Peralta Community College District

INVITATION FOR BID

Bid No.:11-12/ 24: District-Wide Drinking Fountain Project
(Project # 2727)

The Peralta Community College District, Oakland, California, through the Office of Purchasing Department, is hereby requesting sealed bids for the above mentioned work.

The successful bidder (Contractor) will be required to furnish all labor, material, equipment, and supplies to complete the work. The Contractor must also pay all applicable taxes and provide required insurance, permits and bonding.

General Bid Information

<table>
<thead>
<tr>
<th>Bid Description</th>
<th>District-Wide Drinking Fountain Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bid Type</td>
<td>Public Works (Prevailing Wage and Project Labor Agreement)</td>
</tr>
<tr>
<td>Bid Number</td>
<td>11-12/ 24</td>
</tr>
<tr>
<td>Project Number</td>
<td>(Project # 2727)</td>
</tr>
<tr>
<td>Bid Issued</td>
<td>June 28, 2012</td>
</tr>
<tr>
<td>Department</td>
<td>Capital Projects</td>
</tr>
<tr>
<td>Mandatory Site Visit Date</td>
<td>July 10, 2012 at 10:00 a.m.</td>
</tr>
<tr>
<td>Site Visit Location</td>
<td>333 E. 8th Street, Oakland, CA 94606 (Department of General Services)</td>
</tr>
<tr>
<td>Project Duration</td>
<td>90 Calendar Days</td>
</tr>
<tr>
<td></td>
<td>This project is to be completed within the above number of calendar days from the date that the District issues a Notice to Proceed.</td>
</tr>
<tr>
<td>Liquidated Damages</td>
<td>$700 per day</td>
</tr>
<tr>
<td></td>
<td>The Contractor agrees to pay the District the above amount per calendar day in the event that the Contractor fails to complete the Contract within the Project Duration indicated above.</td>
</tr>
<tr>
<td>Scheduled Publication Dates</td>
<td>June 28, 2012 ; July 5, 2012</td>
</tr>
<tr>
<td>Bid Due Date</td>
<td>July 30, 2012 at 2:00 p.m.</td>
</tr>
<tr>
<td></td>
<td>Bids are opened at the bid submittal address 15 minutes after they are due. See “Instructions for Submitting Bids” later in this document.</td>
</tr>
</tbody>
</table>
### Instructions for Submitting Bids

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

| **Submittal Copies** | One (1) Original |

| **Submittal Envelope Requirements** | Bids must be sealed and have the following information clearly marked and visible on the outside of the envelope:  
| | • Bid Number  
| | • Name of Your Company  
| | • Address  
| | • Phone Number |

| **Late Submittals** | Proposals received after the time and date stated above shall be returned unopened to the vendor. |

### Questions about the Bid or Requests for Information

Questions and or Requests for Information (RFI) must be submitted in writing and can be submitted by fax or email as follows:

| **Primary Contact** | **Jeff Cook**  
| | Fax: 510-466-7315  
| | Email: jcook@peralta.edu |

| **Question/RFI Due Date** | **July 16, 2012 at 4:00 p.m.**  
| | Please submit questions as soon as possible. No questions regarding the specifications will be responded to after the above date. All pertinent questions will be responded to and answered in writing no later than the Response Date listed below. All prospective bidders will receive copies of the questions and answers. |

| **Response Date** | **July 23, 2012 at 2:00 p.m.**  
| | All pertinent questions will be responded to via addendum faxed or emailed to all prospective bidders, and or posted at the District’s website. All addendums must be acknowledged on the bid form. |
# How to Obtain Bid Documents

Bid documents may be obtained from the location(s) indicated in the table below:

<table>
<thead>
<tr>
<th>Available</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Peralta Community College District Purchasing Department 501 5th Avenue Oakland, CA 94606 Monday through Friday 9:00 AM to 4:00 PM (510) 466-7225</td>
</tr>
<tr>
<td>Yes</td>
<td>Website: <a href="http://www.peralta.edu">www.peralta.edu</a> Click on “Site Index” then on “Business Services Home” and then on “Documents - List of Current Bids, RFPs and RFQs” to download the bid packet.</td>
</tr>
<tr>
<td>(available for downloading)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>Ford Graphics 2210 Magnolia Street Oakland, CA 94607 Tel. 510-451-9060 Fax 510-595-2383 <a href="http://www.fordgraphics.com">www.fordgraphics.com</a> Email: <a href="mailto:fgoakland@fordgraphics.com">fgoakland@fordgraphics.com</a> Attn: Christina</td>
</tr>
<tr>
<td>(available for purchase)</td>
<td>Note: The Bid and Contract Documents are available at Ford Graphics for a non-refundable payment of the cost of reprographics and shipping per set. Payment shall be made to Ford Graphics.</td>
</tr>
<tr>
<td>Yes</td>
<td>Builders Exchange of Alameda 3055 Alvarado Street San Leandro, CA 94577 Tel. 510-483-8880 Fax 510-352-1509 Email: <a href="mailto:beac@beac.com">beac@beac.com</a> Attn: Jan Sanchez</td>
</tr>
<tr>
<td>(available for viewing)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>McGraw Hill Construction 11875 Dublin Blvd., Suite A118 Dublin, CA 94565 Tel. 925-833-9750 Fax 925-833-9754 Email: <a href="mailto:Gerry_mccarthy@mcgraw-hill.com">Gerry_mccarthy@mcgraw-hill.com</a> Attn: Gerry McCarthy</td>
</tr>
<tr>
<td>(available for viewing)</td>
<td></td>
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</tbody>
</table>

## Full Opportunity

The Peralta Community College District hereby affirmatively ensures that Disadvantaged Business Enterprises (DBE), Small Local Business Enterprise (SLBE) and Small Emerging Local Business Enterprise (SELBE) shall be afforded full opportunity to submit bids in response to this notice and will not be discriminated against on the basis of race, color, national origin, ancestry, disability, gender, transgender status, political affiliation or religion in any consideration leading to the award of contract.

No qualified disabled person shall, on the basis of disability, be excluded from participating in, be denied the benefits of, or otherwise be subjected to discrimination in any consideration leading to the award.

Peralta Community College District reserves the right to reject any or all bids, to waive any irregularities or informalities not affected by law, to evaluate the bids submitted and to award the contract according to the proposal which best serves the interests of Peralta Community College District.

John Banisadr, Purchasing Compliance Manager

Revised 9-23-09
## Attachments

<table>
<thead>
<tr>
<th></th>
<th>Title</th>
<th>Must Be Returned with Bid</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Instruction to Bidders</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Prevailing Wage Determination and Project Labor Agreement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bid Form</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Subcontractor List Form</td>
<td>Yes</td>
</tr>
<tr>
<td>5</td>
<td>Bid Bond</td>
<td>Yes, or a Check</td>
</tr>
<tr>
<td>6</td>
<td>Non-Collusion Affidavit</td>
<td>Yes</td>
</tr>
<tr>
<td>7</td>
<td>Small Local Business Enterprise/Small Emerging Local Business Enterprise Program</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>SLBE/SELBE Self Certification Affidavit</td>
<td>Yes</td>
</tr>
<tr>
<td>9</td>
<td>Vendor’s Questionnaire And Certificate By Compliance</td>
<td>Yes</td>
</tr>
<tr>
<td>10</td>
<td>Environmentally Sustainable Procurement--Construction</td>
<td>Yes</td>
</tr>
<tr>
<td>11</td>
<td>Certificate Regarding Workers’ Compensation</td>
<td>Yes</td>
</tr>
<tr>
<td>12</td>
<td>Statement of Equal Employment Opportunity</td>
<td>Yes</td>
</tr>
<tr>
<td>13</td>
<td>Performance Bond</td>
<td>Required after Award</td>
</tr>
<tr>
<td>14</td>
<td>Payment Bond</td>
<td>Required after Award</td>
</tr>
<tr>
<td>15</td>
<td>Contract</td>
<td>Required after Award</td>
</tr>
<tr>
<td>16</td>
<td>Bid Protest Procedures</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>PCCD Construction Debris Reporting Requirements</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Construction Protocol Procedures</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Final Cleaning Requirements</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Post Bid Interview</td>
<td>Require after selection of Bidder</td>
</tr>
</tbody>
</table>

## Enclosures

<table>
<thead>
<tr>
<th></th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>General Conditions (79 pages)</td>
</tr>
<tr>
<td>B</td>
<td>Construction Project Labor Agreement (dated 07-21-2009)</td>
</tr>
<tr>
<td>C</td>
<td>Scope of Work</td>
</tr>
<tr>
<td>D</td>
<td>Specifications &amp; Drawings</td>
</tr>
</tbody>
</table>
INSTRUCTIONS TO BIDDERS

Bid Proposals:
No bid proposals shall receive consideration by the Peralta Community College District (hereinafter "District") unless made in accordance with the following instructions:

1. Deadline For Receipt of Proposals. Bid proposals must be sealed and filed at the office of the Director of Purchasing located at 501 5th Avenue, Oakland, California, 94606 no later than the time specified in the invitation. The District suggests that bids be hand delivered in order to ensure their timely receipt. Any bids received after the time stated shall not be opened and shall be returned, sealed, to the bidder.

2. Bidders Conference. A mandatory bidders conference will be held on the date specified in the invitation, for the purpose of acquainting all prospective bidders with the bid documents. It is imperative that all prospective bidders attend this conference. Failure to attend the conference may disqualify a non-attending bidder from the bid. Following this meeting, a mandatory site review will be conducted to acquaint bidders with the project.

3. Requests for Information. Any questions relative to the bid should be in writing and directed to the Architect or his or her designee at the address specified for receipt of bid proposals.

4. Bid Proposal Forms. Bid proposals must be made on a form obtained from the District. All items on the form should be filled out. Numbers should be stated in figures, and the signatures of all individuals must be in long hand. The completed form should be without interlineations, alterations, or erasures.

5. Execution of Forms. Each bid must give the full business address of the bidder and must be signed by the bidder with his or her authorized signature. Bids by partnerships must furnish the full names of all partners and must be signed in the partnership name by a general partner with authority to bind the partnership in such matters. Bids by corporations must be signed with the legal name of the corporation, followed by the signature and designation of the president, secretary, or other person authorized to bind the corporation in this matter. The name of each person signing shall also be typed or printed below the signature. When requested by the District, satisfactory evidence of the authority of the officer signing on behalf of the corporation shall be furnished. A bidder's failure to properly sign required forms may result in rejection of the bid. All bids must include the bidder's California contractor's license number and expiration date.

6. Bid Security. Bid proposals should be accompanied by a cashier's check or bidder's bond for an amount not less than ten percent (10%) of the bid amount. The cashier's check or bid bond shall be made payable to the order of the District. If the bid bond accompanies the proposal, the bond shall be secured by an admitted surety company, licensed in the State of California, satisfactory to the District. The cashier's check or bond shall be given as a guarantee that the bidder will enter into the contract if awarded the work, and in the case of refusal or failure to enter into the contract within ten (10) calendar days after notification of the award of the contract, the District shall have the right to award to another bidder. If the bidder fails or refuses to timely enter into the contract, the District reserves the right to declare the bid bond forfeited and to pursue all other remedies in law or equity relating to such breach including, but not limited to, seeking recovery of damages for breach of contract. Failure to provide bid security, or bid security in the proper amount, will result in rejection of the bid.

7. Withdrawal of Bid Proposals. Bid proposals may be withdrawn by the bidders prior to the time fixed for the opening of bids, but may not be withdrawn for a period of forty-five (45) calendar days after the opening of bids.
8. **Addenda or Bulletins.** Any addenda or bulletins issued during the time of bidding shall form a part of the drawings and specifications issued to bidders for the preparation of their proposals and shall constitute a part of the Contract Documents. No addendum will be issued on such requests received later than five (5) calendar days before the scheduled opening of bids.

9. **Award of Contract.** The District reserves the right to reject any and all bid proposals to contract work with whomever and in whatever manner the District decides, to abandon the work entirely and to waive any informality or non-substantive irregularity as the interest of the District may require.

10. **Bonds.** The successful bidder shall be required to submit payment and performance bonds as specified in the Contract Documents. All required bonds shall be calculated on the maximum total purchase price. A bidder's failure to submit the bonds requested shall result in rejection of the bid proposal.

11. **Rejection of Bids and Award of Contract.** The District reserves the right to waive any irregularities in the bid and the right to accept or reject any and all bids, or to accept or reject any portion or combination thereof, or award on the basis of the total bid, when to do so is in its own best interest. The Contract will be awarded within forty-five (45) calendar days after opening of Bids to the lowest responsible Bidder complying with the requirements of the Contract Documents, subject to Governing Board approval. The time for awarding the Contract may be extended by the District with the consent of the lowest responsible Bidder.

12. **Execution of Contract.** The successful bidder shall, within ten (10) calendar days of notice of award of the contract, sign and deliver to the District, without exception, the executed District contract along with the bonds and certificates of insurance required by the Contract Documents. In the event the bidder to whom an award is made fails or refuses to execute the contract within ten (10) calendar days from the date of receiving notification that the contract has been awarded to the bidder, or fails to provide the required bonds and certificates, the District may declare the bidder's bid deposit or bond forfeited as damages caused by the failure of the bidder to enter into the contract, and may award the work to the next lowest responsible bidder, or may reject all bids and, at its sole discretion, call for new bids.

13. **Drawings and Specifications.** Each bidder shall be required to return to the District all drawings and specifications in an unmutilated condition and without any marks or annotations. All drawings, specifications and other documents used or prepared during the project shall be the exclusive property of District.

14. **Evidence of Responsibility.** Upon the request of the District, a bidder shall submit promptly to the District satisfactory evidence showing the bidder's financial resources, the bidder's experience in the type of work being required by the District, the bidder's organization and workforce available for the performance of the contract and any other required evidence of the bidder's qualifications to perform the proposed contract. The District may consider such evidence before making its decision awarding the proposed contract. Failure to submit evidence of a bidder's responsibility to perform the proposed contract may result in rejection of the bid.

15. **Taxes.** Taxes shall be included in the bid prices.

16. **Bid Exceptions.** The taking of bid exceptions or providing false, incomplete or unresponsive statements may result in the disqualification of the bid.

17. **Discounts.** Any discounts which the bidder desires to provide the District must be stated clearly on the bid form itself so that the District can calculate properly the net cost of the bid proposal. Offers of discounts or additional services not delineated on the bid form will not be considered by the District in the determination of the lowest responsible bidder.

18. **Quantities.** The quantities shown are approximate. The District reserves the right to increase or decrease quantities as desired.
19. Prices. Bidders must quote prices F.O.B. unless otherwise noted. Prices should be stated in the units specified and bidders should quote each item separately.

20. Samples. On request, samples of the products being bid shall be furnished to the District at no cost to the District.

21. Special Brand Names. In describing any item, the use of a manufacturer or special brand, except in those instances where the product is designated to match others in use on a particular public improvement either completed or in the course of completion, does not restrict bidding to that manufacturer or special brand, but is intended only to indicate quality and type of item desired. Bidders may furnish any material, product, thing or service of comparable quality or utility. If a bidder is requesting substitution of "an equal" item, the make and grade of the article on which the bid is submitted must be stated in the bid proposal and illustrations and catalogue information submitted. The District reserves the right to make all decisions on product and vendor selection.

22. Container Costs and Delivery. All costs for containers shall be borne by the bidder. All products shall conform to the provisions set forth in the federal, county, state and city laws for their production, handling, processing and labeling. Packages shall be so constructed in ensure safe transportation to point of delivery.

23. Bid Negotiations. A bid response to any specific item of this bid with terms such as "negotiable", "will negotiate" or similar, will be considered as non-compliance with that specific term.

24. Prevailing Law. In the event of any conflict or ambiguity between these instructions and state or federal law or regulations, the latter shall prevail. Additionally, all equipment to be supplied or services to be performed under the bid proposal shall conform to all applicable requirements of local, state and federal law, including, but not limited to, California Labor Code Sections 1771, 1778 and 1779.

25. Governing Law and Venue. In the event of litigation, the bid documents, specifications and related matters shall be governed by and construed in accordance with the laws of the State of California. Venue shall be with the appropriate state or federal court located in Alameda County, California.

26. Subcontractors. Pursuant to the Subletting and Subcontracting Fair Practices Act, Public Contract Code Sections 4100-4114, inclusive, every bidder shall, on the enclosed form set forth:

(a) The name, location of the place of business, and all information required on the Subcontractor List for each subcontractor who will perform work or labor or render service to the bidder in or about the work in an amount in excess of one-half (1/2) of the one percent (1%) of the bidder's total bid.

(b) The portion of the work which will be done by each subcontractor. If the bidder fails to specify a subcontractor for any portion of the work to be performed under the contract in excess of one-half (1/2) of one percent (1%) of the bidder's total bid, bidder agrees that bidder is fully qualified to and will perform that portion of the work. The successful bidder shall not, without the consent of the District, and in compliance with Public Contract Code Sections 4100 - 4114, either:

(1) Substitute any person as subcontractor in place of the subcontractor designated in the original bid;

(2) Permit any subcontract to be voluntarily assigned or transferred or allow the work to be performed by anyone other than the original subcontractor listed in the bid; or

(3) Sublet or subcontract any portion of the work in excess of one-half (1/2) of one percent (1%) of the total bid as to which the bidder's original bid did not designate a subcontractor.
27. **Examination of Contract Documents and Work Site.** Before submitting a bid proposal, bidders shall examine the contract, the drawings, the specifications and other Contract Documents. Bidders shall visit the site of the proposed work and shall fully inform themselves of all conditions in and about the work site, the building or buildings, if any, and any work that may have been done thereon. However, no bidder shall visit the site without prior authorization. All bidders are requested to contact the Physical Plant Department or designee for coordination of site visits. Submission of a bid proposal constitutes acceptance of the terms of this provision.

28. **Form of Contract.** The bidder selected by the District will be required to execute, without exception, a contract included in the bidding package. The contract and other documents are subject to the approval of the District and its legal counsel.

29. **Licenses.** Each bidder, and their subcontractors, if any, must possess all appropriate and required licenses or other permits to perform the work as identified in contract documents. Upon request, each bidder shall furnish the District with evidence demonstrating possession of the required licenses or permits. Failure to submit such evidence to the District’s satisfaction may result in rejection of the bid.

30. **Denial of Right to Bid.** Contractors or subcontractors who have violated state law governing public works shall be denied the right to bid on this public work contract as set forth in California Labor Code Section 1777.7.

31. **Bidders Interested in More Than One Bid.** No person, firm, or corporation shall be allowed to make, or file, or be interested in more than one bid unless alternate bids are specifically called for. A person, firm, or corporation that has submitted a sub-proposal to a bidder, or that has quoted prices of materials to a bidder, is not thereby disqualified from submitting a sub-proposal or quoting prices to other bidders or make a prime proposal.

32. **Contractors State License Board.** Contractors are required by law to be licensed and regulated by the Contractors State License Board. Any questions concerning a contractor may be referred to the Registrar, Contractors State License Board, P. O. Box 26000, Sacramento, California 95826.

33. **Additive and Deductive Items: Method of Determining Lowest Bid.** Pursuant to Public Contract Code section 20103.8, should this bid solicitation include additive and/or deductive items, the checked [X] method shall be used to determine the lowest bid:

____X____ (a) The lowest bid shall be the lowest bid price on the base contract without consideration of the prices on the additive or deductive items.

________ (b) The lowest bid shall be the lowest total of the bid prices on the base contract and those additive or deductive items that were specifically identified in the bid solicitation [see bid proposal form] as being used for the purpose of determining the lowest bid price.

________ (c) The lowest bid shall be the lowest total of the bid prices on the base contract and those additive or deductive items taken in order from a specifically identified list of those items, depending upon available funds as identified in the solicitation.

________ (d) The lowest bid shall be determined in a manner that prevents any information that would identify any of the bidders from being revealed to the public entity before the ranking of all bidders from lowest to highest has been determined.

If no method is checked, sub-paragraph (a) shall be used to determine the lowest bid.

Notwithstanding the method used by the District to determine the lowest responsible bidder, the District retains the right to add to or deduct from the contract any of the additive or deductive items included in the bid solicitation.
**Prevaling Wage Determination**

The Governing Board has obtained from the Director of the Department of Industrial Relations, the general prevailing rate of per diem wages in the locality in which the work is to be performed for each craft, classifications or type of worker needed to execute the contract, including employer payments for health and welfare, pension, vacation, apprenticeship and similar purposes. Copies of these prevailing rates are Internet accessible at [http://www.dir.ca.gov/dlsr/DPreWageDetermination.htm](http://www.dir.ca.gov/dlsr/DPreWageDetermination.htm) or shall be made available at the District's Purchasing office to any interested party upon request during regular business hours. For this bid, wage determination 2012-1 shall be used.

The schedule of per diem wages is based upon a working day of eight hours. The rate for holiday and overtime work shall be at least time and one half.

It shall be mandatory upon the contractor to whom the contract is awarded, and upon any subcontractor under him, to pay not less than the specified rates to all workers employed by them in the execution of the contract. It is the contractor's responsibility to determine any rate change, which may have or will occur during the intervening period between each issuance of published rates by the Director of Industrial Relations.

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**Project Labor Agreement**

The Peralta Community College District has entered into a Project Labor Agreement (PLA) for all its Public Works construction projects, which requires that the successful General Contractor, and its field Subcontractors to sign the applicable Letter of Assent (LOA). The complete text including the terms and conditions, and the LOA, are included in the bid package for review by all Contractors bidding on this project. Contractors contemplating bidding on this project are strongly encouraged to review the complete PLA documents, but should at minimum be aware of the following:

- No work stoppages, strikes, sympathy strikes, slowdowns or lockouts are allowed during the execution of the work.
- There are provisions for alternative dispute resolution, depending on affected crafts.
- Based on a formula and certain basic requirements, a Contractor may use up to five (5) “core” workers, but all workers must be dispatched through the applicable union halls.
- There are goals for the utilization of local workers, utilizing the normal hiring hall procedures for dispatch.

A Contractor is not required to become signatory to a union to work on a project covered by the PLA, but is required to sign a Letter of Assent (LOA) agreeing to work under the terms of the PLA, on a project by project basis. Workers are not required to join a union but must be dispatched through a union hiring hall and must pay union initiation fees and dues when working on a project covered by the PLA.

The District's PLA Program Manager for this project is:

Mr. Jake Sloan  
Davillier-Sloan—Labor Management Consultants

Please direct all PLA questions to the Primary Contact listed in the “Questions about the Bid or Requests for Information” section of the Invitation For Bid, and the Primary Contact will forward your question to the PLA Program Manager, to be answered as part of the formal Addendum for this bid.
The undersigned having carefully examined the location of the proposed work, the local conditions of the place where the work is to be done, the Invitation for Bid, the General Conditions and Instructions to Bidders, the Peralta Community College District (District) Contract, the Specifications and all of the contract documents for this project, and accurately completed the Vendor's Questionnaire, proposes to perform the contract, including all of its component parts, and to furnish any and all required labor, materials, equipment, insurance, permit, bonding, transportation and services required for the construction of the project in strict conformity with the plans and specifications prepared, including any Addenda, within the time specified for the lump sum price of (including all taxes):

**Total Bid Price**

<table>
<thead>
<tr>
<th>Total lump sum bid price of</th>
</tr>
</thead>
<tbody>
<tr>
<td>$_________________________</td>
</tr>
<tr>
<td>___________________________</td>
</tr>
<tr>
<td>Written amount prevails if any discrepancy exists.</td>
</tr>
</tbody>
</table>

**Bid Elements**

(This Total Bid Price is composed of the following elements.)

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Peralta CCD District-wide Drinking Fountain Project.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Allowance for relocated or additional Drinking Fountain</td>
<td>$30,000.00</td>
</tr>
<tr>
<td>3</td>
<td>Allowance for additional Utilities and Infrastructure</td>
<td>$20,000.00</td>
</tr>
<tr>
<td>4</td>
<td>Allowance for unforeseen Conditions</td>
<td>$20,000.00</td>
</tr>
<tr>
<td></td>
<td>TOTAL BID PRICE (equating to the Total Lump Sum Bid Price as shown in the large box above the Bid Elements section)</td>
<td></td>
</tr>
</tbody>
</table>

**Agreement Terms**

1. If awarded the contract, the undersigned hereby agrees to sign said contract and furnish the necessary Payment Bond, Performance Bond, and Certificates of Insurance within 10 calendar days after the Notice of the Award of this contract and agrees to commence construction within 10 calendar days after the Notice to Proceed is issued by the District.

2. The undersigned has checked carefully all the above figures and understands that the District will not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

3. Peralta Community College District reserves the right to reject any or all bids, to waive any irregularities or informalities not affected by law, to evaluate the bids submitted and to award the contract according to the proposal which best serves the interests of the District.

4. All pages of this Bid Form must be completed and signed in ink. The bid will be awarded to the lowest responsive, responsible bidder.
Bid Bond
Each bid shall be accompanied by a cashier’s check payable to the Peralta Community College District, or a bidder’s bond executed by an admitted surety insurer, licensed to do business in the State of California as a surety, made payable to the Peralta Community College District in an amount not less than ten percent (10%) of the maximum amount of the bid. The check or bid bond shall be given as a guarantee that the bidder to whom the contract is awarded shall execute the contract documents and shall provide the required payment and performance bonds as specified therein within ten (10) days after the notification of the award of the contract.

Amount - Bidders must enclose an amount of not less than 10 percent of the entire bid as either:

    _____ Cashier’s Check: Check Number: _____________________
      Issuing Bank: _______________________________
      Amount: $ _____________________________

    _____ Bidder’s Bond: Surety Company: _____________________

Addendum Acknowledgement
The following addendum(s) are acknowledged in this bid: _____________________

Bidder Information and Signature

Contractor Name: ___________________ Title: _________________________

Contact Person (print name): __________________________________________

Address: __________________________________________________________

Telephone: ______________________ Fax: ____________________________

Contractor License #: ___________ Expiration Date: ________________

Authorized Signature: ____________________________ Date: ____________
SUBCONTRACTOR LIST FORM  
Bid No.:11-12/24: District-Wide Drinking Fountain Project  
(Project # 2727)

No Subcontractors

Check here and skip to the “Signature” section if you have no subcontractors who will perform contract work in an amount in excess of 1/2 of 1 percent of the total contract price.

Subcontractors

In accordance with the provisions of Public Contract Code section 4104, each bidder shall list below the name and location of place of business for each sub-contractor who will perform a portion of the contract work in an amount in excess of 1/2 of 1 percent of the total contract price. In each such instance, the nature of the work to be sublet shall be described. **All columns must be completed.**

<table>
<thead>
<tr>
<th>Subcontractor and Location</th>
<th>Type of Work or Trade Classification</th>
<th>Amount</th>
<th>License No.</th>
<th>Type of Business* (check one)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>SLBE</td>
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<tr>
<td>6.</td>
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</tbody>
</table>

*See the “Small Local Business Enterprise (SLBE)/Small Emerging Local Business Enterprise Program (SELBE)” document in this bid package for definitions and requirements.

**Signature**

Contractor Name: ________________________ Title: ______________________________

Authorized Signature: ________________________ Date: ________________
Attachment 5

Peralta Community College District

BID BOND

Know all men by these presents, that we _____________________________________________ as principal, and ________________________________, as surety are firmly bound unto the Peralta Community College District (hereinafter "District"), in the penal sum of TEN PERCENT (10%) of the Total Amount of the Bid of the Principal submitted to the said DISTRICT for the work described below for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by the presents.

The condition of this obligation is such that whereas the Principal has submitted the accompanying bid dated ___________________________________, for ____________________________

________________________________________________________________________________________

________________________________________________________________________________________

Now, therefore, if the Principal shall not withdraw said bid within the period specified therein after the opening of the same, or if no period be specified within sixty (60) calendar days after said opening; and if the Principal is awarded the contract and shall within the period specified thereafter, or, if no period be specified, within five (5) calendar days after the prescribed forms are presented to him or her for signature, enter into a written contract with DISTRICT, in accordance with the bid as accepted or fail to give bond with good and sufficient surety or sureties as may be required, for the faithful performance and proper fulfillment of such contract and for the payment for labor and materials used for the performance of the work of installation under the contract, or in the event of the withdrawal of said bid within the period specified or the failure to enter into such contract and give such bonds within the time specified, if the Principal shall pay DISTRICT the difference between the amount specified in said bid and the amount for which DISTRICT may procure the required work and/or supplies, if the latter amount be in excess of the former, together with all costs incurred by DISTRICT in again calling for bids, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the term of the contract on the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same shall in anywise affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of said contract or the call for bids, or to the work, or to the specifications.

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

In witness whereof the above-bounded Parties have executed this instrument under their several seals this day of ______________________, the name and corporate seal of each corporate Party being hereunder affixed and these presents duly signed by its undersigned representative, pursuant to the authority of its governing body.

(Corporate Seal)

Principal

By ______________________________________

Title ______________________________________

(Corporate Seal)

Surety

By ______________________________________

Title ______________________________________

Attach Attorney-In-Fact Certificate

By ______________________________________

Title ______________________________________

(To be signed by Principal and Surety and Acknowledgment And Notary Seal to be Attached.)
Peralta Community College District

NON-COLLUSION AFFIDAVIT
(To be executed by bidder and submitted with bid)

Bid No.:11-12/24: District-Wide Drinking Fountain Project
(Project # 2727)

State of California, County of _____________

(Name) ____________________________________________, being first duly sworn, deposes and says that he or she is (title)______________________ of (company)____________________________ 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, 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 that the foregoing is true and correct.

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

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

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

Definitions:

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

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

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

Geographic Location Requirements:

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

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

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

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

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

2. The Subcontractors must provide a Commercially Useful Function.

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

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

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

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

SLBE/ SELBE SELF CERTIFICATION AFFIDAVIT

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

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

1. I acknowledge and am hereby advised that upon a finding of perjury with the claims made in this self certification affidavit the District is authorized to impose penalties which may include any of the following:

   a) Refusal to certify the award of a contract
   b) Suspension of a contract
   c) Withholding of funds
   d) Revision of a contract for material breach of contract
   e) Disqualification of my firm from eligibility for providing goods and services to the Peralta Community College District for a period not to exceed five (5) years

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

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

Bid Number: ________________ Bid Name: ____________________________________

Signed ___________________________ Date ___________________________

Printed or typed name ___________________________ Title ___________________________

Name of Company ___________________________ Telephone ___________________________ Fax ___________________________

Attachment 8
Peralta Community College District

VENDOR’S QUESTIONNAIRE AND CERTIFICATE BY COMPLIANCE

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

Date

Firm Name ______________________ Telephone ______________________

Business Fax ______________________ Email Address ______________________ Website ______________________

Street Address ______________________ City/State ______________________ Zip Code+ 4® ______________________

Mailing Address ______________________ City/State ______________________ Zip Code + 4® ______________________

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

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

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

Local Address ______________________

Amount of Annual Business ______________________

The District is identifying vendor ownership as follows:

<table>
<thead>
<tr>
<th></th>
<th>Asian-American (Chinese, Japanese, Korean, Vietnamese)</th>
<th>Black or African-American</th>
<th>Filipino</th>
<th>Latino (other than Mexican or Mexican-American)</th>
<th>Mexican or Mexican-American</th>
<th>Native-American</th>
<th>Pacific Islander, other Asian</th>
<th>White</th>
<th>Disabled</th>
<th>Veteran</th>
<th>Women</th>
<th>Subcontractor</th>
<th>Employee</th>
<th>Apprentice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total #</td>
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</tbody>
</table>

The District is identifying vendor workforce as follows:

<table>
<thead>
<tr>
<th></th>
<th>Asian-American (Chinese, Japanese, Korean, Vietnamese)</th>
<th>Black or African-American</th>
<th>Filipino</th>
<th>Latino (other than Mexican or Mexican-American)</th>
<th>Mexican or Mexican-American</th>
<th>Native-American</th>
<th>Pacific Islander, other Asian</th>
<th>White</th>
<th>Disabled</th>
<th>Veteran</th>
<th>Women</th>
<th>Subcontractor</th>
<th>Employee</th>
<th>Apprentice</th>
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<td>Total #</td>
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</table>
Explain whether current workforce is racially and ethnically proportionate to the area from which the workforce is drawn (national, state, or local). Use separate sheet if necessary.

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

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

Main Headquarters Office(s)  
Address/Telephone  
(List all as applicable)  
1.  
2.  
3.  
Total # of Employees _____

Local Office(s) Address/Telephone  
(List all as applicable)  
1.  
2.  
3.  
Total # of Employees _____

Name and list residential zip code for each employee, subcontractor, or apprentice for awarded contract  
(Please use the Zip+4®)  
Use separate sheet as necessary  
1.  
2.  
3.  
4.  
5.  
6.
ENVIRONMENTALLY SUSTAINABLE PROCUREMENT--CONSTRUCTION

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

For Operation and Construction services the District is committed to:

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

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

**Signature**

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

Contractor Name: _______________________  Title: _______________________________

Authorized Signature: ________________________________  Date: ________________
CERTIFICATE REGARDING WORKERS' COMPENSATION

Labor Code Section 3700 in relevant part provides:

"Every employer except the State shall secure the payment of compensation in one or more of the following ways:

(a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.

(b) Be securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees."

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

____________________________
Contractor

By: ____________________________

(In accordance with Article 5 [commencing at Section 1860], Chapter 1, Part 7, Division 2 of the Labor Code, the above certificate must be signed and filed with the awarding body prior to performing any work under this Contract.)
Statement of Equal Employment Opportunity

I hereby certify that ____________________________________________________________

(Legal Name of Vendor/Consultant/Contractor)

Will not discriminate against any employee or applicant for employment because of race,
creed, sex, color or national origin and shall insure compliance with all provisions of
Executive Order No. 11246 (as amended by Executive order No.11375).

The vendor’s questionnaire requests information for record keeping purposes only. The
information requested will not be used as a basis for contract award.

However, after a contract is awarded to your company, the District requires your company to report:

   a. Actual racial, gender and residential workforce composition of your company for the
contract work.
   b. Actual racial, gender and residential workforce composition of subcontractors for the
contract work.
   c. Number of apprenticeship workforce for the contract work.

This report must be submitted to the District Department of General Services on a quarterly
basis.

I declare under penalty of perjury under the laws of the state of California that the information
I have provided herein is true and correct and is of my own personal knowledge.

BY: __________________________________________ Date

______________________________________________
Print Name
PERFORMANCE BOND

Know all men by these presents, that

WHEREAS, Peralta Community College District (hereinafter DISTRICT), at a regular Business Meeting on ______________________, have awarded to ______________________________, hereinafter designated as the Principal, a contract for ____________________________________________

_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________

and

_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________
_____________________________________________________________________________________________

WHEREAS, said Principal is required under the terms of said contract to furnish a bond for the faithful performance of said contract;

NOW, THEREFORE, We, the Principal and ____________________________________________________________________________, as Surety, are held and firmly bound unto the Peralta Community College District, hereinafter called the DISTRICT, in the penal sum of ____________________________________________________________________________

_____________________________________________________________________________________________

The condition of the obligation is such, that if the above bounden Principal, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the said contract and any alteration thereof made as therein provided, on his or their parts to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless DISTRICT, its officers and agents, as therein stipulated, then this obligation shall become null and void. Otherwise it shall be and remain in full force, virtue, and effect.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the specifications accompanying the same shall in any wise affect its obligations on this bond, it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

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

Surety further agrees that death of the Contractor shall not relieve the surety of its obligations hereunder.

In witness whereof, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named on the ________ day of ______________________, 20__.
PAYMENT BOND

Know all men by these presents: that

WHEREAS, Peralta Community College District (hereinafter “DISTRICT”) and

hereinafter designated as the "Principal", have entered into a contract for the furnishing of all materials, labor services and transportation necessary, convenient, and proper which said Agreement dated and all of the contract documents attached to or forming a part of said Agreement, are hereby referred to and made a part hereof, and

WHEREAS, pursuant to law, the Principal is required before entering upon the performance of the work, to file a good and sufficient bond with the body by whom the contract is awarded, Sections 3247 to 3252, inclusive, of the Civil Code of California.

NOW, therefore, these presents witnesseth:
That the said Principal and the undersigned __________________________________________
____________________________, as corporate surety, are held and firmly bound unto all laborers, materialmen, and other persons referred to in said statutes in the sum of ______________________
_________________________________________________ DOLLARS ($ _________________), lawful money of the United States, by the terms of said contract, for the payment of which sum will and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally by these presents.

The condition of this obligation is that if the said Principal or any of his or its subcontractors, or the heirs, executors, administrators, successors, or assigns of any, all or either of them shall fail to pay for any materials, provision, provendor or other supplies or teams used in, upon, for, or about the performance of the work contracted to be done, or for any work or labor hereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, or for any of the persons named in Section 3181 of the California Civil Code, or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from the wages of employees of the Principal or any of his or its subcontractors pursuant to Section 18806 of the Revenue and Taxation Code with respect to such work or labor, that said Surety will pay the same in amount not exceeding the amount hereinabove set forth, and also, in case suit is brought upon this bond, will pay reasonable attorneys’ fees to be awarded and fixed by the court and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under Section 3181 of the California Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

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

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of said contract or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

In witness whereof, this instrument has been duly executed by the Principal and Surety this ______________________ day of ____________________.

(To be signed by Principal and Surety and acknowledgment and notary seal to be attached.)

PRINCIPAL
By _____________________________________________
TITLE __________________________________________

SURETY

By _____________________________________________
TITLE __________________________________________

The above bond is accepted and approved this
day of __________________, 20__. 

By ______________________________________________
Authorized District Signature

Required attachment: County Clerk’s Certificate pursuant to CCP section 995.640 or confirming information from Department of Insurance website within seven days before contract submittal
Peralta Community College District

CONTRACT

THIS CONTRACT is made by and between the Peralta Community College District, hereinafter called the District, and _______________________________, hereinafter called the Contractor.

The District and the Contractor hereby agree as follows:

1. **Description of Work**

   The Contractor agrees to furnish all labor, materials, equipment, plant, tools, supervision, appurtenances, and services, including transportation and utilities, required to perform and complete

   ____________________________________________
   ____________________________________________
   ____________________________________________

   The Contract Documents consist of the Contract, any Amendment to Contract, Technical Specifications and Drawings, Supplementary General Conditions, General Conditions, Instructions to Bidders, Notice Inviting Bids, Bid Form, all addenda, completed bond and insurance forms, completed Bidder's Questionnaire, and

   ____________________________________________
   ____________________________________________
   ____________________________________________

   All Contract Documents are intended to coordinate so that any work called for in one document and not mentioned in another document is to be executed as if mentioned in all documents.

2. **Compensation**

   As full compensation for the Contractor's complete performance of the work in this Contract, the District agrees to pay the Contractor, and the Contractor agrees to accept the sum of ______________________ which shall be paid to him according to the General Conditions Article on "Payments".

3. **Prevailing Wages**

   As required by Labor Code Section 1773.2, the District has in its office the general prevailing rate of per diem wages for workers employed on public works as determined by the Director of Industrial Relations. This document shall be available to any interested party on request during regular business hours and shall be posted at the job site by the Contractor.

4. **Time for Completion**

   The starting date of the Contract shall be the day listed by the District in the Notice to Proceed and the Contractor shall fully complete all the work before the expiration of __________ (See the Invitation for Bid cover page for Project Duration) _______ calendar days from said starting date.

   Time is of the essence in the performance of this Contract.

   Liquidated damages for Contractor's failure to complete the Contract within the time fixed for completion are established in the amount of ______ (See the Invitation for Bid cover page for Liquidated Damages figure) ______ per calendar day.
5. Contractors' State License Board

Contractors are required by law to be licensed and regulated by the Contractors' State License Board. Any questions concerning a contractor may be referred to the Registrar, Contractors' State License Board, P. O. Box 26000, Sacramento, California 95826.

IN WITNESS WHEREOF, the parties to these present have set their hands hereto on the day and year written below.

___________________________________ _____________________________________
District                                      Contractor

Resolution No. ________________
_____________________________________
(Contractor License No. and Expiration Date)

Date                                                                                   By _______________________________
                                                                                       Individual Signature
Title                                                                                   Date

Approved As to Form

By: _____________________________ For: _________________________________
   Legal Counsel                                                                 Corporation or Partnership
   _______________________________
   Date                                                                                      If Corporation, Seal Below.
Bid Protest Procedures

Any Bidder submitting a Bid Proposal to the District may file a protest provided that each and all of the following are complied with:

(i) The bid protest is relevant and in writing;

(ii) The bid protest is filed and received by the District’s Purchasing Manager not more than five (5) calendar days following the date of the bid opening;

(iii) The written bid protest sets forth, in detail, all grounds for the bid protest, including without limitation all facts, supporting documentation, legal authorities and argument in support of the grounds for the bid protest; any matters not set forth in the written bid protest shall be deemed waived. All factual contentions must be supported by competent, admissible and creditable evidence.

Any bid protest not conforming to the foregoing shall be rejected by the District without recourse.

Provided that a bid protest is filed in strict conformity with the foregoing, the District’s Vice Chancellor of General Services or such individual(s) as may be designated by him/her, shall review and evaluate the basis of the bid protest and make a determination.

If the determination is unacceptable to the bid protestor, the Chancellor shall review and evaluate the basis of the bid protest and make a secondary determination.

If the bid protestor chooses to appeal the Chancellor’s determination, the District’s Board of Trustees will render a final determination and disposition of a bid protest by taking action to adopt, modify or reject the disposition of a bid protest. Action by the District’s Board of Trustees relative to a bid protest shall be final and not subject to appeal or reconsideration by the District, any employee or officer of the District or the District’s Board of Trustees.

In the event that any legal or equitable proceedings are instituted and the District is named as a party thereto, the prevailing party(ies) shall recover from the other party(ies), as cost, all attorneys’ fees and cost incurred in connection with any such proceeding, including any appeal arising there from.
The District is committed to Environmental Sustainability as a matter of public policy and to the greatest extent possible reducing its ecological footprint. The District encourages all contractors to re-use and recycle as much construction and demolition debris as possible, and only when it is not feasible to do so, dispose of it in a landfill. Per State Law AB75, on an annual basis the District is required to report all re-use, recycle, and garbage disposal tonnage to the State of California.

As a condition for the completion of the construction project, the contractor must report all re-use, recycling, and disposal of construction materials at the completion of the project (or annually by January 31st of the following year if the project’s completion is more than one calendar year). The contractor may use the below form to report to the District all construction debris off-hauled from the District’s construction site, or may submit the below required information on the contractor’s letterhead. This form must be submitted by January 31st to the District at: Peralta Community College District, Department of General Services, 333 East 8th Street, Oakland, CA, 94606, Attention Facilities Project Coordinator

**Construction Debris Reporting for: January 1, 20____ to December 31, 20____.**

<table>
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<tr>
<th>Material Type</th>
<th>Re-use (Tons)</th>
<th>Recycle (Tons)</th>
<th>Garbage Disposal (Tons)</th>
<th>Proposed Destination</th>
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<td>Example: Concrete</td>
<td>45</td>
<td></td>
<td>ABC Concrete Recycling Company</td>
<td></td>
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I declare under penalty of perjury under the laws of the State of California that the above information is true and correct.

Signed ____________________________ Date ____________________________

Printed or Typed Name ____________________________ Title ____________________________

Name of Contractor ____________________________ Telephone ____________________________ Fax ____________________________

Attachment 17
Peralta Community College District

Construction Protocol Procedures

Director of Physical Plant:
1. Notify College Business Officer (in writing) at least 2 weeks in advance of any work to be done on campus, including dates, times, locations of work; provide name and cell phone # of project manager.

2. Receive from College Business Officer (in writing) a list of concerns, issues, problems that need to be addressed/taken into account as well as a list of faculty members and departments that will be affected by affected by each project.

3. Collect/withhold an indemnity amount from the contractor for unanticipated cleaning costs, repairs, and replacement of any furniture, equipment, tools, etc. lost, damaged, or destroyed as a result of construction.

4. Direct the Project Manager to personally meet wit the College Business Officer and faculty involved/affected with each project and sign-off on plan of operations.

5. Notify the faculty (in writing) that it is not their responsibility to clean, store, remove, replace, any equipment, furniture, tools, etc.

College Business Officer:
1. Notify the faculty (in Writing) of any construction projects (including dates, times, locations) that will take place in their area.

2. Meet with the faculty to gather their concerns, issues, problems, and convey those (in writing) to the Vice Chancellor of General Services and the Project Manager; also convene a meeting with the Project Manager to convey these concerns in person.

3. Notify (in writing) the appropriate Dean(s) and the VP of Instruction of any needs to find alternate space for storage, equipment, furniture, tools, classrooms.

4. Notify (in writing) Locals 790 and 39 of the impending project and the need to remove, store, replace, protect, and clean as well as whatever is needed in the way of establishing alternate workspaces.

5. Convey all of the above information to the Director of Physical Plant and the Project Manager.

Project Manager:
1. Needs to meet on campus, on site, with the affected faculty to be sure all of the college’s concerns have been addressed, understood, and agreed to in a written plan of operations; the written plan should be given to the contractor and the Vice Chancellor of General Services.

2. No project should begin without a written plan that has not been signed by the VP of Instruction, Academic Dean, College Business Officer, Faculty/Department Chair(s), Project Manager, Contractor, and Director of Capital Projects.
PART 1 - GENERAL

1.01 SUMMARY

A. The contractor is responsible for daily cleanup and a final cleaning prior to occupancy. This section only addresses the final cleaning required prior to punchlisting and occupancy.

B. Cleaning Program:
   1. The cleaning program shall include all construction areas and surrounding areas affected by the construction including site, exteriors of buildings / structures, roofs and interior of buildings.
   2. The areas to be cleaned shall be turned over to the owner in a "move-in" condition.
   3. All areas shall be free of all construction materials, dust, debris, markings and dirt.
   4. All surfaces shall be washed, cleaned and cleared of markings.
   5. All existing and new fixtures shall be cleaned, sanitized and ready for use.
   6. All new and existing hard surface floors will be stripped and waxed.

1.02 PROJECT CONDITIONS

A. Environmental Requirements: Conduct cleaning and waste-disposal operations in compliance with PCCD Construction Debris Reporting Requirements.

B. Comply fully with Federal and local environmental and antipollution regulations.
   1. Do not dispose of volatile wastes, such as mineral spirits, oil, or paint thinner, in storm or sanitary drains.
   2. Burning or burying of debris, rubbish, or other waste material on the premises is not permitted.

PART 2 - PRODUCTS

2.01 MATERIALS AND METHODS

A. Use cleaning materials and methods which will not create hazards to health or property or cause damage to products and which are recommended by manufacturers of products to be cleaned.

PART 3 - EXECUTION

3.01 FINAL CLEANING

A. General: Provide final cleaning operations. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of Work to the condition expected from a commercial building cleaning and maintenance program. Comply with manufacturer's instructions.

B. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for the entire Project or a portion of the Project.
   1. Clean the Project Site, yard and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and foreign substances.
   2. Sweep paved areas broom clean. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
   3. Remove petrochemical spills, stains, and other foreign deposits.
   4. Remove tools, construction equipment, machinery, and surplus material from the site.
5. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.

6. All walls not newly painted shall be washed to clean readily removable dirt, markings, dust, and grime.

7. Remove debris and surface dust from limited access spaces, including roofs, attics and similar spaces.

8. All existing floors shall be thoroughly stripped of old wax and have at least four (4) coats of a combination wax/sealer, or two (2) coats of sealer and four (4) coats of wax. Contractor shall submit for prior approval manufactures information on floor finish to be applied. All new floors shall have their factory seal stripped off and shall have a floor finish applied according to the recommendations of the manufacturer.

9. New carpeted areas shall be thoroughly vacuumed, including edges. Any spotting during construction shall be removed. Existing carpeted areas shall be thoroughly shampooed.

10. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces. Clean interior and exterior of all windows.

11. Clean all Toilet Rooms thoroughly and sanitized. All wall surfaces shall be free of grime, dirt, dust, markings and graffiti. All mirrors, fixtures, and partitions will be cleaned free of dirt and markings.

12. Scrub and seal all ceramic and terrazzo floors and walls.

13. Remove labels that are not permanent labels.

14. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.

15. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.

16. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.

17. Replace disposable air filters and clean permanent air filters. Clean all exposed surfaces of diffusers, registers, and grilles.

18. Clean ducts, blowers, and coils if units were operated without filters during construction.

19. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned out bulbs; defective and noisy starters in fluorescent fixtures, and defective dimming switches.

20. Leave the Project clean and ready for occupancy.

C. Removal of Protection: Remove temporary protection and facilities installed during construction to protect previously completed installations during the remainder of the construction period. Repair any damage from removal.

D. Compliances: Comply with governing regulations and safety standards for cleaning operations. Remove waste materials from the site and dispose of lawfully.

1. Where extra materials of value remain after completion of associated Work, they become the Owner's property. Dispose of these materials as directed by the Owner.

End of Section
DISTRICT PROJECT/CONSTRUCTION MANAGER
Name: 
Acting District Representative 
333 E. 8th Street 
Oakland, CA 94606 
510-______________ 

BIDDER:

I. INTRODUCTIONS:
A. Present _____________________ _______________________
   _____________________ _______________________
   _____________________ _______________________
   _____________________ _______________________

II. PROPOSED CONTRACT:
ADDENDUM NO. 

III. PURPOSE OF INTERVIEW IS TO ASSURE:
A. Contractor acknowledgment of a complete and accurate bid.
B. Contractor submission of a fair and equitable bid.
C. Fair comparisons of bid.

IV. CONTRACTUAL REQUIREMENTS:
A. Do you understand you are a prime contractor? Yes ☐ No ☐
B. Can you meet the specified insurance requirement listed in the General Conditions Section for GL, WC, Auto and Builders Risk (contract amount)? Yes ☐ No ☐
C. Are you a union company? Yes ☐ No ☐
D. Are you a SLBE or SELBE? Yes ☐ No ☐
   If so in what county, city, state __________________________________________________
E. Are any of your subtier contractors SLBE or SELBE? Yes ☐ No ☐
   If so in what county, city, state __________________________________________________
F. You are required to obtain a Performance, and a Labor and Material Bond for 100% of the Contract price
   1. Will you provide bonds as stipulated? Yes ☐ No ☐
   2. Cost for bond: ________ % Yes ☐ No ☐
   3. Is your insurance company California licensed? Yes ☐ No ☐
J. Acknowledged Receipt of Addenda Number _______________________
K. Acknowledged Receipt of Pre-Bid Clarification Questions Yes ☐ No ☐
L. Additive and deductive costs for alternate items included in your proposal? Yes ☐ No ☐
M. Unit pricing and Allowances included in your proposal? Yes ☐ No ☐

Who in your office is in charge of submitting the required Insurance and Bonds
V. SCOPE OF WORK:

A. You have a complete understanding of your Scope of Work under the proposed Agreement and the Scope of Work (attached) Yes□ No□

B. You are required to have the following personnel:
   1. Safety Coordinator with sole responsibility to coordinate, report and enforce safety Yes□ No□
   2. Scheduling personnel or independent scheduler Yes□ No□
   3. Custodial cleanup services besides base-bid final cleaning Yes□ No□
   4. Commissioning Coordinator (to be brought in at the start of construction to the final completion) Yes□ No□
   5. Independent Testing and Balancing Contractor for HVAC Yes□ No□
   6. Independent Contractor for Indoor Air Quality Testing Yes□ No□
   7. Certified Arborist Yes□ No□

C. You have re-reviewed the documents and understand the Scope of the Work. Are there any items that need to be identified or require clarification? Yes□ No□

   If yes, please identify item.

   1. ______________________________________________________________
   2. ______________________________________________________________
   3. ______________________________________________________________
   4. ______________________________________________________________

   Is (are) the cost(s) for items listed above included in your proposal items? Yes □ No □

C. Review bid alternatives (if applicable) Yes□ No□

D. Review unit pricing Yes□ No□

E. Review allowances Yes□ No□

F. Are you offering any unsolicited alternates? Yes □ No □

   1. ______________________________________________________________
   2. ______________________________________________________________
   3. ______________________________________________________________

G. Are the plans and specifications clear and understandable to your satisfaction? Yes □ No □
VI. VALUE ENGINEERING: (describe)  

BASE BID: $ _______________

1. ____________________________________________________________________ Add / Deduct

2. ____________________________________________________________________ Add / Deduct

__________________________________________________________________________

REVISED TOTAL $ _______________

VII. SCHEDULE:

A. Do you acknowledge and agree to the stipulated completion dates and milestones in the Contract?  
   Yes☐  No☐

1. Will you provide a detailed construction schedule at the Preconstruction Conference per Section 01320 per the Contract?  
   Yes☐  No☐

2. It is understood the Project schedule is critical. Can you accelerate any and all schedule activities if the requirement occurs?  
   Yes☐  No☐

   If not, what must change and why? _____________________________
   ____________________________________________________________________
   ____________________________________________________________________

B. Identify critical materials, deliveries and dependencies, including Owner Furnished items that could affect the completion of your work.

1. ____________________________________________________________________

2. ____________________________________________________________________

3. ____________________________________________________________________

C. You have reviewed the Contract and you understand your work must be completed in accordance with the Project Schedule. You further understand Construction Manager MAY assess liquidated damages if you fail to meet the Master Schedule requirements. You further understand delays by you may cause other contractors to be delayed, and that you WILL accelerate your work upon written direction by the Construction Manager.

VIII. CONTRACTOR COMMENTS / SUGGESTIONS:

1. ____________________________________________________________________

2. ____________________________________________________________________
3. ______________________________________________________________________

IX. CONTRACTOR

NOTE: You agree the information contained herein is part of your contractual obligations. Your signature acknowledges your agreement to perform all work discussed herein, and that costs for all work are included in your proposal.

The foregoing information is true and accurate, and I am authorized to sign as an officer of the company I am representing.

Company Name ______________________________________________________________

Signature: ___________________________  Title: _____________

Date: ________________________________

X. DISTRICT PROJECT/CONSTRUCTION MANAGER

Signature: ___________________________  Title: _____________

Date: ________________________________

END OF SECTION
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ARTICLE 1 - GENERAL PROVISIONS

1.01 THE CONTRACT DOCUMENTS

A. The Contract Documents consist of the Bid Documents (as defined in the Instructions to Bidders), Agreement, and Conditions of the Contract, Drawings, Specifications, Addenda, other documents listed in the Agreement, and Modifications issued after execution of the Contract. The Conditions of the Contract include these General Conditions and related documents.

B. Where provisions of the General Conditions relate to Project administration of work-related requirements of the Contract, some of those paragraphs are expanded in Division 1 - General Requirements of the Specifications.

C. Bidding Documents, Conditions of the Contract, and Division 1 - General Requirements contain information necessary for completion of every part of the Project and are applicable to each Section of the Specifications.

1. Where items of Work are done under subcontracts, each item shall be subject to these conditions.

1.02 THE CONTRACT

A. The Contract Documents form the Contract for Construction. 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 executed by the parties hereto.

B. The Contractor's signing of the Contract signifies its acceptance of the time limits as being sufficient for completion of the Work, as well as acceptance of the other terms and conditions of the Contract Documents.

1.03 BASIC DEFINITIONS OF TERMS USED IN THE CONTRACT DOCUMENTS

A. Basic Definitions of Terms Used in the Contract Documents:

1. Addenda: Written or graphic instruments issued prior to the opening of Bids which make changes, additions or deletions to the Bid Documents or the Contract Documents.

2. Accepted, Approved: Accepted or approved, or satisfactory for the Work, as determined in writing by the District, unless otherwise specified. Where used in conjunction with the District's response to submittals, requests, applications, inquiries, and reports by the Contractor, the term "approved" shall be held to limitations of the District's responsibilities and duties as specified in the Conditions of the Contract. In no case shall the District's approval be interpreted as a release of the Contractor from its responsibilities to fulfill the requirements of the Contract Documents.

3. Approved Equal, Accepted Equal: Approved in writing by the District as being of equivalent quality, utility and appearance. Equivalent means equality in the opinion of the authorized District representative. The burden of proof of equality is the responsibility of the Contractor.

4. Agreement: The Agreement or Contract between the District and the Contractor covering the Work to be performed; other Contract Documents are attached to the Agreement and made part thereof as provided herein.
5. Architect: The person holding a valid state Architect's license, Whose firm has been designated within the Contract Documents as the Architect of Record to provide architectural services on this Project.

6. As Required: In accordance with the requirements of the Contract Documents.

7. By Others: Work on this Project that is outside the scope of Work to be performed by the Contractor under this Contract, but that will be performed by the District or other contractors, or other means or at other expense.

8. PCCD: Peralta Community College District, Owner, District.

9. Change Order: A written instrument prepared by the District and signed by the District and the Contractor, stating their agreement upon all of the following (1) a change in the Work; (2) the amount of the adjustment in the Contract Sum, if any; and (3) the extent of the adjustment in the Contract Time, if any, issued after the effective date of the Agreement.

10. Clarification: A document consisting of supplementary details, instructions or information issued by the District which clarifies or supplements the Contract Documents and becomes a part of the Contract Documents. Clarifications do not constitute a change in Contract Sum or an extension of Time except as otherwise approved by the District. Clarifications will be issued through the Request for Information (RFI) administrative system.

11. Concealed: Work not exposed to view in the finished Work, including within or behind various construction elements.

12. Construction Manager: An independent consultant hired by the District to monitor, manage the construction work on behalf of the District.

13. Contract: The legally binding agreement between the Owner and the Contractor, wherein the Contractor agrees to furnish the labor, materials, equipment, plant and appurtenances required to perform the work described in the Contract Documents, and the Owner agrees to pay the Contractor for such work.


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

16. Contractor: The person or entity holding a valid Contractor's License in the state of California with whom the District has executed the Agreement and is identified as such therein and referred to throughout the Contract Documents as if singular in number and neuter in gender. The term "Contractor" means the Contractor or its authorized representative.

17. Day: Calendar day, of 24 hours, measured from midnight to the next midnight, unless otherwise specifically stipulated.

18. Defective Work: Work that is unsatisfactory, faulty, or deficient, that does not conform to the Contract Documents or the general standards of workmanship of the particular industry or trade; that fails to perform to the reasonable expectation of the ultimate user, or that does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents; or work that has been damaged prior to the filing of the Notice of Completion by the District.
19. Delivery: In reference to any item specified or indicated shall mean to unload and store with proper protection at the Project site.

20. Designated, Determined, Directed: Required by the District, unless otherwise specified.

21. District: The Peralta Community College District, its Board of Trustees, and its Chancellor.

22. District-Furnished, Contractor-Installed: Items furnished and paid for by the District for installation by the Contractor pursuant to the Contract Documents.

23. Drawings: The graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams.

24. Effective Date of the Agreement: The date indicated in the agreement on which it was executed, but if no such date is indicated it shall mean the date on which the agreement is signed and delivered by the last of the two parties to sign and deliver.

25. Exposed: Work exposed to view in the finished Work, including behind louvers, grilles, registers and various other construction elements.

26. Furnish or Supply: Purchase and deliver to the Project site, including proper storage only; no installation is included. The term “furnish” also means to supply and deliver to the Project site.

27. Indicated or As Shown: Shown or noted on the Drawings or written in the Specifications, whichever is more restrictive.

28. Inspector of Record: The person responsible for inspection of the work during fabrication and construction. Acts under the direction of the Architect but is responsible to the District and the Division of the State Architect, Structural Safety Section.

29. Install: Apply, connect or erect items that have been furnished; furnishing or supplying is not included. The term "install" also describes operations at the Project site, including the actual unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

30. Installer: The "installer" is the person engaged by the Contractor, its subcontractor or sub-subcontractor for performance of a particular element of construction at the Project site, including installation, erection, application and similar required operations. It is a requirement that installers are experienced and licensed in the operations they are engaged to perform.

31. Modification: (a) A written amendment to the Contract signed by both parties, or (b) a written Change Order, or (c) a written order for a change in the Work (Unilateral Change Order and Force Account Change Order) issued by the District after the effective date of the Contract.

32. Notice to Proceed: The written notice issued by the District to the Contractor authorizing the Contractor to proceed with the Work and establishing the date of commencement of the Contract Time.

33. Notice of Completion: The legal document filed by the District, with the Division of the State Architect, after the Project has been fully completed as required by the contract documents.
34. Division of the State Architect (DSA): The enforcement arm of the Division of the State Architect, having jurisdiction over school building construction projects in lieu of the local building department.

35. Owner: The Peralta Community College District ("PCCD" also referred to herein as "District") identified as such in the Agreement and referred to throughout the Contract Documents as if singular in number. The term "Owner" means the District, its governing board, employees, and its authorized agents or representatives. Also referred to as "District."

36. Partial Occupancy: The stage in the progress of the Work when the District finds the Work or designated portion thereof sufficiently complete in accordance with the Contract Documents to occupy and utilize the Work for its intended use.

37. Progress Report: A periodic (monthly, weekly, etc.) report submitted by Contractor to Owner with progress payment invoices comparing actual work accomplished to the Project Schedule. See Section 9.03 F of the GENERAL CONDITIONS titled PROGRESS PAYMENT. All reports to be verified as per Sections 4-335, 4-336, 4-337 and 4-343 of PART 1 of Title 24 of the California Code of Regulations.

38. Project: The Peralta Community College District Project and adjacent areas as indicated elsewhere in the Contract Documents.

39. Project Completion: Project Completion shall be the date of such acceptance of the Work by the District, as provided under California Civil Code Section 3086, when the Contract has been performed, including all remedial (punch-list) items, and when all contractual requirements are fulfilled.

40. Provide: Furnish and install or supply and install complete in place at the site.

41. Punch List: A list of corrections, replacements, installations, or touch-ups prepared by the Architect with the assistance of the Inspector of Record and issued to the Contractor with the Notice of Substantial Completion.

42. Regular Working Hours: 7:00 a.m. to 5:30 p.m., Monday through Friday, except District legal holidays and as allowed in Division 1.

43. Request for Change (RFC): See paragraph 2.06A and 2.07.

44. Request for Information (RFI): A document prepared by the Contractor or District requesting information from one of the parties regarding the Project or Contract Documents. The RFI system is also a means for the District to submit Contract Document clarifications or supplements to the Contractor.

45. School Building: Any building used for community college purposes and built according to the California State Building Code containing the regulations of the Division of the State Architect, Division of the State Architect/Structural Safety Section covering the construction of public schools.

46. Site or Project Site: Geographical location of the Project as shown elsewhere in the Contract Documents.

47. Specifications: The written portion of the Contract Documents, which includes requirements for materials, equipment, construction systems, standards and workmanship for the Work, and performance of related services.

49. **Subcontractor**: A person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term “Subcontractor” is referred to throughout the Contract Documents as if singular in number and neuter in gender and means a Subcontractor or an authorized representative of the Subcontractor. The term “Subcontractor” does not include a separate contractor or subcontractors of a separate contractor.

