacturer gives a guarantee for a longer period. Contractor shall furnish District all appropriate guaranty or warranty certificates upon completion of the project.

2. Format - All Warranties/Guaranties and shall include:

a. Contractor, subcontractor, and equipment supplier shall provide Warranties and Guaranties on their original company letterhead with original signature.

b. Contractor shall provide original Warranties and Guaranties. Photo copies, fax and e-mail copies are not acceptable.

3. Preparation

a. Contractor shall obtain warranties and guaranties, executed in duplicate by each applicable and/or responsible subcontractor(s), supplier(s), and manufacturer(s), within fifteen (15) days after Certificate of Substantial Completion date of the applicable Work. Except for items put into use with District’s permission, Contractor shall leave date of beginning of time of
warranty or guaranty blank until the date of completion is determined by District.

b. Contractor's Response to Construction Warranty and Guaranty Service Requirements: Following oral or written notification by the District, respond to construction warranty and guaranty service requirements within 24 hours, or earlier in case of emergency.

4. Warranty and/or Guaranty Tags
   a. At the time of installation of mechanical equipment or other major system elements, tag each warranted or guaranteed item with a durable, oil and water resistant tag approved by the District. Attached each tag with a copper wire and spray with a silicone waterproof coating. The date of Substantial Completion and the Contractor Authorized signature must remain blank until the date the District makes a determination of Substantial Completion. Show the following information on the tag:

   **WARRANTY/GUARANTY INFORMATION – [insert project number and name on actual tag]**
   a. Type of product/material_____________________________________.
   b. Model number_________________________________________________.
   c. Serial number________________________________________________.
   d. Contract number______________________________________________.
   e. Warranty/Guaranty period ______ (months) from___________ to_______________.
   f. Inspector's signature________________________________________.
   g. Construction Contractor______________________________________.
      Address______________________________________________________.
      Telephone number_____________________________________________.
   h. Warranty or Guaranty contact_____________________________________________.
      Address______________________________________________________.
      Telephone number_____________________________________________.
   i. WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE DURING THE WARRANTY PERIOD.

3.7 Project As-Built
   A. Contractor shall dedicate one complete full size set of the Contract Drawings and one complete Project Manual for use in documenting as-built conditions, including but not limited to; RFIs, ASI, PCOs and Change Order.
   B. Contractor shall submit to District in hard copy one original and two copies of all Project As-Built Documents. In addition, one electronic copy shall be submitted to District. District reserves the right to require resubmittal in accordance with these Supplementary General Conditions if the documents are inaccurate or incomplete, or otherwise fail to meet the requirements of these Contract Documents.
   C. Electronic Media Format: Electronic media format for all Project As-Built Documents shall be Adobe PDF, with chapter markers and/or bookmarks inserted in place of the equivalent hard copy section tabs. Electronic copy shall include all tables, charts, drawings, codes and all other matters reflected in hard copies.
3.8 TIME OF COMPLETION

A. See Section 00300, Bid Proposal Form for specific requirements to complete the Work. Time requirements are also included in Section 00600, Construction Agreement.

B. Substantial Completion: The date on which the Work or designated portion thereof, as certified by the District and Architect, is sufficiently complete, in accordance with the Contract Documents, so the District may occupy or utilize the Work or designated portion thereof for the use for which it is intended.

C. Remaining Work after Substantial Completion: If the Architect or District determines that the work required by the Contract is Substantially Complete during any inspection conducted pursuant to this Agreement, the Contractor shall be notified of that determination and the District shall determine if there is Remaining Work. A list of Remaining Work shall be issued only by the District or the Architect and only after the District has certified Substantial Completion. The District or Architect shall give the Contractor the necessary instructions for correction or completion of the Remaining Work, and the Contractor shall immediately comply with and execute such instructions within the Contract Time. Upon completion of the Remaining Work, another inspection shall be made that shall constitute the Final Inspection, provided the Remaining Work has been completed to the satisfaction of the District. If the remaining work has been completed to the satisfaction of the District, the District shall make the final acceptance and notify the Contractor in writing of this acceptance as of the date of Final Inspection.

D. Final Completion: The date when all Work for the total project has been completed in accordance with the terms of the Contract Documents and has been inspected following completion of Work identified in the Punch list Inspection and accepted by the Architect and the District. Final Completion is also sometimes referred to as Final Acceptance.

END OF SECTION 00800
SECTION 01010
SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Specification Sections shall apply to this Section without limitation.

1.2 WORK DESCRIPTIONS WITHOUT FORCE
A. All general descriptions and/or general summaries of the work noted in this section, or elsewhere within the Contract Documents, are without force and effect on the Contract Work described and indicated in detail the Construction Documents. These general descriptions and summaries are for general reference and descriptive purposes only and in no way offer the complete and concise description of all the Work required by the Contract Documents.

1.3 WORK COVERED BY CONTRACT DOCUMENTS
A. The intent of the Contract Documents includes but is not limited to: This work consists of correcting various ADA barriers throughout the campus including but not limited to: relocating and/or installing cane detective elements, urinals, lavatories, toilet partitions, toilet accessories, modifying toilet compartments, installing auto door openers for restrooms at five different buildings. Work also includes adding cane detective element at bookstore counters.

1.4 CONTRACTS
A. Perform the work under a single, fixed-price Contract.

1.5 WORK SEQUENCE
A. During construction operations, various adjoining areas will be occupied and their functions maintained. Temporary construction separations such as walls for sound and dust control, as well as pathway barricades, signage and clearly marked temporary pedestrian path of travel detours will be required and provided by the contractor.

B. Scheduling of Contractor's use of the areas and times involved shall be coordinated with the District. Notify the District's Campus construction management representative a minimum of 10-days prior to commencement of work.

C. Construction activities shall be performed between the hours of 7AM and 5PM, Monday through Friday, unless otherwise required. No Work shall be performed outside the above hours without prior written authorization from the Construction Manager/Project Manager.

1.6 USE OF PREMISES
A. Contractor shall only use the premises for work, storage, staging areas, and vehicular parking as designated in the Contract Documents.
1.7 **EXISTING AREA CONDITION SURVEY**

A. Prior to commencement of work, jointly survey the existing area to be remodeled with the District and Architect, noting and recording existing damage such as cracks, sags, and other damage (on Site Plan/Floor Plans).

B. This record shall serve as a basis for determination of subsequent damage to these items due to settlement, movement, demolition, or Contractor’s operations.

C. Existing damage observed shall be marked and the official record of existing damage shall be signed by the parties making the survey.

D. Cracks, sags, and damage to the area and other items not noted in the original survey but subsequently observed shall be reported immediately to the Architect.

E. Photographic and video recordings of existing conditions shall be made prior to start of construction and a copy turned over to the Construction Manager before starting work.

1.8 **PROTECTION OF EXISTING STRUCTURES AND UTILITIES**

A. The Drawings may not show all existing water, gas, electrical, and hot water lines, and other items known or suspected to exist in the area of the work.

B. Contractor shall locate these installations before proceeding with demolition or other operations which may cause damage, maintain them in service where appropriate, and repair damage caused by the performance of the Work, at no increase in the Contract Sum.

C. In addition to notification, if a structure or utility is damaged, take appropriate action as specified in the General Conditions.

1.12 **USE AND OCCUPANCY OF WORK PRIOR TO ACCEPTANCE BY DISTRICT**

A. The District may use and occupy the building before formal acceptance under the following conditions:

1. A Certificate of Substantial Completion shall be prepared and executed as provided in the Contract Documents. See Section 00700 General Conditions for Contract Closeout Procedures. The Certificate of Substantial Completion shall be accompanied by a written endorsement of the Contractor's insurance carrier and surety permitting occupancy by the District during the remaining period of the work.

2. Occupancy by the District shall not be construed as being an acceptance of that part of the Work occupied.

3. The Contractor will not be held responsible for damage to the occupied part of the Work resulting from the District’s occupancy.

4. Occupancy by the District shall not be deemed to constitute a waiver of existing claims the District or Contractor may have against each other.

5. Comply with Specification Section 00700 General Conditions for the Work or any Phase of Work.

6. The District will pay for utility costs associated with occupancy during construction.
1.13 PROTECTION OF EXISTING IMPROVEMENTS

A. Provide barricades, coverings, or other types of protection necessary to prevent damage to existing improvements indicated to remain in place.

B. Protect improvements on adjoining properties as well as those on the District’s property.

C. Protect existing trees and other vegetation indicated to remain in place, against unnecessary cutting, breaking or skinning of roots, skinning and bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line.

D. Restore any improvements damaged by this work to their original condition as acceptable to the District or other parties or authorities having jurisdiction.

1.14 HAZARDOUS MATERIALS

A. Comply with Specification Section 20 08 00 Asbestos Abatement and Lead-Related Construction

1.15 MISCELLANEOUS PROVISIONS

A. Items shown or scheduled to be salvaged will remain the property of the District. Store as directed by the Project Manager.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION 01010
PART 1 - GENERAL

1.1 RELATED DOCUMENTS
   A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in
      this document, and provisions in the General Conditions and other Specification Sections shall
      apply to this Section without limitation.

1.2 SUBMITTALS
   A. Contractor shall submit name and address of Surveyor and professional Engineer to District and
      Architect for approval prior to their work on the Project.
   B. On request of District and Architect, Contractor shall submit documentation to verify accuracy
      of field engineering work, at no additional cost to the District.
   C. At completion of the Work, Contractor shall submit a certificate signed by a licensed engineer or
      surveyor certifying that all elevations and locations of improvements are in conformance with
      Contract Documents.

1.3 REQUIREMENTS
   A. Contractor shall provide and pay for field engineering services by an engineer licensed in the
      State of California, required for the Project, including, without limitation:
      1. Survey work required in execution of the Project.
      2. Civil or other professional engineering services specified, or required to execute
         Contractor’s construction methods.

1.4 QUALIFICATIONS OF SURVEYOR OR ENGINEERS
   A. Contractor shall only use a qualified licensed engineer or registered land surveyor, approved by
      the District, of the discipline required for specific service on Project, licensed in the State of
      California.
   B. Submit evidence of Engineer's errors and omissions insurance coverage to District, in the form of
      a current Insurance Certificate.

1.5 SURVEY REFERENCE POINTS
   A. Existing basic horizontal and vertical control points for the project are those designated on the
      Drawings.
   B. Contractor shall locate and protect control points prior to starting Site Work and preserve all
      permanent reference points during construction. In addition Contractor shall:
      1. Make no changes or relocation without prior written notice to District and Architect.
      2. Report to District and Architect when any reference point is lost or destroyed, or requires
         relocation because of necessary changes in grades or locations.
3. Require surveyor to replace project control points based on original survey control that may be lost or destroyed.

4. Contractor to locate and protect existing survey control and reference points.

5. Control datum for survey is that indicated on Drawings.

6. Protect survey control points prior to starting Site Work; preserve permanent reference points during construction.

7. Promptly report to Architect, District, and Project Inspector the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.

8. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice.

1.6 PROJECT RECORD DOCUMENTS
A. Maintain complete, accurate log of control and survey work as it progresses. Indicate dimensions, locations, angles, and elevations of construction and Site Work.
B. Submit Record Documents as required under provisions of these Contract Documents.

1.7 EXAMINATION
A. Verify locations of survey control points prior to starting Work. Promptly notify Architect of any discrepancies discovered.

1.8 SURVEY REQUIREMENTS
A. Provide field engineering services. Utilize recognized engineering survey practices.
B. Establish a minimum of two permanent bench marks on Site, referenced to established control points. Record locations, with horizontal and vertical data, on Project Record documents.
C. Establish lines and levels, locate and lay out by instrumentation and similar appropriate means:
   1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
   2. Grid or axis for structures.
   3. Building foundation, column locations, and ground floor elevations.
D. Periodically verify layouts by same means.

PART 2 – PRODUCTS - Not Used

PART 3 – EXECUTION
3.1 Contractor is responsible for meeting all applicable codes, OSHA, and other safety and shoring requirements.

3.2 Contractor is responsible for any re-surveying required by correction of nonconforming work with no additional cost to the District or its representatives.

END OF SECTION 01050
SECTION 01140
WORK RESTRICTIONS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS
A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Division 1 Specification Sections shall apply to this Section without limitation.

1.2 SUMMARY OF WORK RESTRICTION REQUIREMENTS
A. Prior to the start of Work, Contractor shall familiarize himself with the Work Restrictions as they relate to all Work required by the Contract Documents.
1. Upon receiving Notice of Award and prior to Notice to Proceed, the Contractor shall submit a preliminary baseline schedule to include times and durations of all Work Restricted Activities.
2. Prior to the Notice to Proceed, the Contractor shall submit and obtain approval of a Work Restricted Activity Plan indicating how the Work Restrictions will be implemented.
3. Prior to the Notice to Proceed, the Contractor shall submit and obtain approval of a schedule of temporary closures indicating the dates and durations of restroom closures
4. Failure to include sufficient costs in the bid, or failure to sufficiently provide resources during Work Restricted Activities shall not relieve the Contractor from properly complying with all Work Restrictions.

B. Work Restricted Activity Plans shall include:
1. Full size drawings (36”x42”) of site plans showing the locations and dimensions of temporary facilities including but not limited to equipment and material storage area (onsite and offsite), access for pedestrians and vehicles and haul routes, avenues of ingress/egress to the campus and Project construction sites, all temporary signage, fenced area(s), and details of the fence installation. Identify any areas which may require temporary paving for stabilization or prevention of tracking of mud. Indicate if the use of supplemental or other staging area is required. See Section 01500 for Temporary Facilities and Control.
2. The Contractor shall provide a weekly updated Plan including updated preliminary Construction Schedule for each of the Work Restricted Activities until those Activities are complete.
3. Contractor shall submit (3) sets of the initial submittal of the preliminary Construction Schedule and Work Restricted Activity Plan for review by: Architect, District, Project Manager, Construction Manager, Project Inspector, Campus Buildings & Grounds personnel, Campus Police Department, and Campus Representatives.

C. Contractor shall construct dust partitions prior to the start of demolition and they must remain in place until the completion of that Activity where required.

D. Contractor shall perform all Work during all Work Restricted Activities to ensure the following:
1. Protection of students, staff, faculty and personnel in occupied areas from the hazards, noise and dust associated with construction.
2. The continuous and uninterrupted use of all occupied areas, including but not limited to the applicable power, data, telephone, waterline, fire alarm system, fire sprinkler system mechanical, gas, storm, sewage, plumbing, and electrical systems serving these areas.

3. The work areas, roads, parking lots, and streets are to be kept clear, clean, and free of loose debris, construction materials and partially installed work which would create a safety hazard or interfere with sub-contractor and personnel duties and traffic. The Contractor shall sweep the areas clean at the end of each work day and make every effort to keep dust and noise to a minimum at all times.

4. Prior to starting work, the Contractor shall provide a **schedule of temporary interruptions** as a part of the Work Restricted Activity Plan and preliminary baseline schedule. The Contractor shall also provide a 4-week look ahead schedule showing when temporary interruptions are anticipated to occur during the Work.

### 1.3 SUMMARY OF WORK RESTRICTIONS

A. **General:** Work Restrictions are comprised of various Work Restricted Activities. The Contractor shall perform the Work in each Work Restricted Activity as described below. All Work must be completed within the timelines, work shift times, and the scheduled time period for each Work Restricted Activity. A detailed narrative description of each Work Restricted Activity is as follows:

B. **Time Essential Work Restrictions.**

1. Work Restricted Activities that are essential to protect the Campus community, and minimize disruption to the Campus’s daily operations include, but are not limited to: temporary construction fencing, temporary construction barriers, construction and way-finding signages, noise and dust control and ADA compliant access for pedestrians and vehicles around the construction areas.

2. **Coordination and Time Sensitive Work Restrictions.** These Work Restricted Activities include activities related to renovations that provide compliant ADA accommodations. Certain Activities related to these Work Restrictions which do not disrupt or impact occupied areas of the facility may be completed during the daytime work shift hours of 7 AM – 5 PM Monday through Friday.

   a. Activities of work identified in the Work Restricted Activity Plan and/or that cause disruption of any utility/infrastructure services must be coordinated with the Construction Manager.

3. Sequencing of Work will be scheduled to ensure adequate accessible restroom facilities are available near the out of service facility/building restrooms. The proposed sequence of work will be identified in the CPM construction schedule submitted per Section 00800, Part 1.3.D

C. **Other Project Requirements to meet the Contract Time**

1. Contractor shall include in its bid the cost to work Saturdays on work on or near the critical path (where critical path is defined as 5 work days of project float)
2. Contractor shall include in its bid the cost to work not only a normal work day shift, but also an eight hour swing shift where required to ensure that the Work and the scheduled interruptions do not interfere with College operations.

PART 2 - PRODUCTS

2.1 MATERIALS

A. All labor, equipment, materials, and all other requirements shall be provided and will be the sole responsibility of the Contractor for execution of entire work including all Requirements of each Work Restricted Activity.

PART 3 - EXECUTION

3.1 MEANS AND METHODS OF CONSTRUCTION

A. Contractor to provide and shall be responsible for any and all means and methods that will be constructed, implemented and/or maintained on the site for all Work Restricted Activities.

END OF SECTION 01140
SECTION 01340
ADMINISTRATIVE FORMS & LOGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Division 1 Specification Sections shall apply to this Section without limitation.

1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS

A. Section 01140 – “Work Restrictions”
B. Section 01290 – “Payment Procedures”
C. Section 01310 – “Construction Scheduling”
D. Section 01311 – “Project Management and Coordination”
E. Section 01330 – “Submittal Procedures”
F. Section 01625 - “Product Options and Substitutions”
G. Section 01780 – “Project Record Documents”
H. Divisions 2 through 33 Sections for Administrative Forms & Logs requirements for the Work in those Sections.

1.3 SUMMARY

A. This section specifies the information and format requirements for administrative forms and logs.

1.4 ADMINISTRATIVE FORMS & LOGS

A. Administrative forms and logs include, but are not limited to, the following:
   1. Transmittal Form
   2. Submittal Transmittal Form
   3. Request for Information Form
   4. Substitution Request Form
   5. 3-Week Projected Construction Schedule Form
   6. 3-Week Testing & Inspection Schedule Form
   7. Proposed Change Order Form*
   8. Change Order Form*
   9. Request for Information Log Form
   10. Submittal Log Form
11. Proposed Change Order Log Form
12. Change Order Log Form
13. Contractor’s Proposal for Contract Modification Form* (includes sample numbers to demonstrate calculations only)
14. Contractor Production Report

B. Forms generated by project management software may be substituted if substitution forms contain essentially the same information as shown in these Contract Documents. Allowance for the use of substitute forms is at the sole discretion of the District, and shall be requested and approved before use of the substitute form. Forms marked with an asterisk (*) may NOT be substituted under any condition.

C. Microsoft Excel files of these forms are available for Contractor use from the District.

1.5 FORMS INCORPORATED BY REFERENCE
A. Forms available from the California Department of General Services, Division of the State Architect, http://www.dgs.ca.gov/dsa/Forms.aspx, related to administration, construction, testing, and inspection of public work school facilities are hereby incorporated by reference into these Contract Documents.

1.6 CONTRACTOR RESPONSIBILITIES
A. Nothing in this Section 01340 including, but not limited to the above forms and log forms shall be construed to limit, relieve, or release Contractor from liability to District for any damages sustained as a result of inaccurate or incorrect information supplied by the Contractor.

PART 2 - PRODUCTS
Not Used.

PART 3 - EXECUTION
Not Used.
CONTRA COSTA COMMUNITY COLLEGE DISTRICT
500 Court Street, Martinez, CA 94553-1203
Phone: (925) 229-1000
Fax: (925) 335-9697

TRANSMITTAL TO:
Contra Costa Community College District
500 Court Street, Martinez, CA 94553-1203

Date: ______________________
From: ______________________

Contract No.: ____________
Project No. and Name: ____________

Contract No.: Project No. and Name:

Shop Drawings
Copy of Letter
O&M Manual

Submittals
Change Order
Project Closeout Documents

Plans
Specifications
Warranty Documents

Specifications
Disks
Other:

Copies
Date
Number
Description

For Your Info
For Your Approval
As Requested

For Your Review and Comment
Originals for Signatures
As Required per Contract Para:

Other

Remarks:

Copy To: ______________________
From: ______________________

Print Name
Signature:

Print Name
Signature: ______________________

Received by: ______________________

Date: ______________________

Page 1 of 1
**SUBMITTAL TRANSMITTAL**

**Date:** __________  
**Transmittal No:** __________

**From:**

**To:**

**Via:**
- [ ] Fax
- [ ] Hand Delivery
- [ ] US Mail
- [ ] Pick-Up
- [ ] Overnight Mail
- [ ] Email
- [ ] Other

**Attn:**

**Contract No.:** __________  
**Project No. and Name:** __________

**Specification Section:**
- [ ] Shop Drawings
- [ ] Test Reports
- [ ] Plans
- [ ] Certificates
- [ ] Specifications
- [ ] Samples
- [ ] Product Data
- [ ] Project Closeout Documents
- [ ] Warranty Documents

**Action Codes**
- No Exception Taken (NET)
- Make Correction Noted (MCN)
- Review and Resubmit (RR)
- Submit Specified Item (SSI)
- Rejected (R)

**Certification:** A separate Submittal Transmittal is required for each Specification Section. This form is to be used ONLY if there are NO deviations from the Contract Documents. If there are ANY deviations, the Contractor shall submit in accordance with Specification Section 01625 Product Options and Substitutions. We certify that all items contained in this Submittal meet all requirements specified in the Contract Documents.

**CONTRACTOR USE ONLY**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Para No. and/or Dwg No.</th>
<th>Item Identification</th>
<th>(Type, size, model no., Mfg. Name, dwg. or brochure no.)</th>
<th>Action Code</th>
<th>Reviewer Initials and Date</th>
</tr>
</thead>
</table>

**Reviewers Use Only:**

<table>
<thead>
<tr>
<th>Date Handled by Reviewer:</th>
<th>From (Reviewer):</th>
<th>To:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDF</td>
<td>PROJECT MANAGER OR CONSTRUCTION MANAGER</td>
<td></td>
</tr>
</tbody>
</table>

**Copies of Submittals to District:**
- [ ] Yes
- [ ] No

**Contractor Comments:**

**Contra Costa Community College District**  
Diablo Valley College  
D-639 ADA Improvements – Phase 3 Architectural  
Section 01340  
Administrative Forms and Logs
Request for Information (RFI)

Contractor Name: ________________________________
Date: ________________________________
Contract #: ________________________________
DSA File #: 7-C1
DSA Application #: ________________________________
Campus: ________________________________
Project No., Name: ________________________________

REFERENCE:

<table>
<thead>
<tr>
<th>Drawing Number/Detail Number</th>
<th>Specification Section</th>
<th>Page</th>
</tr>
</thead>
</table>

ITEM | Request:

Suggestion:

Request Issued By:

Contractor’s Signature | Name (Printed) | Date

ITEM | Response:

Response Issued By:

Architect/Engineer Signature | Name (Printed) | Date

Response Reviewed By:

Owner Authorized Representative (Project Manager) | Name (Printed) | Date

Note to Contractor:
This Form Cannot Modify Contract Amount or Milestones and/or Contract Time.
CONTRA COSTA COMMUNITY COLLEGE DISTRICT
500 Court Street, Martinez, CA 94553

SUBSTITUTION REQUEST FORM

Contractor Name: 
Contract#: 

RFS # 
Date: 
DSA Application #: 
Campus: 
Project No., Name: 

Contractor pursuant to General Conditions submits the proposed items. If the District accepts such items as described, the undersigned may furnish such item with all necessary labor, materials, equipment and incidental to perform and complete the Work.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>SPECIFIED/ITEM OR DRAWING</th>
<th>SPECIFICATION SECTION</th>
<th>PROPOSED SUBSTITUTION (and name of Subcontractor if different)</th>
</tr>
</thead>
</table>

CERTIFICATION
Under penalty of perjury under the Laws of California, I certify that the proposed substitution will be readily available, perform adequately the functions and achieve the results called for by the design concept, be equivalent to that specified, and be subject to the same use as that specified in Contract Documents.

Contractor: (Please print name of company) 
Name and Title (if any): 
Contractor Authorized/Representative: 
Date: 

A. Does the substitution affect dimensions shown on Drawings?
B. Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution?
C. What effect does the substitution have on other trades?
D. Will substitution cause change to Project Schedule, or to critical delivery dates? Add? Shorten?
E. Differences between proposed substitution and specified item?
F. What is the Cost Differential including all mark-ups?
G. Are Manufacturer’s guarantees for the proposed item the same as for item specified? Explain differences.
H. The undersigned accepts full responsibility for delays caused by redesign of other items of the Work necessitated by substitution.
I. The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.

A/E Response: 
District Representative Response: 
O Accepted 
O Not Accepted 
O Accepted As Noted 
O Received As Noted 
O Received Too Late 
O Accepted

[Signature] Date: 
[Signature] Date: 

[Project Filing System/CCCG/107-College Center Design/13 Design Dev.4.00 Cost Docs Phase5 @ 6 E Spec & Proccccc-DIVISON 0 6 1 DRAFT/00 0 and 1 working templates/Forms & Logs Templates/Substitution Request Form - 8SF.xls]
<table>
<thead>
<tr>
<th>Item</th>
<th>Task</th>
<th>Required DPR Inspection YES or NO</th>
<th>Y/N</th>
<th>Project Phase #</th>
<th>Signed &amp; Date</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
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<tr>
<td>20</td>
<td></td>
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</tr>
</tbody>
</table>
CONTRA COSTA COMMUNITY COLLEGE DISTRICT
500 Court Street, Martinez, CA 94553

PROPOSED CHANGE ORDER
PCO No.: ________________

Contractor Name: _____________________________
Contract #: _________________________________
Contract Date: ______________________________
NTP Date: ________________________________
GL #: _________________________________

Date: _____________________________
DSA File #: 7-C1
DSA Application #: ________________________________
Campus: _________________________________
Project No., Name: _________________________________

PRELIMINARY CHANGE AS FOLLOWS:
Within (7) days provide and submit to the Project Manager a complete and itemized proposal including but not limited to the following items: cost breakdown of labor, materials, equipment, markup, construction schedule, etc. Provide either ADD or DEDUCT to the original Contract Amount.

Scope of Work: _____________________________
Ref. (Drawings, Specifications, Others): _____________________________

Final Cost of this PCO: $0.00
The Contractor requests that time will be: Increased; Decreased; By: Working Days

NOTE: The Contractor waives any claim for further adjustments of the Contract Sum and Contract Time related to the changes in Work as described above.

1 - REVIEWED & RECOMMENDED (Architect/Engineer of Record)
Stamp (when applicable) _____________________________
Signature/Date _____________________________

5 - CONTRACTOR ACCEPTANCE

Company Name: _____________________________
Address: _____________________________
Authorized Representative, Name & Title (PRIN)
Signature / Date _____________________________

2 - CONSTRUCTION MANAGER (CM) - (when applicable)

Signature / Date _____________________________

3 - PROJECT INSPECTOR (PI) - (when applicable)

Signature / Date _____________________________

4 - PROJECT MANAGER (PM)

Signature / Date _____________________________

6 - DISTRICT REPRESENTATIVE

Signature / Date _____________________________

DSA APPROVAL (when applicable)

Stamp _____________________________
Signature / Date _____________________________

Page 1 of 1
CONTRA COSTA COMMUNITY COLLEGE DISTRICT
500 Court Street, Martinez, CA 94553

CHANGE ORDER No.: ______________________

Contractor Name: ________________________ Date: ________________________
Contract #: ______________________________
Contract Date: ____________________________
NTP Date: ________________________________
GL #: __________________________________

DSA File #: 7-C1
DSA Application #: ________________________
Campus: __________________________________
Project No., Name: _________________________

THE CONTRACT IS CHANGED AS FOLLOWS: (Attach Contractor Change Order Request or Proposal - if applicable)

<table>
<thead>
<tr>
<th>ADJUSTMENT TO CONTRACT AMOUNT / TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Contract Amount: $0.00</td>
</tr>
<tr>
<td>Prior Contract Adjustments: $0.00</td>
</tr>
<tr>
<td>Contract Sum Prior to this Change Order: $0.00</td>
</tr>
<tr>
<td>Adjustment Per This Change Order: $0.00</td>
</tr>
<tr>
<td>Revised Contract Amount: $0.00</td>
</tr>
</tbody>
</table>

Original Contract Period: Start Date: ___________ End Date: ___________
The Contract Time will be Increased; Decreased; By _______ Calendar Days
Revised Contract Completion Date: ________________________

NOTE: The Contractor waives any claim for further adjustments of the Contract Sum and Contract Time related to the above changes in Work.

1 - REVIEWED & RECOMMENDED (Architect/Engineer of Record)

5 - CONTRACTOR ACCEPTANCE

Company Name: _________________________
Address: ______________________________
Stamp (when applicable) ____________________ Signature/Date _________________________

2 - CONSTRUCTION MANAGER (CM) - (when applicable)

Authorized Representative, Name & Title (PRINT)
Signature/Date _________________________

PROJECT INSPECTOR (PI) - (when applicable)

Signature/Date _________________________

3 - PROJECT MANAGER (PM) - (when applicable)

Signature/Date _________________________

6 - DISTRICT AUTHORIZED REPRESENTATIVE

Signature/Date _________________________

K:\Project Filing System\CCC-617-College Center Design\03 Design Dev3.40 Cost Docs\Phase 3.45 Specs & Prods\CCC-DIVISION 0 & 1 DRAFT\Div 0 and 1 working\Templates\Forms & Logs\Templates\Change Order - CO.xls
Page 1 of 1
<table>
<thead>
<tr>
<th>Proposed Change Order Log - PCO Log</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contractor Name</strong></td>
</tr>
<tr>
<td>Contra Costa Community College District</td>
</tr>
</tbody>
</table>

**Remarks**:
- A: PCO Administration
- B: PCO revised by contractor
- C: PCO revised by contractor
- D: PCO revised by contractor
- E: PCO approved by contractor
**CHANGE ORDER Log**

<table>
<thead>
<tr>
<th>GO #</th>
<th>Date</th>
<th>Description</th>
<th>Date Submitted to DSA</th>
<th>Date Approved from DSA</th>
<th>DSA Comments Approved/Not Approved</th>
<th>Distribution List SC AOR OR PM CM</th>
<th>Date of Issue</th>
<th>Amount Approved</th>
<th>Time Extension (Calendar Days)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

**ADJUSTMENT TO CONTRACT AMOUNT/TIME**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Contract Amount</td>
<td>$0.00</td>
</tr>
<tr>
<td>Contract Adjustments</td>
<td>$0.00</td>
</tr>
<tr>
<td>Revised Contract Amount</td>
<td>$0.00</td>
</tr>
<tr>
<td>Original Contract Completion Date</td>
<td></td>
</tr>
<tr>
<td>Number of Calendar Days Adjusted</td>
<td></td>
</tr>
<tr>
<td>Revised Contract Completion Date</td>
<td></td>
</tr>
</tbody>
</table>

**Total Approved Changes: $**
## CONTRACTOR'S PROPOSAL FOR CONTRACT MODIFICATION

**DATE:** January 0, 1900

<table>
<thead>
<tr>
<th>Project No. and Name:</th>
<th>CONTRACT NO.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-612 STUDENT SERVICE CENTER REMODEL</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contractor:</th>
<th>PCO NO.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SHORT DESCRIPTION OF CHANGE:</th>
<th>Description attached</th>
</tr>
</thead>
</table>

### PRIME CONTRACTOR'S WORK

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales Tax on Materials</td>
<td>8.25% of Line 1</td>
<td>8.25%</td>
<td>$2,475.00</td>
</tr>
<tr>
<td>Direct Labor</td>
<td></td>
<td></td>
<td>$60,000.00</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>SUBTOTAL Materials and Labor (Add lines 1-4)</td>
<td></td>
<td></td>
<td>$92,475.00</td>
</tr>
<tr>
<td>Rental Equipment</td>
<td></td>
<td>$0.00</td>
<td></td>
</tr>
<tr>
<td>Sales Tax on Rental Equipment</td>
<td>8.25% of Line 5</td>
<td>8.25%</td>
<td>$0.00</td>
</tr>
<tr>
<td>Equipment Ownership and Operating Expenses</td>
<td></td>
<td></td>
<td>$30,000.00</td>
</tr>
<tr>
<td>SUBTOTAL Equipment (Add Lines 6-8)</td>
<td></td>
<td></td>
<td>$30,000.00</td>
</tr>
</tbody>
</table>

**SUMMARY**

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prime Contractor's Work (Add Lines 5 and 9)</td>
<td></td>
<td></td>
<td>$122,475.00</td>
</tr>
<tr>
<td>Overhead and Profit On Prime Material and Labor</td>
<td>15.00% of Line 5</td>
<td>15.00%</td>
<td>$13,871.25</td>
</tr>
<tr>
<td>Overhead and Profit On Prime Equipment</td>
<td>10.00% of Line 9</td>
<td>10.00%</td>
<td>$3,000.00</td>
</tr>
<tr>
<td>Total of all Subcontractor's Work (Line 10 of Sub Summary page)</td>
<td></td>
<td></td>
<td>$10,279.05</td>
</tr>
<tr>
<td>Prime O&amp;P On Subcontractor's Work</td>
<td>5.00% of Line 13</td>
<td>5.00%</td>
<td>$513.95</td>
</tr>
<tr>
<td>Subcontractor O&amp;P All Mat'l and Labor (Line 11 of Sub Summary page)</td>
<td></td>
<td></td>
<td>$520.17</td>
</tr>
<tr>
<td>Subcontractor O&amp;P All Equipment (Line 12 of Sub Summary page)</td>
<td></td>
<td></td>
<td>$681.12</td>
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<tr>
<td>TOTAL COST (Add Lines 10-16)</td>
<td></td>
<td></td>
<td>$151,340.55</td>
</tr>
</tbody>
</table>

**Estimated time extension and justification:**

**Prime Contractor's Comments:**

**Prime Contractor's Name:**

**Signature and Title of Preparer:**

**Date:**

---

1. Material (attach itemized quantity and unit cost plus sales tax)
2. Labor (attach itemized hours and rates)
3. Equipment (attach invoices)
4. If Subcontractor performed Work, use Subcontractor's sheets to calculate costs. Subcontractor overhead and profit (all tiers cumulative) not to exceed fifteen percent (15%) of direct material, labor, and equipment on Subcontractor Summary sheet. This information propagates automatically to (15) and (16).
5. General Contractor's Overhead and Profit on Subcontractor work. No more than five percent (5%) of item (13) if work was performed by Subcontractor.

[Document Information]

**Contra Costa Community College District**
**Diablo Valley College**
**D-639 ADA Improvements – Phase 3 Architectural**

**Section 01340**
**Administrative Forms and Logs**
CONTRACTOR'S PROPOSAL FOR CONTRACT MODIFICATION

**Project No. and Name:**
1-612 STUDENT SERVICE CENTER REMODEL

**Contract No.:**

**PCO No.:**

**DATE:** January 01, 1900

**SUBCONTRACTOR SUMMARY**

<table>
<thead>
<tr>
<th>Short Description of Change</th>
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**SUBCONTRACTOR'S WORK SUMMARY**

<table>
<thead>
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<th>Amount</th>
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<tr>
<td>Direct Materials</td>
<td>$1,125.00</td>
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<tr>
<td>Sales Tax on Materials</td>
<td>8.25%</td>
</tr>
<tr>
<td>8.25% of Line 1</td>
<td>$92.81</td>
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<tr>
<td>Direct Labor</td>
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<tr>
<td>$2,250.00</td>
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</tr>
<tr>
<td>Not used</td>
<td>NA</td>
</tr>
<tr>
<td>5. SUBTOTAL Materials and Labor (Add lines 1-4)</td>
<td>$3,467.81</td>
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<tr>
<td>Rental Equipment</td>
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<td>$6,015.00</td>
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<tr>
<td>Sales Tax on Rental Equipment</td>
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<tr>
<td>8.25% of Line 6</td>
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<td>Equipment Ownership and Operating Expenses</td>
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<td>$6,811.24</td>
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**SUMMARY**

<table>
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<tr>
<th>Description</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Total Subcontractor Work (Add Lines 5 and 9)</td>
<td>$20,279.05</td>
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<tr>
<td>O&amp;P On All Subcontractor Material and Labor</td>
<td>15.00%</td>
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<tr>
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<td>O&amp;P On All Subcontractor Equipment</td>
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<tr>
<td>10.00% of Line 9</td>
<td>$681.12</td>
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<tr>
<td>TOTAL SUBCONTRACTOR COST (Add Lines 10-12)</td>
<td>$11,480.35</td>
</tr>
</tbody>
</table>


1. Material (attach itemized quantity and unit cost plus sales tax)
2. Labor (attach itemized hours and rates)
3. Equipment (attach invoices)
4. If subcontractor performed Work, use Subcontractor's sheets to calculate costs.

11. and 12. Subcontractor overhead and profit (all tiers cumulative) not to exceed fifteen percent (15%) of direct material, labor, and ten (10%) on equipment on Subcontractor Summary sheets.
CONTRACTOR'S PROPOSAL FOR CONTRACT MODIFICATION

<table>
<thead>
<tr>
<th>Project No. and Name:</th>
<th>CONTRACT NO.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-612 STUDENT SERVICE CENTER REMODEL</td>
<td>0</td>
</tr>
<tr>
<td>Tier 1 Subcontractor:</td>
<td>PCO NO.:</td>
</tr>
<tr>
<td>Somebody1</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SHORT DESCRIPTION OF CHANGE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description attached</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TIER 1 SUBCONTRACTOR’S WORK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Direct Materials</td>
</tr>
<tr>
<td>2. Sales Tax on Materials</td>
</tr>
<tr>
<td>3. Direct Labor</td>
</tr>
<tr>
<td>4. Not used</td>
</tr>
<tr>
<td>5. SUBTOTAL Materials and Labor (Add lines 1-4)</td>
</tr>
<tr>
<td>6. Rental Equipment</td>
</tr>
<tr>
<td>7. Sales Tax on Rental Equipment</td>
</tr>
<tr>
<td>8. Equipment Ownership and Operating Expenses</td>
</tr>
<tr>
<td>9. SUBTOTAL Equipment (Add Lines 6-8)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. TIER 1 Contractor's Work (Add Lines 5 and 9)</td>
</tr>
<tr>
<td>11. Total of all Subcontractor’s Work (See Backup)</td>
</tr>
<tr>
<td>12. TOTAL COST (Add Lines 15-16)</td>
</tr>
</tbody>
</table>

Subcontractor's Comments

Subcontractor's Name:

Signature and Title of Preparer: Date:

[Notes on material, labor, and equipment calculations]

v.10.2011
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total Cost</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Material</td>
<td>100</td>
<td>$10.00</td>
<td>$1000.00</td>
</tr>
<tr>
<td>2</td>
<td>Labor</td>
<td>50</td>
<td>$20.00</td>
<td>$1000.00</td>
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<tr>
<td>3</td>
<td>Equipment</td>
<td>20</td>
<td>$50.00</td>
<td>$1000.00</td>
</tr>
<tr>
<td>4</td>
<td>Subcontract</td>
<td>30</td>
<td>$15.00</td>
<td>$450.00</td>
</tr>
</tbody>
</table>

**Subtotal:** $3450.00

---

**Notes:**
- All contract modifications proposed will be submitted to the Department of Construction and will be considered as part of this contract.
- Signed contracts will be submitted to the Project Administrator for approval.
- All contracts are subject to the terms and conditions of the DSA contract.
- Any changes or modifications to the contract must be in writing and signed by both parties.

---

**Contractor:** [Insert Name]

**Contract Date:** [Insert Date]

**Signatures:**
- [Signatures of Contractor and Contractor's Representative]

---

Contra Costa Community College District
Diablo Valley College
D-639 ADA Improvements – Phase 3 Architectural

Section 01340
Administrative Forms and Logs
CONTRACTOR’S PROPOSAL FOR CONTRACT MODIFICATION

Project No. and Name: L-612 STUDENT SERVICE CENTER REMODEL
Tier 2 Subcontractor: Nobody2

DATE: January 0, 1900

Contract No.: 0
PCO No.: 0

Description attached

**TIER 2 SUBCONTRACTOR’S WORK**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Direct Materials</td>
<td>$100.00</td>
</tr>
<tr>
<td>Sales Tax on Materials</td>
<td>8.25% of Line 1: $8.25</td>
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<tr>
<td>Direct Labor</td>
<td>$200.00</td>
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<tr>
<td>Not used</td>
<td>NA</td>
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<tr>
<td>SUBTOTAL Materials and Labor (Add lines 1-4)</td>
<td>$308.25</td>
</tr>
<tr>
<td>Rental Equipment</td>
<td>$ -</td>
</tr>
<tr>
<td>Sales Tax on Rental Equipment</td>
<td>8.25% of Line 5: $50.00</td>
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<tr>
<td>Equipment Ownership and Operating Expenses</td>
<td>$300.00</td>
</tr>
<tr>
<td>SUBTOTAL Equipment (Add Lines 6-8)</td>
<td>$300.00</td>
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</table>

**SUMMARY**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIER 2 Contractor’s Work (Add Lines 5 and 9)</td>
<td>$608.25</td>
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<tr>
<td>Total of all Subcontractor’s Work (See Backup)</td>
<td>$93.30</td>
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<tr>
<td>TOTAL COST (Add Lines 10 and 11)</td>
<td>$701.55</td>
</tr>
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</table>

Tier 2 Subcontractor’s Comments:

Signature and Title of Preparer: ____________ Date: ____________

(1) Material (attach Remiized quantity and unit cost plus sales tax)
(2) Labor (attach Itemized hours and rates)
(3) Equipment (attach invoices)
(4) If Subcontractor performed Work, use Subcontractor’s sheets to calculate costs. Subcontractor overhead and profit [all tiers cumulative] not to exceed fifteen percent (15%) of direct material, labor, and equipment on Subcontractor Summary sheets.
(5) 10/2011
## CONTRACTOR'S PROPOSAL FOR CONTRACT MODIFICATION

**DATE:** January 01, 1900

### Project No. and Name:
L-612 STUDENT SERVICE CENTER REMODEL

### Tier 3 Subcontractor:

<table>
<thead>
<tr>
<th>SHORT DESCRIPTION OF CHANGE</th>
<th>Description attached</th>
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</thead>
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### TIER 3 SUBCONTRACTOR'S WORK

<table>
<thead>
<tr>
<th>Description</th>
<th>Rate (8.25% of Line 1)</th>
<th>Total</th>
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<tr>
<td>1. Direct Materials</td>
<td></td>
<td>$25.00</td>
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<tr>
<td>2. Sales Tax on Materials</td>
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<tr>
<td>3. Direct Labor</td>
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<td>$50.00</td>
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<tr>
<td>4. Not used</td>
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<tr>
<td>5. SUBTOTAL Materials and Labor (Add lines 1-4)</td>
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<td>$77.06</td>
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<td>6. Rental Equipment</td>
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<td>$15.00</td>
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<tr>
<td>7. Sales Tax on Rental Equipment</td>
<td>8.25%</td>
<td>$1.24</td>
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<td>8. Equipment Ownership and Operating Expenses</td>
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<tr>
<td>9. SUBTOTAL Equipment (Add Lines 6-8)</td>
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<td>$16.24</td>
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<tbody>
<tr>
<td>10. TIER 3 Contractor's Work (Add Lines 5 and 9)</td>
<td>$93.30</td>
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</table>

### Tier 3 Subcontractor's Comments

### Tier 3 Subcontractor's Name:

### Signature and Title of Preparer:

### Date:

---

1. Material (attach itemized quantity and unit cost plus sales tax)
2. Labor (attach itemized hours and rates)
3. Equipment (attach invoices)
4. If Subcontractor performed Work, use Tiered Subcontractor's sheets to calculate costs. Subcontractor overhead and profit (all tiers cumulative) not to exceed fifteen percent (15%) of direct material, labor, and equipment on Subcontractor Summary sheets.
# CONTRACTOR PRODUCTION REPORT

<table>
<thead>
<tr>
<th>CONTRACT NO</th>
<th>PROJECT NUMBER AND NAME</th>
<th>REPORT NO</th>
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<tr>
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<table>
<thead>
<tr>
<th>CONTRACTOR</th>
<th>SUPERINTENDENT</th>
<th>SCHED REP, IF NOT WHY</th>
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<tbody>
<tr>
<td></td>
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<table>
<thead>
<tr>
<th>AM WEATHER</th>
<th>PM WEATHER</th>
<th>MAX TEMP</th>
<th>MIN TEMP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

## WORK PERFORMED TODAY

<table>
<thead>
<tr>
<th>Schedule</th>
<th>WORK LOCATION AND DESCRIPTION</th>
<th>EMPLOYER</th>
<th>NUMBER</th>
<th>TRADE</th>
<th>HRS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## WAS A JOB SAFETY MEETING HELD THIS DATE?

Yes

TOTAL WORK HOURS ON JOB SITE:

THIS DATE, INCL CONT SHEETS

## WERE THERE ANY LODGE TIME ACCIDENTS THIS DATE?

No

SUMMATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT

## WAS CRANE/LIFT/TRENCHING/SCAFFOLDING/ELECTRICAL WORK/HAZMAT WORK DONE?

No

TOTAL WORK HOURS FROM START OF CONSTRUCTION

## WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT?

No

## List Safety Actions Taken Today/Safety Inspections Conducted

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Activity No.</th>
<th>List Safety Actions Taken Today</th>
<th>Safety Regs Required</th>
<th>Have Been Met.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Equipment/Material Received Today to be Incorporated in Job (Indicate Schedule Activity Number)

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Activity No.</th>
<th>Description of Equipment/Material Received</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Construction and Plant Equipment on Job Site Today. Indicate Hours Used and Schedule Activity Number

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Activity No.</th>
<th>Owner</th>
<th>Description of Construction Equipment Used Today (Incl Make and Model)</th>
<th>Hours Used</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Schedule

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Activity No.</th>
<th>REMARKS</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

42961 (9/98)

CONTRACTOR/SUPT Sign

Title

DATE

SHEET OF
PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Specification Sections shall apply to this section without limitation.

1.2 REQUIRED TEMPORARY FACILITIES AND CONTROLS

A. Contractor shall provide and maintain all temporary facilities, utilities, and controls as required to perform the Work and as required herein. Materials, installation, and maintenance of temporary utilities and facilities shall be in compliance with all applicable local and State regulatory requirements. Remove temporary utilities and facilities, including associated materials and equipment, when no longer required. Restore and recondition existing facilities.

B. Facilities used during construction and areas of the Site, roads, driveways, parking lots, landscaping, and any other existing improvements either damaged or disturbed by the installation of temporary facilities or utilities to their original condition. Remove and properly dispose of debris resulting from removal and reconditioning operations.

D. Contractor shall furnish and install requirements for temporary utilities, facilities, security, and protection which include but are not limited to the following:

   1. **Temporary Electric Power and Lighting**
      a. The District will pay for electric power required to complete the Work. The installation and removal of all temporary distributions of power throughout the Site shall be the sole responsibility of the Contractor without adjustment to the Contract Price or the Contract Time. The Contract Price shall not be adjusted on account of any disruption, reduction or elimination of electrical power service to the Site, unless the same is caused by the District’s non-payment of undisputed utility charges for such electrical power service. Contractor shall provide power outlets for construction operations, with branch wiring and distribution boxes located as required to complete the Work.
      b. Contractor shall provide and maintain electrical power at the Site for construction purposes, for temporary facilities and trailers, and for any other site offices or trailers required by the Contract Documents. Contractor shall provide all necessary wiring and appurtenances for connection to District’s system. Connect to District power at location(s) as directed by District.
      c. Contractor shall provide and maintain distribution of temporary electrical power and lighting to the Work and for use by the Project Inspector and District Project Manager.
      d. Contractor shall provide temporary power main service disconnect and over current protection at convenient locations and as required by governing codes.
e. The Contractor shall be responsible for providing temporary facilities as required to deliver power service from the point of connection to the point(s) of intended use.

f. Contractor shall verify characteristics of District power available for temporary service use, and provide all transformers and/or other equipment necessary to modify District power for temporary use by the Contractor. Contractor shall pay all costs associated with any necessary modifications to District power for temporary use on the Work.

g. The Contractor shall provide, install, and maintain temporary electrical lighting wherever necessary to provide illumination for the proper performance and/or observation of the Work. Where required, a minimum of 20 foot-candles for rough work and 50 foot-candles for finish work shall be provided.

2. **Temporary Communications/Telephone**

   a. Contractor shall provide, maintain, and pay for all required communications and data services (including without limitation telephone, facsimile, e-mail and internet) to all Project field offices to include a multi-function printer, copier, scanner, fax unit commencing at the time of Project mobilization, including all installation, connection, and monthly charges. The installation and removal of all temporary telephone and data distribution shall be the sole responsibility of the Contractor without adjustment of the Contract Price or the Contract Time. Routing of the new lines shall be acceptable to the District.

   b. Contractor shall provide, maintain and pay for telephone, data/internet and facsimile (FAX) machine service to field offices at time of project mobilization and for the duration of the project. Contractor to pay costs for telephone installation, telephones, internet access, maintenance services and removal.

   c. The Contractor may use the District’s telephone lines at the time needed if any lines are available and in working order. If there are no lines available or they become unusable during the project, the District shall not be held liable to furnish new lines to the Contractor for his use. In this case, the Contractor must provide the new lines for their use at no added cost or time to the Contract Price or the Contract Time.

   d. Coin operated phones are not acceptable.

   e. Contractor to provide a list of important telephone numbers at each telephone on the site offices including, but not limited to the following:
      
      i) Police and Fire Departments
      ii) Campus Police
      iii) Ambulance Service
      iv) Contractor’s home office
      v) All Principal Subcontractors’ field and home offices
      vi) Architect’s office
      vii) Engineer’s office
      viii) District office
      ix) Project Manager
      x) Project Inspector
3. **Temporary Water**
   
a. The District will furnish and pay for water during the course of the work to the extent water is available on the Site. The Contractor shall be responsible for providing all temporary facilities required to deliver District water from the point of connection to point of intended use on the Project.
   
b. Contractor shall be allowed to utilize water from the District for domestic use only. Water shall not be provided nor used for dust control, street cleaning, cleaning tools, or vehicle washing. Water used for such purposes shall be provided by the Contractor at his expense.
   
c. Contractor shall provide and maintain necessary temporary water supply connections, pipes, hoses, nozzles, and fittings required. Before final acceptance, all temporary water supply components installed by Contractor shall be removed in a manner approved by District’s Representative.
   
d. Unnecessary waste of water will not be permitted. Special hydrant wrenches shall be used for opening and closing fire hydrants, in no case shall pipe wrenches be used for this purpose. Obtain approval of governing agency prior to opening any fire hydrant.
   
e. Contractor shall provide and use backflow preventers on water lines at point of connection to any District water supply. Backflow preventers shall comply with requirements of California Uniform Plumbing Code. The installation and removal of all temporary backflow preventers on the Site shall be the sole responsibility of the Contractor without any adjustment to either the Contract Price or the Contract Time. Before final acceptance, all temporary connections and piping installed by Contractor shall be removed in a manner approved by District’s Representative.
   
f. Contractor shall provide and make potable water available for human consumption. Contractor shall provide and maintain suitable quality water service required for construction operations.
   
4. **Temporary Fences**
   
a. Temporary Fencing: Contractor shall provide temporary fencing around specified construction areas for safety and protection. Provide chain link fencing not less than eight (8) feet in height, complete with metal posts and required bracing, anchorage, visual screening, and with truck and pedestrian gates. All vehicle and Pedestrian gates and openings shall have gates secured after hours of operation.
   
b. Contractor shall provide padlocks used for securing all gates. Padlocks shall be designed to prohibit cutting of shackle. Contractor shall coordinate keying strategy with District.
   
c. Contractor shall be responsible for locking gates and shall be secured with minimum 3/8 inch thick, 30 grade coil chain, minimum 5/16 inch cable. Gates shall be kept closed and locked at all times when not in use.
d. All existing fences affected by the Work shall be maintained by Contractor until Final Completion of Project. Fences which interfere with construction operations shall not be relocated or dismantled until District gives written permission to do so, and the timing of fence relocation or dismantling has been agreed upon. Where fences must be maintained across the construction easement, adequate gates shall be installed. Site Enclosure Fence: Contractor shall furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gate.

e. Contractor will be responsible for maintaining security by limiting number of keys and restricting distribution to authorized personnel.

f. Security Enclosure and Lockup: Install substantial temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft and similar violation of security.

g. Contractor shall provide secure lockup for stored materials and equipment which are of value or attractive for theft.

h. Contractor shall be responsible for project security for materials, tools, equipment, supplies and completed and partially completed Work.

i. On completion of the Work across any tract of land, Contractor shall restore all fences to their original or to a better condition, and to their original locations.

5. Temporary Protection of Public and Private Property

a. Contractor shall protect, shore, brace, support and maintain all existing underground utilities including but not limited to the following: all pipes, conduits, drains and other underground construction uncovered or otherwise affected by construction operations.

b. All pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences and other surfaces structures affected by construction operations, together with all sod and shrubs in yards, planting areas, and medians, shall be restored to their original condition, wherever affected by construction operations. All replacements shall be made with new materials.

c. Contractor shall be responsible for all damage to streets, roads, highways, shoulders, ditches, embankments, culverts, bridges and other public or private property, regardless of location or character, which may be caused by transporting equipment, materials, or workers to or from the Work, Site or any part thereof, whether by Contractor or Subcontractors. Contractor shall be solely responsible without adjustment of the Contract Price or the Contract Time to make satisfactory and acceptable arrangements with the District, or the agency or authority having jurisdiction over the damaged property, concerning its repair or replacement or payment of costs incurred in connection with the damage.

d. All fire hydrants and water control valves shall be kept free from obstruction and available for use at all times.
6. **Temporary Sanitary Facilities**
   a. Contractor shall provide and maintain temporary sanitary toilets for use of all workers throughout the course of the Work. At a minimum, sanitary facilities shall be located at the trailer site, Contractor staging area(s) and adjacent to Work areas.
   b. Sanitary facilities shall be of reasonable capacity, properly maintained throughout the Project, and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least (1) toilet will be furnished for each (15) persons. Contractor shall enforce the use of such sanitary facilities by all personnel at the Site.
   c. Contractor shall comply with all minimum requirements of the Contra Costa Health Department or other public agency having jurisdiction.
   d. Maintain temporary facilities in a sanitary condition at all times during the Project.
   e. Contractor will keep sanitary facilities free from graffiti.
   f. Use of toilet facilities in the Work under construction shall not be permitted.
   g. Contractor is not permitted to use existing campus toilet facilities.
   h. All Portable toilets shall be located within fenced areas of the Project Site.
   i. Contractor shall be responsible for providing access to the temporary toilet facilities.

7. **Temporary Barriers and Enclosures**
   a. Contractor shall provide barriers to prevent unauthorized entry to construction areas to allow for District’s use of the Site, and to protect existing facilities and adjacent improvements from damage during construction operations.
   b. Contractor shall provide barricades as required by the Contract Documents, governing agencies, and/or field conditions in order to protect public access pathways to existing buildings scheduled to remain open during any Phase of the Work.
   c. Contractor shall protect vehicular traffic, stored materials, Site, and existing structures from damage.
   d. Contractor shall provide and maintain temporary enclosures to prevent public entry to any construction area, and to protect all persons using other existing buildings and portions of the Site and/or Premises Contractor shall maintain safe access to all existing facilities to remain in operation during any Phase of the Work.

8. **Temporary Pollution Control**
   a. Contractor shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris and other substances resulting from construction activities. No sanitary wastes shall be permitted to enter any drain or watercourses other than sanitary sewers. No sediment, debris or other substance shall be permitted to enter sanitary sewers without authorization of the receiving sanitary sewer service and all possible Best Management Practices (BMPs) shall be taken to prevent such materials from entering any drain to watercourse. Rate of discharge for storm water may be not increased by the Project during or following construction.
   b. In the event that dewatering of excavations is required, Contractor shall obtain the necessary approval and permits for discharge of the dewatering effluent from the local
jurisdiction. Contractor shall be responsible for assuring that water quality of such discharge meets the appropriate permit requirements prior to any discharge.

c. Contractor shall comply with the District Storm Water Pollution Prevention Plan for this Project.

9. Construction Aids

a. Contractor shall furnish, install, maintain and operate all construction aids as required for the performance of the Work. Such construction aids include, but are not limited to, elevators and hoists, cranes, temporary enclosures, swing staging, scaffolding, and temporary stairs.

10. Erosion Control

a. Contractor shall comply with the District Storm Water Pollution Prevention Plan for this Project if applicable.

b. Contractor shall prevent soil erosion on the Site and adjacent property resulting from its construction activities to the maximum extent practical, including implementation of Best Management practices. Effective measures shall be initiated prior to the commencement of clearing, grading, excavation or other operations that will disturb the natural protection.

c. Work shall be scheduled to expose areas subject to erosion for the shortest possible time and natural vegetation shall be preserved to the greatest extent practicable. Temporary storage, temporary construction buildings and temporary Field office buildings shall be located and construction traffic routed to minimize erosion. Contractor shall provide temporary fast-growing vegetation or other suitable ground cover shall be provided as necessary to control runoff.

11. Vehicular and Pedestrian Traffic Controls

a. The college campus is an active site, with vehicular and pedestrian traffic occurring at all times of the day and all days of the week. Contractors shall coordinate with District’s Representative concerning vehicular traffic associated with the construction in order to minimize disruption to college operations. Delivery trucks and large equipment shall enter the Contractors access gate and shall use the route mutually agreed upon between District and Contractor at the beginning of each Phase of work. Contractor shall provide signage directing construction and delivery traffic to this gate. Contractor shall provide information regarding sign types, size, material, text and locations to be reviewed and approved by the District Representative prior to installation.

b. Contractor shall keep all required fire department and emergency vehicle access paths free from obstruction at all times during the Project.

12. Temporary Signage

a. Sign must be reviewed and approved by the District prior to installation.

b. Contractor shall provide temporary directional signs for construction personnel and visitors.

c. Contractor shall maintain and touch-up signs so they are legible at all times.
13. **Temporary Heat and Ventilation**
   a. Provide temporary heat as required to maintain adequate environmental conditions to facilitate progress of the work, to meet specified minimum environmental conditions for the Work and to protect materials and finishes from damage due to improper temperature and humidity conditions.
   b. Portable heaters shall be standard units complete with controls, appropriate safety features, and bear testing lab approval markings.
   c. Provide adequate forced ventilation of enclosed areas as required for proper installation and curing of materials, to disperse humidity, and to prevent hazardous accumulations of dust, fumes, vapors and gases.
   d. HVAC Equipment: Unless District authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
      i) Use of gasoline-burning space heater, open-flame heater or salamander-type heating units is prohibited.
      ii) Heating Units: Listed and labeled for type of fuel being consumed, by a testing agency acceptable to authorities having jurisdiction and marked for intended use.

**PART 2 – PRODUCTS**

2.1 **MATERIALS - Not used**

**PART 3 - EXECUTION**

3.1 **INSTALLATION, GENERAL**
   A. Locate contractor facilities where they will serve Project adequately and result in minimum interference with performance of Work. Relocate and modify facilities as required by progress of the Work during entire project including all phases of project.
   B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.
   C. Contractor shall verify and coordinate all relocation of facilities with the District, Project Manager.

3.2 **OPERATION, TERMINATION AND REMOVAL**
   A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
   B. Maintenance: Maintain facilities in good operating condition until removal.
      1. Where appropriate, maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
   C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion and acceptance by the District.
D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use a permanent facility or no later than Final completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.

14. Materials and facilities that constitute temporary facilities are property of Contractor. District reserves the right to take possession of Project Identification signs at no cost to the District.

15. Remove temporary paving not intended for or acceptable for integration into permanent paving. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs and sidewalks at temporary entrances, as required by authorities having jurisdiction.

16. Clean and renovate permanent facilities used during construction period prior to Final Completion. Comply with final cleaning requirements specified in Section 01770, Contract Closeout Procedures.

END OF SECTION 01500
SECTION 01730
CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Division 1 Specification Sections shall apply to this section without limitation.

B. Individual Product Specification Sections:
   1. Cutting and patching incidental to work of the section.
   2. Advance notification to other sections of openings required in work of those sections.
   3. Limitations on cutting structural members.

1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS
A. Section 00700 – “General Conditions”

1.3 DEFINITIONS
A. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.

B. Patching: Fitting and repair work required to restore surfaces to new or original conditions after installation of other Work.

1.4 RESPONSIBILITIES
A. The Contractor shall be responsible for cutting, fitting, or patching to complete the Work and to make all parts fit together properly. Contractor shall be responsible for ensuring that all trades are coordinated and scheduled so as to ensure the timely and proper execution of the work. When modifying existing work or installing new Work adjacent to existing work, Contractor shall match, as closely as conditions of Site and materials will allow, the finishes, textures, and colors of the original work, refinishing existing work at no additional cost to District. All cost caused by defective or ill-timed work shall be borne by Contractor. Contractor shall be solely responsible for protecting existing work on adjacent properties and shall obtain all required permits for shoring and excavations near property lines.

B. Contractor shall be responsible for all cutting, fitting, and patching, including associated excavation and backfill, required to complete the Work. This includes, but is not limited to:
   1. Making parts fit together properly
   2. Removal and replacement of defective Work
   3. Removal and replacement of Work not conforming to requirements of Contract Documents
   4. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit
5. Attaching new materials to existing improvements
6. Painting (or other finishes) to match adjacent or existing conditions

C. Contractor shall not cut or alter any part of the Work in such a way that endangers or compromises the integrity of the Work, the work of others, or the Project.

D. New or existing structural members and elements, including reinforcing bars and seismic bracing, shall not be cut, bored, or drilled except by written authority of the Architect. Work done contrary to such authority is at the Contractor’s risk and subject to replacement at its own expense without reimbursement under the Contract. Schedule delays resulting from Agency approvals for unauthorized work shall be the Contractor’s responsibility.

E. Permission to patch any areas or items of the Work shall not constitute a waiver of the District’s or the Architect’s right to require complete removal and replacement of the areas of items of the Work if, in the opinion of the Architect or the District, the patching does not satisfactorily restore quality and appearance of the Work or does not otherwise conform to the Contract Documents.

1.5 QUALITY ASSURANCE

A. Requirements for Cutting and Patching relating to structural elements: Do not cut and/or patch structural elements in a manner that would alter their structural design characteristics.

1. Obtain written approval of the cutting and patching proposal from the Structural Engineer of Record prior to cutting and/or patching any structural elements.

2. Where cutting and patching Work involves adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure. Contractor shall be responsible for any costs associated with required Structural Engineer and/or DSA reviews and approvals.

B. Operational Limitations: Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decreased operational life or safety.

C. Visual Requirements: Do not cut and patch exposed Work in a manner that would, in the Architect or District’s opinion, reduce the building's aesthetic qualities. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching. Remove and replace construction cut and patched in a visually unsatisfactory manner as directed by District.

D. Contractor shall ensure that all cutting, fitting, and patching shall achieve the security, strength, weather protection, and appearance for aesthetic match, efficiency, operational life, maintainability, safety of operational elements, and the continuity of existing fire ratings as required by the Contract Documents.

E. Contractor shall ensure that cutting, fitting, and patching shall successfully duplicate undisturbed adjacent profiles, materials, textures, finishes, colors, and that materials shall match existing construction. Where there is dispute as to whether duplication is successful or has been achieved to a reasonable degree, the District’s decision shall be final.
F. Operational Elements: Do not cut and patch operating elements and/or related components in a manner that results in reducing their capacity to perform as intended, results in increased maintenance requirements, that decreases operational life, or that affects system or component safety. Operating elements include, but are not limited to the following:

1. Fire-suppression systems.
2. HVAC systems.
3. Control systems.
4. Mechanical systems piping and ducts.
5. Air smoke barriers.
6. Telephone and communication systems.
7. Electrical wiring systems.
8. Primary operational systems and equipment.

G. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or those results in increased maintenance or decreased operational life or safety.

PART 2 - PRODUCTS
Not Used

PART 3 - EXECUTION
Not Used

END OF SECTION 01730
ARCHITECT

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www.swanarch.com
SECTION 02 0700
SELECTIVE DEMOLITION

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Requirements for demolishing, cutting, removing and salvaging existing improvements as designated or required for construction of new work under this contract.

B. Related Sections.

1. Section 01 73 29 Cutting and Patching.

1.02 REFERENCES

A. ANSI - American National Standards Institute, Inc.

1. A10.6 - American National Standard Safety Requirements for Demolition

1.03 DEFINITIONS

A. Remove: Remove and legally dispose of items except those indicated to be reinstalled, salvaged, or to remain.

B. Salvage: Items indicated to be salvaged remain the District’s property. Remove, clean, and pack or crate items to protect against damage. Identify contents of containers and deliver to District’s designated storage area.

C. Relocate: Remove items indicated, clean, service, and otherwise prepare them for reuse; store and protect against damage. Reinstall items in locations indicated.

D. Existing to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by the District’s Representative, items may be removed to a suitable, protected storage location during selective demolition and then cleaned and reinstalled in their original locations.

1.04 SUBMITTALS

A. Permits and Certificates: Submit all permits and certificates required for the Project for record purposes.

B. Work Schedule: Submit proposed schedule of work items to be performed, and description of how work is to be accomplished.

C. Report of inspections conducted with the District’s Representative both before and after performing work.
1.05 QUALITY ASSURANCE

A. Requirements of Regulatory Agencies:

1. All work shall comply with rules and regulations of State of California, California Code of Regulations, Title 8, Industrial Relations, Chapter 4, Subchapter 4, "Construction Safety Orders" and other applicable local and state agencies having jurisdiction.

2. Secure all required Permits or Certificates for demolition or discontinuance of utilities prior to beginning work.

1.06 PROJECT CONDITIONS

A. Prepare photographs or videotape, sufficiently detailed, to document existing conditions in adjoining construction and site improvements in event of damage, or allegations of damage, resulting from demolition or other construction operations.

B. Disposition of Existing Improvements:

1. All materials indicated to be removed shall become property of the Contractor and shall be disposed of by him outside of project site. Do not dispose of removed materials by sale, gift or in any other manner to general public at site. Sale or disposal of such materials at site to other duly licensed contractors or material men will be permitted provided materials are removed from construction site by the Contractor.

2. All removal of debris from site, including removal of inventory to site of storage, is part of this contract and shall be done by Contractor's employees and no others.

C. Protection:

1. Erect and maintain temporary bracing, lights, barricades, construction barricades for subsequent new construction, warning signs, and guards necessary to protect public, District's employees, finishes, improvements to remain, trees, and adjoining structures from damage, all in accordance with applicable regulations.

2. Wet down areas affected by this work as required to prevent dust and dirt from rising.

D. Scheduling:

1. Coordinate with District's Representative in scheduling noisy or dirty work.

2. Schedule work to cause minimal interference with normal school operations.
E. Traffic Circulation:
   1. Ensure minimum interference with roads, streets, driveways, sidewalks, and adjacent facilities.
   2. Do not close or obstruct public thoroughfares without first obtaining required permit or permission of the District’s Representative.

PART 2 - PRODUCTS

   NOT USED

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine areas affected by work of this Section and verify following:
   1. Disconnection of utilities as required.
   2. Utilities serving occupied portions of campus will not be disturbed.

B. Where existing conditions conflict with representations of the Contract Documents, notify the District’s Representative and obtain clarification. Do not perform work affecting conflicting conditions until clarification of conflict is received.

3.02 PREPARATION

A. Verify that area to be demolished or removed is not in use and that adequate space is available to perform work.

B. Arrange for, and verify termination of utility services and capping of lines.

C. Lay out cutting work at job site and coordinate with related work for which cutting is required.

3.03 DEMOLITION

A. Provide noise and dust abatement as required to prevent contamination of adjacent areas. Remove all materials not designated as salvage in their entirety.
B. Concrete:

1. Concrete shall be removed by saw cutting, drilling, chipping, breaking or combination thereof, as indicated or required to satisfactorily accomplish work without damage to existing improvements to remain. Control dust by wetting and frequent cleanup.