50. **Substantial Completion**: The Work has progressed to the point where, as evidenced by the Certificate of Substantial Completion issued by the District, it is sufficiently complete in accordance with the Contract Documents as deemed by the District so that the entire Project could be occupied for the intended purpose and the Work utilized for its intended purpose.

51. **Work, The Work**: The excavation, construction and services required by the Contract Documents and provided to the Project site.

1.04 **EXECUTION, CORRELATION AND INTENT**

A. The intent of the Contract Documents is to include all labor and materials necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all; performance by the Contractor shall be required to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the intended results.

B. Arrangement and titles of Drawings, and organization of the Specifications into divisions, sections and articles in the Contract Documents shall not be construed as segregation of the various units of material and labor, and shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade. The Contractor may arrange and delegate its Work in conformance with trade practices and shall be responsible therefore. The District assumes no liability arising out of jurisdictional issues raised or claims advanced by trade organizations or other interested parties based on the arrangement or manner of subdivision of the content of the Drawings and Specifications. The District assumes no responsibility to act as arbiter to establish subcontract limits between any portions of the Work, but the District shall be promptly advised of obstacles encountered which might in any way affect the timely prosecution of the Work.

C. In interpreting the Contract Documents, words describing materials or Work with a well-known technical or trade meaning, unless otherwise specifically defined in the Contract Documents, shall be construed in accordance with such well-known meaning.

D. 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, the Contractor shall adapt such representative detail for application to such corresponding parts of the Work. The details of such adaptation shall be subject to prior approval by the District. Repetitive features shown in outline on the Drawings shall be in exact accordance with corresponding features completely shown.

E. If a conflict exists in the Contract Documents regarding the quality of a product, the highest quality product shall be provided as determined by the District.

F. The layout of mechanical and electrical systems, equipment, fixtures, piping, ductwork, conduit, specialty items, and accessories on the Drawings is shown in diagrams and symbols to illustrate the relationships existing between the parts of the Work, and all variations in alignment, elevation, and detail required to avoid interference and satisfy architectural and...
structural limitations are not necessarily shown. If rerouting, i.e. relocating a duct, pipe, conduit or similar utilities from the indicated room or space to another room or space to avoid structural interference, causes an increase in linear footage which exceeds 25% of the indicated rout if the structural interference did not exist, then the Contractor will be compensated for the amount in excess of 25% under the provisions for Change Orders of Article 7. Actual layout of the Work shall be carried out without affecting the architectural and structural integrity and limitations of the Work and shall be performed in such sequence and manner as to avoid conflicts; provide clear access to all control points, including valves, strainers, control devices, and specialty items of every nature related to such systems and equipment, said clear access defined as arms reach without required use of special equipment or the dismantling of building systems or equipment; obtain maximum headroom; and provide adequate clearances as required for operation and maintenance unless specifically detailed otherwise.

G. The Drawings shall not be scaled for dimensions when figured dimensions are given, dimensions could be calculated, or field measured. When a true dimension cannot be determined from the Drawings or field measurement, the Contractor shall request same from the District, giving reasonable advance notice, but not less than 30 calendar days, so as not to delay or disrupt the Work.

H. 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.

I. When there is a conflict between existing on-site conditions and the Drawings, the existing condition shall govern. The Contractor shall provide the Work and adjust to the existing condition at no additional cost to the District.

1.05 CONDITIONS AS TO SPECIFICATIONS AND DRAWINGS

A. Interpretation of Drawings and Specifications: The Contractor shall check Drawings furnished by District and shall promptly notify the District in writing of any discrepancies. Should any discrepancy appear or any misunderstanding arise as to the import of anything contained in the Drawings or Specifications, the matter shall be referred to the District, who shall decide the true meaning and intent of the Drawings or Specifications, and the District's decision shall be binding on the Contractor at no additional cost to the District. Suitable instructions will be given when any such discrepancy or misunderstanding is discovered.

B. Interpretation of Phrases: Wherever the words "as directed," "as permitted," or words to the like effect are used, it shall be understood that the direction, requirement, or permission of the District, or governmental regulatory agency having jurisdiction is intended. The words "sufficient," "necessary," "proper," and the like shall mean sufficient, necessary, or proper in the judgment of the authorized District representative. Wherever the words "inspect," "approved," "acceptable," "satisfactory," or words of like import are used to describe a requirement, direction, review, or judgment of the District as to the Work, it is intended that such requirement, direction, review, or judgment will be solely to observe and evaluate, in general, the completed work for compliance with the requirements of the Contract Documents, unless otherwise specifically stated and does not waive or alter the Contractor's responsibility for completion of the Work in compliance with the Project Documents.

C. Reasonably Implied Parts of Work Shall Be Done Though Absent From the Drawings or Specifications: Any part of the Work which is not mentioned in the Specifications but is shown on the Drawings, or any part not shown on the Drawings but described in the Specifications, but is necessary or normally required as a part of such Work, or is necessary or required to make each installation satisfactorily or legally operable, shall be performed by the
Contractor as incidental Work without extra cost to the District, as if fully described in the Contract Documents, and the expense thereof shall be included in the price bid.

1.06 AMENDING CONTRACT DOCUMENTS

A. The Contract Documents may be amended after execution of the Agreement to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:

1. A Change Order, or
2. A Unilateral Change Order, or
3. Force Account Change Order.

B. In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, in one or more of the following ways:

1. District’s written interpretation or clarification.
2. Architect’s supplemental instructions or notes added to shop drawings or samples.

1.07 PRECEDENCE OF DOCUMENTS

A. The Contract Documents are complementary and shall have no order or precedence. Anything mentioned in Specifications and not shown on Drawings, or shown on Drawings and not mentioned in Specifications, shall be of like effect as if shown or mentioned in both. In case of difference between Drawings and Specifications, if true intent is not obvious, the Contractor shall submit a Request for Information and a determination will be made by the District, as provided in Paragraph 1.05A hereinabove. Omissions from Drawings or Specifications or mis-description of details of work which are manifestly necessary to carry out the intent of Drawings and Specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or mis-described details of work; they shall be fully performed as if fully and correctly set forth and described in the Drawings and Specifications.

1.08 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS

A. The Contract Documents were prepared for use for the Work of this Contract only and are owned by the District. No part of the Contract Documents shall be used for any other construction or for any other purpose except with the written consent of the District. Any unauthorized use of the Contract Documents is at the sole liability of the user.

1.09 CONFERENCES AND MEETINGS:

A. See INVITATION FOR BIDS on whether a Pre-bid Conference will be held or not. The site may be inspected at the times noted in the INVITATION FOR BIDS. Where an appointment is shown as required, Bidders shall follow the procedure stated. Questions regarding the extent, nature, and details of the work shall be directed to Facilities Planning & Construction, PCCD.

B. Upon notification to the Contractor that he/she is the lowest responsible bidder, an itemized summary, known as the Schedule of Values, must be submitted during the Pre-construction Conference. The Schedule of Values must reflect the Original Bid.
C. The Contractor and/or his representative shall attend a conference at the Project Site at the beginning of construction for the purpose of determining Contractor's access to, and use of the site, verifying utilities, and such other items as may be pertinent to the start of construction.

D. Progress meetings will be held at the frequency, (typically weekly) day and time as determined by the Owner's representative for this project. The Contractor and each Subcontractor will attend these meetings to discuss current issues and coordination. Architect, consultants, and Inspectors may also be required to attend as needed. The purpose of these meetings is to provide a formal and regular forum for the project team to coordinate and present questions, problems and issues that need to be addressed. It will also provide an opportunity to review the progress on previous issues and action items along with submittal and schedule review.

E Special meetings may be requested by the Owner and may include any members of the project team.

F. Contractor shall give a minimum of 48 hours prior notice to Owner, through Architect on Construction Project before expected work completion. Meeting and walk-through to be scheduled at site, wherein an inspection of work shall be made by all parties concerned on construction, to determine completeness and conformity of the work to the Contract. Deficiencies observed and noted shall be given to the Contractor in writing and as per SECTION 9.07 A of the GENERAL CONDITIONS titled PROJECT COMPLETION AND FINAL PAYMENT, all deficiencies shall be corrected to the satisfaction of the Owner.

ARTICLE 2 - DISTRICT’S RESPONSIBILITIES

2.01 INFORMATION AND SERVICES REQUIRED OF THE DISTRICT

A. The District shall furnish surveys and reports describing physical characteristics, legal limitations for the site of the Project, and a legal description of the site.

B. The District shall provide for approval by the California Division of the State Architect and shall pay all permanent utility service connection fees. All other permits, easements, approvals, and other charges required for construction shall be secured and paid for by the Contractor.

1. The District will furnish to the Contractor an approved set of plans and specifications.

2. The District’s responsibility in respect of certain inspections, tests, and approvals is set forth in Paragraph 13.05.

C. The foregoing are in addition to other duties and responsibilities of the District enumerated herein in these General Conditions.

D. The Contractor will be furnished up to four (4) sets of Drawings and Specifications and one (1) reproducible set of Drawings and Specifications at no cost. The Contractor shall pay the reproduction costs of any additional sets required. Subsequent modifications, Change Orders, and Proposed Change Orders will be issued in the same manner.

2.02 DISTRICT’S RIGHT TO STOP THE WORK

A. The District may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated. Any District Stop Work Order shall be in writing, signed by an authorized District representative specifically so empowered by the District in writing.
B. However, the right of the District to stop the Work shall not give rise to a duty on the part of the District to exercise this right for the benefit of the Contractor or any other person or entity.

C. Reasons for Stop Work Order include, but are not limited to, the following:

1. If the Contractor fails to correct Work, which is not in accordance with the requirements of the Contract Documents.

2. If the Contractor fails to carry out Work in accordance with the Contract Documents.

3. If the Contractor disregards the authority of the authorized District representative.

4. If the Contractor disregards the Laws and Regulations of any public body having jurisdiction.

5. If the Contractor violates in any substantial way any provisions of the Contract Documents.

6. Failure to maintain current certificates of insurance on file with the District.

7. When original contract work is proceeding but will be modified by pending Contract Modification.

2.03 DISTRICT’S RIGHT TO CARRY OUT THE WORK

A. If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven-day period after receipt of written notice from the District to commence and continue correction of such default or neglect with diligence and promptness, the District may after such seven-day period give the Contractor a second written notice to correct such deficiencies within a second seven-day period. If the Contractor within such second seven-day period after receipt of such second notice fails to commence and continue to correct any deficiencies, the District may, without prejudice to other remedies the District may have, correct such deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the cost of correcting such deficiencies, including compensation for the District representative's additional services and expenses made necessary by such default, neglect or failure. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the District.

2.04 NO WAIVER OF RIGHT

A. Neither the inspection by the District or its authorized agents or representatives, nor any order or certificate for the payment of money, nor any payment for, nor Acceptance of the whole or any part of the Work by the District, nor any extension of time, nor any position taken by the District or its authorized agents or representatives shall operate as a waiver of any provision of this Contract, or of any power herein reserved by the District or any right to damage herein provided, nor shall any waiver of any breach of this Contract be held to be a waiver of any other or subsequent breach.

B. All remedies provided in this Contract shall be taken and construed as cumulative; that is, in addition to each and every other remedy herein provided; and the District shall have any and all equitable and legal remedies, which it would in any case have.

2.05 DISTRICT’S ADMINISTRATION OF THE CONTRACT
A. The District has designated the District Representative as its representative during construction. The designated authorized representatives of the General Services Office will have limited authority to act on behalf of the District. The District may at any time during the performance of this Contract, make changes in the authority of any representative or may designate additional representatives. These changes will be communicated to the Contractor in writing. The Contractor assumes all risks and consequences of performing the Contract in accordance with any order, including but not limited to instruction, direction, interpretation or determination, of anyone not authorized to issue such order.

B. The District will not have control over or charge of and will not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility. The District will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The District will not have control over or charge of and will not be responsible for the acts or omissions of the Contractor, Subcontractors, or their agents or employees, or of any other persons performing portions of the Work.

C. The District will review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data, Samples and other submittals, but only for the limited purpose of checking for general conformance with information given and the design concept expressed in the Contract Documents. The District's action will be taken with such reasonable promptness as to cause no delay in the Work or in the activities of the Contractor or separate contractors, while allowing sufficient time in the District Consultant's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The District's review of the Contractor's submittals shall not relieve the Contractor of its obligations under the Contract Documents. The District's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences or procedures. The District's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

D. Administration of construction per Title 24 shall include the following delineation of responsibilities: Duties of architect, structural engineer, or professional engineer per Section 4-341; Duties of contractor per Section 4-343; and Verified reports per Sections 4-336 and 4-343.

2.06 CLARIFICATION AND REQUEST FOR CHANGE (RFC) NOTIFICATION

A. If in the opinion of the Contractor, the Contract Documents are not sufficiently detailed or explained therein, or should any questions arise as to the meaning or intent of the Contract Documents, or should District's comments on submittals returned to the Contractor appear to change the requirements of the Contract, the Contractor shall request written clarification by submitting a Request for Information (i.e. RFI) within seven (7) calendar days of discovery. Should any clarification (e.g., response to the Contractor's RFI), in the opinion of the Contractor, exceed the requirements of the Contract Documents, a written notice in a form approved by the District (i.e. Request for Change) shall be given to the District, within seven (7) calendar days of receipt of the District's clarification, and before proceeding with the Work thereof. Non-receipt of such notice, or proceeding with Work pertaining to said notice shall be construed as relieving the District of any Request for Change or Claim for added cost or an extension of time arising there from.

2.07 RESOLUTION OF RFCs & CLAIMS

A. Request for Change
1. A Request for Change (RFC) is a document prepared by the Contractor to seek additional compensation and time from the District.

2. The Contractor and the District shall make good-faith attempts to resolve any and all RFCs that may arise during the performance of the Work of this Contract. Within seven (7) calendars of the written RFC to the District, the Contractor shall provide a written RFC narrative explaining its reasons for requesting additional compensation or time. The written RFC narrative shall reference all related schedule activities and contract specification sections and drawings directly pertaining to the RFC.

3. The District will review the Contractor's timely written RFC narrative, and provide a decision within thirty (30) calendar days after receipt of the Contractor's RFC written narrative. Unless otherwise directed by the District in writing, the Contractor shall diligently proceed with the Work in accordance with the District's decision.

B. Claim:

1. "Claim" means a written demand or written ascertain by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of Contract terms, or other relief arising under or relating to this Contract. A voucher, invoice, other routine request for payment, or an RFC submitted by the Contractor shall not be considered a claim under the Contract until it complies with the notification and documentation requirements of this Article. The Contractor hereby waives any evidentiary privilege, if any is applicable, that may attach to said claim and otherwise render it inadmissible as evidence in a court of law.

2. If, after receiving the District's decision in response to the Contractor's written RFC narrative, the Contractor still considers the Work required of it to be outside the requirements of the Contract Documents, it shall notify the District by submitting a written notice of potential claim within seven (7) calendar days after receiving the District's decision.

3. Within thirty days of receiving the District's decision in response to the Contractor's written RFC narrative, the Contractor shall submit a claim with all the documentation required by Article 2.07C and 2.07D. The Contractor hereby agrees that failure to provide written notice of potential claim to the District within seven (7) calendar days, and all required documentation within thirty (30) calendar days, will result in the Contractor waiving its right to additional compensation and time pertaining to said claim.

4. Upon receipt of the Contractor's claim and all documentation required by Article 2.07C and 2.07D, the District will review said claim and render a final decision in writing.

C. Certification:

1. The Contractor, under penalty of perjury, shall submit with the claim its and Subcontractors' certification that:

   a. The claim is made in good faith.

   b. Supporting data are accurate and complete to the best of the Contractor's and/or Subcontractor's knowledge and belief.

   c. The amount requested accurately reflects the Contract adjustment for which the Contractor believes the District is liable.

   d. That any privilege, if any is applicable, that would prevent the claim or its contents from being admitted as evidence in any judicial or quasi-judicial forum,
is waived by the contractor and any party involved in the presentation of the claim.

2. If the Contractor is an individual, the certification shall be executed by that individual.

3. 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.

4. If a false claim is submitted, it will be considered fraud and the Contractor will be subject to damages and criminal prosecution.

5. In regard to any claim or portion of a claim for Subcontractor work, the Contractor shall fully review said claim and certify said claim, under penalty of perjury, to have been made in good faith.

6. The Contractor hereby agrees that failure to furnish certification as required hereinbefore will result in the Contractor waiving its right to the subject claim.

D. Claim Format:

1. The Contractor shall submit the claim documentation in the following format:
   a. Summary of claim merit and quantum plus clause under which the claim is made.
   b. List of documents relating to claim:
      1) Specifications.
      2) Drawings.
      3) Clarifications/Requests for Information/Requests for Change.
      4) Schedules.
      5) Other.
   c. Chronology of events and correspondence.
   d. Analysis of claim merit.
   e. Analysis of claim cost.
   f. Cover letter and certification.
   g. Attachments:
      1) Specifications.
      2) Drawings.
      3) Clarifications/Requests for Information/Requests for Change.
      4) Correspondence.
      5) Schedules.
ARTICLE 3 - CONTRACTOR'S RESPONSIBILITIES

3.01 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS

A. The Contract Documents are diagrammatic and do not show every detail but show the purpose and intent only, and the Contractor shall comply with their true intent and meaning, taken as a whole, and shall not avail itself of any manifest error, omission, discrepancy or ambiguity which appear in the Contract Documents, instructions or work performed by others.

B. The Contractor shall verify all dimensions and determine all existing conditions that may affect its Work adequately in advance of the Work to allow for resolution of questions without delaying said Work, and shall be responsible for the accuracy of such dimensions and determinations.

C. Using a uniformly standard RFI form, the Contractor shall notify the District in writing immediately upon discovery of errors, omissions, discrepancies or ambiguities, and a clarification will be issued as to the procedure to be followed.

D. If the Contractor proceeds with any such Work without receiving such clarification, it shall be responsible for any and all resulting damage, including but not limited to that occasioned by delay, and defects.

E. The Contractor during the progress of the Work, shall review the appropriate portions of the Contract Documents a minimum of thirty (30) days, or as required to maintain progress of the Work, prior to commencement of the related Work for the expressed purposes of checking for any manifest errors, omissions, discrepancies or ambiguities. The Contractor shall not be entitled to any compensation for delays, disruptions, inefficiencies or additional administrative effort caused by the Contractor's untimely review of the Contract Documents.

F. The Contractor shall be responsible for its costs and the costs of its subcontractors to implement and administer a Request for Information (RFI) system throughout the Contract duration. Such costs shall include the distribution of RFIs to its subcontractors, subcontractor reviewing and posting of RFIs, and coordinating the clarification responses by its subcontractors. The Contractor shall be responsible for both the District and District's administrative costs for answering its RFIs where the answer could reasonably be found by reviewing the Contract Documents.

3.02 SUPERVISION AND CONSTRUCTION PROCEDURES

A. The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters.

B. The Contractor shall supervise and coordinate the Work of its subcontractors so that information required by one will be furnished by others involved in time for incorporation into the Work in the proper sequence and without delay of materials, devices, or provisions for future Work.

C. Whenever the Work of a subcontractor is dependent upon the Work of other subcontractors or contractors, then the Contractor shall require the subcontractor to:

1. Coordinate its Work with the dependent work.
2. Provide necessary dependent data and requirements.

3. Supply and/or install items to be built into dependent work of others.

4. Make provisions for dependent work of others.

5. Examine dependent drawings and specifications and submittals.

6. Examine previously placed dependent work.

7. Check and verify dependent dimensions of previously placed Work.

8. Notify Contractor of previously placed dependent work or dependent dimensions which are unsatisfactory or will prevent a satisfactory installation of its Work,

9. Not proceed with its Work until the unsatisfactory dependent conditions have been corrected.

D. The Contractor shall immediately comply with any and all orders and instructions given in accordance with the terms of this Contract by the District, but nothing herein contained shall be taken to relieve the Contractor of any of its obligations or liabilities under this Contract, or of performing its required detailed direction and supervision.

E. The Contractor shall at all times from the issuance of the Notice to Proceed until Project Completion of the herein specified Work and during the various guarantee periods, permit the District, its agents and authorized representatives to visit and inspect the Work, the materials and the manufacture and preparation of such materials and subject them to inspection and rejection if the Work does not conform to the requirements of the Contract Documents. This obligation shall include maintaining proper facilities and safe access for such inspection. Where the Contract requires Work to be tested and/or inspected, it shall not be covered up until inspection and approval by the District, and the Contractor shall be solely responsible for notifying the District at least two (2) working days prior to performing such Work, so that necessary arrangements for inspection and testing can be made. Should any such Work be covered without such test and approval, it shall be uncovered and recovered at the Contractor's expense, regardless of whether or not the Work is in conformance.

F. With the exception of emergency or safety measures, no work shall be performed on Saturday, Sunday or legal holiday. Should any work become necessary during that time period, the Contractor shall give notice to the District of such desire and request and obtain its written permission at least two (2) working days prior to performing such Work, or such other period as may be specified, so that the District may make the necessary arrangement for testing and inspection.

G. If either concealed conditions or unknown physical conditions of unusual nature (different materially from those ordinarily encountered and generally recognized as inherent in the Work) are encountered below the surface of the ground or concealed in existing construction and which affect the performance of the Work of this Contract, the Contractor shall immediately notify the District of such conditions. The Contractor shall also inform the District as to how such conditions affect its Work and shall also recommend methods to overcome such conditions. The Contractor shall then wait for instructions in writing from the District prior to proceeding with the affected Work.

H. If the Contractor is notified that a clarification is forthcoming from the District, any Work performed before the receipt of same shall be coordinated with the District to minimize the effect of the clarification on Work in progress. Any Work performed after notification but before receipt of clarification and not so coordinated shall be at the Contractor's risk.
I. Material, Work or workmanship which, in the opinion of the District, or its authorized representatives does not conform to the Contract Documents, or is not equal to the samples submitted to and approved by the District, or is in any way unsatisfactory or unsuited to the purpose for which it is intended, will be rejected. The Contractor shall bear the cost of correcting non-conforming Work. The Contractor shall make a close inspection of all materials as delivered, and shall promptly return all defective materials without waiting for their rejection by the District.

J. The Contractor shall remove all rejected material and Work, and all defective and non-conforming Work, from the site without delay. If the Contractor fails to remove such Work within forty-eight (48) hours after having been so directed by the District, the District may perform the removal and the cost of such removal shall be deducted from progress payments.

K. All defective and non-conforming Work discovered shall be corrected immediately by the Contractor, and any unsatisfactory materials shall be rejected, notwithstanding that they may have been overlooked by authorized inspection. Inspection of the Work shall not relieve the Contractor of any of its obligations to perform satisfactory Work as herein prescribed.

L. Failure or neglect on the part of the District or any of its authorized agents and/or representatives to condemn or reject defective and non-conforming Work or materials shall not be construed to imply acceptance of such Work or materials or waiver of any claim or right if it becomes evident at any time prior to Project Completion; neither shall it be construed as barring the District at any subsequent time from the recovery of damages or of such a sum of money as may be needed to build anew all portions of the Work in which fraud was practiced or improper materials or workmanship used whenever found.

M. The Contractor shall carry on the Work and adhere to the construction schedule required to be submitted under the requirements of the Contract Documents during all disputes or disagreements with the District. No work shall be delayed or postponed pending resolution of any disputes or disagreements, except as the District and the Contractor may otherwise agree in writing.

N. The Contractor shall make and submit to the Division of the State Architect such verified reports as required by California Code of Regulations, Title 21, Section 36, and Title 24 Sections 4-336 and 4-343

3.03 LABOR AND MATERIALS

A. The Contractor shall employ only competent and skillful persons to perform the Work, and whenever the District shall notify the Contractor that any employee on the Work is, in the District’s judgment, incompetent, unfaithful, disorderly or refuses to carry out the provisions of the Contract, such employee shall be removed from the Work.

B. In order that the District can determine whether the Contractor has complied or is complying with the requirements of the Contract, which are not readily enforceable by inspection, and test of the Work and materials, the Contractor shall upon request submit properly authenticated documents or other satisfactory proof of its compliance with such requirements.

C. Except in the event of emergency, no substantial field operations shall be performed outside regular working hours without prior notification to, and permission by, the District. Should the Contractor perform Work outside regular working hours, the District shall be compensated for all expenses in excess of those that would have been incurred had the work been performed during regular working hours. The Contractor will not be entitled to additional compensation for Work performed outside regular working hours except as otherwise expressly authorized in writing by the District prior to the performance of such overtime Work. Any additional
compensation for such authorized overtime shall be limited to the direct cost of the premium portion of such authorized overtime.

D. Before ordering materials, equipment, or performing Work, the Contractor shall verify indicated dimensions. If a discrepancy exists, the Contractor shall notify the District of same immediately. The District will then clarify the intended design. The Contractor shall take field measurements required for the proper fabrication and installation of the Work in a timely fashion in accordance with Article 3 herein. Upon commencement of any item of Work, the Contractor shall be responsible for dimensions related to such item of Work.

E. All materials and equipment shall be delivered, handled, stored, installed, and protected to prevent damage in accordance with best current practice in the industry, in accordance with manufacturers' specifications and recommendations, and in accordance with Contract Document requirements. The Contractor shall store packaged materials and equipment in their original and sealed containers, marked with the brand and manufacturer's name, until ready for use. The Contractor shall deliver materials and equipment in ample time to facilitate inspection and tests prior to installation. Damaged materials or equipment will be rejected.

F. Unless otherwise specified in the Contract Documents, the Contractor shall provide and assume full responsibility for all materials, equipment, labor, transportation, construction equipment, and machinery, tools, appliances, fuel, power, light, heat, telephone, water sanitary facilities and incidentals necessary for the provision, performance, testing, start-up, and completion of the Work.

3.04 WARRANTY

A. The Contractor warrants to the District that materials and equipment provided under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects and of the quality required or permitted, and that the Work will conform with the requirements of the Contract Documents.

B. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by District's abuse, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage.

C. If required by the District, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

3.05 TAXES

A. The Contractor shall pay sales, consumer, use and other taxes, which are applicable during the performance of the Work or portions thereof provided by the Contractor. Payment shall apply to all such taxes, whether or not in effect when Bids were received.

B. Federal excise tax is not applicable to the Work, products and services supplied under the Contract.

1. The Contractor will be issued an exemption certificate on request.

3.06 PERMITS, FEES AND NOTICES

A. The Contractor shall pay all utility charges for temporary connections to the Work.

B. Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for all permits (other than approval by the Division of the State Architect), governmental fees (other than permanent utility service connection fees), licenses, and inspections (other than
required and special inspections which are to be performed at the expense of the District to comply with prevailing laws and regulations) necessary for proper execution and completion of the Work.

1. The Contractor shall coordinate and obtain the permits.

2. The Contractor shall pay all temporary sewer connection fees under the provisions for Allowances in the General Requirements.

C. The Contractor shall comply with and give notices required by laws, ordinances, rules, regulations and lawful orders of public authorities bearing on performance of the Work.

D. If the Contractor observes that portions of the Contract Documents are at variance with applicable laws, statutes, ordinances, building codes, and rules and regulations, it shall promptly notify the District in writing, and necessary changes shall be accomplished by appropriate Modification.

E. If the Contractor performs Work knowing, or should have know, it to be contrary to laws, statutes, ordinances, building codes, and rules and regulations without such notice to the District and District, the Contractor shall assume full responsibility for such Work and shall bear the attributable costs of correction.

F. The Contractor shall keep the Building Permit, with an approved set of plans and specifications at the job site readily available for inspection during regular hours for the duration of the Contract.

G. The Contractor shall arrange for all required inspections and special inspections with the appropriate District agency and notify the District, so that a District representative will be present at these inspections.

H. The Contractor shall be responsible for submitting all shop drawings, product data, and manufacturer's certificates to the appropriate District agency for approval as may be required under the conditions of applicable permits (e.g., Division of the State Architect).

3.07 SUPERINTENDENTS

A. The Contractor shall at all times be represented at the site by a full time and English speaking project manager or the superintendent whom it has authorized in writing to make decisions, receive and carry out any instructions that may be given to it or them by the District, and the Contractor will be held liable for the faithful observance of such instructions. Prior to the issuance of Notice to Proceed, the Contractor shall inform the District, in writing, of the names, addresses and telephone numbers of its key personnel whom it has authorized to act as its representatives at the site and who are to be contacted in case of emergencies on the job during non-working hours, including Saturdays, Sundays and Holidays.

B. The District reserves the right to approve the Contractor's project manager, assistant project manager, general construction superintendents, project coordinator, project engineers, project schedulers, and foremen, and the right to reject them at any time at the District's sole discretion. The District also reserves the right to refuse replacement of the Contractor's superintendents and foremen if it believes such replacement will negatively affect the Contract.

3.08 CONSTRUCTION AND SUBMITTAL SCHEDULES

A. Basic Progress Schedule:
1. Unless a Computerized CPM Progress Schedule as described in Paragraph B below is required by the Instructions to Bidders, Contractor shall submit a Basic Progress Schedule within seven (7) days after Notice to Proceed and before starting any work.

2. The Basic Progress Schedule shall be in the form of a time scaled bar chart (Gantt Chart) consistent in all respects with the time and order of Work required by the Contract, in sufficient detail to show the chronological relationship of all activities of the Project including but not limited to planned starting and completion dates of various activities, submittal of shop drawings, procurement of materials and equipment, and scheduling of deliveries and equipment.

3. The basic progress schedule shall be updated once a month or more frequently if requested by the District.

4. Owner will review the Basic Progress Schedule or revision for conformance with Contract requirements. Within seven (7) days after receipt, Owner will accept the Basic Progress Schedule as feasible or will return it with comments, in which case Contractor shall use Owner's comments and revise the Basic Progress Schedule accordingly.

B. Computerized CPM Progress Schedule

1. The Contractor shall provide a computerized CPM Schedule if required by the Division 1 of the specifications. The Contractor shall use Primavera Project Planning Software or Microsoft Project and shall provide the Owner with file on 3 1/2” IBM compatible computer disk. If the contractor wishes to use any other scheduling software, approval must be first obtained from the owner. At its sole discretion the owner reserves the right to reject the use of any software other than the two stated here. The time of completion of the Project and each milestone shall adhere to the start and finish times in the Notice to Proceed, unless the Contractor requests and Owner approves in writing an earlier time of completion. Approval of such request shall be entirely at the Owner’s discretion. If an earlier time of completion is approved, liquidated damages will be accessed after the new date of completion.

2. A schedule orientation meeting shall be held 14 days after the Notice to Proceed where the Contractor will be prepared to discuss the schedule, sequence of operations, cost, manpower, and equipment loading methodology. This meeting shall be attended by the Contractor’s Project Manager and Scheduler, Owner’s Representative, Architect (if desired), other Contractor’s key personnel, major Subcontractors and Suppliers. This meeting will also discuss the monthly update requirements, reports, schedule revisions, cost breakdowns, data exchange, etc.

3. Within thirty (30) days after Notice to Proceed, the Contractor shall submit one (1) reproducible, three(3) prints, and 3-1/2” computer disks for Primavera Project Planning or Microsoft Project format of the detailed schedule. The Contract Schedule shall:
   a. Provide a time scaled CPM diagram in a format acceptable to the owner. A schedule may be rejected if in Owner’s opinion any item is unbalanced.
   b. Provide a list identifying all imposed constraints.
   c. Indicate activity calendars used.
   d. Identify as a separate activity procurement of major equipment, date of ordering through receipt and inspection at the project site.
   e. Identify as separate activities Owner furnished materials and equipment.
   f. Identify as separate activities all submittals.
g. Detail activities for each milestone to show the plan for completion of the work for each milestone within the time specified.

h. Show dependencies (or relationships) and logic ties between activities. Open-ended activities will not be permitted.

i. Show the major equipment required for perform each activity, if applicable.

j. Show a responsibility code for each activity corresponding to the subcontractor responsible for performing the work.

k. Show the number of days needed for completion inspections, completion of punch list items, and final clean-up for the work associated with each milestone within the Contract time limit.

l. Show interface flag points of coordination with the work of other Contractors engaged by Owner at the site.

5. No activity on the schedule shall have a duration longer than fifteen (15) days, with the exception of submittals, fabrication, procurement and punch list activities, unless otherwise approved by Owner. Activity duration shall be the total number of actual days required to perform that activity including consideration of weather impact on completion of that activity. If an item of work is divided into two or more activities to meet maximum duration requirement, this division of work shall be done in a manner that is logical to the progress of the work (and not by dividing the work into percentages). Do not schedule activities that are dependent on submittal approval and/or material delivery to start earlier than the expected approval or delivery dates.

6. No more than twenty five percent (25%) of construction activities are to be considered as critical or near critical (having 10 days or less of float). Activities related to the procurement of materials and equipment (submit shop drawings, review shop drawings, manufacture of equipment, and shipping) shall not be included in the calculation of the allowable percentage of critical activities as defined above. The work shall be planned so that the schedule will reflect a true critical path, which will run through the start and finish of actual work activities. Critical path shall not run through activity lags and leads.

7. The contract schedule shall represent a practical plan to complete the work within the contract time, be suitable for monitoring progress of the work, and be in sufficient detail to demonstrate adequate planning of the work.

8. The schedule shall allow for Special District events where the District will not allow noisy, dusty or disruptive construction work. These specific dates, if any, are identified in Division 1 of the specifications.

9. Schedules shall include and allow adequate duration for work performed by District (inspections, District-furnished equipment, work by other contractors that interface with this contract).

10. District's acceptance of or review comments about schedule or scheduling data shall not relieve the contractor from its sole responsibility to plan for, perform, and complete the work within the contract time. Failure of District to discover errors or omissions in schedules it has reviewed, or to inform contractor or subs that they are behind schedule, or to direct or enforce procedures for complying with contract schedule shall not relieve the contractor from its sole responsibility to plan for, perform, and complete the work within the contract time.

11. The Owner will review this schedule when submitted and return to the Contractor within fifteen (15) days. The Contractor shall revise the schedule and resubmit within seven (7) days.
12. Once this schedule is modified to be acceptable to the Owner, the schedule becomes the Accepted Contract Schedule. If the Contractor desires to change the methods or scheduling of work, the Contractor must submit the request in writing. This request will be accepted or rejected by the Owner. This change may be tracked by a change order depending upon the severity of the change. If any critical activity falls more than seven (7) days behind schedule, Contractor must submit a recovery plan within seven (7) days.

13. The Contractor shall submit a monthly update to the schedule with the payment application. The payment application will not be processed for payment without a satisfactory monthly updated schedule. The monthly update will include the Contractor's estimated percentage completion for each activity and actual start/finish dates. The update shall also include a narrative report describing any changes made to schedule logic, the effects of change orders identified and reflected in the updated schedule, and any other problem areas including a recovery plan.

14. A Short Interval Schedule (SIS) will be submitted weekly and will be discussed in progress meetings. The interval shall be three weeks: this week and two weeks ahead. The SIS must include the status of milestones and completion dates.

15. The Owner may request any report formats of the schedule at any time.

C. The Contractor shall prepare, submit and keep current, for the District's information, a schedule of submittals which is coordinated with the Contractor's construction schedule in accordance with the General Requirements and allows the District reasonable time to review submittals.

3.09 DOCUMENTS AND SAMPLES AT THE SITE

A. The Contractor shall maintain at the site for the District one (1) record copy of the Drawings, Specifications, Addenda, Change Orders, RFIs, and other Modifications, in good order and marked currently to record changes and selections made during construction, and in addition approved Shop Drawings, Product Data, Samples and similar required submittals, all in accordance with the General Requirements. These shall be available to the District representative and shall be delivered to the District prior to Project Completion.

3.10 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES, OPTIONS, AND SUBSTITUTIONS

A. Product Options and Substitutions:

1. Summary
   a. Provide products listed in Contract Documents, products by manufacturers listed in Contract Documents, and products meeting specified requirements.
   b. Procedures are described for requesting substitutions of unlisted materials lieu of materials named in Specifications or approved for use in addenda.
   c. Within thirty five (35) days after the date of Notice to Proceed, submit to the District a complete list of major products, which are proposed for substitution, with name of manufacturer, trade name, and model.
   d. List products by Specification Section number and title.

2. Product Options
a. For products indicated or specified only be reference standard, select any product meeting such standard.

b. For products indicated or specified by naming one or more projects or manufacturers, select products of any named manufacturer, which meet the specified requirements.

c. For a product or manufacturer, which is not specifically named, submit request for substitution.

d. Where terms “or equal,” “or approved equal,” or similar references are made, submit request for substitution for product or manufacturer not specifically indicated or named in Specifications.

e. For products indicated or specified by naming only one product and manufacturer, followed by the words “no substitution allowed,” there is no option.

3. Substitutions, General

a. Within a period of thirty five (35) days after date of Notice to Proceed, the District will consider formal requests for substitutions from the Contractor only under the following conditions:

1) The burden of proof as to the type, function, and quality of any substitute material or equipment shall be upon the Contractor.

2) The District will be the sole judge as to the type, function, and quality of any substitute material or equipment, and the District's decision shall be final.

3) The District may require the Contractor to furnish at the Contractor's expense additional data about the proposed substitute.

4) The District may require the Contractor to furnish at the Contractor's expense a special performance guarantee or other surety with respect to any substitute.

5) Acceptance by the District of a substitute item proposed by the Contractor shall not relieve the Contractor of the responsibility for full compliance with the Contract Documents and for adequacy of the substitute item.

6) The Contractor shall be responsible for resultant changes and all additional costs which the accepted substitution requires in the Contractor's Work, the Work of its subcontractors of all tiers, and of other contractors, and shall effect such changes without cost to the District.

   a) In the event of monetary benefit, seventy-five percent (75%) of the amount of the benefit shall go to the District and twenty-five percent (25%) shall go to the Contractor.

7) After the thirty five (35) day period, requests will be considered only when a product becomes unavailable due to no fault of Contractor. In such cases, all of the provisions of this Section shall still apply.

8) Costs for reviewing substitution requests submitted after thirty five (35) days shall be deducted from progress payments due the Contractor.
Costs shall include District’s cost, and Architect’s and Architect’s Sub consultants’ fees.

a) There will be no cost to the Contractor for reviewing substitution requests after thirty five (35) days in cases where the product has become unavailable due to no fault of Contractor.

b. Substitutions will not be considered for acceptance when:
   1) They are indicated or implied on submittals without a formal request from Contractor.
   2) They are requested directly by a subcontractor or supplier.
   3) Acceptance will require substantial revision of Contract Documents.

c. Substitute products shall not be ordered without written acceptance of the District.

d. The District will determine the acceptability of proposed substitutions and reserves the right to reject proposals due to insufficient information.

e. Substitutions required by inability to obtain materials specified will not be acceptable grounds for increase in Contract Sum or time of completion of Contract.

f. Notify District during the thirty five (35) day period after Notice to Proceed where use of products indicated or specified would delay completion of Contract.

4. Contractor’s Representation

a. Requests constitute a representation that Contractor:

   1) Has investigated the proposed substitution and determined that it is equal to or superior in all respects to the product indicated or specified.
   2) Will furnish the same guarantee/warranty or bond for the proposed substitution as for the product indicated or specified.
   3) Will coordinate the installation of an accepted substitution into the Work, and make such other changes as required to complete the Work in accordance with the Contract Documents and applicable regulatory requirements.
   4) Waives claims for additional costs associated with the substitution, which may subsequently become apparent.
   5) Will pay costs of changes to Contract Documents required by accepted substitutions.

5. Procedures for Proposing Substitutions

a. Requests for acceptance of a substitution shall be submitted to the District in written form and accompanied by sufficient information to enable proper evaluation.

b. Submit separate request for each product and support each request with:
1) Product identification with manufacturer's literature and samples where applicable.

2) Name and address of similar projects on which product has been used, and date of installation.

3) Complete technical data, including drawings, manufacturer's specifications, material safety data sheets (MSDS), costs, samples and test reports of the product proposed for substitution.
   a) Submit additional information, if required by the District

4) Data similar to that specified for the product for which substitution is proposed.

5) Submit data relating to changes in construction schedule.

6) Complete breakdown of costs, indicating the amount to be deducted from the Contract Sum, if the proposed substitution is accepted.

7) Signed statement that the proposed substitution is in full compliance with the Contract Documents and applicable regulatory requirements.

8) List of other Work, if any, which may be affected by the substitution.
   a) Contractor shall be responsible for the effect of a substitution upon related Work, and pay the additional costs generated thereby, including the cost of the Architect's and consultants' additional services associated therewith.

9) Information on availability on maintenance service, and source of replacement materials.

10) Sample of manufacturer's standard form of guarantee or warranty for the proposed substitution.

11) Where required, itemize comparison of proposed substitution with product specified and list significant variations.

12) Indicated accurate cost data comparing proposed substitution with product indicated or specified and amount of net change in Contract Sum.
   a) Include costs to other contractors and costs for revisions to Drawings, Details, or Specifications.

c. Environmental Concerns:

1) Project has been designed with special considerations for indoor air quality and environmental conditions including attempts to limit amounts of toxic chemicals, materials, and gases in building.

2) Submittal of substitutions for items listed below shall provide specific information regarding environmental impact of substitutions related to toxic chemicals, materials, and gases.
3) Particleboard and Medium Density Fiberboard: Particleboard and medium density fiberboard are not acceptable as a substitution for any specified products.

4) Adhesives: Low-emitting adhesives have been specified; proposed substitutions shall be required to provide substantiating test reports indicating compliance with indoor air quality concerns.
   
a) Submissions shall include all chemical components and their proportions in complete product.

b) Include listing of all substances used in manufacture of product and identified in sample of air emitted from products that appear on any of the following lists.

1) United States Environmental Protection Agency (EPA) Carcinogen Assessment Group (CAG) list of carcinogens.

2) Clean Air Act Sections 109, 111, and 112.

3) The National Toxicology Program’s latest published “Annual Report on Carcinogens.”

4) IARC Human Carcinogens (Groups 1, 2A, and 2B).

5) California Proposition 65 Carcinogens.

6) California Proposition 65 Reproductive Toxins.

c) Provide detection limits of analytical system for each relevant substance along with general information on sensitivity of analytical system.

d) Include complete laboratory reports of any emissions tests conducted by the manufacturer or any contractor, agent, or other laboratory for the manufacturer, and any other evaluations of the impacts of the product’s emissions on indoor air.

6. District’s Review of Proposed Substitutions

a. The District will review requests for substitutions and notify the Contractor in writing of its decision to accept or reject proposed substitutions. It shall be understood that:

1) The District will use its own judgment in determining whether or not a product or item of equipment proposed is equal for the purpose intended quality to that specified:

2) The decision of the District on all such questions of equality shall be final.

3) No claim of any sort shall be made or allowed against the District, the Architect, Architect’s sub consultants, or any of their agents, employees, or sub consultants as a result of any final decision accepting or rejecting any proposed product or equipment.

b. The District at its sole discretion will determine the acceptability of proposed substitutions, and its determination shall be final.
c. Acceptance of a proposed substitution shall not relieve the Contractor from responsibility for the proper execution of the Work and the other requirements of the Contract Documents.

d. If a proposed substitution is not accepted, use the product originally specified or indicated.

B. Shop Drawings, Product Data and Samples:

1. The Contractor shall review, approve, stamp, and submit to the District Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents in accordance with the accepted Submittal Schedule specified in the General Requirements. Submittals made by the Contractor which are not required by the Contract Documents may be returned without action.

2. The Contractor shall perform no portion of the Work requiring submittal and review of Shop Drawings, Product Data, Samples and other submittals until the respective submittal has been received, reviewed by the Architect and returned by the Architect. Such Work shall be in accordance with approved submittals. The Contractor is solely responsible for delays or disruptions to the Work caused by inadequate, uncoordinated, incorrect or late submittals. All submittals shall be submitted within thirty five (35) days after Notice to Proceed and shall be phased to support the Project Schedule as well as to allow Architect maximum review time. Contractor schedule should allow at least two (2) weeks for Architect’s review of submittals. More time shall be allowed for particularly complex submittals or if a “substitution” will be submitted which may result in a re-submittal.

3. By approving and submitting Shop Drawings, Product Data, Samples and other submittals, the Contractor represents that it has determined and verified materials, field measurements and field construction criteria related thereto, and has checked and coordinated the information contained within such submittals for compliance with the Contract Documents and for coordination of the Work indicated in the submittal and with adjacent Work.

4. The Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples and other submittals unless the Contractor has specifically informed the Architect in writing attached to the submittal of such deviation at the time of submittal and the Architect has given written approval to the specific deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the District's approval thereof. Any deviation shall also be indicated on such Shop Drawing, Product Data, Sample or related submittal.

5. The Contractor shall direct specific attention, in writing, for resubmitted Shop Drawings, Product Data, Samples and other submittals, to revisions other than those requested by the Architect on previous submittals.

6. Where a shop drawing or sample is required by the Specifications, any related Work performed prior to the Architect’s review and approval of the pertinent submittal shall be at the sole expense and responsibility of the Contractor.

7. Number of copies submitted by the Contractor shall be:

   1) Shop Drawings 1 sepia reproducible
      3 blue line prints

   2) Catalogue cuts, brochures,
calculations, etc.: 7 minimum

3) Samples: 7 each as directed

8. After review of submittals by the Architect (or the Architect's Consultants), submittals will be returned to the Contractor, indicating one of the following actions:

a) "Reviewed - No Exceptions Taken": No corrections or re-submissions required.

b) "Reviewed - Make Corrections Noted": No re-submission required. Fabrication may proceed on the basis that corrections noted are incorporated in the work. If the Contractor cannot comply or disagrees with the corrections noted, he shall revise the submittal and resubmit before fabrication.

c) "Revise and Resubmit": Re-submission required. Fabrication shall not proceed. Revise submittal as indicated.

d) "Rejected": Re-submission required. Fabrication shall not proceed. Revise in accordance with the Contract Documents.

9. The Architect will return the reproducible copy of each shop drawing, two each of copies of catalogue cuts, brochures, calculations, etc. (or as many additional copies submitted by the Contractor over the required eight (8) minimum) and two (2) each of samples. The Contractor is responsible to obtain and pay for additional copies required for distribution to subcontractors, suppliers and the like. The Contractor shall transmit one copy of all submittals marked "Reviewed - No Exceptions Taken" and "Reviewed - Make Corrections Noted" to the Contractor's Field Office.

3.11 USE OF SITE

A. The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

B. Notwithstanding the designation of Contract limits or the indication of temporary fences or barricades, the provisions of the Contract Documents governing certain portions or phases of the Work may require that certain operations be carried out beyond such designated limits.

C. Pumping, draining and control of surface and ground water shall be carried out so as to avoid endangering the Work or any adjacent facility or property, or interrupting, restricting or otherwise infringing or interfering with the use thereof.

D. The Contractor shall assume full responsibility and shall promptly settle all claims for any damage to any such areas within the Contract limits, or to any adjoining areas of the owners or occupants thereof, resulting from the performance of the Work.

3.12 CUTTING AND PATCHING

A. The Contractor shall be responsible for all cutting, fitting, and patching of its Work as specified in the General Requirements that may be required to make its several parts fit together or to receive the work of other contractors shown upon, or reasonably implied by, the Contract Documents for the completed Work.

B. The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the District or separate contractors by cutting, patching or
otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter such construction by the District or a separate contractor except with written consent of the District. The Contractor shall not withhold from the District the Contractor's consent to cutting or otherwise altering the Work.

3.13 CLEANING UP

A. The Contractor shall keep the premises and surrounding area, including public areas immediately adjacent to the site such as temporary pedestrian walkways and sidewalks, free from accumulation of waste materials, rubbish, and excess materials.

1. The Contractor shall perform such clean up and removal regularly and as often as necessary.

2. At completion of the Work the Contractor shall remove from and about the Project site waste materials, rubbish, the Contractor's tools, construction equipment, machinery and surplus materials.

B. If the Contractor fails to clean up as provided in the Contract Documents, the District may provide twenty-four (24) hour written notice to the Contractor and clean up, the cost of which shall be deducted from the amount due the Contractor under the Contract.

3.14 ACCESS TO WORK

A. During the performance of the Work, the District and its authorized representatives or any other persons deemed necessary by any of them acting within the scope of the duties entrusted to them, may at any time, and for any purpose, enter upon the Work, the shops where any part of such Work may be in preparation, or the factories where any materials for use in the Work are being or are to be manufactured. The Contractor shall furnish safe facilities therefore, and shall make arrangements with manufacturers to facilitate inspection of their processes and products to such extent as the District's interest may require.

3.15 ROYALTIES AND PATENTS

A. All fees or claims for any patented invention, article or arrangement that may be used upon or in any manner connected with the performance of the Work or any part thereof, shall have been included in the Contract Sum. The Contractor shall save, defend, hold harmless, and fully indemnify the District and all its officers and employees connected with the Project, the District Architect, other parties designated in Article 11, and all of their officers, agents, members, employees, authorized representatives, or any other persons deemed necessary by any of them acting within the scope of the duties entrusted to them, from all damages, claims for damage, costs, or expenses in law or equity, including attorney's fees, that may at any time arise or be set up for any infringement of the patent rights, copyright or trademark of any person or persons in consequence of the use by the District, or any of its officers, agents, members, employees, authorized representatives, or any other persons deemed necessary by any of them acting within the scope of the duties entrusted to them, of articles to be supplied under the Contract and of which the Contractor is not the patentee or assignee or has not the lawful right to sell the same. This is in addition to all other hold harmless and indemnity clauses in the Contract Documents.

3.16 INDEMNIFICATION

A. Consistent with California Civil Code Section 2782, the Contractor shall assume the defense of, indemnify and hold harmless the District and all its officers and employees connected with the Project, the District's Representatives, other parties designated in Article 11, and all of their officers, agents, members, employees, authorized representatives, or any other persons deemed necessary by any of them acting within the scope of the duties entrusted to them,
from all claims, suits, actions, losses and liability of every kind, nature and description, including but not limited to attorney's fees, directly or indirectly arising out of, connected with or resulting from the performance of the Work. Such duties to release and save District harmless shall apply to liability incurred or claimed to have been incurred as a result of negligence, regardless of responsibility for such negligence, including the active negligence of the District, the District Representatives, other parties designated in Article 11, and all of their agents, officers, members, employees, authorized representatives or any other persons deemed necessary by any of them. This indemnification shall not be valid in the instance where the loss is caused by the sole negligence, willful neglect or intentional tort of any person-indemnified hereinabove.

B. In the event that the Contractor and its insurance carrier(s) in bad faith refuse to negotiate and compensate a third party or parties for property damage or personal injuries which arise out of the Contractor's performance of the Work, the District shall have the right to estimate the amount of damages and to pay the same, and the amount so paid shall be deducted from the amount due the Contractor under this Contract; or an appropriate amount shall be retained by the District until all suits or claims for said damages shall have been settled or otherwise disposed of and satisfactory evidence to that effect shall have been furnished to the District.

3.17 COMPUTERIZED JOB COST REPORTING SYSTEM

A. The Contractor and its subcontractors with contracts over $1,500,000 shall maintain computerized monthly job cost reporting systems which shall be adequate to meet the documentation and reporting requirements of the District. Such job cost reporting systems shall comply with acceptable cost accounting practices and principles and shall conform to acceptable standards, procedures and guidelines used in the construction industry for projects similar to the Work.

B. Such job cost reporting system's format and configuration shall follow the general format, which is consistent with the Contractor's original unaltered Contract bid estimate of the costs. Original Project budgets for each division of the cost code accounts shall be traceable to the estimate in the event of an audit.

C. The District's minimum requirements are as follows:

1. The system capability shall provide a status of the cost for the Project on a monthly and cumulative basis.

2. The system shall provide a comparison analysis of the original budgeted costs, actual costs, remaining cost to complete and projected cost to complete, including variances, if any.

3. Adjustments to the original budgets shall be identified and traced separately including adjustments for changes in the Work (e.g., potential change orders, change orders, and disputes/claims).

D. In addition to the District's other rights under the Contract Documents, the District shall have the right to review the Contractor's computerized job cost reports upon notice to the Contractor. Failure to maintain computerized monthly job cost reports in accordance herewith shall constitute a waiver by the Contractor of its rights to seek additional compensation for delay, disruption, loss of productivity and total cost claims.

ARTICLE 4 - (Not Used.)

ARTICLE 5 - SUBCONTRACTORS
5.01 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

A. Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, within five (5) working days after receiving bids, shall furnish in writing to the District, in addition to those in the Subcontractor's Listing Form, the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each portion of the Work including lower tier Subcontractors. The District will promptly notify the Contractor in writing stating whether or not the District, after due investigation, has reasonable objection to any such proposed person or entity.

B. The Contractor shall not contract with a proposed person or entity to which the District has made reasonable and timely objection.

C. If the District has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the District has no reasonable objection. The District shall not be responsible for added costs, if any, of the Contractor retaining another person or entity.

5.02 SUBCONTRACTOR RELATIONS

A. By appropriate agreement 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 obligations and responsibilities which the Contractor, by these Documents, assumes toward the District. Each subcontract agreement shall preserve and protect the rights of the District under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights. 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, and, upon written request of the Subcontractor, identify to the Subcontractor 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.

B. The Contractor shall require that each Subcontract (including, but not limited to contracts for provision of services, supply of goods, lease of equipment or tools, or labor) contain the following provision:

“Subcontractor does hereby release Contractor and the District, and save Contractor and the District harmless, from and against all claims and liabilities of every nature (including but not limited to injury to or death of Subcontractor's employees, injury or damage to property or persons, attorneys’ fees, and court costs) directly or indirectly arising from the performance of this agreement, or, arising out of the failure of Subcontractor to comply with the requirement of the Subcontractor to provide a safe place to work (including as required by sections 3300, 6401 and 6406 of the California Labor Code) and from any claims, loss, damage, injury, death or liability however caused or incurred, including injury to or death of Subcontractor's employees, resulting directly or indirectly from the nature of the work or provision of supplies or rental of equipment or tools covered by this agreement. Such duties to release and save Contractor and the District harmless shall apply to liability incurred or claimed as a result of negligence, regardless of responsibility for such negligence, including the active negligence of the Contractor or the District, provided; however, that nothing in this agreement purports to or should be understood to provide for indemnity of Contractor or the District for Contractor’s or the District's sole negligence or willful misconduct.”

C. The Contractor agrees to assign the above-described indemnification rights to the District upon the occurrence of the following events:
1. The making of any claim, institution of any proceeding to recover damages or establish liability as to the District, or the notification of an intent to bring any claim as against the District for any loss, damage, injury, or relief from conditions arising out of or in anyway related to the Work; and

2. Written demand from the District to the Contractor for assignment of the express indemnification rights contained in the Subcontracts or other contracts for the provision of services, supply of goods, lease of equipment or tools, or labor.

5.03 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

A. Except as otherwise provided herein, each subcontract agreement for a portion of the Work is assigned by the Contractor to the District provided that:

1. assignment is effective only after termination of the Contract by the District for cause pursuant to Article 14 of these General Conditions, and only for those subcontract agreements which the District accepts by notifying the Subcontractor in writing; and

2. assignment is subject to the prior rights, if any, of the surety, obligated by the bond provided under the Contract.

ARTICLE 6 - CONSTRUCTION BY DISTRICT OR BY SEPARATE CONTRACTORS

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

A. The Contractor is alerted to the Project conditions of the areas in which work will be performed under the Contract. Certain governmental departments, public or private utility companies, and other contractors employed by the District may be working simultaneously with and in the vicinity of the Contractor's work areas, and the District may award other contracts which may similarly affect the Contractor's work.

1. Utility Relocation Work: The Contractor shall cooperate fully with all utility forces of the District or forces of other public or private agencies engaged in relocating, altering, or otherwise rearranging of any facilities which interfere with the progress or proper completion of the Work, and shall schedule the Work so as to minimize interference with said relocating, altering, or other rearranging of facilities.

B. When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the contractor who executes each separate District/Contractor Agreement.

C. The District reserves the right to perform other or additional work, within or adjacent to the limits of work specified at any time by the use of other forces or contractors. In the event that another contractor, in the course of performing work on behalf of the District, gives the Contractor written notice concerning work to be performed at the location(s) where the Contractor is already performing Work, and if the District grants approval, the Contractor shall fully cooperate with said contractor and shall schedule and coordinate its Work with the work of the other contractor and shall assume the following mutual responsibilities at no additional cost to the District.

1. The Contractor and the other contractor shall both execute identical agreements mutually indemnifying each other from any loss, damage, or injury that may be incurred as a result of the performance of work by the other while both are performing work in these areas.
2. The Contractor and the other contractor shall each add the other as an additional insured under their respective liability policies.

3. The party seeking to use portions of the construction site of the other to perform its work shall pay all direct costs incurred by the other party to accommodate its operations.

4. If the Contractor claims that delay or additional cost is involved because of such action by the District, the Contractor shall make such claim as provided elsewhere in the Contract Documents.

D. The District shall not be a party to any of the agreements between the Contractor and the other contractor and shall have no liability to the other party with regard to the lack of coordination and cooperation or the inability of a party to obtain work areas from the other party. The Contractor agrees to indemnify and hold harmless the District for any claims or losses that it or the other contractor may incur as a result of their inability to successfully negotiate the joint use of property under the control of one of the parties.

6.02 MUTUAL RESPONSIBILITY

A. The Contractor shall afford all such other contractors reasonable opportunity for storage of their materials, shall ensure that the execution of its Work properly connects and coordinates with work of all other pertinent contractors, and shall cooperate with said other contractors to facilitate the progress of the Work in such a manner as the District may direct.

B. Notice of Conflicting Conditions: Where the Contractor's Work is associated with that of another contractor, the Contractor shall examine the adjacent work and report in writing to the District any visible defect or condition preventing the proper execution of its Contract. If it proceeds without giving notice, the Contractor shall be held to have accepted the work or material and the existing conditions, and shall be responsible for any defects in its own Work consequent thereon, and shall not be relieved of any obligation or any guarantee because of any such condition or imperfection. This provision shall be included in any and all other contracts or subcontracts for Work to be performed where such a conflict could exist.

C. To the extent that any part of the Contractor's Work is to interface with work performed or installed by other contractors, the Contractor shall inspect and measure the in-place work and promptly report to the District any defect in such in-place work that will impede or increase the cost of the Contractor's interface unless corrected. The District will require the contractor responsible for the defective work to make corrections so as to conform to its contract requirements, or, if the defect is the result of a default or omission in the Contract Documents, issue a change order. If the Contractor fails to measure, inspect and/or report defects that are reasonably discoverable, all costs of accomplishing the interface acceptably shall be borne by the Contractor. The foregoing does not apply to latent defects. The Contractor shall report latent defects in another contractor's work at any time such defects become known, and the District or its authorized representatives shall promptly thereafter take such steps as may be appropriate.

D. The Contractor shall notify the District in writing when another contractor on this Project fails to coordinate its work with the Work of this Contract as directed.

E. The Contractor shall suspend any part of the Work herein specified or shall carry on the same in such manner as may be specified or shall carry on the same in such manner as directed by the District when such suspension or prosecution is necessary to facilitate the work of other contractors or workers. No damages or claims by the Contractor will be allowed therefore other than an extension of the time as specified in this Contract for the completion of the Work. Such an extension will be for a period of time, as the District shall consider the Contractor to have been delayed in the Completion of the Work by reason of the work of other contractors or workers.
F. The Contractor shall prepare coordination drawings as necessary, as determined by the District, to satisfactorily coordinate and interface the Work of its Contract with the work of all other contracts thereby avoiding conflicts that may otherwise arise.

G. At any time during the progress of the Work, the District shall have authority to require the Contractor to attend any conference of any or all of the contractors engaged in the Work, and any notice of such conference shall be duly observed and complied with by the Contractor.

6.03 COORDINATION

A. If the District determines that the Contractor is failing to coordinate its Work with the work of other contractors as directed, the District may upon seventy-two (72) hour written notice:

1. Withhold any payment otherwise owed hereunder until the Contractor complies with the District's directions.

2. Direct others to perform portions of the Contract and charge the cost of Work against the Contract amount.

3. Terminate any and all portions of the Contract for the Contractor's failure to perform in accordance with the Contract.

6.04 DISTRICT'S RIGHT TO CLEAN UP

A. 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, rubbish, and excess materials and equipment, the District may, after twenty-four (24) hour written notice, clean up and allocate the cost among those responsible as it determines to be just.

ARTICLE 7 - CHANGES IN THE WORK

7.01 ADDITIONS, DELETIONS AND REVISIONS

A. The District, before the date of Project Completion, may order additions, deletions, or revisions in the Work herein required, and the Contractor shall promptly comply with such orders and proceed with the work, which shall be performed under the applicable requirements of the Contract Documents. Such additions, deletions, and revisions will be authorized by a Contract Modification as defined in Article 1.03 of the Contract General Conditions.

B. Additions, deletions, and revisions, which result in a change in the Contract Sum or Contract Time, shall be effected by a written Contract Modification, which has been approved by the District. Those additions, deletions, and revisions which do not result in a change in the Contract Sum or Contract Time, shall be effected by a written directive from the District such as a response to a Contractor generated Request for Information. All addenda and change orders are subject to approval by the Division of the State Architect. See, the California Code of Regulations, Title 24, Part 1, section 4-338, under “Change Orders.”

C. Contract Modifications made pursuant to Article 7 of these General Conditions and extensions of Contract Time necessary by reason thereof, shall not in any way release any guarantees/warranties given by the Contractor pursuant to the provisions of the Contract Documents, nor shall such Contract Modifications relieve or release the sureties of bonds executed pursuant to said provisions. The sureties, in executing such bonds, shall be deemed to have expressly agreed to any such Contract Modification and to any extension of time made by reason thereof. The Contractor shall be responsible for giving notice of any change
affecting the Work, Contract Sum or Contract time, which is required by the provisions of any bond to be given to a surety.

7.02 CONTRACT MODIFICATION PROCEDURES

A. Initiation: Additions, deletions, and revisions may be initiated by either the Contractor or the District. Contractor initiated Contract Modifications shall be in the form of a Request for Change (RFC). Notice and procedure requirements for RFCs are addressed in Article 2.07 of these General Conditions. The District will initiate Contract Modifications by issuing a Proposed Change Order (PCO), which will include a detailed description of the proposed modification with supplementary or revised Drawings and Specifications and request a quotation of cost of such additions, deletions or revisions and time of completion from the Contractor. The District reserves the right to order in writing such work arising from unforeseen or other anticipated conditions on a force account basis as provided in Paragraph 7.03 as may be determined by the District to be required for proper completion of the Work.