2. Cut concrete by wet method only. No dry cutting is allowed.

C. Hazardous Materials:

1. If hazardous materials are uncovered or encountered, stop all work in area of hazardous materials and notify the District’s Representative in writing.

2. Continue work only after the District’s Representative has, in writing, notified the Contractor that hazardous materials have been abated.

3.04 CUTTING

A. Cutting of concrete shall be made neat and clean.

B. Do not cut or alter structural members unless indicated to do so in the Contract Documents, or written approval is received from the District’s Representative.

C. Take care not to damage structural elements (steel reinforcing, or structural steel or wood, or concrete) shown to remain in place and not explicitly noted to be removed.

3.05 CLEANING AND ADJUSTING

A. Promptly patch and repair holes and damaged surfaces caused to adjacent construction by demolition operations.

B. Where repairs to existing surfaces are required, patch to produce surfaces to match existing.

3.06 FIELD QUALITY CONTROL

A. The District’s Representative will accompany the Contractor before and after performance of work to confirm physical condition of structures or improvements involved.

END OF SECTION
PART 1 – GENERAL

1.1 SUMMARY

A. The general scope of work includes the removal and disposal of identified asbestos containing materials that will be impacted by the ADA Restroom Renovations at Diablo Valley College in Pleasant Hill, California. The buildings included in this project are Faculty Office, Humanities, Science Center and Student Union.

B. In addition, certain ceramic tile glazing materials have been determined to contain lead in concentrations above the laboratory method detection limit. All demolition work impacting lead-containing materials must be conducted according to the OSHA Lead in Construction standard 8 CCR 1532.1.

C. The Contractor is responsible for conducting a thorough site visit and for reviewing the entire set of bid package documents in order to ascertain a more complete scope of the hazardous materials abatement requirements.

D. This document includes minimum requirements for asbestos and lead handling, control, and abatement activities, as applicable, including, but not limited to:

1. Handling and disposal of asbestos-containing building materials (ACBM).
2. Handling and disposal of lead-containing building materials.
3. Criteria for abatement zone clearance testing.

1.2 COMPLIANCE AND INTENT

A. This project involves the abatement of known asbestos and lead containing materials within the buildings. During all work, provide monitoring and worker protective equipment in accordance with the California Occupational Safety and Health Administration (Cal-OSHA) and as required by this specification. Where there is conflict, the most stringent requirement shall apply.

B. All asbestos and lead containing materials shall be removed and disposed of according to all federal, state and local regulations. Contractor shall anticipate that the demolition of non-hazardous materials may be required in order to access and remove the identified materials listed herein.

C. The abatement workers shall receive EPA-accredited training and be certified for asbestos abatement work. Any contractors involved in the demolition of surfaces containing lead shall conduct all work in accordance with DOSH’s lead construction standard, Title 8 CCR 1532.1.
D. Furnish all labor, materials, facilities, equipment, services, employee training, medical monitoring, permits and agreements necessary to perform the work required for asbestos and lead containing materials abatement in accordance with this specification.

E. Comply with all federal, state, and local regulations pertaining to asbestos and lead containing materials removal, storage, transportation and disposal; employee health and safety; Contractor certifications; hazardous materials certifications; and all licenses, permits, and training.

F. Materials and equipment shall be stored within areas designated by the Owner. Should additional space be required, the Contractor shall request permission for additional space and shall adequately safeguard occupants from associated health and safety hazards.

G. Perform all work specified herein with competent persons trained, knowledgeable and qualified in state-of-the-art techniques relating to asbestos and lead materials abatement, handling, and the subsequent cleaning of contaminated areas.

H. During removal activities, the Contractor shall protect against contamination of soil, water, plant life, and adjacent building areas, and shall ensure that there is no airborne release of hazardous materials and dusts. The Owner may collect air samples in the building and in adjacent areas to evaluate the Contractor’s performance. Evidence of settled dust or airborne levels of contaminants above background will require the implementation of additional controls at no increase to contract price.

I. This section provides appropriate protocols for handling and disposal of asbestos and lead containing materials. All hazardous materials shall be removed according to the procedures outlined in this specification. If additional suspect asbestos and lead containing materials are discovered during the course of the abatement work, immediately notify the Owner and/or the Environmental Consultant.

J. The work of this section shall be performed by an entity that holds a current, valid asbestos handling license issued by the California State Contractor’s Licensing Board (SCLB) and a current valid Certificate of Registration for Asbestos-Related Work issued by the California Department of Industrial Relations-Division of Occupational Safety and Health (Cal-OSHA), unless otherwise specified. Display copies of CSLB license and Cal-OSHA Certificates in a visible place at the job-site.

K. Asbestos and lead containing materials removed during the abatement activities shall be disposed of in an approved manner complying with all applicable federal, state, and local regulations. Appropriate waste manifests or letters of salvage shall be furnished to the Owner thereby limiting the Owner’s liability for improperly salvaged items. Materials are conveyed to the Contractor “as is,” without any warranty, expressed or implied, including but not limited to, any warranty to marketability or fitness for a particular purpose, or any purpose. The Owner or the Owner’s Consultant shall approve the non-ACM hazardous waste disposal site(s) prior to disposal for materials that may be disposed of in that manner.
L. All interior abatement work shall be conducted using negative pressure enclosures with full worker and equipment decontamination units.

1.3 SCOPE OF WORK

A. The following asbestos-containing materials listed in Table I must be abated and removed from the building prior to the commencement of any renovation work which will impact these materials. The Contractor is responsible for field verifying locations and quantities of these materials.

### TABLE I
ASBESTOS-CONTAINING MATERIALS

<table>
<thead>
<tr>
<th>Material Description</th>
<th>Typical Locations</th>
<th>NESHAP Category</th>
<th>Asbestos Type</th>
<th>Estimated Quantity**</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FACULTY OFFICE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drywall with joint compound</td>
<td>Women’s restroom</td>
<td>RACM</td>
<td>Drywall: ND Joint Compound: &lt;1% CH* (Wall system is assumed to contain &gt;1.0% asbestos)</td>
<td>800 sf</td>
</tr>
<tr>
<td>Mirror mastic</td>
<td>women’s restroom</td>
<td>Cat. II</td>
<td>Assumed</td>
<td>5 sf</td>
</tr>
<tr>
<td><strong>HUMANITIES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wainscot mastic</td>
<td>Women’s restroom</td>
<td>Cat. II</td>
<td>Assumed</td>
<td>100 sf</td>
</tr>
<tr>
<td>Mirror mastic</td>
<td>Men’s &amp; women’s restrooms</td>
<td>Cat. II</td>
<td>Assumed</td>
<td>50 sf</td>
</tr>
<tr>
<td><strong>SCIENCE CENTER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drywall with joint compound</td>
<td>Men’s &amp; women’s restrooms</td>
<td>RACM</td>
<td>Drywall: ND Joint Compound: &lt;1% CH* (Wall system is assumed to contain &gt;1.0% asbestos)</td>
<td>2,200 sf</td>
</tr>
</tbody>
</table>
Material Description | Typical Locations | NESHAP Category | Asbestos Type | Estimated Quantity**
---|---|---|---|---
STUDENT UNION

Mirror Mastic | Men’s & women’s restrooms | Cat. II | Assumed | 40 sf

* Joint Compound has not been point counted and should be assumed to contain >1% asbestos
** Does not represent the amount of ACM that will be impacted by the work.

NA = Not Applicable, CH = Chrysotile, RACM = Regulated asbestos containing material (friable), Cat. I = Non-friable (note ACM must be reclassified as a RACM if rendered friable during removal), Cat. II = Category II Non-friable (note ACM must be reclassified as a RACM if rendered friable during removal), sf = square feet, lf = linear feet; UND = Undetermined

1. The California Business and Professions Code (Section 341.6 et al) requires asbestos registration for removal of ACCM exceeding 100 sf annually. In addition, the Cal/OSHA requirements include, but are not limited to, storage of the waste in leak tight containers and proper labeling of the waste.

B. LEAD-CONTAINING MATERIALS:

1. The Contractor is responsible for proper handling, personnel monitoring, personnel protection, and disposal of lead containing construction debris.

| TABLE II | LEAD-CONTAINING MATERIALS |
| --- | --- | --- |

<table>
<thead>
<tr>
<th>Material</th>
<th>Typical Locations</th>
<th>Analytical</th>
</tr>
</thead>
</table>

FACULTY OFFICE

White paint on drywall | Women’s restroom | 382 ppm |

6” Yellow ceramic wall tile | Women’s restroom | 104 ppm |

HUMANITIES

White paint on plaster | Men’s and women’s restrooms | 372 ppm |

STUDENT UNION
### Material

<table>
<thead>
<tr>
<th>Material</th>
<th>Typical Locations</th>
<th>Analytical</th>
</tr>
</thead>
<tbody>
<tr>
<td>2” Beige ceramic floor tile</td>
<td>Men’s and women’s restrooms</td>
<td>69.4 ppm</td>
</tr>
</tbody>
</table>

ppm – parts per million

2. The Contractor is responsible for determining the required testing protocols for lead-containing materials prior to disposal.

3. Contractor shall conduct personal monitoring and provide workers with appropriate personal protective equipment, if necessary. All work shall be conducted in a manner that does not release lead dust to the surrounding areas.

4. The Contractor is responsible for conformance with all applicable regulations, including, but not limited to, CAL/OSHA Worker Protection, CAL/EPA Environmental Protection requirements, and the Department of Public Health (DPH).

#### 1.4 DEFINITIONS

**Abatement - Asbestos:** Process of controlling fiber release from asbestos-containing materials, including encapsulation, enclosure, controlled renovation procedures, removal, clean up and disposal.

**ACCM:** Asbestos-containing construction materials with an asbestos content of >0.1%.

**ACM:** Asbestos-containing material.

**Action Level - Lead:** Employee exposure without regard to the use of respirators, to an airborne concentration of 30 micrograms per cubic meter of air (30 μg/m³) calculated as an 8-hour time-weighted average (TWA).

**Activity Class/Category - Lead:** The designation assigned to work activities specified for removal of lead by pressure blasting, grinding, scraping, needle-gunning, chiseling, hammering, or wire brushing. Activity Classes I through III determine the minimum surveillance measures and exposure controls of the Contractor(s).

**Aggressive Sampling:** Refers to air sampling either during or following the agitation of the air.

**AHERA:** Asbestos Hazard Emergency Response Act (40 CFR Part 763).

**Airlock:** A system for permitting ingress and egress with minimum air movement between a contaminated area and uncontaminated areas. Typically consists of two curtained or gasketed doorways separated by a distance of at least six feet such that one passes through one doorway into the airlock, allowing the doorway to close off the opening. This airlock must be maintained in uncontaminated condition at all times.
Ambient Air Quality: The quality of air (in terms of airborne fiber content) that is present in a given space.

Area Monitoring: Sampling of airborne asbestos fiber concentrations and/or airborne lead concentrations within the work area and outside the work area. Sampling shall represent airborne concentrations that may reach the breathing zone.

Asbestos Fibers: Refers to asbestos fibers having an aspect ratio of 3:1, and those fibers longer than five (5) micrometers.

Asbestos Permissible Exposure Limit (PEL): A level of airborne fibers specified by OSHA as an occupational exposure standard for asbestos. This level represents the 8-hour time-weighted average of 0.1 fibers per cubic centimeter as measured by Phase Contrast Microscopy (PCM) analytical method.

Asbestos-Containing Material (ACM): Those manufactured products and construction materials including structural and mechanical building materials, as well as packings and gaskets that contain more than one percent (1.0 %) asbestos by weight.

Asbestos: Asbestos includes asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite) cummingtonite-gunterite (amosite), anthophylite, tremolite, and actinolite. For the purposes of determining worker respiratory protection, both the asbestiform and non-asbestiform of the above minerals, and any chemically treated or altered materials shall be considered as asbestos.

Authorized Visitor: Designated employees or consultants for the Owner and representatives of any federal, state and local regulatory or other agency having jurisdiction over the project.

B Reader: A radiologist skilled in evaluating X-rays of people exposed to asbestos.

Baseline: Refers to the background levels of asbestos monitored before abatement.

Breathing Zone: A hemisphere forward of the shoulders and head with a radius of approximately six to nine inches.

Breach: A rift or gap in the critical or secondary barriers that allow egress of air from the containment to outside, or vice versa.

Bridging Encapsulant: An encapsulant that forms a discrete layer on the surface of an in-situ asbestos matrix.

CAL/OSHA: State of California, Occupational Safety & Health Administration, enforcement arm of the California Department of Labor related to worker protection laws.

Chain-of-Custody: A legal concept involving documentation of the physical possession of a sample/samples from the moment it is collected, transported, analyzed, and ultimately stored in an archive.
Change Rooms: Refers to the two chambers in the decontamination area used to change into and out of protective clothing.

Certified Industrial Hygienist (CIH): A person certified by the American Board of Industrial Hygiene retained by contractor.

Clean Room: An uncontaminated area or room that is part of the worker decontamination enclosure system, with provisions for storage of workers’ street clothes and protective equipment.

Clearance Level: Clearance level for samples analyzed by Phase Contrast Microscopy (PCM) will be less than 0.01 fibers per cubic centimeter of air and for Transmission Electron Microscopy (TEM) will be less than 70 structures per square millimeter (< 70 s/mm²). Samples may be collected by non-aggressive sampling methods and the minimum air volume shall be 1,200 liters.

Competent Person: One who is capable of identifying existing and predictable asbestos hazards and who has the authority to take prompt corrective measures to eliminate them.

Critical Barrier: A unit of temporary construction that provides the only separation between asbestos work area and an adjacent potential occupied space. This includes the decontamination unit, perimeter walls, ceilings, penetrations and any temporary critical barriers between the work area and the uncontaminated environment.

CSLB: Contractors State Licensing Board.

Decontamination Area: Area which is constructed to provide the means for workers to store clothing, equipment and other articles, and to properly remove asbestos contamination upon concluding work activities that result in exposure to these hazardous materials.

DPH: State Department of Public Health

DOP: Dioctylphthalate, the challenge aerosol used to perform on-site leak testing of HEPA filtration equipment.

DOT: Federal Department of Transportation

DOSH: Division of Occupational Safety & Health (Also see Cal-OSHA)

Decontamination Unit: Refers to system of airlocks used to decontaminate personnel, waste bags, equipment, etc. when exiting the work area. A decontamination unit shall be set up for each containment area.

Demolition: The wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility.

Disposal Bag: Minimum six (6) mil thick leak-tight plastic bags used for transporting asbestos waste from a work area to disposal or shipping container. Each disposal bag must have required labels according to 8 CCR 1529 (Cal-OSHA asbestos rule), 5194 (HAZCOM). RACM waste must
be additionally labeled according to 49 CFR 171-179 (USDOT), and 40 CFR 61 Subpart M (NESHAP). Hazardous waste disposal bags must be labeled with generator’s name, address, and site location and generator number.

DANGER
CONTAINS ASBESTOS FIBERS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
DO NOT BREATHE DUST
AVOID CREATING DUST
RQ WASTE ASBESTOS, 9 NA 2212 PG III
(Class 9 placard)
HAZARDOUS WASTE
STATE AND FEDERAL LAW
PROHIBITS IMPROPER DISPOSAL.
IF FOUND, CONTACT THE NEAREST
POLICE OR PUBLIC SAFETY
AUTHORITY OR THE CALIFORNIA
DEPARTMENT OF TOXIC SUBSTANCES AND CONTROL

Encapsulant: A liquid material that can be applied to asbestos-containing material that controls the possible release of asbestos fibers from the material either by creating a membrane over the surface (bridging) or by penetrating into the material and binding its components together (penetrating encapsulant).

Encapsulation: A specified procedure necessary to coat asbestos-containing material or asbestos contaminated surfaces with an encapsulant to control the possible release of asbestos fibers into the ambient air.

Enclosure: The construction of an airtight, impermeable, permanent barrier surrounding the asbestos-containing material to prevent the release of asbestos fibers into the air.

Environmental Consultant: Certified Industrial Hygienist (CIH), Certified Asbestos Consultant (CAC), and/or Certified Site Surveillance technician retained by the Owner.

Equipment Decontamination Enclosure System: A decontamination enclosure system for materials and equipment, typically in a designated area of the work area, and including a washroom, a holding area, and an uncontaminated area.
Equipment Room: A contaminated area or room that is part of the worker decontamination enclosure system, with provisions for storage of contaminated clothing and equipment. The equipment room shall be kept clean from asbestos-containing debris at all times.

Excursion Limit: A California Code of Regulations (8 CCR 1529) requirement that ensures no employee is exposed to airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of thirty (30) minutes.

Filter: A media component used in respirators to remove solid or liquid particles from the inspired air.

Fixed Object: A unit of equipment or furniture in the work area that cannot be removed from the work area.

EPA: Environmental Protection Agency.

HEPA: High Efficiency Particulate Air filter capable of filtering out airborne particulate 0.3 microns or greater in diameter at 99.97 percent efficiency.

Friable Asbestos-Containing Material: Material that contains more than 1.0% asbestos by weight, and that can be crumbled, pulverized or reduced to powder by hand pressure when dry.

Foreman: An individual who typically fulfills the duties of “competent person” as defined in Title 8 CCR 1529. This individual must supply documentation of a passing grade in an EPA accredited course in Practices and Procedures in Asbestos Control. The foreman must be on-site during all abatement work.

Glove bag: A polyethylene bag with two inward projecting long sleeve gloves, designed to enclose an object from which an asbestos-containing material is to be removed. Bags shall be seamless at the bottom, have a minimum thickness of 6 mil, and shall be labeled appropriately.

Glove bag Technique: A method for removing ACM from heating, ventilating, and air conditioning (HVAC) ducts, piping runs, valves, joints, elbows, and other non-planar surfaces. The glove bag is constructed and installed in such a manner that it surrounds the object or material to be removed and contains all asbestos fibers released during the process. Secondary containment shall be provided for all glove-bag work unless noted otherwise.

Gross or Full Abatement Area: Designated rooms, spaces, or areas of the project that have been totally sealed, contained in polyethylene, equipped with decontamination enclosure systems, and placed under negative pressure.

HEPA Filter Equipment: High efficiency particulate air filtered vacuuming equipment with a filter system capable of collecting and retaining asbestos fibers. Filters shall be 99.97 percent efficient at retaining fibers of 0.3 microns or larger.
HEPA Filter Vacuum Collection Equipment: High efficiency particulate air filtered vacuum collection equipment with a filter system capable of collecting and retaining asbestos fibers. Filters should be of 99.97% efficiency for retaining fibers of 0.3 microns or larger.

Lead: Toxic metallic element of atomic number 82, or any other materials, substances or compounds that may contain lead. Note for metal painted surfaces lead is often found in combination with chromates. For the purposes of this specification, lead also refers to lead-chromate paints.

Lead Hazardous Waste: Paint, sludge, debris or cleaning materials are to be treated as a hazardous waste if laboratory results indicate a lead (Pb) concentration of 5 milligrams per liter (mg/l) or greater using the EPA approved Toxicity Characteristic Leaching Procedure (TCLP) test. The waste will also be classified as hazardous waste if the Total Threshold Limit Concentration (TTLC) of measured lead is greater than 350 mg/kg or if the Soluble Threshold Limit Concentration (STLC) of measured lead is greater than or equal to 5 mg/l.

Movable Object: A unit of equipment or furniture in the work area that can be removed from the work area, (e.g., smoke detectors, lights).

Negative Pressure Respirator: A respirator in which the air pressure inside the respiratory-inlet covering is positive during exhalation in relation to the air pressure of the outside atmosphere, and negative during inhalation in relation to the air pressure of the outside atmosphere.

Negative Pressure: Air pressure lower than surrounding areas, generally caused by exhausting air from a sealed space (work area).


NIOSH: National Institute for Occupational Safety and Health: (Research Institute within Federal OSHA). Sets test standards, analytical methods, and certify performance of various respirator designs.

NIST: National Institute of Standards and Technology: Administers the NVLAP Program.

NVLAP: National Voluntary Laboratory Accreditation Program: Evaluates and certifies laboratories doing PLM and TEM analysis.

Owner: Contra Costa Community College District

Owner’s Representative: Terracon Consultants, Inc.

Passive Sampling: Refers to air sampling with no air agitation.

Penetrating Encapsulant: An encapsulant absorbed by the in-situ asbestos matrix without leaving a discrete surface layer.
Permissible Exposure Limits (PELs) - Asbestos: A level of airborne fibers specified by OSHA as
an occupational exposure standard for asbestos. Represents the 8-hour time weighted average
of 0.1 total fibers per cubic centimeter and 30 minute excursion limit of 1.0 fiber per cubic as
measured by phase contrast microscopy (PCM).

Permissible Exposure Level (PEL) - Lead: An eight-hour time weighted average concentration of
50 micrograms of lead per cubic meter of air (50 $\mu g/m^3$).

Personal Monitoring: Sampling for asbestos and lead concentrations within the breathing zone of
an employee.

Phase Contrast Microscopy (PCM): Phase contrast microscopy (PCM) is a technique using a light
microscope equipped to provide enhanced contrast between the fibers and the background.
Filters are cleared with a chemical solution and viewed through the microscope at a magnification
of approximately 400X. This method does not distinguish between fiber types and only counts
those fibers longer than 5 micrometers and wider than approximately 0.25 micrometers. Because
of these limitations, fiber counts by PCM typically provide only an index of the total concentration
of airborne asbestos in the environment monitored.

Polarized Light Microscopy (PLM): An optical microscopic technique used to identify asbestos
content and distinguish between different types of asbestos fibers by their shape and unique
optical properties.

Powered Air Purifying Respirator (PAPR): A full facepiece respirator that has the breathing air
powered to the wearer after it has been purified through a filter.

Protection Factor: The ratio of the ambient concentration of an airborne substance to the
concentration of the substance inside the respirator at the breathing zone of the wearer. The
protection factor is a measure of the degree of protection provided by a respirator to the wearer.

Remodel: Replacement or improvement of an existing building or portion thereof where exposure
to airborne asbestos may result. Remodel includes, but is not limited to, installation of materials,
demolition, cutting, patching, and removal of building materials.

Removal encapsulant: A penetrating encapsulant specifically designed for removal of asbestos
containing materials than for in-situ encapsulation.

Respirator: A device designed to protect the wearer from the inhalation of harmful atmospheres.

Shower Room: A room between the clean room and the equipment room in the worker
decontamination enclosure system. This room contains hot and cold or warm running water and
soap suitably arranged for complete showering during decontamination. The shower room
comprises an air lock between contaminated and clean areas.

Soluble Threshold Limit Concentration (STLC): A material is considered as hazardous waste if
laboratory test result indicate Soluble Threshold Limit Concentration of measured lead are greater
than or equal to 5 milligrams per liter (mg/l).
Surfactant: A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.

TEM: Transmission Electron Microscopy: Asbestos structure analysis for a specified volume of air. TEM is a technique that focuses an electron beam onto a thin sample. As the beam transmits through certain areas of the sample, an image resulting from varying densities of the sample is projected onto a fluorescent screen. Transmission electron microscopy is the state-of-the-art analytical method for identifying asbestos fibers collected in air samples in non-industrial settings. Transmission electron microscopes equipped with selected area electron diffraction (SAED) capabilities also can provide information on the crystal structure of an individual particle.

Toxicity Characteristic Leaching Procedure (TCLP): Test developed by U.S. Environmental Protection Agency (USEPA) to simulate landfill conditions and the potential for a waste to leach hazardous materials (40 CFR 261 - Appendix 2).

Total Threshold Limit Concentration (TTLC): A material is considered as hazardous waste if laboratory test result indicate Total Threshold Limit Concentration of measured lead are greater than or equal to 350 milligrams per kilogram (mg/kg).

Visible Emissions: Any emission containing particulate material that is visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

Visual Inspection: A visual inspection by Environmental Consultant, of the work area under adequate lighting to ensure that the work area is free of visible asbestos material, debris, and dust.

Washroom: A room between the work area and the holding area in the equipment decontamination enclosure system equipped with water for the decontamination of equipment and sealed waste containers. The washroom or shower room comprises one air lock.

Water Filtration: Refers to water filtration to as small a particulate size as technically feasible, but not more than 5 microns.

Wet Cleaning: The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, HEPA vacuuming, or other cleaning utensils dampened with amended water or diluted removal encapsulant and afterward thoroughly decontaminated or disposed of as asbestos contaminated waste.

Work Area: The area where lead or hazardous material work or removal is performed and that is defined or isolated to prevent the spread of lead or asbestos dust, fibers or debris, and entry by unauthorized personnel. Work area is a Regulated Area as defined by Title 8 CCR 1529.

Zinc Protoporphyrin (ZPP) Test: Biological test for lead-exposure that measures the amount of zinc protoporphyrin in blood.
1.5 REFERENCES

A. The publications listed below form a part of this specification by reference. The publications are referred to in the text by basic designation only. If there is a conflict between any of the listed regulations or standards, then the most stringent or restrictive shall apply.

1. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)


   ANSI Z88.2 1992 Respiratory Protection

   ANSI Z88.6, 1984 Respiratory Protection – Respirator Use Physical Qualifications for Personnel

   ANSI Z41.1, 1999 Personal Protection – Protective Footwear

   ANSI Z87.1, 2003 Occupational and Educational Eye and Face Protection

   ANSI Z89.1, 1986 Requirements for Industrial Head Headgear for Industrial Workers

   ASTM C 732, 1982 (R 1987) Aging Effects of Artificial Weathering on Latex Sealants

   ASTM D 522, 1993 (Rev. A) Mandrel Bend Test of Attached Organic Coatings

   ASTM D 1331 Solutions of Surface-Active Agents

   ASTM D 2794, 1993 Resistance of Coatings to the Effects of Rapid Deformation (Impact)


   ASTM E 96, 1994 Water Vapor Transmission of Materials

   ASTM E 119, 1988 Fire Tests of Building Construction and Materials

   ASTM E 736, 1992 Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members

   ASTM E 1368, 1990 Visual Inspection of Asbestos Abatement Projects

   ASTM E849, 1986 Safety and Health Requirement Relating to Occupational Exposure to Asbestos
ASTM E1494, 1992 Specifications for Encapsulants for Friable Asbestos-Containing Building Materials

2. CALIFORNIA ASSEMBLY BILLS (CAB)

CAB 040 Yearly Registration of Contractors

3. CALIFORNIA CODE OF REGULATIONS (CCR)

8 CCR 5208 General Industry - Asbestos

Title 17 Division 1, Accreditation, Certification, and Work Practices in Lead-Related Construction

CCR CARS Carcinogen and Asbestos Registration Sections 340-344.53, 341.6 Amended, and 341.9 Amended Through 341.14; Employer registration when disturbing more than one hundred square feet (100 SF) of ACCM

CCR CSO Construction Safety Orders, Chapter 4, Subchapter 4

CCR ESO Electrical Safety Orders, Chapter 4, Subchapter 5

8 CCR 1529 Asbestos Stand for Construction Industry

8 CCR 1532.1 Lead in Construction

8 CCR 3203 Accident Prevention Program

8 CCR 3204 Access to Employee Exposure and Medical Records

8 CCR 3220 Emergency Action Plan

8 CCR 3221 Fire Prevention Plan

8 CCR 5144 Respiratory Protection Equipment Standard

8 CCR 5194 Hazard Communication Standard

8 CCR 5209 Carcinogen Regulation

8 CCR 6003 Accident Prevention Signs

4. CALIFORNIA HEALTH SERVICES (CHS) TITLES 22 AND 23, CALIFORNIA ADMINISTRATIVE CODE DISPOSAL REQUIREMENTS

CHS 25123 Section 25123
5. CALIFORNIA HEALTH AND SAFETY CODE (CHSC)
   CHSC 20 Division 20, Commencing with Section 24200

6. CALIFORNIA LABOR CODE (CLC)
   CLC DIVISION 5 Part 1, commencing with 6300

7. CALIFORNIA PROPOSITIONS (CP)
   CP 65 Proposition 65

8. CALIFORNIA STATE BOARD OF EQUALIZATION (CSBE)
   CSBE ETU Excise Tax Unit

9. CALIFORNIA STATE LICENSE BOARD (CSLB)
   CSLB CBPC California Business and Professional Code Sections 7058.5
   and 7058.7, “Certification”

10. CODE OF FEDERAL REGULATIONS (CFR)
   29 CFR 1910.134 Respiratory Protection
   29 CFR 1910.141 Sanitation
   29 CFR 1910.145 Accident Prevention Signs and Tags
   29 CFR 1926.21 Safety Training and Education
   29 CFR 1926.55 Gases, Vapors, Fumes, Dusts, and Mists
   29 CFR 1926.62 Lead Exposure in Construction
   29 CFR 1926.65 Hazardous Waste Operations and Emergency Response
11. STATE AND LOCAL REGULATIONS

   Regulation 11, Rule 2          Bay Area Air Quality Management District

12. U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (HUD)

Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing
13. UNDERWRITERS LABORATORIES INC. (UL)

UL 586 1990 High-Efficiency Particulate Air

14. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

Standard 10 Fire Extinguishers
Standard 70 National Electric Code
Standard 701 Small Scale Fire Test for Flame Resistant Textiles and Films

1.6 SUBMITTALS

A. The following items shall be submitted to, and approved by, the Owner or the Owner's representative before commencing work involving the asbestos and lead containing materials outlined in these specifications.

B. Detailed work plan that includes water and electrical power supply at the site, wastewater discharge from showers and inside the work area; construction, location and number of containments and decontamination units; etc. Schedule showing milestone dates for activities such as mobilization, work area preparation, ACM and lead removal, ACM and lead waste load-out, final clearance evaluations, completion dates, etc. Also, submit variances received from regulatory agencies as applicable.

C. Provide a site safety plan prior to project initiation. The site safety plan shall deal with, at a minimum:

1. Personal protective equipment;
2. Site safety and health hazards;
3. Fiber release incidents;
4. Control of water leakage or discharge within and/or from the work area;
5. Medical emergency;
6. Asbestos and lead handling procedures;
7. Contractor's internal administrative and inspection procedures;
8. Earthquakes and/or fire emergency procedures;
9. Protocol for responding to complaints or questions from interested parties;
10. 24-Hour emergency telephone numbers for Company Officers with authority to respond to emergencies.
D. Competent Person (as defined by Title 8 CCR 1529): Demonstrate education and specialized training with successful completion of examination of an EPA approved asbestos and DPH accredited training courses.

E. Workers:

1. Demonstrate education and specialized training with successful completion of EPA approved and DPH accredited training courses.

2. Submit most current certificates (less than 11 months) signed by each employee and trainer that the employee has received proper training in the handling of materials that contain asbestos and lead. Certificate information must include documentation showing that the worker understands the following: health implications and risks involved (including the illnesses possible from exposure to airborne asbestos fibers and lead), the use and limits of the respiratory equipment to be used, and the results of monitoring of airborne quantities of asbestos and lead concerning health and respiratory equipment.

3. Proof of Respirator Fit Testing: Provide proof of respirator fit testing. Fit testing records must be less than eleven (11) months old and document testing on the type of respiratory protective equipment used for this project. The Competent Person must sign fit testing records.

4. Foreman Training: Submit evidence that the foreman to be used on the job fulfills the qualifications detailed in this specification and has experience in similar jobs.

5. Medical Examinations: Submit evidence signed by a physician that each employee used on the job has received an appropriate medical examination as detailed in Title 8 CCR 1529 and 1532.1. The submitted document must be less than eleven months old.

F. Written Notification to Fire and Police Departments: Provide documentation showing notification to local fire and police departments of the abatement three (3) days before commencement.

G. Certificates of Compliance: Submit manufacturer’s certification that vacuums, ventilation equipment, and other equipment required to contain airborne asbestos fibers conform to ANSI Z9.2.

H. Hazardous Waste:

1. Hazardous waste must be tested (TTLC/STLC/TCLP) and categorized for purposes of disposal. The Contractor shall submit written evidence of approved testing (including copy of the actual chain-of-custody forms) and disposal of hazardous wastes within five (5) days following the completion of each phase of the project.

2. Submit written evidence that the landfill(s) for disposal are approved for asbestos and lead by the USEPA and state or local regulatory agency(s). Submit uniform hazardous waste manifests prepared, signed and dated by an agent of the landfill. The manifest
must certify the amount of hazardous materials delivered to the landfill. The manifest must be provided to the Owner’s Consultant within ten working days after delivery.

I. Satisfactory proof that written notification has been provided to the Bay Area Air Quality Management District, in accordance with Title 40 CFR Part 61 Subparts A&M, National Emission Standards for hazardous Air Pollutant, U.S. EPA.

J. Licenses: Submit copies of state and local licenses, evidence of Cal-OSHA registration and permits necessary to carry out the work of this contract.

K. Notification of Other Contractors: If other contractors are working at the job site, before beginning any work the Contractor must inform all other contractors in writing. The Contractor must provide copies to the Owner’s Consultant about the location, nature, and requirements of the work areas.

L. Safety Data Sheets/Specification Sheets: The Contractor shall submit Safety Data and Specification Sheets for all chemicals, encapsulants, etc. to be used for this project.

M. Rental Equipment: When rental equipment is to be used in the abatement areas or to transport hazardous waste, the Contractor shall provide written notification regarding intended use of the rental equipment to the rental agency before use, with copies to the Owner’s Consultant and the Owner’s representative.

N. Submittals at the Completion of the Project - Upon completion of on-site work, Contractor shall provide a detailed project summary that will include each of the items listed below. The project Summary shall be submitted and approved by the Owner’s representative prior to acceptance of final pay request and shall include the following:

1. Contractor to submit copies of the Security and Safety Logs showing names of persons entering the workspace. The logs shall include date and time of entry and exit, supervisor’s record of any accident (detailed description of accident),

2. Emergency evacuations and any other safety or health incident

3. Waste manifests

4. Personal air sample results

5. Pressure differential strip chart readings for each differential recording device on the site.

6. Project Summary:
   a. Abatement contractor’s name and address, certification number (CSLB), registration number (DOSH), and Tax ID;
   b. Hazardous waste hauler (DHS, DOT);
   c. Name, address, and registration number of hazardous waste hauler;
d. Laboratory(ies) performing analysis (NIST/NVLAP);

e. Contract number and name of project;

f. Specific inventory (including exact locations) of the hazardous materials that were removed or handled. Using a tabular format, provide for each TYPE hazardous material, and approximate quantity;

g. Number of employees working on the project;

h. Date of commencement of on-site work;

i. Date of completion of all on-site work;

j. Work method applied; i.e., glove bag, mini-enclosure, full containment with negative air, decon, etc.; and

k. Name, location, telephone number, and EPA registration of waste disposal site used.

7. DOP testing results.

1.7 ENVIRONMENTAL CONSULTANT / MONITORING TECHNICIAN

A. The Owner’s Consultant will act as the Owner’s liaison in technical matters involving the asbestos and lead containing materials removal and disposal work.

B. The Owner’s Consultant will only review submittals for general conformance with the abatement concept and general compliance with the information provided in the Bid Documents. Any action indicated during submittal review is subject to the requirements of the Specifications. The Contractor shall be responsible for dimensions and quantities that shall be confirmed at the job site.

C. The designated site representative of the Owner’s Consultant is authorized by the Owner to have free access to all asbestos and lead containing materials work areas, to assist in interpretation of procedures, and to advise on all provisions of the Contract Documents pertaining to the control of hazardous materials.

D. The Owner’s Consultant will advise the Owner to stop the Contractor’s work if, in the course of performing monitoring duties, the Consultant observes an instance of substantial non-conformance with the Contract Documents and/or situations presenting health hazards to workers. Work shall not resume until the corrective measures have been enforced. Instances of substantial non-conformance shall include, but not be limited to, the following:

1. Loss of negative pressurization;

2. Activities or misconduct imperiling worker’s safety; and
3. Breaches in containment resulting in potential release of asbestos, mercury and PCBs to non-work areas.

E. All asbestos and lead containing materials abatement work shall be conducted using good work practices to prevent the release of fibers or dust outside the work area. If poor work practices are observed, the Owner’s Consultant shall direct the Contractor to make the necessary corrections. Generally, airborne fiber concentrations measured by PCM inside the containment area exceeding 0.2 fibers/cc will be viewed as an indication of poor work practices unless the concentration is a direct result of design or external circumstances anticipated in the project specification.

F. If appropriate conditions are not made after two (2) warnings, or if an immediate threat exists that asbestos fibers or lead dust could be released outside the work area, all abatement work will be stopped. The decision to stop work shall be made jointly by the Owner’s Consultant and the Owner.

G. The Owner’s Consultant may perform baseline air sampling in selected work areas of the building before the start of abatement work to establish the background total asbestos fiber and lead dust concentrations.

H. The background total fiber concentration (or a total fiber concentration greater than 0.01 f/cc) shall not be exceeded outside the work area during abatement work. If the total fiber concentration exceeds either background or 0.01 f/cc, the Owner’s Consultant is authorized to act in accordance with the above provisions to stop work. The Contractor shall perform any and all necessary corrective actions to reduce the fiber concentrations.

I. The Owner’s Consultant may perform air sampling inside and outside the hazardous materials work area during all phases of the work. The Contractor shall cooperate fully with the Consultant and ensure the cooperation of his workers during collection of air samples and work area inspections.

J. When visual inspections or air monitoring are specified, the Contractor shall notify the Owner and the Owner’s Consultant in writing 24 hours in advance of the day and time when the Contractor will be ready for such inspections or monitoring. The Contractor’s Competent Person or Foreman indicating that the zone has been previously inspected and is ready for inspection/testing shall initiate such requests.

K. The Environmental Consultant’s role in advising the Owner regarding environmental health matters does not relieve the Contractor’s obligation to comply with all applicable health and safety regulations promulgated by the federal, state, or local governments. Air monitoring results generated by the Owner’s Consultant shall not be used by the Contractor to represent compliance with regulatory agency requirements for monitoring of worker’s exposure to airborne asbestos, nor shall any other activity on the part of the Owner’s Consultant represent the Contractor’s compliance with applicable health and safety regulations.
1.8 QUALITY ASSURANCE

A. Qualifications:

1. Asbestos Abatement Work: Only qualified persons shall engage in asbestos abatement activities. Work involving asbestos-containing materials exceeding 100 square feet (SF) or 100 linear feet (LF) shall be completed by a Contractor holding a valid asbestos handling license issued by the California State Contractors Licensing Board (SCLB) and a valid current Certificate of Registration for Asbestos-Related Work as issued by the California Department of Industrial Relations - Division of Occupational Safety and Health (Cal/OSHA). Work shall be completed under the on-site supervision of a Competent Person as defined by OSHA Regulation 29 CFR Part 1926.1101 (8 CCR 1529 in California). All abatement workers shall have AHERA training with annual 8-hour refresher training, current medical exams for the use of respiratory protection, and current fit test of appropriate respirators.

B. Regulatory Requirements: The Contractor shall be alerted to and familiar with the following laws and regulations regarding the hazards, control measures, management, characterizing, transport and disposal of hazardous wastes:

1. Asbestos Abatement Work: All labor, materials, facilities, equipment, services, employees and training, and testing necessary to perform the work required for asbestos abatement and disposal of waste shall be in accordance with these Specifications and the most current regulations, including but not limited to:

   a. Environmental Protection Agency NESHAP and AHERA regulations (40 CFR Part 763, as applicable).

   b. Occupational Safety and Health Administration (inclusive of OSHA 29 CFR 1926.1101)

   c. California Department of Occupational Safety and Health (inclusive of Cal/OSHA 8 CCR 1529)

   d. California Environmental Protection Agency (Cal/EPA).

   e. Bay Area Air Quality Management District (BAAQMD), Regulation 11, Rule 2.

   f. Other applicable federal, state, and local governmental regulations pertaining to asbestos-containing materials (ACM) and asbestos waste.
PART 2 - PRODUCTS

2.1 SIGNS AND LABELS:

A. Provide labeling in accordance with U.S. EPA requirements. Provide the required signs, labels, warnings, or posted instructions for containers used to transport hazardous material to the landfill.

B. Location of Caution Signs and Labels: Provide bilingual caution signs at all approaches to work areas in languages used by the Contractor’s employees. Locate signs at such a distance that personnel may read the sign and take the necessary protective steps required before entering the area. Provide labels and affix to all asbestos, lead, PCBs, and mercury-containing materials, scrap, waste, debris, and other products contaminated with hazardous materials.

C. Warning Sign Format: Vertical format conforming to Title 8 CCR 1529:

DANGER
ASBESTOS
MAY CAUSE CANCER
AUTHORIZED PERSONNEL ONLY
WEAR RESPIRATORS AND
PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA

D. Warning Label Format: Provide labels that comply with Title 8 CCR 1529 of sufficient size to be clearly legible, displaying the following legend:

DANGER
CONTAINS ASBESTOS FIBERS
MAY CAUSE CANCER
DO NOT BREATHE DUST
AVOID CREATING DUST

E. Warning Sign Format: Vertical format conforming to Title 8 CCR 1532.1:

WARNING
LEAD WORK AREA
POISON
NO SMOKING OR EATING

F. Wherever the treatment process is reasonably expected to impact any lead-containing substances:
1. Post a sign 14” by 14” that includes the phrase, “Caution Lead Hazard. Keep Out” in bold lettering at least 2” inches high.

2. Postings shall be in English and Spanish, and in any language used by any of the Contractor’s employees as the primary language of communication.

2.2 ENCAPSULANTS:

A. Encapsulants shall be U.L. Listed, in full-scale E-119 fire test.

B. Average depth of penetration shall meet manufacturer’s recommendations.

C. Dry mil thickness of bridging encapsulating systems (if used) shall be as indicated in the specific treatment instructions included in this specification, and as recommended by the manufacturer.

D. Performance Requirements: Classification - penetrating encapsulant; spray applied and brushable. Product shall be tested and listed by EPA and possess the following characteristics:

   1. Impact Resistance- minimum 60 inch-lbs; (Batelle Standard).

   2. Fire hazard classification ratings:

      a. Flame resistance/flame spread ~25 (ASTM E162) V6

      b. Fire classification - UL Class A approved in the specific or similar assembly to its intended application.

   3. Product shall be tested and rated non-toxic and non-irritating under the Federal Hazardous Substances Control Act and contain no methylene chloride.

   4. Product shall have been successfully applied in similar applications.

   5. Material shall be tinted sufficiently to provide a readable contrast to background color to which it is applied.

2.3 PLASTIC SHEETING:

A. Use fire-retardant (FR) polyethylene (poly) film manufactured by PolyAmerica, Grand Prairie, Texas 75051, or equal.

   1. Thickness - 6-mil, minimum, NO EXCEPTIONS.

   2. Flame Resistance/Flame Spread Rate <25.

   3. Conforms to NFPA #701 and Tested in accordance with ASTM E-84.
B. Spray adhesive for sealing polyethylene to polyethylene shall contain no methylene chloride or methyl chloroform (1,1,1-trichloroethane) compounds.

2.4 TAPE:

A. Tape, 2” or wider, shall be capable of sealing joints of adjacent sheet of polyethylene and shall attach polyethylene sheet to finished or unfinished surfaces or similar materials. Tape shall be capable of adhering under dry and wet conditions, including use of amended water. Taping to critical or sensitive surfaces shall be completed using preservation sealing tape, such as 3M Scotch Brand No. 4811 Preservation Tape; or 3M Scotch Branch No. 472 Plastic Film Tape or approved equal.

2.5 STRIP CHART RECORDER(S):

A. Where interior work areas are required, each shall have a minimum differential pressure of 0.03 inches water gage at all times. Fluctuations below .025 inches of water column are unacceptable and may require temporary cessation of work until conditions are corrected.

B. Multiple continuous circular chart recorder(s) shall be used to document the level of pressure difference between the containment space and all other spaces as deemed necessary by the Environmental Consultant. Defective or non-operating instrumentation may require temporary cessation of work until instrumentation is repaired or replaced.

C. Differential air pressure systems shall be in accordance with Appendix J of EPA’s “Guidance for Controlling Asbestos-Containing Materials in Buildings, EPA 560/5-85-024. The Differential pressure system shall be continuously monitored by the Contractor using a recording instrument equal to a Dwyer Instrument Co.’s “Photohelic Gauge” connected to an appropriate strip chart recorder. The recording instrument shall be connected to an audible alarm that will activate at a pressure differential of -0.03 inches water gauge air pressure.

D. The strip chart recorder will be checked a minimum of four times per day by a person familiar with the operation. Each check shall be documented on the circular chart with a time and date notation and the initials of the person performing the check. A copy of the circular chart shall be submitted daily to the Consultant.

E. Air, which is exhausted to maintain negative pressure, shall be exhausted from the building at locations, approved by the Environmental Consultant. Exhausted air shall not be near or adjacent to other building intake vents or louvers or at entrances to buildings. The Contractor shall provide on-site independent DOP testing to document the effectiveness of the air filtration units. The test results shall be signed by the individual performing the testing. Repeat testing if the unit or the air filtration units have been repaired or replaced.

2.6 VACUUM EQUIPMENT:

A. All vacuum equipment used in the work area shall use HEPA filtration systems and be of the wet-dry type. The Contractor shall provide on-site independent DOP testing to document the
effectiveness of the vacuum units. The test results shall be signed by the individual performing the testing.

2.7 LOCAL EXHAUST SYSTEM:

A. Sufficient High Efficiency Particulate Absolute (HEPA) ventilation units shall be used to maintain the negative pressure in each interior work area at 0.03 inches of water column. These exhaust systems shall be in accordance with ANSI and the HEPA unit shall bear a UL 586 label. The ventilation system shall remain in operation 24 hours a day, until clearance of the containment is achieved. HEPA-filtered air necessary to maintain pressure differential shall be vented to non-contaminated areas outside the building. Other HEPA units shall operate within the enclosure to circulate air and control fiber counts. All HEPA units shall be fitted as follows:

1. A two-stage pre-filter as follows: 100 micron low efficiency filter and a second stage medium prefilter for particle sizes down to 5 microns;
2. Lapse time meter showing accumulated hours of operation;
3. Electrical interlock preventing the operation of the unit without a HEPA filter;
4. Audible alarm and automatic shutdown system in the event of filter rupture or blockage of the discharge
5. Warning lights that indicate the status of the HEPA unit;
6. HEPA systems must provide sufficient exhaust air to maintain a negative pressure of 0.03 inches of water.

2.8 HOURS OF OPERATION FOR HEPA FILTRATION UNITS:

A. The ventilation system shall remain in operation 24 hours a day until the work area has passed the specified clearance criteria. HEPA filtered air necessary to maintain pressure differential shall be vented to non-contaminated areas outside the building. Other HEPA units shall operate within the enclosure to circulate air and control fiber counts.

2.9 RESERVE EQUIPMENT:

A. Contractor to have the following equipment on site: two reserve, functioning and DOP-tested HEPA Filter Vacuum Cleaning Units, two reserve and DOP-tested HEPA area filtration units, and sufficient polyethylene (poly), respirators, protective equipment, tape, tools, decontamination units, etc.

B. Provide authorized visitors, Owner, Consultants or other contractors requiring access to the work area with suitable protective clothing, headgear, eye protection, as described in this specification, whenever the visitor must enter the work area. The Contractor shall have available and maintain at all times a minimum of three (3) suits and other suitable protective
equipment for this purpose. All protective equipment shall be new and for the exclusive use of visitors.

C. The Contractor shall document that each visitor has been trained and fit-tested prior to entering an abatement area.

2.10 SCAFFOLDING:

A. Scaffolding, as required to do the specified work, shall meet all applicable safety regulations and DOSH standards. A non-skid surface shall be furnished on all scaffold surfaces subject to foot traffic.

2.11 TRANSPORTATION EQUIPMENT:

A. Transportation equipment, as required, shall be lockable and suitable for loading, temporary storage, transit and unloading of contaminated waste without exposure to persons or property. Any vehicle used to transport asbestos waste shall be properly registered with all applicable controlling agencies.

2.12 CONNECTIONS TO WATER SUPPLY:

A. Contractor shall assure that all connections to the site’s water system shall include backflow protection. Valves shall be temperature and pressure rated for operation of the temperatures and pressures encountered. After use, connections and fittings shall be removed without damage or alteration to existing water piping and equipment. Leaking or dripping valves shall be piped to the nearest drain or located over an existing sink or grade where water shall not damage existing finishes or equipment.

B. Employ heavy-duty abrasion-resistant hoses with a pressure rating greater than the maximum pressure of the water distribution system in each work area. Provide fittings as required to allow for connection to existing wall hydrants or spouts.

2.13 WATER HEATER:

A. The hot water supply must be adequate to allow for 15 minutes of continuous usage while maintaining a water temperature of 85°F. At minimum provide UL rated 40-gallon electric water heater to supply hot water for the decontamination unit shower. Start from a 30-amp circuit breaker located within the decontamination unit subpanel. Provide relief valve compatible with water heater operation; pipe relief valve down to drip pan on floor with type L copper. Drip pans shall consist of a 24 inch X 24 inch X 6 inch deep pan, made of 19 gauge-galvanized steel with handles. Drip pan shall be securely fastened to the water heater with bailing wire or similar material. Wiring of the water heater shall comply with NEMA, NEC and UL standards.
2.14 OTHER TOOLS AND EQUIPMENT:

A. The Contractor shall provide other suitable tools for the stripping, removal and disposal activities. Tools shall include: hand-held scrapers, plastic brushes, sponges, rounded edge shovels, brooms, polyethylene, carts, etc. All tools shall be inspected for contamination by the Owner’s Consultant prior to use. Equipment not inspected by the Owner’s Consultant or contaminated equipment shall be removed from the site immediately. The Contractor shall bear the cost of any clean-up, laboratory costs and Environmental Consultant’s time associated with any clearance work resulting from the use of contaminated tools and equipment.

B. All other materials not specifically described, but required shall be provided by the Contractor subject to the approval of the Environmental Consultant.

C. Prohibited Equipment: The following equipment is prohibited from use on this project unless accepted in writing by the Environmental Consultant:

1. High or low-pressure water blasting equipment for hosing of work areas.

2. Vacuum-powered removal or collection equipment located outside the asbestos work area, such as a “Vacu-Loader”.

3. Gasoline, propane, diesel or other fuel powered equipment inside the building, unless previously approved in writing by the Owner and the Environmental Consultant.

4. Equipment that creates excessive noise or vibration that would affect the safety of the building or generate complaints from neighboring building occupants. No equipment shall exceed an A-weighted sound level of 85 dB as measured at 3 ft. from the radiating source without written permission of the Owner’s Consultant and/or Owner.

5. Metal wire-brushes.

6. Flammable solvents with a flash point below 140 degrees F or materials containing ethylene glycol ether, methylene chloride, ethyl chloroform (1,1,1-trichloroethane), or other hazardous substances.

7. Non-fire retardant polyethylene sheeting.

8. Polyurethane spray foam for application in fire-rated assemblies, including but not limited to penetrations into stairwells, mechanical rooms, electrical closets, rated floor-to-floor assemblies, etc.
PART 3 - EXECUTION

3.1 INITIAL AREA ISOLATION – ASBESTOS AND LEAD

A. Shut down and disconnect all electrical power, gas, sewage, water, phone lines, fire life safety lines and sprinkler systems to the work area so that there is no possibility of reactivation and electrical shock.

B. Provide all connections for temporary utilities in the work area needed throughout abatement. Temporary electrical power shall be according to OSHA and the National Electrical Code for Wet Environments.

C. As required, establish designated limits for the hazardous materials work area with continuous barriers. Use barrier tape (3-inch) with a pre-printed asbestos warning throughout asbestos abatement activities. Provide signs around the perimeter of the work area according to EPA, OSHA, and Cal-OSHA.

D. Contractor shall conform to the Owner's lockout requirements, and secure the work area at all times. Area entrances and exits shall be secured by the Contractor throughout the abatement phase. Unauthorized visitors are strictly prohibited. Only the Contractor, Environmental Consultant, and Owner's representatives are permitted at the job site. Contractor shall ensure that all doors, gates, windows, and potential entrances to the work areas and the designated waste location areas are secured and locked at the end of each workday.

E. Contractor shall store all materials, equipment, and supplies for the project inside the building or in areas designated by the Owner.

F. Contractor shall provide temporary sanitary services of adequate capacity to handle the maximum estimated crew size. Contractor shall maintain the temporary facilities throughout the duration of the project.

G. The Owner's Consultant will inspect and approve all containment setups before any abatement is undertaken. If a containment area is breached (failure of polyethylene seals, visible dust emission, fiber counts above background level, etc.), the Contractor shall take immediate action to control the breach and clean the area to the satisfaction of the Environmental Consultant. Clearance for any contaminated areas will be determined by the Owner's Consultant and may include air sampling. The Contractor shall be responsible for all costs associated with the clean-up and testing (including costs associated with the Environmental Consultant) resulting from containment breaches.

3.2 CONTAINMENT SET-UP PROCEDURES – ASBESTOS AND LEAD

A. Contractor shall construct negative pressure containments for the removal of all interior materials. Contractor must segregate waste streams and must package and label them accordingly. If, at any time, the friable and non-friable asbestos materials are combined into
one waste stream, then all the waste material will become hazardous asbestos waste and shall be disposed of under uniform waste manifest.

B. To permit the inspector to view the majority of the work area, the Contractor shall provide easily accessible viewing ports from the clean space into each abatement area. Viewing ports must be a minimum of 2’ x 2’, clear-see-through plastic with no scratches, tape or glue marks.

C. Pressure differential recorders with strip charts are required to monitor the pressure differential in the work area. The recorders must be calibrated prior to arriving on site and shall be periodically recalibrated throughout the project. Recalibration shall be performed by qualified technicians following the procedures outlined by the manufacturers. The original strip charts or copies shall be provided to the Consultant at the end of each workday. Contractor shall be immediately notified of any variance in pressure that may result in asbestos fiber concentrations above the baseline in adjacent areas.

D. The work area(s) shall be placed under negative pressure as outlined in this specification throughout the abatement work period.

E. Approved fire extinguishers (Class ABC; multi-purpose, dry chemical type, rated: 4A; 60BC) shall be readily available to workers (maximum travel distance of 50 feet) inside and adjacent to work area(s). Personnel and emergency exits shall be clearly indicated on the inside of the containment area. The emergency exit plan shall be approved by the Owner’s Consultant prior to the set up of any work areas.

F. A decontamination unit shall be required for any abatement work conducted in full containment. The unit shall be located inside the building and shall be relocated as necessary to access materials that may be under or behind it.

G. The clean/change room of the worker decontamination unit shall be of sufficient size to accommodate the work crew and their belongings. It shall include a respirator storage area and be fully equipped with reserve equipment and materials such as clean suits, towels, soap, tape, and respirator filters.

H. Worker decontamination unit walls shall be a minimum of two layers of 6-mil fire retardant poly and floors shall be constructed with a minimum of three (3) layers of fire retardant poly. All entry and exit doorways shall consist of at least two (2) sheets of overlapping, fire resistant poly. At no time shall the flapped doors be taped open in order to expedite material or personnel load-out.

I. The worker shower(s) shall be equipped with a UL rated, electric water heater capable of providing 15 minutes of continuous usage while maintaining an 85 deg. F water temperature during worker showers. The load-out decontamination area shall be equipped with running water and a drip pan with dimensions of at least 24 inch X 24 inch X 6 inch. Provide relief valve compatible with water heater operation; pipe relief valve down to drip pan on floor with type L copper. Drip pans shall consist of a 24 inch X 24 inch X 6 inch deep pan, made of 19 gauge-galvanized steel with handles. Drip pan shall be securely fastened to the water heater
with bailing wire or similar material. Wiring of the water heater shall comply with NEMA, NEC and UL standards.

J. All water from the shower and bag wash area shall be filtered to the technically feasible limit but not more than five (5) microns before disposal. In addition, the Contractor shall comply with all current local, state and federal codes relating to waste water release.

3.3 PERSONNEL PROTECTION

A. Informed Workers:

1. All workers shall be informed of the hazards of asbestos and lead exposure. Workers shall also be instructed in the use and fitting of respirators, protective clothing, decontamination procedures, and all other aspects associated with abatement work.

B. Personal Hygiene Practices:

1. The Contractor shall enforce and follow good personal hygiene practices during the abatement of hazardous materials. These practices will include but not be limited to the following:
   a. No eating, drinking, smoking, or applying cosmetics in the work area. The Contractor shall provide a clean space, separated from the work area, for these activities.

2. If air monitoring data gathered by the Owner’s Consultant in areas adjacent to the work areas shows exposure to airborne asbestos and lead exceeding Cal-OSHA criteria, that area will become regulated and workers must wear protective clothing and approved respirators and must have a shower facility provided to them.

C. Respirators:

1. Establish a respirator program as outlined by ANSI and required by Cal-OSHA. Select respirators from those approved by the National Institute for Occupational Safety and Health (NIOSH). Respirators selected must be approved by the Competent Person. Submit program for review a minimum of five (5) working days prior to the commencement of abatement activities.

2. Respirators and Protective Equipment for Handling Asbestos:

   a. At minimum, provide each employee with the following respiratory protection and protective clothing for each work phase:
      i. Pre-cleaning, containment set-up, and containment removal work: NIOSH-approved, half-face respirators with HEPA cartridges.

   b. Interior asbestos abatement of drywall systems and removal of lead-containing ceramic floor tile: half-face respirators with HEPA cartridges.
D. Protective Clothing:

1. Provide personnel exposed to asbestos fibers and lead dust with fire retardant disposable protective whole body clothing, head coverings, gloves, and foot coverings. Provide appropriate gloves to protect worker’s hands from exposure to hazardous materials. Make sleeves secure at the wrists and make foot coverings secure at the ankles with tape. Ensure that all personnel entering and leaving the workspace follow this procedure.

2. Suits shall be of adequate size to accommodate the largest employee. Foot covers may be part of the coveralls. Non-disposable footwear shall be left in the work area until it is decontaminated or disposed of at the completion of the job.

3. Protective clothing will be worn inside the work area after the area passes pre-abatement inspection and shall remain in use until the area passes final clearance inspection.

E. Eye Protection: Provide safety glasses or goggles to personnel engaged in asbestos operations when half-face respirators are in use.

F. Shower Requirements: Contractor shall assure that all certified employees and visitors use protective equipment and the shower or wash down facility following each entry into the containment area after the start of the hazardous materials abatement.

3.4 CONTAINMENT AND DECONTAMINATION AREAS / SYSTEMS

A. Prior to each work shift and continuously throughout the project, each containment and decontamination enclosure shall be inspected and repaired as needed.

B. Ambient asbestos fiber levels outside each work area shall not exceed 0.01 f/cc (PCM) or 70 s/mm² (TEM). If the asbestos fiber concentrations outside each work area should exceed those levels shown above, then abatement must stop and operations be reviewed and modified until the fiber count can be reduced to within the acceptable limits.

3.5 ASBESTOS AND LEAD REMOVAL

A. The Contractor shall abate all asbestos and lead containing materials listed in this specification that will be impacted by the renovation work.

B. The Contractor shall continuously apply wetting agent throughout the removal process. The wetting agent shall be applied with a low-pressure fine spray to minimize fiber and dust releases. The materials shall be thoroughly saturated so that there is no detectable fiber release. All ACM and lead-containing debris shall be immediately packaged in leak-tight containers following removal.

C. Minimize removal activities of ACMs and lead-containing materials (LCMs) that generate airborne particulate. To the extent feasible, use manual methods to remove ACMs and LCMs in sections or substantially intact, wetting along the scoring line continually, and misting the air with an airless sprayer to knock down suspended particulate.
D. Perimeter air sample results shall not exceed 0.01 f/cc (PCM). If airborne fiber concentrations should exceed the level shown above, then abatement must stop and operations be reviewed and modified until the fiber levels can be reduced to within acceptable limits.

E. The Contractor shall transport asbestos and lead containing waste bags to the waste debris box at designated hours approved by the Owner. RACM shall be packaged in a minimum of two (2) 6-mil polyethylene bags. Bags shall have site specific generator labels for proper RACM disposal.

F. Asbestos and lead containing debris and contaminated water shall be cleaned from the work area at the end of each work shift. The Contractor shall clean the work area using wet methods and HEPA vacuum equipment.

3.6 AIR MONITORING – ASBESTOS AND LEAD

A. The purpose of the air monitoring, if conducted at the option of the Owner, will be to detect possible release of fibers or dusts emanating from the work areas.

B. The Owner, at his discretion, may provide area monitoring as described in this specification. If sample results indicate that conditions have exceeded the baseline, as determined by the Owner, all work shall cease. Work shall not recommence until the condition(s) causing the increase have been corrected.

C. All PCM air sample analysis shall comply with NIOSH Method 7400. All TEM analysis shall be consistent with modified-AHERA protocols.

D. The Owner’s representative shall perform all final clearance inspection and sampling.

E. The method of analysis for pre-abatement and clearance air samples shall be via Phase Contrast Microscopy (PCM). The method of analysis for in-progress asbestos air samples shall be PCM and TEM at the option of the Owner.

F. The Contractor shall be responsible for all personal air sampling. During the performance of any work in the contaminated work area, sufficient personnel breathing zone samples shall be taken to constitute representative sampling. These samples shall be taken each shift and for each distinct crew operation, and shall be used to verify adequacy of fiber control and respiratory protection. Personal breathing zone air sampling shall be in accordance with Cal-OSHA asbestos and lead standards.

3.7 DECONTAMINATION – ASBESTOS AND LEAD

A. Following the abatement work, all reusable, contaminated equipment, such as masks, hard hats, boots, etc. shall be thoroughly decontaminated through wet cleaning methods before removal from the work area.
B. No accumulation of debris or standing water will be permitted following the initial decontamination. All visible asbestos debris on soil will be removed to baseline concentrations.

3.8 CLEARANCE INSPECTIONS – ASBESTOS AND LEAD

At the option of the Owner, the following may be applicable:

A. Initial Visual Inspection: Contractor shall notify the Owner’s representative when the decontamination process in each containment area is complete. Evidence of asbestos and lead dusts will require additional clean up by the Contractor. Contractor shall be responsible for re-cleaning all areas found to be deficient.

B. Once the initial visual is passed, the Contractor shall remove all but the containment critical barriers.

C. If the Owner determines that the work area is sufficiently clean, the Contractor may proceed. If the Owner determines that certain areas require additional cleaning, the Contractor shall re-clean the work area and request a second inspection of the recycled area. All costs incurred by the Owner for inspections required after the second inspection will be charged to the Contractor.

D. Following the visual inspection for asbestos and lead, the Contractor shall provide a coating of non-diluted encapsulant in the work area. The Contractor shall allow the encapsulant to dry for the period specified by the manufacturer.

E. Asbestos Clearance Testing: Following encapsulation and drying time, the Contractor shall request that the Owner's Consultant conduct air clearance sampling. Clearance air sampling shall not take place until all encapsulant is dry.

3.9 CLEARANCE CRITERIA - ASBESTOS

A. The Owner's Consultant will conduct a final inspection of each work area. Any material found shall be cleaned by the Contractor and any repairs to existing conditions shall be made at no additional cost to the Environmental Consultant. When the area is clean, the Owner's Consultant shall provide the Contractor with a written notice of acceptance.

B. The clearance level for each containment shall be less than 0.01 fibers per cubic centimeter via phase contrast microscopy (PCM). Aggressive sampling shall be used for clearance purposes and multiple samples shall be collected in large containment areas.

C. Multiple samples will be collected depending on the size and configuration of the work areas. Typically a minimum of five (5) samples will be collected per area.

D. If air samples do not pass the required clearance criteria, the area shall be re-cleaned and new samples shall be collected by the Environmental Consultant. The Contractor shall be
responsible for all costs associated with re-sampling and re-analyses. This amount will be deducted by the Owner from the Contractor’s final payment.

E. The Owner’s Consultant shall notify the Contractor in writing of acceptable asbestos fiber concentrations. The Contractor shall then remove all the remaining barriers in the work area.

3.10 HAZARDOUS MATERIALS DISPOSAL

A. Load-Out Procedures:

1. Ensure that polyethylene bags are sealed air-tight. All bags shall be wet cleaned prior to removing them from the equipment decontamination unit.

2. Ensure all disposal containers are properly labeled according to 8 CCR 1529, 5194 (HAZCOM), 49 CFR 171-179 (USDOT), 40 CFR 61 Subpart M (NESHAP), and any local regulations and state regulations as required by this specification.

B. Asbestos and Lead Disposal Procedures:

1. The Contractor is responsible to determine current waste handling, labeling, transportation and disposal regulations for the work site and for each waste disposal landfill. The Contractor must comply fully with these regulations, local, state, and federal regulations and provide documentation of the same.

2. Filter all wastewater to the technically feasible limit, but not more than five (5) microns before disposal. Comply with all current local, state and federal codes relating to waste water release.

3. Asbestos-containing waste that is properly labeled and double-bagged, may be temporarily stored in areas approved by the Owner. Areas must be made secure before storing the waste. Waste is not to remain in temporary storage area for longer than four (4) days before final load-out of materials.

4. All asbestos waste shall be double-wrapped prior to transport from the site.

5. All lead related waste streams and waste categories shall be considered hazardous until proven otherwise through testing by the Contractor. The Contractor shall be responsible for segregating waste into the below listed categories at minimum. If the Contractor allows different waste stream to become co-mingled, the waste will be classified as hazardous if any single component waste stream is hazardous.

   a. Lead-containing ceramic tile.
   
   b. Plastic sheeting.
   
   c. Disposable protective clothing and equipment.
   
   d. Cleaning supplies.
6. Each lead related waste produced shall be placed in properly segregated, labeled and sealed, impervious containers.

7. All waste containers, bags, and packaged waste shall be stored in a designated, secure, locked waste storage area and be labeled with the following information:
   a. Waste Category: Lead.
   b. Date Accumulated: (Insert Date)
   c. Name, address: (Insert Facility Name and Address)
   d. Origin of Waste: (Insert Waste Stream Name, i.e. Paint Chips, Vacuum Bags)

8. Each category of waste, except components with intact paint, will be tested and characterized by the Design Build Entity's Observation Service using one or more of the following testing protocols:
   a. Total Threshold Limit Concentration (TTLC): 1,000 ppm lead.
   b. Soluble Threshold Limit Concentration (STLC): 5 ug/L lead.
   c. Toxicity Characteristic Leaching Procedure (TCLP): 5 ug/L lead.

9. Based on the testing protocols, any waste greater than TTLC, STLC or TCLP concentrations listed above shall be considered a hazardous waste.

10. All vehicles used to transport hazardous waste must be registered with the Department of Toxic Substance Control and display the proper registration and expiration stickers.

11. Trucks must have an enclosed cargo area with a storage compartment that is fully lined with a minimum of one (1) layer of 6-mil polyethylene on the walls and two (2) layers on the floor.

12. Contractor shall not throw bags into the truck in a way that may cause the bags to burst open.

13. Contractor shall provide at minimum one (1) day advance notification to the Owner when signatures are required on manifest(s). The Contractor shall ensure that the Hazardous Waste Manifest is correctly filled out. The Contractor shall give the appropriate copies to the Owner and shall also instruct the Owner in writing that they must send the appropriate copy to the Department of Toxic Substance Control.

14. If a debris box is used, the Contractor shall make all necessary arrangement with the Owner including obtaining all appropriate permits.

15. Contractor is responsible for all coordination with the waste disposal site and with the waste hauling company.
16. Debris box for hazardous waste shall be fully lined with a double layer of polyethylene sheeting and must be locked at all times when unattended.

17. Debris box shall be constructed with minimum 20-gauge steel with no windows or openings other than the door. The door of the container shall have a secure cover on the locking device with access to the lock only at the key-hole. Once the debris box is filled and the manifest is signed, Contractor must transport the debris box off the job site.

18. Disposal shall be in a landfill that meets EPA requirements. Do not throw bags into landfills in a way that may cause the bags to burst open. If bags cannot be taken out of the drums undamaged, then include the disposal of the drums with the bags. Ensure that bags remain intact during this process.

END OF SECTION 02 08 00
SECTION 02 2250
MINOR DEMOLITION FOR REMODELING

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Removal of designated construction; dismantling, cutting and alterations for completion of the Work; disposal of removed materials; identification of utilities; salvaged items; and protection of items to remain as scheduled.

B. Related Documents: Note that Division 0 - Contracting Requirements, Division 1 - General Requirements, and the Drawings apply to this section.