B. Cost Proposal Time Period: The Contractor shall submit a PCO cost proposal to the District within twenty-one (21) calendar days upon receipt of the PCO. If the Contractor fails to submit a PCO cost proposal within twenty-one (21) calendar days, or the price cannot be agreed upon, the District may issue a Unilateral Change Order instructing the Contractor to proceed with the proposed modification for subsequent inclusion in a Contractor Modification based on the District's estimate of the cost. All requests for time extensions pursuant to Paragraph 8.02 or claims for damages for delay caused by the District's processing of Contract Modifications will be reduced by the additional time in excess of that allowed for the Contractor to submit a cost proposal as provided hereinabove.

C. Cost Proposal Breakdown: The Contractor shall furnish two (2) copies of its cost proposal, and it shall include a complete itemized breakdown of labor, material, equipment, taxes, insurance, bonds, and markup for overhead and profit for both additions and deletions on a form supplied by the District. A complete itemized breakdown is also required for Subcontractor cost proposal on the same form as required for the Contractor. At a minimum, the following documentation shall be provided to support Contractor and Subcontractor computations: material quantities, and types of products; labor breakdown by trade classification, wage rates, and estimated hours; equipment breakdown by make, type, size, rental rates, and equipment hours; taxes, insurance and bonds; justification for any adjustment in Contract Time including a schedule analysis identifying critical schedule activities delayed by the PCO.

D. Contractor Overhead and Profit: The Contractor's profit and overhead shall be based on a markup calculation and not a margin calculation. The markup for overhead and profit on Contract Modifications will be determined as follows:

1. For Work performed by the Contractor, the markup shall be equal to fifteen percent (15%) of the direct cost as defined herein. Costs of tax and insurance shall not be marked up.

2. For Work performed by a Subcontractor, the Contractor markup shall be five percent (5%) of the direct cost of the Subcontractor and the Subcontractor markup shall be fifteen percent (15%) of his own direct cost. Costs of tax and insurance shall not be marked up.

3. For Work performed by a Sub-Subcontractor, the Contractor markup shall be five percent (5%) of the direct cost of the Sub-Subcontractor, the Subcontractor markup shall be five percent (5%) of the Sub-Subcontractor direct cost, and the Sub-Subcontractor markup shall be fifteen percent (15%) of his own direct cost. Costs of tax and insurance shall not be marked up.
4. All tiers lower than the Sub-Subcontractor shall have their markup included in the Sub-Subcontractor markup.

5. In all cases the total markup on the direct cost shall not exceed twenty five percent (25%). There shall be no compound markup.

The table below summaries the allowable markups:

<table>
<thead>
<tr>
<th>Work Done By</th>
<th>Markup by</th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractor</td>
<td>15%</td>
<td>Sub</td>
<td>Sub-Sub</td>
<td>15%</td>
</tr>
<tr>
<td>Sub-Contractor</td>
<td>5%</td>
<td>15%</td>
<td></td>
<td>20%</td>
</tr>
<tr>
<td>Sub-Sub-Contractor</td>
<td>5%</td>
<td>5%</td>
<td>15%</td>
<td>25%</td>
</tr>
</tbody>
</table>

E. Direct Cost Defined: Direct costs shall only include the basic wage rates for labor, labor burden, material and equipment required for the Contract Modification.

1. Labor rates will not be recognized when in excess of those prevailing in the locality and time the Work under Contract Modification is being performed. The costs for all supervision, including general superintendents and foreman, shall be included in the markup defined herein. Working foreman will be considered a direct cost if the individual is on the project site only installing Work under Contract Modification with no other work being performed at the time. A breakdown of the payroll rates for each trade used for Contract Modifications, shall be furnished to the District within 30 calendar days of the Contract Notice to Proceed.

2. Labor burden shall only include fringe benefits by governing trade organizations. No other costs will be included as labor burden.

3. Material costs directly required for the performance of the Contract Modification. Such costs may include the cost of transportation. If a trade reduction by an actual supplier is available to the Contractor, it shall be credited to the District. If the materials are obtained from a supplier or source owned wholly by or in part by the Contractor, payment thereof will not exceed the current wholesale price for the materials. The term “trade reduction” includes the concept of cash discounting.

   a. For general building construction, material shall be based on the most current Lee Saylor Book with a thirty percent (30%) reduction for material and labor figures.

   b. For concrete work, material and labor costs shall be based on the most current Lee Saylor Book.

   c. For electrical work, material costs shall be based on the most current Biddle Book, end column, with a ten percent (10%) reduction. Costs of all major equipment and/or material unlisted shall be based on vendor’s invoices. Copies of all invoices shall be provided as support documentation with each Contract Modification cost proposal.

   d. For mechanical work, material costs shall be based on the most current Trade Service Corporation Manual with a thirty percent (30%) reduction. Costs on all major equipment and/or material unlisted shall be based on vendor’s invoices. Copies of all invoices shall be provided as support documentation with each Contract Modification cost proposal.
4. Equipment Costs: The allowance for equipment costs (both rental as well as Contractor-owned equipment) shall be based on eighty (80) percent of the Association of Equipment Distributors (AED) Blue Book rental rates. Hourly, daily, weekly, or monthly rates shall be used, whichever is lower. Hourly rates including operator shall not be used. Unless otherwise specified, manufacturer’s ratings, and manufacturer-approved modifications, shall be used to classify equipment for determination of applicable rental rates.

   a. The actual time to be paid for equipment shall be the time that the equipment is in productive operation on the Work under Contract Modification. In computing the hourly rental of equipment, any time less than thirty (30) minutes shall be considered one-half (1/2) hour. No payment will be made for time while equipment is inoperative due to breakdown, or for non-workdays. In addition, the rental time shall not include the time required to move the equipment to and from the project site. No mobilization or demobilization will be allowed for equipment already on site. If such equipment is not moved by its own power, then loading and transportation costs will be paid in lieu of rental time thereof. However, neither moving time nor loading and transportation costs will be paid if the equipment is used on the Project Site in any other way than upon the work directly related to the Contract Modification.

   b. Individual pieces of equipment having a replacement value of one thousand dollars ($1,000) or less shall be considered to be small tools or small equipment, and no payment will be made since the costs of these tools and equipment is included as part of the markup for overhead and profit defined herein.

   c. Payment to the Contractor for the use of equipment as set forth above shall constitute full compensation to the Contractor for the cost of fuel, power, oil, lubricants, supplies, small equipment, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, labor (except for equipment operators), and any and all costs to the Contractor incidental to the use of the equipment.

5. Labor Productivity Rates: All Contract Modification work involving mechanical and electrical trades shall use labor productivity rates based on the following: Electrical labor productivity rates shall be based on the most current edition of N.E.C.A Column 1 with a five percent (5%) reduction. Wet side mechanical labor productivity rates shall be based on the most current edition of “M.C.A. Standards” with a twenty percent (20%) reduction. Dry side mechanical labor productivity rates shall use SMACNA Standards at a twenty (20%) percent reduction.

F. Costs Included as part of the Markup for Project General Conditions (hereinafter “Overhead”), and Profit: All Contract Modification costs not specifically listed above as a direct cost shall be included in the markup for general conditions, including overhead and profit. No separate allowance or itemization for general conditions, including overhead costs shall be allowed. Below is a list of costs, which is not intended to be comprehensive, of the type of costs included in the markup for overhead and profit for all Contract Modifications including Force Account Work.

1. Field and home office personnel including, but not limited to, principals, project managers, superintendents, supervisory foremen, estimators, project engineers, detailers, draftsmen, schedulers, consultants, watchmen, payroll clerks, administrative assistants, and secretaries.

2. All field and home office expenses including, but not limited to, field trailers, parking, storage sheds, office equipment and supplies, telephone service and long distance telephone calls, fax machines, temporary utilities, sanitary facilities and services, janitorial services, small tools and equipment with a cost under $1000 each, portable
scaffolding, blocking, shores, appliances, job vehicles, security and fencing, conformance to regulatory requirements including compliance to safety regulations, safety programs and meetings, cartage, warranties, as-builts, as well as any related maintenance costs.

3. Administrative functions such as, but not limited to, reviewing, coordinating, distributing, processing, posting, recording, estimating, negotiating, expediting, engineering, drawing, detailing, revising shop drawings, carting, layout, cleaning, protecting the work, and other incidental Work related to the Contract Modifications.

4. All other costs and taxes required to be paid, but not included under direct costs as defined above.

G. Miscellaneous Requirements:

1. For individual items within a Contract Modifications that only include deleted work of a Contractor or Subcontractors that would receive fifteen percent (15%) for work performed, the District shall receive a credit markup of ten percent (10%). Neither the Contractor nor the Subcontractor shall be allowed a positive markup on their respective Subcontractors to administer the credit Contract Modification.

2. When both additions and credits are involved in any one Contract Modification, the Contractor shall calculate its labor productivity and costs based on the net change in the quantity of the work for each item listed. For example, if a Contract Modification adds 14 light fixtures on one drawing and deletes 5 on another drawing, the “net change in quantity” is 9, and the labor productivity rates and costs shall be based on the net add of 9 light fixtures.

3. The Contractor shall be solely responsible for determining which of its Subcontractors receive Contract Modifications. No additional compensation will be provided the Contractor for the Subcontractor's cost to review, post, coordinate and perform related tasks to administer Contract Modifications that do not result in directs cost charges from said Subcontractor. Such costs are considered normal business costs that are contractually determined prior to bid between the Contractor and its subcontractors, and that such costs shall be included in the Total Lump Sum Bid.

4. Taxes: Federal excise tax shall not be included. The District will issue an exemption on request.

5. Insurance and Bond Premiums: The actual cost to the Contractor of the following will be allowed with no markup for overhead and profit: Federal Insurance Contributions Act taxes, bond premiums, Federal and State Unemployment taxes; and net actual premium paid for public liability, workers' compensation, property damage, and other forms of insurance required by the District.

H. Records: The Contractor shall maintain its records in such a manner as to provide a clear distinction between the direct costs of Contract Modifications and the cost of the original Work. This requirement pertains to all types of Contract Modifications, as well as the Contractor's Requests for Changes and Claims.

I. Notice of Delay: Contractor shall notify the District of all anticipated delays resulting from proposed time extensions included with Contract Modification cost proposals, and Request for Changes.

J. Change Order: When the District and Contractor agree on the total cost and time of a PCO, the District will prepare a Change Order to formally implement the work described in the PCO.
K. Oral Instructions: No oral instruction of any person whomsoever shall in any manner or
degree modify or otherwise affect the terms of this Contract.

7.03 FORCE ACCOUNT CHANGE ORDER

A. General: When Work, a definite price for which has not been agreed upon in advance, is to
be paid for on a force account basis, all direct costs necessarily incurred and paid by the
Contractor for labor, material and equipment used in the performance of such work, shall be
subject to the approval of the District and compensation will be determined as set forth
herein.

1. The District will issue a Force Account Change Order to proceed with the Work on a force
account basis, and the District will establish a not to exceed budget.

2. With the exception of labor productivity rates for mechanical and electrical work, all
requirements regarding direct cost for labor, labor burden, material, equipment and
markups on direct costs for overhead and profit described in Article 7.01 and 7.02 of
these General Conditions shall apply to Force Account Change Orders. However, the
District will only pay for actual costs verified in the field by the District on a daily basis.

3. The Contractor shall be responsible for all cost related to the administration of Force
Account Change Orders. The markup for overhead and profit for Contractor
Modifications shall be full compensation to the Contractor to administer Force Account
Change Orders.

B. Notification: The Contractor shall notify the District at least twenty-four (24) hours prior to
proceeding with any of the force account work. In addition, the Contractor shall notify the
District when it has consumed eighty percent (80%) of the budget, and shall not exceed the
budget unless specifically authorized in writing by the District. The Contractor will not be
compensated for force account work in the event the Contractor fails to timely notify the
District regarding the commencement of force account work, or exceeding the force account
budget.

C. Reports: The Contractor shall diligently proceed with the work, and on a daily basis, submit a
daily force account report on a form supplied by the District no later than 5:00 p.m. that day.
The report shall contain a detailed itemization of the daily labor, material, and equipment
used on the force account work. The names of the individuals performing the force account
work shall be included on the daily force account reports. The type and model of equipment
shall be identified and listed. The District will review the information contained in the reports,
and sign the reports no later than the next work day, and return a copy of the report to the
Contractor for their records. The District will not sign, nor will the Contractor receive
compensation for work the District cannot verify. The Contractor will provide a weekly force
account summary indicating the status of each Force Account Change Order in terms of
percent complete of the NTE budget and the estimated percent complete of the work.

D. Agreement: In the event the Contractor and District reach a negotiated, signed agreement on
the cost of a Contract Modification while the work is proceeding based on a Force Account
Change Order, the Contractor’s signed daily force account reports shall be discontinued and
all previously signed reports shall be invalid.

7.04 UNILATERAL CHANGE ORDERS

A. General: When time does not allow for the Contract Modification to be negotiated through
the PCO process, or when the District and the Contractor are unable to agree on the cost or
time required to complete the change in the Work described in the PCO, the District may issue
a Unilateral Change Order instructing the Contractor to proceed with the Work based on the
District's estimate of cost and time to perform the change in the Work, if any. Upon receipt of a Unilateral Change Order, the Contractor shall proceed with the ordered Work.

B. Protest: Should the Contractor disagree with any terms or conditions set forth in a Unilateral Change Order, which the Contractor has not executed, the Contractor shall submit a written RFC within seven (7) calendar days of receipt of said Unilateral Change Order and before proceeding with the Work thereof. If a written RFC is not submitted as required, the Contractor hereby waives all rights to additional compensation for said work, and payment will be made as set forth in the Unilateral Change Order and such payment shall constitute full compensation for Work included therein or required thereby. After the RFC has been filed, and after the Unilateral Change Order work is completed in the field, the Contractor shall notify the District within seven (7) calendar days of its intent to submit a claim for the cost differential between the Contractor's actual cost and the District's estimate included in the Unilateral Change Order. The Contractor shall then submit a claim in accordance with the requirements of Article 2.07 of these Contract General Conditions. The Contractor shall waive its rights to claim if notice is not provided as stipulated above.

7.05 UNIT PRICE CHANGE ORDERS

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established Unit Price for each Bid Item of unit price Work times the estimated quantity of each item as indicated in the Schedule of Bid Prices. The estimated quantities of unit price Bid items are not guaranteed and are solely for the purpose of comparing Bids and determining an initial Contract Total Lump Sum Bid. Determination of that actual quantities and classifications of Unit Price Work will be made by the District in accordance with Section 01027 - Application for Payment.

1. Each Unit Price bid on the Schedule of Bid Prices shall include an amount considered by the Contractor to cover Contractor's markup for overhead and profit provided in Paragraph 7.02.

B. Procedure: For pre-determined unit prices and quantities, a Unit Price Change Order will be executed on a fixed unit price basis. An adjustment in the Contract Unit Price may be made for changes which result in an increase or decrease in the quantity of any unit price Bid Item of the Work in excess of thirty percent (30%) of the estimated quantity indicated on the Schedule of Bid Prices, or for eliminated items of Work.

C. Quantity Increases: Should the total quantity of any item of Work required under the Contract exceed the estimated quantity indicated on the Schedule of Bid Prices by more than thirty percent (30%), the Work in excess one-hundred thirty percent (130%) of such estimated quantity will be paid for by adjusting the Contract Unit Price as hereinafter provided, or at the District's option, payment for the Work involved in such excess will be made on a contract modification procedure or force account basis as provided in Paragraph 7.02 or 7.03.

1. Such adjustment of the Contract Unit Price will be the difference between the Contract Unit price and the actual unit cost, which will be determined as hereinafter provided, of the total pay quantity of the item. If costs applicable to such item of work include fixed costs, such fixed costs will be deemed to have been recovered by the Contractor by payment made for one hundred thirty percent (130%) of the Schedule of Bid Price quantity for such item, and in computing the actual unit cost; such fixed costs shall be excluded. Subject to the above provisions, such actual unit cost will be determined by the District in the same manner as if the Work were paid for on contract modification procedure or force account basis as provided in Paragraph 7.02 or 7.03, or such adjustment will be as agreed to by the Contractor and the District.
2. The payment for the total pay quantity of such item of Work will in no case exceed the payment which would be made for the performance of 130 percent of the estimated quantity as indicated on the Schedule of Bid Prices at the original Contract Unit Price.

D. Quantity Decreases: Should the total quantity of any item of Work required under the Contract be less than seventy percent (70%) of the estimated quantity indicated in the Schedule of Bid Prices, an adjustment in compensation will not be made unless the Contractor submits a written RFC as provided in Paragraph 2.07. If the Contractor so requests, the quantity of said item performed will be paid for by adjusting the Contract Unit Price as hereinafter provided, or at the District's option, payment for the Work involved will be made on a force account basis as provided in Paragraph 7.03, provided however, that in no case shall the payment for such Work be less than that which would be made at the Contract Unit Price.

1. Such adjustment of the Contract Unit Price will be the difference between the Contract Unit price and the actual unit cost, which will be determined as hereinafter provided, of the total pay quantity of the Item, including fixed costs. Such actual unit cost will be determined by the District in the same manner as if the Work were paid for by a contract modification procedure or on a force account basis as provided in Paragraph 7.02 or 7.03; or such adjustment will be as agreed to by the Contractor and the District.

2. The payment for the total pay quantity of such item of Work will in no case exceed the payment which would be made for the performance of 70 percent of the estimated quantity as indicated on the Schedule of Bid Prices at the original Contract Unit Price.

E. Deleted Items: Should any Contract Bid item of Work be deleted in its entirety, payment will be made to the Contractor for its actual direct costs incurred in connection with such deleted Contract Bid item if incurred prior to the date of notification in writing by the District of such deletion.

1. If acceptable material is ordered by the Contractor for the deleted item prior to the date of notification of such deletion by the District, and if orders for such material cannot be canceled, it will be paid for at the actual cost to the Contractor. In such case, the material paid for shall become the property of the District and the District will pay for the actual cost of any further handling. If the material is returnable to the vendor and if the District so directs, the material shall be returned and the Contractor will be paid for the actual cost of charges made by the vendor for returning the material. The actual cost of freight in returning material will be paid for.

2. The actual costs or charges to be paid by the District to the Contractor for any deleted Contract item will be computed in the same manner as if the Work were to be paid on contract modification or force account basis as provided in Paragraph 7.02 or 7.03.

7.06 AUDITS

A. The District shall have the right to examine and audit all books, estimates, records, contracts, documents, bid documents, bid cost data, subcontracts, job cost reports, and other data of the Contractor, Subcontractors, and suppliers including computations, and projections related to bidding, negotiating, pricing, or performing the Work, or Contract Modification in order to evaluate the accuracy, completeness, and currency of the cost or pricing data at no additional cost to the District.

B. The Contractor shall make available at its office at all reasonable time the materials described in Subparagraph 7.06A herein before for examination, audit, or reproduction, until three (3) years after final payment under this Contract.
C. For this contract, the Contractor shall insert a clause containing all the provisions of Article 7 herein before, including this Paragraph, in all subcontracts over Ten Thousand Dollars ($10,000).

ARTICLE 8 - TIME

8.01 PROGRESS AND COMPLETION

A. Time is of the essence. The Contractor shall commence the Work of the Contract within five (5) calendar days from issuance of written Notice to Proceed from the District and shall diligently prosecute the Work to Project Completion.

B. The Notice to Proceed will be issued by the District any time within two months from the date of execution of the Agreement.

C. The continuous prosecution of the Work by the Contractor shall be subject only to the delays defined hereinafter. The start of Work shall include attendance at pre-construction conferences, preparation and submittal of Shop Drawings, equipment lists, Schedule of Values, CPM construction schedules, requests for substitutions and other similar activities. Submittals shall be prepared in accordance with the Contract Documents and shall be made within the time limits required. It may be necessary that certain portions of the work be completed at different times to minimize disruption of school activities and maintain continued smooth operations of the District. The Contractor shall coordinate with the District and include these interface activities in the Contract Schedule.

D. The Work of this Contract shall be brought to Substantial Completion, as determined by the District, in the manner provided for in the Contract Documents and in the numbers of calendar days set forth as follows, from and after the receipt by the Contractor of the written Notice to Proceed.

1. CONTRACT TIME: The Contract Time shall be as defined in the Instructions to Bidders for calendar days beginning with and including the official date of Notice to Proceed to the official date of Notice of Completion, both issued by the District.
   a. Notice of Completion is a document issued by the District to the Contractor acknowledging that the Work is complete and the building is ready for occupancy by the District in its entirety.
   b. Notice of Project Completion is a document issued by the District to the Contractor acknowledging that the Project is complete.

2. The time limit for the Work as specified shall not be affected by the acceptance of any of the alternate(s); provided that said Alternates were incorporated into the Contract within 6 months after Notice to Proceed.

E. Failure to reach the completion dates as provided hereinabove, as determined by the District, within the required number of calendar days, and in the manner required by the Contract Documents, shall subject the Contractor to liquidated damages as stipulated hereinafter, unless extensions of time are granted in accordance with the provisions hereinafter.

F. The Contractor shall at all times keep on the premises sufficient material and employ sufficient supervision and workers to prosecute the Work at the rate necessary to reach completion dates required hereinabove of the Work herein required within the times specified in the Agreement and in accordance with the initial Contract schedule. Work shall not start and the Project be left in an incomplete state for an indeterminate period of time, while equipment and materials are in transit.
G. It shall be the responsibility of the Contractor to maintain its schedule so as not to delay the progress of the Project or the schedules of other contractors. The Contractor is required by virtue of this Contract to cooperate in every way possible with other contractors in order to maintain its Contract duration. Except as otherwise provided, no additional compensation will be paid for such cooperation. If the Contractor delays the progress of the project or the progress of other contractors, it shall be the responsibility of the Contractor to take some or all of the steps outlined hereinafter to improve its progress.

H. If, in the opinion of the District, the Contractor falls behind the Contract and current update of the Contract schedule and is not entitled to an extension of time, as presented in these Contract Documents, the Contractor shall take some or all of the steps outlined below to improve its progress at no additional cost to the District, and shall submit operational plans to demonstrate the manner in which the desired rate of progress may be regained.

I. Whenever it becomes apparent that the Contractor due to its own actions has fallen behind the required rate of progress, or delays the progress of other contractors, some or all of the following steps must be taken.

1. Increase construction manpower in such quantities and crafts as will substantially eliminate the backlog of Work.

2. When permitted in writing by the District, work overtime or increase in amount of construction equipment sufficient to substantially eliminate the backlog of work.

3. Reschedule activities to achieve maximum practical concurrence of accomplishment of activities.

4. Expedite delivery of materials and equipment such as by airfreight.

5. Accelerate the priority of manufacture or fabrication of Work on order with the manufacturer, vendor, or supplier should such priority lists exist as a normal course of its business. Said acceleration shall also apply to shipment preparation.

6. Any other means deemed appropriate.

J. If the District directs the Contractor to take measures previously described, the Contractor shall bear all costs of complying, including additional administrative costs for the District and the District representatives.

K. Should the Contractor at any time during the progress of Work, refuse, neglect, or be unable for avoidable reasons to supply sufficient materials, supervision, or workers to prosecute the Work at the rate necessary to complete the Work within the time specified in this Contract, in accordance with the currently accepted updated construction schedule, the District shall have the right to terminate the Contract as hereinafter set forth or it may give this Contractor written notice, specifying the default and requiring its correction. If the Contractor does not comply with such notice from the District within three (3) days of the date of services thereof, the District shall have the right to provide the materials and workers to finish said Work. The sums necessary to meet the expenses thereby incurred shall be deducted from any monies due or which may thereafter become due under the Contract, and paid to persons supplying such materials and doing such Work. The amount of any such payments shall be deducted from the construction fund set aside for the purposes of this Contract and charged to the Contractor as if paid to it.

8.02 DELAYS AND EXTENSIONS OF TIME

A. Unavoidable Delays:
1. For the purposes of these Contract Documents the term "Unavoidable Delay" shall mean an interruption of the Work beyond the control of the Contractor, and which could have not been avoided by the Contractor's exercising care, prudence, foresight, and diligence. Moreover, the Contractor must demonstrate that the "Unavoidable Delay" actually extended the most current Contract Project Completion Date.

   a. The Contractor will be entitled to a time extension for the following types of "Unavoidable Delay" but at no additional compensation: Acts of God; acts of the public enemy; inclement weather conditions; fires; floods; windstorms; tornados; earthquakes; wars; riots; insurrections; epidemics; quarantine restrictions; strikes; lockouts; sit-downs; slowdowns; other labor trouble; labor shortages; material shortages; fuel shortages; freight embargoes; acts of government agencies outside the District; acts of public utilities; priorities or privileges established for the manufacture, assembly or allotment of material by order, decree, or otherwise of the United States. This list is not intended to be comprehensive, and similar types of delay will not entitle the Contractor to additional compensation or a compensable time extension.

   b. The Contractor shall be entitled to a compensable time extension for an "Unavoidable Delay" caused by a Contract Modification initiated or caused by the District provided such unavoidable delay is critical, extends the most current Contract Completion date, and is not concurrent with a Contractor caused delay or other type of Unavoidable delay previously defined. All other types of "Unavoidable delay" shall not entitle the Contractor to a compensable time extension which shall be the total amount included in the Contract Modification.

   c. The Contractor shall be entitled to a non-compensable time extension in the event a compensable "Unavoidable Delay" is concurrent with either a Contractor generated "Avoidable Delay," or a non-compensable "Unavoidable Delay."

B. Avoidable Delays:

1. The term "Avoidable Delay" shall include, but is not limited to the following:

   a. Any delay that could have been avoided by the exercise of care, prudence, foresight and diligence on the part of the Contractor;

   b. Any delay in the prosecution of parts of the Work, which may in itself be unavoidable, but which does not necessarily prevent or delay the prosecution of other parts of the Work, nor delay the specified Project Completion date;

   c. Any delay caused by the untimely review by the Contractor of the Contract Drawings and Specifications pursuant to Document 00700 paragraph 3.01E;

   d. Any delay arising from an interruption in the prosecution of the Work resulting from a reasonable interference from other contractors employed by the District, but does not delay the specified Project Completion date.

C. Inclement Weather Delays:

1. Inclement weather shall not be a prima facie reason for the granting of a non-compensable time extension, and the Contractor shall make every effort to continue Work under prevailing conditions. Such efforts by the Contractor shall include, but are not limited to, providing temporary gravel roads; installing a rain de-watering system; protecting interior and exterior areas exposed to rain, wind, and extreme temperatures; and installing protective covers at roof, window or other openings; and providing temporary heat where required for work to proceed without delay.
2. The District may classify an inclement weather day as a non-compensable "Unavoidable Delay," provided the Contractor made efforts to work during inclement weather and to avoid the impacts of inclement weather to its schedule. If such an event occurs, and the Contractor is prevented by inclement weather or conditions from proceeding with at least seventy-five percent (75%) of the scheduled labor, material and equipment resources for at least five (5) hours per work day on activities shown as critical on the most current and accepted schedule update, the delay will be classified as an "Unavoidable Delay," and the Contractor will be granted a non-compensable time extension. The Contractor is to notify the District, in writing, on each day this occurs.

3. Regardless of the type and severity of the inclement weather, the Contractor shall be responsible for all costs to make efforts to mitigate the impacts of inclement weather during the Contract duration.

D. Notice of Delay: The Contractor shall promptly notify the District in writing of any anticipated delay in the prosecution of the Work, and, in any event, promptly upon the occurrence of a delay. Said notice shall constitute an application for an extension only if the notice requests such extension and sets forth the Contractor's estimate, if feasible, of the additional time required together with a full recital of the cause of delay relied upon. The District may take steps to prevent the occurrence or continuance of the delay and may determine to what extent the Project Completion is delayed thereby. The determination of the existence of any delay for which an extension of time will be granted will be based on whether such delay can be demonstrated by the Contractor to extend the Contractor's current critical path on the construction schedule or require the formulation of a new extended critical path. If notice of a delay is not submitted on or prior to three (3) consecutive working days after the start of the occurrence of such a delay, the Contractor thereby admits the occurrence had no effect on the length of its duration of Work, and no extension of time is necessary, and no extension of time will be granted by the District. In either case the Contractor will not be entitled to extra compensation.

E. Extensions of Time:

1. In the event it is deemed necessary by the District to extend the time of completion of the Work to be done under these Contract Documents beyond the required dates of the completion herein specified, such extensions shall in no way release any guarantees/warranties given by the Contractor pursuant to the provisions of the Contract Documents, or the Contract let hereunder, nor shall such extension of time relieve or release the sureties on the bonds executed pursuant to said provision. The sureties in executing such bonds shall be deemed to have expressly agreed to any such extension of time. The amount of time allowed in any extension of time shall be limited to the period of the delay-giving rise to the same as determined by the District. The granting of an extension of time because of a delay shall in no way operate as a waiver on the part of the District of the right to collect damages or of any other rights to which the District are entitled. All guarantees and warranties shall begin after final completion.

2. Should the Contractor, any Subcontractor of any tier or any supplier of any tier seek an extension of time for the completion of the Work under the provisions of this Paragraph, the Contractor and/or Subcontractor and/or supplier must submit justification for the extension of the time requested and otherwise comply with all provisions of these Contract Documents with respect to requests for extensions of time.

3. Neither this provision, nor any other provision of the Contract Documents, are intended by the parties to be contrary to any express provision of law. The parties specifically agree, acknowledge and warrant that neither this provision, nor any other provision of the Contract Documents, has for its object, directly or indirectly, the exemption of the District, the Architect, their consultants, and their respective directors, officers, members,
employees, and authorized representatives from responsibility of their own sole
negligence, violation of law or other willful injury to the person or property of another.

8.03 NOTICE OF LABOR DISPUTES

A. Whenever the Contractor has knowledge that any actual or potential labor dispute is delaying
or is threatening to delay the timely performance of its Contract, the Contractor shall
immediately give notice thereof, including all relevant information with respect thereto, to the
District. In addition, the Contractor shall take all appropriate measures to eliminate or
minimize the effect of such labor dispute on the currently accepted construction Schedule,
including but not limited to such measures as: promptly seeking appropriate injunctive relief;
filling appropriate charges with the National Labor Relations Board under the applicable
provisions of the Labor Management Relations Act of 1947, as amended; filing appropriate
damage actions; taking such measures as establishing a reserved gate, as appropriate; if
reasonably feasible, seeking other sources of supply or service; or any other measures that
may be appropriately utilized to limit or eliminate the effect of the labor dispute. To the
extent the Contractor fails to initiate measures that are appropriate, it is not entitled to an
extension of time. In addition, any delay impact on any other Contractor's schedule or on the
Construction Schedule will be considered as a Contractor-caused delay under any and all
applicable provisions of the Contract.

ARTICLE 9 - PAYMENTS AND COMPLETION

9.01 CONTRACT SUM

A. Payment to the Contractor at the lump sum price fixed in the Contract for performing all Work
required under the Contract, as adjusted for any Contract Modifications approved as
hereinbefore specified, shall be full compensation for furnishing all labor, materials, equipment
and tools necessary to the Work, and for performing and completing, in accordance with
these Contract Documents, all Work required under the Contract, and for all expenses
incurred by the Contractor for any purpose in connection with the performance and
completion of said Work.

9.02 SCHEDULE OF VALUES

A. Within 10 days of the date of commencement shown in the Notice to Proceed the contractor
shall submit a schedule of values to the owner for review. This schedule of values shall
breakdown the contract price into various estimated items of work, together with the
contractor's allowance for overhead, insurance and profit. The contractor's overhead,
insurance, profit and other such costs, shall be prorated through all items so that the sum of
all items in the schedule of values shall equal the contractor's total lump sum bid. This
breakdown, which must be approved by the owner, will be the basis for determining the value
of work performed for purposes of making payments to the contractor.

B. The contractor's schedule of values shall include a separate line item for “project closeout”
(with an assigned value attributed to it.)

C. The contractor's schedule of values shall include a separate line item for “building
commissioning “ (with an assigned value attributed to it.)

D. The Contractor shall not submit an application for payment without an approved schedule of
values.

9.03 PROGRESS PAYMENTS
Subject to the conditions set forth in these General Conditions, and to the authorization of the District or the authorized representatives of the District, payment shall be made upon demand of the Contractor and pursuant to the Contract Documents as follows.

B. The District will, on or about the twentieth (20th) day of each month after receiving the Contractor's monthly Schedule update, make an estimate of the value of the Work done by the Contractor completed after that included in the last preceding estimate in performance of the Contract. The monthly value of the Work described shall be estimated by the District pursuant to the applicable schedule of values prepared in accordance with Paragraph 9.02. Estimates need not be based on strict measurements, but may be approximate only, and will be in due proportion to the total amount, considering payments previously made, that will have become due for such Work satisfactorily completed under the Contract. No allowance will be made for materials or equipment not incorporated into the Work.

C. On the 25th of each month, the Contractor shall submit to the District Representative for review an Application for Payment filled out and signed by the Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as otherwise set forth in the Contract Documents.

1. No payment shall be made for materials and equipment not incorporated in the Work.

D. The Application for Payment shall identify the amount of the Contractor's total earnings to date.

E. Monthly progress payment amounts to the Contractor shall be based upon completed Work activities or percentages of Work activities completed prior to the end of the payment period. The District following the formal approval of the Schedule of Values shall transmit a detailed payment procedure to the Contractor.

F. Monthly payment applications shall be based on information developed at monthly Application for Payment Approval Meetings and shall be prepared by the Contractor. Submission of Schedule updates for same period of Progress Payment Application shall be a condition precedent to making progress payment applications. Contractor shall submit monthly Schedule update information to the District three (3) working days after the Construction Schedule Approval Meeting and before submission of the progress payment application. No progress payment shall be made to the Contractor until all cost information requested by the District is submitted and reviewed.

G. As soon as practicable after making of each progress estimate, the District will pay to the Contractor in a manner provided by law, an amount equal to ninety percent (90%) of the value, based upon Contract prices, of labor and materials incorporated in the Work at the Project site up until midnight of the twenty-fifth (25th) day of the current month less the aggregate of previous payments, provided that payments may be withheld at any time that the Work, in the District's estimation, is not proceeding in accordance with the Contract, or as otherwise provided in Paragraph 9.05. When the District determines that the Work is fifty percent (50%) complete, the Contractor is making satisfactory progress and there is no specific cause for greater withholding, progress payments may be made not to exceed an amount the lesser of either ninety-five percent (95%) of the value of the Work and labor, equipment and material furnished or ninety-five percent (95%) of the Contract Sum.

1. The payment shall be made within 30 calendar days after application has been made and certified by the District.

H. In accordance with the provisions of the California Public Contract Code, the Contractor will be permitted to substitute securities for any moneys withheld by the District to ensure performance under the Contract.
I. Payment for material stored on or off the Site will not be allowed. Where advance payment is allowed at the sole discretion of the District necessary to keep the Project on schedule for very large, long lead items, proof of off-site material purchases (invoices and checks) and appropriate insurance coverage will be required. The Contractor shall furnish to the District written consent from the Surety approving the advanced payment for materials stored off site. The maximum prepayment allowed by the District shall be 75 percent of the actual value of the item being considered. The District and the District Representative shall be the sole judges of fair market value. The Contractor shall protect stored materials from damage. Damaged materials, even though paid for, shall not be incorporated into the work.

J. No inaccuracy or error in said monthly estimates shall operate to release the Contractor or Surety from damages arising from such Work or from the enforcement of each and every provision of the Contract Documents, and the District shall have the right subsequently to correct any error made in any estimate for payment.

K. The granting of any progress payment, or the receipt thereof by the Contractor, shall not constitute acceptance of the Work or any portion thereof, and shall in no way lessen the liability of the Contractor to replace unsatisfactory Work or material, though the unsatisfactory character of such Work or material may not have been apparent or detected at the time such payment was made.

L. It is mutually understood and agreed that the District may withhold from any payment otherwise due Contractor so much as may be necessary to protect the District to insure completion of the project pursuant to the requirements of this Contract. The failure or refusal of the District to withhold any moneys from the Contractor shall in no way impair the obligations of any surety or sureties under any bonds furnished under this Contract.

M. Only Contract Modifications completely approved and executed shall be included on the Payment Authorization and only that portion of the Change Order work actually performed shall be submitted for payment. Submit breakdown for each Contract Modification by Specification Section number on Application for Payment.

9.04 PAYMENT AUTHORIZATION

A. The District will, after receipt of the Contractor's Application for Payment, issue a Payment Authorization to the Controller's Office for such amount as the District and District Representative determine is properly due. The District will notify the Contractor in writing of the reasons for withholding authorization in whole or in part as provided hereinafter.

B. A Payment Authorization will be issued by the District, based on the District's representation of observations at the site and the data comprising the Application for Payment, that the Work has progressed to the point stated in the Application for Payment and that the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents, to results of subsequent tests and inspections, to minor deviations from the Contract Documents correctable prior to completion. The issuance of a Payment Authorization will further constitute a representation that the Contractor is reasonably entitled to payment in the amount authorized. However, the issuance of a Payment Authorization will not be a representation that the District has:

1. Made exhaustive or continuous on-site inspections to check the quality or quantity of the Work;

2. Reviewed construction means, methods, techniques, sequences or procedures;

3. Reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the District to substantiate the Contractor's right to payment; or
4. Made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

9.05 DECISIONS TO WITHHOLD PAYMENT

A. The District may decide not to authorize payment and may withhold a Payment Authorization in whole or in part, to the extent reasonably necessary to protect itself, if in its opinion the representations required by Subparagraph 9.04 B cannot be made. If the District is unable to authorize payment in the amount of the Application, the District will notify the Contractor as provided in Subparagraph 9.04 A. If the Contractor and District cannot agree on a revised amount, the District will promptly issue a Payment Authorization for the amount it deems proper. The District may also decide not to authorize payment or, because of subsequently discovered evidence or subsequent observations, may nullify the whole or a part of a Payment Authorization previously issued, to such extent as may be necessary in its opinion to protect itself from loss because of:

1. Defective Work not remedied;
2. Third party claims filed or reasonable evidence indicating probable filing of such claims;
3. Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
4. Damage to the District or another contractor;
5. Reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;
6. Failure to carry out the Work in accordance with the Contract Documents;
7. Failure to timely submit Contract Modification cost breakdowns in accordance with the Contract Documents;
8. Failure to timely submit schedules, schedule updates and reports in accordance with the Contract Documents;
9. Failure to timely maintain updated “as-built” Contract Documents;
10. Failure to submit Coordination Drawings in accordance with the General Requirements;
11. Failure to submit Record Documents in accordance with the General Requirements;
12. Failure to submit certified payroll records in accordance with the Contract Documents; or
13. Failure to timely comply with other requirements of the Contract Documents.

B. When the above reasons for withholding authorization are removed, authorization will be made for amounts previously withheld.

9.06 PARTIAL OCCUPANCY OR USE

A. Whenever, in the opinion of the District, the Work or any part thereof is in a condition suitable for use, and the best interest of the District requires such use, the District may take possession of, connect to, open for public use, or use the Work or a part thereof at no additional cost to the District. When so used, maintenance and repair due to ordinary wear...
and tear or vandalism of District's responsibility will be made at the District's expense. The use by the District of the Work or part thereof shall in no case be construed as constituting completion of the Work. Such use shall neither relieve the Contractor of any of its responsibilities under the contract, nor act as a waiver by the District of any of the conditions thereof.

B. Such partial occupancy or use may commence whether or not the portion has achieved Substantial Completion. The District shall determine the stage of the progress of the Work.

C. Immediately prior to such partial occupancy or use, the Contractor and District 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.

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

E. Contractor shall perform final cleaning of portions of the Work to be partially occupied or used as specified in the General Requirements.

9.07 PROJECT COMPLETION AND FINAL PAYMENT

A. When the Contractor considers that the Work is complete including all contractual requirements, including but not limited to all start-up services, warranties, guarantees, asbuilds, etc, and requests that the District prepare a Notice of Completion, Contractor shall notify the District in writing. Within seven (7) days from receipt of the Contractor's written notification, the District will make an inspection to determine whether the Work is complete. If the District determines the work is not complete, the District will provide the Contractor with a deficiency list (Punch List) of all items that must be corrected or completed before the District would consider the Work complete. This list will be provided to the Contractor within fourteen (14) calendar days from receipt of the Contractor's written notification. Once the Contractor has completed all items on the deficiency list, the Contractor can request a second inspection by the District to verify the Work is complete. If the Work is not complete, the District will follow the same procedure as for the first inspection, and the Contractor shall reimburse the District and the District's representatives for all of their costs related to the second inspection and any inspection thereafter. When the Work is considered completed, the District shall prepare a Notice of Completion, which shall establish the date of Completion.

B. If additional inspections are required, to include special inspections such as fire alarm certification, all costs of the District and District representatives conducting such additional inspections shall be deducted from progress payments owed the Contractor.

C. The remaining value of the Work performed under this Contract, if unencumbered, shall be processed for payment after thirty-five (35) days after the date the Certificate of Completion is filed by the District. Acceptance by the Contractor of said final payment shall constitute a waiver of all claims against the District arising under the Contract Documents. As a condition precedent to final payment, the Contractor shall furnish a "release" pursuant to the following subparagraph.

1. The Contractor and each assignee under any assignment in effect at the time of final payment shall, if required by the District, execute and deliver at the time of final payment as a condition precedent to final payment, a release in form and substance satisfactory to and containing such exemptions as may be found appropriate by the District, discharging the District, and the District's Consultants, and their directors, officers, members, employees, agents and authorized representatives, of and from all liabilities, obligations and claims arising under this Contract.
9.08 LIQUIDATED DAMAGES

A. Determination of Damages: The actual fact of the occurrence of damages and the actual amount of the damages which the District would suffer if the Work were not completed within the specified time set forth are dependent upon many circumstances and conditions which could prevail in various combinations and, from the nature of the case, it is impracticable and extremely difficult to fix the actual damages. Damages which the District would suffer in the event of delay include, but are not limited to, costs of renting equivalent space, expenses of prolonged employment of an architectural, engineering and construction management staff; costs of administration, inspection and supervision; and the loss suffered by the public or school children within the District by reasons of the delay in the construction of the project to serve the public at the earliest possible time or being disruptive to the school teachers or children. Accordingly, the parties hereto agree, and by execution of this Contract, the Contractor acknowledges that the Contractor understands, has ascertained and agrees, that the amounts herein set forth shall be presumed to be the amounts of damages sustained by the failure of the Contractor to complete the specified Work within the times specified.

1. The Contract Time is restricted by the District's contractual commitments and will suffer substantial damages from breach of such and from costs incurred for leasing additional space when the Project is not substantially completed on time. Therefore, the Contractor shall take whatever measures are necessary to meet the established time limit, including working outside normal working hours and shift work.

B. Agreed Amount of Damages: It is understood and agreed by both parties to the Contract that in case all the Work called for under the Contract is not completed within the time limits as specified, or within the time limits as extended in accordance with these Specifications, damage will be sustained by the District, and that it is actual damages which the District will sustain in the event of and by reason of such delay.

1. The Contractor and the District agree that the sum specified in the Instructions to Bidders represents the parties' reasonable estimate of the approximate damages which the District will sustain for each and every calendar day's delay beyond the time specified for Completion, or as extended in accordance with the Specifications.

2. The District will sustain damage which are difficult to ascertain by include the following additional expenses:
   a. Debt service.
   b. Administrative costs.
   c. District representatives and consultants costs.
   d. Temporary student and administrative facilities.

3. It is therefore agreed that the Contractor shall pay such liquidated damages as herein provided, and in case the same is not paid, agrees that the District may deduct the amount therefore from any money due or that may become due the Contractor under the Contract. Liquidated damages will continue to the time at which the Work reaches Project Completion as determined by the District.

C. It is further agreed that payment of liquidated damages under one of the aforementioned conditions will not relieve the Contractor from separate liquidated damage liability under the other condition, each to the full extent of the specified amount, regardless of whether the times for which liquidated damages are to be paid do or do not run concurrently, or whether either liability is or is not a consequence of the other.
D. Payment of Damages:

1. In the event the Contractor shall become liable for liquidated damages, the District, in addition to all other remedies provided by law, shall have the right to withhold any and all retained percentages of payments which would otherwise be or become due the Contractor until the liability of the Contractor has been finally determined. The District shall have the right to use and apply such retained percentages, in whole or in part, to reimburse the District for all liquidated damages due or to become due to the District. Any remaining balance of such retained percentages shall be paid to the Contractor only after discharge in full of all liability incurred by the Contractor. If the retained percentage is not sufficient to discharge all such liabilities of the Contractor, the Contractor and its sureties shall continue to remain liable to the District until all such liabilities are satisfied in full. Should the retention of monies due or to become due to the Contractor be insufficient to cover such damages, the Contractor forthwith shall pay the remainder to the District.

ARTICLE 10 - PROTECTION OF PERSONS AND PROPERTY

10.01 SAFETY PRECAUTIONS AND PROGRAMS

A. The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Work.

B. The Contractor shall designate in writing a responsible member of the Contractor’s organization at the site as Project safety representative whose duty shall be the prevention of accidents. This person shall be available twenty-four (24) hours a day, seven (7) days a week by telephone or other approved means.

C. In the event the Contractor encounters on the site material reasonably believed to be hazardous which has not been rendered harmless, the Contractor shall immediately stop Work in the area affected, immediately advise the District, and render the hazard harmless. The Work in the affected area shall not thereafter be resumed except by written notification of the District.

D. The Contractor shall be required to perform all Work relating to hazardous materials as required by the Contract Documents.

E. Health, Safety, And Fire Prevention: The Contractor, his subcontractors, agents and employees shall FULLY COMPLY with ALL of the provisions and requirements of CAL/OSHA, Title 8 CALIFORNIA CODE OF REGULATIONS, Industrial Relations, and all other safety codes having jurisdiction over the Project.

10.02 SAFETY OF PERSONS AND PROPERTY

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

1. Employees on the Work and other persons who may be affected thereby;

2. 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

3. Other property at the site 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.
B. The Contractor shall give notices 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.

C. 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, erecting barricades, fencing, railings, and walkways as necessary, promulgating safety regulations and notifying owners and users of adjacent sites and utilities.

D. When use or storage of 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 and in compliance with all safety regulations.

E. The Contractor shall promptly remedy damage and loss to property referred to in previous subparagraphs caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under the previous subparagraphs, except damage or loss attributable to the sole negligent acts or omissions of the District. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Paragraph 3.16 in these General Conditions.

F. The Contractor shall not load or permit any part of the construction or site to be loaded so as to endanger its safety. The structure is designed to support the loads of the finished building. No provision is included for stresses or loads imposed by construction operations. If the Contractor desires to place such loads in excess of the design load, it shall submit drawings and calculations prepared by, and bearing the seal of a California-licensed structural engineer of the proposed method for supporting such loads for the District's review and approval. No loading of any kind in excess of design loads shall be placed on any part of the building structure prior to the District's approval of the submitted drawings and calculations. The costs of the District's review shall be reimbursed to the District by the Contractor.

G. The Contractor shall be responsible for each operation and all Work, both permanent and temporary. It shall protect its Work and materials from damage due to construction operations, the action of the elements, the carelessness of its subcontractors, vandalism, or any other cause whatever, until Project Completion and Acceptance of the Work. Should improper Work of any trade be covered by another contractor and damage or defects result, the whole Work affected shall be made good by the contractor performing the improper Work to the satisfaction of the District without expense to the District.

10.03 EMERGENCIES

A. In an emergency affecting safety of persons or property, the Contractor shall act to prevent threatened damage, injury or loss, and shall as promptly as conditions permit notify the insurance carriers and the District of the nature of the emergency and circumstances related thereto. Immediately thereafter, the Contractor shall prepare a written report setting forth in detail the action taken and describing in detail all circumstances and conditions which are related to such action. Additional compensation or extension of time claimed by the Contractor on account of an emergency, if caused by fault of the District, shall be determined as provided in Paragraph 2.06 and Article 7.

10.04 SAFETY PERMITS

A. A State Industrial Safety Permit shall be obtained and paid for by the Contractor if:
1. Any building, structure, false work or scaffolding more than 3 stories high or the equivalent of 35'-0" is to be constructed.

2. The demolition of any building, structure, false work or scaffolding more than 3 stories high or the equivalent of 35'-0".

3. A trench 5'-0" deep or deeper is constructed for foundation purposes into which a person must descend.

B. The Contractor shall obtain and pay for all other required safety permits.

10.05 LOSS CONTROL REQUIREMENTS

A. Contractors and subcontractors participating in this SEWUP project will be expected to comply with the following safety and loss control requirements:

1. The Emergency Response Plans (with particular emphasis on access and egress routes).

2. District procedures regarding dealing with the media.

3. Hard hats will be mandatory on all SEWUP projects when there is an exposure to falling objects, as per Cal OSHA Construction Safety orders.

4. All construction employees will be required to be attired in workpants, shirt and appropriate boots or closed toe shoes.

5. No alcohol will be allowed on SEWUP construction sites at any time.

6. Smoking will be allowed in designated areas only.

7. All contractors will agree to conduct and fund post-injury drug screening of their employees. Those employees failing the test will be removed permanently from the job site. In addition, any contractor that shows a pattern of employees failing the tests will be reported to SEWUP, who can use the information as a factor in assessing their "responsibility" in connection with future projects.

8. Controlling access to the construction site will be a very high priority, and contractors will be required to take whatever preventative measure, such as barriers, fencing, etc., deemed necessary by either the SEWUP consultant or local school safety official.

9. Contractors will be required to respond to any school complaints about objectionable levels of dust or noise and will be required to provide the appropriate abatement as quickly as possible.

10. Construction personnel cannot enter school grounds other than the construction site unless accompanied by District personnel, and they are allowed only 'incidental' contact with students. Violations of these requirements by any construction employee will result in a mandatory background check of that employee – including fingerprinting – as required by state law.

11. The SEWUP Safety Representative, General Contractor or Construction Manager has the right to correct an unsafe act or condition. The General Contractor or Construction Manager has the right and authority to bill the non-compliant contractor for the costs associated with the correction.

12. Fall protection is mandatory on all SEWUP projects in accordance with Cal OSHA, OSHA and any other appropriate code.
13. Any contractor displaying, in the opinion of the General Contractor or SEWUP consultant, a repeated disregard for safety can be removed from the job-site and their name forwarded to SEWUP, who will use the expulsion as a factor in assessing their suitability for future projects.

14. All contractors and sub-contractors must provide a copy of their Injury & Illness Prevention Program to the General Contractor or Construction Manager to be filed at the job site.

15. A site specific Injury & Illness Prevention Program shall be available on site with either the General Contractor or Construction Manager. All contractors shall abide by this program.

16. Personal radios, headsets, walkmans and CD players are not allowed on the job-site.

17. All work activities must comply with applicable Cal OSHA, OSHA, EPA, ANSI, and local laws pertaining to safety.

18. The General Contractor or Construction Manager shall assume overall responsibility for project safety compliance with the applicable safety regulations and the site specific Injury & Illness Prevention Program.

19. All contractors must attend the pre-construction safety meeting.

20. All contractors shall identify their competent person(s) to the General Contractor or Construction Manager.

21. The SEWUP Safety Representative will conduct visits to the job site at the request of the District, General Contractor, Construction Manager, JPA, or SEWUP. Contractors will be required to cooperate with the consultant and take the appropriate corrective action deemed necessary with timeframes established regarding the corrective action.

22. The SEWUP Safety Representative has the authority, during the course of the job site inspection, to suspend those aspects of the job site that are considered “imminently dangerous” until appropriate corrective action is completed.

23. The SEWUP Safety Representative may require a follow-up meeting or contact if there is a death, serious and willful claim, serious disabling injury, adverse loss experience, major fire, or serious 3rd party claim.

24. Any contractors’ employee observed providing or selling cigarettes or other smoking materials to students shall be removed from the job site until further notice.

25. No sexual reference or preference shall be permitted on any piece of clothing or the hardhat. Any employee observed disregarding this policy shall be removed from the job site until further notice.

26. All contractors’ employees shall park in their designated parking area. Any sticker attached to the employees’ vehicle that displays any form of sexual preference or reference shall be removed prior to parking at the site. Each employee will provide their license plate number to the General Contractor or Construction Manager. Any employee disregarding this policy shall be removed from the site until further notice.

27. All contractors shall control the break time activities of the employees to assure the cleanup of all soda cans, food wrappers, plastic bottles, or food containers from the
break area. Such areas shall be cleaned immediately after the break and all waste placed in trash receptacles. No glass containers are permitted on the site.

28. Theft or willful damage to any property of the owner, student, or other contractors will be prosecuted fully.

29. No guns, switchblades, or knives with blades greater than 2” shall be allowed on the job site. Any employee disregarding this policy shall be removed from the site until further notice.

30. All contractors will advise those non-English speaking employees in their native language either in a written format or via an interpreter of these policies.

31. All non-SEWUP members or guest who visit the job site will be required to sign a hold harmless agreement. All such persons shall be required to be appropriately attired to include a hardhat.

**Article 11 - INSURANCE AND BONDS**

11.01 CONTRACTOR PROVIDED INSURANCE (For all projects)

A. INSURANCE REQUIREMENTS

The Contractor shall maintain in full force and effect and cause its subcontractors to maintain, for the period covered by the Contract, the following insurance:

1. **Comprehensive or commercial general liability insurance** with limits not less than $1,000,000 per each occurrence combined single limit for bodily injury and property damage, including coverage for contractual liability, personal injury, independent contractors, explosion, collapse and underground (XCU), broad form property damage, products liability, and completed operations.

   a. Should any of the required insurance be provided under a form of coverage that includes an annual general aggregate limit or provides that claims investigation or legal defense costs be included in such annual general aggregate limit, such annual general aggregate limit shall be **two times** the occurrence limits stipulated.

   b. Should any of the required insurance be provided under a claims-made form, Contractor shall maintain such coverage continuously throughout the term of this contract, and without lapse, for a period three years beyond the contract expiration, to the effect that, should occurrences during the contract term give rise to claims made after expiration of the contract, such claims shall be covered by such claims-made policies.

2. **Comprehensive or business automobile liability insurance** with limits not less than $1,000,000 per each occurrence combined single limit for bodily injury and property damage, including coverage for owned, non-owned, and hired automobiles, as applicable.

3. **Workers' Compensation**, including Employers' Liability Insurance with limits not less than $1,000,000 each accident, occurrence or disease and $1,000,000 aggregate.

   a. The Workers' Compensation Insurance shall cover any compensation payable under the provisions of the act of legislature of the State of California, known as the "Workmen's Compensation Insurance and Safety Act" approved May 26, 1913, and all acts amendatory and supplemental thereto. If the Contractor fails
to maintain such insurance, the District, at its sole option and without incurring any further obligation to provide insurance, may take out Workers' Compensation Insurance to cover any compensation payable under the provisions of the Act by reason of any employee of the Contractor being injured or killed, and to deduct and retain the amount of the premium for such insurance from any sums due the Contractor. If the injury occurs to any employee of the Contractor for which the employee, or its dependents in the event of its death, is entitled to compensation from the District under the provisions of said Act, or for which compensation is claimed from the District, the District may retain from the sums due the Contractor under these Contract Documents an amount sufficient to cover such compensation, as fixed by said Act, until such compensation is paid; and if the District is compelled to pay such compensation, it will deduct and retain from such sums the amount so paid.

b. The Contractor shall sign and file with the District the following certification prior to performing the Work of the Contract:

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

4. **Builder's Risk Insurance** on an All-Risk Form covering the new Work under the Contract, excluding earthquake and flood but including ensuing perils, with limits not less than the Contract Sum and any deductible not to exceed $10,000.

a. Coverage for debris removal limits not less than $1,000,000.
b. Such policy shall name the District as loss payee and shall be issued by carrier(s) satisfactory to the District and licensed through the Department of Insurance to conduct insurance business in California.
c. In the event of any damage except earthquake and flood, it shall be the Contractor's responsibility to perform at its expense all required repair and replacement including damage to adjacent areas.
d. The Contractor shall be responsible for all losses not covered by the policy, excluding earthquake and flood, including the deductibles.

5. In the event that the Contractor employs professional engineering services, the Contractor shall require the retained engineers to carry professional liability insurance with limits not less than $1,000,000 each claim with respect to negligent acts, errors, or omissions in connection with professional services to be provided under this Agreement and any deductible not to exceed $50,000 each claim. The Contractor shall provide the District with Certificates of Insurance for any such policy.

6. In the event that the Contractor is performing abatement of hazardous or contaminated materials work or employs a subcontractor or entity for abatement of hazardous or contaminated materials, the Contractor shall furnish or require the subcontractor or entity to maintain environmental liability insurance with limits not less than $1,000,000, policy written on an occurrence form, with any deductible not to exceed $25,000, including coverage for Contractor's pollution legal liability for contaminated soils, asbestos, lead, underground storage tanks, and other hazardous materials which may be encountered at the site.

B. INSURANCE BY OTHERS:
For General Liability, Environmental Pollution Liability and Automobile Liability Insurance, the Contractor shall include as additional named insureds, the District, the Architect, the District’s Consultants, and all authorized agents and representatives, and members, directors, officers, trustees, agents and employees of any of them.

C. FORM OF POLICIES AND OTHER INSURANCE REQUIREMENTS:

1. Before commencement of the Work of this Contract, certificates of insurance shall be furnished to the District, with complete copies of policies to be furnished to the District promptly upon request.

2. Approval of the insurance by the District shall not relieve or decrease the extent to which the Contractor or subcontractor of any tier may be held responsible for payment of any and all damages, except damage caused by earthquake or flood, resulting from its operations. All policies of insurance and certificates shall be satisfactory to the District.

3. Liability insurance shall be on an occurrence basis; and said insurance shall provide that the coverage afforded thereby shall be primary coverage (and non-contributory to any other existing valid and collectable insurance) to the full limit of liability stated in the declaration, and such insurance shall apply separately to each insured against whom claim is made or suit is brought, but the inclusion of more than one (1) insured shall not operate to increase the insurer's limits of liability.

4. Each such policy shall provide that no cancellation, non-renewal nor any reduction in its coverage shall occur without the carrier giving to the District at least thirty (30) days' written notice prior thereto. All notices shall be made to:

   Sadiq B. Ikharo  
   Vice Chancellor of General Services  
   Peralta Community College District  
   333 East 8th Street  
   Oakland, CA 94606

5. The Contractor shall file with the District a certificate of the required new or renewed policy at least ten (10) days before the effective date of such cancellation, change or expiration, with a complete copy of new or renewed policy.

6. If, at any time during the life of this Contract, the Contractor fails to maintain any item of the required insurance in full force and effect, all Work of this Contract may, at District’s sole option, be discontinued immediately, and all Contract payments due or that become due will be withheld, until notice is received by the District as provided hereinbefore that such insurance has been restored to full force and effect and that the premiums therefore have been paid for a period satisfactory to the District.

7. Any failure to maintain any item of the required insurance may, at District’s sole option, be sufficient cause for termination of this Contract.

E. Insurance companies shall be legally authorized, licensed and admitted through the California Department of Insurance to engage in the business of furnishing insurance in the State of California. All insurance companies shall have an "A-,VIII" in Bests Rating Guide and shall be satisfactory to the District.

11.02 CONTRACTOR ADDITIONAL INSURANCE REQUIREMENTS (For all projects)

A. Notice to the District: Further the policy will provide not less than thirty (30) days prior written notice to District’s Program Administrator or its Designee of any material change in the insurance
B. **Additional Insured**: The District will be endorsed as “additional insured” on Contractor's and Subcontractors’ policy or policies. Contractor and Subcontractors shall furnish Certificates of Insurance evidencing said coverage before commencing work on the Project.

C. **Contractor Construction Equipment Insurance**: Any policies maintained by the contractor and subcontractors on their owned and/or rented equipment and materials shall contain a provision requiring the insurance carriers to waive their rights of subrogation against the Owner and all other indemnitees named in the contract.

D. **Professional Liability Insurance (Errors & Omissions)**: In the event any contract specifications requires your firm to provide professional services, such as but not limited to, architectural, engineering, construction management, surveying, design, etc., a certificate of insurance must be provided prior to commencing work evidencing such coverage with a limit of not less than $1,000,000. Any material change in limits, coverages or loss of aggregate limit due to outstanding claims must be reported to the District within 30 days of any such event.

E. **Environmental and Asbestos Abatement Coverages**: If this Agreement involves the removal of asbestos, the removal/replacement of underground tanks or the removal of toxic chemicals and substances, the Contractor will be required to provide adequate coverages, with limits not less than $1,000,000 per claim basis, for such exposures subject to requirements and approval of the District.

F. **Hold Harmless clause**: Work done on the premises, or in connection with the prosecution of this contract by the Contractor, shall be at the Contractor's risk and the Contractor shall assume any and all liability and shall hold harmless the District, their agents, servants or employees, from claims or demands, cost expenses, loss or damage due to bodily injury, sickness or disease, including death to employees of the Contractor or any other person, or damage of property including loss of use thereof suffered by employees of the Contractor or any other person; arising out of the performance of the contract, whether such are based upon negligence of the District or any other person, firm, corporation or organization for whom such contract is being performed, their agents, employees or otherwise.

### 11.03 PROOF OF CARRIAGE OF INSURANCE

A. Before work is started, the Contractor shall forward to the Owner two copies of a Certificate of Insurance or Memorandum of Insurance, evidencing that all required Contractor Furnished Insurance is in force, executed by an authorized representative of the insurance company, and naming Owner as additional insured as outlined below.

B. Certificates and insurance for contractor furnished insurance policies shall include the following clause:

   "This policy shall not be cancelled 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 date of mailing notice."

C. Certificates of insurance for contractor furnished insurance policies shall state in particular those insured, extent of insurance, location and operation to which insurance applies, expiration date, and cancellation and reduction notice.

D. Certificates of insurance for contractor furnished insurance policies shall clearly state that the District is named as an additional insured under the policy described and that such insurance policy shall be primary to any insurance or self-insurance maintained by the District.

E. Contractor furnished policies will be written by an insurer of satisfactory character including a Best's rating of not less than A- VIII and an admitted carrier in the State of California. If
F. In the event the contractor or any subcontractor fails to furnish and maintain required insurance or to furnish satisfactory evidence thereof, the Owner may procure and maintain such coverages for all parties on behalf of the contractor. Contractor shall furnish all necessary information and pay the premium cost to the District immediately upon presentation of a premium invoice.

G. Subcontractors. Should a contractor engage a subcontractor, the same conditions will apply to each subcontractor. Each subcontractor must be covered by insurance of the same character and in the same amounts as the Contractor, naming the Contractor and the Owner as additional insureds. Copies of certificates of insurance for subcontractors must be filed with the District within thirty (30) working days after issuance of a Notice to Proceed and at least five (5) working days before the subcontractor begins work on the site. Failure to provide evidence of such insurance shall result in the subcontractor being excluded from the site until proper coverage is verified. The cost of any resulting delay will be borne by the contractor.

11.04 PERFORMANCE BOND AND PAYMENT BOND

A. At the time of execution of the Contract, the Contractor shall file with the District the following bonds:

1. A Corporate Surety Bond, in a sum not less than 100 percent of the amount of the Contract, to guarantee the faithful performance of the Contract.

2. A Corporate Surety Bond, in a sum not less than 100 percent of the amount of the Contract, to guarantee the payment of wages for services engaged and of bills contracted for materials, supplies, and equipment used in the performance of the Contract.

B. Corporate sureties on these bonds and on bonds accompanying bids shall be legally authorized, licensed and admitted through the California Department of Insurance to engage in the business of furnishing surety bonds in the State of California. All sureties shall have an "A-,VIII" rating in Bests Rating Guide and shall be satisfactory to the District. The Contractor will submit surety bonds on forms provided by the District.

C. The amount of the Contract, as used to determine the amount of the bonds, shall be the amount based on the Contract Sum.

D. Failure of the successful Bidder to execute the Contract and deliver the required bonds and insurance within the 10-day period may constitute a default, and Bid Guarantee may be forfeited. Thereupon, the Owner at its sole option may award the Contract to the next acceptable Bidder, waive the time limit, or readvertise for Bids. The money and proceeds from the check or bond, as the case may be, shall be applied towards payment of damages to PCCD caused by the delay on the construction schedule, and secondly, the necessity of accepting a higher or less desirable proposal due to this delay caused by the failure or refusal on the part of the successful bidder to execute the Contract. The amount of the check or bond, as the case may be, shall not constitute a limitation upon the right of the Owner to recover for the full amount of such damage.

ARTICLE 12 - UNCOVERING AND CORRECTION OF WORK

12.01 UNCOVERING OF WORK

A. No Work shall be covered until inspected by the District.
B. If a portion of the Work is covered contrary to the District's request or to requirements specifically expressed in the Contract Documents, it must, if required in writing by the District, be uncovered for the District's observation and be replaced at the Contractor's expense without change in the Contract Time.

C. If a portion of the Work has been covered which the District has previously inspected, the District 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 uncovering and replacement shall, by appropriate Contract Modification, be paid by the District. If such Work is not in accordance with the Contract Documents, the Contractor shall pay for all costs to uncover and replace the Work, as well as related disruptions and delays.

12.02 CORRECTION OF REJECTED AND FAILING WORK

A. The Contractor shall promptly correct Work rejected by the District or failing to conform to the requirements of the Contract Documents, whether observed before or after Project Completion and whether or not fabricated, installed or completed. The Contractor shall bear costs of correcting such rejected Work, including additional testing and inspections and compensation for the District representative's services and expenses made necessary thereby and at the labor rates included in contracts between District and District representatives.

C. If, within one (1) year after the date of Project Completion, or by terms of an applicable special warranty 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. This period of one (1) year shall be extended with respect to portions of Work first performed after Project Completion by the period of time between Project Completion and the actual performance of the Work. This obligation under this Subparagraph shall survive acceptance of the Work under the Contract and termination of the Contract. The District will give such notice promptly after discovery of the condition.

C. The Contractor shall remove from the site those portions of the Work, which are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the District.

D. If the Contractor fails to correct non-conforming Work within a reasonable time as determined by the District, the District may correct it in accordance with Paragraph 2.03. If the Contractor does not proceed with correction of such non-conforming Work within a reasonable time fixed by written notice from the District, the District may correct it and store the salvable materials or equipment and dispose of non-salvable material at the Contractor's expense. If the Contractor does not pay costs of such removal and storage within ten days after written notice, the District may upon ten additional days' written notice sell such materials and equipment at auction or at private sale and shall account for the proceeds thereof, after deducting costs and damages that should have been borne by the Contractor, including reimbursement to the District of compensation for the District representatives' services and expenses made necessary thereby. If such proceeds of sale do not cover costs, which the Contractor should have borne, the Contract Sum shall be reduced by the deficiency. If payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the District.

E. The Contractor shall bear the cost of correcting destroyed or damaged Work of the District or separate contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work which is not in accordance with the requirements of the Contract Documents.
F. Nothing contained in this Paragraph shall be construed to establish a period of limitation with respect to other obligations, which the Contractor might have under the Contract Documents. Establishment of the time period of one (1) year as described hereinbefore relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

12.03 CORRECTION OF DEFECTIVE WORK

A. The Contractor shall be responsible for and shall replace any defective Work, whether due to faulty materials or errors in workmanship, which may be discovered in any part of the Work within one (1) year after its acceptance by the District and the District's filing of Certificate of Completion, or within such longer period as provided elsewhere in the Contract Documents or by law.

B. Except as otherwise expressly provided elsewhere in the Contract Documents, the Contractor agrees to correct any defective work performed and any defective materials furnished hereunder for a period of one (1) years from Acceptance of the Work of this Contract by the District and the District's filing of the Notice of Project Completion.

1. The Contractor further agrees to correct any defective work performed in installation of equipment manufactured by others but installed by the Contractor.

C. Testing shall not be construed as operation or a continuation of the work. The Contractor, after receipt of notice, shall promptly make good at its expense all defects developing during the warranty period except where such is attributable to abuse. This agreement to correct defective work shall continue for corrected or replaced articles, or, if only parts of such articles are corrected or replaced, for such corrected or replaced parts, until one (1) year after date of re-deliver or correction.

D. If the District does not require correction or replacement of a defective or non-conforming article (a non-conforming article meaning an article that does not conform to that which is called for in the Contract Documents), the Contractor, if required by the District within a reasonable time after notice of defect or non-conformance, shall pay to the District such portion of the Contract price as is equitable in the circumstances as determined by the District.

E. This agreement to correct defective work, and all similar agreements applicable to Subcontractors', manufacturers' or suppliers' equipment used in or as a part of the Work (whether on equipment of the nature above specified or otherwise) shall inure to the benefit of the District without necessity of separate transfer or assignment thereof.

F. The remedies provided for in this clause shall not be restrictive but shall be cumulative and shall be in addition to all other legal remedies the District may possess with respect to latent defects or frauds.

12.04 ACCEPTANCE OF NON-CONFORMING WORK

A. If in the judgment of the District, it is undesirable or impracticable to replace any defective or non-conforming Work, the compensation to be paid to the Contractor shall be reduced by such amount as in the judgment of the District and its authorized representatives shall be equitable.

ARTICLE 13 - MISCELLANEOUS PROVISIONS
13.01 GOVERNING LAW

A. The Contractor shall keep itself fully informed of and comply with all Federal, State and Local laws and orders of any properly constituted authority in any manner affecting this contract, the performance of the Work or those persons engaged therein, including but not limited to Titles 19, 21, and 24 of the California Code of Regulations, California Code of Regulations Title 16, Chapter 8, Paragraph 810-887, Title 1, Division 5 of the California Government Code (Section 4000, et seq., “Public Work and Public Purchases”), the California Public Contract Code, The California Contractor’s Licensing law and Title 2, Division 2, Part 23, Chapter 2 of the California Education Code (Section 39100, et seq., “Construction of School Buildings”). The Contractor shall examine the Contract Documents for compliance with these Codes and Regulations and shall promptly notify the District and the Architect of any discrepancies.

B. All construction and materials of this contract shall be in full accordance with the latest rules and regulations and requirements of the California Building Code (1995 Edition) and the requirements of Titles 19 and 24 and other applicable provisions of the California Code of Regulations (California Administrative Code) unless otherwise specified in the General Requirements (Division 1), CAL-OSHA, the State Division of Industrial Safety of the Department of Industrial Relations, the Public Utilities Commission of the State of California, State Fire Marshal, the latest rules of the National Fire Protection Association, the Department of Public Health of the City and County of San Francisco, State and National laws and regulations, and of any other bodies or officials having jurisdiction or authority over same, and they shall be observed and complied with by the Contractor and any and all persons, firms and corporations employed by or under it. Authorized persons may at any time enter upon any part of the Work to ascertain whether such laws, ordinances, regulations or orders are being complied with. No additional costs will be paid or extensions of time granted as a result of such compliance. Each of the above-referenced provisions are incorporated by reference as if fully set forth herein.

C. The Contractor shall maintain in his project office a current copy of Titles 19 and 24 of the California Code of Regulations at all times during construction on this Project. Whenever the Drawings and Specifications require higher standards than are required by the regulations, the Drawings and Specifications shall govern. Whenever the Drawings and Specifications require something, which will violate the regulations, the regulations shall govern.

13.02 SUCCESSORS AND ASSIGNS

A. The Contractor shall constantly give its personal attention to the faithful prosecution of the Work. It shall keep the Work under its personal control and shall not assign by power of attorney or otherwise, nor subcontract the whole or any part thereof, except as herein provided and in accordance with the California Contractors Subletting laws.

B. All transactions with subcontractors will be made through the Contractor, and no subcontractor shall relieve the Contractor of any of its liabilities or obligations under the Contract.

C. When any subcontractor fails to prosecute a portion of the Work in a manner satisfactory to the District representative, the Contractor shall remove such subcontractor immediately upon written request of the District, and shall request approval of a new subcontractor to perform the Work pursuant to California Public Contract Code Section 4107, at no added cost to the District.

D. The Contract shall not be assigned except upon the approval of the District.

13.03 WRITTEN NOTICE
A. The addresses given in the Agreement are hereby designated as the legal address of the Contractor and the District, but any such address may be changed at any time by notice in writing, delivered to the other party. The delivery at such legal address or the depositing in any post office or post office box regularly maintained by the United States Postal Service, in a paid wrapper, directed to the other party at such address, of any drawing, notice, letter or other communication, shall be deemed legal and sufficient service thereof upon that party.

13.04 RIGHTS AND REMEDIES

A. 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.

B. Except as otherwise specifically provided herein, no action or failure to act by the District or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, 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.

13.05 TESTS AND INSPECTIONS

A. Tests, inspections and approvals of portions of the Work required by the Contract Documents or by laws, ordinances, rules, regulations or orders of public authorities having jurisdiction shall be made at an appropriate time. Contractor shall make arrangements for such tests, inspections and approvals through the District Inspector in accordance with the Uniform Building Code, California Building Code and applicable state laws or regulations. The Contractor shall give the District a minimum of 48 hours notice, excluding weekends and District holidays, of when and where tests and inspections are to be made so the District may arrange and observe such procedures. Tests and testing laboratories shall conform to California Code of Regulations Title 24, Part 1, Section 4-335.

1. The District will retain the services of testing agencies or consultants to perform such tests or inspections and render such services as may be required to verify that the Work fulfills the requirements and intent of the Contract Documents. Such services will be performed in a manner consistent with the requirements of the District and the various agencies having jurisdiction over the Work and in accordance with reasonable standards of architectural and engineering practice.

2. The District reserves the right to modify the scope of, or to reallocate, any of the testing and inspection services specified in the various Sections of the Contract Documents to be performed by a testing agency or consultant retained by the District in connection with the Work.

3. The Contractor shall bear the cost of special inspections or observations if additional such inspections or observations are occasioned by the Contractor's unexcused delay, or as a result of work that is rejected and corrected. Repeat Inspection or inspections requested and subsequently canceled, may be subject to back charges.

B. If the District or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection or approval not included herein, the District will order the performance of such services by qualified independent testing agencies, or consultants as may reasonably be required. The District shall bear such costs except as otherwise provided herein.

C. If such procedures for testing, inspection or approval reveal failure of the portion of the Work to comply with requirements established by the Contract Documents, the Contractor shall bear all costs made necessary by such failure including those of repeated procedures and compensation for the District representatives' and consultants' services and expenses.
1. If the District's observation of any inspection or testing undertaken pursuant to Paragraph 13.05 reveals a failure in any one of a number of identical or similar items or elements incorporated in the Work to comply with (a) the requirements of the Contract Documents or, (b) with respect to the performance of the Work, with laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction, the District will have the authority to order inspection and testing of all such items or elements of the Work, or of a representative number of such items or elements of the Work, as it may consider necessary or advisable.

2. The Contractor shall bear all costs thereof, including reimbursement to District for the District representatives' and consultants' additional services, if any are required, made necessary thereby. However, neither the District's authority to act under Paragraph 13.05 nor any decision made by the District's representative in good faith either to exercise or not to exercise such authority, shall give rise to any duty or responsibility of the District to the Contractor, any Subcontractor, or any of their agents or employees, or any other person performing any of the Work.

D. The failure of District, Architect and its representatives and consultants, or District's Project Inspector to observe or inspect the Work, or to detect deficiencies in the Work, or to inform Contractor of any deficiencies which may be discovered, shall not relieve Contractor, its subcontractors regardless of tier, or suppliers from their responsibility for construction means, methods, techniques, sequences and procedures, construction safety, nor from their responsibilities to carry out the work in accordance with the Contract Documents and to detect and correct defective work. The term “defective work” means work that is unsatisfactory, faulty, omitted incomplete, deficient, or does not conform to the requirements of the Contract Documents, directives of Architect or the requirements of any inspection, reference standard, test, or approval specified in the Contract Documents, or has been damaged prior to final completion, unless responsibility for the protection of such work has been assumed by District through beneficial occupancy (or substantial completion, where applicable) in accordance with the General Conditions.

E. Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor.

F. If the District representatives are to observe tests, inspections or approvals required by the Contract Documents, the District shall do so promptly and, where practicable, at the normal place of testing. If the testing location is outside the nine (9) county Bay Area, the Contractor shall bear the travel-related costs, including transportation, lodging, meals, long-distance telephone calls and facsimile transmittals, and associated expenses of the District.

G. The Contractor shall furnish promptly, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspection and test as may be required by the District. Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

1. The District reserves the right to charge to the Contractor any additional cost of inspection or test when material or workmanship is not ready at the time specified or when re-inspection or re-test is necessitated by prior rejection or unexcused delay.

H. All materials, equipment, and workmanship used in the work of Project shall be subject to inspection and special inspection or testing at all times during Construction and/or manufacture in accordance with California Code of Regulations Title 24, Part 1, Section 4-333(c) and 4-335.

I. The District shall supply an inspector(s) who shall observe construction in progress. The inspector shall act under the direction of the Architect and the Peralta Community College
1. Observe installations and work in progress as a basis for determining conformance of the work, materials and equipment with the Construction Documents. Project Inspector will report any discrepancies observed to Architect, District, and Contractor. Only the Architect has the authority to make approvals or rejections.

2. Only Architect shall interpret the requirements of the Construction Documents. If any item is ambiguous, Architect shall make a written interpretation. If Contractor requests changes or modifications to the Construction Documents, Architect shall make a written determination on the requested changes or modifications.

3. Prepare an inspection report for each inspection performed.

4. Review the monthly progress payment request before Contractor submits it to the Architect.

5. Assist the Architect in reviewing the test and inspection results of testing laboratories.

6. The Project Inspector is not authorized to permit deviations from the requirements of the Contract Documents unless such deviation has been approved by the District and the Architect.

7. The Project Inspector is not authorized to advise on or issue directions to Contractor about any aspect of construction means, methods, techniques, sequences or procedures, or relating to safety programs in connection with the Project.

J. All inspection shall be scheduled through the District Inspector by issuing an inspection request using the District standard form.

13.06 EQUAL OPPORTUNITY

A. Nondiscrimination provisions shall be in accordance with and pursuant to the provisions of the Peralta Community College District Policy on Equal Opportunity.

B. To be eligible for award of the contract, the Contractor must agree to comply with all applicable requirements authorized by the Peralta Community College District Policy where applicable.

C. It is the policy of the District that in connection with all work performed under contracts, there will be no discrimination against any prospective or active employee engaged in the work because of race, color, ancestry, national origin, religious creed, sex, age, handicap, or marital status. The Contractor agrees to comply with applicable Federal and California laws including, but not limited to, the California Fair Employment Practice Act, beginning with Government Code Section 12900 and Labor Code Sections 1735, 1777.5, 1777.6 and 3077.5. In addition, the Contractor agrees to require like compliance by any subcontractors employed on the work.

13.07 APPRENTICES

A. Contractors must comply with certain apprenticeship obligations set forth in the Labor Code (LC Section 1777.5). Every such apprentice shall be paid the standard wage paid to
apprentices under the regulations of the craft or trade at which he or she is employed, and shall be employed only at the work of the craft or trade to which he or she is registered.

B. Only apprentices, as defined in Section 3077, who are in training under apprenticeship standards and written apprentice agreements under Chapter 4 (commencing with Section 3070) of Division 3, are eligible to be employed as apprentices on public works. 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.

C. When the Contractor to whom the contract is awarded by the state or any political subdivision, or any Subcontractor under him or her, in performing any of the work under the contract or subcontract, employs workers in any apprenticeable craft or trade, the contractor and Subcontractor shall apply to the joint apprenticeship committee administering the apprenticeship standards of the craft or trade in the area of the site of the public work 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, approval as established by the joint apprenticeship committee or committees shall be subject to the approval of the administrator of Apprenticeship. The joint apprenticeship committee or committees, subsequent to approving the subject Contractor or Subcontractor, shall arrange for the dispatch of apprentices to the Contractor or Subcontractor in order to comply with this section. Every Contractor and Subcontractor shall submit contract award information to the applicable joint apprenticeship committee, which shall include an estimate of journeyman hours to be performed under the contract, the number of apprentices to be employed, and the approximate dates the apprentices will be employed. There shall be an affirmative duty upon the joint apprenticeship committee or committees administering the apprenticeship standards of the craft or trade in the area of the site of the public work to ensure equal employment and affirmative action in apprenticeship for women and minorities. Contractors or Subcontractors shall not be required to submit individual applications for approval to local joint apprenticeship committees provided they are already covered by the local apprenticeship standards. The ration of work performed by apprentices to journeymen who shall be employed in the craft or trade on the public work may be the ration stipulated in the apprenticeship standards under which the joint apprenticeship committee operates, but, except as otherwise provided in this section, in no case shall the ratio be less than one hour of apprentices work for every five hours of labor performed by a journeyman. However, the minimum ration for the land surveyor classification shall not be less than one apprentice for each five journeymen.

D. Any ratio shall apply during any day or portion of a day when any journeyman, or the higher standard stipulated by the joint apprenticeship committee, is employed at the job site and shall be computed on the basis of the hours worked during the day by journeymen so employed, except for the land surveyor classification. The Contractor shall employ apprentices for the number of hours computed as above before the end of the contract. However, the Contractor shall endeavor, to the greatest extent possible, to employ apprentices during the same time period that the journeymen in the same craft or trade are employed at the job site. Where an hourly apprenticeship ration is not feasible for a particular craft or trade, the Division of Apprenticeship Standards, upon application of a joint apprenticeship committee, may order a minimum ration of not less than one apprentice for each five journeymen in a craft or trade classification.

E. The Contractor or Subcontractor, if he or she is covered by this section, upon issuance of the approval certificate, or if he or she has been previously approved in the craft or trade, shall employ the number of apprentices or the ration of apprentices to journeymen stipulated in the apprenticeship standards. Upon proper showing by the contractor that he or she employs apprentices in the craft or trade in the state on all of his or her contracts on an annual average of not less than one hour of apprentice work for every five hours of labor performed by a journeyman, or in the land surveyor classification, one apprentice for each five journeymen, the Division of Apprenticeship Standards may grant a certificate exempting the
contractor from the 1-to-5 hourly ratio as set forth in this section. This section shall not apply to contracts of General Contractors or to contracts of specialty Contractors not bidding for work through a general or prime contractor, when the contract of General Contractors or those specialty Contractors involve less than thirty thousand dollars ($30,000) or 20 working days. Any work performed by a journeyman in excess of eight hours per day or 40 hours per week, shall not be used to calculate the hourly ratio required by this section.

F. "Apprenticeable craft or trade," as used in this section, means a craft or trade determined as an apprenticeable occupation in accordance with rules and regulations prescribed by the Apprenticeship Council.

G. A Contractor to whom the contract is awarded, 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 and who is not contributing to a fund or funds to administer and conduct the apprenticeship program in any craft or trade in the area of the site of the public work, to which fund or funds other contractors in the area of the site of the public work are contributing, shall contribute to the fund or funds in each craft or trade in which he or she employs journeymen or apprentices on the public work in the same amount or upon the same basis and in the same manner as the other Contractors do, but where the trust fund administrators are unable to accept the funds, Contractors not signatory to the trust agreement shall pay alike amount to the California apprenticeship Council. The Contractor or Subcontractor may add the amount of the contributions in computing his or her bid for the contract. The Division of Labor Standards Enforcement is authorized to enforce the payment of the contributions to the fund or funds.

H. The prime Contractor is responsible for compliance with the above to include their Subcontractors.

I. All decisions of the joint apprenticeship committee under this section are subject to Section 3081. (Amended by Stats. 1989, Ch. 1224.)

13.08 WAGES AND PAYROLLS

A. It is hereby understood and agreed that all provisions of Section 1770 et seq. of the California Labor Code are required to be incorporated into every contract for any public work or improvement and are provisions of this Contract. Applicable Labor Code provisions control over any conflicting provision contained herein.

B. It is hereby understood and agreed that all provisions of California Labor Code Sections 1770 et seq. and sections 1810, et seq. are incorporated as provisions of this Contract, including but not limited to the following:

1. The Contractor shall pay to all persons performing labor in and about the Work provided for in this Contract not less than the general prevailing rate of wages as determined by the Director of the California Department of Industrial Relations for their respective crafts and employment, including such wages for holiday and overtime work. The bidder is cautioned to inspect the minimum wage rates as rates are updated periodically.

2. The Contractor shall insert in every subcontract or other arrangement which it may make for the performance of any Work or labor on the Work provided for in this Contract, a provision that said subcontractor shall pay to all persons performing labor or rendering service under said subcontract or other arrangement the general prevailing rate of wages determined as set forth herein after for the respective crafts and employment, including such wages for holiday and overtime work.

3. The Contractor shall keep or cause to be kept an accurate record showing the name, place or residence, occupation, and per diem pay, of each person engaged in the
execution of this Contract, and every subcontractor who shall undertake the performance of any part of the Work herein required shall keep a like record of each person engaged in the execution of the subcontract. All of said records shall at all times be open to the inspection of and examination of the District and its authorized representatives.

4. The Contractor shall submit its monthly-certified payrolls with its progress payment applications to the District.

5. Should the Contractor, or any Subcontractor who shall undertake the performance of any part of the Work herein required, fails or neglects to pay to the persons who shall perform labor under this Contract, subcontract or other arrangement for the Work the general prevailing rate of wages as herein specified, it shall forfeit, and in the case of any subcontractor so failing or neglecting to pay said wage, the original contractor and the subcontractor shall jointly and severally forfeit, to the District the sum of two hundred dollars ($200.00) per day for each laborer, worker or mechanic employed for each calendar day or portion thereof, while said person shall be so employed and not paid said highest general prevailing rate of wages. The District will deduct the amount, which would otherwise be due on said payment the amount of said forfeiture, or forfeitures as so certified.

6. No person performing labor or rendering service in the performance of any contract or subcontract for the Work herein required shall perform labor for a longer period than forty (40) hours per week, or five (5) days of eight (8) hours each, excepting those in crafts in which a shorter work day now prevails by agreement in private employment. Any Contractor or subcontractor who violates this provision shall be liable for the same penalties and forfeitures as those specified in Subparagraph 5 above for each laborer, mechanic or artisan employed for each calendar day or portion thereof wherein such laborer, mechanic or artisan is compelled or permitted to work more than the days and hours specified herein. Provided, that if it is so stipulated in the General Conditions, the number of days and hours of labor per week may be extended beyond the limitations above mentioned, but not to exceed eight (8) hours in any one calendar day, or six (6) days in any calendar week. In the event that emergency conditions shall arise making a change advisable during the performance of the Contract, or any portion thereof, the hours and days of labor may be extended beyond the limits hereinabove expressed, but not to exceed an additional 8 hours per day, upon the written authority of the District. Failure of the contractor to perform its contract within the time provided shall not be deemed to constitute an emergency.

C. Certification of Payroll Records: In accordance with Section 1776 of the California Labor Code:

1. The Contractor shall, and shall require that its Subcontractors, keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by it or her in connection with this Contract.

2. The payroll records shall be certified and shall be submitted to the District within five (5) days of each of the payroll periods of the Contractor and his subcontractors, and at least once monthly. Pay requests shall not be processed until certified payroll records have been submitted up-to-date. In addition, the payroll records shall be available for inspection at all reasonable hours at the job site office of the Contractor on the following basis:

   a. A certified copy of an employee's payroll record shall be made available for inspection or furnished to such employee or its or her authorized representative on request.
b. A certified copy of all payroll records shall be made available for inspection or furnished upon request to a representative of the District.

c. A certified copy of all payroll records shall be made available upon request to the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either the District or the Department of Industrial Relations

3. The Contractor shall file a certified copy of the payroll records with the entity that requested such records within ten (10) days after receipt of a written request.

4. Any copy of payroll records made available for inspection as copies and furnished upon request of the public or any public agency by the District shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address and social security number. The name and address of the Contractor awarded the Contract or performing the Contract shall not be marked or obliterated.

5. The Contractor shall inform the District of the location of the payroll records, including the street address, city and county, and shall, within five (5) working days, provide a notice of a change of location and address.

6. In the event of noncompliance with the requirements of said Section 1776, the Contractor shall have 10 days in which to comply subsequent to receipt of written notice specifying in what respects such Contractor must comply with said section. Should noncompliance still be evident after such 10-day period, the Contractor shall, as a penalty to the District, forfeit twenty-five dollars ($25.00) for each calendar day, or a portion thereof of non-compliance, for each worker, until strict compliance is effected. Upon the request of the Department of Industrial Relations, or the District, such penalties shall be withheld from progress payments then due. All penalties and forfeitures set forth herein shall at the expiration of ninety (90) days after completion of the contract and formal acceptance of the work by the District, be forwarded to the State Treasurer if requested by the Division of Labor Standards Enforcement.

7. The responsibility for compliance with Section 1776 shall be on the Contractor.

8. No progress payments will be processed until the Contractor has submitted, to the District, certified payrolls pursuant to Section 1770 et seq. of the California Labor Code for the periods involved for all employees including those of subcontractors. The District will not be liable to the Contractor for costs arising from the delay in making progress payments.

9. If the District receives formal notice either by service or summons or registered mail of a suit commenced to recover the withheld amounts within the ninety (90) day period following contract completion, it shall retain them until a final court judgment is obtained. It shall distribute the withheld amounts in accordance with said judgment.

10. Should the District not have withheld sufficient funds to cover all penalties and forfeitures due, it shall notify the Department of Labor Standards Enforcement of the judgment and provide whatever assistance is requested by the Division of Labor Standards Enforcement to recover penalties due for failure to pay prevailing wage.

11. Should there be a reasonable belief on the part of the District that prevailing wages are not being paid by the contractor or his subcontractors, it may conduct an investigation to determine if this is the case. After a full investigation, if the District determines that the prevailing wage is not being paid, it shall withhold two hundred dollars ($200.00) per
day per worker (in accordance with Labor Code 1775) whom it determines is not being paid the prevailing wage from the next progress payment due, or final payment. Alternatively, the District may notify the Division of Labor Standards Enforcement, requesting a full investigation. Should the result of the investigation conclude that the prevailing wage was not being paid, the District will withhold the amount indicated above in the manner set forth herein.

12. The statutory penalties for willful noncompliance with prevailing wage requirements may be enforced after a formal determination of non-compliance. A willful violation may result in debarment of one (1) to three (3) years in accordance with Labor Code Section 1777.1.

13. The District retains the right to consider the contractor's willful failure to pay prevailing wage in awarding future contracts, to the extent permitted by law.

D. Copies of such prevailing rates of per diem wages are on file at the Office of the Division of Labor Statistics and Labor Prevailing Wage Unit, 525 Golden Gate Avenue, San Francisco, California 94102 or at Peralta Community College District, Facilities Planning and Construction, 50 Phelan Avenue, Room B-601, San Francisco, CA 94112, (415) 239-3046.

13.09 TEMPORARY FACILITIES

A. The Contractor shall obtain permits for, install and maintain in safe condition, whatever scaffolds, hoisting equipment, barricades, walkways, or other temporary structures, which may be required to accomplish the work on the construction project. Such structures shall be adequate for the intended use and capable of safely accepting all loads that may be imposed upon them. They shall be installed and maintained in accordance with all applicable State and Local codes and regulations. The Contractor is responsible for maintaining access to the buildings at all times.

B. The Contractor shall provide, maintain, and remove all weather protection required to protect the work or District property.

C. The Contractor is responsible for parking and storage as required by the Contractor, Subcontractors, and Suppliers on this project. The Contractor shall provide, maintain, and remove all work required to comply with the Storm Water Run-off Plan.

D. The Contractor shall provide and maintain temporary heat from an approved source whenever in the course of the work it may become necessary for curing and drying of materials, or to warm spaces as may be required for the installation of materials or finishes. If new permanent HVAC equipment is used for this purpose, equipment warranty periods shall not start at this time. All warranties begin at project completion and acceptance by PCCD.

E. The Contractor shall provide and maintain any and all facilities that may be required for dewatering in order that work may proceed on the project. If it is necessary for dewatering to occur continually, the Contractor shall have on hand whatever spare parts or equipment that may be required to prevent interruption of dewatering.

F. The Contractor shall provide and maintain all utility services necessary to perform the work under this Contract. These may include, but are not limited to, electricity, water, gas, sewer and telephone, including charges and installation fees. Contractor shall furnish and maintain all means of distribution of utility services required within the site to properly complete the project. Electrical work shall be consistent with Division of Industrial Safety “Electrical Safety Orders (ESO), Public Utilities Commission “Rules of Overhead Line Construction” (G.O. 95), the Division of the State Architect, and CAL-OSHA. The Contractor shall provide and maintain adequate fire extinguishers and safety kits to be used in the event of an emergency.
G. Materials, tools, accessories, etc., shall be stored only where directed by the District. Storage area shall be kept neat and clean. Security of stored items shall be the Contractor's responsibility.

H. When flammable materials are stored on site, extra precaution including clear identification shall be the responsibility of the Contractor and in accordance with all applicable Federal, State, and Local laws.

I. The Contractor shall provide and maintain temporary toilets in quantities and locations as required by CAL/OSHA and other local codes and regulations. They shall be maintained and supplied in a usable and sanitary condition at all times.

J. If water at construction site is determined to be non-potable by Job Inspector, Contractor shall provide and maintain adequate potable water stations at site until final completion of Construction Project.

K. The Contractor shall maintain an office at the project site, which will be his headquarters for this Project. Any communications delivered to this office shall be considered as delivered to the Contractor. Location and size of office shall be such that it will adequately serve the needs of the Contractor's superintendent and assistants in the performance of their duties.

L. The Contractor shall also provide and maintain an office for the use of the Inspector and Architect on the site at a location to be determined by the Owner and/or the Owner's representative. This office will be watertight and of adequate size to accommodate a desk, chair, filing cabinet, plan rack, two stools, and large plan table, all provided by the Contractor. This office shall be provided with windows, lighting, heat and a non-coin operated telephone, all to be paid for by the Contractor for the duration of the Project.

M. The Contractor shall promptly remove all such temporary facilities when they are no longer needed for the work or for completion of the Project, mutually agreed upon by the Contractor and the District.


13.10 CONFLICT OF INTEREST

A. Contractor understands the following and certifies that it does not know of any facts which constitutes a violation:

1. Contractor hereby certifies that no current Board member or employee of the Peralta Community College District, and no one who has been a Board member or who has been employed by the Peralta Community College District within the past two years, has participated in bidding, selling or promoting this contract. Furthermore, Contractor certifies that no such current or former Board member or employee has an ownership interest in this contract, nor shall any such current or former Board member or employee derive any compensation, directly or indirectly, from this contract. Contractor understands that any violation of this provision of the contract shall make the agreement voidable by the District.

2. Government Code of the State of California, Section 87100 et. seq. regarding Public officials; state and local; financial interest:

B. No public official at any level of state or local government shall make, participate in making or in any way attempt to use his official position to influence a governmental decision in which he knows or has reason to know he has a financial interest.
13.11. SUPERVISION BY THE DIVISION OF THE STATE ARCHITECT

A. The District (Owner) shall notify the Division of the State Architect ("ORS") of the start of construction as required by California Code of Regulations, Title 24, Part 1, Section 4-331, and by California Education Code Sections 39152, 39153, 81142, and 81143.

B. As required by California Code of Regulations, Title 24, Part 1, section 4-334, during construction, reconstruction, repair, alteration of or addition to any school building, the ORS shall make such inspection as in its judgment is necessary or proper for enforcement of the act and the protection of the safety of the pupils, the teachers and the public. If at any time as the work progresses and prior to the issuance of the final approval, it shall be found by the ORS that modifications or changes are necessary to secure safety, orders shall be issued by the DSA for such modifications or changes.

13.12 INSTRUCTIONS AND MANUALS

A. Three copies each of all maintenance instructions, application/installation instructions and service materials called for in the Contract Documents shall be provided by the Contractor. These shall be complete as to drawings, details parts lists, performance data and other information that may be required for the Owner to easily maintain and service the materials and equipment installed under this Contract.

B. All manufacturer's application/installation instructions shall be given to the Inspector at least ten (10) days prior to first material application or installation of the item by the Contractor.

C. The maintenance instructions and manuals, along with any specified guarantees, shall be delivered by the Contractor to the Architect for review prior to submission to the Owner. The Contractor or appropriate Subcontractors shall instruct Owner's personnel in the operation and maintenance of the more complex equipment prior to final acceptance of the Project.

13.13 AS-BUILT DRAWINGS

A. The Contractor and all his subcontractors shall maintain a separate complete set of contract drawings at the work site, which will be used solely for the purpose of recording changes made in any portion of the work during the course of construction, regardless of the reason for the change. As changes occur, they will be included or marked on this record set on a daily basis if at all possible to keep them up to date at all times. Actual locations to scale shall be identified on the drawings for all runs of mechanical and electrical work, including all site utilities, etc., installed underground, in walls, floors, and furred spaces, or otherwise concealed areas. Deviations from the drawings shall be shown in detail. All main runs, whether piping, conduit, ductwork, drain lines, etc., shall be located in addition, by dimension and elevation. Where appropriate, the source document of the change shall be noted, i.e., RFI #, etc.)

D. Progress payments may be delayed or withheld until such time as the record set (AS BUILT DRAWINGS) is brought up to date to the satisfaction of the Architect. The Contractor shall verify that all changes in the work are included in the AS-BUILT drawings and shall deliver the complete set thereof to the Architect for his review and satisfaction prior to submittal to the Owner. A necessary condition for release of final retention shall be submission of complete set of AS BUILT drawings to the Owner as approved by the Architect. These drawings shall be submitted to the Owner with request for final payment.

13.14 PREVAILING WAGES

A. The District reserves the right to monitor Prevailing Wages in the work force in accordance with the rights given the District by the Labor Code and the Contractor agrees to cooperate with the District at no additional cost to the District.
ASBESTOS MATERIALS

A. No materials containing asbestos shall be used or installed in the work on District contracts unless the Contractor has prior written approval from the manager of the District's Asbestos Control Program.

ASBESTOS ABATEMENT

A. No construction or demolition operations as required by the contract documents shall simultaneously operate in the proximity of an asbestos work area or affect in any way the asbestos abatement work, including air fiber levels. The General Contractor will be fully responsible for any costs associated with delays and/or additional testing directly or indirectly resulting from such interferences. All air samples above the specified criteria of 0.01 f/cc outside asbestos work areas will be required to be analyzed by transmission electron microscopy (TEM) at the Contractor's expense.

SCHOOL FACILITIES UNDER CONSTRUCTION OR RENOVATION; USE OF LEAD PAINT, PLUMBING, ETC. PROHIBITED

A. New School facilities under construction, or school facilities undergoing a modernization or renovation program, shall not utilize lead-based paint, lead plumbing and solders, or other potential sources of lead contamination (added by stats. 1992, c. 1317 (A.B.1659) 2. of General Education Code Provisions.

RECYCLING PROGRAM

A. It is the expressed intent of the PCCD to minimize waste and waste generation in all activities under its control and oversight. To that end, the Contractor shall be required to divert, to the maximum extent feasible, all materials from solid waste to other uses. Specific requirements are detailed as follows:

E. The Contractor shall be required to separate construction and demolition debris materials by type and arrange for pick-up or drop-off and re-use or recycle of said materials. Materials shall include, at a minimum, wood (re-usable dimensional lumber, re-usable wood pallets and recyclable untreated wood), ferrous and non-ferrous metals, cardboard, excavation soil, concrete, and asphalt, as appropriate, given the nature of the job. Materials need not be recycled if an appropriate re-use, employing a local firm, such as Building Resources, can be made.

D. The contractor shall provide the District, in advance, a list of material types that will likely become surplus throughout the course of the project and a plan for intended disposition. The Contractor is responsible for the removal of all construction and demolition debris generated by the project. The PCCD Recycling Coordinator can provide the Contractor with a list of acceptable companies that provide recycling and re-use service for construction and demolition debris. The PCCD Recycling Program will provide the Contractor with recycling services for the following materials: aluminum cans, glass bottles, white paper, and mixed paper.

ARTICLE 14 - TERMINATION OR SUSPENSION OF THE CONTRACT

TERMINATION BY THE DISTRICT FOR CAUSE

A. The District may terminate the Contract if the Contractor:

1. Refuses or fails to supply enough properly skilled workers or proper materials;
2. Persistently disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction; or

3. Otherwise is guilty of substantial breach of a provision of the Contract Documents.

B. 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 seven days' written notice, terminate employment of the Contractor and may:

1. Take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;

2. Accept assignment of subcontracts pursuant to Paragraph 5.03; and

3. Finish the Work by whatever reasonable method the District may deem expedient.

C. When the District terminates the Contract for one of the reasons stated in Article 14 of these General Conditions, the Contractor shall not be entitled to receive further payment until the Work is finished.

D. If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the District representatives' services and expenses made necessary thereby, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor and/or the Surety shall pay the difference to the District. The amount to be paid to the Contractor or District, as the case may be, upon application, and be an obligation for payment that shall survive termination of the Contract.

14.02 SUSPENSION BY THE DISTRICT FOR CONVENIENCE

A. The District may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the District may determine.

B. An adjustment shall be made for increases in the cost of performance of the Contract caused by suspension, delay or interruption. No adjustment shall be made to the extent:

1. That performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or

2. That an equitable adjustment is made or denied under another provision of this Contract.

14.03 TERMINATION BY THE DISTRICT FOR CONVENIENCE

A. The District may terminate the performance of Work under this Contract in accordance with this clause in whole, or from time to time in part, whenever the District shall determine that such termination is in the best interest of the District. Any such termination shall be effected by delivery to the Contractor of a notice of termination specifying the extent to which performance of Work under the contract is terminated, and the date upon which such termination becomes effective.

B. After receipt of a notice of termination, and except as otherwise directed by the District, the Contractor shall:

1. Stop Work under the contract on the date and to the extent specified in the notice of termination;
2. Place no further orders or subcontracts for materials, services, or facilities except as necessary to complete the portion of the Work under the contract which is not terminated;

3. Terminate all orders and subcontracts to the extent that they relate to the performance of Work terminated by the notice of termination;

4. Assign to the District, in the manner, at the times, and to the extent directed by the District, all of the right, title, and interest of the Contractor under the orders and subcontracts so terminated. The District shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts;

5. Settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts with the approval or ratification of the District, in writing, to the extent it may require. Its approval or ratification shall be final for all the purposes of this clause;

6. Transfer title to the District, and deliver in the manner, at the times, and to the extent, if any, directed by the District, (a) the fabricated or unfabricated parts, Work in process, completed Work, supplies, and other material produced as a part of, or acquired in connection with the performance of, the Work terminated by the notice of termination, and (b) the completed or partially completed drawings, information, and other property which, if the contract had been completed, would have been required to be furnished to the District;

7. Use its best efforts to sell, in the manner, at the times, to the extent, and at the price or prices that the District directs or authorizes, any property of the types previously referred to herein, but the Contractor (a) shall not be required to extend credit to any purchaser, and (b) may acquire any such property under the conditions prescribed and at a price or prices approved by the District. The proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the District to the Contractor under this contract or shall otherwise be credited to the price or cost of the Work covered by this contract or paid in such other manner as the District may direct;

8. Complete performance of such part of the Work as shall not have been terminated by the notice of termination; and

9. Take such action as may be necessary, or as the District may direct, for the protection and preservation of the property related to this contract, which is in the possession of the contractor, and in which the District has or may acquire an interest.

C. After receipt of a notice of termination, the Contractor shall submit to the District its termination claim, in the form and with the certification the District prescribes. Such claim shall be submitted promptly but in no event later than one (1) year from the effective date of termination, unless one or more extension in writing are granted by the District upon request of the Contractor made in writing within such 1-year period or authorized extension. However, if the District determines that the facts justify such action, it may receive and act upon any such termination claim at any time after such one-year period or extension. If the Contractor fails to submit its termination claim within the time allowed, the District may determine, on the basis of information available to the District, the amount, if any, due to the Contractor because of the termination. The District shall then pay to the Contractor the amount so determined.

D. Subject to the previous provisions, the Contractor and the District may agree upon the whole or any part of the amount or amounts to be paid to the Contractor because of the total or partial termination of Work under this Paragraph. The amount or amounts may include a reasonable allowance for profit on Work done. However, such agreed amount or amounts,
exclusive of settlement costs, shall not exceed the total contract price as reduced by the amount of payments otherwise made and as further reduced by the contract price of Work not terminated. The contract shall be amended accordingly, and the Contractor shall be paid the agreed amount. Nothing following, prescribing the amount to be paid to the Contractor in the event of failure of the Contractor and the District to agree upon the whole amount to be paid to the Contractor because of the termination of Work under this Paragraph, shall be deemed to limit, restrict, or otherwise determine or affect the amount or amounts which may be agreed upon to be paid to the Contractor pursuant to this Subparagraph.

E. If the Contractor and the District fail to agree, as the previous subparagraph provides, on the whole amount to be paid to the Contractor because of the termination of Work hereunder, the District shall determine, on the basis of information available to the District, the amount, if any, due to the Contractor by reason of the termination and shall pay to the Contractor the amounts determined as follows:

1. For all Contract Work performed before effective date of the notice of termination, the total (without duplication of any items) of:
   a. The cost of such Work;
   b. The cost of settling and paying claims arising out of the termination of Work under subcontracts or orders as previously provided. This cost is exclusive of the amounts paid or payable on account of supplies or materials delivered or services furnished by the Contractor before the effective date of the notice of termination. These amounts shall be included in the cost on account of which payment is made for the cost of Work previously provided; and
   c. A sum, as profit on the cost of the Work as previously provided, that the District determines to be fair and reasonable. But, if it appears that the Contractor would have sustained a loss on the entire Contract had it been completed, no profit shall be included or allowed, and an appropriate adjustment shall be made reducing the amount of the settlement to reflect the indicated rate of loss; and

2. The reasonable cost of the preservation and protection of property incurred as previously provided. The total sum to be paid to the Contractor shall not exceed the total Contract price as reduced by the amount of payments otherwise made and as further reduced by the Contract Price of Work not terminated. Except for normal spoilage, and except to the extent that the District shall have otherwise expressly assumed the risk of loss, there shall be excluded from the amounts payable to the Contractor the fair value, as determined by the District, of property which is destroyed, lost, stolen, or damaged, to the extent that it is undeliverable to the District, or to a buyer as previously provided.

F. The Contractor shall have the right to dispute as provided hereinafter in the Subparagraph entitled "Remedies," from any determination the District makes under the previous subparagraphs. But, if the Contractor has failed to submit its claim within the time provided and has failed to request extension of such time, it shall have no such right of appeal. In any case where the District has determined the amount owed, the District shall pay to the Contractor the following:

1. If there is no right of appeal hereunder or if no timely appeal has been taken, the amount so determined by the District or;

2. If a "Remedies" proceeding is initiated, the amount finally determined in such "Remedies" proceeding.

G. In arriving at the amount due the Contractor under this clause there shall be deducted:

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1. All unliquidated advance or other payments on account theretofore made to the Contractor, applicable to the terminated portion of this contract;

2. Any claim which the District may have against the Contractor in connection with this Contract; and

3. The agreed price for, or the proceeds of sale of, any materials, supplies, or other things kept by the Contractor or sold, under the provisions of this clause, and not otherwise recovered by or credited to the District.

H. If the termination hereunder were partial, before the settlement of the terminated portion of this contract, the Contractor may file with the District a request in writing for an equitable adjustment of the price or prices specified in the contract relating to the continued portion of the contract (the portion not terminated by the notice of termination). Such equitable adjustment as may be agreed upon shall be made in the price or prices. Nothing contained herein shall limit the right of the District and the Contractor to agree upon the amount or amounts to be paid to the continued portion of the contract when the contract does not contain an established contract price for the continued portion.

I. Remedies: All claims, counter-claims, disputes and other matters in question between the District and the Contractor arising out of or relating to this Contract or its breach will be decided in a court of competent jurisdiction within the State of California.

J. The Contractor understands and agrees that the forgoing termination of Contract for convenience provisions shall be interpreted and enforced pursuant to cases interpreting and enforcing similar provisions in federal procurement contracts.

END OF DOCUMENT
# PROJECT LABOR AGREEMENT

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PERALTA COMMUNITY COLLEGE DISTRICT

CONSTRUCTION
PROJECT LABOR AGREEMENT

PREAMBLE

This Project Labor Agreement ("Agreement") is entered into this 21st day of July, 2009 by and between the Peralta Community College District (hereinafter, the "District" and the Building and Construction Trades Council of Alameda County, AFL-CIO (, the "Council") and the Unions signatory to this Agreement, collectively referred to as the "Unions" or "Signatory Unions", with respect to the new construction work within the scope of this Agreement as hereinafter defined.

It is understood by the parties to this Agreement that when this Agreement is executed by the Chancellor after authorization by the District's Governing Board, it will become the policy of the District that the construction work covered by this Agreement shall be contracted exclusively to Contractors who agree to be bound by the terms of this Agreement through execution of it or the Letter of Assent (Attachment A), No practice, understanding or agreement between Contractor(s) and a Union party which is not provided for in this Agreement will be binding on any other party on Projects covered by this Agreement unless endorsed in writing by the District PLA Program Manager.

This Agreement is not intended to replace, interfere, abrogate, diminish or modify existing local or national collective bargaining agreements in effect during the duration of the Program, insofar as a legally binding agreement exists between the Contractor/Employer(s) and the affected Union(s) except to the extent that the provisions of this Agreement are inconsistent with said collective bargaining agreements, in which event, the provisions of this Agreement shall prevail.

The District, through its District PLA Program Manager, on staff or under contract, shall administer this Agreement and shall monitor compliance with it by all Contractors. For purposes of this Agreement, each Contractor recognizes and appoints the District PLA Program Manager as its agent, with full, independent authority to implement and administer this Agreement, and, when and if appropriate or necessary, negotiate amendments to this Agreement. Together with the Union parties, the District shall be considered a "negotiating party" of this Agreement. None of the terms of this Agreement, including specifically this agency designation and the Recitals set out below, shall be interpreted to cause or have the effect of creating a joint or single employer relationship between the District and any Contractor or between Contractors on this Project

RECITALS

WHEREAS, the Peralta Community College District ("District") is considering the development and construction of various project(s) throughout the District in connection with its PLA covered Projects; and

WHEREAS, it is essential that the construction work required in connection with the PLA covered Projects be done in an efficient and economical manner so as to secure optimum
productivity and to eliminate delays in the construction operations, thus ensuring timely completion in the work undertaken by the contractors; and

WHEREAS, the District desires to enter into a project labor agreement ("Project Labor Agreement") with appropriate building and construction trade councils and related unions to be implemented and enforced on certain projects covered by the PLA; and

WHEREAS, it is the District's intent to negotiate and enter into a Project Labor Agreement with the appropriate building and construction trades council and related unions to ensure all contractors performing work on the project(s) comply with all requirements under the California Labor Code applicable to the project(s), including, but not limited to, prevailing wages and apprenticeship; and

WHEREAS, it is the intent and purpose of the Project Labor Agreement to provide, establish and put into practice effective methods for the settlement of labor disputes which may arise on the project(s) covered without strike, lockout, work stoppage, or slowdown, to the end that the project(s) shall be assured continuity of operation; and

WHEREAS, the District desires to authorize its Chancellor or his designee to negotiate and execute a Project Labor Agreement with the appropriate building and construction trades council and related unions to take any and all action necessary to further the District's interests in negotiating the Project Labor Agreement; and

WHEREAS, The parties agree that one of the primary purposes of this Agreement is to avoid the tensions that might arise on the Project if union and nonunion workers of different employers were to work side by side on the Project thereby leading to labor disputes that could delay completion of the Project, and

WHEREAS, the District reserves the right to control the site at which the Project will be constructed, and the right to coordinate project construction work and scheduling, including, where appropriate, setting uniform start times, and approving the necessity for and the times of shift work.

NOW, THEREFORE, IT IS AGREED BETWEEN AND AMONG THE PARTIES HERETO, AS FOLLOWS:

ARTICLE 1
DEFINITIONS

1.1 "Agreement" means this Project Labor Agreement.

1.2 "District" means the Peralta Community College District and the administrative staff under its Chancellor.

1.3 "Contractor(s)" means any individual, firm, partnership or corporation, or combination thereof, including joint ventures, which is an independent business enterprise and has entered into a contract with the District or any of its Contractors or subcontractors of any tier, with respect to the construction of any part of the PLA Program under contract terms and conditions approved by the District and which incorporate this Agreement.
1.4 "Construction Contract" means the public works or improvement contracts which have been approved and signed by the District and which are part of the PLA Program.

1.5 "PLA Program" means the PLA-eligible Project(s) that are all Covered Work which are all those construction contracts funded in whole or in part by bond funding, State grants, tax increment funding and all other funding that is allocated for construction and may be more generally known as public funding and identified by the District as part of the PLA Program and the construction of which was awarded to a contractor during the term of this Agreement.

1.6 "Project" is an individual construction Project that is a part of the PLA Program and designated to be covered by this Agreement.

1.7 "Union(s)" means the Building and Construction Trades Council of Alameda County, AFL-CIO ("Council") and any other labor organization signatory to this Agreement, acting in their own behalf and on behalf of their respective affiliates and member organizations whose names are subscribed hereto and who have through their officers executed this Agreement ("Signatory Unions").

1.8 "Master Agreement" means the Master Collective Bargaining Agreement of each craft Union signatory hereto covering the corresponding work between a bona fide contractor group or representative and the signatory Unions having jurisdiction over the work on the Project and that are identified and agreed to by the District PLA Program Manager and the Unions.

1.9 "District PLA Program Manager" means the person(s) and/or business entity designated by the District to oversee all phases of construction on the PLA Program and is:

1.10 "District Project Manager(s)" means the person(s) selected by the District on one or more campuses to oversee and/or inspect construction activity, as agents of the District. They will not be engaged in construction work, and their relationship to this Agreement, if any, will be through the District.

The initial term of this Agreement shall be for five (5) years, commencing with the acceptance of this agreement by both parties. At the end of this initial period, this Agreement will be reviewed and considered for extension or renewal with modifications if appropriate. The term of this Agreement will be automatically extended for additional successive five (5) year terms unless the District, prior to the expiration of any such term and, after meeting with the Council and the Unions, finds in a public hearing that the work performed has been unsatisfactory, and gives the Council and Unions notice that it will not renew this Agreement.

1.11 This Agreement shall remain in effect for any Construction Contract awarded under this Agreement but not completed by the end of the term for the duration of that Contract.

1.12 "Local area resident" means Alameda County residents of Alameda, Albany, Berkeley, Emeryville, Piedmont and especially the City of Oakland.
ARTICLE 2
PURPOSE

2.1 The purpose of this Agreement is to promote efficiency of construction operations and
provide for peaceful, efficient, and binding procedures for settlement of labor disputes
and grievances without strikes or lockouts, thereby promoting the public interest in
assuring the timely and economical completion of the PLA covered Projects. The PLA
Program is intended to increase the educational opportunities and raise student
achievement through the improvement of academic learning and health and safety
conditions on the campuses of the District by the development of campus facilities for
students, faculty and staff.

2.2 Further, the purpose of this Agreement is to ensure that all Contractors performing work
on all PLA-covered Projects will comply with all requirements under the California Labor
Code and utilize resources available in the local area, including those provided by
minority and women-owned enterprises.

2.3 In so doing, the parties to this Agreement establish the foundation to promote the public
interest, to provide a safe work place, to ensure high quality construction, to ensure
uninterrupted construction, and to secure optimum productivity, on-schedule
performance and the satisfaction of the Peralta Community College District.

ARTICLE 3
SCOPE OF AGREEMENT

3.1 Covered Work: This Agreement covers, without limitation, all on-site construction,
demolition, alteration, painting or repair of buildings, structures and other works and
related activities for a Project that is within the craft jurisdiction of one of the Unions and
that is directly or indirectly part of the Project, including, without limitation, pipelines
(including those in linear corridors built to serve the Project), site preparation, survey
work, soils and material inspection and testing, demolition of existing structures, and all
construction, demolition or improvements required to be performed as a condition of
approval by any public agency. On-site work includes work done or necessary for a
Project or in temporary yards or areas adjacent to and dedicated to the Project, and at
any on-site batch plant constructed solely to supply materials to the Project, when those
sites are dedicated exclusively to the project. The furnishing of supplies, equipment or
materials which are stockpiled for later use shall in no case be considered
subcontracting, however, this Agreement shall cover and the appropriate Prevailing
Wage Rate shall be paid to those workers delivering ready-mix concrete, asphalt,
aggregate, sand or other fill materials that will be directly incorporated into the
construction process as well as the off-hauling of debris and excess fill and/or mud shall
be covered by the terms and conditions of this Agreement. Employers (including
brokers), of drivers hauling such materials shall provide certified payroll records to the
awarding body within ten (10) days of written request or as required by the bid
specifications.

3.2 Project Description: The Agreement shall govern the award of all Construction
Contracts and applies to all Covered Work which are all those construction contracts
funded in whole or in part by bond funding, State grants, tax increment funding and all
other funding that is allocated for construction and may be more generally known as
public funding and identified by the District as part of the PLA Program. "Exhibit A", attached to this Agreement and incorporated herein by reference, is a list of covered Projects of the current Construction Contracts covered by this Agreement and such list shall be supplemented from time to time, when necessary during the term of this Agreement. The District has the absolute right to combine, consolidate, add, or cancel Project(s) or portions of Project(s) identified as part of the PLA Program. Should the District remove any Project listed in "Exhibit A" from the Program and thereafter authorize that construction work be commenced on the Project, the Project shall be performed under the terms of this Agreement. Once a construction Project is completed, it is no longer covered by this Agreement. For the purposes of this Agreement, a Project shall be considered completed upon the filing by the District of a Notice of Completion to the Contractor.

Further, the District may prohibit some or all work on certain days or during certain hours of the day to accommodate the ongoing operations of the District’s education facilities and/or to mitigate the effect of the ongoing Project work on the businesses and residents in the neighborhood of the Project site; and/or require such other operational or schedule changes that it may deem necessary, in its sole judgment, to effectively maintain its primary mission and to remain a good neighbor to those in the area of its campuses. Such schedule changes shall be in accordance with the Master Agreement requirements. In order to permit the Contractor(s) and Union(s) to make appropriate scheduling plans, the District will provide the PLA Program Manager, the affected Contractor(s) and Union(s) with reasonable notice of any changes it requires pursuant to this Article.

3.3 **Most Favored Nations Clause:** No provision not contained within this Agreement shall be recognized or applied if it may be construed to apply exclusively or predominantly to work covered by this Agreement only.

3.4 **Exclusions:**

(a) The Agreement shall be limited to construction work on the PLA Program and is not intended to, and shall not govern any construction work performed at the District at anytime prior to the effective date, or after the expiration or termination of the Agreement, except as noted in Section 1.11 above that this Agreement shall continue in effect on any Project awarded under this Agreement but not completed by the end of the term of this Agreement for the duration of that Contract.

(b) The Parties acknowledge that the District may utilize $500,000 of funding annually to perform maintenance work on maintenance and operations projects for the duration of this Agreement.

Contractors or subcontractors with “excluded contracts” shall not be subject to the terms of this Agreement but shall meet all State and Federal laws and regulatory requirements governing construction for the project where they are performing work. All excluded contractors will meet the Certified Payroll requirements within the 10 day period required by State Law for submittal of requested Certified Payroll information. The District shall supply the Union(s) with the
inspector’s log and all other documents used for oversight of the project when such information is requested.

It is further agreed that, other than the $500,000 per year maintenance exclusion, the following seven projects are the only projects that shall be excluded from the Agreement.

1. Laney: Smart Media, Project # 02314
2. Laney: Buildings F&G Computer Labs, Project # 02314
3. Laney: Photo Lab Gallery Lighting, Project # 02314
4. Merritt: Swing Space (A129), Project #
5. Merritt: Horticulture Department Improvements, Project # 02303-110
6. District Wide: ADA Upgrades, Project # unassigned
7. District Wide: Elevator Cabs, controls and finishes upgrades, Project # 02326

(c) The Agreement is not intended to, and shall not affect the operation or maintenance of the District.

(d) This Agreement shall not apply to a Contractors’ executives, managerial employees, engineering employees, supervisors above the classification of general foreman, or any office and clerical employees.

(e) This Agreement shall not apply to employees of the District.

(f) This Agreement is not intended to, and shall not affect equipment and machinery owned or controlled and operated by the District for work not covered by this Agreement.

(g) This Agreement excludes all off-site manufacture and handling of equipment, machinery or materials (except for aggregates, sand or other fill material which are either directly incorporated into the construction process, or directly removed from the site of construction)

(h) Offsite maintenance of leased equipment and on-site supervision of such work is excluded from the Agreement.

(i) The Agreement is not intended to, and shall not affect any work by employees of the District or its contractors involved in general maintenance, emergency repair, and/or cleaning work, except as specifically covered by this Agreement.

(j) In accordance with 3.4(b) and in emergency situations, at the sole option of the District, the Agreement shall not apply to contracts awarded under the Public Contracts Code §20654 and §20655, or any emergency public works resolutions or any project using federal funds where prohibited by law.

(k) Work covered by the Agreement within the craft jurisdiction of the Elevator Constructors will be performed under the terms of the National Agreement of the International Union of Elevator Constructors except that Articles 6, 10,14 and 15 of the Agreement shall prevail and be applied to such work.
It is the legal obligation of the District to obtain the most competitive bids while maintaining the conditions of the Agreement. To ensure that a competitive bid is received from a range of general contractors, the Building and Construction Trades Council of Alameda County, AFL-CIO shall assist the District in soliciting interested parties in bidding on the Project(s). Additionally, the District recognizes that multiple subcontractor quotations of bids ensure the most competitive overall bid. The Building and Construction Trades Council of Alameda County, AFL-CIO shall assist the District in encouraging and soliciting local and other subcontractors in bidding to interested general contractors. The District reserves the right, without reservation, to reject all bids and re-bid the Project.

ARTICLE 4
EFFECT OF AGREEMENT

4.1 By executing this Agreement, the Unions and the District agree to be bound by each and all of the provisions of this Agreement. The provisions of this Agreement shall apply to all covered work, notwithstanding the provisions of any other local, area and/or national agreements which may conflict with or differ from the terms of this Agreement. The District and each Signatory Union shall agree upon the local collective bargaining agreement to be designated as the applicable Master Agreement for work covered by this Agreement. Where a subject covered by the provisions of this Agreement is also covered by a Master Agreement, the provisions of this Agreement shall prevail. Where a subject is covered by the provisions of a Master Agreement and is not covered by this Agreement, the provisions of the Master Agreement shall prevail. Any dispute as to the applicable source between this Agreement and any Master Agreement for determining the wages, hours and working conditions of employees on this Project shall be resolved under the procedures established in Article 12. This Agreement represents the complete understanding of the parties, and no Contractor is or will be required to sign any other agreement with a signatory union as a condition of performing work within the scope of this Agreement. No practice, understanding or agreement between a Contractor and a Union party which is not specifically set forth in this Agreement will be binding on any other party unless endorsed in writing by the District or the District's PLA Program Manager.

4.2 This Agreement shall only be binding on the signatory parties hereto and shall not apply to the parents, affiliates, subsidiaries, or other ventures of any such party.

4.3 Each Contractor(s) shall alone be liable and responsible for its own individual acts and conduct and for any breach or alleged breach of this Agreement.

4.4 It is mutually agreed by the parties that any liability by a Signatory Union(s) to this Agreement shall be several and not joint. Any alleged breach of this Agreement by a signatory Union(s) shall not affect the rights, liabilities, obligations and duties between the signatory Contractor(s) and the other Union(s) party to this Agreement.
ARTICLE 5
SUBCONTRACTS

5.1 The District, PLA Program Manager, and/or Contractors, as appropriate, have the absolute right to award contracts or subcontracts on this Project notwithstanding the existence or non-existence of any collective bargaining agreements between the prospective contractor and any union party, and provided that such contractor is willing, ready and able to comply with this Agreement. Such contractor shall execute a Letter of Assent, should it be awarded work covered by this Agreement.

5.2 Subcontractors of any tier shall become a party to this Agreement by signing the Letter of Assent (Attachment A). By signing the Letter of Assent, a subcontractor to a Contractor does not thereby establish any contractual relationship with the District, except for this Agreement, and the District shall not become party to nor become responsible for the performance of the construction subcontract between the Contractor and its subcontractor(s).

5.3 The District and each Contractor(s) agree that neither it nor any of its subcontractors will subcontract any work to be done on PLA covered Projects except to a person, firm, or corporation who is or becomes party to the Agreement. Any Contractor(s) working on the Project shall, as a condition to working on the Project, become signatory to and perform all work under the terms of this Agreement.

5.4 A subcontractor is defined as any person, firm or corporation who agrees under contract with the Contractor(s), or a subcontractor of the Contractor, to perform on the Project, any part or portion of the construction work covered by the Construction Contract, including the operating of construction equipment, performance of labor and/or installation of materials. Trucking firms are included as subcontractors when hauling materials in the execution of the Project as provided for in Article 3.1.

5.5 The Contractor(s) has the primary obligation for performance of all conditions of this Agreement. This obligation cannot be relieved, evaded or diminished by subcontracting. Should the Contractor(s) elect to subcontract, the Contractor(s) shall continue to have such primary obligation.

5.6 A Contractor(s) who provides in the subcontract that the subcontractor will pay the wages and benefits and will observe the hours and all other terms and conditions of this Agreement and who requires its subcontractor(s) to execute a Letter of Assent, shall not be liable for any delinquency by such subcontractor in the payment of any wages or fringe benefits provided herein, except as may be required by State or Federal law.