1.02 SUBMITTALS

A. Shop Drawings: Indicate demolition and removal sequence and location of salvageable items and location and construction of temporary work.

B. Describe demolition removal procedures and schedule.

C. Project Record Documents: Accurately record actual locations of capped utilities and subsurface obstructions.

D. Operation and Maintenance Data: Submit description of system, inspection data, and parts lists.

1.03 SCHEDULING

A. Schedule work to coincide with new construction.

1.04 PROJECT CONDITIONS

A. Conduct demolition to minimize interference with adjacent and occupied building areas.

B. Cease operations immediately when structure appears to be in danger and notify Owner. Do not resume operations until directed.

PART 2 - PRODUCTS

2.01 Not Used

PART 3 - EXECUTION

3.01 PREPARATION
A. Erect, and maintain temporary safeguards, including warning signs and lights, barricades, and similar measures, for protection of the public, Owner, Contractor’s employees, and existing improvements to remain.

B. Erect and maintain weatherproof closures for exterior openings.

C. Erect and maintain temporary partitions to prevent spread of dust, odors, and noise to permit continued Owner occupancy.

D. Protect existing materials and existing improvements not indicated to be demolished.

E. Prevent movement of structure; provide temporary bracing and shoring required to ensure safety of existing structure.

F. Notify affected utility companies before starting work and comply with their requirements.

G. Mark location and termination of utilities.

H. Provide appropriate temporary signage including signage for exit or building egress.

3.02 DEMOLITION

A. Disconnect, remove, cap, and identify designated utilities within demolition areas.

B. Demolish in orderly and careful manner. Protect existing improvements and supporting structural members

C. Remove demolished materials from site except where specifically noted otherwise. Do not burn or bury materials on site.

D. Remove materials as Work progresses. Upon completion of Work, leave areas in clean condition.

E. Remove temporary Work.

3.03 SCHEDULES

A. Remove, store and protect the following materials and equipment:
   1. As directed in the Documents and by Owner.

B. Protect materials and equipment remaining:
   1. As directed in the Documents and by Owner.

END OF SECTION
PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Provide carpentry work not specified as part of other Sections. Types of work include, but are not necessarily limited to, following:

1. Blocking, framing, and backing as shown on Drawings.
2. Plywood sheathing.
3. Structural framing.
4. Ceiling Decking/Planking.
5. Wood treatment for all wood on the roof, exposed to the exterior, and in contact with concrete, cement plaster (stucco), or masonry.

B. Related Sections:


C. Related Documents: Note that Division 0 – Contracting Requirements, Division 1 – General Requirements, and the Drawings apply to this section.

1.02 REFERENCES

A. APA - American Plywood Association: Grades and Standards.
C. WCLIB - West Coast Lumber Inspection Bureau: Standard Grading Rules for West Coast Lumber.
D. WWPA - Western Wood Products Association.

1.03 QUALITY ASSURANCE

A. Lumber Standards: Comply with PS 20.
B. Plywood Standards: Comply with PS I-95.
C. Structural Glued Laminated Timber: Comply with ANSI/AITC A 190.1,

1. Factory mark each piece of structural glued-laminated timber with AITC quality inspected mark.
2. Place AITC mark on timber surfaces that will not be exposed in completed Work.
D. Comply with AITC 111, "Recommended Practice for Protection of Structural Glued Laminated Timber During Transit, Storage, and Erection."

E. Identification: Factory mark each piece of lumber and plywood with type, grade, mill, and grading agency, except omit marking from surfaces to be exposed with transparent finish or without finish.

1.04 DELIVERY AND STORAGE

A. Keep materials dry at all times. Protect against exposure to weather and contact with damp or wet surfaces. Stack lumber and plywood, and provide air circulation within stacks.

1.05 JOB CONDITIONS

A. Coordination: Fit carpentry work to other work; scribe and cope as required for accurate fit. Correlate location of nailers, blocking, grounds, and similar supports to allow proper attachment of other work.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Lumber:

1. Nominal sizes are indicated, except as shown by detail dimensions. Provide actual sizes as required by PS 20 for moisture content specified for each use.

2. Provide dressed lumber, S4S, sized to UBC Standard 23-1, unless otherwise indicated.

3. Provide seasoned lumber with 19% maximum moisture content at time of dressing.

4. In Contact with Concrete, Masonry, or Roofing: Preservative-treated Douglas fir where not used in fire rated assembly, or premium grade redwood, fire treated, no sap wood where not used in fire rated assembly.

B. Framing, Nailers, and Blocking: Douglas fir species, Construction Grade or better, 19 percent maximum moisture content, WCLIB or WWPA.

C. Dimensioned Lumber: Use following grades per inspection agency indicated.

1. Non-Load-Bearing Interior Lumber: Standard, Stud, or No. 2 grade; Western woods: WCLIB or WWPA.

D. Timbers 5-inch Nominal (117-mm Actual) Size and Thicker: Douglas fir-larch, Select Structural per NLGA, WCLIB, or WWPA rules.

1. Miscellaneous Lumber: No.2 or Standard grade of Douglas fir for nailers, blocking, and similar members.
E. Plywood: APA Grade C-C EXT-APA, or better, with waterproof glue, sanded.

F. Redwood: "Clear Heart Structural", "Rough-sawn" or "S4S" posts and planks, Premium grade redwood, fire treated if required, S4S, no sap wood, in compliance with California Redwood Association.

G. Fasteners:
   1. Hot-dipped galvanized steel for exterior, redwood and treated wood locations; plain finish elsewhere.
   2. Size and type as indicated and as recommended by applicable standards, complying with applicable Federal Specifications for nails, staples, screws, bolts, nuts, washers, and anchoring devices.

H. Anchors: Expansion shield and lag bolt type for anchorage to solid masonry or concrete. Bolts for anchoring to steel.

2.02 PANEL PRODUCTS

A. Wood-Based Structural-Use Panels: DOC PS 2. Provide plywood complying with DOC PS 1, where plywood is indicated.
   1. Factory mark panels evidencing compliance with grade requirements. Panels with span ratings required by support spacing indicated for Roof Sheathing: APA-rated Structural I sheathing, Exterior.

B. Particleboard underlayment: ANSI A208.1, Grade PBU.

C. Hardboard underlayment: ANSI/AHA A135.4, Class 4 (Service), S1S; with back side sanded.

D. Fiberboard Sheathing: ANSI/AHA A194.1, Type IV, Class 1, inch (13 mm) thick.

2.03 MISCELLANEOUS PRODUCTS

A. Air-Infiltration Barrier: ASTM D 226, Type I, No. 30 asphalt felt, @ exterior plastered wall.

B. Fasteners: Size and type indicated. Where rough carpentry is exposed to weather, in ground contact, or in area of high relative humidity, provide fasteners with a hot-dip zinc coating per ASTM A 153 or of Type 304 stainless steel.
   2. Bolts: Steel bolts complying with ASTM A 307, Grade A (ASTM F 568, Property Class 4.6); with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers.

C. Metal Framing Anchors: Hot-dipped galvanized steel of structural capacity, type, and size indicated.

D. Sill-Sealer: Glass-fiber insulation, 1-inch (25-mm) thick, compressible to 1/32 inch (0.8 mm).
E. Adhesives for Field Gluing Panels to Framing: APA AFG-01.

2.04 WOOD TREATMENT

A. Preservative Treatment: Where lumber or plywood is indicated or specified to be treated, comply with applicable requirements of AWPA Standard C2 (Lumber) and C9 (Plywood) and of AWPA standards listed below. Mark each treated item with AWPA Quality Mark requirements. Do not use petroleum-based preservatives.

1. Pressure-treat above ground items with water-borne preservative complying with AWPA LP-2. After treatment; kiln-dry to maximum moisture content of 15%.

2. Treat indicated items, wood cants, nailers, curbs, blocking, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.

3. Complete fabrication of treated items prior to treatment, where possible. If cut after treatment; coat cut surfaces with heavy brush coat of same chemical used for treatment.

4. Inspect each piece of treated lumber or plywood after drying, and discard damaged or defective pieces.

B. Fire-Retardant Treatment: Comply with UBC Standard 42-1. Treat all plywood for electrical and telephone panel backing boards.

PART 3 - EXECUTION

3.01 SITE APPLIED WOOD TREATMENT

A. Brush application of two coats of preservative treatment on wood in contact with cementitious materials, roofing and related metal flashing, and masonry.

B. Apply preservative treatment in accordance with manufacturer's instructions. Treat site-sawn ends. Allow preservative to cure prior to erecting members.

3.02 INSTALLATION

A. General:

1. Discard units of material with defects, which may impair quality of work and units that are too small to fabricate work with minimum joints or optimum joint arrangement.

2. Set carpentry work accurately to required levels and lines, with members plumb, true, and accurately cut and fitted.

3. Securely attach carpentry work to substrate by anchoring and fastening as shown and as required by recognized standards.
4. Use common nails, except as otherwise indicated. Select fasteners of size that will not penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting of wood; pre-drill as required.

B. Nailers and Blocking: Provide wherever shown and where required for attachment of other work. Form to shapes as shown, and cut as required for true line and level of work to be attached. Coordinate location with other work involved.

C. Plywood: Comply with the recommendations of the American Plywood Association (APA) for the installation of plywood.

D. Fit rough carpentry to other construction; scribe and cope for accurate fit. Correlate location of furring, blocking, and similar supports to allow attachment of other construction.

E. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
   1. CABO NER-272 for power-driven staples, P-nails, and allied fasteners.
   2. Published requirements of metal framing anchor manufacturer.
   3. Table 2304.9.1--Fastening Schedule" of the 2010 CBC

F. Use hot-dip galvanized or stainless steel nails where rough carpentry is exposed to weather, in ground contact, or in area of high relative humidity.

G. Ceiling Decking/Planking:
   1. Install in accordance with manufacturer’s instructions except as otherwise specified or noted on Drawings.
   2. Conceal end joints behind supporting beams.

H. Structural-Use Panels: Comply with applicable recommendations contained in APA Form No. E30 and as follows:
   1. Combination Sub flooring / Underlayment: Glue and nail to framing.
   2. Sub flooring: Glue and nail to framing.
   3. Sheathing: Nail to framing.
   4. Underlayment: Nail or staple to sub flooring.

END OF SECTION
SECTION 07 9000
JOINT SEALERS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Provide sealants and accessories, complete as shown and as specified.

B. Related Sections: Sealants for the following work are specifically required to be provided under following sections in accordance with requirements of this Section.

1. Section 09 2500 - Gypsum Board.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data, including specifications and cleaning of joint surfaces, for each type of material required.

B. Samples: Submit samples of each color required for each type of exposed sealant.


1.03 QUALITY ASSURANCE AND CONTROL

A. Applicator: Experienced and specializing in applying the work of this Section and approved by sealant manufacturer.

B. Quality Control:

1. Sealant manufacturer shall provide adhesion tests for proposed sealants to all substrates where sealants are to be used. All tests shall include all appropriate preparation and primers. The manufacturer shall use these tests to provide specific recommendations for sealants, primers, and preparation procedures.

2. Comply with manufacturer's printed instructions for surface preparation, priming, installation, tooling, and curing, except where more stringent requirements are specified.

C. Compatibility:

1. Sealant manufacturer shall be responsible for assuring that proposed sealants are compatible with their substrates, and shall provide written certification to that effect, prior to the sealant’s use on the project. Manufacturer may perform any testing, including but not limited to stain tests, or may omit such tests, at his discretion, based on experience with specific sealants, primers, and substrates used on this project. However, manufacturer remains responsible for assuring complete compatibility of his products with the project’s substrates, and shall pay for any corrective work resulting from incompatibility.
2. Before purchase of each required material, confirm its compatibility with every other material to which it will be applied in the joint system.

3. Where more than one sealant material is in contact or potentially in contact with another, provides sealant materials which are compatible with each other.

4. Where specified butyl-rubber sealant is to be in contact with silicone sealant, provide silicone sealant instead of the specified butyl-rubber sealant.

D. Firestopping Sealants: Provide firestopping sealants complying with the following requirements:

1. None Visible Joints: Provide one-part, neutral curing firestopping silicone sealant complying with ASTM E814 / UL 1479 and time temperature requirements of ASTM E119.

2. Visible Joints: Provide one-part, two-stage intumescent latex based sealant complying with ASTM E814 / UL 1479 and time temperature requirements of ASTM E119.

1.04 PROJECT CONDITIONS

A. Do not install solvent curing sealants in enclosed building spaces.

B. Do not proceed with installation of sealants under adverse weather conditions or when temperatures are below or above manufacturer's recommended limitations for installation.

1. Proceed with the work only when forecasted weather conditions are favorable for proper cure and development of high early bond strength.

2. Wherever joint width is affected by ambient temperature variations, install sealants only when temperatures are in the lower third of manufacturer's recommended installation temperature range.

C. Examine the substrate and the conditions under which sealant work is to be performed. Proceed when the substrate and the conditions are satisfactory.

1.05 WARRANTY

A. Furnish to the Owner a written warranty against all defects in materials and workmanship including, without limitation, against water leakage into the building, for twenty (20) years from date of substantial completion.

PART 2 - PRODUCTS

2.01 SEALANTS

A. Colors: For concealed material provide any of manufacturer's standard colors; for exposed material provide manufacturer's standard colors as selected by Architect, unless otherwise noted.
B. Exterior Exposed Joints: Provide one-part silicone sealant Dow-Corning "795 Building Sealant". Sealant used on all exterior joints. Provide custom color with sand to match "Natural Gray" by Spec Mix, Inc., for all exterior sealant joints. Use Dow-Corning "756 Building Sealant-HP" for porous stone that may be stained by "795 Building Sealant".

C. Exterior Concealed Sealant for Bedding Purposes: Provide polyurethane sealant, "Sikaflex-1a" by Sika, Inc., or equal.

D. Exterior Concealed Joints Between Two Assembled Rigid Surfaces in Compression: Provide polyisobutylene sealant tape; Tremco 440, Pecora "Extru-Seal B-44," PTI #303, or equal.

E. Joints at Floor or Paved Surfaces and Expansion Joints of Tiles: Provide self-leveling polyurethane sealant; Sonneborn "SL1 or SL2 Paving Joint Sealant," Pecora "NR-200," or equal.

F. Interior Non-wet Non-moving Joints: Acrylic Emulsion Latex: Single component, non-staining, non-bleeding, non-sagging; color as selected; DAP "Acrylic Latex Caulk," HAPCO #400, Vulkem 245, or equal.

1. Interior Toilet Rooms and Wet Areas: Silicone Sealant: Single component, fungus resistant, chemical curing, non-sagging, non-staining, non-bleeding; Dow-Corning #8640, G.E. "Silicone Sanitary Sealant," or equal.

2. For sealant contiguous with mirror, provide polyurethane sealant; Sika Chemical "Sikaflex-1a," Sonneborn "Sonolastic NPI," Vulkem 921, or equal.


H. Firestopping Sealants: Provide the following firestopping sealants as specified and shown on the drawings:

1. None Visible Joints: Provide one-part, neutral curing firestopping silicone sealant, Spec Seal Pensil 100, by Specified Technologies Inc., or equal. Water resistant, solvent free, and inorganic fiber free.

2. Visible Joints: Provide one-part, two-stage intumescent firestopping latex based sealant, Spec Seal Series 100, by Specified Technologies Inc., or equal. Water resistant and thixotropic. The sealant will be able to receive paint after curing.

I. Fungus Resistant Silicone Sealant: Provide Dow Corning #8640 fungus resistant silicone sealant.

2.02 ACCESSORIES

A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.

B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
C. Joint Backing Rod: ASTM D1056 or D1565; round, closed or open cell polyethylene, polyurethane, neoprene, or butyl foam rod; oversized 30 to 50 percent larger than joint width; as recommended by sealant manufacturer for type of sealant.

D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine the substrate and conditions in which the work is to be installed. Correct all unsatisfactory substrate and conditions prior to start of installation.

3.02 PREPARATION

A. Clean joint surfaces immediately before installation of sealant. Remove dirt, insecure coatings, moisture, and other substances that would interfere with bond of sealant compound. Etch concrete joint surfaces as recommended by sealant manufacturer. Use cleaning solvent to clean all joint surfaces. Wipe joints free of solvent using clean, dry, white cotton cloths or white lint free paper. Do not permit solvent to air dry.

B. Prime or seal the joint surfaces. Do not allow primer/sealer to spill or migrate onto adjoining surfaces. All aluminum surfaces to receive sealant shall be primed with primer recommended by the sealant manufacturer, unless sealant manufacturer certifies in writing that primer is not required.

C. Install sealant backer rod for elastomeric sealants, except where shown to be omitted or recommended to be omitted by sealant manufacturer for the application shown or backed by other solid substrate.

D. Install bond-breaker tape wherever backer rod is not used and wherever required by manufacturer's recommendations to ensure that elastomeric sealants will perform properly.

E. Verify that joint backing and release tapes are compatible with sealant.

F. Protect elements surrounding the work of this Section from damage or disfiguration.

3.03 INSTALLATION

A. Install sealant in accordance with manufacturer's instructions.

B. Measure joint dimensions and size materials to achieve required width/depth ratios.

C. Install joint backing to achieve a neck dimension no greater than one-third the joint width. Install bond breaker where joint backing is not used.

D. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
E. Employ only proven installation techniques, which will ensure that sealants will be deposited in uniform, continuous ribbons without gaps or air pockets, with complete "wetting" of the joint bond surfaces equally on opposite sides. Except as otherwise indicated, fill sealant rabbet to a slightly concave surface, slightly below adjoining surfaces. Where horizontal joints are between a horizontal surface and a vertical surface, fill joint to form a slight cove so that joint will not trap moisture and dirt.

F. Unless specifically dimensioned on Drawings, install sealants to depths as recommended by the sealant manufacturer, but within the following general limitations.
1. For walkways and floor and similar joints sealed with elastomeric sealants and subject to traffic and other abrasion and indentation exposures, fill joints to a depth equal to 75% of joint width, but not more than 3/4" deep or less than 3/8" deep.
2. For normal moving joints sealed with elastomeric sealants, but not subject to traffic, fill joints to a depth equal to 50% of joint width, but not more than ½" deep or less than 1/4" deep.
3. For joints outside the manufacturer’s required size and shape are to be identified and corrected prior to installing the backer rod or sealant.

G. In exterior work where sealant tape is used, provide cap sealant bead of the specified silicone sealant.

H. Cure sealants in compliance with manufacturer’s instructions and recommendations to obtain high early bond strength, internal cohesive strength, and surface durability.

I. Install backer rod in compliance with the sealant manufacturer’s requirements.

J. Install fungus resistant silicone sealant in all wall and ceiling openings that allow moisture intrusion or will harbor vermin. Typical locations receiving sealant are: door frames and wall finishes, supply diffuser frames and the ceiling, SST canopy hoods and the ceiling, exhaust register frames and the wall, light fixture frames and the ceiling, sink splashes and the wall, sink traps and the wall, sink traps and the trim, bumper rails and the wall, hose reel trim and the wall, flexible casework support frames and the wall, SST counter splashes and the wall, surgical light trim and the ceiling, plumbing trim and the wall or ceiling, speaker trim and the ceiling, gas outlet trim and the ceiling or wall, and other room enclosure penetrations.

3.04 CLEANING AND REPAIRING

A. Do not allow sealants or compounds to overflow or spill onto adjoining surfaces or to migrate into the voids of adjoining surfaces. Clean the adjoining surfaces by whatever means may be necessary to eliminate evidence of spillage.

B. Repair or replace defaced or disfigured finishes caused by work of this Section.

C. Protect sealants until cured.

END OF SECTION
SECTION 087100

DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:

1. Swinging doors.
2. Other doors to the extent indicated.

B. Door hardware includes, but is not necessarily limited to, the following:

1. Mechanical door hardware.
2. Electromechanical door hardware.
3. Cylinders specified for doors in other sections.

C. Related Sections:

1. Division 08 Section “Door Hardware Schedule”.
2. Division 08 Section “Hollow Metal Doors and Frames”.
3. Division 08 Section “Access Control Hardware”.

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

6. NFPA 105 - Installation of Smoke Door Assemblies.
7. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards:

1. ANSI/BHMA Certified Product Standards - A156 Series
2. UL10C – Positive Pressure Fire Tests of Door Assemblies
1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."

2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.

3. Content: Include the following information:
   a. Type, style, function, size, label, hand, and finish of each door hardware item.
   b. Manufacturer of each item.
   c. Fastenings and other pertinent information.
   d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
   e. Explanation of abbreviations, symbols, and codes contained in schedule.
   f. Mounting locations for door hardware.
   g. Door and frame sizes and materials.
   h. Warranty information for each product.

4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Shop Drawings: Details of electrified access control hardware indicating the following:

1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
   a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
   b. Complete (risers, point-to-point) access control system block wiring diagrams.
   c. Wiring instructions for each electronic component scheduled herein.
2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.

D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.

E. Informational Submittals:

1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.

F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Submittals.

1.4 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

C. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project’s vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

D. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer’s product line by a secondary or third party source will not be accepted.

2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

E. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
F. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

G. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractor's personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

H. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.6 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.

C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.
3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
4. Electrical component defects and failures within the systems operation.

C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.

D. Special Warranty Periods:

1. Ten years for mortise locks and latches.
2. Twenty five years for manual surface door closer bodies.
3. Two years for electromechanical door hardware.

1.8 MAINTENANCE SERVICE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

1. Named Manufacturer’s Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers’ names are abbreviated in the Door Hardware Schedule.

C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.

B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.

C. Cylinders: Original manufacturer cylinders complying with the following:

1. Mortise Type: Threaded cylinders with rings and cams to suit hardware application.
2. Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
3. Bored-Lock Type: Cylinders with tailpieces to suit locks.
4. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.

D. Keying System: Each type of lock and cylinders to be factory keyed.

1. Conduct specified "Keying Conference" to define and document keying system instructions and requirements.
2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
3. Existing System: Key locks to Owner’s existing system.

E. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Two (2)
2. Master Keys (per Master Key Level/Group): Five (5).

F. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner’s representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.
2.3 MECHANICAL LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 certified. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.

1. Acceptable Manufacturers:
   b. No Substitution.

2.4 AUXILIARY LOCKS

A. Cylindrical Deadlocks: ANSI/BHMA A156.36, Grade 1, cylindrical type deadlocks to fit standard ANSI 161 preparation and 1 3/8" to 1 3/4" thickness doors. Provide tapered collars to resist vandalism and 1" throw solid steel bolt with hardened steel roller pins. Deadlocks to be products of the same source manufacturer and keyway as other locksets.

1. Acceptable Manufacturers:
   a. Corbin Russwin Hardware (RU) - DL3200 Series.
   b. No Substitution.

2.5 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.

B. Standards: Comply with the following:

2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
4. Dustproof Strikes: BHMA A156.16.

2.6 ELECTRIC STRIKES

A. Standard Electric Strikes: Heavy duty, cylindrical and mortise lock electric strikes conforming to ANSI/BHMA A156.31, Grade 1, UL listed for both Burglary Resistance and for use on fire rated door assemblies. Stainless steel construction with dual interlocking plunger design tested to exceed 3000 lbs. of static strength and 350 ft-lbs. of dynamic strength. Strikes tested for a
minimum 1 million operating cycles. Provide strikes with 12 or 24 VDC capability and supplied standard as fail-secure unless otherwise specified. Option available for latchbolt and latchbolt strike monitoring indicating both the position of the latchbolt and locked condition of the strike.

1. Acceptable Manufacturers:
   a. HES (HS).

2.7 ELECTROMECHANICAL DOOR OPERATORS – SELF POWERED

A. Standard: Certified ANSI/BHMA A156.19.

B. Performance Requirements: Capable of operating doors up to 48” wide and weighing up to 250 pounds.

C. Cycle Testing: Successfully tested to a minimum one million automatic cycles.

D. Certification: Operators shall be furnished with GreenCircle Certification.

E. Configuration: Surface mounted. Door operators to control single swinging and pair of swinging doors.

   1. Furnish complete with two jamb mounted push button transmitters with required signage.

F. Operation: Power opening and spring closing operation capable of meeting ANSI A117.1 accessibility guideline. Provide time delay for door to remain open before initiating closing cycle as required by ANSI/BHMA A156.19.

   1. When operated manually a clutch mechanism disengages the motor gearbox upon opening, and then re-engages during the closing cycle to control spring force.

G. Features: Operator units to have full feature adjustments for door opening and closing force and speed, backcheck, motor assist acceleration from 0 to 30 seconds, time delay, vestibule interface delay, obstruction recycle, and hold open time from 0 up to 30 seconds.

   1. Provide units which are self adjusting for door size and weight, and using on-board diagnostics, continually maintain control of doors in wind or abusive environments.


   3. Provide units which have a regenerative drive system which charges the on-board battery pack when the door is operated manually, and which requires no external electrical power.

   4. Provide integral RF receiver paired with the included RF push buttons.

   5. Provide optional external power supply.
H. Provide outputs and relays on board the operator to allow for coordination of exit device latch retraction, electric strikes, magnetic locks, card readers, safety and motion sensors and specified auxiliary contact.

I. Acceptable Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Norton Door Controls (NO) - 5800 Series.

2.8 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Acceptable Manufacturers:

1. National Guard Products (NG).
2. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).

2.9 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.
2.10 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware.

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.


3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."

4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

A. Field Inspection: Supplier will perform a final inspection of installed door hardware and state in report whether work complies with or deviates from requirements, including whether door hardware is properly installed, operating and adjusted.

3.5 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.6 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.
3.8 DOOR HARDWARE SETS

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

**Hardware Sets**

**Set: 1.0**

Doors: 114

1. Deadbolt Classroom DL3217 57C1 C6 626 RU
2. Pull Plate 126x70C US32D RO
3. Push Plate 70C-RKW US32D RO
4. Door Operator 5813xSQPB 689 NO √
5. Kick Plate K1050 10X2LDW BEV CSK US32D RO
6. Wall Stop 409 US32D RO
7. Threshold 272A FHSL14 PE
8. Gasketing S44C 18' PE
9. Sweep 315CN PE

Notes: Auto operator has built in battery so door will function if power is off. Key switch not required operator has built in overload protection. Operator package has power supply for normal operation plus wall switches etc.

END OF SECTION 087100
SECTION 09 2500
GYPSUM BOARD

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Provide all gypsum board, gypsum sheathing, acoustical insulation, and accessories, complete, as shown and specified.

B. Related Sections:
   1. Section 06 1000 - Rough Carpentry
   2. Section 09 9000 - Painting

1.02 SUBMITTALS

A. Product Data: Submit product data for each component.

1.03 QUALITY ASSURANCE

A. Applicator: Experienced and specializing in gypsum board systems work.

B. Fire-Resistance Ratings: Comply with fire-resistance ratings as shown. Provide materials, accessories, and application procedures that have been listed by UL or tested according to ASTM E119 for the type of construction shown.

C. Materials and Installation: Comply with UBC Section 4711, except where more stringent requirements are indicated.

PART 2 - PRODUCTS

2.01 GYPSUM BOARD MATERIALS

A. For all gypsum board work throughout the Project, provide materials, including wallboard, accessories, fasteners, and finishing materials produced by one manufacturer, unless otherwise noted.

B. Gypsum Wallboard: ANSI/ASTM C36; fire resistive type, UL rated Type X; 5/8" thick typical, unless noted otherwise; maximum permissible length; ends square cut, with long edges tapered to receive manufacturer's standard joint treatment.

C. Gypsum Wallboard: ANSI/ASTM C36; 1/2" thick typical, unless noted otherwise; maximum permissible length; ends square cut, with long edges tapered to receive manufacturer's standard joint treatment.
D. Plaster Base FIRECODE Core panels: ROCKLATH® Brand, non-combustible gypsum core encased in a 100 percent recycled gray face and back paper; UL classified for fire resistance (type RLX) and rounded edges for easy installation.

E. High Abuse Board: FIBEROCK VHI Abuse-Resistant Panels with reinforcing fiber mesh, surface burning characteristics (ASTM E84, Flame Spread 5, Smoke Developed 0); fire resistance (ASTM E119). 5/8" panels may be used in lieu of Type X gypsum panels in over 50 “Type FRX-G” fire-rated wall assemblies as listed in the UL Fire Resistance Directory.

F. Tile Backer Board, Type X (fire-resistant):
   1. Water resistant panels, 5/8 inch thick, 4-foot wide and up to 8-foot long conforming to one of the following requirements:
      a. Aggregated Portland cement board with polymer-coated, woven glass-fiber mesh embedded in front and back surfaces.
      b. Fiberglass-mat faced gypsum backing board complying with ASTM C1178.
      c. Cementitious board surfaced with fiberglass reinforcing mesh on front and back and complying with ANSI A118.9 and ASTM C1325.
   2. Tile backer boards shall meet the following requirements:
      a. Resistance to Mold Growth: Minimum score of “10” when tested in accordance to ASTM D3273 and evaluated in accordance with ASTM D3274.
      b. Resistance to Fungi: Maximum score of “0” when tested in accordance to ASTM G21.

2.02 GYPSUM BOARD ACCESSORIES

A. Corner Beads: ANSI-CB Metal; USG Dur-A-Bead, Beadex B-1XW, or equal, with 1-1/4 inch legs.

B. Casing Bead: ANSI-LC, USG 200B, Western, or equal, sized to fit wall board.

C. Control Joints: USG No. 093, Western or equal.


E. Fasteners: Phillips-head, Type S, self-drilling, self-tapping, steel, drywall screws: provide 1” length for single layer application, 1-5/8” length for double-layer application, and 1-1/4” for single-layer coreboard application.

F. Laminating Adhesive: Provide adhesive, specifically formulated for laminating gypsum boards, recommended by gypsum board manufacturer.

G. Cementitious Backer Board: Aggregated Portland Cement Board with vinyl coated, woven glass fiber mesh in back and front surfaces.
2.03 SOUND ISOLATION MATERIALS

A. Acoustical Batt Insulation: Provide 3-1/2"-thick unfaced fiberglass insulation complying with FS HH-I-521E, same as light-density thermal fiberglass insulation. Provide insulation manufactured by Owens-Corning, Certain-Teed, Celotex, or equal.

B. Acoustical Sealant: Non-hardening, non-skinning, permanently flexible sealant specifically designed for sealing gypsum board, capable of spanning 1/2" wide x 3/8" deep gaps; Presstite Products No. 579.64 Acoustical Sealant, Tremco Acoustical Sealant, W.W. Henry "Sound Control Sealant No. 313B", or equal.

C. Electrical Box Sealant: Provide Lowry's "Electrical Box Sealer" sheet calking, or equal (no known equal). Use to seal back and sides of all junction boxes recessed in acoustically-rated partitions.

D. Backing Rod: Closed-cell bead or rod of polyethylene foam.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine all parts of the supporting structure to which gypsum board systems are to be applied and the conditions under which gypsum board systems are to be installed. Correct all unsatisfactory conditions before proceeding with the installation.

3.02 PREPARATION - INSTALLATION OF SOUND-ISOLATION SYSTEM

A. Install acoustical insulation in sound-insulated partitions. Completely fill space between studs to full height of partition. Fix insulation to framing with stiff wire at maximum 4'-0" o.c. to prevent slipping.

B. Pack insulation batts around perimeter of piping and electrical boxes in wall/ceiling cavities. Fit carefully behind electrical outlets and other work which penetrates partition. Stagger end joints.

C. Install acoustical insulation blanket on suspended ceilings adjacent to sound insulated partitions that are not full height to structure. Lay with faced side up. Provide continuous layer of insulation 4' wide each side of partition.

D. Provide continuous bead of sealant between gypsum board and adjacent substrate wherever drywall abuts floor, ceiling, and dissimilar materials at jamb.

E. At openings and cutouts fill open spaces between drywall and ducts and other flush or penetrating items with continuous bead of sealant.

F. At electrical boxes calk sides and backs to seal completely openings and joints with sheet calking.
G. Fill all gaps with compressible neoprene tape where gypsum board partitions abut window mullions or other surfaces inaccessible for sealant work.

3.03 GYPSUM BOARD INSTALLATION

A. Install gypsum board on walls and ceiling in accordance with Gypsum Association Specification GA-216, "Recommended Specifications for the Application and Finishing of Gypsum Board," unless more stringent requirements are indicated.

B. Erect single layer gypsum board in non-fire rated walls in most economical direction, with ends and edges occurring over firm bearing. Neatly fit ends of edges where they abut.

C. Erect single layer fire rated gypsum board vertically, with edges and ends occurring over firm bearing.

D. Stagger gypsum board so corners of any four wallboards do not meet at the same point.

E. No horizontal or vertical joints permitted within 12” of corners of opening.

F. Fasteners:
   1. Space fasteners not to exceed 8” on center for partitions and 7” on center for ceiling at abutting edges and 12” in field. Space fasteners not less than 3/8” from edges and ends.
   2. Use screws when fastening gypsum board to metal furring or framing.
   3. Drive fasteners until heads rest in a shallow dimple-like depression; take care not to crush core or break paper surface.

3.04 JOINT TREATMENT

A. Corner and Edge Treatment:
   1. Internal Corners: Treat as specified for joints; fold reinforcing tape lengthwise through middle, fit neatly into corner.
   2. External Corners: Apply metal corner beads in single lengths with joint treatment as specified for joints.
   3. Edges: Provide metal casing bead at all exposed edges and at intersections with dissimilar materials. Use longest practical length.
   4. Control Joints: Provide on walls at 30’ on center and as indicated. Use single length where run is less than the manufacturer's standard length. Where the run is greater than the standard length, install with least possible number of joints and with pieces of equal length. Place joints consistent with lines of building spaces as directed.

B. Joints and Fastening Concealment:
   1. General: Conceal joints and fastenings depression as specified. Mix joint cement following manufacturer's written instructions.
   2. Joints: Apply per manufacturer's recommendations; include not less than three applications. Where required to achieve smooth finish, sand all coats after each application has dried. Take care not to scuff paper surface of wallboard when sanding.

C. Finish: Provide smooth wall finish.
3.05 INSTALLATION OF CEMENTITIOUS BACKER BOARD

A. Location of Use: Install tile backer board at those locations where ceramic tile is to be applied, and/or at other locations as shown.