(a) The Contractor(s) will give written notice and a copy of the Letter of Assent to the Council of any subcontract involving the performance of work covered by this Agreement within either five (5) days of entering such subcontract or before the subcontractor commences work on the Project, whichever occurs first, and shall specify the name and address of the subcontractor. Written notice at a Preconstruction Conference shall be deemed written notice under this provision for those subcontractors listed at the Prejob Meeting only.
(b) Thereafter, if such subcontractor should become delinquent in the payment of any wages or benefits as above specified, the Trust Fund shall immediately give written notice thereof to the Contractor(s) and to the subcontractor specifying the nature and amount of such delinquency.

(c) The provision of this Section 5.6 shall be applied only to the extent permitted by law and, notwithstanding any other provision of the Agreement, no aspect of the subcontractors' clause, including its enforcement, may be enforced by or subject to strike or picketing.

(d) If the Contractor(s) selects the subcontractor(s) and is signatory to a Master Agreement that provides the higher level contractor shall remain liable for the defaults of the subcontractor, nothing in this Agreement shall interfere with the Contractor(s)' responsibilities and liabilities under the Master Agreement.

5.7

(a) With regard to any employer that is independently signed to any Master Labor Agreement ("MLA"), this Project Labor Agreement shall in no way supersede or prevent the enforcement of any subcontracting clause contained in such MLA, except as specifically set forth in subsection (b) of this section. Any such subcontracting clause in an MLA shall remain and be fully enforceable between each Union and its signatory employers, and no provision of this Project Labor Agreement shall be interpreted and/or applied in any manner that would give this Project Labor Agreement precedence over subcontracting obligations and restrictions that exist between Unions and their respective signatory employers under an MLA, except as specifically set forth in subsection (b) of this section.

(b) If a Union (hereafter "aggrieved union") believes that an assignment of work on this Project has been made improperly by a contractor or subcontractor, even if that assignment was as a result of another Union's successful enforcement of the subcontracting clause in its MLA, as permitted by subsection (a) of this section, the aggrieved union may submit a claim under the jurisdictional resolution process contained in Article 15 of this Project Labor Agreement, and the decision rendered as part of that process shall be enforceable to require the contractor or subcontractor that made the work assignment to assign that work prospectively to the aggrieved union. An award made to a Union under the subcontracting clause of its MLA, as permitted pursuant to subsection (a) of this section, shall be valid and fully enforceable by that Union unless it conflicts with a jurisdictional award made pursuant to this Project Labor Agreement. If the award made under the MLA conflicts with the jurisdictional award, the award of any damages under the former shall be null and void ab initio.

ARTICLE 6
WORK STOPPAGES, STRIKES, SYMPATHY STRIKES AND LOCKOUTS

6.1 The Unions, District and Contractor(s) agree that for the duration of this Agreement:

(a) There shall be no strikes, sympathy strikes, work stoppages, picketing, handbilling or otherwise advising the public that a labor dispute exists, or slowdowns or disruptions of any kind, for any reason, by the Union(s) or employees employed on a Project, at the job site of the Project or at any other facility of the District because of a dispute on a Project or other projects involving
a contractor or subcontractor, of any tier, or due to any labor dispute arising at
the project site or any other District site. Disputes arising between the Union(s)
and Contractor(s) on other District projects are not governed by the terms of this
Agreement, except that the existence of such disputes or actions taken in
furtherance of such disputes may not be used to affect work on projects covered
by this Agreement. A Union may withhold labor (but not picket) due to a
Contractor’s or subcontractor’s failure to make Trust Fund contributions or failure
to meet its payroll on this Project, and such withholding of labor shall not be
considered a violation of this Article. In the case of non-payment of Trust Fund
contributions, a Union shall give the General Contractor and the District
Representative five (5) business days notice prior to withholding labor from the
Contractor or Sub-contractor during which time, the General Contractor shall
have the opportunity to cure the default.

(b) As to employees employed on a Project, there shall be no lockout of any kind by
a Contractor(s) covered by the Agreement.

(c) If a Master Agreement between a contractor(s) and the Union(s) expires before
the Contractor(s) completes the performance of a Construction Contract and the
Union or contractor(s) gives notice of demands for a new or modified Master
Agreement, the Union(s) agrees that it will not strike the Contractor(s) on said
contract for work covered under the Agreement and the Union(s) and the
Contractor(s) agree that the expired collective bargaining agreement shall
continue in full force and effect for work covered under the Agreement until a new
or modified Master Agreement is reached between the Union(s) and Contract
Employer. If the new or modified Master Agreement reached between the
Union(s) and contractor(s) provides that any terms of compensation of the
Master Agreement shall be uniformly retroactive for all contractors bound to the
Master Agreement, the Contractor(s) agrees to comply with any retroactive terms
of the new or modified Master Agreement which is applicable to employees
employed on a Project during the interim period within seven (7) days.

6.2 Any party to the Agreement may institute the following procedure, in lieu of or in addition
to any other action at law or equity, when a breach of this Article is alleged to have
occurred:

(a) A party invoking this procedure shall notify Gerald McKay, as the permanent
arbitrator, or, Thomas Angelo, as the alternate under this procedure. In the event
that the permanent arbitrator is unavailable at any time, the alternate will be
contacted. If neither is available, then a selection shall be made from the list of
arbitrators in Article 12.2. Notice to the arbitrator shall be by the most expeditious
means available, with notices by e-mail, facsimile or telephone to the party
alleged to be in violation and to the Building and Construction Trades Council of
Alameda County, AFL-CIO.

(b) Upon receipt of said notice, the designated arbitrator named above or his/her
alternate will designate a place for, schedule and hold a hearing within twenty-
four (24) hours.
(c) The arbitrator shall notify the parties by facsimile or telephone of the place and time for the hearing. Said hearing shall be completed in one session, which, with appropriate recesses at the arbitrator's discretion, shall not exceed twenty-four (24) hours unless otherwise agreed upon by all parties. A failure of any party to attend said hearings shall not delay the hearing of evidence or the issuance of any award by the arbitrator.

(d) The sole issue at the hearing shall be whether or not a violation of this Article of the Agreement has occurred. The arbitrator shall have no authority to consider any matter of justification, explanation or mitigation of such violation or to award damages, which issue is reserved for court proceedings, if any. The award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without a written opinion. If any party desires a written opinion, one shall be issued within fifteen (15) days, but its issuance shall not delay compliance with or enforcement of the award. If the arbitrator determines there exists a violation of this Article the arbitrator shall order cessation of the violation of this Article and other appropriate relief and such award shall be served on all parties by hand or registered mail upon issuance.

(e) The award shall be final, binding and non-revisable as to the merits. Such award may be enforced by any Court of competent jurisdiction upon the filing of this Agreement and all other relevant documents referred to above in the following manner. Written notice of the filing of such enforcement proceedings shall be given to the other party in the proceeding to obtain a temporary order enforcing the arbitrator's award as issued under Section 6.2 (d) of this Article, all parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any party's right to participate in a hearing for a final order or enforcement. The Court's order or orders enforcing the arbitrator's award shall be served on all parties by hand or delivered by certified mail.

(f) Any rights created by statute or law governing arbitration proceedings inconsistent with the above procedure or which interfere with compliance are waived by the parties.

(g) The costs of the arbitration, including the fee and expenses of the Arbitrator, shall be borne by the losing party.

(h) The District PLA Program Manager is a party of interest in all proceedings arising under this Article and shall be sent contemporaneous copies of all notifications required by these Articles, and at its option, may participate as a full party in any proceeding initiated under these articles.

(i) If the arbitrator determines in accordance with this article that a work stoppage has occurred, the respondent Union(s) shall, within eight (8) hours of receipt of the award, direct all the employees they represent on the Project to immediately return to work. If the craft(s) involved does not return to work by the beginning of the next regularly scheduled shift following such eight (8) hour period after receipt of the arbitrator's award, and the respondent Union(s) have not complied with their obligation to immediately instruct, order, and use their best efforts to cause a cessation of the violation and return of the employees they represent to
work, the respondent Union(s) shall each pay a sum as liquidated damages to the District, and each shall pay an additional sum per shift for each shift thereafter on which the craft(s) has not returned to work.

Similarly, if the arbitrator determines in accordance with this article that a lock-out has occurred, the respondent Contractor(s) shall, within eight (8) hours of receipt of the award, return all of the affected employees to work on the Project, or otherwise correct the violation as found by the arbitrator. If the respondent Contractor(s) do not take such action by the beginning of the next regularly scheduled shift following the eight (8) hour period, each respondent Contractor(s) shall pay a sum as liquidated damages to the affected Union(s) (to be apportioned among the affected employees and the benefit funds to which contributions are made on their behalf, as appropriate and designated by the Arbitrator) and each shall pay an additional sum per shift for each shift thereafter in which compliance by the respondent Contractor(s) has not between completed.

The Arbitrator shall retain jurisdiction to determine compliance with this article and to establish the appropriate sum of liquidated damages, which shall not be less than one thousand dollars ($1,000.00) nor more than fifteen thousand dollars ($15,000.00) for each shift.

ARTICLE 7
PRE-JOB MEETING

7.1 A pre-job meeting shall be held at the Building Trades offices prior to the commencement of each Construction Contract to establish the scope of work in each Contractor's Construction Contract. It shall be the responsibility of the Prime Contractor(s) to set such meeting. The District will notify the Union(s) of award of all covered projects prior to commencement of work. Such pre-job meeting shall be attended by a representative each from the participating Contractor(s) and Union(s) and the District PLA Program Manager. When a Construction Contract has been let to a Contractor, a pre-job meeting shall be required unless waived by agreement of the Council, the Contractor and the District.

7.2 All work assignments shall be disclosed by each Contractor at the pre-job meeting. The Contractor(s) shall notify the District PLA Program Manager at least two weeks before starting work under the Agreement, and the District PLA Program Manager shall coordinate the scheduling of the pre-job meeting with the Council, the Contractor(s) and the affected Union(s).

ARTICLE 8
NONDISCRIMINATION

8.1 The Union(s) and Contractor(s) shall not discriminate against any employee or applicant for employment because of race, creed, color, sex, sexual orientation, national origin, age, religion, disability as identified in the Americans with Disabilities Act, union or non-union membership or any other basis recognized by law.
ARTICLE 9
UNION RECOGNITION

9.1 The Contractor(s) recognize the Union(s) as the sole bargaining representative of all craft employees working within the scope of the Agreement. The Parties acknowledge that the collective bargaining relationship so established is a "pre-hire" relationship permitted by Section 8(f) of the National Labor Relations Act, except that this provision does not change any pre-existing Section 9(a) collective bargaining relationship that exists between any Contractor and Union parties to this Agreement.

9.2 No employee covered by the Agreement can be required to join any Union as a condition of being first employed on the Project; provided, however, that an employee who is a member of the referring Union at the time of the referral shall maintain that membership while employed on a Project subject to this Agreement. All employees shall, however, on or before the 8th day of consecutive or cumulative employment on the Project pay the uniform initiation fees and dues of the applicable craft Union and shall comply with the Union Recognition provision for the period during which they are performing Project construction work on the property of the District. The Contractor(s) agree to deduct initiation fees, Union dues or representation fees from the pay of any employee who executes a voluntary authorization for such deductions and to remit the dues and fees to the applicable Union or Council.

ARTICLE 10
REFERRAL

10.1 The selection of craft foremen and general foremen shall be entirely the responsibility of the Contractor(s), it being understood that in the selection of such foremen, the Contractor(s) will give first consideration to the qualified individuals available in the local area. Foremen and general foremen shall take orders from the designated Contractor(s) representatives.

The Unions shall be the first source of referral of employees to the Project and the contractor(s) agree to be bound by the lawful hiring hall rules and procedures of the respective Union(s). Contractors agree to be bound by the hiring practices of the respective Unions, including the hiring of apprentices, and to utilize their registration facilities and referral systems when workers are available, capable and willing to work on PLA covered projects.

10.2 The Contractor(s) shall have the unqualified right to select and hire directly all supervisors above general foreman it considers necessary and desirable, without such persons being referred by the Union(s).

10.3 In the event that referral facilities maintained by the Unions are unable to fill the requisition of a Contractor(s) for employees within a forty-eight (48) hour period (Saturday, Sundays and Holidays excluded) after such requisition is made by the Contractor(s), the Contractor(s) shall be free to obtain work persons from any source. Unions will exert their utmost efforts to recruit sufficient numbers of skilled craft persons to fulfill the requirements of the Contractor(s). The parties to this Agreement support the development of increased numbers of skilled construction workers from the residents of Alameda County; residents of Alameda, Albany, Berkeley, Emeryville, Piedmont and especially
the City of Oakland; to meet the needs of the PLA Program and the requirements of the industry generally. Toward that end, the Unions agree to encourage the referral and utilization, to the extent permitted by law and the hiring hall procedures, of qualified Alameda County residents as journeymen and apprentices on this PLA Program and, consistent with the State-approved Apprenticeship Standards, encourage entrance into such apprenticeship and training programs as may be offered by the Peralta Community College District or operated by the signatory Unions.

10.4 The Parties recognize the District's commitment to provide opportunities to participate on the Project to emerging small business enterprises that may not have previously had a relationship with the Unions signatory to this Agreement. To ensure that such enterprises will have an opportunity to employ their "core" employees on this Project, the parties agree that in those situations where a Contractor not a party to a current collective bargaining agreement with the signatory Union having jurisdiction over the affected work is a successful bidder, the Contractor may request by name, and the local will honor, referral of persons who have applied to the local union for Project work and who demonstrate the following qualifications:

(a) possess any license required by state or federal law for the Project work to be performed;

(b) have worked a total of at least one thousand (1000) hours in the construction craft during the prior three (3) years;

(c) were on the Contractor's active payroll for at least ninety (90) out of the one-hundred eighty (180) calendar days prior to the contract award; and

(d) have the ability to perform safely the basic functions of the applicable trade.

(e) The Union will refer to such Contractor one journeyman employee from the hiring hall out-of-work list for the affected trade or craft, and will then refer one of such Contractor's "core" employees as a journeyman and shall repeat the process, one and one, until such Contractor's crew requirements are met or until such Contractor has hired five (5) "core" employees, whichever occurs first. Thereafter, all additional employees in the affected trade or craft shall be hired exclusively from the hiring hall out-of-work list(s). For the duration of the Contractor's work the ratio shall be maintained and when the Contractor's workforce is reduced, employees shall be reduced in the same ratio of core employees to hiring hall referrals as was applied in the initial hiring.

ARTICLE 11
WAGES AND BENEFITS

11.1 All Contractors, agree to pay contributions to the established vacation, pension and other form of deferred compensation plan, apprenticeship, and health benefit Trust Funds established by the applicable Master Agreement(s) for each hour worked on the Project in the amounts designated in the Master Agreements of the appropriate local Unions for all of those benefits and contributions contained in the applicable prevailing wage determination. The Contractor(s) shall not be required to pay contributions to any
other trust funds that are not contained in the published prevailing wage determination to satisfy their obligation under this Article except those Contractor(s) who are signatory to the Master Agreements with the respective trades shall continue to pay all trust fund contributions as outlined in such Master Agreements.

11.2 By signing a Letter of Assent binding this Agreement, the Contractor(s) adopt and agree to be bound by the written terms of the legally established Trust Agreements, specifying the detailed basis on which payments are to be made into, and benefits paid out of, such Trust Funds.

11.3 **Wages, Hours, Terms and Conditions of Employment:** The wages, hours, classifications and other terms and conditions of employment on a Project shall be governed by the Master Agreement of the respective craft Unions, copies of which shall be on file with the District, to the extent such Master Agreement is consistent with the applicable prevailing wage determination and this Agreement.

(a) At all times while working under the Agreement, the Contractor(s) is obligated to make compensation payments and benefit contributions to or on behalf of the employee in a total amount no less than required by the applicable prevailing wage.

(b) Each Contractor and subcontractor shall be required to certify in writing that it has paid all wages and benefit contributions due and owing prior to receipt of its final payment and/or retention.

(c) Contractors of whatever tier shall make regular and timely contributions required by this section in the amounts set forth in the appropriate prevailing wage determination and on the time schedule required by the Master Agreement. Delinquency in remission of contributions is a breach of this Agreement. If a Contractor or subcontractor is delinquent in any such contributions, the Union or the Trust Fund shall provide timely notification to District or the District PLA Program Manager after efforts by the Fund to resolve the delinquency have been exhausted, and provide documentary evidence of the delinquency endorsed by the Fund. Upon such notification, the District or the District PLA Program Manager will attempt to resolve the delinquency among the Contractor or subcontractor, the Union and the Fund. If the delinquency is not resolved within ten (10) working days thereafter, the Contractor, in the case of a delinquent subcontractor, shall withhold an amount to cover the delinquency from any retained funds otherwise due and owing to the subcontractor and shall not release such witholding until the subcontractor is in compliance, provided, however, that if the delinquent amount is undisputed in whole or in part between the Fund and the delinquent subcontractor, the Contractor shall issue a joint check payable to the Fund and the subcontractor in the amount of the undisputed delinquency. In the case of a delinquent prime Contractor, the District or the District PLA Program Manager shall withhold, in an appropriate amount, any funds due and owing to the Contractor. Pursuant to the announced commitment of the District, and to the extent permitted by law, the Contractor shall be subject to withholding of retained amounts which may only be released upon the Contractor's resolution of the delinquency as evidenced by a written statement endorsed by the Fund. Where there is no dispute as to the amount of the delinquency, retained amounts may be released by a joint check payable to the Contractor and the Fund in the amount of any undisputed delinquency.
ARTICLE 12
GRIEVANCE ARBITRATION PROCEDURE

12.1 Any dispute alleging violation of this Agreement, including the applicable Master Agreement, but excluding jurisdictional disputes and alleged violations of Article 6, shall be considered a grievance and resolved in accordance with the procedures set forth herein. A signatory Contractor and Union shall agree to resolve a grievance that involves solely the interpretation of the Master Agreement under the grievance and arbitration provisions of the Master Agreement. A grievance shall be considered null and void if not brought in writing and delivered to both the involved party and Program Manager within ten (10) working days after the incident that initiated the alleged grievance was discovered. The term 'working days' as used in this section shall exclude Saturdays, Sundays or holidays regardless of whether any work is actually performed on such days.

12.2 **Grievances shall be settled according to the following procedures:**

**Step 1:** Within five (5) business days after the receipt of the written notice of the grievance, the Business Representative of the involved Local Union or Council, or its designee, or the representative of the employee, and the representative of the involved Contractor(s) shall confer and attempt to resolve the grievance.

**Step 2:** In the event that the representatives are unable to resolve the dispute within the five (5) business days after its referral to Step 1, either involved party may submit it within five (5) business days to the Grievance Committee, which shall meet within five (5) business days after such referral (or such longer time as is mutually agreed upon by all representatives on the Grievance Committee), to confer in an attempt to resolve the grievance.

The Grievance Committee shall be comprised of one (1) representative of the District; one (1) representative of the District PLA Program Manager; and two (2) representatives of the Alameda County Building and Construction Trades Council. If the dispute is not resolved within such time (five (5) business days after its referral or such longer time as mutually agreed upon), it may be referred within five (5) business days thereafter by either party to Step 3.

**Step 3:** Within five (5) business days after referral of a dispute to Step 3, the representatives shall choose a mutually agreed upon arbitrator for final and binding arbitration. The parties agree that an arbitrator shall be selected by the alternate striking method from the following list noted. The selection party who shall strike the first name shall be selected by the toss of a coin.

1. Barbara Kong-Brown
2. Thomas Angelo
3. William Riker
4. Gerald McKay
5. Jerri-Lou Cossack

The decision of the Arbitrator shall be binding on all parties. The Arbitrator shall have no authority to change, amend, add to or detract from any provisions of the Agreement. The expense of the Arbitrator shall be borne by the losing party. The Arbitrator shall arrange for a hearing on the earliest available date from the date of his/her selection. A decision shall be given to the parties within five (5) calendar days after completion of the hearing unless such time is extended by mutual agreement. A written opinion may be requested by a party from the presiding Arbitrator.

The time limits specified in any step of the Grievance Procedure set forth in Section 12.2 may be extended by mutual agreement of the parties initiated by the written request of one party to the other, at the appropriate step of the Grievance Procedure. However, failure to process a grievance, or failure to respond in writing within the time limits provided above, without an agreed upon extension of time, shall be deemed a waiver of such grievance without prejudice, or without precedent to the processing of and/or resolution of like or similar grievances or disputes.

In order to encourage the resolution of disputes and grievances at Steps 1 and 2 of this Grievance Procedure, the parties agree that such settlements shall not be precedent setting.

ARTICLE 13
SAFETY AND HEALTH

13.1 In accordance with the requirements of the Occupational Safety and Health Act, it shall be the exclusive responsibility of each Contractor on the job site to ensure safe working conditions for its employees and their compliance with any safety rules contained herein or established by the District, its representatives, and/or the Contractor(s). Nothing in this Agreement shall be interpreted to make the Unions liable for safety violations that may occur on the Project. It is understood that the employees have an individual obligation to use diligent care to perform their work in a safe manner and to protect themselves and the property of the Contractor(s) and the District. An employee's failure to satisfy his/her obligation under this article will subject him/her to corrective action.

13.2 In order to minimize any disturbance to the student population, Contractors' employees are to restrict their presence to the Project site and not visit other areas of the campus to the extent possible of carrying out their duties.

ARTICLE 14
COMPLIANCE

14.1 It shall be the responsibility of the Contractor(s) and Union(s) to investigate and monitor compliance with the provisions of the Agreement contained in Article 11. Nothing in this agreement shall be construed to interfere with or supersede the usual and customary
legal remedies available to the Unions and/or employee benefit Trust Funds to collect
delinquent Trust Fund contributions from Contractors on the Project.

14.2 The District, through the services of the District PLA Program Manager, shall monitor
compliance enforcement measures to ensure the Contractor(s) compliance with the
Construction Contract conditions of the Agreement.

14.3 The parties to this Agreement intend to ensure the best possible harmony in labor-
management relations on the Project and recognize that the Administrator shall strive to
encourage the Parties toward that end.

In an effort to achieve that labor-management harmony the Parties shall establish a four
(4) person Joint Administrative Committee. This Committee shall be comprised of two (2)
representatives selected by the Administrator and two (2) from the Unions, one of whom
will be a representative from the Council. Each representative shall designate an
alternate who shall serve in his or her absence for any purpose contemplated by this
Agreement. The Committee will be co-chaired by the Administrator and the
representative from the Council.

The Joint Administrative Committee shall meet as required to review the implementation
of the Agreement and the progress of the Project and resolve problems and/or
grievances by majority vote with such resolutions to be binding on all signatories of the
Agreement as provided herein. Any question regarding the meaning, interpretation, or
application of the provisions of this Agreement shall be first referred directly to the Joint
Administrative Committee for resolution. The Joint Administrative Committee will meet
upon the call of either co-chair, upon provision of sufficient notice of the issue to be
discussed.

ARTICLE 15
JURISDICTIONAL DISPUTES

15.1 The Contractor/Employer(s) shall assign work on the basis of traditional craft
jurisdictional lines.

15.2 There shall be no strikes, picketing, sympathy strikes, leafleting or work disruption or
stoppages of any kind because of jurisdictional disputes.

15.3 When conflicting claims for work on the Project are submitted to a Contractor/Employer,
the dispute shall be resolved pursuant to agreed upon Jurisdictional Dispute Procedures,
as adopted by the National Building & Construction Trades Department, or by the
Mechanical Allied Crafts (MAC), or by the Northern California Basic Crafts Alliance
(NCBCA) Jurisdictional Dispute Resolution Procedures. It is understood by the parties
that these Procedures might be amended from time to time. In the event a jurisdictional
dispute arises between two or more Unions affiliated with the National Building &
Construction Trades Department, such dispute shall be resolved by the procedure set
forth in the Plan for the Settlement of Jurisdiction Disputes in the Construction Industry.
In the event a jurisdictional dispute arises between two or more Unions affiliated with the
MAC, such dispute shall be resolved under the MAC Procedure. In the event a
jurisdictional dispute arises between two or more Unions affiliated with the NCBCA, such
dispute shall be resolved under the NCBCA Procedure.
15.4 In the event a jurisdictional dispute arises between two or more Unions that are not stipulated to the same jurisdictional dispute resolution procedure, the dispute shall be handled in accordance with and resolved as follows:

15.5 In the event a jurisdictional dispute arises while the parties are attempting to negotiate an alternative resolution mechanism either party may refer the jurisdictional dispute to the General Presidents of the affected unions, and if the General Presidents cannot resolve the dispute within five (5) business days of the dispute being referred to them for resolution, the dispute shall be resolved as follows:

15.6 The dispute shall be submitted to arbitration before an arbitrator selected from the Panel of Permanent Arbitrators for resolution. The Panel of Permanent Arbitrators shall be composed of: David Nevins, Gerald McKay, Robert Hirsch, William Riker and Barry Winograd. The Arbitrator shall be selected by alternately striking the names of Arbitrators from the list of five (5) permanent Arbitrators. The order of striking names from the list of arbitrators shall be determined by a coin toss, the winner of which shall decide whether they wish to strike first or second. Such striking shall take place within three (3) days. If a party does not respond within three (3) days, this means any Arbitrator from the list is acceptable. The remaining Arbitrator shall serve as the Arbitrator who shall hear the dispute on an expedited basis, but in no case longer than seven (7) days, and resolve the dispute. The Arbitrator shall render his decision within three (3) days of the hearing.

15.7 In rendering his decision, the Arbitrator shall determine:

1. First, whether a previous agreement of record or applicable agreement, including a disclaimer agreement, between the National and International Unions to the dispute governs;

2. Only if the Arbitrator finds that the dispute is not covered by an appropriate or applicable agreement of record or agreement between the crafts to the dispute, he shall then consider the established trade practice in the industry and prevailing practice in the locality. Where there is a previous decision of record governing the case, the Arbitrator shall give equal weight to such decision of record, unless the prevailing practice in the locality in the past ten (10) years favors one craft. In that case, the Arbitrator shall base his decision on the prevailing practice in the locality. Except, that if the Arbitrator finds that a craft has improperly obtained the prevailing practice in the locality through raiding, the undercutting of wages or by the use of vertical agreements, the Arbitrator shall rely on the decision of record and established trade practice in the industry rather than the prevailing practice in the locality.

3. Only if none of the above criteria is found to exist, the Arbitrator shall then consider that because efficiency, cost or continuity and good management are essential to the well being of the industry, the interests of the consumer or the past practices of the employer shall not be ignored.

4. The Arbitrator shall comply with the Code of Professional Responsibility for Arbitrators of Labor Management Disputes jointly adopted by the National Academy of Arbitrators, the American Arbitration Association and the Federal Mediation and
Conciliation Service. The Arbitrator shall set forth the basis for his decision and shall explain his findings regarding the applicability of the above criteria. If lower-ranked criteria are relied upon, the Arbitrator shall explain why the higher-ranked criteria were not deemed applicable. The Arbitrator's decision shall only apply to the job in dispute.

5. Agreements of record are applicable only to the parties signatory to such agreements. Decisions of record are applicable to all trades.

6. The Arbitrator is not authorized to award back pay or any other damages for a misassignment of work. Nor may any party to this Plan bring an independent action for back pay or any other damages, based upon a decision of an Arbitrator.

7. Each party to the arbitration shall bear its own expense for the arbitration and agrees that the fees and expenses of the Arbitrator shall be borne by the losing party or parties.

15.8 ENFORCEMENT

1. Any decision or interpretation rendered by an arbitrator shall be immediately accepted and complied with by all parties subject to this Agreement. If a party fails to accept and comply with a decision or interpretation rendered by an arbitrator, any party to the dispute may seek court enforcement of the decision or ruling.

2. The Arbitrator shall have no authority to undertake any action to enforce his decision after a hearing beyond informing the affected parties of his decision. Rather, it shall be the responsibility of the prevailing party to seek appropriate enforcement of a decision. The prevailing party in any enforcement proceeding shall be entitled to recover its reasonable costs and attorney fees from the non-prevailing party. In the event the Arbitrator is made a party to, or is otherwise required to participate in any such enforcement proceedings for whatever reason, the non-prevailing party shall bear all reasonable costs, attorney fees, and any other expenses incurred by the Arbitrator in those proceedings.

15.9 If there is a strike, sympathy strike, work stoppage, slowdown, picketing or otherwise advising the public that a labor dispute exists or interference with the progress of the Project by reason of a jurisdictional dispute, the Contractor/Employer (who has complied with the Arbitrator's decision) affected by said Union conduct, shall have the right to seek full legal redress in the Courts of California, including injunctive relief and damages.

ARTICLE 16
LOCAL HIRING PROGRAM

16.1 The objective of the District in creating a Local Hiring Program is to enhance and encourage employment opportunities for local area residents to enable effective pathways into the construction industry and into Union Apprenticeship programs. To that end, as part of the Agreement, the District establishes goals for the hiring and retention of local area residents.
16.2 **Local Hiring Program Goals**

(a) Hiring Priority:

1. Fifty percent (50%) of all hours worked on covered projects, on a craft by craft basis will be worked by local area residents as defined in Article 1, Section 1.12, if such workers are available, capable and willing to work on the project and dispatched through the utilization of the normal hiring hall procedures.

2. (i) Subject to any restrictions contained in law, the Parties agree to a goal that apprentices will perform twenty percent (20%) of the total craft work hours unless an applicable Schedule A provides for a greater percentage. The Union agrees to cooperate with the Contractor in furnishing apprentices as requested and they shall be properly supervised and paid in accordance with provisions contained within the Schedule A.

(ii) The parties agree to a goal that only local area residents as defined in Article 1, Section 1.12 shall be utilized as apprentices. The Contractor shall make good faith efforts to reach this goal through the utilization of normal hiring hall and apprentice procedures and, when appropriate, the identification of potentially qualified apprentices through community-based organizations working in collaboration with the apprentice programs. The Unions are committed to working with the contractors and community-based organizations to reach these goals.

(iii) All apprentices referred to Contractors under this Agreement shall be enrolled in State of California approved Joint Apprenticeship Programs.

16.3 (a) Contractors may achieve up to fifty percent (50%) compliance with these local hiring goals and timelines through the employment of local area resident journeymen, existing apprentices and newly indentured resident apprentices on non-District projects during the time period that the Contractors are working on District Projects.

16.4 **Good Faith Efforts:**

A Contractor and its subcontractors must take the following good faith steps to demonstrate that it has made every effort to reach the local hiring goals of the District. The contractor shall attend scheduled pre-job meetings held by the PLA Program Manager pertaining to work they will performed. The contractor must submit written workforce projections and projected work hours on a craft by craft basis.

(a) Within seven calendar days after the Notice to Proceed, the Contractor shall meet with the PLA Program Manager to present its plan for reaching the local hiring goals.

(b) The Contractor shall notify the PLA Program Manager by US mail or email, if a Union hiring hall cannot, upon request of the contractor, dispatch local area residents, as defined herein. It shall be the responsibility of the contractor to retain all evidence of such good faith efforts.
(c) The contractor shall use the "Name Call," "Rehire" or other available hiring hall procedures to reach goals.

(d) The contractor shall use local CBOs working in collaboration with the apprentice programs for recruiting local residents to apprentice programs specified in section 16.2,(c), if a union cannot provide local area residents as requested, and in conformity with the collectively bargained union hiring hall agreement.

16.5 Consequences for Non-Compliance with Goals

(a) The PLA Program Manager in coordination with District staff and the Local Hiring Committee shall consider allegations of non-conformance with the goals. If there is a determination that a Contractor has not complied with the goals or demonstrated good faith efforts to do so, the PLA Program Manager will refer the issue to the Local Hiring Committee for review.

(b) If the Local Hiring Committee (see 16.6) finds a Contractor to be in apparent non-compliance, it will be referred to arbitration in accordance to step 3 of the grievance arbitration procedure upon direction by the Committee.

(c) At any time during the process of compliance review, the Contractor can negotiate a settlement with the Local Hiring Committee.

16.6 Local Hiring Committee

(a) The Parties agree to various provisions of the Agreement to attempt to achieve the inclusion of local area residents in the employment opportunities created by the covered work. In order to implement and monitor the progress of these provisions, the District and the Unions, in recognition of their mutual commitment to and the partnership they have established, to achieve those goals, shall form a Local Hiring Committee composed of participants mutually agreed upon by both Parties.

(b) The Local Hiring Committee will serve as the central forum and deliberative body for representatives of all interested or affected parties to exchange information and ideas concerning the operation and results of the District's local hiring program and the ongoing role of this Agreement as an integral component of the local hire program. As part of these responsibilities, the Committee will assess the obstacles to success for achieving inclusion of local workers in the construction opportunities. The Committee shall make program recommendations to overcome obstacles to effective local hiring.

(c) The Local Hiring Committee will be comprised of three (3) representatives of the community one of whom will be primarily involved in preparatory training for prospective construction applicants, three (3) representatives from the Unions, three (3) Contractor representatives, one (1) representative from the PLA Program Manager and one (1) representative from the Council.

(d) The Committee shall establish its rules of procedure.

(e) Committee meeting will be chaired by the District and the Council on a rotating basis.

16.7 Local Hiring Committee Meetings

(a) The Committee will meet monthly at the call of the Chair.
(b) The PLA Program Manager will establish agenda topics with input from the Committee and send notices of meetings with the agenda in advance of the meetings.

(c) The Committee will receive reports and consider work progress and practices, pre-apprentice recruitment, training and referral, apprentice development and utilization, contractor compliance with local hire goals and other issues of concern to the Program.

(d) The PLA Program Manager and the contractors shall report monthly on progress for these issues and provide ongoing workforce projections for each trade.

16.8 Monitoring and Reporting

The PLA Program Manager will assist the District in monitoring compliance with all local hiring policies and will report to the Local Hiring Committee. This monitoring will include attending progress meetings, site visits, monitoring of progress payments, utilization and verification of performance forms. Forms specific to this monitoring process will be developed. Monthly reports will be submitted to the District.

ARTICLE 17
MANAGEMENT RIGHTS

17.1 The Contractor retains the full and exclusive authority for the management of its operations and shall be responsible for the management and prosecution of the work consistent with the provisions of this Agreement. Except as expressly limited by other provisions of this Agreement and the attached applicable Master Agreement(s), the Contractor retains the right to direct the workforce, including the hiring, promotion, transfer within a contract, layoff, discipline or discharge for just cause of its employees; the selection of foremen; the assignment and schedule of work; the promulgation of reasonable work rules; and, the requirement of overtime work; the determination of when it will be worked and the number and identity of employees engaged in such work. No rules, customs, or practices which limit or restrict productivity, efficiency or the individual and/or joint working efforts of employees shall be permitted or observed. The Contractor may utilize any methods or techniques of construction. The lawful manning provisions of the applicable Master Agreement shall be recognized.

17.2 There shall be no limitation or restriction by a signatory Union upon a Contractor's choice of materials or design, nor, regardless of source or location, upon the full use and utilization of equipment, machinery, packaging, pre-cast, pre-fabricated, pre-finished, or pre-assembled materials, tools, or other labor saving devices. This Agreement covers all on-site fabrication work over which the District, Contractor(s) or subcontractor(s) possess the right of control (including work done for the Project in any temporary yard or area near the Project.) This Agreement also covers all off-site fabrication work traditionally performed by any of the Unions, that is directly or indirectly part of the Project, provided such off-site fabrication work is covered by a provision of a local Master Labor Agreement or local addenda to a national agreement of the applicable Union(s). All of the work described in this paragraph is within the scope of this Agreement and is referred to as "Covered Work."

The on-site installation, incorporation or application of all items shall be performed by the craft having jurisdiction over such work; provided, however, it is recognized that
installation of manufactured items may be performed by employees employed under this Agreement who may be directed by other personnel of the manufacturer in a supervisory role. For any work performed pursuant to this provision, the Contractor shall provide copies of the written warranty requirement to the Union and the District's PLA Program Manager prior to the commencement of work.

17.3 The use of new technology, equipment, machinery, tools and/or laborsaving devices and methods of performing work may be initiated by the Contractor from time-to-time during the Project. The Union agrees that it will not in any way restrict the implementation of such new devices or work methods. If there is any disagreement between the Contractor and the Union concerning the manner or implementation of such device or method of work, the implementation shall proceed as directed by the Contractor, and the Union shall have the right to grieve and/or arbitrate the dispute as set forth in Article 12 of this Agreement.

ARTICLE 18
SAVINGS CLAUSE

18.1 The parties agree that in the event any article, provision, clause, sentence or word of the Agreement is determined to be illegal or void as being in contravention of any applicable law, by a court of competent jurisdiction such as the Department of Industrial Relations, the Division of Apprenticeship Standards, and other applicable labor related governmental agencies the remainder of the Agreement shall remain in full force and effect. The parties further agree that if any article, provision, clause, sentence or word of the Agreement is determined to be illegal or void, by a court of competent jurisdiction or other labor related governmental authorities, the parties shall substitute, by mutual agreement, in its place and stead, an article, provision, clause, sentence or work which will meet the objections to its validity and which will be in accordance with the intent and purpose of the article, provision, clause, sentence or work in question.

18.2 The parties also agree that in the event that a decision of a court of competent jurisdiction materially alters the terms of the Agreement such that the intent of the parties is defeated, then the entire Agreement shall be null and void.

18.3 If a court of competent jurisdiction determines that all or part of the Agreement is invalid and/or enjoins the District from complying with all or part of its provisions and the District accordingly determines that the Agreement will not be required as part of an award to a Contractor(s), the Union(s) will no longer be bound by the provisions of Article 6.

ARTICLE 19
MISCELLANEOUS PROVISIONS

19.1 **Counterparts:** This Agreement may be executed in counterparts, such that original signatures may appear on separate pages, and when bound together all necessary signatures shall constitute an original. Facsimile signature pages transmitted to other parties to this Agreement shall be deemed equivalent to original signature.

19.2 **Warranty of Authority:** Each of the persons signing this Agreement represents and warrants that such person has been duly authorized to sign this Agreement on behalf of
the party indicated, and each of the parties by signing this Agreement warrants and represents that such party is legally authorized and entitled to enter into this Agreement.

19.3 **Ratification by Governing Board:** This Agreement shall not be binding on the District until it is approved by the Peralta Community College District Governing Board.

**ARTICLE 20**

**TERM**

20.1 The Agreement shall be included as a condition of the award of all Construction Contracts that are part of the PLA Program.

20.2 This Agreement shall become effective on the day the District Governing Board ratifies the Agreement and shall continue in full force and effect for a period of five (5) years, at which time this Agreement will be reviewed and considered for extension or renewal with modifications if appropriate. The term of this Agreement will be automatically extended for additional successive five (5) year terms unless the District, prior to the expiration of any such term and, after meeting with the Council and the Unions, finds in a public hearing that the work performed has been unsatisfactory, and gives the Council and Unions notice that it will not renew this Agreement. After the expiration of any term of this Agreement, the provisions of the Agreement shall continue to apply to those Projects subject to this Agreement until construction is completed. The parties may mutually agree in writing to amend, extend or terminate this Agreement at any time.

20.3 The parties agree to meet and confer annually, subsequent to approval of this Project Labor Agreement by the Peralta Community College District Governing Board, regarding the status of and experience with Projects covered by the Agreement and future projects to be covered by the Agreement.

**Peralta Community College District**

BY: [Signature]
Elihu Harris
Chancellor

DATE: 4/6/10

**Alameda County Building & Construction Trades Council AFL-CIO (Council)**

BY: [Signature]
Barry Luboviski
Secretary-Treasurer

DATE: __________________

**Asbestos Workers, Local 16**

By: [Signature]
Steve Steele

**Boilermakers, Local 549**

By: [Signature]
Frank Secret

[Handwritten notes and signatures]
Bricklayers & Allied Craftsmen, Local 3

By: Tom Spear

District Council of Plasterers and Cement Masons of Northern California

By: Steve Scott

Plasterers, Local 66

By: Chester Murphy, Jr.

Elevator Constructors, Local 8

By: Pat McGarvey

Northern California Regional Council of Carpenters on behalf of, Carpenters, Local 713, Carpenters, Local 2236, Lathers, Local 68L, Pile Drivers, Local 34, Millwrights, Local 102

By: Robert Alvarado

Cement Masons, Local 300

By: Steve Scott

Electrical Workers, Local 595

By: Victor Uno

Laborers District Council on behalf of, Hod Carriers, Local 166, Laborers, Local 67, Laborers, Local 304

By: Jose Moreno
Hod Carriers, Local 166

By: [Signature]
Sam Robinson

Laborers, Local 67

By: [Signature]
Victor Para

Laborers, Local 304

By: [Signature]
Jose Zapien

Operating Engineers, Local 3

By: [Signature]
Russ Burns

District Council Ironworkers of the State of California and Vicinity

By: [Signature]
Joe Standley

Ironworkers, Local 378

By: [Signature]
Emilio Rivera

District Council 16, Painters & Allied Trades on behalf of Auto & Marine
Painters, Local 1176, Carpet & Linoleum Layers, Local 12, Glaziers,
Architectural Metal & Glassworkers, Local 169, Painters & Tapers, Local 3

By: [Signature]
Doug Christopher

Roofers and Waterproofers, Local 81

By: [Signature]
Doug Ziegler
Sheet Metal Workers, Local 104

By: [Signature]

Bruce Word

Sign Display & Allied Crafts, Local 510

By: [Signature]

Mike Hardeman

Sprinkler Fitters, Local 483

By: [Signature]

Stan Smith, Jr.

Teamsters, Local 853

By: [Signature]

Rome Aloise

United Association of Steamfitters, Pipefitters, Plumbers & Gasfitters, Local 342

By: [Signature]

Jay Williams

United Association of Journeyman & Apprentices of the Pipe Fitting Industry, Underground Utility / Landscape, Local 355

By: [Signature]

Dennis Soares
Sheet Metal Workers, Local 104

By: ______________________

Bruce Word

Sprinkler Fitters, Local 483

By: ______________________

Stan Smith, Jr.

Sign Display & Allied Crafts, Local 510

By: ______________________

Mike Hardeman

Teamsters, Local 853

By: ______________________

Rome Aloice

United Association of Steamfitters, Pipefitters, Plumbers & Gasfitters, Local 342

By: ______________________

Jay Williams

United Association of Journeyman & Apprentices of the Pipe Fitting Industry, Underground Utility / Landscape, Local 355

By: ______________________

Dennis Soares
LETTER OF ASSENT
PROJECT LABOR AGREEMENT

The undersigned, as a Contractor on the Peralta Community College Project, ("Project"), subject to the Project Labor Agreement ("Agreement"), for and in consideration of the award to it of a contract to perform work on said Project, and in further consideration of the promises made in the Agreement and all attachments a copy of which was received and is acknowledged, hereby:

1.) Accepts and agrees to be bound by the terms and conditions of the Agreement, together with any and all amendments and supplements now existing or which are later made thereto only for the duration and scope of the Contractor's work on the Project.

2.) The Contractor agrees to be bound by the legally established trust agreements designated in local master collective bargaining agreements. The Contractor authorizes the parties to such local trust agreements to appoint trustees and successor trustee to administer the trust funds and hereby ratifies and accepts the trustees so appointed as if made by the Contractor.

3.) Certifies that it has no commitments or agreements which would preclude its full and complete compliance with the terms and conditions of said Agreement.

4.) Agrees to secure from any Contractor(s) (as defined in said Agreement) which are or become a subcontractor (of any tier) to it, a duly executed Agreement to be Bound in a form identical to this document.

DATED: ______________  Name of Contractor ________________________________

(Authorized Officer & Title) ________________________________

Contractor's State License #______________________________

Project Name ________________________________

Contract Number ________________________________

Name of Prime Contractor or Higher Level Subcontractor ________________________________
LETTER OF UNDERSTANDING ADDRESSING LOCAL BUSINESS UTILIZATION

During negotiations, the District and the Building Trades Council discussed local business participation on District projects that will be covered by the Project Labor Agreement. The District, the Building Trades Council and the Affiliates of the Council agreed that such participation will benefit the local community and insure additional opportunities for work that is not covered by the Project Labor Agreement.

It is therefore agreed that every effort will be taken to encourage all participating Contractors to use good faith efforts to obtain supplies, materials and goods from local suppliers and manufacturers. Such ancillary off site support services include fabrication of: millwork, cabinets and modular furniture, electrical components, miscellaneous ornamental iron, prefinishing of materials and also the furnishing of building materials and office supplies used during construction.

Therefore, the District, the Building Trades Council and the Unions will make every effort to encourage use of local businesses on non-covered work needed to construct the College facilities.

Sincerely,

Elihu Harris, Chancellor
on behalf of the Peralta Community College District

AGREED AND ACCEPTED on behalf of the Building and Construction Trades Council of Alameda County, AFL-CIO and the Local Unions signatory to the Peralta Community College District Construction Project Labor Agreement this 21st day of July 2009.

Barry Luboviski, Secretary-Treasurer
Building and Construction Trades Council of Alameda County, AFL-CIO
Attachment C

We, the undersigned parties agree to the two side letters, dated July 21, 2009:

"Term of Project Labor Agreement Side Letter" and
"Helmets to Hardhats Program Side Letter"

These two side letters are addendum to the Project Labor Agreement, and shall constitute the entire Agreement. The effective date of the Agreement is July 21, 2009. Mr. Barry Luboviski, Secretary-Treasurer confirms that all parties agree to the side letters, along with the Project Labor Agreement, and all Union Signatories will confirm their agreement below.

Peralta Community College District Construction

BY: [Signature]
Elihu Harris
Chancellor

DATE: ______________________

Asbestos Workers, Local 16

By: [Signature]
Steve Steele

Boilermakers, Local 549

By: [Signature]
Dale Bilyeu

Bricklayers & Allied Craftsmen, Local 3

By: [Signature]
Tom Spear

Northern California Regional Council of Carpenters on behalf of, Carpenters, Local 713, Carpenters, Local 2236, Lathers, Local 68L, Pile Drivers, Local 34, Millwrights, Local 102

By: [Signature]
Robert Alvarado

District Council of Plasterers and Cement Masons of Northern California

By: [Signature]
Steve Scott

Cement Masons, Local 300

By: [Signature]
Steve Scott
Attachment C

Plasterers, Local 66

By: __________________________
Chester Murphy, Jr.

Elevator Constructors, Local 8

By: __________________________
Pat McGarvey

Hod Carriers, Local 166

By: __________________________
Sam Robinson

Laborers, Local 304

By: __________________________
Jose Zaprien

District Council Ironworkers of the State of California and Vicinity

By: __________________________
Joe Standley

Electrical Workers, Local 595

By: __________________________
Victor Uno

Laborers District Council on behalf of, Hod Carriers, Local 166, Laborers, Local 67, Laborers, Local 304

By: __________________________
Oscar De La Torre

Laborers, Local 67

By: __________________________
Victor Parra

Operating Engineers, Local 3

By: __________________________
Russ Burns

Ironworkers, Local 378

By: __________________________
Emilio Rivera
Attachment C

District Council 16, Painters & Allied Trades on behalf of Auto & Marine Painters, Local 1176, Carpet & Linoleum Layers, Local 12, Glaziers, Architectural Metal & Glassworkers, Local 169, Painters & Tapers, Local 3

By: ________________________________
Doug Christopher

By: ________________________________
Doug Ziegler

Sheet Metal Workers, Local 104

By: ________________________________
Bruce Word

By: ________________________________
Mike Hardeman

Sprinkler Fitters, Local 483

By: ________________________________
Stan Smith, Jr.

By: ________________________________
Rome Aloise

United Association of Steamfitters, Pipefitters, Plumbers & Gasfitters, Local 342

By: ________________________________
Jay Williams

By: ________________________________
Dennis Soares

Roofers and Waterproofers, Local 81

Sign Display & Allied Crafts, Local 510

Teamsters, Local 853

United Association of Journeyman & Apprentices of the Pipe Fitting Industry, Underground Utility / Landscape, Local 355

Peralta Community College District
Project Labor Agreement
Page 34 of 36
District Council 16, Painters & Allied Trades on behalf of Auto & Marine Painters, Local 1176, Carpet & Linoleum Layers, Local 12, Glaziers, Architectural Metal & Glassworkers, Local 169, Painters & Tapers, Local 3

By: ____________________________

Doug Christopher

Sheet Metal Workers, Local 104

By: ____________________________

Bruce Word

Sprinkler Fitters, Local 483

By: ____________________________

Stan Smith, Jr.

United Association of Steamfitters, Pipefitters, Plumbers & Gasfitters, Local 342

By: ____________________________

Jay Williams

Roofers and Waterproofers, Local 81

By: ____________________________

Doug Ziegler

Sign Display & Allied Crafts, Local 510

By: ____________________________

Mike Hardeman

Teamsters, Local 853

By: ____________________________

Rome Aloise

United Association of Journeyman & Apprentices of the Pipe Fitting Industry, Underground Utility / Landscape, Local 355

By: ____________________________

Dennis Soares
Attachment D

Term of Project Labor Agreement Side Letter

Chancellor Elihu Harris
Peralta Community College District
333 East 8th Street
Oakland, CA 94606

Re: Peralta Community College District Construction Project Labor Agreement: Term of Agreement

Dear Chancellor Harris:

In our negotiations of the captioned Project Labor Agreement, the District and the Unions came to agreement on the Term of the Project Labor Agreement, in Article 1, Definitions and Article 20, Term. It is clearly understood by the Unions and the District that the parties agree that Section 20.2 shall be modified as follows:

20.2 This Agreement shall become effective on the day the District Governing Board ratifies the Agreement and shall continue in full force and effect for a period of five (5) years, at which time this Agreement will be reviewed and considered for extension or renewal with modifications if appropriate. The term of this Agreement will be extended for additional successive five (5) year terms unless the District, 60 to 90 days prior to the expiration of any such term, after meeting with the Council and the Unions, gives written notice to the Council that it wishes to re-open the contract and make proposals to amend, modify, add to, or delete from the Agreement. After the expiration of any term of this Agreement, the provisions of the Agreement shall continue to apply to those Projects subject to this Agreement until construction is completed. The parties may mutually agree in writing to amend, extend or terminate this Agreement at any time.

Sincerely,

[Signature]

Barry Luboviski, Secretary-Treasurer,
Alameda County Building and Construction Trades Council
on behalf of the signatory Unions and Councils to the Project Labor Agreement

[Signature]

Chancellor Elihu Harris
Peralta Community College District

Acknowledged and agreed to this 21st day of July 2009.
Attachment E

Helmets to Hardhats Program Side Letter

Chancellor Elihu Harris
Peralta Community College District
333 East 8th Street
Oakland, CA 94606

Re: Peralta Community College District Construction Project Labor Agreement: Helmets to Hard Hats

Dear Chancellor Harris:

In our negotiations of the captioned Project Labor Agreement, the District and the Unions discussed career pathways. To insure that all avenues are available to effectively reach out to potential applicants and to insure entry into the building and construction trades of men and women veterans who have served their Country and are interested in careers in the building and construction industry, we subscribe to the following:

When appropriate, the Employers and Unions will agree to utilize the services of the Center for Military Recruitment, Assessment and Veterans Employment (hereinafter “Center”) and the Center’s “Helmets to Hardhats” program to serve as a resource for preliminary orientation, assessment of construction aptitude, referral to apprenticeship programs or hiring halls, counseling and mentoring, support network, employment opportunities and other needs as identified by the parties.

We further agree that the Unions and Employers will, as a consequence of signing the Letter of Assent, coordinate with the Center to create and maintain an integrated database of veterans interested in working on Projects covered by this Agreement and which of them are interested in apprenticeship and employment opportunities made available by such Projects. To the extent permitted by law, the Unions will give credit to such veterans for bona fide, provable past experience.

Sincerely,

Barry Luboviski, Secretary-Treasurer,
Alameda County Building and Construction Trades Council
on behalf of the signatory Unions and Councils to the Project Labor Agreement

Chancellor Elihu Harris
Peralta Community College District

Acknowledged and agreed to this 21 day of July 2009.
SCOPE OF WORK

Bid No.11-12/24: District-Wide Drinking Fountain Project

(Project # 2727)

This is a public works Project, which includes a Project Labor Agreement (PLA), and will require payment of prevailing wages. Bidders shall possess at least the following California Contractor’s License at the time of the Bid Opening in order to qualify to perform the work: **Class B General Building Contractors License.**

This project involves the following tasks per the specifications and drawings prepared by Noll & Tam Architects and YEI Engineers:

1. Provide and install 16 exterior and 19 interior replacement drinking fountains in new or existing locations. Provide and install stainless steel ADA compliant handrails at each location as designated on the drawings.
2. Remove and dispose of existing drinking fountain fixtures. Modify piping and install new ADA compliant drinking fountains with bottle fillers.
3. Modify existing, or extend from existing nearest available source as required to provide power to drinking fountains.
4. Provide structural backing and modifications to existing wall framing to support wall hung drinking fountains.
5. Construct metal stud framing with structural backing and gypsum board finish furred walls at existing concrete walls to support wall hung drinking fountains.
6. Wood framing modification and repair to provide structural backing to support wall hung drinking fountains.
7. Concrete sawcutting/trenching and repair where necessary to extend plumbing and electrical utilities.
8. Additional repair/modifications to existing finish materials at multiple locations on 4 campuses.
PERALTA COMMUNITY COLLEGE DISTRICT
DISTRIBUTION-WIDE DRINKING FOUNTAIN REPLACEMENT PROJECT
College of Alameda
Laney College
Berkeley College
Merritt College

PROJECT MANUAL
BID SET
April 16, 2012

NOLL & TAM ARCHITECTS
729 Heinz Avenue, Suite 7
Berkeley, CA 94710
Phone (510) 649-8295
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# Peralta Community College District
## District-Wide Drinking Fountain Replacement Project

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SECTION 01 11 00

SUMMARY OF WORK

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes
   2. Contractor use of premises.

B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. The Project consists of new drinking fountains to be provided and installed in existing and new locations at four Peralta Community College District campuses—College of Alameda, Laney College, Berkeley College, and Merritt College.

B. Contract Documents, dated April 16, 2012, were prepared for the Project by Noll & Tam Architects and Planners, 729 Heinz Avenue, Berkeley, CA 94710.

C. All work shall be in accordance with the California Building Code, 2010 Edition, State approved accessibility codes, and applicable city ordinances.

D. Time is of the essence in this Contract, and work is to proceed as rapidly as possible, commensurate with good workmanship.

E. The District will pay for plan checking fee and the building permit.

F. The Contractor shall pay for temporary utilities.

G. Locate and lay out the work with exact locations and elevations as shown in the Drawings and as necessary to accommodate existing field conditions.

H. Existing structures, and improvements, trees and planting materials not specifically called for demolition shall be protected from damage by the Contractor.

1.03 CONTRACTOR USE OF PREMISES

A. General: During the construction period, the Contractor shall have full use of the premises for construction operations, including use of the site, within the construction boundary.

B. The entire area within the construction boundary is the responsibility of the Contractor to preserve and protect, and must be returned to the District in original condition at the conclusion of the work.

C. The Contractor shall schedule and sequence the work in a manner that will minimize inconvenience to the building occupants and the public. The Contractor will limit and minimize the area of work at each location.
1.04 CONTRACT DOCUMENT ORGANIZATION

A. The Drawings illustrate locations, arrangements, dimensions, and details to determine the general character of the Work. Parts not detailed shall be subject to the Architect's approval. Where reasonably inferable that a drawing illustrates only part of a given work on a number of items, the remainder shall be deemed repetitious and so construed. Drawings of greater scale take precedence over drawings of lesser scale. Do not scale documents.

B. Drawings indicate general arrangement and location of such items as piping, conduit, apparatus, and equipment. Drawings and Specifications are for guidance of the Contractor and exact locations, distances, and levels will be governed by building site and actual building conditions. The Contractor shall make minor changes, as directed, to arrangements or locations shown in order to meet Structural or Architectural conditions.

C. Specifications describe performances and qualities required of materials and of methods. Items listed under each Section of the Specifications are not necessarily all inclusive. The Contractor shall be responsible for the complete work.

D. For convenience, Drawings and Specifications are separated into topical divisions of work, each of which is further related to topical divisions under which it occurs. Such separation shall not be construed as an attempt by the Architect to establish limits of any agreements between the Contractor and his/her subcontractors. The Contractor is not permitted to divide the documents or provide only partial information for the purposes of scope definition. The Documents must be reviewed in total.

E. Portions of these Specifications are of abbreviated, simplified type and may include incomplete sentences.
   1. Omissions of words or phrases such as “the Contractor shall”, “in conformity with”, “shall be”, “as noted on the Drawings”, “in accordance with the details”, “a”, “the”, “all”, “any”, and “each” are intentional. Omitted words or phrases shall be supplied by inference.
   2. Terms such as “approved”, “or approved equal”, “as directed”, “as required”, “as provided”, “acceptable”, and “satisfactory” mean by or to the Engineer, Architect, or other authorized representative of the District.
   3. Furnish: The term furnish means supply and deliver to the Project Site, ready for unloading, unpacking, assembly, installation, and similar operations.
   4. Install: The term install describes operations at the Project Site, including the actual unloading, unpacking, assembly, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
   5. Provide: The term provide means to furnish and install, complete and ready for the intended use.

F. Reference Standards
   1. For products specified by association or trade standards, comply with requirements of the standard except where more rigid requirements are specified or are required by applicable codes.
   2. The date of the standard is that in effect as of bid date except where specific date is specified.

PART 2 - PRODUCTS  Not Used

PART 3 - EXECUTION  Not Used

END OF SECTION
PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Requirements for performance of the Work in conformance with the latest edition of applicable regulatory requirements.

B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 CODES AND STANDARDS

A. The codes adopted by the City, County, State, and Federal agencies shall govern minimum requirements for this project.

B. Codes which apply to Contract include, but are not limited to, the following:

1.03 CONFLICTS

A. Contract Documents take precedence over statutory requirements or standards when requiring materials of higher quality or performance, or larger sizes or capacity, or greater protection, safety or quantity than required by said codes or standards.

B. This shall not operate to allow deviations from code requirements.

C. Modifications to published statutory requirements currently adopted or enforced by regulating agencies having jurisdiction shall take precedence over said published requirements.

D. Statutory requirements or standards take precedence over Contract Documents when requiring materials of higher quality or performance, or larger size or capacity, or greater protection, safety or quantity than required by Contract Documents.

E. This shall not operate to allow deviations from requirements for prior approvals and other provisions specified.

F. Conflicts within contract documents and/or between Project Manual (including specifications) Drawings and Addendums: The more stringent requirement shall govern.

G. Subcontractors work may be called for in any section of the documents; Project Manual, Drawings and Addendums. Work by any one discipline is not limited to any specification section of the Project Manual, Drawings and documents shall be bid in total and not in parts.

H. If Contractor observes that drawings or specifications are at variance with specified regulatory requirements, Contractor shall promptly notify Architect in writing and changes deemed necessary by the Architect shall be adjusted as provided for change in work. If Contractor performs work which the Contractor knew, or through exercise of reasonable care should have known, to be contrary to such laws, ordinances, rules or regulations, and without proper notice to Architect, Contractor shall bear all costs arising therefrom. Nothing in these Contract Documents is to be construed to permit work not conforming to the specified regulatory requirements.
I. Where Contract Documents state that materials, processes, or procedures must be approved by the Division of the State Architect, State Fire Marshal, or other body or agency, Contractor shall be responsible for satisfying requirements of such bodies or agencies.

PART 2 - PRODUCTS  Not Used

PART 3 - EXECUTION  Not Used

END OF SECTION
PERALTA COMMUNITY COLLEGE DISTRICT
DISTRICT-WIDE DRINKING FOUNTAIN REPLACEMENT PROJECT

SECTION 01 70 00

EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes
   1. Closeout submittals.
   2. Examination and preparation.
   3. Installation.
   4. Closeout procedures.
   5. Warranties.

B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 REFERENCES

A. NFPA - National Fire Protection Association
   1. 70 - National Electrical Code.

1.03 CLOSEOUT SUBMITTALS

A. Record Drawings and specifications, marked to show installation that varies from the original design.

B. Operation and Maintenance Data for all installed equipment. See Plumbing and Electrical Specification requirements.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 EXAMINATION AND PREPARATION

A. At each location:
   1. Existing Utilities and Equipment: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction.
   2. Sequence of Work: The Contractor shall provide proposed sequence of drinking fountain replacement/installation including number of active construction locations that will be managed at one time.
   3. Construction limits: The Contractor shall provide diagrams to show the proposed construction barrier limits and types at each location.
   4. Products and Finishes: The Contractor shall provide the Architect with a listing of proposed Products and Finishes required to match adjacent existing, and identifying long lead time items.

B. Prepare substrates and adjoining surfaces according to manufacturer’s written instructions, including, but not limited to, the application of fillers and primers.
3.02 INSTALLATION

A. Comply with manufacturer’s written instructions for installation. Anchor each product securely in place, accurately located and aligned. Clean exposed surfaces and protect from damage. If applicable, prepare surfaces for field finishing.

B. Comply with NFPA 70 for installation of electrically operated equipment and electrical components and materials.

C. Sequence Work at each location to minimize length of interruption to the users.

3.03 CLOSEOUT PROCEDURES

A. Request Substantial Completion inspection once the following are complete:
   1. Advise the District of pending insurance changeover requirements.
   2. Submit Record Drawings and Specifications, maintenance manuals, warranties and similar record information.
   3. Deliver spare parts, extra stock and similar items.
   4. Complete installation of drinking fountains and demonstrate to District personnel that each is complete and functioning as designed.
   5. Remove temporary facilities and controls.
   6. Complete final cleanup.
   7. Touch up, repair and restore marred, exposed finishes.
   8. Obtain final inspections from authorities having jurisdiction.

B. Upon receipt of a request for inspection, the Architect will proceed with inspection or advise the Contractor of unfilled requirements. The District Inspector will prepare the Certificate of Substantial Completion after inspection or advise the Contractor of items that must be completed or corrected before the certificate will be issued.

3.04 WARRANTIES

A. Specific requirements for warranties for the Work and products and installations that are specified to be warranted, are included in the individual Sections of Divisions 2 through 49.

B. Disclaimers and Limitations: Manufacturer’s disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers and subcontractors required to countersign special warranties with the Contractor.

C. The following form shall be used for this Project:
   1. The General Conditions, Article 2.24, cover the Contractor’s responsibility to remedy defects due to faulty workmanship and materials which appear within 1 year form the date of final Project acceptance.
   2. Guarantees for more than 1 year, where indicated in various Sections of the Specifications, shall be in the form of a guarantee written on the letterhead of the Contractor, subcontractor or supplier doing the work and/or supplying the item to be guaranteed as follows:

      Guarantee

      for (item)

      We hereby guarantee that the (item), which has been installed in Peralta Community College District’s District-Wide Drinking Fountain Replacement Project, for the District, has been done in accordance with the Drawings and Specifications,
and that the work as installed, will fulfill the requirements of the guarantee included in the Specifications. We agree to repair or replace any or all of our work, together with any other adjacent work which may be displaced by so doing, that may prove to be defective in its workmanship or materials within a period of ___ years from the date of acceptance of the above named structure, without any expenses whatsoever to the District; ordinary wear and tear and unusual abuse or neglect excepted.