B. Partitions and Walls: Install 1/4 inch temporary spacers around all fixtures and receptors that the finish tile work will abut. Precut boards to the required sizes and make all necessary cut-outs. Fit ends and edges closely together, but do not force into place. Install boards abutting temporary spacers first. Fasten boards to metal studs with 1-1/4 inch long Type S or S-12 screws spaced at not to exceed 8 inches on center. Apply 2 inch wide glass fiber tape over all joints and corners; embed in same mortar or adhesive used to set tile.

C. Sealing: Seal all exposed or cut board edges at holes and joints. Prior to installation of any finish materials over the boards, fill all openings flush around penetrating pipes, utilities and similar devices, using a waterproof, non-hardening compound complying with Section 07900.

3.06 TOLERANCES

A. Construction Tolerances: Do not exceed 1/8” in 8’-0” variation from plumb or level in any exposed line or surface. Do not exceed 1/16” variation between planes of abutting edges or ends. Maintain maximum of 1/4” gap between the subfloor and the bottom edge of the gypsum board. Shim as required to comply with specified tolerances.

END OF SECTION
SECTION 09 3000

TILE

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Provide wall tile, floor tile, and accessories, complete, as shown and specified.

B. Related Sections:
   1. Section 09 2500 - Gypsum Board: Water-resistant board for tile backing.

1.02 REFERENCES

A. ANSI – American National Standards Institute, Inc.
   2. A137.1- Standard Specifications for Ceramic Tile

B. ASTM – American Society for Testing and Materials
   1. C1028 – Standard Test Method for Determining the Static Coefficient of Friction of Ceramic Tile and Other Like Surfaces by the Horizontal Dynamometer Pull-Meter Method

C. TCA – Tile Council of America

1.03 SUBMITTALS

A. Product Data: Submit manufacturer's product data on each material specified.

B. Samples: Submit sample tile panels, consisting of not less than four tiles per panel adhered to hardboard or plywood with specified color grout filled. Submit three panels for each type and color of tile.

C. Shop Drawings: Show expansion joint locations for review by the Architect.

D. Extra Materials: Submit to the Owner upon completion of work extra tiles and trim for future repair and maintenance work. Submit 5% or ten pieces, whichever is greater, of each type and color of tile and trim installed. Package extra materials in a cardboard box suitable for storage. Clearly label and identify the contents in the box.

1.04 QUALITY ASSURANCE

A. Manufacturing Standards: Provide tile to equal or exceed the Standard Grade Requirements of ANSI A137.1.
B. Installation Methods: Comply with TCA and installation methods specified except where more stringent requirements are indicated.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver packaged materials, and store in original containers with seals unbroken and labels intact until time of use in accordance with manufacturer's directions.

B. Store materials on pallets or skids off the ground. Protect materials from inclement weather, and allow air circulation through stacks.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Tile and Trim Units: Provide tile to equal or exceed Standard Grade requirements of ANSI A137.1 for types and grades of tile specified.

B. Tile and Grout Colors: As selected by Architect and conforming to Architect-approved samples.

C. Styles: As specified below.

D. Patterns: Match existing.

E. Glazed Wall Tile: As manufactured by Dal-Tile Corp., whose style and price category is specified below or approved equal.
   1. Grade: Standard.
   2. Size: Various; Match existing
   3. Colors:
      a. Tile: Match Existing
      b. Grout: Match Existing
   4. Pattern: Match existing.
   5. Edge: Cushion.
   6. Trim units: Provide matching stops, returns, surface bullnoses, trimmers, and other shapes required to produce complete and finished installation. Trim shall match tile in size, color, and finish, unless otherwise noted.

F. Unglazed Porcelain Mosaic Floor Tile:
   1. Grade: Standard.
   2. Size: Various; Match existing
   3. Colors:
      a. Tile: Match Existing
      b. Grout: Match Existing
   4. Pattern: Match existing.
• Daltile Keystones 1"x2" Mosaic Tile - Straight Joint to match existing
• Daltile Keystones 1" x 1" Mosaic Tile to match existing
• Daltile Keystones Blends Random Mosaic Block Random Tile

5. Finish: Non-slip, abrasive grain surface with minimum wet and dry value of 0.60 coefficient of friction when tested in accordance with ASTM C1028.
6. Trim units: Provide matching stops, returns, surface bullnoses, trimmers, and other shapes required to produce complete and finished installation. Trim shall match tile in size, color, and finish, unless otherwise noted.

2.02 ACCESSORY MATERIALS

A. Grout: Provide Laticrete, Hydroment Ceramic Tile Grout, Custom's Tile Grout, American Olean Grout, or approved equal, colors as selected by the Architect.

B. Cementitious Backer Units: Provide cementitious backer units in compliance with ANSI A118.9.

C. Bond Coat: Provide "Mer-Krete Tile Bonding Adhesive" manufactured by Mer-Kote Products Inc. or approved equal. Verify compatibility with the waterproofing membrane.

D. Sealants: Furnish and install. Comply with Section 07900.

E. Organic Adhesive: ANSI A136.1, Type I.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine substrate and receiving areas for conditions for conditions detrimental to successful installation.

B. Do not commence installation until unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Prior to setting tile, apply sealant around all pipes and conduits penetrating tile surface.

B. Clean substrate to remove dirt, dust, debris, and loose particles.
3.03 INSTALLATION OF CEMENTITIOUS BACKER BOARD UNITS

A. Install cementitious backer board units in compliance with ANSI A108.11.

B. Overlap waterproofing membrane by four inches

3.04 INSTALLATION OF TILE

A. Installation Methods: Comply with the following TCA installation methods:
   1. For thinset tile floors comply with F113.
   2. For thinset tile walls over cementitious backer board or water resistant gypsum board comply with W243/W244.
   3. For expansion joints, comply with EJ171.

B. Do not use units with chips, cracks, voids, stains, or other defects which might be visible in the finished work.

C. Contiguous Work: Provide drain and clean out openings as shown. Close up openings in tile work after other work is in place. Use materials and set to match surrounding tiles.

D. Lay out all tile units with fields centered; avoid use of unit less than one-half size. Unless otherwise indicated, align unit square, parallel, and straight. All joint widths shall be same in each area.

E. When cutting is required; grind edges smooth. Accurately cut unit around work of other trades so that coverings will completely cover edges.

F. Firmly embed all units in setting material with finished surfaces brought to true planes. Make inside corners square, and outside corners bullnose.

G. Grouting: Grout joints as soon as possible after initial set of setting bed. Force group into joints, strike flush, and tool slightly concave. Wet joint surfaces, if dry, prior to grouting. Provide means to prevent grout staining the exposed face of tile.

H. Sealant: Seal intersection of interior wall tile and dissimilar materials with polyurethane sealant in color to match grout. Clean all joints free of loose mortar, dirt, and debris. Neatly tool all sealants.

I. Expansion Joints:
   1. Provide expansion joints in width to match grout-joint width, and seal with polyurethane sealant in color to match grout.
   2. Provide expansion joint at intersection of wall and floor, at intersection between wall and ceiling, at floor or wall plane exceeding 20' in each direction, and at construction pour joints.

3.05 CLEAN, CURE AND PROTECT
A. Clean tile and adjacent surfaces of adhesive and grout as work progresses.

B. Provide proper temperature and humidity conditions for curing the work. Damp-cure all cement grouts for not less than 72 hours. Add dampness as required, and cover with a nonstaining membrane.

C. Upon completion, thoroughly clean tile surfaces in manner not to affect glaze and adequately protect from damage until final acceptance of entire Project.

END OF SECTION
SECTION 09 9000

PAINTS AND COATINGS

PART 1  GENERAL

1.01 SECTION INCLUDES

A. Surface preparation.

B. Field application of paints and stains.

C. Scope: Finish all interior and exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
   1. Both sides and edges of plywood backboards for electrical and telecom equipment before installing equipment.
   2. Elevator pit ladders.
   3. Exposed surfaces of steel lintels and ledge angles.
   4. Prime surfaces to receive wall coverings.
   5. Mechanical and Electrical:
      a. In finished areas, paint all insulated and exposed pipes, conduit, boxes, insulated and exposed ducts, hangers, brackets, collars and supports, mechanical equipment, and electrical equipment, unless otherwise indicated.
      b. In finished areas, paint shop-primed items.
      c. Paint interior surfaces of air ducts that are visible through grilles and louvers with one coat of flat black paint to visible surfaces.
      d. Paint dampers exposed behind louvers, grilles, to match face panels.

D. Do Not Paint or Finish the Following Items:
   1. Items fully factory-finished unless specifically so indicated; materials and products having factory-applied primers are not considered factory finished.
   2. Items indicated to receive other finishes.
   3. Items indicated to remain unfinished.
   4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
   5. Marble, granite, slate, and other natural stones.
   6. Floors, unless specifically so indicated.
   7. Ceramic and other tiles.
   9. Glass.
   10. Acoustical materials, unless specifically so indicated.
   11. Concealed pipes, ducts, and conduits.

E. See Schedule – Match existing color and sheen.

1.02 REFERENCE STANDARDS


D. GreenSeal GS-11 - Paints; 1993.

E. SSPC (PM1) - Good Painting Practice: SSPC Painting Manual, Vol. 1; Society for Protective
1.03 DEFINITIONS
A. Conform to ASTM D 16 for interpretation of terms used in this section.

1.04 SUBMITTALS
A. See Section 01300 - Submittals for procedures.
B. Product Data: Provide data on all finishing products, including VOC content.
C. Samples: Submit two painted samples, illustrating selected colors and textures for each color and system selected. Submit on tempered hardboard, 9 x 12 inch (200 x 300 mm) in size.
D. Certification: By manufacturer that all paints and coatings comply with VOC limits specified.
E. Certification that paint products being supplied meet CHPS approved "low-emittance materials list".
F. Certification: By manufacturer that all paints and coatings do not contain any of the prohibited chemicals specified; GreenSeal GS-11 certification is not required but if provided shall constitute acceptable certification.
G. Manufacturer's Instructions: Indicate special surface preparation procedures.
H. Maintenance Data: Submit data on cleaning, touch-up, and repair of painted and coated surfaces.

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

1.06 REGULATORY REQUIREMENTS
A. Conform to applicable code and CHPS Low-Emitting Materials list for VOC requirements for products and finishes.

1.07 DELIVERY, STORAGE, AND HANDLING
A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

1.08 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. Do not apply exterior coatings during rain, or when relative humidity is outside the humidity...
ranges required by the paint product manufacturer.

D. Minimum Application Temperatures for Latex Paints: 45 degrees F for interiors; 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.

E. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

1.09 EXTRA MATERIALS

A. See Section 01600 - Product Requirements, for additional provisions.

B. Supply 1 gallon of each color; store where directed.

C. Label each container with color in addition to the manufacturer's label.

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. Paints:
   2. Acceptable Manufacturer's (meeting CHPS Low Emitting Materials).

C. Substitutions: See Section 01630 - Product and Substitutions.

2.02 PAINTS AND COATINGS - GENERAL

A. Paints and Coatings: Ready mixed, unless intended to be a field-catalyzed coating.
   1. Provide paints and coatings of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
   2. Supply each coating material in quantity required to complete entire project's work from a single production run.
   3. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.

B. PRIMER
   1. Galvanized steel:
      a. Prime all surfaces of galvanized sheet metal surfaces with the specified primer.
      b. Galvanized surfaces may require special preparation to ensure good adhesion of the specified primer. Comply with the manufacturer's written recommendations regarding surface preparation.
      c. Minimal preparation requirements to ensure good adherence of the primer are as follows:
         1) Remove all oils and grease prior to acid treatment.
         2) Acid treatment with 5% solution of phosphoric acid being certain to completely wet the surface.
         3) After the acid dries, the surface shall be rinsed with clean water and allowed to dry.
         4) If the specified primer does not adhere to the galvanized sheet metal, remove all loose primer and lightly sand the exposed galvanized surface and apply a second coat of primer.
      d. Use of an undercoat or bonding agent to ensure good adhesion to the galvanized
sheet metal is permitted.

1) An undercoat or bonding agent shall not be substituted for the specified primer.
2) An undercoat or bonding agent shall not be substituted for minimal substrate preparation requirements.

C. Colors: As indicated on drawings
1. In finished areas, finish pipes, ducts, conduit, and equipment the same color as the wall/ceiling they are mounted on/under.

2.03 PAINT SYSTEMS - EXTERIOR

A. Paint WE-OP-3L - Wood, Opaque, Latex, 3 Coat:
1. One coat of latex primer sealer; 3210 Prep and Prime Gripper Multi-Purpose Water-Based Primer Sealer.
5. Flat: Two coats of latex enamel; 2200 Dulux Interior/Exterior Acrylic Flat Finish.

B. Paint WE-ST-S - Wood, Simi-Transparent, Stain:
1. One coat sealer.
2. Flat: One coat of stain; Sikken's Cetol SRD 250.

C. Paint WE-ST-S - Wood, Simi-Transparent, Stain:
1. Flat: One coat of stain; WoodPride Exterior Waterburne Semi-Transparent Stain.

D. Paint WE-ST-S - Wood, Simi-Transparent, Stain:
1. Flat: One coat of stain; Wolman's DuraStain.

E. Paint CE-OP-3L - Masonry/Concrete, Cement Plaster, Opaque, Latex, 3 Coat:
1. One coat of latex primer sealer; 3210 Prep and Prime Gripper Multi-Purpose Water-Based Primer Sealer.
4. Flat: Two coats of latex enamel; 2200 Dulux Professional Exterior 100% Acrylic Flat Finish.

F. Paint ME-OP-3L - Ferrous Metals, Unprimed, Latex, 3 Coat:
1. One coat of latex primer.
4. Satin: Two coats of latex enamel; 2402 Dulux Professional Exterior 100% Acrylic Satin Finish.
5. Flat: Two coats of latex enamel; 2200 Dulux Professional Exterior 100% Acrylic Flat Finish.

G. Paint ME-OP-2L - Ferrous Metals, Primed, Latex, 2 Coat:
1. Touch-up with rust-inhibitive primer.
4. Satin: Two coats of latex enamel; 2402 Dulux Professional Exterior 100% Acrylic Satin Finish.
5. Flat: Two coats of latex enamel; 2200 Dulux Professional Exterior 100% Acrylic Flat Finish

H. Paint MgE-OP-3L - Galvanized Metals, Latex, 3 Coat:
1. One coat primer.

I. Paint MaE-OP-3A - Aluminum and Copper, Unprimed, Alkyd, 3 Coat:
1. One coat etching primer.

J. Paint Copper-Ox - Copper, Natural Oxidized Finish:
1. Rub on oxidizing solution of copper acetate and ammonium chloride in acetic acid, until required effect is achieved.
2. Rinse surfaces with clear water and allow to dry.

2.04 PAINT SYSTEMS - INTERIOR

A. Paint WI-OP-3L - Wood, Opaque, Latex, 3 Coat:
1. One coat of latex primer sealer; Inter-Kote, Interior Acrylic Enamel Undercoater (W6325).
3. Eggshell: Two coats of latex enamel; EchoShield Low Sheen Latex Low Sheen Paint W602.
4. Flat: Two coats of acrylic copolymer; Walltone, Interior latex Flat Paint W420.

B. Paint WI-TR-V - Wood, Transparent, Varnish, No Stain:
1. One coat sealer.
2. Satin: Two coats of varnish; WoodPride Professional Wood Finishes Water-Based Satin Varnish.

C. Paint CI-OP-3L - Concrete/Masonry, Opaque, Latex, 3 Coat:
1. One-coat; EcoShield Primer, Low-Odor/Zero VOC, Interior Primer W600.
3. Eggshell: Two coats of latex paint; EchoShield Low Sheen Latex Low Sheen Paint W602.
4. Flat: Two coats of acrylic Co-Polymer; EchoShield Flat, Low-Oder/Zero VOC, Interior latex Flat Paint W601.

D. Paint MI-OP-3L - Ferrous Metals, Unprimed, Latex, 3 Coat:
1. One coat of latex primer; EcoShield Primer, Low-Odor/Zero VOC, Interior Primer W600.

E. Paint MI-OP-2L - Ferrous Metals, Primed, Latex, 2 Coat:
1. Touch-up with latex primer.
4. Flat: Two coats of latex enamel; EchoShield Semi-Gloss, Low-Oder/Zero VOC, Interior
Acrylic Semi-Gloss Paint W603

F. Paint MgI-OP-3L - Galvanized Metals, Latex, 3 Coat:
   1. One coat galvanize primer;

G. CI-OP-2E - Concrete Floor, Satin Enamel, 2 Coat:
   1. Satin: Two coats satin enamel; Groundworks Interior/Exterior Water-Based Porch & Floor Satin Enamel, 3018.

H. Paint GI-OP-3LA - Gypsum Board/Plaster, Acrylic Co-Polymer, 3 Coat:
   1. One coat of waterbourne primer sealer; EcoShield Primer, Low-Odor/Zero VOC, Interior Primer W600.
   3. Eggshell: Two coats of latex paintl; EchoShield Low Sheen Latex Low Sheen Paint W602.
   4. Flat: Two coats of latex paint; EchoShield Flat, Low-Oder/Zero VOC, Interior latex Flat Paint W601.

2.05 ACCESSORY MATERIALS

A. Accessory Materials: Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required to achieve the finishes specified whether specifically indicated or not; commercial quality.

B. Patching Material: Latex filler.

C. Fastener Head Cover Material: Latex filler.

PART 3 EXECUTION

3.01 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.

D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
   1. Gypsum Wallboard: 12 percent.
   2. Plaster and Stucco: 12 percent.
   3. Masonry, Concrete, and Concrete Unit Masonry: 12 percent.
   4. Interior Wood: 15 percent, measured in accordance with ASTM D 4442.
   5. Exterior Wood: 15 percent, measured in accordance with ASTM D 4442.
   6. Concrete Floors and Traffic Surfaces: 8 percent.

E. Measure ph level of concrete slab at least 30 days after placement to confirm ph level < 10. Should ph level be > 10, notify Architect and paint manufacturer.
### 3.02 PREPARATION

A. Clean surfaces thoroughly and correct defects prior to coating application.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.

D. Surfaces: Correct defects and clean surfaces which affect work of this section. Remove or repair existing coatings that exhibit surface defects.

E. Seal surfaces that might cause bleed through or staining of topcoat.

F. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.

G. Concrete and Unit Masonry Surfaces to be Painted: Remove dirt, loose mortar, scale, salt or alkali powder, and other foreign matter. Remove oil and grease with a solution of tri-sodium phosphate; rinse well and allow to dry. Remove stains caused by weathering of corroding metals with a solution of sodium metasilicate after thoroughly wetting with water. Allow to dry.

H. Gypsum Board Surfaces to be Painted: Fill minor defects with filler compound. Spot prime defects after repair.

I. Plaster Surfaces to be Painted: Fill hairline cracks, small holes, and imperfections with latex patching plaster. Make smooth and flush with adjacent surfaces. Wash and neutralize high alkali surfaces.

J. Aluminum Surfaces to be Painted: Remove surface contamination by steam or high pressure water. Remove oxidation with acid etch and solvent washing. Apply etching primer immediately following cleaning.

K. Galvanized Surfaces to be Painted: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.

L. Uncorroded Uncoated Steel and Iron Surfaces to be Painted: Remove grease, mill scale, weld splatter, dirt, and rust. Where heavy coatings of scale are evident, remove by hand wire brushing or sandblasting; clean by washing with solvent. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Prime paint entire surface; spot prime after repairs.

M. Shop-Primed Steel Surfaces to be Finish Painted: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.

N. Interior Wood Surfaces to Receive Opaque Finish: Wipe off dust and grit prior to priming. Seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks after primer has dried; sand between coats. Back prime concealed surfaces before installation.

O. Exterior Wood Surfaces to Receive Opaque Finish: Remove dust, grit, and foreign matter. Seal knots, pitch streaks, and sappy sections. Fill nail holes with tinted exterior calking compound after prime coat has been applied. Back prime concealed surfaces before installation.

P. Exterior Wood to Receive Transparent Finish: Remove dust, grit, and foreign matter; seal knots, pitch streaks, and sappy sections with sealer. Fill nail holes with tinted exterior calking
compound after sealer has been applied. Prime concealed surfaces.

Q. Wood Doors to be Field-Finished: Seal wood door top and bottom edge surfaces with clear sealer.

R. Metal Doors to be Painted: Prime metal door top and bottom edge surfaces.

3.03 APPLICATION

A. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.

B. Exterior Wood to Receive Opaque Finish: If final painting must be delayed more than 2 weeks after installation of woodwork, apply primer within 2 weeks and final coating within 4 weeks.

C. Apply products in accordance with manufacturer’s instructions.

D. Where adjacent sealant is to be painted, do not apply finish coats until sealant is applied.

E. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.

F. Apply each coat to uniform appearance.

G. Sand wood and metal surfaces lightly between coats to achieve required finish.

H. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.

I. Wood to Receive Transparent Finishes: Tint fillers to match wood. Work fillers into the grain before set. Wipe excess from surface.

J. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.04 FINISHING MECHANICAL AND ELECTRICAL EQUIPMENT

A. Refer to Section 15075 and Section 16075 for schedule of color coding of equipment, duct work, piping, and conduit.

B. Paint shop-primed equipment, where indicated.

C. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.

D. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.05 CLEANING

A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.06 SCHEDULE - SURFACES TO BE FINISHED

A. Do Not Paint or Finish the Following Items:
   1. Items fully factory-finished unless specifically noted.
   2. Fire rating labels, equipment serial number and capacity labels.
   3. Stainless steel items.
B. Paint cut and patch surfaces to match existing, U.O.N.

C. Paint the surfaces described below under Schedule - Paint Systems.

C. Mechanical and Electrical: Use paint systems defined for the substrates to be finished.
   1. Paint all insulated and exposed pipes occurring in finished areas to match background surfaces, unless otherwise indicated.
   2. Paint shop-primed items occurring in finished areas.
   3. Paint interior surfaces of air ducts and convectors and baseboard heating cabinets that are visible through grilles and louvers with one coat of flat black paint to visible surfaces.
   4. Paint dampers exposed behind louvers, grilles, and convectors and baseboard cabinets to match face panels.

D. Paint both sides and edges of plywood backboards for electrical and telephone equipment before installing equipment.

END OF SECTION
SECTION 10 1400
SIGNAGE

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Interior and exterior accessibility, identification, directional and informational signs.
   2. Parking signs.
   3. School Name and Address Sign.

B. Related Requirements:
   1. Division 01: General Requirements.
   2. Section 08 1416: Wood Doors.
   3. Division 09: Finishes.
   4. Section 32 1313 - Site Concrete Work.

1.02 REFERENCES

A. ASTM International:
   1. ASTM A500 - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
1.03 SUBMITTALS

A. Product Data: Submit material descriptions, finishes and color charts for each type of sign.

B. Shop Drawings: Submit Shop Drawings indicating sign style, lettering, overall dimensions and quantities. Submit floor plans showing locations for each sign.

C. Material Samples: Submit three samples illustrating full size sample sign, of type, style and color specified.

D. Manufacturer’s installation instructions.

1.04 QUALITY ASSURANCE

A. Pre-Installation Conference: Notify OAR when signs are ready for installation. Arrange for conference at site. Do not proceed with installation until Architect’s approval of specific locations and methods of attachment has been obtained.

B. Provide signs from one manufacturer.

1.05 DELIVERY, STORAGE AND HANDLING

A. Deliver products to site and protect from damage. Store until immediately prior to installation.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Products of following manufacturers are acceptable and are the basis for intended design and quality.


3. Vomar Products Inc.

4. ASI-Modulex, Inc.

5. Mohawk Sign Systems, Inc.


8. Equal.

2.02 MATERIALS AND FABRICATION

A. Interior Sign Materials:

1. Substrate Panel: 1/8 inch minimum thick, integrally colored or clear, back foiled and back painted acrylic plastic, or laminated acrylic. Conforming to ASTM D4802; non-glare (matte), UV stable, suitable for interior and exterior use.
   a. Edges shall be square and eased.
   b. Colors as selected by Architect from manufacturer’s custom color range.

2. Aluminum Extrusions: In conformance to ASTM B221.

3. Fasteners:
   a. Stainless steel tamper-proof screws and plastic anchors.
   b. Signs mounted on fire-rated doors shall be secured with adhesive. Adhesives and sealants shall comply with the limits for VOC content and shall be approved by LAUSD’s Office of Environmental Health Services (OEHS).

B. Exterior Sign Materials:

1. Sign: ASTM B209 aluminum sheet, 0.080 inch thick with rounded corners of at least 1/8 inch radius and eased edges. White figure on a blue background; non-glare, high contrast signs. The blue shall be equal to color number 15090 in Federal Standard 595B.

2. Post: 2 by 2 inch galvanized steel tubing, weighing minimum of 4.31 pounds per foot and conforming to ASTM A500, Grade B, 3/16 inch thick wall thickness.

3. Concrete Post Footings: Refer to Section 32 1313, Site Concrete Work.

4. Fasteners: Stainless steel carriage bolts with tamper resistant nuts.

C. Characters and Symbols: Computer cut raised characters and graphics shall be cut from 1/16 inch integrally colored acrylic. Raised characters and graphics shall be
inlaid 1/32 inch minimum into first surface of sign background, secured with adhesive so it cannot be removed without the use of tools. Raised characters and graphics shall have beveled, eased or rounded edges. Non-tactile text and graphics shall be applied to the second surface, and background color shall be applied to the second surface and protected with film or an additional backplate. Pictograms and other symbols including the International Symbol of Accessibility, which are included on signs with raised characters and Braille, are not required to be raised.

2.03 COMMUNICATION ELEMENTS AND FEATURES

A. Raised Characters
   Raised characters shall comply with CBC 11B-703.2.
   1. Character Type: Characters on signs shall be raised 1/32 inch minimum above their background and shall be sans serif uppercase characters duplicated in Braille. Characters and Braille shall be in a horizontal format.
   2. Character Height: Character height measured vertically from the baseline of the character shall be 5/8 inch minimum and 2 inch maximum based on the height of the uppercase letter “I”.
   3. Character Proportions: Characters shall be selected from fonts where the width of the uppercase letter “O” is 60 percent minimum and 110 percent maximum of the height of the letter “I”.
   4. Stroke Thickness: Stroke thickness of the uppercase letter “I” shall be 15 percent maximum of the height of the character.
   5. Character and Line Spacing shall be in conformance to CBC 11B-703.2.7 and 11B-703.2.8.
   6. Character Placement: Braille shall be placed a minimum of 3/8 inch and a maximum of 1/2 inch directly below the tactile characters: flush left or centered, and 3/8 inch minimum from raised borders and decorative elements. If the tactile text is multilinie, Braille shall be placed below the entire text.

B. Visual Characters: Visual characters shall comply with CBC Section 11B-703.5. Characters shall be conventional in form, and shall be uppercase or lowercase or a combination of both, as indicated on the drawings. Characters shall not be italic, oblique, highly decorative, or of other unusual forms.
   1. Finish and Contract: Characters and their backgrounds shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or a dark characters on a light background.
2. Character Proportions: Characters shall be selected from fonts where the width of the uppercase letter “O” is 60 percent minimum and 110 percent maximum of the height of the uppercase of the letter “I”.

3. Character Height: Minimum character height shall comply with CBC Table 11B-703.5.5.

4. Height from Finish Floor or Ground: Visual characters shall be a 40 inches minimum above the finish floor or ground

5. Stroke Thickness: Uppercase letter “I” shall be 10 percent minimum and 20 percent maximum of the height of the character.

6. Character and Line Spacing: Shall be in accordance to CBC 11B-703.5.8 and 11B-703.5.9.

C. Braille: Contracted Grade 2 Braille, conforming to CBC 11B-703.3. Braille characters shall be inlaid optically correct acrylic Raster beads into computer drilled holes in the panel surface.

1. Dimensions and Capitalization: Braille dots shall have a domed or rounded shape and shall comply with CBC Table 11B-703.3.1. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms.

2. Position: Braille shall be positioned below the corresponding text in a horizontal format, flush left or centered. If text is multi-lined, Braille shall be placed below the entire line of text. Braille shall be separated 3/8 inch minimum and 1/2 maximum from any other tactile characters and 3/8 inch minimum from raised borders and decorative elements.

D. Pictograms: In conformance to CBC 11B-703.6. Pictograms shall have a field height of 6 inches minimum. Characters and Braille shall not be located in the pictogram field.

1. Finish and Contract: Pictograms and their field shall have a non-glare finish. Pictograms shall contrast with their field with either a light pictogram on a dark field or a dark pictogram on a light field.

2. Text Descriptors: Pictograms shall have text descriptors located directly below the pictogram field, and shall comply with CBC 11B-703.2, 11B-703.3 and 11B-703.4.

E. International Symbol of Accessibility (ISA): Shall comply with CBC 11B-703.7 and CBC Figure 11B-703.7.2.1. The ISA shall consist of a white figure on a blue background. The blue shall be equal to Color No. 15090 in Federal Standard 595B.
F. Mounting Locations and Height: Shall be as indicated on the drawings and in conformance to CBC 11B-703.4.

1. Identification signs for rooms and spaces shall be located on the wall adjacent to the latch side of the door, as one enters the room or space. Signs that identify exits shall be located on the approach side of the door as one exits the room or space. Signs containing tactile characters shall be located so that a clear floor space 18 inches minimum by 18 inches minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position.

   a. Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side.

   b. Where a tactile sign is provided at double doors with one active leaf, the sign shall be located at the inactive leaf.

   c. Where a tactile sign is provided at double doors with two active leaves, the sign shall be located to the right of the right hand door.

   d. Where there is no wall space at the latch side of a single door or at the right side of double doors, signs shall be located on the nearest adjacent wall.

2. Mounting height above finish floor or ground: Tactile characters on signs shall be located 48 inches minimum above finish floor or ground surface, measured from the baseline of the lowest Braille cells and 60 inches maximum above the finish floor or ground surface, measured from the baseline of the highest line of raised characters.

2.04 ROOM IDENTIFICATION SIGNS

A. Room Identification Sign Types:

1. Room Identification Sign with Changeable Insert: 7 inches high by 9 inches wide, minimum, with 4 inches high by 9 inches wide window for name and title removable insert. Locate room name immediately below window, and centered above room number. Room name shall be raised characters 3/4 inches high minimum, and room number 1 inch minimum; and shall be accompanied with Braille indicators.

2. Room Identification Sign with Room Name and Room Number: 7 inches high by 9 inches wide, minimum. Room name shall be raised characters 3/4 inches high minimum, and room number 1 inch minimum; and shall be accompanied with Braille indicators.
3. Room Number Sign: 7 inches wide by 4 inches high; room number, 1 inch high minimum, raised character, accompanied by Braille indicator immediately bellow.

B. Room Identification Sign for Restrooms: In addition to the room name and Braille indicator, furnish a male, female or male and female (unisex restrooms) pictogram, as may be the case. Restroom names shall be Women or Girls, Men or Boys, or Restroom (for unisex facilities). The outside dimension of the pictogram field shall be a minimum of 6 inches in height. Pictogram shall be per paragraph 2.03.D.

C. Room Identification Sign Requirements:
   1. Finish and Contrast: Refer to paragraph 2.03.B.
   2. Raised Characters and Proportions: Refer to paragraph 2.03.A.
   3. Braille: Refer to paragraph 2.03.C.
   4. Mounting Location and Height: Refer to paragraph 2.03.F.

2.05 GEOMETRIC SYMBOLS FOR TOILETS

A. Doorways leading to toilet rooms shall be identified by a geometric symbol complying with CBC Section 11B-703.7.2.6.

B. Male Restroom Door Symbol: 1/4 inch thick equilateral triangle with edges 12 inches long, with vertex pointing upward, the triangle symbol shall contrast with the door, either light on a dark background or dark on a light background. A sign with International Symbol of Accessibility shall appear within the equilateral triangle in contrasting color to it.

C. Female Restroom Door Sign: 1/4 inch thick circle 12-inch diameter, the circle symbol shall contrast with the door, either light on a dark background or dark on a light background. A sign with International Symbol of Accessibility shall appear within circle in a contrasting color.

D. Unisex Restroom Door Sign (Single occupancy restrooms): 3/4 inch thick circle, 12-inch diameter with a 1/4 inch thick equilateral triangle with the vertex pointing upward superimposed on the circle and within the 12-inch diameter. Triangle and circle shall be of contrasting colors; the circle symbol shall contrast with the door. A sign with International Symbol of Accessibility shall appear within equilateral triangle in contrasting color to it, followed by a verbal description “STAFF ONLY” directly below ISA.

E. Location and Mounting Height: Symbols shall be mounted at 58 inches minimum and 60 inches maximum above the finish floor or ground surface measured from the
centerline of the symbol. Where a door is provided the symbol shall be mounted within one inch of the vertical centerline of the door.

F. At locations with no restroom doors, locate sign adjacent to the opening. Tactile room name accompanied by Braille shall be located on symbol sign.

G. In addition to the toilet geometric symbols, room name and Braille indicator, furnish female and male pictograms, as may be the case. Restroom names shall be “Women” for female staff, “Girls” for female students, “Men” for male staff, “Boys” for male students, or Restroom (for unisex facilities).

2.06 RAISED CHARACTER AND BRAILLE EXIT SIGNS

A. Tactile Exit Sign Types:

1. “EXIT”.
2. “EXIT RAMP DOWN”.
3. “EXIT RAMP UP”.
4. “EXIT ROUTE”.
5. “TO EXIT”.
6. “EXIT ONLY” or “EXIT STAIR ONLY”, on exit doors and stair exit doors which lock from outside and does not allow a return.

B. Sign Requirements:

1. Finish and Contrast: Refer to paragraph 2.03.B.
2. Raised Characters and Proportions: Refer to paragraph 2.03.A.
3. Braille: Refer to paragraph 2.03.C.
4. Mounting Location and Height: Refer to paragraph 2.03.F.

2.09 DIRECTIONAL EXIT SIGNAGE

A. At exits and elevators serving a required accessible space but not providing an approved accessible means of egress, provide signage indicating the location of accessible means of egress.

1. Finish and Contrast: Refer to paragraph 2.03.B.
2. Character Height and Proportions: Refer to paragraph 2.03.B.

3. Symbol of Accessibility: Refer to paragraph 2.03.E.

2.13 ACCESSIBILITY ENTRANCE SIGNS AND PATH OF TRAVEL DIRECTIONAL SIGNS

A. Entrance Sign: Provide at each building entrance an International Symbol of Accessibility sign. Signs shall be visible to persons along approaching pedestrian ways.