In the event of our failure to comply with the above mentioned conditions within a reasonable time but in no event longer than 30 days after being notified in writing by the District, we, collectively or separately, do hereby authorize the agents of the District to proceed to have said defects repaired and made good at our expense, and we will honor and pay the costs and the charges therefor upon demand.

Signed

______________________________
SUBCONTRACTOR/SUPPLIER
LICENSE NO. ____________________

Countersigned

______________________________
CONTRACTOR
LICENSE NO. ____________________

END OF SECTION
PERALTA COMMUNITY COLLEGE DISTRICT
DISTRICT-WIDE DRINKING FOUNTAIN REPLACEMENT PROJECT

SECTION 01 73 29

CUTTING AND PATCHING

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Administrative and procedural requirements for cutting and patching.

B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

C. Related Sections
   1. 00700 - General Conditions: For Peralta Community College District’s general requirements for demolition.
   2. Section 02 41 10 - Selective Demolition: For selective demolition of building and site elements.
   3. Section 09 01 10 - Restoration of Finishes: For restoration of existing finishes.

1.02 SUBMITTALS

A. Cutting and Patching Proposal: Submit a proposal describing procedures well in advance of the time cutting and patching will be performed if the District requires approval of these procedures before proceeding. Request approval to proceed. Include the following information, as applicable, in the proposal:
   1. Describe the extent of cutting and patching required. Show how it will be performed and indicate why it cannot be avoided.
   2. Describe anticipated results in terms of changes to existing construction. Include changes to structural elements and operating components as well as changes in the building’s appearance and other significant visual elements.
   3. List products to be used and firms or entities that will perform Work.
   4. Indicate dates when cutting and patching will be performed.
   5. Utilities: List utilities that cutting and patching procedures will disturb or affect. List utilities that will be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.
   6. Where cutting and patching involves adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with the original structure.
   7. Approval by the Architect to proceed with cutting and patching does not waive the Architect’s right to later require complete removal and replacement of unsatisfactory work.

1.03 QUALITY ASSURANCE

A. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would change their load carrying capacity or load deflection ratio.
   1. Obtain approval of the cutting and patching proposal before cutting and patching the following structural elements:
      a. Foundation construction.
      b. Bearing and retaining walls.
      c. Structural concrete.
      d. Structural steel.
      e. Lintels.
      f. Structural decking.
      g. Miscellaneous structural metals.
 Perez, drinking fountain replacement project.

h. Equipment supports.
i. Piping, ductwork and equipment.

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.

1. Obtain approval of the cutting and patching proposal before cutting and patching the following operating elements or safety related systems:
   a. Primary operational systems and equipment.
   b. Air or smoke barriers.
   c. Water, moisture or vapor barriers.
   d. Membranes and flashings.
   e. Fire protection systems.
   f. Noise and vibration control elements and systems.
   g. Control systems.
   h. Communication systems.
   i. Electrical wiring systems.

C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the Architect'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.

1.04 WARRANTY

A. Existing Warranties: Replace, patch and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to void any warranties required or existing.

PART 2 - PRODUCTS

2.01 MATERIALS

A. General: Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible if identical materials are unavailable or cannot be used. Use materials whose installed performance will equal or surpass that of existing materials. Submit proposal for replacement materials to the Architect prior to installation.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed before cutting. If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding.

1. Before proceeding, meet at the Project Site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

3.02 PREPARATION

A. Temporary Support: Provide temporary support of work to be cut.
B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching operations.

C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

D. Avoid cutting existing pipe, conduit or ductwork serving the building but scheduled to be removed or relocated until provisions have been made to bypass them.

3.03 PERFORMANCE

A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.

1. Cut existing construction to provide for installation of other components or performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition.

B. Cutting

1. Before cutting existing finishes, review proposed cutting layout with the Architect. Submit proposed replacement materials for approval by the Architect. Closeness of match will affect extent of removal and/or replacement at no additional cost to the District.

2. Cut existing construction using methods least likely to damage elements retained or adjoining construction. Where possible, review proposed procedures with the original installer; comply with the original installer’s recommendations.
   a. In general, where cutting, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
   b. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
   c. Cut through concrete and masonry using a cutting machine, such as a Carborundum saw or a diamond-core drill.
   d. Where services are required to be removed, relocated, or abandoned, by-pass utility services, such as pipe or conduit, before cutting. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.

C. Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.

1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation.

2. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.

3. Where removing walls or partitions extends one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform color and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
   a. Where patching occurs in a smooth painted surface, extend final paint coat over entire unbroken surface containing the patch after the area has received primer and second coat.

4. Patch, repair, or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance.
PERALTA COMMUNITY COLLEGE DISTRICT
DISTRICT-WIDE DRINKING FOUNTAIN REPLACEMENT PROJECT

3.04 CLEANING

A. Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty and similar items. Thoroughly clean piping, conduit and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.

END OF SECTION
PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Selective demolition of elements as required by the Work.

B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

C. Related Sections
1. 00700 - General Conditions: For Peralta Community College District’s general requirements for demolition.
2. Section 01 73 29 - Cutting and Patching: For administrative and procedural requirements for cutting and patching.

1.02 REFERENCES

A. EPA - Environmental Protection Agency

1.03 DEFINITIONS

A. Demolish: Remove and legally dispose of items except those indicated to be reinstalled, salvaged, or to remain the District’s property. Items not specifically called for demolition are presumed to remain in existing functioning condition. Demolition plans are not permitted to be issued or reviewed by the Contractor independently from the total Construction Document package.

B. Remove: Remove and legally dispose of items except those indicated to be reinstalled, salvaged, or to remain the District’s property.

C. Remove and Salvage: Items indicated to be removed and salvaged remain the District’s property. Remove, clean, pack or crate items to protect against damage, and identify contents of containers. Coordinate with District to move salvaged items to a designated storage area.

D. Remove and Reinstall: Remove items indicated; clean, service, and otherwise prepare them for reuse; store and protect against damage. Reinstall items in the same locations or in locations indicated.

E. Existing to Remain: Protect construction not otherwise indicated against damage and soiling during selective demolition. When permitted by the Architect, items may be removed to a suitable, protected storage location during selective demolition and then cleaned and reinstalled in their original locations. It is the Contractor’s responsibility to ensure against over-demolition by coordinating between demolition and new construction documents.

F. Materials Ownership: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain the District’s property, demolished materials shall become the Contractor’s property and shall be removed from the site with further disposition at the Contractor’s option.
   1. Each College, particularly Berkeley College, reserves the right to cannibalize old drinking fountains for spare parts.
1.04 SUBMITTALS

A. Schedule of selective demolition activities indicating the following, organized by campus and with the overall construction schedule:
   1. Interruption of utility services and security devices.
   2. Coordination for shutoff, capping, and continuation of utility services and security devices.
   3. Locations of temporary construction barriers, partitions, air locks, and means of egress.

B. Photographs or videotape, sufficiently detailed, of existing conditions of adjoining construction and site improvements that might be misconstrued as damage caused by selective demolition operations.

C. Record Drawings: At Project closeout, identify and accurately locate capped utilities and other subsurface structural, electrical, plumbing, mechanical, and security devices.

1.05 QUALITY ASSURANCE

A. Demolition Firm Qualifications: Engage an experienced firm that has successfully completed demolition work similar to that indicated for this Project. Contractor is responsible for coordinating the demolition and new construction to minimize over demolition of elements intended to remain untouched by the Work.

B. Regulatory Requirements
   2. State and local code requirements shall control disposal of debris, which shall be at off site location.

C. Review demolition approach during pre construction conference at each Project site.

1.06 PROJECT CONDITIONS

A. Conditions existing at time of inspection for bidding purpose will be maintained by the District as far as practical.

B. Asbestos: If any materials suspected of containing asbestos are encountered, do not disturb the materials. Immediately notify the District’s Inspector.

PART 2 - PRODUCTS

2.01 REPAIR MATERIALS

A. Use repair materials identical to existing materials.
   1. Where identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
   2. Use materials whose installed performance equals or surpasses that of existing materials.
PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that utilities have been disconnected and capped.

B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.

D. When unanticipated plumbing, mechanical, electrical, security, or structural elements that conflict with the intended function or design are encountered, investigate and measure the nature and extent of the conflict. Promptly submit a written report to the District’s Inspector.

E. Survey the condition of the buildings to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of the structures during selective demolition.

F. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.02 UTILITY SERVICES

A. Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
   1. Do not interrupt existing utilities serving occupied or operating facilities, except when authorized by the District. Provide temporary services during interruptions to existing utilities, as acceptable to District and to governing authorities.
      a. Provide not less than 72 hours’ notice to District if shutdown of service is required during changeover.

B. Utility Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services serving portions of the buildings to be selectively demolished.
   1. Arrange to shut off indicated utilities with utility companies.
   2. Where utility services are required to be removed, relocated, or abandoned, provide bypass connections to maintain continuity of service to other parts of the building before proceeding with selective demolition.
   3. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal the remaining portion of pipe or conduit after bypassing.

3.03 PREPARATION

A. Conduct demolition operations and remove debris to ensure minimum interference with streets, walks, and other adjacent occupied and used facilities.
   1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from the District and authorities having jurisdiction.

B. Conduct demolition operations to prevent injury to people and damage to adjacent buildings and facilities to remain. Ensure safe passage of people around selective demolition area.
   1. Erect temporary protection, such as walks and fences to provide appropriate barriers to separate the Work from the Public.
   2. Protect existing site improvements, appurtenances, and landscaping to remain.
   3. Erect and maintain dustproof partitions, air locks and temporary enclosures to limit dust and dirt migration and to separate areas from fumes and noise.
3.04 POLLUTION CONTROLS

A. Use water mist, temporary enclosures, and other suitable methods to limit the spread of dust and dirt. Comply with governing environmental protection regulations.

B. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
   1. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level.

C. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before start of selective demolition.

3.05 SELECTIVE SITE DEMOLITION

A. Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete Work within limitations of governing regulations and as follows:
   1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. To minimize disturbance of adjacent surfaces, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
   2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
   3. Do not use cutting torches until work area is cleared of flammable materials.

3.06 PATCHING AND REPAIRS

A. As specified in Section 01 73 29.

3.07 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.

B. Burning: Do not burn demolished materials.

C. Disposal
   1. Transport demolished materials off District’s property and legally dispose of them.
   2. When hauling is done over highways or city streets, loads shall be trimmed and the vehicle shelf areas cleaned after each loading.
   3. Contractor shall pay all permit and disposal fees for off-hauled materials.

3.08 CLEANING

A. Sweep the area broom clean on completion of selective demolition operation.

END OF SECTION
PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Concrete finishes, including the following:
   1. At new exterior slabs, match finish of existing adjacent.
   2. At exposed new interior slabs, match finish and color of existing adjacent.
   3. Preparation for interior concrete floor finish.

B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

C. Related Section
   1. Section 03 30 00 - Cast-In-Place Concrete: Provision of cast-in-place concrete.

1.02 REFERENCES

A. ASTM - American Society for Testing and Materials

1.03 SYSTEM DESCRIPTION

A. Performance Requirements
   1. Provide concrete surfaces to match adjacent existing at exposed cast-in-place concrete.
   2. Formwork shall provide finish to match existing.
   3. For smooth finish, utilize steel, fiberglass or plastic coated forms or any other kind of material that will impart no pattern to concrete.
   4. Provide broom finish at flat or to match existing.
   5. Pour joints of cast-in-place concrete shall align with reveals, rustication joints and/or control joints as indicated on the Drawings.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Concrete: As specified in Section 03 30 00.

B. Curing Compound: ASTM C309, and shall conform with all applicable air pollution regulations.

C. Sealer: Clear liquid applied, dual barrier penetrating slab and water repellent sealer to form crystalline barrier beneath surface that is not affected by ultra-violet light or abrasion, which also creates a water repelling membrane of methylsilane at the surface to prevent penetration of moisture, oils, fuel, chloride ions and other contaminants into the substrate.
   1. Product: As manufactured by Creteseal, “CS2000”, or equal (no known equal).

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine substrate and conditions, with installer present, for compliance with requirements for installation tolerances and other conditions affecting application of subsequent finishes.
B. Do not proceed with application until unsatisfactory conditions have been corrected.

3.02 FINISHING FORMED SURFACES

A. Rough-Formed Finish: Provide a rough-formed finish on formed concrete surfaces not exposed to view in the finished Work or concealed by other construction. This is the concrete surface having texture imparted by stock form-facing material used, with tie holes and defective areas repaired and patched, and fins and other projections exceeding 1/4-inch in height rubbed down or chipped off.

B. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike-off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated. Slope surfaces exposed to weather to drain.

C. Sandblast Finish: Light finish, approximately 1/16-inch depth of cut to achieve a texture resembling medium grit sandpaper. Do not expose coarse aggregate.

3.03 SEALER

A. Apply sealer exactly in accordance with manufacturer’s written instructions, using manufacturer’s recommended equipment and method.

B. Apply the number of coats recommended by manufacturer.

3.04 CONCRETE SURFACE REPAIRS

A. Intent of this Specification is to require forms, mixtures of concrete and workmanship so that concrete surfaces will require no patching, except for plugging of tie holes.

B. Patching Defective Areas: Repair and patch defective areas with cement mortar immediately after removing forms, when acceptable to the Architect.

C. Mix dry-pack mortar, consisting of 1 part portland cement to 2-1/2 parts fine aggregate passing a No. 16 mesh sieve, using only enough water as required for handling and placing.
   1. Cut out honeycombs, rock pockets, voids over 1/4-inch in any dimension, and holes left by tie rods and bolts down to solid concrete but in no case to a depth less than 1 inch. Make edges of cuts perpendicular to the concrete surface. Thoroughly clean, dampen with water, and brush-coat the area to be patched with bonding agent. Place patching mortar before bonding agent has dried.
   2. For surfaces exposed to view, blend white portland cement and standard portland cement so that, when dry, patching mortar will match surrounding color. Provide test areas at inconspicuous locations to verify mixture and color match before proceeding with patching. Compact mortar in place and strike-off slightly higher than surrounding surface.

D. Repairing Formed Surfaces: Remove and replace concrete having defective surfaces if defects cannot be repaired to satisfaction of the Architect. Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycomb, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning. Flush out form tie holes and fill with dry-pack mortar or precast cement cone plugs secured in place with bonding agent.
   1. Repair concealed formed surfaces, where possible, containing defects that affect the concrete’s durability. If defects cannot be repaired, remove and replace the concrete.
E. Repairing Unformed Surfaces: Test unformed surfaces, such as monolithic slabs, for smoothness and verify surface tolerances specified for each surface and finish. Correct low and high areas as specified. Test unformed surfaces sloped to drain for trueness of slope and smoothness by using a template having the required slope.

1. Repair finished unformed surfaces containing defects that affect the concrete’s durability. Surface defects include crazing and cracks in excess of 0.01-inch wide or that penetrate to the reinforcement or completely through nonreinforced sections regardless of width, spalling, popouts, honeycombs, rock pockets, and other objectionable conditions.

2. Correct high areas in unformed surfaces by grinding after concrete has cured at least 14 days.

3. Correct low areas in unformed surfaces during or immediately after completing surface finishing operations by cutting out low areas and replacing with patching mortar. Finish repaired areas to blend into adjacent concrete. Proprietary underlayment compounds may be used when acceptable to the Architect.

4. Repair defective areas, except random cracks and single holes not exceeding 1 inch in diameter, by cutting out and replacing with fresh concrete. Remove defective areas with clean, square cuts and expose reinforcing steel with at least 3/4-inch clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding agent. Mix patching concrete of same materials to provide concrete of same type or class as original concrete. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.

F. Repair isolated random cracks and single holes 1 inch or less in diameter by dry-pack method. Groove top of cracks and cut out holes to sound concrete and clean of dust, dirt, and loose particles. Dampen cleaned concrete surfaces and apply bonding compound. Place dry-pack before bonding agent has dried. Compact dry-pack mixture in place and finish to match adjacent concrete. Keep patched area continuously moist for at least 72 hours.

G. Perform structural repairs in accordance with Section 03 30 00 and as required for complete, finished product.

H. Repair methods not specified above may be used, subject to acceptance of the Architect.

3.05 PROTECTION

A. Restore finishes damaged during installation and construction so that no evidence remains of correction work.

END OF SECTION
PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes
1. Metal studs and furring for support of gypsum board.
2. Backing for interior items to be attached to gypsum board and metal studs.
3. Repair of steel framing for suspended and furred ceilings where required.

B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

C. Related Section
1. Section 07 92 00 - Joint Sealants: Provision of acoustical sealant.

1.02 REFERENCES

A. ASTM - American Society for Testing and Materials
3. A653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

B. CBC - California Building Code, 2010 Edition

C. GA - Gypsum Association
1. 203 - Installation of Screw-Type Steel Framing Members to Receive Gypsum Board.

1.03 SYSTEM DESCRIPTION

A. Design Requirements
1. Plumb, true, straight and rigid framing for support of attached materials.
2. Design system to accommodate construction tolerances, deflection of building structural members, support of attached materials and clearances of intended openings in accordance with CBC.
3. Gypsum board ceilings shall not support materials or building components other than grilles, light fixtures, small electrical conduits and small ducts. Such components shall be supported by supplemental framing that is supported by main runners. No vertical loads other than gypsum board dead load shall be applied to cross-furring.

1.04 QUALITY ASSURANCE

1.05 DELIVERY, STORAGE, AND HANDLING

A. Storage and Protection
1. Deliver materials to job site and store in ventilated dry locations. If materials are stored outdoors, stack materials off the ground, supported on a level platform, and fully protected from the weather.
2. Handle materials carefully to prevent damage. Remove damaged items and provide new items.

PART 2 - PRODUCTS

2.01 MANUFACTURER

A. Acceptable Manufacturers
1. Steel Framing and Furring: Gold Bond Building Products Div., National Gypsum Co.; Clark Steel Framing; Dietrich Industries, Inc., or equal.
2. Grid Suspension Assemblies: Chicago Metallic Corp.; USG Interiors, Inc.; National Rolling Mills Co., or equal.

2.02 STEEL FRAMING FOR PARTITIONS

A. Studs: C-shaped, ASTM C645, with galvanized coating ASTM A653, G90; non-load bearing rolled steel, channel shaped, punched for utility access.
1. Width: As indicated.
2. Thickness: 20 gauge throughout.
3. Tracks: Match stud grade.
4. Spacing: 16 inches on center throughout.

B. Deflection Tracks: Manufacturer’s standard top runner designed to prevent cracking of gypsum board applied to interior partitions resulting from deflection of the structure above fabricated from steel sheet complying with ASTM A568 or ASTM A653. Thickness as indicated for studs and width to accommodate depth of studs and of the following configuration:
1. Top Runner with Slotted Flanges: 2-1/2 inch deep flanges with slots 1 inch on center.
2. Product: SlipTrack, Inc., or equal.

C. Furring and Bracing Members: Same material and finish as studs, thickness to suit purpose.

D. Steel Rigid Furring Channels: ASTM C645, hat shaped, depth of 7/8-inch, and minimum thickness of base (uncoated) metal as follows:
1. Thickness: 0.0179-inch, unless otherwise indicated.

E. Z-Furring Members: Manufacturer’s standard Z-shaped furring members with slotted or nonslotted web, fabricated from steel sheet complying with ASTM A568 or ASTM A653; with a minimum base metal (uncoated) thickness of 0.0179-inch, face flange of 1-1/4 inch, wall-attachment flange of 7/8-inch, and of depth required to fit insulation thickness indicated.


G. Metal Backing Plates
1. Type A (Light Loads): Galvanized steel strap, 14 gauge. Up to 100 lbs/foot of backing allowed.
2. Type B (Heavy Loads): Stud runner track, 20 gauge, welded to continuous 6 inch by 14 gauge plate as indicated. UP to 200 lbs/foot of backing allowed.
H. Anchorage Devices: Provide drilled in anchors.

2.03 STEEL FRAMING FOR SUSPENDED AND FURRED CEILINGS

A. General: Provide components of sizes indicated but not less than that required to comply with CBC and ASTM C754 for conditions indicated.

B. Wire for Hangers and Ties: ASTM A641, Class 1 zinc coating, soft temper, with gauge in accordance with CBC.

C. Angle-Type Hangers: Angles with legs not less than 7/8-inch wide, formed from 0.0635-inch thick galvanized steel sheet complying with ASTM A653, G90 Coating Designation, with bolted connections and 5/16-inch diameter bolts.

D. Channels: Cold-rolled steel, 0.0598-inch minimum thickness of base (uncoated) metal and 7/16-inch wide flanges, and as follows:
   1. Carrying Channels: 1-1/2 inches deep, 1.12 pound/foot minimum, hot rolled.
   2. Furring Channels: 7/8-inch deep, 26 gauge, galvanized hat sections at 24 inches maximum center to center.

E. Steel Studs for Furring Channels: ASTM C645, with flange edges bent back 90 degrees and doubled over to form 3/16-inch minimum lip (return), minimum thickness of base (uncoated) metal and minimum depth as follows:
   1. Thickness: 0.0179 inch, unless otherwise indicated.
   2. Depth: 1-5/8 inch, unless otherwise indicated.

2.04 MISCELLANEOUS MATERIALS

A. Acoustical Sealant: As specified in Section 07 92 00.

B. Galvanized Finish Touch-Up Coating: Liquid zinc compound that bonds electrochemically to iron, steel and aluminum, as manufactured by ZRC Chemical Products, “ZRC Cold Galvanizing Compound”, or equal.

2.05 FINISHES

A. Galvanized Surfaces: Where galvanizing is removed by welding or other assembly procedures, clean area of any foreign matter by wire brushing and metal conditioner recommended by galvanized finish touch-up manufacturer. Apply galvanized touch-up coating by brush or spray with minimum coverage of 1.4 mils, dry film.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine areas to receive metal support framing systems and verify the following:
   1. Installation of building components located in walls is complete.
   2. Backing plates are properly located for support of wall-hung items.

B. Beginning of installation means installer accepts existing conditions.
3.02 PREPARATION

A. Ceiling Anchorages: Coordinate installation of ceiling suspension systems with installation of overhead structural assemblies to ensure that inserts and other provisions for anchorages to building structure have been installed to receive ceiling hangers that will develop their full strength and at spacing required to support ceilings.
   1. Furnish concrete inserts and other devices indicated to other trades for installation well in advance of time needed for coordination with other construction.

3.03 INSTALLING STEEL FRAMING FOR PARTITIONS AND REPAIRING STEEL FRAMING FOR SUSPENDED AND FURRED CEILINGS

A. Stud Partitions - Typical
   1. Align and secure top and bottom tracks. Place 2 beads of acoustic sealant between d. tracks and substrate.
   2. Fit tracks under and above openings; secure intermediate studs at spacing of wall studs.
   3. Install studs vertically at spacing as indicated. Place 2 beads of acoustic sealant between studs and adjacent vertical surfaces.
   4. Connect studs to tracks using fastener method.
   5. Construct corners using minimum 3 studs.
   6. Double studs vertically at wall openings, door and window jambs and not more than 2 inches each side of openings, unless otherwise specified. Provide track and stud horizontally at wall, window head and sill openings.
   7. Brace stud framing system and make rigid.
   8. Coordinate erection of studs with requirements of door and window frame supports and attachments.
10. Coordinate installation of jamb anchors and metal backing plates with electrical and mechanical work to be placed in or behind stud framing.

B. Backing in Stud Partitions or Furring
   1. Verify that any pre-drilling of backing and attachment of spacers to prevent crushing of attached material is done prior to application of attached material.
   2. If it is determined by the Architect that backing was not provided for any items as required, the Contractor shall remove the finish materials; install backing and shall patch and refinish surface to match adjacent area and surface at no additional cost to the District.

C. Installation Tolerances: Install each steel framing and furring member so that fastening surfaces do not vary more than 1/8-inch from plane of faces of adjacent framing.

D. Repair and reinstall steel framing where removed and damaged by construction.

END OF SECTION
PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes
   1. Stainless steel handrails/cane rails.
   2. Stainless steel wall panels where semi recessed drinking fountain removed and as required to cover holes at concrete walls.
   4. Non-structural miscellaneous metal channels, angle imbeds, and other shapes as required.
   5. Rough hardware.

B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

C. Related Section
   1. Section 09 90 00 - Painting and Coating: For finish painting of items not specified to have factory finish.

1.02 REFERENCES

A. AISC - American Institute of Steel Construction Inc.

B. ANSI - American National Standards Institute

C. ASTM - American Society for Testing and Materials
   8. A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.

D. AWS - American Welding Society
   1. D1.1 - Structural Welding Code - Steel.
   2. D1.3 - Structural Welding Code - Sheet Steel.
   3. D1.6 - Structural Welding Code - Stainless Steel.

E. CBC - California Building Code, 2010 Edition

F. NAAMM - National Association of Architectural Metal Manufacturers
   1. MFM - Metal Finishes Manual for Architectural and Metal Products.

1.03 SYSTEM DESCRIPTION

A. Design Requirements
   1. Wind Load Requirements for Exterior Items: Design and size members to withstand dead and live loads caused by pressure and suction of wind in accordance with CBC.
   2. Structural Performance of Handrails/Cane Rails: Engineer, fabricate, and install handrails/cane rails to withstand structural loads without exceeding the allowable design working stress of the materials involved, including anchors and connections. Apply each load to produce the maximum stress in each of the respective components of each metal fabrication in accordance with CBC.
      a. Design work to support normally imposed loads and in conformity with AISC requirements.
   3. Provide for expansion and contraction.
   4. Design exterior items to exclude water.
   5. Shop drawings and calculations for metal fabrications engineered under work of this Section shall be prepared under direct supervision of State of California licensed Structural Engineer and shall be so wet stamped and wet signed.

1.04 SUBMITTALS

A. Shop Drawings
   1. Submit shop drawings to include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items. Provide templates for anchors and bolts specified for installation under other Sections.
   2. Handrails/cane rails are required to be structurally designed in accordance with CBC shall be engineered by a qualified Engineer licensed in the State of California for the location where the project will be constructed. Submit stamped and signed shop drawings and calculations. Process shop drawings and calculations through the jurisdiction for the project location as a deferred submittal after review by the Architect and per the Architect's direction.

B. Quality Control Submittals: Welder certificates signed by Contractor certifying that welders comply with requirements specified under the “Quality Assurance” Article.

1.05 QUALITY ASSURANCE

A. Welding Standards: Comply with applicable provisions of AWS D1.1, AWS D1.3, and AWS D1.6.
   1. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved and, if pertinent, has undergone recertification.
PART 2 - PRODUCTS

2.01 MATERIALS

A. Metal Surfaces, General: For metal fabrications exposed to view in the completed Work, provide materials selected for their surface flatness, smoothness, and freedom from surface blemishes. Do not use materials with exposed pitting, seam marks, roller marks, rolled trade names, or roughness.

B. Miscellaneous Metals
   1. Steel Pipe: ASTM A53, Type S, Grade B, Schedule 40, unless otherwise indicated, or another weight required by structural loads.
      a. Black finish, unless otherwise indicated.
      b. Prime with red oxide primer at locations detailed to receive paint.
   2. Stainless Steel Sheet, Strip, Plate, and Flat Bars: ASTM A666, Type 304.
   3. Stainless Steel Bars and Shapes: ASTM A276, Type 304.

C. Concrete Inserts: Anchors of type indicated below, fabricated from corrosion resistant materials capable of sustaining, without failure, the load imposed within a safety factor of 4, as determined by testing per ASTM E488, conducted by a qualified independent testing agency.
   1. Threaded or wedge type; galvanized ferrous castings, either ASTM A47 malleable iron or ASTM A27 cast steel. Provide bolts, washers, and shims as required, hot-dip galvanized in accordance with ASTM A153.
   2. Provide weld plate imbedded in concrete as detailed in the Drawings. Coordinate location with other imbedded materials.

D. Fasteners: Provide plated fasteners complying with ASTM B633, Class Fe/Zn 25 for electrodeposited zinc coating, for exterior use or where built into exterior walls, concrete slabs, or ceilings. Select fasteners for the type, grade, and class required.
   1. Bolts and Nuts: Regular hexagon-head bolts, ASTM A307, Grade A, with hex nuts, ASTM A563, and, where indicated, flat washers.
   5. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E488 conducted by a qualified independent testing agency.
      b. Material: Group 1 alloy 304 or 316 stainless steel bolts and nuts complying with ASTM F593 and ASTM F594.

E. Welding Materials: AWS D1.1, AWS D1.3, and AWS D1.6, type required for materials being welded.

2.02 STANDARD CATALOG PRODUCTS

A. Non-Shrink Grout
   1. Premixed; containing no metallic particles, requiring only addition of water.
   2. Shall have minimum working time of 15 minutes and initial set time of 30 to 45 minutes in accordance with ASTM C191.
PERALTA COMMUNITY COLLEGE DISTRICT
DISTRICT-WIDE DRINKING FOUNTAIN REPLACEMENT PROJECT


B. Expansion Cement
1. Non-metallic, non-corrosive, pourable hydraulic type cement that is quick-setting, high strength, and non-shrinking, with the following properties
   a. Compressive Strength: 58,400 psi at 7 days in accordance with ASTM C109.
   b. Volume Change: Plus 0.31 at 7 days in accordance with ASTM C157.

C. Coatings
1. Coatings for Protection of Dissimilar Materials
   a. Dissimilar Metals: Bituminous type materials in accordance with ASTM D1187.
   b. Aluminum in Contact with Concrete, Metal, Wood, or other Absorptive Material.
2. Shop Primer for Ferrous Metal: VOC compliant, fast-curing, lead and chromate free, universal modified alkyd primer with good resistance to corrosion, compatible with finish paint systems.
3. Galvanizing Repair Paint: High zinc dust content paint, with dry film containing not less than 94 percent zinc dust by weight, as manufactured by Parker Amchem, “Galvaprep SG”; Sherwin Williams, “Zinc Clad I”, or equal.
4. Exterior metal components/fabrications that are intended to be exposed at the completion of construction and their attachments shall be shop treated with galvanic “metalized” process; then shop primed, and painted as indicated herewith.

2.03 FABRICATION, GENERAL

A. Form metal fabrications from materials of size, thickness, and shapes indicated but not less than that needed to comply with performance requirements indicated. Work to dimensions indicated or accepted on Construction Drawings, using proven details of fabrication and support. Use type of materials indicated or specified for various components of each metal fabrication.

B. Form exposed work true to line and level with accurate angles and surfaces and straight sharp edges.

C. Allow for thermal movement resulting from the following maximum change (range) in ambient temperature in the design, fabrication, and installation of installed metal assemblies to prevent buckling, opening up of joints, and overstressing of welds and fasteners. Base design calculations on actual surface temperatures of metals due to both solar heat gain and nighttime sky heat loss.
1. Temperature Change (Range): 100 degrees Fahrenheit.

D. Shear and punch metals cleanly and accurately. Remove burrs.

E. Ease exposed edges to a radius of approximately 1/32-inch, unless otherwise indicated. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.

F. Remove sharp or rough areas on exposed traffic surfaces.

G. Weld corners and seams continuously to comply with the following
1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. At exposed connections, finish exposed welds and surfaces smooth and blended so that no roughness shows after finishing and contour of welded surface matches those adjacent.

H. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners wherever possible. Use exposed fasteners of type indicated or, if not indicated, Phillips flat-head (countersunk) screws or bolts. Locate joints where least conspicuous.

I. Provide for anchorage of type indicated; coordinate with supporting structure. Fabricate and space anchoring devices to secure metal fabrications rigidly in place and to support indicated loads.

J. Shop Assembly: Preassemble items in shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.

K. Cut, reinforce, drill, and tap metal fabrications as indicated to receive finish hardware, screws, and similar items.

L. Fabricate joints that will be exposed to weather in a manner to exclude water, or provide weep holes where water may accumulate.

2.04 METAL HANDRAILS/CANE RAILS

A. General: Fabricate handrails/cane rails to comply with requirements indicated for design, dimensions, details, finish and member sizes, including thickness of handrails/cane rails and posts, post spacings, and anchorage, but not less than that required to support structural loads.

B. Interconnect handrail/cane rail members by butt-welding or welding with internal connectors, at fabricator’s option, unless otherwise indicated.

C. Form changes in direction of handrails/cane rails as detailed.

D. Provide wall returns at ends of wall-mounted handrails/cane rails, unless otherwise indicated.

E. Brackets, Flanges, Fittings and Anchors: Provide wall brackets, flanges, miscellaneous fittings, and anchors for interconnections of metal work and attachment of handrails/cane rails to other work. Furnish inserts and other anchorage devices for connecting handrails/cane rails to concrete or masonry work.

F. Fillers: Provide steel sheet or plate fillers of thickness and size indicated or required to support structural loads of handrails/cane rails where needed to transfer wall bracket loads through wall finishes to structural supports. Size fillers to suit wall finish thicknesses. Size fillers to produce adequate bearing to prevent bracket rotation and overstressing of substrate.

G. For non-galvanized steel handrails/cane rails, provide non-galvanized ferrous metal fittings, brackets, fasteners, and sleeves, except galvanize anchors embedded in exterior masonry and concrete construction.
2.05 PIPE BOLLARDS
A. Fixed Bollards
1. Fabricate pipe bollards from Schedule 80 steel pipe.
2. Fabricate sleeves for bollard anchorage from steel pipe with 1/4-inch thick steel plate welded to bottom of sleeve.

B. Removable Bollards
1. Fabricate internal sleeve for removable bollard from Schedule 40 steel pipe with an OD approximately 1/16-inch less than ID of bollard.
   a. Weld 1/4-inch thick steel plate to bottom of sleeve.
2. Fabricate pipe bollard from Schedule 40 steel pipe.
   a. Cap bollards with 1/4-inch thick steel plate.
3. Provide 3/4-inch steel machine bolt for attachment of bollard to internal sleeve with aligned holes in bollard and internal sleeve.

2.06 MISCELLANEOUS FRAMING AND SUPPORTS
A. General: Provide steel framing and supports for applications indicated that are not a part of structural steel framework as required to complete the Work.
B. Fabricate units to sizes, shapes, and profiles indicated and required to receive other adjacent construction retained by framing and supports. Fabricate from structural steel shapes, plates, and steel bars of welded construction using mitered joints for field connection. Cut, drill, and tap units to receive hardware, hangers, and similar items.
   1. Equip units with integrally welded anchors for casting into concrete or building into masonry. Furnish inserts if units must be installed after concrete is placed.
      a. Except as otherwise indicated, space anchors 24 inches on center and provide minimum anchor units in the form of steel straps 1-1/4 inches wide by 1/4-inch thick by 8 inches long.
C. Galvanize miscellaneous interior and exterior framing and supports.

2.07 FINISHES, GENERAL
A. Comply with NAAMM’s MFM for recommendations relative to applying and designing finishes. Finish metal fabrications after assembly.

2.08 STEEL AND IRON FINISHES
A. Stainless Steel Finishes
   1. Remove or blend tool and die marks and stretch lines into finish.
   2. Grind and polish surfaces to produce uniform, directionally textured, polished finish indicated, free of cross scratches. Run grain with long dimension of each piece.
   3. Satin, Directional Polish: No. 6 finish.
   4. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.
B. Finish Painting at Bollards: As specified in Section 09 90 00.

PART 3 - EXECUTION

3.01 INSTALLATION, GENERAL
A. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing miscellaneous metal fabrications to in-place construction. Include threaded fasteners for concrete and masonry inserts, toggle bolts, through-bolts, lag bolts,
wood screws, and other connectors as required. Fasteners not installed but required after pour shall be submitted to the Architect for approval. Fastener shall not be installed until the Architect approval is received.

B. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing miscellaneous metal fabrications. Set metal fabrication accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.

C. Provide temporary bracing or anchors in formwork for items that are to be built into concrete masonry or similar construction.

D. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints but cannot be shop-welded because of shipping size limitations. Do not weld, cut, or abrade the surfaces of exterior units that have been galvanized after fabrication and are intended for bolted or screwed field connections.

E. Field Welding
   1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
   2. Obtain fusion without undercut or overlap.
   3. Remove welding flux immediately.
   4. At exposed connections, finish exposed welds and surfaces smooth and blended so that no roughness shows after finishing and contour of welded surface matches those adjacent.

F. Corrosion Protection: Coat concealed surfaces of aluminum that will come into contact with grout, concrete, masonry, wood, or dissimilar metals with a heavy coat of bituminous paint.

3.02 INSTALLING HANDRAILS/CANE RAILS

A. Adjust handrails/cane rails prior to anchoring to ensure matching alignment at abutting joints. Space posts at spacing indicated or, if not indicated, as required by design loadings. Plumb posts in each direction. Secure posts and rail ends to building construction as follows
   1. Anchor posts to post tension concrete by welding directly to imbedded steel supporting members.
   2. Anchor handrail/cane rail and post ends to cast-in-place concrete and masonry with steel flanges welded to rail ends and anchored into wall construction with drilled-in epoxy and bolt anchors.

B. Secure handrails/cane rails to wall with wall brackets and end fittings. Provide bracket with 1-1/2 inch clearance from inside face of handrail/cane rail and finished wall surface. Locate brackets as indicated. Secure wall brackets as follows:
   1. Use type of bracket with flange tapped for concealed anchorage to threaded hanger bolt.
   2. For wood stud partitions or walls, use hanger or lag bolts set into wood backing between studs. Coordinate with carpentry work to locate backing members.
   3. For hollow masonry anchorage, use toggle bolts having square heads.
   4. For steel framed gypsum board assemblies, fasten brackets directly to steel framing or concealed anchors using self-tapping screws of size and type required to support structural loads.

C. Standard Catalog Products: Install standard catalog products in accordance with manufacturer’s installation instructions and reviewed shop drawings.
3.03 INSTALLING METAL BOLLARDS

A. Fixed Bollards
   1. Fill metal-capped bollards solidly with concrete and allow concrete to cure seven days before installing.
      a. Where metal caps are not installed, fill bollards solidly with concrete, mounding top surface to shed water.
   2. Anchor bollards in concrete in formed or core-drilled holes not less than 8 inches deep and 3/4-inch larger than OD of bollard. Fill annular space around bollard solidly with nonshrink, nonmetallic grout; mixed and placed to comply with grout manufacturer’s written instructions. Slope grout up approximately 1/8-inch toward bollard.

B. Removable Bollards: Install as indicated on the Drawings.
   1. Do not fill removable bollards with concrete.

3.04 SETTING

A. Set item shown or required to be installed in sleeves with quick-setting anchor cement unless otherwise noted.

B. Use non-shrink grout mixed in accordance with manufacturer’s directions for setting plates, bolts, and similar items.

3.05 ADJUSTING AND CLEANING

A. Clean all elements of installed handrails/cane rails. Adjust any items out of alignment, secure all connections.

END OF SECTION
PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes
   1. Plywood panels for furred plywood partitions.
   2. Miscellaneous blocking and nailers.
   3. Rough hardware.

B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

C. Related Section
   1. Section 09 90 00 - Painting and Coating: For finish painting.

1.02 REFERENCES

A. AISI - American Iron and Steel Institute

B. ANSI - American National Standards Institute
   1. B18.2.1 - Square and Hex Bolts and Screws.

C. APA - American Plywood Association

D. ASTM - American Society for Testing and Materials

E. FS - Federal Specifications
   1. FF-N-105 - Nails, Brads, Staples and Spikes: Wire, Cut and Wrought.

F. USPS - United States Product Standard
   1. PS1 - Construction and Industrial Plywood.

1.03 QUALITY ASSURANCE

A. Plywood shall bear grade-trademarks of appropriate grading agency.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Plywood Panels: APA A-A, USPS PS1, Exposure 1, 3/4-inch thickness.

B. Rough Hardware
   1. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
a. 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 A153 or of AISI Type 304 stainless steel.

5. Bolts: Steel bolts complying with ASTM A307, Grade A; with ASTM A563 hex nuts and where indicated, flat washers.

2.02 FINISHES

A. Finish Painting or Staining: As specified in Section 09 90 00 and as indicated on drawings.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Plywood Panels
1. Secure panels bearing firmly on supports.
2. Provide 1/8-inch space at panel edge and end joints.

B. Wood Nailers and Blocking
1. Install wood battens, nailers and blocking where 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.
2. Attach to substrates as required to support applied loading. Countersink bolts and nuts flush with surfaces, unless otherwise indicated. Where possible, anchor to formwork before concrete placement.

END OF SECTION
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SECTION 07 21 01
BUILDING INSULATION

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Thermal and acoustical building insulation to match existing, where required to replace insulation removed during construction.

B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 REFERENCES

A. ASTM - American Society for Testing and Materials

1.03 DEFINITIONS

A. Thermal Resistivity: Where the thermal resistivity of insulation products are designated by “r-values”, they represent the reciprocal of thermal conductivity (k-values). Thermal conductivity is the rate of heat flow through a homogeneous material exactly 1 inch thick. Thermal resistivities are expressed by the temperature difference in degrees Fahrenheit between the 2 exposed faces required to cause 1 BTU to flow through 1 square foot per hour at mean temperatures indicated.

1.04 SUBMITTALS

A. Product Data: Submit manufacturer’s product data for insulation products specified.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Storage and Protection: Protect insulation materials from physical damage and from deterioration by moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer’s recommendations for handling, storage, and protection during installation.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Thermal Insulation
   1. Type 1 - Wall Fiberglass Batt Insulation
      a. Unfaced, friction-fit, flexible batt or blanket of fiberglass, width to fit stud space, formaldehyde-free, 25 percent recycled content, having thermal resistance rating of R-19 and conforming to ASTM C665, Type I, non-combustible when tested in accordance with ASTM E136 and having the following fire resistive requirements when tested in accordance with ASTM E84:
         1) Flame Spread: 10 or less.
         2) Smoke Developed: 10 or less.
      b. Product: As manufactured by Johns Manville Corp., or equal.
2. Type 2 - Roof Fiberglass Batt Insulation
   a. Kraft faced, friction-fit, flexible batt or blanket of fiberglass, formaldehyde-free, 25 percent recycled content, width to fit truss space, having thermal resistance rating of R-38 and conforming to ASTM C665, Type II, non-combustible when tested in accordance with ASTM E136 and having the following fire resistive requirements when tested in accordance with ASTM E84:
      1) Flame Spread: 10 or less.
      2) Smoke Developed: 10 or less.
   b. Product: As manufactured by Johns Manville Corp., or equal.

B. Acoustical Insulation: Unfaced, 3-1/2 inches thick, friction-fit, formaldehyde-free, flexible batt or blanket of fiberglass, 15 inch width to fit stud space, and conforming to ASTM C665, Type I, non-combustible when tested in accordance with ASTM E136.
   1. Fire Resistive Requirements (ASTM E84):
      a. Flame Spread: 10 or less.
      b. Smoke Developed: 10 or less.
   2. Product: As manufactured by Johns Manville Corp.; Owens-Corning Fiberglas Corp., or equal.

C. Accessories
   1. Insulation Tape: Pressure-sensitive tape of type recommended by insulation manufacturer for sealing joints and penetrations in insulation.
   2. Insulation Support: Galvanized springwire as required and as recommended by insulation manufacturer.

PART 3 - EXECUTION

3.01 EXAMINATION
   A. Examine substrates and conditions with installer present, for compliance with requirements of the Sections in which substrates and related work are specified and to determine if other conditions affecting performance of insulation are satisfactory. Do not proceed with installation of insulation until unsatisfactory conditions have been corrected.

3.02 INSTALLATION, GENERAL
   A. Comply with insulation manufacturer’s instructions applicable to products and application indicated. If printed instructions are not available or do not apply to project conditions, consult manufacturer’s technical representative for specific recommendations before proceeding with installation of insulation.
   B. Extend insulation full thickness as indicated to envelop entire area to be insulated. Cut and fit tightly around obstructions, and fill voids with insulation. Remove projections that interfere with placement.
   C. Apply a single layer of insulation of required thickness, unless otherwise shown or required to make up total thickness.
   D. Tape joints and ruptures in insulation, and seal each continuous area of insulation to surrounding construction to ensure airtight installation.

3.03 INSTALLATION OF GENERAL BUILDING INSULATION
   A. Apply insulation units to substrate by method indicated, complying with manufacturer’s recommendations. If no specific method is indicated, use mechanical anchorage to provide permanent placement and support of units.
      1. Seal edges of foil-faced materials at stud space, where uncovered.
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B. Maintain required separations from electric fixtures and appliances.

3.04 PROTECTION

A. General: Protect installed insulation from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where insulation will be subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION
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PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Vapor retarder.

B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 REFERENCES

A. ASTM - American Society for Testing and Materials
   3. E1643 - Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs.

B. FS - Federal Specifications
   1. SS-C-153C - Cement, Bituminous, Plastic.

1.03 SUBMITTALS

A. Product Data: Submit manufacturer’s product data for vapor retarder specified.

1.04 QUALITY ASSURANCE

A. Single-Source Responsibility for Vapor Retarder Products: Obtain vapor retarder from a single source with resources to provide products of consistent quality in appearance and physical properties without delaying progress of the Work.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Protect vapor retarder materials from puncture damage. Comply with manufacturer’s recommendations for handling, storage, and protection during installation.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Vapor Retarder: Provide vapor retarder of 3 ply, 10 mil or thicker, high-density polyethylene copolymer and nylon yarn laminate, with yarn suspended in a permanently flexible adhesive media. Material shall have a reinforced non-woven grid with a PPT tear strength of not less than 15 pounds, as determined by ASTM D2582, and a water vapor transmission rate (WVTR) of 0.01 perms, as determined by ASTM E96. Provide in widest rolls practical to minimize joints, as manufactured by Stego Industries, “15 Mil Stego Wrap”, or equal.

   1. Tape for Vapor Retarder: Pressure sensitive tape of type recommended by vapor retarder manufacturer for sealing joints and penetrations in vapor retarder.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine substrates and conditions with installer present, for compliance with requirements of the Sections in which substrates and related work are specified and to determine if other conditions affecting performance of vapor retarder are satisfactory. Do not proceed with installation of retarder until unsatisfactory conditions have been corrected.

3.02 INSTALLATION

A. General
   1. Install in accordance with ASTM E1643.
   2. Extend vapor retarder to extremities of areas to be protected from vapor transmission. Secure in place. Extend vapor retarder to cover miscellaneous voids in substrates.

B. Seal overlapping joints in vapor retarders with tape per vapor retarder manufacturer’s printed directions. Seal butt joints and fastener penetrations with tape of type recommended by vapor retarder manufacturer.
   1. Lap and seal to existing vapor retarder.

C. Seal joints caused by pipes, conduits, electrical boxes, and similar items penetrating vapor retarders with tape of type recommended by vapor retarder manufacturer to create an airtight seal between penetrating objects and vapor retarder.

D. Repair any tears or punctures in vapor retarders immediately before concealment by other work. Cover with tape or another layer of vapor retarder.

3.03 PROTECTION

A. General: Protect installed vapor retarders from damage due to harmful weather exposures, physical abuse, and other causes.

END OF SECTION
PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Building joint sealants and backing systems.

B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

C. Related Section
   1. Section 05 45 00 - Metal Support Assemblies: Provision of metal support assemblies.

1.02 REFERENCES

A. ASTM - American Society for Testing and Materials
   2. C919 - Standard Practice for Use of Sealants in Acoustical Applications

B. CFR - Code of Federal Regulations
   1. 40 CFR 59 - National VOC Emission Standards for Consumer and Commercial Products - Standardized Conditions

C. EPA - Environmental Protection Agency
   1. Method 24 - Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings

D. FS - Federal Specifications
   1. TT-S-1543B - Sealing Compound, Silicone Rubber Base

1.03 SYSTEM DESCRIPTION

A. Performance Requirements: Provide joint sealers that have been manufactured to establish and maintain watertight and airtight continuous seals without causing staining or deterioration of joint substrates.
   1. Provide sealant type and color to match adjacent existing at each location.

1.04 SUBMITTALS

A. Product Data: Submit product data from manufacturers for each joint sealant product required.

PART 2 - PRODUCTS

2.01 MATERIALS

A. General Requirements
   1. Provide joint sealers compatible with one another and with substrates.
2. VOC Content of Interior Sealants: Provide interior sealants and sealant primers that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
   a. Sealants: 250 g/L.
   b. Sealant Primers for Nonporous Substrates: 250 g/L.
3. Manufacturer’s standard color range shall permit matching sealants to color of contacting surfaces and future ability to paint.

B. Sealants and Caulks
   1. Type A - One Part Neutral Cure Silicone Sealant
      a. ASTM C920, non-sag, one part, low modulus, elastomeric sealant.
      b. Color: As selected by the Architect.
   2. Type B - Polyurethane Sealant, Two Component
      a. ASTM C920, Type M; Grade P; Class 25; Use T having minimum ASTM D2240 Shore A hardness of 30 plus or minus 5.
      b. Color: As selected by the Architect.
   3. Type C - Silicone Sealant, Single Component
      a. FS TT-S-1543B, mildew resistant, chemical curing, non-sagging, non-staining, non-bleeding.
      b. Color: As selected by the Architect.
      c. Manufacturer: Dow-Corning, “786”, or equal.
   4. Type D - Acrylic Emulsion Sealant
      a. ASTM C834 that accommodates joint movement of not more than 5 percent in both extension and compression for a total of 10 percent.
      b. Color: As selected by the Architect.
   5. Type E - Acoustical Sealant
      a. Non-hardening, non-skinning, for use in conjunction with gypsum board.
   6. Type F - Sill Sealer Gaskets
      a. Closed-cell neoprene foam, 1/4-inch thick, selected from manufacturer’s standard widths to suit width of sill members indicated.

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: ASTM D1056 round, closed cell polyethylene foam rod; oversized 30 to 50 percent larger than joint width as recommended by manufacturer of sealant material.
   D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

PART 3 - EXECUTION

3.01 INSTALLATION OF JOINT SEALANTS
   A. General: Comply with joint sealant manufacturer’s printed installation instructions applicable to products and applications indicated, except where more stringent requirements apply.
B. Sealant Installation Standard: Comply with recommendations of ASTM C1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

C. Acoustical Sealant Application Standard: Comply with recommendations of ASTM C919 for use of joint sealants in acoustical applications as applicable to materials, applications, and conditions indicated.

D. Installation of Sealant Joint Backings: Install sealant joint backings to comply with the following requirements

1. Install joint fillers of type indicated to provide support of sealants during application and at position required to produce the cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
   a. Do not leave gaps between ends of joint fillers.
   b. Do not stretch, twist, puncture, or tear joint fillers.
   c. Remove absorbent joint fillers that have become wet prior to sealant application and replace with dry material.

2. Install bond breaker tape between sealants where backer rods are not used between sealants and joint fillers or back of joints for 2 opposing side adhesion only.

E. Installation of Sealants: Install sealants by proven techniques that result in sealants directly contacting and fully wetting joint substrates, completely filling recesses provided for each joint configuration and providing uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability. Install sealants at the same time sealant backings are installed.

F. Tooling of Nonsag Sealants: Immediately after sealant application and prior to time skinning or curing begins, tool sealants to form smooth, uniform beads of configuration indicated, to eliminate air pockets, and to ensure contact and adhesion of sealant with sides of joint. Remove excess sealants from surfaces adjacent to joint. Do not use tooling agents that discolor sealants or adjacent surfaces or are not approved by sealant manufacturer.

1. Provide concave joint configuration per Figure 5A in ASTM C1193, unless otherwise indicated.

G. Installation of Preformed Foam Sealants: Install each length of sealant immediately after removing protective wrapping, taking care not to pull or stretch material, and to comply with sealant manufacturer's directions for installation methods, materials, and tools that produce seal continuity at ends, turns, and intersections of joints. For applications at low ambient temperatures where expansion of sealant requires acceleration to produce seal, apply heat to sealant in conformance with sealant manufacturer’s recommendations.

3.02 SCHEDULE

A. Type A, Non-Sag
   1. Exterior and interior control and expansion joints in vertical surfaces of cast-in-place concrete.
   2. Between metal and concrete or mortar.
   3. Interior and exterior perimeter joints between cast-in-place concrete and frames of doors and windows.
   4. Control and expansion joints in exterior soffits and overhead surfaces.

B. Type B: Exterior control, expansion, and isolation joints in cast-in-place concrete slabs.

C. Type C
   1. Interior ceramic tile control and expansion joints.
   2. Perimeter joints of toilet fixtures.
D. Type D: All other interior joints not indicated otherwise.

E. Type E: Concealed acoustical conditions.

F. Type F: Under sill plates.

END OF SECTION
PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Access doors and frames.

B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

C. Related Section

1. Section 09 90 00 - Painting and Coating: For finish painting.

1.02 SUBMITTALS

C. Product Data: Submit manufacturer’s data completely describing products.

D. Shop Drawings: Submit drawings showing attachment to structure in each typical condition.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturers: Nystrom; Milcor, Inc.; Karp Associates, Inc., or equal.

2.02 MATERIALS

A. Non-Fire Rated

1. Type 1
   a. Flush steel door and flanged frame for gypsum board walls and ceiling installations.
   b. Size: As indicated.

2. Type 2: Flush stainless steel door and flanged frame for tile and gypsum board installations where finish material is ceramic tile.

B. Finishes

1. Steel: Chemically etch and apply baked-on rust inhibitive zinc dust prime coat.
2. Stainless Steel: Reviewed manufacturer’s No. 4 finish.
3. Finish Painting: As specified in Section 09 90 00.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install access doors in accordance with manufacturer’s instructions and at locations authorized by the Architect in accordance with requirements for work of other Sections. Install access doors to provide access to concealed control and isolation valves.

B. Securely attach frames to supporting work and ensure doors operate smoothly and are free from warp, twist, and distortion.
3.02 ADJUSTING AND CLEANING

A. Thoroughly clean surfaces of grease, oil, or other impurities, touch-up abraded prime coat, and otherwise prepare for finish painting where required.

END OF SECTION
PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Restoration of existing finishes, including:
   1. Gypsum board.
   2. Ceramic tile.
   3. Acoustical ceilings.
   4. Resilient flooring.
   5. Carpeting.
   6. Wall coverings.

B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

C. Related Sections
   1. 00700 - General Conditions: For Peralta Community College District’s general requirements for demolition.
   2. Section 01 73 29 - Cutting and Patching: For administrative and procedural requirements for cutting and patching.
   3. Section 02 41 10 - Selective Demolition: For selective demolition of site elements.

1.02 REFERENCES

A. ADA - Americans with Disabilities Act

B. ANSI - American National Standards Institute
   4. A108.5 - Installation of Ceramic Tile with Dry-Set Portland Cement Mortar or Latex-Portland Cement Mortar.
   7. A118.6 - Specifications for Ceramic Tile Grouts.
   8. A137.1 - Ceramic Tile.

C. ASTM - American Society for Testing and Materials
   2. A653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
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7. F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.

D. CBC - California Building Code, 2010 Edition
E. CRI - Carpet and Rug Institute
   1. 104 - Standard for Installation of Commercial Carpet.
F. EPA - Environmental Protection Agency
G. GA - Gypsum Association
   1. 214 - Recommended Levels of Gypsum Board Finish.
   2. 216 - Application and Finishing of Gypsum Panel Products.
H. TCNA - Tile Council of North America
I. UL - Underwriters Laboratories Inc.

1.03 SUBMITTALS
A. Finish Restoration Proposal: Submit a proposal describing procedures well in advance of the time restorations will be performed if the District requires approval of these procedures before proceeding. Request approval to proceed. Include the following information, as applicable, in the proposal:
   1. Describe the limit of restoration required.
   2. List products to be used and firms or entities that will perform Work.
   3. Indicate dates when restoration will be performed at each location.
   4. Approval by the Architect to proceed with restoration does not waive the Architect’s right to later require complete removal and replacement of unsatisfactory work.

B. Samples
   1. Ceramic Tile
      a. Samples for Selection: Submit samples of grout and accessories involving color selection.
      b. Samples for Verification: Submit full-size units of each type and composition of tile and for each color and finish to match existing adjacent.
   2. Acoustical Ceilings: Submit 1 panel of each type of acoustical ceiling material specified.
   3. Resilient Flooring: Submit samples for initial selection purposes in form of manufacturer’s color charts consisting of actual sections of linoleum, vinyl composition tile, and wall base showing full range of colors and patterns available for each different product indicated.
   4. Broadloom Carpeting and Tile Carpeting
      a. Samples for Selection: Submit samples of carpeting and accessories involving color selection.
      b. Samples for Verification: Submit three 8-inch square samples of each carpet type illustrating color, weave, texture, and pattern. Include manufacturer’s full range of color selections for carpet edge strips.
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5. Wall Covering
   a. Samples for Selection: Submit samples of wall coverings and accessories involving color selection.
   b. Samples for Verification: Submit 12-inch by 12-inch sample from dye lot used for the Work.
      1) Submit sample with specified treatments applied.
      2) Mark top and face of material.
      3) Show complete pattern repeat.

1.04 QUALITY ASSURANCE

A. Wall Covering Installer Qualifications: Engage an experienced installer who has completed 5 projects similar in material, design, and extent to that indicated for this Project.

B. Regulatory Requirements for Broadloom Carpeting and Tile Carpeting
   1. Fire-Test-Response Characteristics: Provide products with a critical radiant flux classification not less than 0.45 W/sq. cm., as determined by testing identical products per ASTM E648 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.
   2. Striping for Visually Impaired: Conform to ADA requirements for strip of clearly contrasting color at least 2 inches wide placed parallel to and not more than 1 inch from nose of upper approach and lower tread of each stair.
   3. Carpet pile height shall meet requirements of ADA.

C. Coordinate restoration Work under this Section with cutting and patching requirements outlined in Section 01 73 29.

1.05 WARRANTY

A. Broadloom Carpeting and Tile Carpeting
   1. Unless otherwise noted, manufacturer’s written warranty shall be submitted to the District against product failure covering both labor and material in the following areas:
      a. Edge ravel.
      b. Secondary back adhesion.
      c. Average 20 pounds tuft bind.
      d. No more than 10 percent face yarn loss.
      e. Static control protection.
   2. Warranty Period
      a. Broadloom Carpeting: 10 years.
      b. Tile Carpeting: 15 years for new carpet tiles or 7 years for reprocessed re-used carpet tiles.

1.06 MAINTENANCE

A. Extra Materials
   1. General: Deliver extra materials to the Owner. Furnish extra materials that match products installed as described below, packaged with protective covering for storage and identified with labels clearly describing contents.
   2. Ceramic Tile and Trim Units: Furnish quantity of full size units equal to 3 percent of amount installed, for each type, composition, color, pattern, and size.
   3. Acoustical Ceilings: Provide 5 percent extra quantity of each type of acoustical ceiling surface installed. Provide in original unbroken containers plainly marked with type and quantity of contents.
   4. Resilient Flooring
      a. Furnish 5 linear feet in roll form of each different composition, wearing surface, color, and pattern of linoleum and resilient wall base installed.
b. Furnish 1 box of each class, wearing surface, color, pattern, and size of resilient floor tile installed.

5. Carpeting
   a. Broadloom: Before installation begins, furnish quantity of full width for each type of material equal to 5 percent of amount installed.
   b. Tile: Full-size units equal to 3 percent of amount installed for each type indicated, but not less than 6 sq. yd.

6. Rolls of Wall Covering: Full-size units equal to 5 percent of amount of each type installed.

PART 2 - PRODUCTS

2.01 MATERIALS

A. General: Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible if identical materials are unavailable or cannot be used. Use materials whose installed performance will equal or surpass that of existing materials. Submit proposal for replacement materials to the Architect prior to installation.

B. Gypsum Board Materials
1. Gypsum Board
   a. Type 1: Fire rated board for fire resistance rated assemblies, ASTM C1396, Type X, tapered edges, 48 inches wide, 5/8-inch thick, as manufactured by United States Gypsum Co.; Gold Bond Building Products Div., National Gypsum Co., or equal.
   b. Type 2: Water resistant board, tapered edges, complete with edge sealant for job cut edges, 48 inches wide, 5/8-inch thick, as manufactured by United States Gypsum Co.; Gold Bond Building Products Div., National Gypsum Co., or equal.
   c. Type 3: Fire rated water resistant board, Type X, tapered edges, complete with edge sealant for job cut edges, 48 inches wide, 5/8-inch thick, as manufactured by United States Gypsum Co.; Gold Bond Building Products Div., National Gypsum Co., or equal.
   d. Type 4: Cementitious backer units complying with ANSI A118.9, 48 inches wide, 1/2-inch thick, unless otherwise noted, as manufactured by Custom Building Products, “The Original Wonderboard”; United States Gypsum Co., “Durock Cement Board”, or equal.
   a. Joint Tape: Paper reinforcing tape or glass fiber mesh as recommended by setting type joint compound manufacturer.
   b. Setting Type Joint Compound: Factory prepackaged, job mixed, chemical hardening powder products formulated for uses indicated or factory premixed product.

C. Ceramic Tile Materials
1. General
   a. Provide ceramic tile that complies with ANSI A137.1 for types, compositions, and other characteristics indicated.
   b. Tile Grade: Standard, unless otherwise indicated.

2. Glazed Ceramic Wall Tile
   a. Size: Match existing.
   b. Composition: Porcelain.
c. Face: Plain with modified square edge or cushion edge.
d. Color: Match existing.

4. Waterproof Membrane: 15 pound roofing felt or 4 mil polyethylene film.
9. Water: Potable, free from impurities detrimental to tile work.
10. Sealer: As recommended by tile supplier.

D. Acoustical Ceilings Materials
1. Acoustical Ceiling Panels: Moisture resistant wet formed mineral fiber with factory applied vinyl latex paint, mildew resistant, and with the following properties:
   a. Type and Size: Match existing.
   b. Product: As manufactured by Armstrong World Industries, or equal.
      1) Color: Match existing.
2. Mechanical Suspension System: Heavy-duty, non-fire rated, exposed grid system for square edge ceiling panels, double-web tees, steel body with exposed surfaces factory painted with baked polyester paint.
   a. Type and Size: Match existing.
   b. Provide panel centering devices built into each grid member.
   c. Pull out tension values greater than 300 pounds.
   d. Product: As manufactured by Armstrong World Industries, or equal.
      1) Color: Match existing.
3. Fasteners and Attachments
   a. Wire for Hangers and Ties: ASTM A641, Class 1 zinc coating, soft temper, with gauge in accordance with CBC.
   b. Angle-Type Hangers: Angles with legs not less than 7/8-inch wide, formed from 0.0635-inch thick galvanized steel sheet complying with ASTM A653, G90 Coating Designation, with bolted connections and 5/16-inch diameter bolts.
   c. Ceiling Clips: Minimum 13 gauge by 3/4-inch wide, as manufactured by Hilti, “Ceiling Clips”, or equal.
   d. Light Fixture Protection and Hold Down Clips: Provide light fixture protection boards, fasteners and hold down clips as required by UL listing, manufacturer’s standard types.