B. Directional Signs: Provide where indicated on the drawings with arrow indicators and International Symbol of Accessibility.

C. Signs shall be mounted on wall with lower edge between 48 inches and 60 inches above ground surface or finish floor. Pole mounted, overhead and projecting signs shall have the lower edge at least 80 inches from the ground surface or finish floor.

D. Sign shall comply with the following requirements.

1. Directional signs shall comply with paragraph 2.03.B.

2. Symbol of Accessibility: Refer to paragraph 2.03.E.

E. No Smoking Sign: Provide at each building entrance. Reverse cut white vinyl sign with 4 1/2-inch high no smoking symbol, mounted on glass entry doors. Under No Smoking symbol, place words “No Smoking”, ½ inch high minimum, San Serif upper and lower case characters.

2.14 PARKING SIGNS

A. Tow-Away Sign: 18 inches by 24 inches with rounded corners. Black graphics on white background, with lettering not less than 1 inch high. Sign to read: “UNAUTHORIZED VEHICLES PARKED IN DESIGNATED ACCESSIBLE SPACES NOT DISPLAYING DISTINGUISHING PLACARDS OR SPECIAL LICENSE PLATES ISSUED FOR PERSONS WITH DISABILITIES WILL BE TOWED AWAY AT THE OWNER’S EXPENSE. TOWED VEHICLES MAY BE RECLAIMED AT [Insert location] OR BY TELEPHONING (213) 625-6631”.

B. Parking Space Identification Sign: 12-inch by 18-inch with rounded corners. White reflectorized graphic on dark blue background, and shall display an 8-inch high International Symbol of Accessibility per paragraph 2.03.E.

1. Additional language or an additional sign below the International Symbol of Accessibility shall state I “Minimum Fine $250”.

2. Signs identifying van accessible parking spaces shall contain additional language or an additional sign with the designation “Van Accessible”.

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C. Signs shall be mounted on posts at head of each accessible parking with lower edge 80 inches minimum above ground surface, or mounted on walls at a minimum height of 60 inches from ground surface.

D. Headroom Signs: On parking structures provide signs indicating headroom clearance height at entries and at any point of a vehicular path where entry clearance height is reduced. Minimum character height shall be 3 inches.

3.02 METHODS OF INSTALLATION

A. Interior Identification Signs and Interior Directional Signs:
   1. Fasten to wall with four tamper-proof round-head screws, one at each corner of sign. Furnish plastic anchors.
   2. When concealed installation is specified, install backplate to wall as above. Fasten sign to backplate with very high-bond double-faced tape.
   3. For installation on glass, fasten sign to glass with very high bond double faced tape. On opposite side of glass, anchor matching backplate to glass with very high-bond double-faced tape.

B. Geometric Signs: Geometric toilet room signs shall be fastened to doors with three tamper-proof oval-head counter-sunk screws.

C. Exterior Post Mounted Directional Signs: Size of required footing shall be as indicated on the drawings. Fasten sign with tamperproof stainless steel bolts.

D. Exterior Wall Mounted Identification Signs and Directional Signs:
   1. Aluminum signs: Fasten to wall with 4 tamper-proof round-head screws, one at each corner of sign. Furnish plastic anchors.
      a. Cement Plaster, Brick, or Masonry: Provide plastic anchors. For signs greater than 640 square inches use Leadwood Screw Anchors, concrete fasteners IWSA 10112, or equal.
      b. Chain Link Fence: Fasten with 9 gage hog rings, King Hughes Fasteners 5150DG50, or equal, with 11/16 inch opening at each corner of sign.
      c. Wrought Iron Fence: Install at each corner with 3/16 inch stainless steel rivets.
   2. Acrylic signs: Install backplate to wall as above. Fasten sign to backplate with very high-bond double-faced tape and silicone.
E. Exterior Building Sign:

1. Each letter shall be furnished with a minimum of three cast mounting lugs on backside, drilled and tapped to receive installation bolts.

2. Letters shall be installed according to manufacturer’s method PMC-1. Letters shall be installed ¾ inch away from wall surface, by an aluminum sleeve spacer.

3.03 CLEANUP

A. Remove rubbish, debris, and waste materials and legally dispose of off Project site.

3.04 PROTECTION

A. Protect Work of this section until Substantial Completion.

END OF SECTION
SECTION 10 2113

TOILET COMPARTMENTS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Solid phenolic toilet compartments, urinal screens, and vision screens.

B. Related Requirements:

1. Division 01 - General Requirements.

3. Section 06 1000 - Rough Carpentry.

4. Section 10 2813 - Toilet Accessories.

1.02 DESIGN REQUIREMENTS

A. Design and fabrication shall conform to requirements of ADAAG and CBC Chapter 11B.

B. Toilet Compartments: Floor supported overhead braced type units consisting of solid phenolic pilasters, panels and doors; plated steel leveling devices with stainless steel covers; and stainless steel fittings, hardware and fastenings.

C. Urinal Screens: Floor supported and wall hung type consisting of solid phenolic screen panels and plated steel leveling devices with stainless steel covers, stainless steel fittings and fastening.

D. Vision Panels: Floor- and wall-mounted solid phenolic type.

1.03 SUBMITTALS

A. Shop Drawings: Submit Shop Drawings indicating complete layout, elevations of partitions, thickness of solid phenolic panels, fastenings, proposed method of anchoring, size and spacing of anchors, details of construction, hardware, fittings, mountings, method of assembly, other related items, and installation details.

B. Product Data: Submit manufacturer's technical data for materials, fabrication, finishing, fastenings, hardware, and installation details.
C. Material Samples:
   1. Submit full range of Samples of phenolic chips for initial color selection. Chips shall be at least 2-inch by 3-inch.
   2. Submit Samples of hardware and fasteners.

D. Certificates: Furnish manufacturer's certification that materials meet or exceed Specification requirements.

1.04 QUALITY ASSURANCE

A. Comply with the following as a minimum requirement:
   3. Chemical Resistance: Panels to meet or exceed Scientific Equipment Furniture Association’s (S.E.F.A.) list of 49 standard chemicals.
   4. Consistency:
      a. Panels to have uniform thickness (+0.03 inch).
      b. Panels to have uniform flatness (maximum difference of 0.03 inch) for a 10-foot span.

1.05 DELIVERY, STORAGE AND HANDLING

A. Deliver materials to Project site with manufacturer's labels intact and legible, in sealed containers. Materials shall be kept dry.

B. Protect compartments and screens.

1.06 COORDINATION

A. Field Measurements: Secure field measurements before preparation of Shop Drawings and fabrication where possible, for proper and adequate fabrication and installation of the Work of this section.

B. Furnish inserts and anchorage built into other construction for installation of toilet compartments, urinal screens and vision panels.

1.07 WARRANTY

A. Furnish twenty-five year limited warranty for panels, doors, and stiles against breakage, corrosion, delamination, and defects in factory workmanship.
B. Furnish one-year guarantee against defects in material and workmanship for stainless steel door hardware and mounting brackets.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Bobrick 1082.67P Solid Phenolic Toilet Partitions with continuous brackets. Model numbers for compartments manufactured by Bobrick Washroom Equipment, Inc., are listed to establish a standard of quality for design, function, materials, workmanship, and appearance. Other manufacturers may be submitted for evaluation by the architect by following the conditions of the substitutions clause. Unless approval is obtained ten days prior to the bid date, all bids shall be based on the standard of quality. The architect shall be the sole judge as to the acceptability of all products submitted for substitution.

B. Compartments shall be the product(s) of a single manufacturer.

C. Comparable Manufacturers:

   Or Approved Equal

2.02 MATERIALS

A. Toilet compartments panels, doors and pilasters; urinal screens and visual screens.

1. Core: Phenolic impregnated Kraft papers. Panel shall be at least 93 pounds per cubic foot to ensure full saturation of Kraft core.

2. Face Sheet: Separate sheet of clear melamine over decorative papers impregnated with melamine resin and integrally compression molded with the core.

3. Fire Resistance: The panels shall have the following surface burning characteristics and smoke generation values in accordance with UL classification and labeling in accordance with ASTM E84 tests and shall be self-extinguishing.

   a. Flame spread: Maximum 30 for ¾ inch thick panels; 30 for ½ inch thick panels.

   b. Smoke developed: Maximum 70 for ¾ inch thick panels; 85 for ½ inch thick panels.

4. Panels shall be UL registered and labeled.
5. Panel shall be resistant to cleaning solvents and uric acid.

6. Product/Material Specification:
   a. Modulus of Elasticity: 1.5 million psi minimum.
   b. Shear Strength: 2,000 psi minimum.
   c. Compressive strength: 24,000 psi minimum.
   d. Water Absorption: 3 percent maximum.
   e. Use Temperature: 350 degrees F maximum.
   f. Surface and Edges: Non-porous.
   g. Material Resistance: Will not support fungus or bacteria.
   h. Uniform Load Deflection: ¼ inch maximum per Table A:

Table A: Uniform Load (lbs) which causes ¼ inch deflection at Center (Shelves not fixed at either end, static load on E modulus of 2.0 by 106)*

<table>
<thead>
<tr>
<th>Thickness</th>
<th>12 by 24-inch</th>
<th>12 by 36-inch</th>
<th>12 by 48-inch</th>
<th>24 by 36-inch</th>
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</thead>
<tbody>
<tr>
<td>½ inch</td>
<td>370</td>
<td>110</td>
<td>45</td>
<td>220</td>
</tr>
<tr>
<td>3/4 inch</td>
<td>1,400</td>
<td>400</td>
<td>170</td>
<td>800</td>
</tr>
</tbody>
</table>

* Loads can be affected by temperature, humidity, time, and other environmental factors. Users should test shelves in appropriate environment. It is assumed that deflection greater than ¼ inch is undesirable aesthetically, even though rupture has not occurred.

B. Stainless Steel: ASTM A167, Type 304.

C. Concealed Fasteners and Leveling Devices:
   2. Leveling Devices: Zinc or cadmium coated steel, or stainless steel.

2.03 CHARACTERISTICS

A. Doors shall be minimum ¾ inch thick, panels minimum ½ inch thick, pilasters minimum 3/4 inch thick and screens minimum ½ inch thick. Edges shall be machined to a radius of 0625 inch; exposed surfaces shall be free of fabrication marks.

2.04 FABRICATION
A. Components/Materials

A. Stiles, Panels, Doors, Screens, and Benches

1. Solid phenolic material constructed of solidly fused plastic laminate with matte-finish melamine surfaces, colored face sheets, and black phenolic-resin core that are integrally bonded. Edges shall be black. Brown edges shall not be acceptable. Color and pattern as selected by architect from Bobrick standard colors.


3. Finish Thickness
   a. Stiles and doors shall be 3/4" (19mm).
   b. Panels and benches shall be 1/2" (13mm).

B. Hardware

1. All hardware to be 18-8, type-304 stainless steel with satin-finish.

2. All hardware shall be concealed inside compartments with the exception of outswing doors.

3. Hardware of chrome-plated “Zamak” and aluminum are unacceptable.

C. Vandal-Resistant Hardware (.67):

1. Sliding door latch shall be 14-gauge (2mm) and shall slide on nylon track.

2. Sliding door latch shall require less than 5-lb force to operate. Twisting latch operation will not be acceptable.

3. Latch track shall be attached to door by flathead machine screws into factory-installed threaded brass inserts.

4. Latch handle shall have rubber bumper to act as door stop.

5. Latch shall allow door to be lifted over 8-gauge (4.4mm) keeper for emergency access.
6. Metal-to-metal connection shall withstand a direct pull of over 1,500 lb. per screw.

D. Hinges (2 each)

1. Cam Type shall be adjustable in the field to permit door to be fully closed or partially open when compartment is unoccupied.

2. Hinges shall be attached to door and stile by theft-resistant, one-way stainless steel machine screws into factory-installed metal inserts. Fasteners secured directly into the core are not acceptable.

4. Metal-to-metal connection shall withstand a direct pull of over 1,500 lb. per screw.

E. Clothes Hook shall be constructed of stainless steel and shall project no more than 1-1/8" (29mm) from face of door. Clothes hook shall be secured by theft-resistant, one-way stainless steel screws.

F. Mounting brackets shall be 18-gauge (1.2mm) stainless steel and extend full height of panel. U-channels shall be furnished for panel to stile mounting. Angle brackets shall be furnished for stile-to-wall. Angle brackets shall be furnished for panel-to-wall mounting.

G. Leveling Device shall be 3/16" (5mm) hot rolled steel bar; chromate-treated and zinc-plated; through-bolted to base of solid phenolic stile.

H. Stile Shoe shall be one-piece, 4" (102mm) high, type-304, 22-gauge (0.8mm) stainless steel with satin-finish. Top shall have 90° return to stile. Patented one-piece shoe capable of adapting to 3/4" or 1" stile thickness and capable of being fastened (by clip) to stiles starting at wall line.

I. Headrail (Overhead-Braced) shall be satin finish, extruded anodized aluminum (.065" / 1.65mm thick) with anti-grip profile.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Before covering wall framing with finish materials, examine framing to ensure that backing plates and structural framing have been installed in such position as to receive all attachment screws.

B. Verify spacing of plumbing fixtures to ensure compatibility with installation of compartments.

C. Do not start the Work of this section until all deficiencies have been corrected.

3.02 INSTALLATION
A. Install partitions and screens as shown in the Shop Drawings and in accordance with manufacturer’s instructions and as specified. Install straight, level and plumb.

B. No evidence of drilling, cutting or patching shall be visible in finished Work.

C. Fasten panel brackets securely to walls and ceilings with recommended anchoring devices.

D. Fasten panels and pilasters to brackets with through bolts and nuts.

E. Fasten urinal screen panels to walls with two panel brackets, minimum.

F. Provide ½ inch spaces between wall surface and panels or pilasters.

G. Provide for adjustment of floor variations with non-breakable plastic shoes on pilasters. Conceal floor fastenings in pilaster shoes.

H. Furnish each toilet compartment door with top and bottom hinges, and door latch.

I. Install door strike keeper on each pilaster in alignment with door latch.

J. Furnish each toilet compartment door with one coat hook and bumper.

3.03 TOLERANCES OF INSTALLED WORK

A. Maximum Variation from Plumb or Level:  1/8 inch.

B. Maximum Misplacement from Intended Position:  1/8 inch.

3.04 ADJUSTING AND CLEANING

A. Hardware Adjustment: After installation, adjust hardware for proper operation. Install hinges on in-swinging doors to hold open approximately 30 degrees from the closed position when unlatched. Install hinges on out-swinging doors to return to the fully closed position. Adjust doors so that bottoms of doors are level with the bottoms of the pilasters when the doors are in the closed position.

B. Adjust and align door hardware to uniform clearance at vertical edges of doors. Clearance space shall not exceed ¼ inch.

C. Cleaning: Clean compartments, hardware, and doors before Substantial Completion and leave free from imperfections. Remove protective coverings.

3.04 CLEANUP

A. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

3.05 PROTECTION

A. Protect the Work of this section until Substantial Completion.

END OF SECTION
SECTION 10 8000

TOILET ACCESSORIES

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Provide all toilet and bath accessories, complete, as specified and shown on the Drawings, including attachment hardware.

B. Related Sections:
   1. Section 06 1000 - Rough Carpentry.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data for each product specified herein, describing size, finish, details of function, attachment methods.

1.03 QUALITY ASSURANCE

A. Conform to applicable code for installing work in conformance with California Code of Regulations Title 24, disabled accessibility standards.

B. Coordinate the work of this section with placement of internal wall reinforcement.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

A. Provide accessories as manufactured by Bobrick Washroom Accessories, whose model numbers are cited to set standard of quality, or approved equal.

2.02 ACCESSORIES LIST

A. Surface-Mounted Waste Receptacle (used as cane detection under protruding accessories): 14”x18”x6” 22-gauge stainless steel satin finish; Bobrick Model B-279, Gamco WR-2, or approved equal

B. Stainless Steel Shelf: 18-gauge stainless steel with satin finish; Bobrick Model B-295, Gamco MS, or approved equal

C. Grab bar: Lengths as indicated on Drawings; 1-1/2” outside diameter, stainless steel with satin finish, three-inch diameter flanges with three countersunk screw holes for attachment to wall; Bobrick Model 6806, Gamco 125C, or approved equal.

D. Grab Bar Anchors for Toilet Partitions: Grab bar anchors shall have type-304, 16-gauge (1.6mm), satin-finish stainless steel backplate. Threaded chrome-plated brass connectors shall be keyed to backplates to prevent rotation. Stainless steel machine screws shall be furnished by manufacturer; Bobrick Series 258, or approved equal.
2.03 MATERIALS

B. Stainless Steel Sheet: ASTM A167, Type 304.
C. Tubing: ASTM A269, stainless steel.
D. Exposed Fasteners, Screws, and Bolts: Stainless steel, satin finish, tamper-proof.
E. Concealed Fasteners, Screws, and Bolts: Stainless steel or hot-dip galvanized steel.
F. Expansion Shields: Fiber, lead, or rubber as recommended by accessory manufacturer for component and substrate.

2.04 FABRICATION

A. Weld and grind smooth joints of fabricated components.
B. Form exposed surfaces from single sheet of stock, free of joints.
C. Form surfaces flat without distortion. Maintain flat surfaces without scratches or dents.
D. Shop-assemble components and package complete with anchors and fittings.
E. Provide steel anchor plates, adapters, and anchor components for installation.

2.05 FACTORY FINISHES

A. Unless otherwise noted, all exposed metal shall be Type 304 stainless steel, with No. 4 satin finish.
B. Galvanizing: ANSI/ASTM A123 or A386 to 1.25 oz/sq ft.
C. Chrome/Nickel Plating: ANSI/ASTM B456, Type SC 2 polished finish.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine the substrate and conditions in which work will be installed.
B. Correct all unsatisfactory substrate and conditions prior to start of installation.

3.02 PREPARATION

A. Deliver inserts and rough-in frames to site at appropriate time for incorporating into construction.
B. Provide templates and rough-in measurements as required.
C. Verify exact location of accessories for installation.

3.03 INSTALLATION

A. Install fixtures, accessories and items securely fastened to backing plates in wall or partition, and in accordance with manufacturer’s instructions. Anchorage from gypsum board with Molly bolts or similar devices is not acceptable.

B. Install plumb and level, securely and rigidly anchored to substrate.

3.04 CLEAN AND REPAIR

A. Repair or replace all units that are damaged.

B. Clean all toilet accessories prior to acceptance of the Project.

3.05 SCHEDULE OF ACCESSORIES

A. Provide in each restroom one of each accessory listed under Accessories List article in Part 2 U.O.N.

B. Locate each accessory as shown on Drawings in each restroom.

END OF SECTION
SECTION 22 0500
COMMON WORK RESULTS FOR PLUMBING

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes
   1. Pipe, tube, and fittings
   3. Valves.
   4. Piping specialties.
   5. Pipe escutcheons.
   6. Mechanical sleeve seals.
   7. Fire barrier penetration seals.
   8. Fabricated piping specialties.
   9. Motors and drives.

B. Related Sections
   1. Section 07 90 00 - Joint Protection.
   2. Section 09 90 00 - Painting and Coating.

1.02 REFERENCES

A. American Society of Mechanical Engineers (ASME).

B. National Certified Pipe Welding Bureau (NCPWB) - Standard Procedure Specifications.


D. ANSI Standards.

E. AWWA Standards

F. MSS Compliance:
2. MSS SP-72-[1999] - Ball Valves with Flanged or Butt-Welding Ends for General Service.

G. FCI Compliance:
2. FCI 78-1-[1998] - Pressure Rating Standard for Pipeline Strainers Other than "Y" Type.

1.03 DEFINITIONS

A. "Piping" includes, in addition to pipe, all fittings, flanges, valves, hangers and other accessories related to such piping.

B. "Wiring" includes in addition to conductors, all raceway, conduit, fittings, boxes, switches, hangers and other accessories related to such wiring.

C. "Concealed" means hidden from sight in chases, furred spaces, shafts, hung ceilings or embedded in construction.

D. "Exposed" means not installed underground or "concealed" as defined above.

E. "Provide" means to furnish and install.

1.04 SUBMITTALS

A. General
1. Comply with the requirements of Division I and the specific requirements of the Sections of Division 22.
2. Submit all similar equipment together as part of the same submittal. For example:
   a. All water heaters shall be contained in the same submittal.
   b. All pumps shall be contained in the same submittal.
3. Contractor shall review all submittals prepared by each supplier and mark all copies as acceptable to the Contractor. This acceptance shall signify that all required service connections are shown and in the proper location to meet the installation requirements and that the equipment can fit in the space allowed.
4. Do not order equipment until submittals have been reviewed and approved by the OWNER Representative.
5. Each item submitted shall be labeled or identified the same as on the drawings.
6. Mark submittal "Exactly as Specified" or accompanied by a letter from the supplier explaining in detail what difference, if any, exists between the submitted item and the specified item. Failure to point out the differences will be considered cause for disapproval. The OWNER Representative will not assume any responsibility for differences concealed or otherwise not brought to their attention, and the Contractor will be required to correct any deficiencies or
differences discovered at a later date, and assume responsibility for any delays, damage, and/or expenses incurred by others due to such action.

7. Brands or trade names are mentioned to set standards of quality only; use no substitute materials, however, unless approved in writing by the OWNER Representative. Approval of substitute materials does not relieve the Contractor of responsibility for providing a workable and functioning system as specified.

8. Submittals will be checked for general conformance with the design concept but acceptance by the OWNER Representative in no manner is meant to verify that dimensions, quantities, or location of services are as necessary to meet the job requirements. This remains the responsibility of the Contractor.

B. Shop Drawings
   1. General: Prepare and submit plans, sections, details and diagrams to required scales for specified areas. Drawings shall be coordinated, dimensioned, indicate equipment and piping in relation to architectural and structural features as well as other building systems. Include minor piping, drains, air vents, etc. Indicate exact locations and elevations of valves, piping specialties, access doors, etc.
   2. Required Drawings: Prepare and submit drawings for all areas and all plumbing work. Scale shall be minimum 3/8" = 1'-0" in mechanical rooms, fan rooms, and mechanical areas, and minimum 1/4" = 1'-0" elsewhere.

C. Coordination Drawings
   1. General: Coordination drawings are defined as "shop drawings" which also indicate, on the same drawings, the major utilities of all other trades. "Coordination drawings" shall indicate location and elevations of structural slabs and beams, architectural elements, domestic water piping, plumbing vents, sanitary drains, storm drains, fire protection piping, lighting fixtures, electrical conduits (2-inch and larger), ductwork, penetrations of walls and roof, fire dampers, fire/smoke dampers, automatic dampers, terminal boxes, air outlets, access panels, ceiling mounted equipment and controls, gas piping, flues, fans, air handling equipment, etc.
   2. Submit coordination drawings for the following:
      a. Areas of work to point of connection.
   3. It is the intent of the coordination drawings to ensure coordination of all major utilities, prior to the start of installation. This is a substantial effort which will require careful and detailed coordination and planning to ensure appropriate information is available, from all trades, in a timely manner. The coordination drawing effort shall be integrated into the project schedule and monitored to ensure conformance.
   4. Conflicts between trades, which cannot be resolved through generally accepted practice of coordination between trades, shall be cloued on the coordination drawings and an appropriate description of the problem noted for review by the OWNER Representative.
   5. Nonconforming MIE work installed within designated coordination areas is subject to removal and replacement by installing contractor at no additional cost to OWNER.
   6. Coordination drawings shall be signed and dated by individual trade constructors. By act of signature and submittal of singular combined coordination drawings, each trade contractor acknowledges coordination of their portion of the Work with all other plumbing, mechanical, electrical, architectural, and structural work contractors.
D. Product Data
1. General: Manufacturer's specifications, data sheets, certified drawings, and installation instructions. Include physical and performance data such as weights, sizes, capacities, required clearances, performance curves, acoustical characteristics, finishes, color selection, location and size of field connections, and accessories. Include certified drawings on major equipment such as boilers, water chillers, cooling towers, controls, pumps, and tanks.
2. Motors: Submit manufacturer's name, type, RPM, HP (KW), full load amps, efficiency, and power factor.
3. Part Load Performance: Submit equipment data to indicate performance characteristics throughout ranges of possible load conditions.
4. Include operating weight and location of center of gravity of each item of equipment in manufacturer's cut sheet for purposes of seismic calculation.
5. Pipes and Pipe Fittings: Submit schedule showing pipe material data, sizes, fitting valve type k factor, working pressure for each service.
6. Submit valve schedule showing manufacturer's figure number, size, location, and valve features for each required valve.
7. Submit schedule showing manufacturer's figure number, size, location, and features for each required piping specialty.
   a. Strainers: include pressure drop or chart for each type and size.
   b. Meters and gauges: include scale range for each service.

E. Test Reports
1. Manufacturer's Tests
   b. Field Tests: As specified.
2. System Pressure Tests: As specified under "Testing" article. Test log of pressure tests on each system. Indicate date of test, scope of test, test pressure, duration, and observers.

F. Certification
1. Seismic Restraints per code.
2. Welding Certificates.
3. Brazing Certificates.

G. Operating and Maintenance Manuals: Include, but not limited to, the following:
1. List of all equipment with Manufacturer's name, model number, and local representative, service facilities and normal channel of supply for each item. Include phone number and address of service facilities
2. System Description: Description of start-up, operating, and shutdown procedures.
3. Controls: Diagrams and description of operation sequence of each system.
4. Equipment: Manufacturer's brochures, ratings, certified shop drawings, lubrication charts and data, parts lists with part numbers, and belt and sheave data. Mark each sheet with equipment identification number and actual installed condition.
5. Materials and Accessories: Manufacturer's brochures parts lists with part numbers and lubrication data where applicable. Mark each sheet with equipment identification number or system and location of installation; and to specifically identify which options are provided (in case where data sheet shows multiple options).
6. Certificate of factory tests, field tests and code compliance as specified.
7. Wiring and controls schematics.
8. Trouble shooting directions.
10. Description of special tools.
12. Safety precautions.

H. Record Documents

1. Comply with the Conditions of the Contract.
2. Indicate mains and branches of piping systems, with valves and control devices located and numbered per valve schedule, concealed unions located, and with items requiring maintenance located (i.e. traps, strainers, expansion compensators, vents, etc.). Indicate actual inverts and horizontal locations of underground piping.
3. Indicate equipment locations (exposed and concealed), dimensioned from prominent building lines.
4. Identify approved substitutions, Contract Modifications, and actual equipment and materials installed.
I. Samples: When specified under applicable Sections.

1.05 QUALITY ASSURANCE

A. Perform all work in accordance with following rules (codes, standards and regulations):

1. Codes
   e. California Mechanical Code, Latest Edition: CMC
   f. California Code of Regulations: CCR
   g. CCR Title 24 California Energy Code: CEC
   h. Applicable Local Codes and Ordinances.

2. Standards
   a. Air Conditioning and Refrigeration Institute: ARI
   b. Air Movement and Control Association, Inc.: AMCA
   c. Canadian Gas Association: CGA
   d. American National Standards Institute: ANSI
   e. American Society of Heating, Refrigeration, and Air Conditioning Engineers: ASHRAE
   f. American Society of Mechanical Engineers: ASME
   g. American Society of Plumbing Engineers: ASPE
   h. American Society of Testing and Materials: ASTM
   i. American Water Works Association: AWWA
   j. American Welding Society: AWS
   k. Associated Air Balance Council: AABC
   l. Factory Mutual: FM
   m. International Association of Plumbing and Mechanical Officials: IAPMO
   n. Institute of Boiler and Radiator Manufacturers: IBR
   o. Manufacturer's Standardization Society of the Valves and Fittings Industry: MSS
   p. National Electrical Manufacturers Association: NEMA
3. Regulations
   a. California State Fire Marshal: CSFM
   b. California State Department of Public Health: CSDPH
   c. Safety Orders of Division of Industrial Safety: SODIS

4. Where standards of Contract Documents for materials and/or workmanship are higher than those of applicable rules, Contract Documents shall take precedence; otherwise the rules shall govern.

5. Nothing in the Contract Documents is to be interpreted as permitting the Work not conforming to the rules.

6. Should there be any direct conflict between the rules and the Contract Documents, the rules shall govern.

7. Charges for all materials and labor required for the compliance with rules and regulations shall be included in the Contract Price.

B. Certifications: Provide proof of code compliance for equipment as follows:
   I. Gas Fired Equipment and Safety Devices: Per applicable standards and bear label of CGA.
      a. Fuel-burning heating appliances shall bear permanent and legible factory-applied nameplate on which shall appear: manufacturer's name; approved fuel input rating, expressed in Btu/hr.; model and serial numbers; instructions for lighting, operation, and shutdown; type fuel approved for use; and symbol of approved agency certifying compliance of equipment with recognized standards.
   2. Electrical Equipment and Safety Devices: Per applicable standards of NEC; UL listed or classified.
   3. Pressure Vessels and Pressure Safety Devices: Per applicable standards and bear label of ASME.
   4. Energy Conservation: Comply with applicable codes. Provide equipment and materials certified by manufacturer per California energy code as applicable.
   5. Equipment: Provide UL listed or classified equipment where required by code officials. Verify such requirements.

C. Repair or replace, to the satisfaction of the OWNER, any damage to Work of this Section and damage caused by Work of this Section.

D. Workmanship shall be first class throughout and performed only by competent and experienced workmen in a manner satisfactory to the OWNER. Constant supervision of the Work, either by the Contractor or his competent representative, shall be maintained.

E. Work shall be installed so as not to delay the progress of construction and shall be properly coordinated with other trades.

F. Use only new materials in perfect condition. Inspect all materials upon arrival at job site and immediately remove defective items from site.
1.06 DELNERY, STORAGE, AND HANDLING

A. Provide factory-applied plastic end-caps on each length of pipe and tube. Maintain end-caps through shipping, storage and handling as required to prevent pipe-end damage and eliminate dirt and moisture from inside of pipe and tube.

B. Where possible, store pipe and tube inside and protected from weather. Where necessary to store outside, elevate above grade and enclose with durable, waterproof wrapping.

C. Protect flanges and fittings from moisture and dirt by inside storage and enclosure, or by packaging with durable, waterproof wrapping.

1.07 SUBSTITUTIONS

A. General
   I. Base manufacturer is indicated in equipment schedules.
   2. In Specification, additional acceptable manufacturer(s) may be indicated.
   3. Other manufacturers, materials, or methods shall not be used unless approved in writing by the OWNER Representative.
   4. The burden of proof as to the equality of any proposed substitute manufacturer, material, or method shall be upon the Contractor.
   5. The OWNER Representative's decision shall be final.

B. Requests for substitution review and acceptance shall be accomplished by table of comparison listing pertinent features of both specified and proposed materials, such as materials of construction, performance, dimensions, weights, replacement or maintenance access, motor type, horsepower, voltage, phase, service factor. Review of proposed substitutions will not be made until receipt of satisfactory comparison tabulation.

C. Submittal of substitutions shall be limited to one proposal for each type or kind of item, unless otherwise permitted by the OWNER Representative. If first proposed product submittal is rejected, Contractor shall then submit the first-named or scheduled product.

D. Contractor shall be responsible for all costs and coordination due to the substitution, such as impacts on electrical requirements, weight, openings in slabs and roofs, structural framing, housekeeping pad size, etc.

1.08 JOB CONDITIONS

A. Cause as little interference or interruption of existing utilities and services as possible. Schedule Work which will cause interference or interruption in advance with Construction Manager.

B. Examine Contract Documents to determine how other Work will affect execution of plumbing work.

C. Determine and verify locations of all existing utilities.

D. Arrange for, coordinate, and pay costs incidental to providing utility company services indicated.

E. Establish lines and levels for each system and coordinate with other systems to prevent conflicts and maintain proper clearances and accessibility.
PART 2 PRODUCTS

2.01 PIPE, TUBE, AND FITTINGS

A. Refer to individual Division 22 piping sections for pipe, tube, fittings materials joining methods. Comply with governing regulations.

2.02 MISCELLANEOUS PIPING MATERIALS AND PRODUCTS

A. Welding Materials: Provide welding materials to comply with installation requirements.

B. Gaskets for Flanged Joints: ASME B16.21; full-faced for cast-iron flanges; raised-face for steel flanges, unless otherwise indicated.

2.03 VALVES

A. General: Refer to Section 22 05 23.

2.04 PIPING SPECIALITIES

A. General: Provide factory-fabricated piping specialties recommended by manufacturer for use in service indicated. Provide piping specialties of types and pressure ratings indicated for each service or, if not indicated, provide proper selection as determined by Installer to comply with installation requirements. Provide sizes as indicated, and connections, which properly mate with pipe, tube, equipment connections. Where more than one type is indicated, selection is installer's option.

B. Dielectric Unions and Flanges
   1. General: Provide standard products recommended by manufacturer for use in service indicated, which effectively isolate ferrous from non-ferrous piping (electrical conductance), prevent galvanic action, and stop corrosion. Pressure rating equal to or greater than that of nearby valves.
   2. Manufacturers
      a. [B & K Industries, Inc.]
      b. [Capital Mfg. Co.; Div. of Harsco Corp.]
      c. [Eclipse, Inc.]
      d. [Epco Sales, Inc.]
      e. [Perfection Corp.]
      f. [Rockford-Eclipse Div.]
      g. [Victaulic/Clearflow.]
      h. [Calpico.]
   C. Thermometers: Refer to Section 22 05 19.
   D. Thermometer Wells: Refer to Section 22 0519.
   E. Pressure Gauges: Refer to Section 22 05 19.
   F. Pressure Gauge Cocks: Refer to Section 2205 19.
   G. Test Fittings: Refer to Section 2205 19.

2.05 PIPE ESCUTCHEONS

A. General: Provide solid (not split-hinged) pipe escutcheons as specified herein with inside diameter closely fitting pipe outside diameter, or outside of pipe insulation where

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pipe is insulated. Select outside diameter of escutcheon to completely cover pipe penetration hole in floors, walls, or ceilings; and pipe sleeve extension, if any. Furnish pipe escutcheons with nickel or chrome finish for occupied areas, prime paint finish for unoccupied areas. All escutcheons shall be vandal proof.