E. Resilient Flooring Materials
1. Linoleum: Consisting of linseed oil, cork, wood flour resin binders, gum and pigments calendered on to a natural jute backing, with the following properties:
   a. Gauge: 1/10-inch.
   b. Static Load Limit: Exceeds 700 psi in accordance with ASTM F970.
   c. Slip Resistance: Meets or exceeds ADA recommendations of 0.6 for flat surfaces.
   d. Smoke Density: 450 or less in accordance with ASTM E662.
   e. Critical Radiant Flux: Class 1 in accordance with ASTM E648.
   f. Pattern: Match existing.
   g. Product: As manufactured by Forbo Industries, Inc., “Marmoleum”, or equal.
      1) Color: Match existing.
2. Vinyl Composition Tile: Products complying with ASTM F1066, Composition 1 (nonasbestos formulated).
   a. Class: Class 2.
   b. Wearing Surface: Smooth.
   c. Size and Pattern: Match existing.
   d. Product: As manufactured by
      1) Color: Match existing.
   a. Style: Cove with top-set toe.
   b. Minimum Nominal Thickness: 1/8-inch.
   c. Height: Match existing.
   d. Lengths: Coils in lengths standard with manufacturer but not less than 100 feet.
   e. Interior and Exterior Corners and Ends: Field-formed.
   f. Product: As manufactured by Burke; Johnsonite, or equal.
      1) Color: Match existing.
4. Concrete Slab Primer: Nonstaining type as recommended by flooring manufacturer.
5. Patching Compounds: Latex modified, portland cement based formulation provided or approved by resilient flooring manufacturer for applications indicated.
6. Adhesives: Waterproof, nonflammable, type as recommended by resilient flooring manufacturer.
   a. VOC Limits: Provide adhesives that comply with the following limits for VOC content when tested according to ASTM D5116:
      1) Total VOCs: 50 g/L.
      2) Formaldehyde: 0.05 mg/sq. m x h.
      3) 2-Ethyl-1-Hexanol: 3.00 mg/sq. m x h.
   b. Adhesives shall be compatible with vapor emission treatment systems specified in Section 09 97 25.
7. Metal Edge Strips: Extruded aluminum with mill finish of width shown, of height required to protect exposed edge of linoleum floor coverings and in maximum available lengths to minimize running joints.

F. Carpeting Materials
1. Broadloom Carpet
   a. Style and Pattern: Match existing.
   b. Product: As manufactured by Collins and Aikman, or equal.
      1) Color: Match existing.
2. Carpet Tile
   a. Size: Match existing.
   b. Style and Pattern: Match existing.
   c. Product: As manufactured by Shaw Contract Group; InterfaceFLOR, or equal.
      1) Color: Match existing.
4. Cement: Waterproof type as recommended by carpet manufacturer.
5. Seaming Cement: Hot-melt adhesive tape or similar product recommended by carpet manufacturer for taping seams and butting cut edges at backing to form secure seams and to prevent pile loss at seams.
6. Adhesives: Waterproof, nonflammable, carpet latex release adhesive system, type as recommended by carpet manufacturer, designed to facilitate easy removal of carpet at later date as furnished by carpet manufacturer.
   a. VOC Limits: Provide adhesives that comply with the following limits for VOC content when tested according to ASTM D5116:
      1) Total VOCs: 10.00 mg/sq. m x h.
      2) Formaldehyde: 0.05 mg/sq. m x h.
      3) 2-Ethyl-1-Hexanol: 3.00 mg/sq. m x h.
   b. Adhesives shall be compatible with vapor emission treatment systems specified in Section 09 97 25.
7. Transition Strip: Match existing.

G. Wall Covering Materials
1. Wall Covering: Match existing.
2. Adhesive: Mildew-resistant, nonstaining, for use with specific wall covering and substrate application, as recommended by wall covering manufacturer.
PART 3 - EXECUTION

3.01 GYPSUM BOARD

A. Repair or replace existing gypsum board where required or indicated.

B. Finish: Provide GA 214 Level 4 smooth finish with joints and interior angles tape embedded in joint compound and 3 separate coats of joint compound applied over all joints, angles, fastener heads, and accessories. A thin skim coat of joint compound, or a material manufactured especially for this purpose, shall be applied to entire surface. Surface shall be smooth and free of tool marks and ridges.

C. Installation
   1. Install and finish gypsum board to comply with ASTM C840 or GA 216. Apply in either vertical or horizontal direction with ends and edges falling on supports. In vertical applications, gypsum board shall be of length required to reach full height of vertical surfaces in one continuous piece. Position boards so that like edges abut, tapered edges against tapered edges, and field cut ends against field cut ends. Do not place tapered edges against cut edges or ends. Stagger vertical joints over different studs on opposite sides of partitions. Attach gypsum board to framing with screws, lengths and sizes as recommended by manufacturer and in accordance with CBC.
   2. Install corner beads at vertical and horizontal external corners, and whenever edge of gypsum board would otherwise be exposed or semi-exposed. Provide type with face flange to receive joint compound. After accessories are installed, correct surface damage and defects.
   3. Apply joint treatment at gypsum board joints; flanges of corner bead, edge trim and penetrations, fastener heads, and surface defects. Apply joint tape at joints between gypsum boards.

3.02 CERAMIC TILE

A. Repair or replace existing ceramic tile where required or indicated.

B. Installation
   1. General
      a. Mix mortar and grout to comply with ANSI and TCNA requirements and manufacturers’ recommendations.
      b. Comply with TCNA Installation Guidelines. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. Fit tile closely to piping, fixtures and other penetrations so that collars or covers overlap tile. Lay tile in pattern as indicated. Align joints when adjoining tiles on walls and floor are same size. Provide uniform joint widths of 1/16-inch unless otherwise shown.
   2. Wall Tile: Install tile over latex portland cement mortar bond coat over cementitious backer units over waterproof membrane over gypsum board over metal studs, to comply with TCNA installation method W244.
      b. Tile: ANSI A108.5.
   3. Grout: Install low shrinkage grout in accordance with manufacturer’s recommendations and standards specified above. Upon completion of placement and grouting, clean tile surfaces so they are free of foreign matter. Remove grout residue from tile as soon as possible. Seal tile with materials and methods as recommended by tile manufacturer. Clean tile in accordance with manufacturer’s written instructions.
3.03 ACOUSTICAL CEILINGS

A. Repair or replace suspended acoustical tile ceiling panels and mechanical suspension system where required or indicated.

B. Installation of Suspended Ceiling System
   1. Install acoustical material and suspension system, including necessary hangers and other supporting hardware in accordance with manufacturer's instructions and ASTM C636.
   2. Lay work out symmetrically about centers of rooms and provide symmetrical borders not less than half size of tile specified unless noted otherwise on the Drawings.
   3. Make penetrations through ceiling panels in such a manner to ensure tight fit and neat appearance. Center penetrations in tile unless otherwise noted.
   4. Acoustical Ceiling Connection Devices: Test devices for capability to support the following loads:
      a. Hanger Wires: 100 pounds in accordance with requirements of CBC.
      b. Lateral Force Bracing Wires: 200 pounds or actual design load whichever is greater, with safety factor of 2, in accordance with CBC.
      c. Replace connection devices that do not pass testing.

3.04 RESILIENT FLOORING

A. Repair or replace existing resilient flooring where required or indicated.

B. Examination
   1. Examine substrates, areas, and conditions for compliance with requirements for maximum moisture content, alkalinity range, installation tolerances, and other conditions affecting resilient flooring performance. Verify that substrates and conditions are satisfactory for resilient flooring installation and comply with requirements specified.
   2. Concrete Subfloors: Verify that concrete slabs comply with ASTM F710 and the following:
      a. Slab substrates are dry and free of curing compounds, sealers, hardeners, and other materials that may interfere with adhesive bond. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by the resilient flooring manufacturer.
      b. Subfloors are free of cracks, ridges, depressions, scale, and foreign deposits.
      c. Concrete shall be allowed to cure for 90 to 120 days and must be properly sealed. Test concrete for vapor emission by the Calcium Chloride Moisture test method in compliance with ASTM F1869. Emission rate shall not exceed 3 lb/24 hr/1000 sq. ft. Treat with vapor emission treatment systems specified in Section 09 97 25, as required.

C. Preparation
   1. General: Comply with manufacturer's installation specifications to prepare substrates indicated to receive resilient flooring accessories.
   2. Use patching compounds per manufacturer's directions.

D. Installation
   1. General: Comply with manufacturers' installation directions and other requirements indicated that are applicable to each type of installation included in Project.
   2. Linoleum Installation
      a. Lay out linoleum floor coverings to comply with the following requirements:
         1) Maintain uniformity of linoleum floor covering direction.
2) Arrange for a minimum number of seams and place them in inconspicuous and low traffic areas, but in no case less than 6 inches away from parallel joints in flooring substrates.

3) Match edges of resilient floor coverings for color shading and pattern at seams.

4) Avoid cross seams.

b. Scribe, cut, and fit linoleum floor coverings to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture, including cabinets, pipes, outlets, edgings, thresholds and nosings.

c. Extend linoleum floor coverings into toe spaces, door reveals, closets, and similar openings.

d. Maintain reference markers, holes or openings that are in place or plainly marked for future cutting by repeating on finish flooring as marked on subfloor. Use chalk or other nonpermanent marking device.

e. Adhere linoleum floor coverings to flooring substrates by method approved by floor covering manufacturer.
   1) Produce completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, or other surface imperfections.
   2) Comply with floor covering manufacturer’s directions including those for trowel notching, adhesive mixing, and adhesive open and working times.

f. Heat-weld all seams in linoleum floor coverings. Prepare, weld and finish seams to produce a surface flush with adjoining sheets.

g. Hand roll linoleum floor coverings in both directions from center out to embed floor coverings in adhesive and eliminate trapped air. At walls, door casings and other locations where access by roller is impractical, press floor coverings firmly in place with flat-bladed instrument.

h. Flooring edges which abut walls, door casings, pipes shall be sealed with acrylic latex silicon caulk.

i. Upon completion of installation, apply minimum of 3 coats of floor finish. Implement maintenance procedures in accordance with manufacturer’s warranty requirements.

3. Resilient Tile Installation

a. Lay out tiles from center marks established with principal walls, discounting minor offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths at perimeter that equal less than one-half of a tile. Install tiles square with room axis, unless otherwise indicated.

b. Match tiles for color and pattern by selecting tiles from cartons in same sequence as manufactured and packaged, if so numbered. Cut tiles neatly around all fixtures. Discard broken, cracked, chipped, or deformed tiles.
   1) Lay tiles in ashlar pattern with grain running in one direction, unless otherwise directed by the Architect.

c. Scribe, cut, and fit tiles to butt tightly to vertical surfaces, permanent fixtures, built-in furniture including, pipes, outlets, edgings, thresholds and nosings. Extend tiles into toe spaces, door reveals, closets, and similar openings.

d. Maintain reference markers, holes, or openings that are in place or plainly marked for future cutting by repeating on finish flooring as marked on subfloor. Use chalk or other nonpermanent marking device.

e. Adhere tiles to flooring substrates without producing open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, or other surface imperfections in completed tile installation.

f. Use full spread of adhesive applied to substrate in compliance with tile manufacturer’s directions including those for trowel notching, adhesive mixing, and adhesive open and working times.

g. Hand roll tiles where required by tile manufacturer.
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4. Resilient Wall Base Installation
   a. Apply resilient wall base to walls, casework and other permanent fixtures in rooms and areas where base is required. Install wall base in lengths as long as practicable. Tightly adhere wall base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
   b. Place resilient accessories so they are butted to adjacent materials of type indicated and bond to substrates with adhesive. Install reducer strips at edges of flooring that otherwise would be exposed.

E. Cleaning and Protection
   1. Perform the following operations immediately after completing installation:
      a. Remove visible adhesive and other surface blemishes using cleaner recommended by manufacturers.
      b. Sweep or vacuum floor thoroughly.
      c. Do not wash floor until after time period recommended by manufacturer.
      d. Damp-mop linoleum to remove black marks and soil.
   2. Protect flooring against mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period. Use protection methods indicated or recommended by flooring manufacturer.

3.05 CARPETING

A. Repair or replace existing broadloom or tile carpeting where required or indicated.

B. Examination
   1. Examine substrates, areas, and conditions for compliance with requirements for maximum moisture content, alkalinity range, installation tolerances, and other conditions affecting carpet performance. Verify that substrates and conditions are satisfactory for carpet installation and comply with requirements specified.
   2. Concrete Subfloors: Verify that concrete slabs comply with ASTM F710 and the following:
      a. Slab substrates are dry and free of curing compounds, sealers, hardeners, and other materials that may interfere with adhesive bond. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by the carpet manufacturer.
      b. Subfloors are free of cracks, ridges, depressions, scale, and foreign deposits.
      c. Concrete shall be allowed to cure for 90 to 120 days and must be properly sealed. Test concrete for vapor emission by the Calcium Chloride Moisture test method in compliance with ASTM F1869. Emission rate shall not exceed 3 lb/24 hr/1000 sq. ft. Treat with vapor emission treatment systems specified in Section 09 97 25, as required.

C. Broadloom Carpeting Installation
   1. Comply with manufacturer’s recommendations for seam locations and direction of carpet; maintain uniformity of carpet direction and lay of pile. At doorways, center seams under door in closed position; do not place seams perpendicular to door frame, in direction of traffic through doorway.
   2. Extend carpet under removable flanges and furnishings and into alcoves and closets of each space.
   3. Provide cutouts where required, and bind cut edges where not concealed by protective edge guards or overlapping flanges.
   4. Install carpet edge guard where edge of carpet is exposed; anchor guards to substrate.
   5. Install with pattern parallel to walls and borders.
   6. Install carpet by trimming edges, butting cuts with seaming cement, and taping and/or sewing seams to provide sufficient strength for stretching and continued stresses during life of carpet.
7. Remove adhesive from carpet surface with manufacturer’s recommended cleaning agent.
8. Vacuum carpet.

D. Tile Carpeting Installation
2. Carpet shall be installed after building has been painted and subjected to an airing out of at least a week by forced ventilation, with maximum outside air. Contractor shall ensure construction involving high VOCs and other pollutant will be completed before the airing out.
3. Installation Method: Glue down; install every tile with full-spread, releasable, pressure-sensitive adhesive.
4. Comply with manufacturer’s recommendations for seam locations and direction of carpet; maintain uniformity of carpet direction and lay of pile. At doorways, center seams under door in closed position; do not place seams perpendicular to door frame, in direction of traffic through doorway. Do not bridge building expansion joints with continuous carpet.
5. Extend carpet under removable flanges and furnishings and into alcoves and closets of each space.
6. Provide cutouts where required, and bind cut edges where not concealed by protective edge guards or overlapping flanges. Maintain reference markers, holes and openings that are in place or marked for future cutting by repeating on finish flooring as marked on subfloor. Use nonpermanent, nonstaining marking device.
7. Install carpet edge guard where edge of carpet is exposed; anchor guards to substrate.
8. Install with pattern parallel to walls and borders, unless otherwise indicated.
9. Do not bridge building expansion joints with carpet.
10. Observe CRI and EPA carpet air-out guidelines. Continuously operate the building ventilation system at normal temperature and maximum outdoor air during installation and for 72 hours after installation is complete. Avoid recirculating air from the installation area, through the heating, ventilation and air-conditioning system, and into occupied areas. Create a temporary exhaust system using fans, open doorways, stairwells and windows. Seal return air grilles.
11. Provide carpet tiles larger than 1/2 tile to District’s Representative as additional material above the 5 percent extra materials specified above.

E. Cleaning and Protection
1. Remove adhesive from carpet surface with manufacturer’s recommended cleaning agent.
3. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and installer, to ensure carpet is not damaged or deteriorated at time of Substantial Completion.

3.06 WALL COVERING

A. Repair or replace existing wall covering where required or indicated.

B. Examination
1. Examine substrates for compliance with requirements for moisture content and other conditions affecting performance of Work of this Section.
2. Do not proceed with installation until unsatisfactory conditions have been corrected.
C. Preparation
   1. Comply with manufacturer’s written instructions for surface preparation.
   2. Clean substrates of substances that could impair wall covering’s bond, including mold, mildew, oil, grease, incompatible primers, and dirt.
   3. Prepare substrates to achieve a smooth, dry, clean surface free of flaking, unsound coatings, cracks, and defects.
      a. Prime new fiberboard with primer recommended by wall covering manufacturer.
   4. Acclimatize wall covering materials by removing them from packaging in the installation areas not less than 24 hours before installation.

D. Installation
   1. General: Comply with wall covering manufacturers’ written installation instructions applicable to products and applications indicated, except where more stringent requirements apply.
   2. Cut wall covering panels in roll number sequence. Change run numbers at partition breaks and corners only.
   3. Install wall covering with no gaps or overlaps. Replace from floor-to-ceiling and corner-to-corner.
   4. Match pattern 72 inches above finish floor.
   5. Install seams vertical and plumb at least 6 inches from outside corners and 3 inches from inside corners. No horizontal seams.
   6. Remove air bubbles, wrinkles, blisters, and other defects.

E. Cleaning
   1. Remove excess adhesive at finished seams, perimeter edges, and adjacent surfaces.
   2. Use cleaning methods recommended by wall covering manufacturer.
   3. Replace strips that cannot be cleaned.

END OF SECTION
PART 1 - GENERAL

1.01 SUMMARY
A. Section Includes: Surface preparation, painting, and finishing of exposed exterior and interior items and surfaces.
B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
C. Related Sections
1. Section 05 50 00 - Metal Fabrications: For finish painting of miscellaneous metal fabrications.
2. Section 06 10 00 - Rough Carpentry: For finish painting of rough carpentry.
3. Section 08 31 13 - Access Doors and Frames: For finish painting of access doors and frames.
4. Section 09 01 10 - Restoration of Finishes: For finish painting required for restoration of existing finishes.

1.02 REFERENCES
A. FM - Factory Mutual
B. SSPC - The Society for Protective Coatings
   1. SP 10 - Surface Preparation Specification No. 10: Near-White Metal Blast Cleaning.
C. UL - Underwriters Laboratories Inc.

1.03 DEFINITIONS
A. “Paint”: As used herein, means coating systems materials including primers, emulsions, epoxy, enamels, sealers, fillers, and other applied materials whether used as prime, intermediate, or finish coats.

1.04 SYSTEM DESCRIPTION
A. Performance Requirements
1. Paint exposed surfaces whether or not colors are designated in the schedules, except where a surface or material is specifically indicated not to be painted or is to remain natural. Where an item or surface is not specifically mentioned, paint the same as similar adjacent materials or surfaces. If color or finish is not designated, the Architect will select from standard colors or finishes available.
2. Paint substrates corner-to-corner and floor-to-ceiling or as agreed to be the District’s Representative.
3. Painting is not required on prefinished items, finished metal surfaces, concealed surfaces, operating parts, and labels.
4. Do not paint over UL, FM, or other code required labels or equipment name, identification, performance rating, or nomenclature plates.

1.05 SUBMITTALS
A. Product Data: Submit manufacturer’s product data for each paint system specified, including block fillers and primers.
1. Provide manufacturer’s technical information including label analysis and instructions for handling, storage, and application of each material proposed for use.
2. List each material and cross reference the specific coating, finish system, and application. Identify each material by the manufacturer’s catalog number and general classification.

1.06 QUALITY ASSURANCE

A. Provide primers and undercoat paint produced by the same manufacturer as finish coats.
   1. Review other Sections of these Specifications as required, verifying the prime coats to be used and assuring compatibility of the total coating system for the various substrates.
   2. Upon request, furnish information on the characteristics of the specific finish materials to assure that compatible prime coats are used.
   3. Provide barrier coats over non-compatible primers, or remove the primer and re-prime as required.
   4. Notify the Architect in writing of anticipated problems in using the specified coating systems over prime coatings supplied under other Sections.

B. Applicator Qualifications: Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Acceptance at Site: Deliver materials to the job site in manufacturer’s original, unopened packages and containers bearing manufacturer’s name and label and the following information:
   1. Product name or title of material.
   2. Product description (generic classification or binder type).
   3. Manufacturer’s stock number and date of manufacture.
   4. Contents by volume for pigment and vehicle constituents.
   5. Thinning instructions.
   6. Application instructions.
   7. Color name and number.

B. Storage and Protection
   1. Store materials not in use in tightly covered containers in well ventilated area at minimum ambient temperature of 45 degrees Fahrenheit. Maintain containers used in storage in clean condition, free of foreign materials and residue.
   2. Protect from freezing. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing, and application.

1.08 PROJECT CONDITIONS

A. Environmental Requirements
   1. Apply water based paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 50 and 90 degrees Fahrenheit, unless otherwise permitted by the manufacturers’ printed instructions as approved by the Architect.
   2. Do not apply solvent-thinned paints when the temperature of surfaces to be painted and the surrounding air temperatures are below 45 degrees Fahrenheit, unless otherwise permitted by the manufacturers’ printed instructions as approved by the Architect.
3. Do not apply paint in rain, fog, or mist; or when the relative humidity exceeds 85 percent. Do not apply paint to damp or wet surfaces, unless otherwise permitted by the manufacturers’ printed instructions as approved by the Architect.

4. Applications may be continued during inclement weather only within the temperature limits specified by the paint manufacturer as being suitable for use during application and drying periods.

1.09 MAINTENANCE

A. Upon completion of the work of this Section, deliver to the District’s Representative an extra stock equaling 5 percent of each color, type, and gloss of paint used in the Work; tightly sealing each container, and clearly labeling with contents and location where used.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Acceptable Manufacturers: Kelly Moore; ICI Dulux; Pratt & Lambert; Cabot; Frazee; Tnemec; Rustoleum; Olympic, or equal.

2.02 PAINT MATERIALS

A. Paint Materials, General: Provide block fillers, primers, finish coat materials, and related materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by the manufacturer, based on testing and field experience.

B. Material Quality: Provide manufacturer’s best quality trade sale paint material of the various coating types specified. Paint material containers not displaying manufacturer’s product identification will not be acceptable.

C. Paint Type, Texture, and Color: Match existing adjacent at all locations.

2.03 APPLICATION EQUIPMENT

A. For application of the approved paint, use only such equipment as is recommended for application of the particular paint by the manufacturer of the particular paint, and as approved by the Architect.

B. Prior to use of application equipment, verify that the proposed equipment is actually compatible with the material to be applied, and that integrity of the finish will not be jeopardized by use of the proposed equipment.

2.04 OTHER MATERIALS

A. Provide other materials not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine the areas and surface conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work.

B. Do not proceed until unsatisfactory conditions are corrected.
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3.02 PREPARATION

A. General
1. Mix and prepare paint materials in strict accordance with the manufacturers’ recommendations as approved by the Architect.
2. When materials are not in use, store in tightly covered containers.
3. Maintain containers used in storage, mixing, and application of paint in a clean condition, free from foreign materials and residue.

B. Stirring
1. Stir materials before application, producing a mixture of uniform density.
2. Do not stir into the material any film which may form on the surface, but remove the film and, if necessary, strain the material before using.

C. Surface Preparation
1. General
a. Perform preparation and cleaning procedures in strict accordance with the paint manufacturers’ recommendations as approved by the Architect.
b. Remove removable items which are in place and are not scheduled to receive paint finish; or provide surface applied protection prior to surface preparation and painting operations.
c. Following completion of painting in each space or area, reinstall the removed items by using workmen who are skilled in the necessary trades.
2. Clean each surface to be painted prior to applying paint or surface treatment. Interior surfaces shall be steam cleaned prior to repainting.
3. Remove oil and grease with clean cloths and cleaning solvent of low toxicity and flash point in excess of 200 degrees Fahrenheit prior to start of mechanical cleaning.
4. Schedule the cleaning and painting so that dust and other contaminants from the cleaning process will not fall onto wet newly painted surfaces.
5. Provide barrier coats over incompatible primers or remove and re prime.

D. Cementitious Materials: Prepare concrete and concrete masonry unit or board surfaces to be painted. Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods of surface preparation.
1. Use abrasive blast-cleaning methods if recommended by paint manufacturer.
2. Determine alkalinity and moisture content of surfaces by performing appropriate tests. If surfaces are sufficiently alkaline to cause the finish paint to blister and burn, correct this condition before application. Do not paint surfaces where moisture content exceeds that permitted in manufacturer’s written instructions.

E. Preparation of Wood Surfaces
1. Clean wood surfaces until free from dirt, oil, and other foreign substance.
2. Smooth finished wood surfaces exposed to view, using the proper sandpaper. Where so required, use varying degrees of coarseness in sandpaper to produce a uniformly smooth and unmarred wood surface.
3. Unless specifically approved by the Architect, do not proceed with painting of wood surfaces until the moisture content of the wood is 12 percent or less as measured by a moisture meter approved by the Architect.

F. Ferrous Metals: Clean ungalvanized ferrous-metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances. Use solvent or mechanical cleaning methods that comply with SSPC recommendations.
1. Blast steel surfaces clean as recommended by paint system manufacturer and according to requirements of SSPC SP 10.
2. Treat bare and sandblasted or pickled clean metal with a metal treatment wash coat before priming.

3. Touch up bare areas and shop-applied prime coats that have been damaged. Wire-brush, clean with solvents recommended by paint manufacturer, and touch up with the same primer as the shop coat.

G. Galvanized Surfaces: Clean galvanized surfaces with nonpetroleum-based solvents so surface is free of oil and surface contaminants. Remove pretreatment from galvanized sheet metal fabricated from coil stock by mechanical methods.

3.03 PAINT APPLICATION

A. General

1. Touch-up shop-applied prime coats which have been damaged, and touch-up bare areas prior to start of finish coats application.

2. Slightly vary the color of succeeding coats.
   a. Do not apply additional coats until the completed coat has been inspected and approved.
   b. Only the inspected and approved coats of paint will be considered in determining the number of coats applied.

3. Sand and dust between coats to remove defects visible to the unaided eye from a distance of 5 feet.

4. On removable panels and hinged panels, paint the back sides to match the exposed sides.

B. Drying

1. Allow sufficient drying time between coats, modifying the period as recommended by the material manufacturer to suite adverse weather conditions.

2. Consider oil base and oleo-resinous solvent-type paint as dry for re-coating when the paint feels firm; does not deform or feel sticky under moderate pressure of the thumb, and when the application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.

C. Brush Applications

1. Brush out and work the brush coats onto the surface in an even film.

2. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, and other surface imperfections will not be acceptable.

D. Spray Application

1. Except as specifically otherwise approved by the Architect, confine spray application to metal framework and similar surfaces where hand brush work would be inferior.

2. Where spray application is used, apply each coat to provide the hiding equivalent of brush coats.

3. Do not double back with spray equipment to build up film thickness of 2 coats in 1 pass.

4. Protect all adjacent buildings, cars, plants, floors, etc., from over spray.

E. For completed work, match the approved samples as to texture, color, and coverage. Remove, refinish, or repaint work not in compliance with the specified requirements.

F. Miscellaneous Surfaces and Procedures

1. Exposed mechanical items
   a. Finish electric panels, access doors, conduits, pipes, ducts, grilles, registers, vents, and items of similar nature to match the adjacent wall and ceiling surfaces, or as directed.
   b. Paint visible duct surfaces behind vents, registers, and grilles flat black.
   c. Wash metal with solvent, prime, and apply 2 coats of alkyd enamel.
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2. Exposed pipe and duct insulation
   a. Apply 1 coat of latex paint on insulation which has been sized or primed under
      other Sections; apply 2 coats on such surfaces when unprepared.
   b. Match color of adjacent surfaces.
   c. Remove band before painting, and replace after painting.

3. Hardware
   a. Paint prime coated hardware to match adjacent surfaces.
   b. Paint metal portions of head seals, jamb seals, and astragal seals to match the
      color of the door frame unless otherwise directed by the Architect.

4. Wet areas
   a. For oil base paints, use 1 percent phencimercuric or 4 percent tetrachlorophenol.
   b. For water emulsion and glue size surfaces, use 4 percent sodium
      tetrachlorophenate.

5. Interior: Use “stipple” finish where enamel is specified.


3.04 EXTERIOR PAINT SCHEDULE

A. Ferrous Metal and Galvanized Metal: Provide the following finish systems over exterior
   ferrous metal. Primer is not required on shop-primed items. Reprime all areas where
   primer has been scratched, scraped or removed.

1. Semigloss, Aliphatic Acrylic Polyurethane Finish: Top coat over 2 finish coats over
   rust-inhibitive primer.
   a. Ferrous and Galvanized Metal Primer
      1) Self-priming polyamide epoxy applied at spreading rate recommended by
         the manufacturer to achieve a total dry film thickness of not less than 4.0
         to 6.0 mils.
      2) Product: Tnemec, “Series 66 Epoxoline HS”; Rust-Oleum, “9100”, or
         equal.
   b. First Coat
      1) Semigloss, aliphatic acrylic polyurethane applied at spreading rate
         recommended by the manufacturer to achieve a total dry film thickness of
         not less than 2.0 to 3.0 mils per coat.
      2) Product: Tnemec, “Series 1075 Endura-Shield”; Rust-Oleum, “9700”, or
         equal.

3.05 INTERIOR PAINT SCHEDULE

A. Gypsum Board

1. Eggshell Finish: 2 finish coats over a primer where indicated.
   a. Primer
      1) Latex based, interior primer/sealer applied at spreading rate
         recommended by the manufacturer to achieve a total dry film thickness of
         not less than 1.2 mils.
      2) Product: Kelly Moore, “971 Acry-Plex”, or equal.
   b. First and Second Coats
      1) Low luster eggshell, acrylic-latex based, interior enamel applied at
         spreading rate recommended by the manufacturer to achieve a total dry
         film thickness of not less than 2.8 mils.
      2) Product: Kelly Moore, “1610 Eggshell”, or equal.

2. Semigloss Acrylic Enamel Finish: 2 finish coats over a primer at “wet areas” such as
   restrooms, janitor closets, kitchen area.
   a. Primer
      1) Latex based, interior primer/sealer applied at spreading rate
         recommended by the manufacturer to achieve a total dry film thickness of
         not less than 1.2 mils.
      2) Product: Kelly Moore, “971 Acry-Plex”, or equal.
b. First and Second Coats
   1) Semigloss, acrylic latex, interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.6 mils.
   2) Product: Kelly Moore, “1650 Acry-Plex Latex SemiGloss Enamel”, or equal.

B. Ferrous Metal
   1. Semigloss, Acrylic Enamel Finish: 2 finish coats over a primer. Primer is not required on shop-primed items.
      a. Primer
         1) Quick drying, rust-inhibitive red oxide metal primer, as recommended by the manufacturer for this substrate, applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.5 mils.
         2) Product: Kelly Moore, “1710 KelGard Red Oxide Primer”, or equal.
      b. First and Second Coats
         1) Semigloss, acrylic latex, interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.3 mils.
         2) Product: Kelly Moore, “1650 Acry-Plex Latex SemiGloss Enamel”, or equal.

C. Galvanized Metal
   1. Semigloss, Acrylic Enamel Finish: 2 finish coats over a primer.
      a. Primer
         1) Galvanized metal primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.2 mils.
         2) Product: Kelly Moore, “1722 KelGard Galvanized Primer”, or equal.
      b. First and Second Coats
         1) Semigloss, acrylic latex interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.6 mils.
         2) Product: Kelly Moore, “1650 Acry-Plex Latex SemiGloss Enamel”, or equal.
   2. Epoxy Gloss Finish: 2 finish coats over a primer.
      a. Primer
         1) 2-component, water reducible, epoxy-polyamide primer applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.5 mils.
         2) Product: Kelly Moore, “7126 Envira-Poxy”, or equal.
      b. First and Second Coats
         1) Gloss, 2-component, water reducible epoxy-polyamide, applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.5 mils.
         2) Product: Kelly Moore, “7100 Envira-Poxy”, or equal.

D. Opaque Finish for Wood
   1. Semigloss, Acrylic-Enamel Finish: 2 finish coats over a wood undercoater.
      a. Undercoat
         1) Alkyd- or acrylic-based, interior wood undercoater, as recommended by the manufacturer for this substrate, applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.2 mils.
         2) Product: Kelly Moore, “975 Latex Enamel Undercoat”, or equal.
b. First and Second Coats
   1) Semigloss, acrylic-latex, interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.6 mils.
   2) Product: Kelly Moore, “1650 Acry-Plex Latex SemiGloss Enamel”, or equal.

E. Transparent Finish for Wood
1. Waterborne, Satin-Varnish Finish: 3 finish coats of a waterborne, clear-satin varnish over waterborne, interior wood stain.
   a. Stain Coat
      1) Waterborne, interior wood stain applied at spreading rate recommended by the manufacturer.
      2) Product: Kelly Moore, “Varithane Stain”, or equal.
   b. First, Second and Third Finish Coats
      1) Waterborne acrylic urethane varnish finish applied at spreading rate recommended by the manufacturer.
      2) Product: Kelly Moore, “2097”, or equal.

END OF SECTION
PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Vapor control barrier applied to interior areas scheduled to receive moisture sensitive floor coverings, as required.

B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

C. Related Section
   1. Section 09 01 10 - Restoration of Finishes: For restoration of existing finishes including resilient flooring, broadloom carpeting, and tile carpeting.

1.02 REFERENCES


1.03 SUBMITTALS

A. Product Data: Provide the following:
   1. Descriptive Literature: Materials and accessories.
   2. Project References: Similar project completed within 5 years.
   3. Installer: Direct factory/manufacturer employed personnel certificates for each installer.
   4. Field Documents: Manufacturer shall provide written acceptance of on-site conditions, concrete mix design, admixtures, concrete salts, sub-slab vapor retarder, and surface applied contaminates, prior to barrier installations. No exceptions.

B. Quality Assurance Submittals: Provide the following independent test results indicating compliance:
   1. ASTM C309 Curing Requirements.
   2. ASTM D1308 Alkali Resistance.
   3. ASTM C1315 Curing/Sealing Requirements.
   4. ASTM C156 Water Retention Level.
   5. ASTM D4541 Floor Adhesion Testing.

1.04 QUALITY ASSURANCE

A. Qualifications
   1. Manufacturer: Manufacturing history of 10 years and product liability insurance in the amount of $1,000,000 per occurrence.
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2. Installer: Manufacturer direct installations by factory employed personnel. No exceptions.

1.05 WARRANTY

A. Manufacturer’s Warranty: Written warranty, signed by manufacturer, agreeing to replace water system that does not comply with requirements or that does not remain watertight during specified warranty period.

B. Warranty shall not exclude concrete salts, admixtures, surface contaminates, or resin and silicate surface treatments. Installations on slab surfaces deems acceptance of on-site conditions. Manufacturer is responsible for complete review of concrete mix designs, admixtures, sub-slab vapor retarder installed, and curing methods, for written acceptance prior to installation.

C. Workmanship and Materials Warranty
   1. Manufacturing Defects Warranty Period: 10 years.
   2. Installation Defects Warranty: 10 years.
   3. Warranty Covering Improper Installations: 10 years.
   4. Moisture and Alkalinity Damage to Flooring: 10 years.
   5. Manufacturer’s limited warranty shall cover 100 percent of the cost to repair or replace floor coverings damaged by moisture and alkalinity. Coverage shall include:
      a. Installed epoxy based vapor/alkalinity barrier.
      b. Floor covering systems or resinous materials.
      c. Adhesives, patching materials and installation accessories.
      d. All installation labor charges involved.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Products for Basis of Design: Subject to compliance with requirements, provide 1 of the following manufacturer direct installed products: Floor Seal Technology, Inc., “Vapor Seal 309”; Dupont Flooring Systems, or equal.

2.02 MATERIALS

A. Vapor/Alkalinity Barrier: 36 percent modified resin based penetrating barrier, containing specifically formulated chemicals and resins to saturate slab surfaces for seamless vapor/alkali barrier to protect floor coverings from damage.

B. Materials containing water based solutions of sodium, potassium, and lithium silicates do not meet performance levels specified in this Section. Silicate based solutions are chemically reactive and do not meet the intent of ASTM C309. See ASTM documents for verification.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Site Verification of Conditions: Verify that sub-slab vapor retarder meets ASTM E1745 Class A; the concrete water-to-cement ratio maximum of 0.45; sub-soil over vapor retarder is not rained on or saturated, and concrete is not poured during a day of rain.

B. Manufacturer shall accept conditions in writing prior to installation.
3.02 PREPARATION

A. General: Coordinate work with work specified under other sections to ensure proper and adequate interface of work. Protect all adjacent surfaces from drips, spray, air pollution of surrounding environment, and other damage from work.

B. Concrete Substrates: Apply when concrete is not marred by walking workman. Freshly poured concrete shall be free of surface contaminants, rain, and other sealing/curing materials.

3.03 APPLICATION

A. General: Apply material to produce a uniform, monolithic wearing surface.

B. Coordinate application of components to provide optimum adhesion to substrate.

C. Begin application by manufacturer employed personnel or factory installer when on-site conditions are accepted.

D. Apply system coat(s) in thickness to achieve maximum performance.

E. Barrier Application: Coverage rate for system shall be based on the surface texture and porosity of the substrates. Maximum cure time of 12 hours. Allow walking traffic in 4 hours.

3.04 FIELD QUALITY CONTROL

A. Inspection: Perform post installation testing at 1 calcium chloride test per 1,000 square feet. Interior temperature and humidity to be similar during the County’s occupancy.

B. Reapply materials in areas above flooring manufacturer’s limits, prior to floor covering installations at no additional charge to the County.

3.05 PROTECTION

A. Protection: Protect installations during specified cure periods from any kind of traffic, topical water, and contaminants.

END OF SECTION
PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Sleeves.
2. Sleeve-seal systems.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

PART 2 - PRODUCTS

2.1 SLEEVES

A. Cast-Iron Wall Pipes: Cast or fabricated of cast or ductile iron and equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop unless otherwise indicated.

B. Galvanized-Steel Wall Pipes: ASTM A 53/A 53M, Schedule 40, with plain ends and welded steel collar; zinc coated.

C. Galvanized-Steel-Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, zinc coated, with plain ends.

2.2 SLEEVE-SEAL SYSTEMS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

B. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:

1. Pipeline Seal and Insulator, Inc.
2. Proco Products, Inc.
3. Advance Products & Systems, Inc.
4. CALPICO, Inc.
C. Description: Modular sealing-element unit, designed for field assembly, for filling annular space between piping and sleeve.

1. Sealing Elements: EPDM-rubber interlocking links shaped to fit surface of pipe. Include type and number required for pipe material and size of pipe.
2. Pressure Plates: Stainless steel.
3. Connecting Bolts and Nuts: Stainless steel of length required to secure pressure plates to sealing elements.

2.3 GROUT


B. Characteristics: Nonshrink; recommended for interior and exterior applications.

C. Design Mix: 5000-psi, 28-day compressive strength.

D. Packaging: Premixed and factory packaged.

PART 3 - EXECUTION

3.1 SLEEVE INSTALLATION

A. Install sleeves for piping passing through penetrations in floors, partitions, roofs, and walls.

B. For sleeves that will have sleeve-seal system installed, select sleeves of size large enough to provide 1-inch annular clear space between piping and concrete slabs and walls.

1. sleeves are not required for core-drilled holes.

C. Install sleeves in concrete floors, concrete roof slabs, and concrete walls as new slabs and walls are constructed.

1. Permanent sleeves are not required for holes in slabs formed by molded-PE or PP sleeves.
2. Cut sleeves to length for mounting flush with both surfaces.
   a. Exception: Extend sleeves installed in floors of mechanical equipment areas or other wet areas 2 inches above finished floor level.
3. Using grout, seal the space outside of sleeves in slabs and walls without sleeve-seal system.

D. Install sleeves for pipes passing through interior partitions.

1. Cut sleeves to length for mounting flush with both surfaces.
2. Install sleeves that are large enough to provide 1/4-inch annular clear space between sleeve and pipe or pipe insulation.
3. Seal annular space between sleeve and piping or piping insulation; use joint sealants appropriate for size, depth, and location of joint. Comply with requirements for sealants specified in Section 079200 "Joint Sealants.”
E. Fire-Barrier Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Seal pipe penetrations with firestop materials. Comply with requirements for firestopping specified in Section 078413 "Penetration Firestopping."

3.2 SLEEVE-SEAL-SYSTEM INSTALLATION

A. Install sleeve-seal systems in sleeves in exterior concrete walls and slabs-on-grade at service piping entries into building.

B. Select type, size, and number of sealing elements required for piping material and size and for sleeve ID or hole size. Position piping in center of sleeve. Center piping in penetration, assemble sleeve-seal system components, and install in annular space between piping and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make a watertight seal.

3.3 SLEEVE AND SLEEVE-SEAL SCHEDULE

A. Use sleeves and sleeve seals for the following piping-penetration applications:

1. Exterior Concrete Walls above Grade:
   a. Piping Smaller Than NPS 6: Sleeve-seal fittings.

2. Exterior Concrete Walls below Grade:
   a. Piping Smaller Than NPS 6: Galvanized-steel-pipe sleeves with sleeve-seal system.
      1) Select sleeve size to allow for 1-inch annular clear space between piping and sleeve for installing sleeve-seal system.

3. Concrete Slabs-on-Grade:
   a. Piping Smaller Than NPS 6: Cast-iron wall sleeves with sleeve-seal system [Galvanized-steel wall sleeves with sleeve-seal system].
      1) Select sleeve size to allow for 1-inch annular clear space between piping and sleeve for installing sleeve-seal system.

4. Concrete Slabs above Grade:
   a. Piping Smaller Than NPS 6: Sleeve-seal fittings.

5. Interior Partitions:

END OF SECTION
PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY
A. Section Includes:
   1. Escutcheons.
   2. Floor plates.

1.3 ACTION SUBMITTALS
A. Product Data: For each type of product indicated.

PART 2 - PRODUCTS

2.1 ESCUTCHEONS
A. One-Piece, Cast-Brass Type: With polished, chrome-plated finish and setscrew fastener.
B. One-Piece, Deep-Pattern Type: Deep-drawn, box-shaped brass with chrome-plated finish and spring-clip fasteners.
C. One-Piece, Stamped-Steel Type: With chrome-plated finish and spring-clip fasteners.
D. Split-Casting Brass Type: With polished, chrome-plated finish and with concealed hinge and setscrew.
E. Split-Plate, Stamped-Steel Type: With chrome-plated finish, concealed hinge, and spring-clip fasteners.

2.2 FLOOR PLATES
A. One-Piece Floor Plates: Cast-iron flange[ with holes for fasteners].
B. Split-Casting Floor Plates: Cast brass with concealed hinge.
3.1 INSTALLATION

A. Install escutcheons for piping penetrations of walls, ceilings, and finished floors.

B. Install escutcheons with ID to closely fit around pipe, tube, and insulation of insulated piping and with OD that completely covers opening.

1. Escutcheons for New Piping:
   a. Piping with Fitting or Sleeve Protruding from Wall: One-piece, deep-pattern type.
   b. Chrome-Plated Piping: One-piece, cast-brass type with polished, chrome-plated finish.
   c. Insulated Piping: One-piece, stamped-steel type.
   d. Bare Piping at Wall and Floor Penetrations in Finished Spaces: One-piece, cast-brass type with polished, chrome-plated finish.
   e. Bare Piping at Ceiling Penetrations in Finished Spaces: One-piece, cast-brass type with polished, chrome-plated finish.
   f. Bare Piping in Unfinished Service Spaces: One-piece, cast-brass type with polished, chrome-plated finish.
   g. Bare Piping in Equipment Rooms: One-piece, cast-brass type with polished, chrome-plated finish.

2. Escutcheons for Existing Piping:
   a. Chrome-Plated Piping: Split-casting brass type with polished, chrome-plated finish.
   b. Insulated Piping: Split-plate, stamped-steel type with concealed or exposed-rivet hinge.
   c. Bare Piping at Wall and Floor Penetrations in Finished Spaces: Split-casting brass type with polished, chrome-plated finish.
   d. Bare Piping at Ceiling Penetrations in Finished Spaces: Split-casting brass type with polished, chrome-plated finish.
   e. Bare Piping in Unfinished Service Spaces: Split-casting brass type with polished, chrome-plated finish.
   f. Bare Piping in Equipment Rooms: Split-casting brass type with polished, chrome-plated finish.

C. Install floor plates for piping penetrations of equipment-room floors.

D. Install floor plates with ID to closely fit around pipe, tube, and insulation of piping and with OD that completely covers opening.

1. New Piping: One-piece, floor-plate type.
2. Existing Piping: Split-casting, floor-plate type.

3.2 FIELD QUALITY CONTROL

A. Replace broken and damaged escutcheons and floor plates using new materials.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Metal pipe hangers and supports.
2. Trapeze pipe hangers.
3. Metal framing systems.
4. Fastener systems.
5. Equipment supports.

B. Related Sections:

1. Section 055000 "Metal Fabrications" for structural-steel shapes and plates for trapeze hangers for pipe and equipment supports.
2. Section 220516 "Expansion Fittings and Loops for Plumbing Piping" for pipe guides and anchors.
3. Section 220548 "Vibration and Seismic Controls for Plumbing Piping and Equipment" for vibration isolation devices.

1.3 DEFINITIONS

A. MSS: Manufacturers Standardization Society of The Valve and Fittings Industry Inc.

1.4 PERFORMANCE REQUIREMENTS

A. Delegated Design: Design trapeze pipe hangers and equipment supports, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

B. Structural Performance: Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEI 7.

1. Design supports for multiple pipes, including pipe stands, capable of supporting combined weight of supported systems, system contents, and test water.
2. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.
3. Design seismic-restraint hangers and supports for piping and equipment and obtain approval from authorities having jurisdiction.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: Signed and sealed by a qualified professional engineer. Show fabrication and installation details and include calculations for the following; include Product Data for components:
   1. Trapeze pipe hangers.
   2. Metal framing systems.
   3. Pipe stands.
   4. Equipment supports.

C. Delegated-Design Submittal: For trapeze hangers indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
   1. Detail fabrication and assembly of trapeze hangers.
   2. Design Calculations: Calculate requirements for designing trapeze hangers.

1.6 INFORMATIONAL SUBMITTALS

A. Welding certificates.

1.7 QUALITY ASSURANCE

A. Structural Steel Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."

B. Pipe Welding Qualifications: Qualify procedures and operators according to ASME Boiler and Pressure Vessel Code.

PART 2 - PRODUCTS

2.1 METAL PIPE HANGERS AND SUPPORTS

A. Carbon-Steel Pipe Hangers and Supports:
   1. Description: MSS SP-58, Types 1 through 58, factory-fabricated components.
   2. Galvanized Metallic Coatings: Pregalvanized or hot dipped.
   3. Nonmetallic Coatings: Plastic coating, jacket, or liner.
   4. Padded Hangers: Hanger with fiberglass or other pipe insulation pad or cushion to support bearing surface of piping.

B. Copper Pipe Hangers:
1. Description: MSS SP-58, Types 1 through 58, copper-coated-steel, factory-fabricated components.

2.2 TRAPEZE PIPE HANGERS

A. Description: MSS SP-69, Type 59, shop- or field-fabricated pipe-support assembly made from structural carbon-steel shapes with MSS SP-58 carbon-steel hanger rods, nuts, saddles, and U-bolts.

2.3 FASTENER SYSTEMS

A. Mechanical-Expansion Anchors: Insert-wedge-type, stainless-steel anchors, for use in hardened portland cement concrete; with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.

2.4 EQUIPMENT SUPPORTS

A. Description: Welded, shop- or field-fabricated equipment support made from structural carbon-steel shapes.

2.5 MISCELLANEOUS MATERIALS

A. Structural Steel: ASTM A 36/A 36M, carbon-steel plates, shapes, and bars; black and galvanized.
B. Grout: ASTM C 1107, factory-mixed and -packaged, dry, hydraulic-cement, nonshrink and nonmetallic grout; suitable for interior and exterior applications.

2. Design Mix: 5000-psi, 28-day compressive strength.

PART 3 - EXECUTION

3.1 HANGER AND SUPPORT INSTALLATION

A. Metal Pipe-Hanger Installation: Comply with MSS SP-69 and MSS SP-89. Install hangers, supports, clamps, and attachments as required to properly support piping from the building structure.

B. Metal Trapeze Pipe-Hanger Installation: Comply with MSS SP-69 and MSS SP-89. Arrange for grouping of parallel runs of horizontal piping, and support together on field-fabricated trapeze pipe hangers.

1. Pipes of Various Sizes: Support together and space trapezes for smallest pipe size or install intermediate supports for smaller diameter pipes as specified for individual pipe hangers.
2. Field fabricate from ASTM A 36/A 36M, carbon-steel shapes selected for loads being supported. Weld steel according to AWS D1.1/D1.1M.
C. Fastener System Installation:
   1. Install powder-actuated fasteners for use in lightweight concrete or concrete slabs less than 4 inches thick in concrete after concrete is placed and completely cured. Use operators that are licensed by powder-actuated tool manufacturer. Install fasteners according to powder-actuated tool manufacturer's operating manual.
   2. Install mechanical-expansion anchors in concrete after concrete is placed and completely cured. Install fasteners according to manufacturer's written instructions.

D. Install hangers and supports complete with necessary attachments, inserts, bolts, rods, nuts, washers, and other accessories.


F. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.

G. Install lateral bracing with pipe hangers and supports to prevent swaying.

H. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.

I. Load Distribution: Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.

J. Pipe Slopes: Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.

3.2 EQUIPMENT SUPPORTS

A. Fabricate structural-steel stands to suspend equipment from structure overhead or to support equipment above floor.

B. Grouting: Place grout under supports for equipment and make bearing surface smooth.

C. Provide lateral bracing, to prevent swaying, for equipment supports.

3.3 METAL FABRICATIONS

A. Cut, drill, and fit miscellaneous metal fabrications for equipment supports.

B. Fit exposed connections together to form hairline joints. Field weld connections that cannot be shop welded because of shipping size limitations.

C. Field Welding: Comply with AWS D1.1/D1.1M procedures for shielded, metal arc welding; appearance and quality of welds; and methods used in correcting welding work; and with the following:
   1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. Finish welds at exposed connections so no roughness shows after finishing and so contours of welded surfaces match adjacent contours.

3.4 ADJUSTING

A. Hanger Adjustments: Adjust hangers to distribute loads equally on attachments and to achieve indicated slope of pipe.

B. Trim excess length of continuous-thread hanger and support rods to 1-1/2 inches.

3.5 PAINTING

A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.

1. Apply paint by brush or spray to provide a minimum dry film thickness of 2.0 mils.

B. Touchup: Cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint on miscellaneous metal are specified in Section 099123 "Interior Painting."

C. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

3.6 HANGER AND SUPPORT SCHEDULE

A. Specific hanger and support requirements are in Sections specifying piping systems and equipment.

B. Comply with MSS SP-69 for pipe-hanger selections and applications that are not specified in piping system Sections.

C. Use hangers and supports with galvanized metallic coatings for piping and equipment that will not have field-applied finish.

D. Use nonmetallic coatings on attachments for electrolytic protection where attachments are in direct contact with copper tubing.

E. Use carbon-steel pipe hangers and supports and metal framing systems and attachments for general service applications.

F. Use copper-plated pipe hangers and copper attachments for copper piping and tubing.

G. Use padded hangers for piping that is subject to scratching.

H. Horizontal-Piping Hangers and Supports: Unless otherwise indicated and except as specified in piping system Sections, install the following types:

1. Adjustable, Steel Clevis Hangers (MSS Type 1): For suspension of noninsulated or insulated, stationary pipes NPS 1/2 to NPS 30.
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2. Carbon- or Alloy-Steel, Double-Bolt Pipe Clamps (MSS Type 3): For suspension of pipes NPS 3/4 to NPS 36, requiring clamp flexibility and up to 4 inches of insulation. 
3. Steel Pipe Clamps (MSS Type 4): For suspension of cold and hot pipes NPS 1/2 to NPS 24 if little or no insulation is required.
4. Pipe Hangers (MSS Type 5): For suspension of pipes NPS 1/2 to NPS 4, to allow off-center closure for hanger installation before pipe erection.
5. Adjustable, Swivel Split- or Solid-Ring Hangers (MSS Type 6): For suspension of uninsulated, stationary pipes NPS 3/4 to NPS 8.
6. Adjustable, Steel Band Hangers (MSS Type 7): For suspension of uninsulated, stationary pipes NPS 1/2 to NPS 8.
7. Adjustable Band Hangers (MSS Type 9): For suspension of uninsulated, stationary pipes NPS 1/2 to NPS 8.
8. Adjustable, Swivel-Ring Band Hangers (MSS Type 10): For suspension of uninsulated, stationary pipes NPS 3/4 to NPS 8.
9. Split Pipe Ring with or without Turnbuckle Hangers (MSS Type 11): For suspension of uninsulated, stationary pipes NPS 3/8 to NPS 8.
10. Extension Hinged or Two-Bolt Split Pipe Clamps (MSS Type 12): For suspension of uninsulated, stationary pipes NPS 3/8 to NPS 3.

I. Vertical-Piping Clamps: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Extension Pipe or Riser Clamps (MSS Type 8): For support of pipe risers NPS 3/4 to NPS 24.
2. Carbon- or Alloy-Steel Riser Clamps (MSS Type 42): For support of pipe risers NPS 3/4 to NPS 24 if longer ends are required for riser clamps.

J. Hanger-Rod Attachments: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Steel Turnbuckles (MSS Type 13): For adjustment up to 6 inches for heavy loads.
2. Steel Clevises (MSS Type 14): For 120 to 450 deg F piping installations.
3. Swivel Turnbuckles (MSS Type 15): For use with MSS Type 11, split pipe rings.
4. Malleable-Iron Sockets (MSS Type 16): For attaching hanger rods to various types of building attachments.
5. Steel Weldless Eye Nuts (MSS Type 17): For 120 to 450 deg F piping installations.

K. Building Attachments: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Steel or Malleable Concrete Inserts (MSS Type 18): For upper attachment to suspend pipe hangers from concrete ceiling.
2. Top-Beam C-Clamps (MSS Type 19): For use under roof installations with bar joist construction, to attach to top flange of structural shape.
3. Side-Beam or Channel Clamps (MSS Type 20): For attaching to bottom flange of beams, channels, or angles.
4. Center-Beam Clamps (MSS Type 21): For attaching to center of bottom flange of beams.
5. Welded Beam Attachments (MSS Type 22): For attaching to bottom of beams if loads are considerable and rod sizes are large.
6. C-Clamps (MSS Type 23): For structural shapes.
7. Top-Beam Clamps (MSS Type 25): For top of beams if hanger rod is required tangent to flange edge.
8. Side-Beam Clamps (MSS Type 27): For bottom of steel I-beams.
9. Steel-Beam Clamps with Eye Nuts (MSS Type 28): For attaching to bottom of steel I-beams for heavy loads.
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10. Linked-Steel Clamps with Eye Nuts (MSS Type 29): For attaching to bottom of steel I-beams for heavy loads, with link extensions.
11. Malleable-Beam Clamps with Extension Pieces (MSS Type 30): For attaching to structural steel.
12. Welded-Steel Brackets: For support of pipes from below or for suspending from above by using clip and rod. Use one of the following for indicated loads:
   a. Light (MSS Type 31): 750 lb.
   b. Medium (MSS Type 32): 1500 lb.
   c. Heavy (MSS Type 33): 3000 lb.
13. Side-Beam Brackets (MSS Type 34): For sides of steel or wooden beams.
14. Plate Lugs (MSS Type 57): For attaching to steel beams if flexibility at beam is required.
15. Horizontal Travelers (MSS Type 58): For supporting piping systems subject to linear horizontal movement where headroom is limited.

L. Comply with MSS SP-69 for trapeze pipe-hanger selections and applications that are not specified in piping system Sections.

M. Comply with MFMA-103 for metal framing system selections and applications that are not specified in piping system Sections.

N. Use mechanical-expansion anchors instead of building attachments where required in concrete construction.

O. Use pipe positioning systems in pipe spaces behind plumbing fixtures to support supply and waste piping for plumbing fixtures.

END OF SECTION
PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
   1. Equipment labels.
   2. Pipe labels.
   3. Stencils.
   4. Valve tags.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.
B. Samples: For color, letter style, and graphic representation required for each identification material and device.
C. Equipment Label Schedule: Include a listing of all equipment to be labeled with the proposed content for each label.
D. Valve numbering scheme.
E. Valve Schedules: For each piping system to include in maintenance manuals.

1.4 COORDINATION

A. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.
B. Coordinate installation of identifying devices with locations of access panels and doors.
C. Install identifying devices before installing acoustical ceilings and similar concealment.
PART 2 - PRODUCTS

2.1 EQUIPMENT LABELS

A. Metal Labels for Equipment:
   1. Material and Thickness: Brass, 0.032-inch minimum thickness, and having predrilled or stamped holes for attachment hardware.
   2. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch.
   3. Minimum Letter Size: 1/4 inch for name of units if viewing distance is less than 24 inches, 1/2 inch for viewing distances up to 72 inches, and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.
   5. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.

B. Label Content: Include equipment’s Drawing designation or unique equipment number, Drawing numbers where equipment is indicated (plans, details, and schedules), plus the Specification Section number and title where equipment is specified.

C. Equipment Label Schedule: For each item of equipment to be labeled, on 8-1/2-by-11-inch (A4) bond paper. Tabulate equipment identification number and identify Drawing numbers where equipment is indicated (plans, details, and schedules), plus the Specification Section number and title where equipment is specified. Equipment schedule shall be included in operation and maintenance data.

2.2 PIPE LABELS

A. General Requirements for Manufactured Pipe Labels: Preprinted, color-coded, with lettering indicating service, and showing flow direction.

B. Pretensioned Pipe Labels: Precoiled, semirigid plastic formed to cover full circumference of pipe and to attach to pipe without fasteners or adhesive.

C. Self-Adhesive Pipe Labels: Printed plastic with contact-type, permanent-adhesive backing.

D. Pipe Label Contents: Include identification of piping service using same designations or abbreviations as used on Drawings, pipe size, and an arrow indicating flow direction.
   1. Flow-Direction Arrows: Integral with piping system service lettering to accommodate both directions, or as separate unit on each pipe label to indicate flow direction.
   2. Lettering Size: At least 1-1/2 inches high.

2.3 STENCILS

A. Stencils: Prepared with letter sizes according to ASME A13.1 for piping; and minimum letter height of 3/4 inch for access panel and door labels, equipment labels, and similar operational instructions.
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2. Stencil Paint: Exterior, gloss, alkyd enamel black unless otherwise indicated. Paint may be in pressurized spray-can form.
3. Identification Paint: Exterior, alkyd enamel in colors according to ASME A13.1 unless otherwise indicated.

2.4 VALVE TAGS

A. Valve Tags: Stamped or engraved with 1/4-inch letters for piping system abbreviation and 1/2-inch numbers.

1. Tag Material: Brass, 0.032-inch minimum thickness, and having predrilled or stamped holes for attachment hardware.
2. Fasteners: Brass wire-link or beaded chain; or S-hook.

B. Valve Schedules: For each piping system, on 8-1/2-by-11-inch (A4) bond paper. Tabulate valve number, piping system, system abbreviation (as shown on valve tag), location of valve (room or space), normal-operating position (open, closed, or modulating), and variations for identification. Mark valves for emergency shutoff and similar special uses.

1. Valve-tag schedule shall be included in operation and maintenance data.

2.5 PREPARATION

A. Clean piping and equipment surfaces of substances that could impair bond of identification devices, including dirt, oil, grease, release agents, and incompatible primers, paints, and encapsulants.

2.6 EQUIPMENT LABEL INSTALLATION

A. Install or permanently fasten labels on each major item of mechanical equipment.

B. Locate equipment labels where accessible and visible.

2.7 PIPE LABEL INSTALLATION

A. Piping Color-Coding: Painting of piping is specified in Section 099123 "Interior Painting."

B. Stenciled Pipe Label Option: Stenciled labels may be provided instead of manufactured pipe labels, at Installer's option. Install stenciled pipe labels with painted, color-coded bands or rectangles, complying with ASME A13.1, on each piping system.

1. Identification Paint: Use for contrasting background.

C. Locate pipe labels where piping is exposed or above accessible ceilings in finished spaces; machine rooms; accessible maintenance spaces such as shafts, tunnels, and plenums; and exterior exposed locations as follows:

1. Near each valve and control device.
2. Near each branch connection, excluding short takeoffs for fixtures and terminal units. Where flow pattern is not obvious, mark each pipe at branch.
3. Near penetrations through walls, floors, ceilings, and inaccessible enclosures.
4. At access doors, manholes, and similar access points that permit view of concealed piping.
5. Near major equipment items and other points of origination and termination.
6. Spaced at maximum intervals of 25 feet along each run. Reduce intervals to 10 feet in areas of congested piping and equipment.

D. Pipe Label Color Schedule:

1. Domestic Water Piping:
   b. Letter Color: Blue.
2. Sanitary Waste Piping:
   a. Background Color: Black.

2.8 VALVE-TAG INSTALLATION

A. Install tags on valves and control devices in piping systems, except check valves; valves within factory-fabricated equipment units; shutoff valves; faucets; convenience and lawn-watering hose connections; and similar roughing-in connections of end-use fixtures and units. List tagged valves in a valve schedule.

B. Valve-Tag Application Schedule: Tag valves according to size, shape, and color scheme and with captions similar to those indicated in the following subparagraphs:

1. Valve-Tag Size and Shape:

2. Valve-Tag Color:

3. Letter Color:

END OF SECTION
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SECTION 221116
DOMESTIC WATER PIPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY
A. Section Includes:
   1. Under-building-slab and aboveground domestic water pipes, tubes, and fittings inside buildings.

1.3 ACTION SUBMITTALS
A. Product Data: For transition fittings and dielectric fittings.

1.4 INFORMATIONAL SUBMITTALS
A. System purging and disinfecting activities report.
B. Field quality-control reports.

1.5 FIELD CONDITIONS
A. Interruption of Existing Water Service: Do not interrupt water service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary water service according to requirements indicated:
   1. Notify Owner no fewer than 7 days in advance of proposed interruption of water service.
   2. Do not interrupt water service without Owner's written permission.