B. Pipe Escutcheons for Moist Areas: For waterproof floors, and areas where water and condensation can be expected to accumulate, provide solid brass or solid sheet brass pipe escutcheons.

C. Pipe Escutcheons for Dry Areas: Provide solid sheet metal escutcheons.

D. Manufacturers
1. [Chicago Specialty].
2. [producers Specialty].
3. [Sanitary-Dash].

2.06 MECHANICAL SLEEVE SEALS

A. General: Modular mechanical type, consisting of interlocking synthetic rubber links shaped to continuously fill annular space between pipe and sleeve, connected with bolts and pressure plates which cause rubber sealing elements to expand when tightened, providing watertight seal and electrical insulation.

B. Sleeve: To be furnished by same manufacturer of seals; schedule 40 galvanized steel pipe or Century line sleeves, with integral anchor and waterstop collar.

C. Manufacturers
1. [Thunderline Link Seal].
2. [Metraflex Metraseal].

2.07 FIRE BARRIER PENETRATION SEALS

A. Provide seals for any opening through fire-rated walls, floors, or ceilings used as passage for plumbing components such as piping.

1. Piping: Provide fire stopping material as specified in Section 07 84 00.

2.08 FABRICATED PIPING SPECIALTIES

A. Pipe Sleeves: Provide pipe sleeves of one of the following:

1. Sheet-Metal: Fabricate from galvanized sheet metal; round tube closed with snaplock joint, welded spiral seams, or welded longitudinal joint. Fabricate from the following gauges:
   a. 3-inch and smaller: 0.040-inch/20 gauge thick.
   b. 4 to 6-inch: 0.064-inch/16 gauge thick.
   c. Over 6-inch: 0.079-inch/14 gauge thick.

2. Steel Pipe: See Section "Mechanical Sleeve Seals".

2.09 MOTORS AND DRIVES

A. Motor controls and power wiring

1. Provided as part of Division 26 work, unless indicated otherwise, including motor control switches, starters, disconnects, conduit and wiring, except for low voltage control wiring required for temperature controls.

2. Where equipment is specified with factory pre-wired controls and is furnished instead with components shipped loose, plumbing contractor shall be responsible for coordinating the complete installation and assume any additional costs.
B. Motors
1. Ball or roller bearing type, high efficiency type, with starting and running characteristics consistent with torque and speed requirements of driven machine.
2. Use motors rated in accordance with NEMA performance standards to carry full nameplate load continuously at maximum temperature rise of 72 degrees F above ambient with service factor of 1.15.
3. Motors driven by variable frequency drives shall be rated for inverter duty and shall meet the requirements of NEMA MG-1 part 31.4.4.2.
4. Where substitute manufacturers are provided with different control panels, starters, or electrical characteristics from scheduled equipment, contractor shall coordinate complete installation and assume any additional costs.
5. Do not allow power requirements of driven machine to exceed nominal nameplate rating of motor furnished.
6. Do not include service factor when selecting motor horsepower.
7. Motors exposed to moisture or rain shall be totally enclosed, fan cooled (TEFC). Others may be open drip proof (ODP), unless otherwise indicated.

C. Motor electrical power characteristics: 460 V, 3-phase, .60 Hz for 1/2 HP and larger; 115 V, 1-phase, 60 Hz for smaller than 1/2 HP, unless noted otherwise.

D. Efficiency
1. Requirements apply to all motors, 1/2 HP and larger.
2. Ratings in accordance with IEEE 112b Rating Method.
   a. Motors shall be labeled as NEMA "Premium" Efficient, with efficiencies as follows, based on 1750 RPM;

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<th>ODP</th>
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<tr>
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</tr>
<tr>
<td>50</td>
<td>94.5</td>
<td>94.5</td>
</tr>
<tr>
<td>60</td>
<td>95.0</td>
<td>95.0</td>
</tr>
</tbody>
</table>

3. Motors with other than 1750 RPM shall be same type motor as would meet requirement for 1750 RPM motors.
E. Belt Drives

1. Manufacturers
   a. [Browning].
   b. [Gates].
   c. [Woods].
   d. [Dayton].

2. Belts: V-belt drives rated at 1-1/2 times the motor horsepower. High quality commercial-grade rubber with polyester reinforcing.
   a. Provide two belts minimum for motor sizes 2 HP and larger.

3. Spare Parts: Provide one complete set of spare belts for all equipment items. When two or more pieces of equipment require identical belts, provide quantity of spare belts sufficient to serve two pieces of equipment.
   a. Obtain receipt from Owner.
   b. Identify each belt by equipment ill.

PART 3 EXECUTION

3.01 PIPING INSTALLATION

A. General: Install pipes and pipe fittings in accordance with recognized industry practices which will achieve permanently-leak proof piping systems, capable of performing each indicated service without piping failure. Install each run with minimum joints and couplings, but with adequate and accessible unions for disassembly and maintenance/replacement of valves and equipment. Reduce sizes (where indicated) by use of reducing fittings. Align piping accurately at connections, within 1/16-inch misalignment tolerance.

B. Locate piping runs, except as otherwise indicated, vertically and horizontally (pitched to drain) and avoid diagonal runs wherever possible. Orient horizontal runs parallel with walls and column lines. Locate runs as shown or described by diagrams, details and notations or, if not otherwise indicated, run piping in shortest route which does not obstruct usable space or block access for servicing building and its equipment. Hold piping close to walls, overhead construction, columns and other clearance to 1/2-inch where furring is shown for enclosure or concealment of piping, but allow for insulation thickness, if any. Where possible, locate insulated piping for 1-inch clearance outside insulation. Wherever possible in finished and occupied spaces, conceal piping from view, by locating in column enclosures, in hollow wall construction or above suspended ceilings; do not encase horizontal runs in solid partitions, except as indicated.

C. Locate groups of pipes parallel to each other, spaced to permit applying insulation and servicing of valves.

D. Electrical and Elevator Equipment Spaces: Do not run piping through transformer vaults, electrical rooms and other electrical or electronic equipment spaces and enclosures, unless piping or ductwork is for equipment serving that electrical space.

E. Comply with ASME B 31.1.
F. Pressures: Do not install piping, valves or piping specialties where exposed to system pressures greater than their rated working pressures.

G. Sloping, Air Venting and Draining:
   1. Slope piping as indicated, true to line and grade, and free of traps and air pockets. Unless indicated otherwise, slope piping in direction of flow as follows:

<table>
<thead>
<tr>
<th>Service</th>
<th>Inclination</th>
<th>Min. Slope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling Coil Condensate</td>
<td>Down</td>
<td>1/8” per foot</td>
</tr>
<tr>
<td>Drain</td>
<td></td>
<td>(1-percent)</td>
</tr>
</tbody>
</table>

H. Install piping free of sags and bends. Support requirements are specified in Section 22 05 29.

I. Fittings
   1. Provide standard, manufactured fittings in all cases. Field fabricated fittings are prohibited. Bushings are prohibited on pressure piping.
   2. Weld-O-Lets and Thread-O-Lets may be used for non-galvanized steel piping if main pipe size is at least three standard pipe sizes larger than branch pipe, e.g. 2-inch main and 1-inch branch.
   3. Provide insulating couplings at connections of ferrous piping to non-ferrous piping.

3.02 INSTALLATION OF VALVES
A. General: Except as otherwise indicated, comply with the following requirements:
   1. Install valves where required for proper operation and isolation of equipment, including valves in branch lines where necessary to isolate sections of piping. Locate valves so as to be accessible and so that separate support can be provided when necessary.
   2. Install valves with stems pointed up, in vertical position where possible, but in no case with stems pointed downward from horizontal plane unless unavoidable. Install valve drains with hose-end adapter for each valve that must be installed with stem below horizontal plane.

B. Insulation: Where insulation is indicated, install extended-stem valves, arranged in proper manner to receive insulation.

C. Renewable Seats: Select and install valves with renewable seats, except where otherwise indicated.

D. Fluid Control: Except as otherwise indicated, install gate, ball, globe, and butterfly valves to comply with ASME B31.9. Where throttling is indicated or recognized as principal reason for valve, install globe valves.

E. Installation of Check Valves
   1. Swing Check Valves: Install in horizontal position with hinge pin horizontally perpendicular to center line of pipe. Install for proper direction of flow.
   2. Wafer Check Valves: Install between two flanges in horizontal or vertical position, position for proper direction of flow. Provide silent type wafer check valves at pump discharge locations.
   3. Lift Check Valve: Install in piping line with stem vertically upward, position for proper direction of flow.
F. Install globe valves to close against pressure.

G. Install plug valve with seat toward equipment to be isolated.

I. Valve Discharge Piping: Provide discharge pipe to atmosphere from all relief and safety valves, sized with area equal to sum of outlet areas of all valves connected thereto, unless indicated larger.

### 3.03 INSTALLATION OF PIPING SPECIALTIES

A. Pipe Escutcheons: Install pipe escutcheons on each pipe penetration thru floors, walls, partitions, and ceilings where penetration is exposed to view; and on exterior of building. Secure escutcheon to pipe or insulation so escutcheon covers penetration hole, and is flush with adjoining surfaces.

B. Dielectric Unions and Flanges: Install at each piping joint between ferrous and non-ferrous piping. Comply with manufacturer's installation instructions.

C. Mechanical Sleeve Seals: Loosely assemble rubber links around pipe with bolts and pressure plates located under each bolt head and nut. Push into sleeve and center. Tighten bolts until links have expanded to form watertight seal.

D. Fire Barrier Penetration Seals: Fill entire opening with sealing compound. Adhere to manufacturer's installation instructions.

### 3.04 INSTALLATION OF FABRICATED PIPING SPECIALTIES

A. Pipe Sleeves: Install pipe sleeves of types indicated where piping passes through walls, floors, ceilings, and roofs.

1. Do not install sleeves through structural members, except as detailed on Drawings, or as reviewed by the OWNER Representative.
2. Install sleeves accurately centered on pipe runs.
3. Size sleeves so that piping and insulation (if any) will have free movement in sleeve, including allowance for thermal expansion; but not less than two pipe sizes larger than piping run.
4. Where insulation includes vapor-barrier jacket, provide sleeve with sufficient clearance for installation.
5. Pack 100 percent of annular space between sleeve and pipe or pipe insulation. Provide acoustical sealant at each end of pipe sleeve to seal packing in place.
   a. At fire-rated walls, partitions, floors, roofs, and ceilings: Packing shall be through penetration fire stop.
   b. At non-fire-rated walls, partitions, floors, roofs, and ceilings: Packing shall be fiberglass insulation, with density of 1.5 pcf.
6. Install length of sleeve equal to thickness of construction penetrated, and finish flush to surface; except floor sleeves.
7. Extend floor sleeves 1 inch above level floor finish.
8. Provide temporary support of sleeves during placement of concrete and other work around sleeves.
9. Provide temporary closure to prevent concrete and other materials from entering sleeves.

B. Type of Sleeves
   1. Install sheet-metal sleeves at walls and partitions.
   2. Install schedule 40 pipe sleeves in concrete slabs.
   3. Install mechanical sleeve seals at exterior penetrations; below grade, and at slabs-on-grade.

C. Mechanical Sleeve Seals: Install in accordance with the manufacturer's instructions.

3.05 PIPING EXPANSION PROVISIONS

A. General: Install domestic hot water piping with at least four elbows or tees at following locations.
   1. Between piping mains and risers.
   2. Between equipment and pump or tank.
   3. Between piping main and equipment.

B. Expansion Loops: Fabricate expansion loops as indicated, and elsewhere as determined by Installer for adequate expansion of installed piping system. Provide pipe anchor and pipe alignment guides as indicated, and elsewhere as determined by Installer to properly anchor piping in relationship to expansion loops.
   1. At Contractor's option, pipe anchors may be insulated lugged anchors; [pipe Shields, Inc.; Model #C4000 Series]. Comply with requirements for insulated pipe supports per code requirements.
   2. At Contractor's option, pipe guides may be guided insulated pipe supports; [Pipe Shields, Inc.; Model #B3000 or B7000 Series]. Comply with requirements for insulated pipe supports per code requirements.

3.06 INSTALLATION OF EQUIPMENT AND DEVICES

A. Install all equipment in accord with manufacturer's recommendations and in accordance with the equipment's listing (if applicable).

B. Access
   1. Install all equipment and devices to permit easy access for maintenance.
   2. Maintain easy access to all equipment and devices installed as part of Division 22 Work, including but not limited to, motors, drives, valves, actuators, etc.
   3. Proper access shall include:
      a. Valves may be operated.
      b. Control devices may be adjusted.
      c. Equipment access panels may be opened.
      d. Nominal maintenance work such as lubrication of bearings, etc., may be performed readily within arm's reach of access opening.
   4. Relocate items which interfere with access.
   5. When possible, install Work in accessible locations to avoid the need for access panels.
   6. Provide access panels in ceilings, partitions, enclosures, etc. as required in order to achieve easy access to all equipment and devices provided or installed under Division 22 Work. Many access panel locations may be indicated on the Drawings. Provide additional access panels as required.
a. For non-security walls, partitions, ceilings, enclosures, etc.: Provide non-security access panels as Work of Division 22.
b. For security walls, partitions, ceilings, enclosures, etc.: Provide security access panels as Work of Division 22.

7. Coordinate with the OWNER Representative to achieve acceptable locations of access panels.
8. Coordinate all access panel locations with other trades and the Contractor.
9. Where possible, avoid locating access panels in secure areas.

10. Provide stainless steel access panels in areas subject to moisture.

C. Provide all necessary anchoring devices and supports.
   1. Use structural supports suitable for equipment, or as indicated.
   2. Check loadings and dimensions of equipment with shop drawings.
   3. Do not cut or weld to building structural members, unless specifically indicated.
   4. Provide all required equipment supports, including those not detailed on architectural and mechanical Drawings.
   5. Comply with code requirements.

D. Verify that equipment will fit support layouts indicated.
   1. Where substitute equipment is used, revise indicated supports to fit, at no additional cost to the OWNER.

E. Coordinate size and location of roof penetrations, floor penetrations, and wall openings with Work of other Sections.

F. Install rain hoods and metal counter flashings as indicated and as required to make all penetrations of plumbing work through walls and roofs, water and weather-tight. Furnish all clamps, waterproofing material and labor necessary.

G. Install floor mounted equipment on 6-inch high concrete pad, 6 inches larger on each side than base of unit, unless otherwise specified, indicated, or equipment manufacturer's recommendation calls for. Coordinate size and location of equipment pads and curbs with Work of other Sections.

H. In Mechanical Rooms, Mechanical Areas, Fan Rooms, etc., coordinate locations of floor drains, floor sinks, etc. with locations of equipment and housekeeping pads. Locate drains to properly serve equipment and to result in orderly routing of drain piping, while minimizing tripping hazards, etc.

I. In areas other than mechanical rooms, do not install piping, or equipment in exposed manner unless indicated otherwise.

3.07 ADJUSTING AND CLEANING OF VALVES

A. Valve Adjustment: After piping systems have been tested and put into service, but before final testing, adjusting, and balancing, inspect each valve for possible leaks. Adjust or replace packing to stop leaks, replace valve if leak persists.

B. Cleaning: Clean factory-finished surfaces. Repair any marred or scratched surfaces with manufacturer's touch-up paint.

C. Valve Identification: Tag each valve in accordance with Section 220553.
3.08 ADJUSTING AND CLEANING OF PIPING SPECIALTIES

A. Adjusting: Adjust faces of meters and gauges to proper angle for best visibility.

B. Cleaning: Clean windows of meters and gauges and factory-finished surfaces.
   Replace cracked or broken windows, repair any scratched or marred surfaces with
   manufacturer's touch-up paint.

3.09 EQUIPMENT VIBRATION

A. Mechanical Balance: Pumps, motors, and drives, when equipment is installed and in
   normal operation, shall be within the following maximum limits, unless specified more
   restrictively for individual equipment items:
   1. 600 RPM and Less: 0.003-inch displacement, peak-to-peak.
   2. Over 600 RPM: 0.10-inch per second velocity, peak.

B. Pulley Run-Out: When equipment is installed and in normal operation, pulley run-out in
   radial and axial directions not to exceed 0.001 inches.

C. Field Tests: If requested, test equipment to determine compliance with specified
   requirements. Measure vibration displacement and velocity in vertical direction relative to
   floor. Make measurements on bearing housings (not end caps), or other heavy structural
   element directly connected to bearing housing, at each end of equipment.

D. Field Balancing: Balance and retest equipment as required for compliance with
   specified requirements.

3.10 CLEANING, FLUSHING, INSPECTING

A. General: Clean exterior surfaces of installed piping systems of superfluous materials,
   and prepare for application of specified coatings (if any). Flush clean interior of piping.
   Upon completion of flushing, completely drain systems at low points; remove, clean and
   replace strainer baskets and refill systems. Inspect each run of each system for
   completion of joints, supports and accessory items.
   1. Inspect pressure piping in accordance with procedures of ASME B31.1.

END OF SECTION
SECTION 26 00 00 - ELECTRICAL WORK

PART 1 - GENERAL

1.01 CONDITIONS:

A. The Requirements of General Conditions and Special Conditions apply to Work of this Section as if fully repeated herein.

1.02 WORK INCLUDED:

A. Provide a complete working installation with all material and equipment as shown and specified.
B. Wiring Methods: Provide the following wiring methods:
   1. Concealed Dry Interior Locations: Use only building wire, Type THHN/THWN insulation, in raceway.
   2. Exposed Dry Interior Locations: Use only building wire, Type THHN/THWN insulation, in raceway.
   3. Above Accessible Ceilings: Use only building wire, Type THHN/THWN insulation, in raceway.
   4. Wet or Damp Interior Locations: Use only building wire, Type THHN/THWN insulation, in raceway.
C. Removal of existing electrical equipment, wiring, and conduit in areas to be remodeled; removal of designated construction; dismantling, cutting and alterations for completion of the Work.
   1. Protection of items to remain as indicated on Drawings.
   2. Relocate existing equipment to accommodate construction.
   3. Conduct demolition to minimize interference with adjacent and occupied building areas.
   4. Coordinate demolition work with other disciplines.
   5. Coordinate and sequence demolition so as not to cause shutdown of operation of surrounding areas.
   6. Shut-down Periods:
      a. Arrange timing of shut-down periods of in service panels with Owner. Do not shut down any utility without prior written approval.
      b. Keep shut-down period to minimum or use intermittent period as directed by Owner.
D. Make electrical connections for equipment furnished as part of Work of other Sections.

E. Include sealing and fireproofing of conduits and cables.

F. Electrical products are anchored and fastened to building elements and finishes as follows:
   1. Concrete Structural Elements: Provide expansion anchors and powder actuated anchors.
   2. Steel Structural Elements: Provide beam clamps and spring steel clips.
   3. Concrete Surfaces: Provide expansion anchors.

G. Electrical components are identified as follows:
   1. Nameplate for each electrical distribution and control equipment enclosure.
   2. Label for identification of receptacles, multi-outlet assemblies and control device stations.
   3. Wire marker for each conductor at panelboards gutters, pull boxes, outlet and junction boxes, and each load connection.
   4. Permanent ink felt tip marker on cover indicating panel and circuit for junction boxes located above suspended ceilings and below ceilings in non-public areas.

1.03 QUALITY ASSURANCE:

A. Requirements of Regulatory Agencies:
   1. Nothing in the Contract Documents shall be construed to permit Work not conforming to applicable codes, laws, ordinances, rules or regulations.
   2. All installed or connected equipment shall be labeled or certified for its use by a nationally recognized testing laboratory.
   3. All materials and equipment shall be installed in accordance with manufacturer’s recommendations and in accordance with the National Electrical Contractors Association (NECA) Standard of Installation.
SUBMITTALS:

B. General:

1. Submit shop drawings and supplemental data for all materials and equipment specified in this Division, in accordance with the Requirements of Division 1, and as specified hereinafter.

1.04 SITE EXAMINATION AND CONDITIONS:

A. Examine site; verify dimensions and locations against Drawings and become informed of all conditions under which Work is to be done before submitting proposals.

1.05 GUARANTEE:

A. Provide one year guarantee in accordance with and as required under Division 1. Repair or replace as may be necessary any defective work, material or part with no increase in Contract Sum including repair or replacement of other Work, furnishing, equipment or premises caused by such repair or replacement of defective work.

PART 2 - PRODUCTS

2.01 BUILDING WIRE:

A. Product Description: Single conductor insulated wire.
B. Conductor: Copper.
C. Insulation Voltage Rating: 600 volts.
D. Insulation Temperature Rating: 75 or 90 degrees C.
E. Insulation Material: Thermoplastic.

2.02 WIRING CONNECTORS:

A. Bolted pressure connectors: Cast bronze compression bolts designed for parallel taps, tees, crosses or end-to-end connections.
B. Insulated spring wire connectors: Multi-part construction incorporating a steel spring enclosed with a color coded outer thermoplastic shell.
C. Compression type termination lugs: Tin plated copper high-compression type lugs for installation with hand or hydraulically operated crimping tools and dies. Provide 2-hole lugs for size #4/0 AWG and larger wire where terminated to bus bars.

2.03 METAL CONDUIT

A. Rigid Steel Conduit: ANSI C80.1.
B. Intermediate Metal Conduit (IMC): Rigid steel.
C. Fittings and Conduit Bodies: NEMA FB 1; Material to match conduit. All steel fittings.

2.04 ELECTRICAL METALLIC TUBING:

A. Product Description: ANSI C80.3; galvanized tubing.
B. Fittings: NEMA FB 1; steel set screw type.

2.05 OUTLET BOXES

A. Sheet Metal Outlet Boxes: NEMA OS 1, galvanized steel.
   1. Luminaire and Equipment Supporting Boxes: Rated for weight of equipment supported; furnish 1/2 inch male fixture studs where required.
   2. Concrete Ceiling Boxes: Concrete type.
B. Nonmetallic Outlet Boxes: NEMA OS 2.
C. Cast Boxes: NEMA FB 1, Type FD. Furnish gasketed cover by box manufacturer.

2.06 WALL SWITCHES AND PLATES:

A. Product Description: NEMA WD 1, Heavy-Duty, AC only general-use snap switch.
B. Body and Handle: Ivory plastic with toggle handle.
C. Ratings:
   1. Voltage: 120-277 volts, AC.
D. Wall Plates shall match existing.

2.07 RECEPTACLES:
A. Product Description: NEMA WD 1, Heavy-duty general use receptacle.
B. Device Body: Ivory plastic.
D. Convenience Receptacle: Type 5-20.
E. GFCI Receptacle: Convenience receptacle with integral ground fault circuit interrupter to meet regulatory requirements.

2.08 ENCLOSED SWITCHES:

A. Product Description: NEMA KS 1, Type HD enclosed load interrupter knife switch. Handle lockable in OFF position.
B. Fuse clips: Designed to accommodate NEMA FU1, Class R and J fuses.
C. Enclosure: NEMA KS 1, as required to meet conditions. Fabricate enclosure from steel finished with manufacturer's standard gray enamel.
   1. Interior Dry Locations: Type 1.
   2. Exterior Locations: Type 3R.

2.09 INTERIOR LUMINAIRES:

A. Product Description: Complete interior luminaire assemblies, with features, options, and accessories as scheduled.

2.10 FLUORESCENT AND COMPACT FLUORESCENT BALLASTS:

A. Product Description:
   1. Electronic ballast instant start, solid state, high power factor less than 10% THD, suitable for lamps specified, with voltage to match luminaire voltage.
   2. Ballast shall operate lamps at a frequency above 20KHz.
   3. Minimum ballast power factor 95 percent.

2.11 FLASH PROTECTION

A. Electrical equipment including switchboards, panelboards, disconnect switches, etc. which are likely to require examination, adjustment or servicing while energized shall be field marked to warn of potential electric arch flash hazards per CEC Article 110.16. Marking shall be a pre-printed label which references NFPA 70E.
PART 3 - EXECUTION

3.01 GENERAL:

A. Manufacturer's Directions: Follow manufacturer's directions where manufacturers of articles used furnish directions covering points not specified or shown.

B. All Work shall be done in orderly, workmanlike manner and present neat appearing installation when completed.

C. Provide metal backing plates, anchor plates, and similar items that are required for anchorage for the Work of this Section; securely weld or bolt to metal framing. Wood blocking or backing will not be permitted in combination with metal framing.

D. Equipment: Accurately set and level, neatly place support and anchor properly. Anchorage shall conform to the requirements of California Building Code. No allowance will be made for negligence to foresee means of placing, installing or supporting equipment in position.

E. Mounting heights shown for wiring devices shall be measured from the center of the device.

3.02 INSTALLATION – RECEPTACLES AND SWITCHES

A. Install devices plumb and level.

B. Install switches with OFF position down.

C. Install wall dimmers to achieve full rating specified and indicated after derating for ganging as instructed by manufacturer.

D. Do not share neutral conductor on load side of dimmers.

E. Install receptacles with grounding pole on top.

F. Connect wiring device grounding terminal to outlet box with bonding jumper and branch circuit equipment grounding conductor.

G. Install wall plates on flush mounted switches, receptacles, and blank outlets.

H. Install decorative plates on switch, receptacle, and blank outlets in finished areas.

I. Connect wiring devices by wrapping solid conductor around screw terminal. Install stranded conductor for branch circuits 10 AWG and smaller. When stranded conductors are used in lieu of solid, use crimp on
fork terminals for device terminations. Do not place bare stranded conductors directly under device screws.

J. Use jumbo size plates for outlets installed in masonry walls.
K. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted outlets.

3.03 INSTALLATION – ENCLOSED SWITCHES

A. Install enclosed switches where indicated.
B. Install enclosed switches plumb.
C. Height: 5 feet to operating handle.
D. Install fuses for fusible disconnect switches.
E. Install engraved plastic nameplates. Engrave nameplates with the equipment served and the panel and circuit number supplying the switch.
F. Apply adhesive tag on inside door of each fused switch indicating NEMA fuse class and size installed.

3.04 DEMOLITION

A. Demolition Drawings are based on casual field observation and/or existing record documents. Report discrepancies to Owner and Architect/Engineer before disturbing existing installation.
B. Remove exposed abandoned conduit, including abandoned conduit above accessible ceiling finishes. Cut conduit flush with walls and floors, and patch surfaces.
C. Remove conduit, wire, boxes, and fastening devices to avoid any interference with new installation.
D. Disconnect electrical systems in walls, floors, and ceilings scheduled for removal.
E. Reconnect equipment being disturbed by renovation work and required for continue service to panel as indicated on drawings or to nearest available panel.
F. Disconnect or shut off service to areas where electrical work is to be removed. Remove electrical fixtures, equipment, and related switches, outlets, conduit and wiring which are not part of final project.
G. Install temporary wiring and connections to maintain existing systems in service during construction.
H. Remove, relocate, and extend existing installations to accommodate new construction.
I. Repair adjacent construction and finishes damaged during demolition and extension work.
J. Remove exposed abandoned grounding and bonding components, fasteners and supports, and electrical identification components, including abandoned components above accessible ceiling finishes. Cut embedded support elements flush with walls and floors.
K. Clean and repair existing equipment to remain and/or to be reinstalled.
L. Protect and retain power to existing active equipment remaining.
M. Cap abandoned empty conduit at both ends.

3.05 INSTALLATION - CONDUCTORS

A. Route wire and cable to meet Project conditions.
B. Neatly train and lace wiring inside boxes, equipment, and panelboards.
C. Special Techniques--Building Wire in Raceway:
   1. Pull conductors into raceway at same time.
   2. Install building wire 4 AWG and larger with pulling equipment.
D. Special Techniques - Cable:
   1. Protect exposed cable from damage.
   2. Support cables above accessible ceiling, using spring metal clips or metal cable ties to support cables from structure. Do not rest cable on ceiling panels.
   3. Use suitable cable fittings and connectors.
E. Special Techniques - Wiring Connections:
   1. Clean conductor surfaces before installing lugs and connectors.
   2. Make splices, taps, and terminations to carry full ampacity of conductors with no perceptible temperature rise.
   3. Tape uninsulated conductors and connectors with electrical tape to 150 percent of insulation rating of conductor.
   4. Install split bolt connectors for copper conductor splices and taps, 6 AWG and larger.
   5. Install solderless pressure connectors with insulating covers for copper conductor splices and taps, 8 AWG and smaller.
   6. Install insulated spring wire connectors with plastic caps for copper conductor splices and taps, 10 AWG and smaller.
F. Install stranded conductors for branch circuits. Install crimp on fork terminals for device terminations. Do not place bare stranded conductors directly under screws.

G. Install terminal lugs on ends of 600 volt wires unless lugs are furnished on connected device, such as circuit breakers.

H. Size lugs in accordance with manufacturer’s recommendations terminating wire sizes. Install 2-hole type lugs to connect wires 4 AWG and larger to copper bus bars.

I. For terminal lugs fastened together such as on motors, transformers, and other apparatus, or when space between studs is small enough that lugs can turn and touch each other, insulate for dielectric strength of 2-1/2 times normal potential of circuit.

3.06 WIRE COLOR

A. General:
   1. For wire sizes 10 AWG and smaller, install wire colors in accordance with the following:
      a. Black and red for single phase circuits at 120/240 volts.
      b. Black, red, and blue for circuits at 120/208 volts single or three phase.
      c. Orange, brown, and yellow for circuits at 277/480 volts single or three phase.
   2. For wire sizes 8 AWG and larger, identify wire with colored tape at terminals, splices and boxes. Colors are as follows:
      a. Black and red for single phase circuits at 120/240 volts.
      b. Black, red, and blue for circuits at 120/208 volts single or three phase.
      c. Orange, brown, and yellow for circuits at 277/480 volts single or three phase.

B. Neutral Conductors: White. When two or more neutrals are located in one conduit, individually identify each with proper circuit number.

C. Branch Circuit Conductors: Install three or four wire home runs with each phase uniquely color coded.

D. Feeder Circuit Conductors: Uniquely color code each phase.

E. Ground Conductors:
   1. For 6 AWG and smaller: Green.
   2. For 4 AWG and larger: Identify with green tape at both ends and visible points including junction boxes.
3.07 INSTALLATION – RACEWAY:

A. Raceway routing is shown in approximate locations unless dimensioned. Route to complete wiring system.
B. Arrange raceway supports to prevent misalignment during wiring installation.
C. Support raceway using coated steel or malleable iron straps, lay-in adjustable hangers, clevis hangers, and split hangers.
D. Do not support raceway with wire or perforated pipe straps. Remove wire used for temporary supports.
E. Do not attach raceway to ceiling support wires or other piping systems.
F. Route exposed raceway parallel and perpendicular to walls.
G. Route raceway installed above accessible ceilings parallel and perpendicular to walls.
H. Route conduit in and under slab from point-to-point.
I. Maintain clearance between raceway and piping for maintenance purposes.
J. Maintain 12 inch clearance between raceway and surfaces with temperatures exceeding 104 degrees F.
K. Cut conduit square using saw or pipe cutter; de-burr cut ends.
L. Bring conduit to shoulder of fittings; fasten securely.
M. Join nonmetallic conduit using cement as recommended by manufacturer. Wipe nonmetallic conduit dry and clean before joining. Apply full even coat of cement to entire area inserted in fitting. Allow joint to cure for minimum 20 minutes.
N. Install conduit hubs to fasten conduit to sheet metal boxes in damp and wet locations and to cast boxes.
O. Install no more than equivalent of three 90 degree bends between boxes. Install conduit bodies to make sharp changes in direction, as around beams. Install factory elbows for bends in metal conduit larger than 2 inch size.
P. Avoid moisture traps; install junction box with drain fitting at low points in conduit system.
Q. Install fittings to accommodate expansion and deflection where raceway crosses seismic and expansion joints.
R. Install suitable pull string or cord in each empty raceway except sleeves and nipples.
S. Install suitable caps to protect installed conduit against entrance of dirt and moisture.
T. Surface Raceway: Install flat-head screws, clips, and straps to fasten raceway channel to surfaces; mount plumb and level. Install insulating bushings and inserts at connections to outlets and corner fittings.
U. Close ends and unused openings in wireway.

3.08 INSTALLATION – BOXES:

A. Install wall mounted boxes at elevations to accommodate mounting heights as indicated on Drawings.
B. Adjust box location up to 10 feet prior to rough-in to accommodate intended purpose.
C. Install pull boxes and junction boxes above accessible ceilings and in unfinished areas only.
D. In Accessible Ceiling Areas: Install outlet and junction boxes no more than 6 inches from ceiling access panel or from removable recessed luminaire.
E. Locate flush mounting box in masonry wall to require cutting of masonry unit corner only. Coordinate masonry cutting to achieve neat opening.
F. Do not install flush mounting box back-to-back in walls; install with minimum 6 inches separation. Install with minimum 24 inches separation in acoustic rated walls.
G. Secure flush mounting box to interior wall and partition studs. Accurately position to allow for surface finish thickness.
H. Install stamped steel bridges to fasten flush mounting outlet box between studs.
I. Install flush mounting box without damaging wall insulation or reducing its effectiveness.
J. Install adjustable steel channel fasteners for hung ceiling outlet box.
K. Do not fasten boxes to ceiling support wires or other piping systems.
L. Support boxes independently of conduit.
M. Install gang box where more than one device is mounted together. Do not use sectional box.
N. Install gang box with plaster ring for single device outlets.

3.09 INSTALLATION – LUMINAIRES:
A. Install suspended luminaires using pendants supported from swivel hangers. Provide pendant length required to suspend luminaire at indicated height.

B. Support luminaires independent of ceiling framing.

C. Install recessed luminaires using accessories and firestopping materials to meet regulatory requirements for fire rating.

D. Install clips to secure recessed grid-supported luminaires in place.

3.10 TESTING AND ADJUSTING:

A. Furnish all labor and test equipment required for the Work of this Division. Testing work is defined as that work necessary to establish that equipment has been properly assembled, connected, and checked to verify that intent and purpose of Drawings, manufacturer's instruction manuals, and directions of Architect have been accomplished in satisfactory manner.

B. Test each individual circuit at panel with equipment connected for proper operation.

C. Test each individual receptacle device for proper polarity and grounding.

D. Test each ground fault circuit interrupter for proper operation.

E. Test Fire Alarm System in accordance with NFPA 72 and local fire department requirements.

END OF SECTION