PART 2 - PRODUCTS

2.1 PIPING MATERIALS
A. Comply with requirements in "Piping Schedule" Article for applications of pipe, tube, fitting materials, and joining methods for specific services, service locations, and pipe sizes.
B. Potable-water piping and components shall comply with NSF 14 and NSF 61. Plastic piping components shall be marked with "NSF-pw."
2.2 COPPER TUBE AND FITTINGS

A. Hard Copper Tube: ASTM B 88, Type L water tube, drawn temper.
B. Cast-Copper, Solder-Joint Fittings: ASME B16.18, pressure fittings.
D. Bronze Flanges: ASME B16.24, Class 150, with solder-joint ends.
E. Copper Unions:
   1. MSS SP-123.
   4. Solder-joint or threaded ends.

2.3 PIPING JOINING MATERIALS

A. Solder Filler Metals: ASTM B 32, lead-free alloys.
B. Flux: ASTM B 813, water flushable.
C. Brazing Filler Metals: AWS A5.8/A5.8M, BCuP Series, copper-phosphorus alloys for general-duty brazing unless otherwise indicated.

2.4 TRANSITION FITTINGS

A. General Requirements:
   1. Same size as pipes to be joined.
   2. Pressure rating at least equal to pipes to be joined.
   3. End connections compatible with pipes to be joined.
B. Plastic-to-Metal Transition Fittings:
   1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
      b. Harvel Plastics, Inc.
      c. Spears Manufacturing Company.

   2. Description:
      a. CPVC or PVC one-piece fitting with manufacturer's Schedule 80 equivalent dimensions.
      b. One end with threaded brass insert and one solvent-cement-socket or threaded end.

C. Plastic-to-Metal Transition Unions:
   1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
a. Colonial Engineering, Inc.
b. NIBCO Inc.
c. Spears Manufacturing Company.

2. Description:
   a. CPVC or PVC four-part union.
   b. Brass threaded end.
   c. Solvent-cement-joint or threaded plastic end.
   d. Rubber O-ring.
   e. Union nut.

2.5 DIELECTRIC FITTINGS

A. General Requirements: Assembly of copper alloy and ferrous materials with separating nonconductive insulating material. Include end connections compatible with pipes to be joined.

B. Dielectric Unions:
   1. Basis-of-Design Product: Subject to compliance with requirements, provide [product indicated on Drawings] <Insert manufacturer's name; product name or designation> or comparable product by one of the following:
      a. Wilkins; a Zurn company.
      b. Central Plastics Company.
      d. Jomar International.
      e. Matco-Norca.
      g. Watts; a division of Watts Water Technologies, Inc.


PART 3 - EXECUTION

3.1 EARTHWORK

A. Comply with requirements in Section 312000 "Earth Moving" for excavating, trenching, and backfilling.

3.2 PIPING INSTALLATION

A. Drawing plans, schematics, and diagrams indicate general location and arrangement of domestic water piping. Indicated locations and arrangements are used to size pipe and calculate friction loss, expansion, and other design considerations. Install piping as indicated unless deviations to layout are approved on coordination drawings.

B. Install copper tubing under building slab according to CDA's "Copper Tube Handbook."
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C. Install shutoff valve, hose-end drain valve, strainer, pressure gage, and test tee with valve inside the building at each domestic water-service entrance. Comply with requirements for pressure gages in Section 220519 "Meters and Gages for Plumbing Piping" and with requirements for drain valves and strainers in Section 221119 "Domestic Water Piping Specialties."

D. Install shutoff valve immediately upstream of each dielectric fitting.

E. Install domestic water piping level with 0.25 percent slope downward toward drain without pitch and plumb.

F. Install seismic restraints on piping. Comply with requirements for seismic-restraint devices in Section 220548 "Vibration and Seismic Controls for Plumbing Piping and Equipment."

G. Install piping concealed from view and protected from physical contact by building occupants unless otherwise indicated and except in equipment rooms and service areas.

H. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.

I. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal, and coordinate with other services occupying that space.

J. Install piping to permit valve servicing.

K. Install nipples, unions, special fittings, and valves with pressure ratings the same as or higher than the system pressure rating used in applications below unless otherwise indicated.

L. Install piping free of sags and bends.

M. Install fittings for changes in direction and branch connections.

N. Install unions in copper tubing at final connection to each piece of equipment, machine, and specialty.

O. Install sleeves for piping penetrations of walls, ceilings, and floors. Comply with requirements for sleeves specified in Section 220517 "Sleeves and Sleeve Seals for Plumbing Piping."

P. Install sleeve seals for piping penetrations of concrete walls and slabs. Comply with requirements for sleeve seals specified in Section 220517 "Sleeves and Sleeve Seals for Plumbing Piping."

Q. Install escutcheons for piping penetrations of walls, ceilings, and floors. Comply with requirements for escutcheons specified in Section 220518 "Escutcheons for Plumbing Piping."

3.3 JOINT CONSTRUCTION

A. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.

B. Remove scale, slag, dirt, and debris from inside and outside of pipes, tubes, and fittings before assembly.
C. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:
   1. Apply appropriate tape or thread compound to external pipe threads.
   2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged.

D. Brazed Joints for Copper Tubing: Comply with CDA's "Copper Tube Handbook," "Brazed Joints" chapter.

E. Soldered Joints for Copper Tubing: Apply ASTM B 813, water-flushable flux to end of tube. Join copper tube and fittings according to ASTM B 828 or CDA's "Copper Tube Handbook."

F. Joints for Dissimilar-Material Piping: Make joints using adapters compatible with materials of both piping systems.

3.4 TRANSITION FITTING INSTALLATION

A. Install transition couplings at joints of dissimilar piping.

B. Transition Fittings in Underground Domestic Water Piping:
   1. Fittings for NPS 1-1/2 and Smaller: Fitting-type coupling.

C. Transition Fittings in Aboveground Domestic Water Piping NPS 2 and Smaller: Plastic-to-metal transition fittings or unions.

3.5 DIELECTRIC FITTING INSTALLATION

A. Install dielectric fittings in piping at connections of dissimilar metal piping and tubing.

B. Dielectric Fittings for NPS 2 and Smaller: Use dielectric unions.

3.6 HANGER AND SUPPORT INSTALLATION

A. Comply with requirements for seismic-restraint devices in Section 220548 "Vibration and Seismic Controls for Plumbing Piping and Equipment."

B. Comply with requirements for pipe hanger, support products, and installation in Section 220529 "Hangers and Supports for Plumbing Piping and Equipment."
   1. Vertical Piping: MSS Type 8 or 42, clamps.
   2. Individual, Straight, Horizontal Piping Runs:
      a. 100 Feet and Less: MSS Type 1, adjustable, steel clevis hangers.
      b. Longer Than 100 Feet: MSS Type 43, adjustable roller hangers.
      c. Longer Than 100 Feet if Indicated: MSS Type 49, spring cushion rolls.
   3. Multiple, Straight, Horizontal Piping Runs 100 Feet or Longer: MSS Type 44, pipe rolls. Support pipe rolls on trapeze.
   4. Base of Vertical Piping: MSS Type 52, spring hangers.
C. Support vertical piping and tubing at base and at each floor.

D. Rod diameter may be reduced one size for double-rod hangers, to a minimum of 3/8 inch.

E. Install hangers for copper tubing with the following maximum horizontal spacing and minimum rod diameters:
   1. NPS 3/4 and Smaller: 60 inches with 3/8-inch rod.
   2. NPS 1 and NPS 1-1/4: 72 inches with 3/8-inch rod.
   3. NPS 1-1/2 and NPS 2: 96 inches with 3/8-inch rod.

F. Install supports for vertical copper tubing every 10 feet.

G. Support piping and tubing not listed in this article according to MSS SP-69 and manufacturer's written instructions.

3.7 CONNECTIONS

A. Drawings indicate general arrangement of piping, fittings, and specialties.

B. When installing piping adjacent to equipment and machines, allow space for service and maintenance.

C. Connect domestic water piping to exterior water-service piping. Use transition fitting to join dissimilar piping materials.

D. Connect domestic water piping to water-service piping with shutoff valve; extend and connect to the following:
   1. Plumbing Fixtures: Cold- and hot-water-supply piping in sizes indicated, but not smaller than that required by plumbing code.
   2. Equipment: Cold- and hot-water-supply piping as indicated, but not smaller than equipment connections. Provide shutoff valve and union for each connection. Use flanges instead of unions for NPS 2-1/2 and larger.

3.8 IDENTIFICATION

A. Identify system components. Comply with requirements for identification materials and installation in Section 220553 "Identification for Plumbing Piping and Equipment."

B. Label pressure piping with system operating pressure.

3.9 FIELD QUALITY CONTROL

A. Perform the following tests and inspections:

   1. Piping Inspections:
      a. Do not enclose, cover, or put piping into operation until it has been inspected and approved by authorities having jurisdiction.
      b. During installation, notify authorities having jurisdiction at least one day before inspection must be made. Perform tests specified below in presence of authorities having jurisdiction:
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1) Roughing-in Inspection: Arrange for inspection of piping before concealing or closing in after roughing in and before setting fixtures.

2) Final Inspection: Arrange for authorities having jurisdiction to observe tests specified in "Piping Tests" Subparagraph below and to ensure compliance with requirements.

c. Reinspection: If authorities having jurisdiction find that piping will not pass tests or inspections, make required corrections and arrange for reinspection.
d. Reports: Prepare inspection reports and have them signed by authorities having jurisdiction.

2. Piping Tests:

a. Fill domestic water piping. Check components to determine that they are not air bound and that piping is full of water.
b. Test for leaks and defects in new piping and parts of existing piping that have been altered, extended, or repaired. If testing is performed in segments, submit a separate report for each test, complete with diagram of portion of piping tested.
c. Leave new, altered, extended, or replaced domestic water piping uncovered and unconcealed until it has been tested and approved. Expose work that was covered or concealed before it was tested.
d. Cap and subject piping to static water pressure of 50 psig above operating pressure, without exceeding pressure rating of piping system materials. Isolate test source and allow it to stand for four hours. Leaks and loss in test pressure constitute defects that must be repaired.
e. Repair leaks and defects with new materials, and retest piping or portion thereof until satisfactory results are obtained.
f. Prepare reports for tests and for corrective action required.

B. Domestic water piping will be considered defective if it does not pass tests and inspections.

C. Prepare test and inspection reports.

3.10 ADJUSTING

A. Perform the following adjustments before operation:

1. Close drain valves, hydrants, and hose bibbs.
2. Open shutoff valves to fully open position.
3. Remove plugs used during testing of piping and for temporary sealing of piping during installation.
5. Remove filter cartridges from housings and verify that cartridges are as specified for application where used and are clean and ready for use.
6. Check plumbing specialties and verify proper settings, adjustments, and operation.

3.11 CLEANING

A. Clean and disinfect potable domestic water piping as follows:

1. Purge new piping and parts of existing piping that have been altered, extended, or repaired before using.
2. Use purging and disinfecting procedures prescribed by authorities having jurisdiction; if methods are not prescribed, use procedures described in either AWWA C651 or AWWA C652 or follow procedures described below:

   a. Flush piping system with clean, potable water until dirty water does not appear at outlets.
   b. Fill and isolate system according to either of the following:
      1) Fill system or part thereof with water/chlorine solution with at least 50 ppm of chlorine. Isolate with valves and allow to stand for 24 hours.
      2) Fill system or part thereof with water/chlorine solution with at least 200 ppm of chlorine. Isolate and allow to stand for three hours.
   c. Flush system with clean, potable water until no chlorine is in water coming from system after the standing time.
   d. Repeat procedures if biological examination shows contamination.
   e. Submit water samples in sterile bottles to authorities having jurisdiction.
   f. Submit test result certificates to the District for acceptance if biological examination shows no contamination per AWWA C651, AWWA C652 and California State Department of Public Health code and standards.

B. Prepare and submit reports of purging and disinfecting activities. Include copies of water-sample approvals from authorities having jurisdiction.

C. Clean interior of domestic water piping system. Remove dirt and debris as work progresses.

3.12 PIPING SCHEDULE

A. Transition and special fittings with pressure ratings at least equal to piping rating may be used in applications below unless otherwise indicated.

B. Flanges and unions may be used for aboveground piping joints unless otherwise indicated.

C. Under-building-slab, domestic water piping, NPS 2 and smaller, shall be the following:
   1. Hard copper tube, ASTM B 88, Type L; wrought-copper, solder-joint fittings; and brazed joints.

D. Aboveground domestic water piping, NPS 2 and smaller, shall be the following:
   1. Hard copper tube, ASTM B 88, Type L; wrought-copper, solder-joint fittings; and soldered joints.

3.13 VALVE SCHEDULE

A. Drawings indicate valve types to be used. Where specific valve types are not indicated, the following requirements apply:
   1. Shutoff Duty: Use ball or gate valves for piping NPS 2 and smaller. Use butterfly, ball, or gate valves with flanged ends for piping NPS 2-1/2 and larger.
   2. Drain Duty: Hose-end drain valves.

B. Use check valves to maintain correct direction of domestic water flow to and from equipment.
PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
   1. Vacuum breakers.
   2. Hose bibbs.
   3. Water-hammer arresters.

B. Related Requirements:
   1. Section 221116 "Domestic Water Piping" for water meters.
   2. Section 223200 "Domestic Water Filtration Equipment" for water filters in domestic water piping.
   3. Section 224713 "Drinking Fountains" for water filters for water coolers.
   4. Section 224716 "Pressure Water Coolers" for water filters for water coolers.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For domestic water piping specialties.
   1. Include diagrams for power, signal, and control wiring.

1.4 INFORMATIONAL SUBMITTALS

A. Field quality-control reports.

1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For domestic water piping specialties to include in emergency, operation, and maintenance manuals.
PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS FOR PIPING SPECIALTIES

A. Potable-water piping and components shall comply with NSF 61.

2.2 PERFORMANCE REQUIREMENTS

A. Minimum Working Pressure for Domestic Water Piping Specialties: 125 psig unless otherwise indicated.

2.3 VACUUM BREAKERS

A. Hose-Connection Vacuum Breakers:
   1. **Basis-of-Design Product**: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
      a. Zurn Industries, LLC; Plumbing Products Group; Light Commercial Products.
      b. Zurn Industries, LLC; Plumbing Products Group; Wilkins Water Control Products.
   5. Finish: Chrome or nickel plated.

2.4 HOSE BIBBS

A. Hose Bibbs:
   4. Supply Connections: NPS 1/2 or NPS 3/4 threaded or solder-joint inlet.
   5. Outlet Connection: Garden-hose thread complying with ASME B1.20.7.
   7. Vacuum Breaker: Integral or field-installation, nonremovable, drainable, hose-connection vacuum breaker complying with ASSE 1011.
   8. Finish for Equipment Rooms: Rough bronze, or chrome or nickel plated.
   9. Finish for Service Areas: Chrome or nickel plated.
   10. Finish for Finished Rooms: Chrome or nickel plated.
   11. Operation for Equipment Rooms: Wheel handle or operating key.
   14. Include operating key with each operating-key hose bibb.
   15. Include integral wall flange with each chrome- or nickel-plated hose bibb.

2.5 WATER-HAMMER ARRESTERs

A. Water-Hammer Arresters:
   1. **Basis-of-Design Product**: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
PART 3 - EXECUTION

3.1 INSTALLATION

A. Install water-hammer arresters in water piping according to PDI-WH 201.

3.2 FIELD QUALITY CONTROL

A. Domestic water piping specialties will be considered defective if they do not pass tests and inspections.

B. Prepare test and inspection reports.

END OF SECTION
PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY
A. Section Includes:
   1. Pipe, tube, and fittings.
   2. Specialty pipe fittings.
   3. Encasement for underground metal piping.

1.3 PERFORMANCE REQUIREMENTS
A. Components and installation shall be capable of withstanding the following minimum working pressure unless otherwise indicated:
B. Seismic Performance: Soil, waste, and vent piping and support and installation shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.

1.4 ACTION SUBMITTALS
A. Product Data: For each type of product indicated.

1.5 INFORMATIONAL SUBMITTALS
A. Seismic Qualification Certificates: For waste and vent piping, accessories, and components, from manufacturer.
   1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.
   2. Detailed description of piping anchorage devices on which the certification is based and their installation requirements.
B. Field quality-control reports.
1.6 QUALITY ASSURANCE

A. Piping materials shall bear label, stamp, or other markings of specified testing agency.


1.7 PROJECT CONDITIONS

A. Interruption of Existing Sanitary Waste Service: Do not interrupt service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary service according to requirements indicated:

1. Notify Owner no fewer than seven days in advance of proposed interruption of sanitary waste service.
2. Do not proceed with interruption of sanitary waste service without Owner's written permission.

PART 2 - PRODUCTS

2.1 PIPING MATERIALS

A. Comply with requirements in "Piping Schedule" Article for applications of pipe, tube, fitting materials, and joining methods for specific services, service locations, and pipe sizes.

2.2 HUBLESS, CAST-IRON SOIL PIPE AND FITTINGS

A. Pipe and Fittings: ASTM A 888 or CISPI 301.

B. Sovent Stack Fittings: ASME B16.45 or ASSE 1043, hubless, cast-iron aerator and deaerator drainage fittings.

C. Heavy-Duty, Hubless-Piping Couplings:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

   a. ANACO-Husky.
   b. Clamp-All Corp.
   d. MIFAB, Inc.
   e. Mission Rubber Company; a division of MCP Industries, Inc.
   f. Stant.
   g. Tyler Pipe.

3. Description: Stainless-steel shield with stainless-steel bands and tightening devices; and ASTM C 564, rubber sleeve with integral, center pipe stop.
COPPER TUBE AND FITTINGS

A. Copper DWV Tube: ASTM B 306, drainage tube, drawn temper.

B. Copper Drainage Fittings: ASME B16.23, cast copper or ASME B16.29, wrought copper, solder-joint fittings.

C. Solder: ASTM B 32, lead free with ASTM B 813, water-flushable flux.

SPECIALTY PIPE FITTINGS

A. Transition Couplings:

1. General Requirements: Fitting or device for joining piping with small differences in OD's or of different materials. Include end connections same size as and compatible with pipes to be joined.

2. Fitting-Type Transition Couplings: Manufactured piping coupling or specified piping system fitting.

3. Unshielded, Nonpressure Transition Couplings:

   a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

      2) Fernco Inc.
      3) Mission Rubber Company; a division of MCP Industries, Inc.
      4) Plastic Oddities; a division of Diverse Corporate Technologies, Inc.


   c. Description: Elastomeric, sleeve-type, reducing or transition pattern. Include shear ring and corrosion-resistant-metal tension band and tightening mechanism on each end.

   d. Sleeve Materials:

      2) For Plastic Pipes: ASTM F 477, elastomeric seal or ASTM D 5926, PVC.
      3) For Dissimilar Pipes: ASTM D 5926, PVC or other material compatible with pipe materials being joined.

B. Dielectric Fittings:

1. General Requirements: Assembly of copper alloy and ferrous materials with separating nonconductive insulating material. Include end connections compatible with pipes to be joined.

2. Dielectric Unions:

   a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

      1) Capitol Manufacturing Company.
      2) Central Plastics Company.
      3) Hart Industries International, Inc.
      4) Jomar International Ltd.
      5) Matco-Norca, Inc.
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7) Watts Regulator Co.; a division of Watts Water Technologies, Inc.
8) Wilkins; a Zurn company.

b. Description:

1) Standard: ASSE 1079.
2) Pressure Rating: 125 psig minimum at 180 deg F.
3) End Connections: Solder-joint copper alloy and threaded ferrous.

2.5 ENCASEMENT FOR UNDERGROUND METAL PIPING

A. Standard: ASTM A 674 or AWWA C105/A 21.5.

B. Material: Linear low-density polyethylene film of 0.008-inch minimum thickness.

C. Form: Sheet.

D. Color: Black.

PART 3 - EXECUTION

3.1 EARTH MOVING

A. Comply with requirements for excavating, trenching, and backfilling specified in Section 312000 "Earth Moving."

3.2 PIPING INSTALLATION

A. Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, pump sizing, and other design considerations. Install piping as indicated unless deviations to layout are approved on coordination drawings.

B. Install piping in concealed locations unless otherwise indicated and except in equipment rooms and service areas.

C. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.

D. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal.

E. Install piping to permit valve servicing.

F. Install piping at indicated slopes.

G. Install piping free of sags and bends.

H. Install fittings for changes in direction and branch connections.
I. Install piping to allow application of insulation.

J. Install seismic restraints on piping. Comply with requirements for seismic-restraint devices specified in Section 220548 "Vibration and Seismic Controls for Plumbing Piping and Equipment."

K. Make changes in direction for soil and waste drainage and vent piping using appropriate branches, bends, and long-sweep bends. Sanitary tees and short-sweep 1/4 bends may be used on vertical stacks if change in direction of flow is from horizontal to vertical. Use long-turn, double Y-branch and 1/8-bend fittings if two fixtures are installed back to back or side by side with common drain pipe. Straight tees, elbows, and crosses may be used on vent lines. Do not change direction of flow more than 90 degrees. Use proper size of standard increasers and reducers if pipes of different sizes are connected. Reducing size of drainage piping in direction of flow is prohibited.

L. Lay buried building drainage piping beginning at low point of each system. Install true to grades and alignment indicated, with unbroken continuity of invert. Place hub ends of piping upstream. Install required gaskets according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements. Maintain swab in piping and pull past each joint as completed.

M. Install soil and waste drainage and vent piping at the following minimum slopes unless otherwise indicated:

1. Building Sanitary Drain: 2 percent downward in direction of flow for piping NPS 3 and smaller; 2 percent downward in direction of flow for piping NPS 4 (DN 100) and larger.
2. Horizontal Sanitary Drainage Piping: 2 percent downward in direction of flow.
3. Vent Piping: 1 percent down toward vertical fixture vent or toward vent stack.

N. Install cast-iron soil piping according to CISPI's "Cast Iron Soil Pipe and Fittings Handbook," Chapter IV, "Installation of Cast Iron Soil Pipe and Fittings."

1. Install encasement on underground piping according to ASTM A 674 or AWWA C105/A 21.5.

O. Install aboveground copper tubing according to CDA's "Copper Tube Handbook."

P. Do not enclose, cover, or put piping into operation until it is inspected and approved by authorities having jurisdiction.

Q. Install sleeves for piping penetrations of walls, ceilings, and floors. Comply with requirements for sleeves specified in Section 220517 "Sleeves and Sleeve Seals for Plumbing Piping."

R. Install sleeve seals for piping penetrations of concrete walls and slabs. Comply with requirements for sleeve seals specified in Section 220517 "Sleeves and Sleeve Seals for Plumbing Piping."

S. Install escutcheons for piping penetrations of walls, ceilings, and floors. Comply with requirements for escutcheons specified in Section 220518 "Escutcheons for Plumbing Piping."

3.3 JOINT CONSTRUCTION

A. Join hubless, cast-iron soil piping according to CISPI 310 and CISPI's "Cast Iron Soil Pipe and Fittings Handbook" for hubless-piping coupling joints.
B. Join copper tube and fittings with soldered joints according to ASTM B 828. Use ASTM B 813, water-flushable, lead-free flux and ASTM B 32, lead-free-alloy solder.

3.4 SPECIALTY PIPE FITTING INSTALLATION

A. Transition Couplings:
   1. Install transition couplings at joints of piping with small differences in OD's.

B. Dielectric Fittings:
   1. Install dielectric fittings in piping at connections of dissimilar metal piping and tubing.
   2. Dielectric Fittings for NPS 2 and Smaller: Use dielectric unions.
   3. Dielectric Fittings for NPS 2-1/2 to NPS 4: Use dielectric flanges.

3.5 HANGER AND SUPPORT INSTALLATION

A. Comply with requirements for seismic-restraint devices specified in Section 220548 "Vibration and Seismic Controls for Plumbing Piping and Equipment."

B. Comply with requirements for pipe hanger and support devices and installation specified in Section 220529 "Hangers and Supports for Plumbing Piping and Equipment."
   1. Install carbon-steel pipe hangers for horizontal piping in noncorrosive environments.
   2. Install carbon-steel pipe support clamps for vertical piping in noncorrosive environments.
   3. Vertical Piping: MSS Type 8 or Type 42, clamps.
   4. Install individual, straight, horizontal piping runs:
      a. 100 Feet and Less: MSS Type 1, adjustable, steel clevis hangers.
      b. Longer Than 100 Feet: MSS Type 43, adjustable roller hangers.
      c. Longer Than 100 Feet if Indicated: MSS Type 49, spring cushion rolls.
   5. Multiple, Straight, Horizontal Piping Runs 100 Feet or Longer: MSS Type 44, pipe rolls. Support pipe rolls on trapeze.
   6. Base of Vertical Piping: MSS Type 52, spring hangers.

C. Support horizontal piping and tubing within 12 inches of each fitting, valve, and coupling.

D. Support vertical piping and tubing at base and at each floor.

E. Rod diameter may be reduced one size for double-rod hangers, with 3/8-inch minimum rods.

F. Install hangers for cast-iron soil piping with the following maximum horizontal spacing and minimum rod diameters:
   1. NPS 1-1/2 and NPS 2: 60 inches with 3/8-inch rod.
   2. NPS 3: 60 inches with 1/2-inch rod.
   3. NPS 4 and NPS 5: 60 inches with 5/8-inch rod.
   4. Spacing for 10-foot lengths may be increased to 10 feet. Spacing for fittings is limited to 60 inches.
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G. Install supports for vertical cast-iron soil piping every 15 feet.

H. Install hangers for copper tubing with the following maximum horizontal spacing and minimum rod diameters:

1. NPS 1-1/4: 72 inches with 3/8-inch rod.
2. NPS 1-1/2 and NPS 2: 96 inches with 3/8-inch rod.

I. Support piping and tubing not listed above according to MSS SP-69 and manufacturer's written instructions.

3.6 CONNECTIONS

A. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Connect soil and waste piping to exterior sanitary sewerage piping. Use transition fitting to join dissimilar piping materials.

C. Connect drainage and vent piping to the following:

1. Plumbing Fixtures: Connect drainage piping in sizes indicated, but not smaller than required by plumbing code.
2. Plumbing Fixtures and Equipment: Connect atmospheric vent piping in sizes indicated, but not smaller than required by authorities having jurisdiction.
3. Plumbing Specialties: Connect drainage and vent piping in sizes indicated, but not smaller than required by plumbing code.
4. Install test tees (wall cleanouts) in conductors near floor and floor cleanouts with cover flush with floor.

D. Where installing piping adjacent to equipment, allow space for service and maintenance of equipment.

3.7 IDENTIFICATION

A. Identify exposed sanitary waste and vent piping. Comply with requirements for identification specified in Section 220553 "Identification for Plumbing Piping and Equipment."

3.8 FIELD QUALITY CONTROL

A. During installation, notify authorities having jurisdiction at least 24 hours before inspection must be made. Perform tests specified below in presence of authorities having jurisdiction.

1. Roughing-in Inspection: Arrange for inspection of piping before concealing or closing-in after roughing-in and before setting fixtures.
2. Final Inspection: Arrange for final inspection by authorities having jurisdiction to observe tests specified below and to ensure compliance with requirements.

B. Reinspection: If authorities having jurisdiction find that piping will not pass test or inspection, make required corrections and arrange for reinspection.

C. Reports: Prepare inspection reports and have them signed by authorities having jurisdiction.
D. Test sanitary drainage and vent piping according to procedures of authorities having jurisdiction or, in absence of published procedures, as follows:

1. Test for leaks and defects in new piping and parts of existing piping that have been altered, extended, or repaired. If testing is performed in segments, submit separate report for each test, complete with diagram of portion of piping tested.

2. Leave uncovered and unconcealed new, altered, extended, or replaced drainage and vent piping until it has been tested and approved. Expose work that was covered or concealed before it was tested.

3. Roughing-in Plumbing Test Procedure: Test drainage and vent piping except outside leaders on completion of roughing-in. Close openings in piping system and fill with water to point of overflow, but not less than 10-foot head of water. From 15 minutes before inspection starts to completion of inspection, water level must not drop. Inspect joints for leaks.

4. Finished Plumbing Test Procedure: After plumbing fixtures have been set and traps filled with water, test connections and prove they are gastight and watertight. Plug vent-stack openings on roof and building drains where they leave building. Introduce air into piping system equal to pressure of 1-inch wg. Use U-tube or manometer inserted in trap of water closet to measure this pressure. Air pressure must remain constant without introducing additional air throughout period of inspection. Inspect plumbing fixture connections for gas and water leaks.

5. Repair leaks and defects with new materials and retest piping, or portion thereof, until satisfactory results are obtained.

6. Prepare reports for tests and required corrective action.

3.9 CLEANING AND PROTECTION

A. Clean interior of piping. Remove dirt and debris as work progresses.

B. Protect drains during remainder of construction period to avoid clogging with dirt and debris and to prevent damage from traffic and construction work.

C. Place plugs in ends of uncompleted piping at end of day and when work stops.

3.10 PIPING SCHEDULE

A. Flanges and unions may be used on aboveground pressure piping unless otherwise indicated.

B. Aboveground, soil and waste piping NPS 4 and smaller shall be any of the following:
   1. Hubless, cast-iron soil pipe and fittings; heavy-duty hubless-piping couplings; and coupled joints.
   2. Copper DWV tube, copper drainage fittings, and soldered joints.

C. Aboveground, vent piping NPS 4 and smaller shall be any of the following:
   1. Hubless, cast-iron soil pipe and fittings; heavy-duty hubless-piping couplings; and coupled joints.
   2. Copper DWV tube, copper drainage fittings, and soldered joints.

D. Underground, soil, waste, and vent piping NPS 4 and smaller shall be any of the following:
   1. Hubless, cast-iron soil pipe and fittings; heavy-duty hubless-piping couplings; and coupled joints.

END OF SECTION
PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY
A. Section Includes:
   1. Cleanouts.

1.3 DEFINITIONS
B. FOG: Fats, oils, and greases.
C. FRP: Fiberglass-reinforced plastic.
D. HDPE: High-density polyethylene plastic.
E. PE: Polyethylene plastic.
F. PP: Polypropylene plastic.
G. PVC: Polyvinyl chloride plastic.

1.4 ACTION SUBMITTALS
A. Product Data: For each type of product indicated.

1.5 CLOSEOUT SUBMITTALS
A. Operation and Maintenance Data: For drainage piping specialties to include in emergency, operation, and maintenance manuals.

1.6 QUALITY ASSURANCE
A. Drainage piping specialties shall bear label, stamp, or other markings of specified testing agency.
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PART 2 - PRODUCTS

2.1 CLEANOUTS

A. Exposed Metal Cleanouts:
1. Basis-of-Design Product: Subject to compliance with requirements, provide the product indicated on Drawings or a comparable product by one of the following:
   a. Zurn Plumbing Products Group; Specification Drainage Operation.
2. Standard: ASME A112.36.2M for cast iron for cleanout test tee.
3. Size: Same as connected drainage piping.
4. Body Material: Hubless, cast-iron soil pipe test tee as required to match connected piping.
5. Closure: Countersunk, brass plug.
6. Closure Plug Size: Same as or not more than one size smaller than cleanout size.

B. Metal Floor Cleanouts:
1. Basis-of-Design Product: Subject to compliance with requirements, provide the product indicated on Drawings or a comparable product by one of the following:
   a. Zurn Plumbing Products Group; Light Commercial Operation.
   b. Zurn Plumbing Products Group; Specification Drainage Operation.
2. Standard: ASME A112.36.2M for adjustable housing cleanout.
3. Size: Same as connected branch.
4. Type: Adjustable housing.
5. Body or Ferrule: Cast iron.
6. Clamping Device: Not required.
7. Outlet Connection: Inside calk.
8. Closure: Brass plug with straight threads and gasket.
9. Adjustable Housing Material: Cast iron with threads.
11. Frame and Cover Shape: Round.
12. Top Loading Classification: Medium Duty.
13. Riser: ASTM A 74, Service class, cast-iron drainage pipe fitting and riser to cleanout.
15. Size: Same as connected branch.
17. Closure: Stainless steel with seal.
18. Riser: Stainless-steel drainage pipe fitting to cleanout.

C. Cast-Iron Wall Cleanouts:
1. Basis-of-Design Product: Subject to compliance with requirements, provide the product indicated on Drawings or a comparable product by one of the following:
   a. Zurn Plumbing Products Group; Specification Drainage Operation.
2. Standard: ASME A112.36.2M. Include wall access.
3. Size: Same as connected drainage piping.
4. Body: Hubless, cast-iron soil pipe test tee as required to match connected piping.
5. Closure: Countersunk, cast-iron plug.
6. Closure Plug Size: Same as or not more than one size smaller than cleanout size.
2.2 AIR-ADMITTANCE VALVES

A. Fixture Air-Admittance Valves:
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   a. Studor, Inc.
   b. Durgo, Inc.
   c. Oatey.
   d. ProSet Systems Inc.
   e. RectorSeal.
2. Standard: ASSE 1051, Type A for single fixture or Type B for branch piping.
3. Housing: Plastic.
4. Operation: Mechanical sealing diaphragm.
5. Size: Same as connected fixture or branch vent piping.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install cleanouts in aboveground piping and building drain piping according to the following, unless otherwise indicated:
   1. Size same as drainage piping up to NPS 4. Use NPS 4 for larger drainage piping unless larger cleanout is indicated.
   2. Locate at each change in direction of piping greater than 45 degrees.
   3. Locate at minimum intervals of 50 feet for piping NPS 4 and smaller and 100 feet for larger piping.
   4. Locate at base of each vertical soil and waste stack.

B. For floor cleanouts for piping below floors, install cleanout deck plates with top flush with finished floor.

C. For cleanouts located in concealed piping, install cleanout wall access covers, of types indicated, with frame and cover flush with finished wall.

D. Install fixture air-admittance valves on fixture drain piping.

E. Install traps on plumbing specialty drain outlets. Omit traps on indirect wastes unless trap is indicated.

3.2 CONNECTIONS

A. Comply with requirements in Section 221316 "Sanitary Waste and Vent Piping" for piping installation requirements. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Install piping adjacent to equipment to allow service and maintenance.
3.3 FIELD QUALITY CONTROL

A. Tests and Inspections:

1. Leak Test: After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.
2. Test and adjust controls and safety. Replace damaged and malfunctioning controls and equipment.

3.4 PROTECTION

A. Protect drains during remainder of construction period to avoid clogging with dirt or debris and to prevent damage from traffic or construction work.

B. Place plugs in ends of uncompleted piping at end of each day or when work stops.

END OF SECTION
PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY
A. Section includes drinking fountains and related components.

1.3 ACTION SUBMITTALS
A. Product Data: For each type of drinking fountain.
   1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
   2. Include operating characteristics, and furnished specialties and accessories.

1.4 CLOSEOUT SUBMITTALS
A. Maintenance Data: For drinking fountains to include in maintenance manuals.

PART 2 - PRODUCTS

2.1 DRINKING FOUNTAINS
A. Drinking Fountain, DF-1: Bi-level, wall mounted barrier free with dual 14 gauge Type 304 Stainless steel satin finish basins with integral ¼” stainless steel mounting plates, push-button operated stainless steel valves with front-accessible cartridge and flow adjustment, 100% lead-free waterways, polished chrome-plated brass vandal-resistant waste strainer, vandal-resistant bottom plate, stainless steel satin finish back panel, high and low fountain mounting levels, and 1-1/4” integral traps.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings:
   3. Receptor(s):
      a. Number: Two.
      b. Material: 14 Gauge Type 304 Stainless steel.
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c. **Shape:** Rectangular.

d. **Bubbler:** Polished chrome-plated brass bubbler on integral basin shank for added strength, and is equipped with shielded, anti-squirt orifice that provides a steady sanitary source of water. One for each receptor.

e. **Drain:** Grid type with NPS 1-1/4 tailpiece.

4. **Controls:** Stainless steel push button.

5. **Back Panel:** Stainless-steel wall plate behind drinking fountain.

6. **Mounting Plate:** 3/16" Steel pre-drilled and threaded Universal in-wall mounting plate with all-threaded studs, nuts and washers.

7. **Access to Internal Components:** Front-access.

8. **Supply Piping:** NPS 1/2 with shutoff valve.

9. **Drain Piping:** NPS 1-1/4 minimum trap and waste.

10. Provide two sets of calibration tools to each College campus.

B. **Drinking Fountain, DF-4:** Wall mounted, children drinking fountain with white enameled-iron basin, push-button operated stainless steel valves with front-accessible cartridge and flow adjustment, 100% lead-free waterways, dual polished chrome-plated brass vandal-resistant bubbler heads, polished chrome-plated brass vandal-resistant waste strainer, vandal-resistant bottom plate, and chrome-plated 1-1/2" integral trap.

1. **Basis-of-Design Product:** Subject to compliance with requirements, provide product indicated on Drawings:

2. **Standards:**
   a. Comply with NSF 61.

3. **Type Receptor:** Slab.

4. **Receptor Shape:** Rectangular.

5. **Back Panel:** Stainless-steel wall plate behind drinking fountain.

6. **Bubblers:** Two, with adjustable stream regulator, located on deck.

7. **Control:** Push button.

8. **Drain:** Grid type with NPS 1-1/4 tailpiece.

9. **Supply:** NPS 1/2 with shutoff valve.

10. **Waste Fitting:** ASME A112.18.2/CSA B125.2, NPS 1-1/2 chrome-plated brass P-trap and waste.

11. **Support:** ASME A112.6.1M, Type III lavatory carrier.

12. Provide two sets of calibration tools to each College campus.

C. **Drinking Fountain, DF-5:** Outdoor type, tubular pedestal drinking fountain with center bottle filling station, powder-coated finish heavy-gauge steel with vandal resistant pushbutton actuation, vandal-resistant bubblers with integral hood guard, and contour-formed rounded basins.

1. **Basis-of-Design Product:** Subject to compliance with requirements, provide product indicated on Drawings:
   a. Halsey Taylor Model 4430BF1M (No substitution).

2. **Standards:** Comply with NSF /ANSI 61.

3. **Receptor(s):**
   a. Number: Two.
   b. Material: Stainless steel.
   c. Shape: Round.
   d. Bubbler: Vandal-resistant, chrome-plated, one-piece bubbler on each receptor.
   e. Drain: NPS 1-1/2 outlet.
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4. Controls: Self-closing, vandal-resistant push button.
5. Access Panels to Internal Components: Heavy-gauge steel with vandal-resistant screws.
8. Center Bottle Filler Station: Quick fill, laminar flow at 1 gallon per minute.
9. Provide two sets of calibration tools to each College campus.

PART 3 - EXECUTION

3.1 EXAMINATION
A. Examine roughing-in for water-supply and sanitary drainage and vent piping systems to verify actual locations of piping connections before fixture installation.
B. Examine walls and floors for suitable conditions where fixtures will be installed.
C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION
A. Install fixtures level and plumb according to roughing-in drawings. For fixtures indicated for children, install at height required by authorities having jurisdiction.
B. Set pedestal drinking fountains on floor.
C. Install off-the-floor carrier supports, affixed to building substrate, for wall-mounted fixtures.
D. Install water-supply piping with shutoff valve on supply to each fixture to be connected to domestic-water distribution piping. Use ball valve. Install valves in locations where they can be easily reached for operation.
E. Install trap and waste piping on drain outlet of each fixture to be connected to sanitary drainage system.
F. Install wall flanges or escutcheons at piping wall penetrations in exposed, finished locations. Use deep-pattern escutcheons where required to conceal protruding fittings. Comply with escutcheon requirements specified in Section 220518 "Escutcheons for Plumbing Piping."
G. Seal joints between fixtures and walls using sanitary-type, one-part, mildew-resistant, silicone sealant. Match sealant color to fixture color.

3.3 CONNECTIONS
A. Connect fixtures with water supplies, stops, and risers, and with traps, soil, waste, and vent piping. Use size fittings required to match fixtures.
B. Comply with water piping requirements specified in Section 221116 "Domestic Water Piping."
C. Install ball, gate, or globe shutoff valve on water supply to each fixture. Comply with soil and waste piping requirements specified in Section 221316 "Sanitary Waste and Vent Piping."
3.4 ADJUSTING

A. Adjust fixture flow regulators for proper flow and stream height.

3.5 CLEANING

A. After installing fixtures, inspect unit. Remove paint splatters and other spots, dirt, and debris. Repair damaged finish to match original finish.

B. Clean fixtures, on completion of installation, according to manufacturer's written instructions.

C. Provide protective covering for installed fixtures.

D. Do not allow use of fixtures for temporary facilities unless approved in writing by the District.
PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY
A. Section includes pressure water coolers and related components.

1.3 ACTION SUBMITTALS
A. Product Data: For each type of pressure water cooler.
   1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
   2. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.
B. Shop Drawings: Include diagrams for power, signal, and control wiring.

1.4 CLOSEOUT SUBMITTALS
A. Maintenance Data: For pressure water coolers to include in maintenance manuals.

1.5 MAINTENANCE MATERIAL SUBMITTALS
A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
   1. Filter Cartridges: Provide one spare filter cartridge to each drinking fountain.
   2. Provide two sets of calibration tools per drinking fountain type to each College campus.

PART 2 - PRODUCTS

2.1 PRESSURE WATER COOLER
A. Pressure Water Coolers, DF-2 and DF-3: Wall mounted, wheelchair accessible.
   1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings:
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2. Cabinet: Bi-level with two attached cabinets and with a bi-level skirt kit, vinyl-covered steel with stainless-steel top.
3. Bubbler: One, with adjustable stream regulator, located on each cabinet deck.
5. Drain: Grid with NPS 1-1/4 tailpiece.
8. Filter: One or more water filters complying with NSF 42 and NSF 53 for cyst and lead reduction to below EPA standards; with capacity sized for unit peak flow rate or 300 gallon whichever is higher.
a. Sanitary, no-touch, sensor activation with automatic 30-second shut-off timer.
b. Quick fill rate at 1.1 gallons per minute.
c. Laminar flow.
d. Visual user interface display:
   1) Filter monitor indicating when replacement is necessary.
   2) Green ticker counting the quantity of 12 oz. bottles saved from the landfill.

10. Cooling System: Electric, with hermetically sealed compressor, cooling coil, air-cooled condensing unit, corrosion-resistant tubing, refrigerant, corrosion-resistant-metal storage tank, and adjustable thermostat.
   a. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

11. Capacities and Characteristics:
   b. Ambient-Air Temperature: 90 deg F.
   c. Inlet-Water Temperature: 80 deg F.
   d. Cooled-Water Temperature: 50 deg F.
   e. Electrical Characteristics:
      1) Motor Horsepower: 1/5.
      2) Volts: 120-V ac.
      3) Phase: Single.
      4) Hertz: 60.


13. Provide receptacle adaptor plug accessory.

14. Provide two sets of calibration tools to each College campus.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine roughing-in for water-supply and sanitary drainage and vent piping systems to verify actual locations of piping connections before fixture installation.
B. Examine walls and floors for suitable conditions where fixtures will be installed.
C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install fixtures level and plumb according to roughing-in drawings. For fixtures indicated for children, install at height required by authorities having jurisdiction.
B. Install off-the-floor carrier supports, affixed to building substrate, for wall-mounted fixtures.
C. Install mounting frames, affixed to building construction, and attach recessed, pressure water coolers to mounting frames.
D. Install water-supply piping with shutoff valve on supply to each fixture to be connected to domestic-water distribution piping. Use ball valve. Install valves in locations where they can be easily reached for operation.
E. Install trap and waste piping on drain outlet of each fixture to be connected to sanitary drainage system.
F. Install wall flanges or escutcheons at piping wall penetrations in exposed, finished locations. Use deep-pattern escutcheons where required to conceal protruding fittings. Comply with escutcheon requirements specified in Section 220518 "Escutcheons for Plumbing Piping."
G. Seal joints between fixtures and walls using sanitary-type, one-part, mildew-resistant, silicone sealant. Match sealant color to fixture color.

3.3 CONNECTIONS

A. Connect fixtures with water supplies, stops, and risers, and with traps, soil, waste, and vent piping. Use size fittings required to match fixtures.
B. Comply with water piping requirements specified in Section 221116 "Domestic Water Piping."
C. Install ball shutoff valve on water supply to each fixture.
D. Comply with soil and waste piping requirements specified in Section 221316 "Sanitary Waste and Vent Piping."

3.4 ADJUSTING

A. Adjust fixture flow regulators for proper flow and stream height.
B. Adjust pressure water-cooler temperature settings.

3.5 CLEANING

A. After installing fixture, inspect unit. Remove paint splatters and other spots, dirt, and debris. Repair damaged finish to match original finish.
B. Clean fixtures, on completion of installation, according to manufacturer’s written instructions.
C. Provide protective covering for installed fixtures.
D. Do not allow use of fixtures for temporary facilities unless approved in writing by the District.

END OF SECTION
PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Building wires and cables rated 600 V and less.
2. Connectors, splices, and terminations rated 600 V and less.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For testing agency.
B. Field quality-control reports.

1.5 QUALITY ASSURANCE

A. Testing Agency Qualifications: Member company of NETA or an NRTL.

1. Testing Agency's Field Supervisor: Certified by NETA to supervise on-site testing.

PART 2 - PRODUCTS

2.1 CONDUCTORS AND CABLES

A. Manufacturers: Subject to compliance with requirements, provide product by one of the following:

1. Alcan Products Corporation; Alcan Cable Division.
2. Alpha Wire.
3. Belden Inc.
5. General Cable Technologies Corporation.
2.2 CONNECTORS AND SPLICES

A. Manufacturers: Subject to compliance with requirements, provide product by one of the following:

1. AFC Cable Systems, Inc.
2. Gardner Bender.
4. Ideal Industries, Inc.
5. Ilsco; a branch of Bardes Corporation.
6. NSI Industries LLC.
7. O-Z/Gedney; a brand of the EGS Electrical Group.
8. 3M; Electrical Markets Division.
10. Or Approved Equal.

B. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

2.3 SYSTEM DESCRIPTION

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. Comply with NFPA 70.

PART 3 - EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

A. Feeders: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

B. Branch Circuits: Copper. Solid for No. 12 AWG and smaller; stranded for No. 10 AWG and larger.

3.2 CONDUCTOR INSULATION AND MULTICONDUCTOR CABLE APPLICATIONS AND WIRING METHODS

A. Branch Circuits Concealed in Ceilings, Walls, and Partitions: Type THHN-2-THWN-2, single conductors in raceway.

B. Branch Circuits Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN-2-THWN-2, single conductors in raceway.
3.3 INSTALLATION OF CONDUCTORS AND CABLES

A. Conceal cables in finished walls, ceilings, and floors unless otherwise indicated.

B. Complete raceway installation between conductor and cable termination points according to Section 260533 "Raceways and Boxes for Electrical Systems" prior to pulling conductors and cables.

C. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.

D. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.

E. Support cables according to Section 260529 "Hangers and Supports for Electrical Systems."

3.4 CONNECTIONS

A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A-486B.

B. Make splices, terminations, and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.

C. Wiring at Outlets: Install conductor at each outlet, with at least 6 inches (150 mm) of slack.

3.5 IDENTIFICATION

A. Identify and color-code conductors and cables according to Section 260553 "Identification for Electrical Systems."

B. Identify each spare conductor at each end with identity number and location of other end of conductor, and identify as spare conductor.

3.6 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 260544 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."
3.7 **FIRESTOPPING**

A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly according to Section 078413 "Penetration Firestopping."

3.8 **FIELD QUALITY CONTROL**

A. Perform the following tests and inspections:

1. After installing conductors and cables and before electrical circuitry has been energized, test conductors feeding the following critical equipment and services for compliance with requirements.
   
   a. New Receptacles.


B. Test and Inspection Reports: Prepare a written report to record the following:

1. Procedures used.
2. Results that comply with requirements.
3. Results that do not comply with requirements and corrective action taken to achieve compliance with requirements.

C. Cables will be considered defective if they do not pass tests and inspections.

**END OF SECTION**
PART 1 - GENERAL

1.1 RELATED DOCUMENTS
   A. Drawings and general provisions of the Contract, including General and Supplementary
      Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY
   A. Section Includes:  Grounding systems and equipment.
   B. Section includes grounding systems and equipment, plus the following special applications:
      2. Underground distribution grounding.
      3. Ground bonding common with lightning protection system.

1.3 ACTION SUBMITTALS
   A. Product Data:  For each type of product indicated.

1.4 INFORMATIONAL SUBMITTALS
   A. Informational Submittals:  Plans showing dimensioned as-built locations of grounding features
      specified in "Field Quality Control" Article, including the following:
      1. Receptacles.
      2. GFCI Receptacles.
   B. Qualification Data:  For qualified testing agency and testing agency's field supervisor.
   C. Field quality-control reports.

1.5 QUALITY ASSURANCE
   A. Electrical Components, Devices, and Accessories:  Listed and labeled as defined in NFPA 70,
      by a qualified testing agency, and marked for intended location and application.
   B. Comply with UL 467 for grounding and bonding materials and equipment.
PART 2 - PRODUCTS

2.1 CONDUCTORS

A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.

B. Bare Copper Conductors:

4. Bonding Cable: 28 kcmil, 14 strands of No. 17 AWG conductor, 1/4 inch (6 mm) in diameter.
5. Bonding Conductor: No. 4 or No. 6 AWG, stranded conductor.
6. Bonding Jumper: Copper tape, braided conductors terminated with copper ferrules; 1-5/8 inches (41 mm) wide and 1/16 inch (1.6 mm) thick.
7. Tinned Bonding Jumper: Tinned-copper tape, braided conductors terminated with copper ferrules; 1-5/8 inches (41 mm) wide and 1/16 inch (1.6 mm) thick.

2.2 CONNECTORS

A. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.

B. Bolted Connectors for Conductors and Pipes: Copper or copper alloy, pressure type with at least two bolts.

1. Pipe Connectors: Clamp type, sized for pipe.

PART 3 - EXECUTION

3.1 APPLICATIONS

A. Conductors: Install solid conductor for No. 8 AWG and smaller, and stranded conductors for No. 6 AWG and larger unless otherwise indicated.

B. Isolated Grounding Conductors: Green-colored insulation with continuous yellow stripe. On feeders with isolated ground, identify grounding conductor where visible to normal inspection, with alternating bands of green and yellow tape, with at least three bands of green and two bands of yellow.

C. Conductor Terminations and Connections:

1. Pipe and Equipment Grounding Conductor Terminations: Bolted connectors.
2. Underground Connections: Welded connectors except at test wells and as otherwise indicated.
3. Connections to Ground Rods at Test Wells: Bolted connectors.
3.2 EQUIPMENT GROUNDING

A. Install insulated equipment grounding conductors with all feeders and branch circuits.

B. Install insulated equipment grounding conductors with the following items, in addition to those required by NFPA 70:
   1. Feeders and branch circuits.
   2. Receptacle circuits.

C. Isolated Grounding Receptacle Circuits: Install an insulated equipment grounding conductor connected to the receptacle grounding terminal. Isolate conductor from raceway and from panelboard grounding terminals. Terminate at equipment grounding conductor terminal of the applicable derived system or service unless otherwise indicated.

D. Isolated Equipment Enclosure Circuits: For designated equipment supplied by a branch circuit or feeder, isolate equipment enclosure from supply circuit raceway with a nonmetallic raceway fitting listed for the purpose. Install fitting where raceway enters enclosure, and install a separate insulated equipment grounding conductor. Isolate conductor from raceway and from panelboard grounding terminals. Terminate at equipment grounding conductor terminal of the applicable derived system or service unless otherwise indicated.

3.3 INSTALLATION

A. Grounding Conductors: Route along shortest and straightest paths possible unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.

B. Ground Bonding Common with Lightning Protection System: Comply with NFPA 780 and UL 96 when interconnecting with lightning protection system. Bond electrical power system ground directly to lightning protection system grounding conductor at closest point to electrical service grounding electrode. Use bonding conductor sized same as system grounding electrode conductor, and install in conduit.

C. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance except where routed through short lengths of conduit.
   1. Bonding to Structure: Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.
   2. Bonding to Equipment Mounted on Vibration Isolation Hangers and Supports: Install bonding so vibration is not transmitted to rigidly mounted equipment.
   3. Use exothermic-welded connectors for outdoor locations; if a disconnect-type connection is required, use a bolted clamp.

D. Grounding and Bonding for Piping:
   1. Metal Water Service Pipe: Install insulated copper grounding conductors, in conduit, from building's main service equipment, or grounding bus, to main metal water service entrances to building. Connect grounding conductors to main metal water service pipes; use a bolted clamp connector or bolt a lug-type connector to a pipe flange by using one of the lug bolts of the flange. Where a dielectric main water fitting is installed, connect grounding conductor on street side of fitting. Bond metal grounding conductor conduit or sleeve to conductor at each end.
2. Water Meter Piping: Use braided-type bonding jumpers to electrically bypass water meters. Connect to pipe with a bolted connector.
3. Bond each aboveground portion of gas piping system downstream from equipment shutoff valve.

3.4 LABELING

A. Comply with requirements in Section 260553 "Identification for Electrical Systems" for instruction signs. The label or its text shall be green.

3.5 FIELD QUALITY CONTROL

A. Tests and Inspections:

1. After installing grounding system but before permanent electrical circuits have been energized, test for compliance with requirements.
2. Inspect physical and mechanical condition. Verify tightness of accessible, bolted, electrical connections with a calibrated torque wrench according to manufacturer’s written instructions.
3. Test completed grounding system at each location where a maximum ground-resistance level is specified, at service disconnect enclosure grounding terminal.

B. Grounding system will be considered defective if it does not pass tests and inspections.

C. Prepare test and inspection reports.

D. Report measured ground resistances that exceed the following values:

1. Power and Lighting Equipment or System with Capacity of 500 kVA and Less: 10 ohms.

E. Excessive Ground Resistance: If resistance to ground exceeds specified values, notify Architect promptly and include recommendations to reduce ground resistance.

END OF SECTION
PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:
   1. Hangers and supports for electrical equipment and systems.
   2. Construction requirements for concrete bases.

1.3 DEFINITIONS

A. EMT: Electrical metallic tubing.

B. IMC: Intermediate metal conduit.

C. RMC: Rigid metal conduit.

1.4 PERFORMANCE REQUIREMENTS

A. Design supports for multiple raceways capable of supporting combined weight of supported systems and its contents.

B. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.

1.5 QUALITY ASSURANCE

A. Comply with NFPA 70.

1.6 COORDINATION

A. Coordinate size and location of concrete bases. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements are specified together with concrete Specifications.

B. Coordinate installation of roof curbs, equipment supports, and roof penetrations. These items are specified in Section 077200 "Roof Accessories."
PART 2 - PRODUCTS

2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   a. Allied Tube & Conduit.
   b. Cooper B-Line, Inc.; a division of Cooper Industries.
   c. ERICO International Corporation.
   d. GS Metals Corp.
   e. Thomas & Betts Corporation.
   f. Unistrut; Tyco International, Ltd.
   g. Wesanco, Inc.
   h. Or Approved Equal.

2. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
3. Nonmetallic Coatings: Manufacturer's standard PVC, polyurethane, or polyester coating applied according to MFMA-4.
4. Painted Coatings: Manufacturer's standard painted coating applied according to MFMA-4.
5. Channel Dimensions: Selected for applicable load criteria.

B. Raceway and Cable Supports: As described in NECA 1 and NECA 101.

C. Conduit and Cable Support Devices: Steel hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.

D. Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for non-armored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be malleable iron.

E. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.

F. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:

1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
   a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   b. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
2. Mechanical-Expansion Anchors: Insert-wedge-type, stainless steel, for use in hardened portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.

a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

b. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1) Cooper B-Line, Inc.; a division of Cooper Industries.
2) Empire Tool and Manufacturing Co., Inc.
3) Hilti Inc.
4) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
5) MKT Fastening, LLC.
6) Or Approved Equal.

3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18; complying with MFMA-4 or MSS SP-58.

4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.

5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.

6. Toggle Bolts: All-steel springhead type.


PART 3 - EXECUTION

3.1 APPLICATION

A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.

B. Maximum Support Spacing and Minimum Hanger Rod Size for Raceway: Space supports for EMT, IMC, and RMC as required by NFPA 70. Minimum rod size shall be 1/4 inch (6 mm) in diameter.

C. Spring-steel clamps designed for supporting single conduits without bolts may be used for 1-1/2-inch (38-mm) and smaller raceways serving branch circuits and communication systems above suspended ceilings and for fastening raceways to trapeze supports.

3.2 SUPPORT INSTALLATION

A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.
D. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:

1. To Wood: Fasten with lag screws or through bolts.
2. To New Concrete: Bolt to concrete inserts.
3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
4. To Existing Concrete: Expansion anchor fasteners.
5. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches (100 mm) thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches (100 mm) thick.
6. To Steel: Welded threaded studs complying with AWS D1.1/D1.1M, with lock washers and nuts.
7. To Light Steel: Sheet metal screws.
8. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate by means that meet seismic-restraint strength and anchorage requirements.

E. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.

3.3 INSTALLATION OF FABRICATED METAL SUPPORTS

A. Comply with installation requirements in Section 055000 "Metal Fabrications" for site-fabricated metal supports.

B. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor electrical materials and equipment.

C. Field Welding: Comply with AWS D1.1/D1.1M.

END OF SECTION
PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Metal conduits, tubing, and fittings.
2. Nonmetal conduits, tubing, and fittings.
3. Metal wireways and auxiliary gutters.
4. Nonmetal wireways and auxiliary gutters.
5. Surface raceways.

1.3 DEFINITIONS

A. GRC: Galvanized rigid steel conduit.
B. IMC: Intermediate metal conduit.
C. EMT: Electrical Metallic Tubing.

1.4 ACTION SUBMITTALS

A. Product Data: For surface raceways, wireways and fittings, floor boxes, hinged-cover enclosures, and cabinets.

B. LEED Submittals:

1. Product Data for Credit IEQ 4.1: For solvent cements and adhesive primers, documentation including printed statement of VOC content.
2. Laboratory Test Reports for Credit IEQ 4: For solvent cements and adhesive primers, documentation indicating that products comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
1.5 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Conduit routing plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of items involved:
   1. Structural members in paths of conduit groups with common supports.

B. Source quality-control reports.

PART 2 - PRODUCTS

2.1 METAL CONDUITS, TUBING, AND FITTINGS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   1. AFC Cable Systems, Inc.
   3. Anamet Electrical, Inc.
   4. Electri-Flex Company.
   5. O-Z/Gedney; a brand of EGS Electrical Group.
   6. Picoma Industries, a subsidiary of Mueller Water Products, Inc.
   7. Republic Conduit.
   8. Robroy Industries.
   10. Thomas & Betts Corporation.
   11. Western Tube and Conduit Corporation.
   12. Wheatland Tube Company; a division of John Maneely Company.
   13. Or Approved Equal.

B. Listing and Labeling: Metal conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

C. GRC: Comply with ANSI C80.1 and UL 6.

D. IMC: Comply with ANSI C80.6 and UL 1242.

E. PVC-Coated Steel Conduit: PVC-coated rigid steel conduit.
   1. Comply with NEMA RN 1.
   2. Coating Thickness: 0.040 inch (1 mm), minimum.

F. EMT: Comply with ANSI C80.3 and UL 797.

G. FMC: Comply with UL 1; aluminum.

H. LFMC: Flexible steel conduit with PVC jacket and complying with UL 360.

I. Fittings for Metal Conduit: Comply with NEMA FB 1 and UL 514B.
   1. Conduit Fittings for Hazardous (Classified) Locations: Comply with UL 886 and NFPA 70.
   2. Fittings for EMT:
PERALTA COMMUNITY COLLEGE DISTRICT
DISTRICT-WIDE DRINKING FOUNTAIN REPLACEMENT PROJECT

4.16.12 26 05 33 - 3 Raceways and Boxes for Electrical Systems

a. Material: Steel.
b. Type: Setscrew.

3. Expansion Fittings: PVC or steel to match conduit type, complying with UL 651, rated for environmental conditions where installed, and including flexible external bonding jumper.

4. Coating for Fittings for PVC-Coated Conduit: Minimum thickness of 0.040 inch (1 mm), with overlapping sleeves protecting threaded joints.

J. Joint Compound for IMC, GRC, or ARC: Approved, as defined in NFPA 70, by authorities having jurisdiction for use in conduit assemblies, and compounded for use to lubricate and protect threaded conduit joints from corrosion and to enhance their conductivity.

2.2 BOXES, ENCLOSURES, AND CABINETS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Adalet.
2. Cooper Technologies Company; Cooper Crouse-Hinds.
3. EGS/Appleton Electric.
5. FSR Inc.
6. Hoffman; a Pentair company.
7. Hubbell Incorporated; Killark Division.
8. Kraloy.
10. Mono-Systems, Inc.
12. RACO; a Hubbell Company.
13. Robroy Industries.
14. Spring City Electrical Manufacturing Company.
15. Stahlin Non-Metallic Enclosures; a division of Robroy Industries.
17. Wiremold / Legrand.
18. Or Approved Equal.

B. General Requirements for Boxes, Enclosures, and Cabinets: Boxes, enclosures, and cabinets installed in wet locations shall be listed for use in wet locations.

C. Sheet Metal Outlet and Device Boxes: Comply with NEMA OS 1 and UL 514A.

D. Cast-Metal Outlet and Device Boxes: Comply with NEMA FB 1, non-ferrous alloy, Type FD, with gasketed cover.

E. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.

F. Cast-Metal Access, Pull, and Junction Boxes: Comply with NEMA FB 1 and UL 1773, galvanized, cast iron with gasketed cover.

G. Box extensions used to accommodate new building finishes shall be of same material as recessed box.

H. Device Box Dimensions: 4 inches square by 2-1/8 inches deep (100 mm square by 60 mm deep), or as specified in drawings.
PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

A. Outdoors: Apply raceway products as specified below unless otherwise indicated:
   1. Exposed Conduit: GRC, and IMC.
   2. Concealed Conduit, Aboveground: GRC, IMC, and EMT.
   3. Boxes and Enclosures, Aboveground: NEMA 250, Type 4

B. Indoors: Apply raceway products as specified below unless otherwise indicated:
   1. Exposed, Not Subject to Physical Damage: EMT.
   2. Exposed, Not Subject to Severe Physical Damage: EMT.
   3. Exposed and Subject to Severe Physical Damage: GRC and IMC. Raceway locations include the following:
      a. Loading dock.
      b. Corridors used for traffic of mechanized carts, forklifts, and pallet-handling units.
      c. Mechanical rooms.
      d. Gymnasiums.
   4. Concealed in Ceilings and Interior Walls and Partitions: EMT.
   5. Damp or Wet Locations: GRC or IMC.
   6. Boxes and Enclosures: NEMA 250, Type 1, except use NEMA 250, Type 4 stainless steel in institutional and commercial kitchens and damp or wet locations.

C. Minimum Raceway Size: 3/4-inch (21-mm) trade size.

D. Raceway Fittings: Compatible with raceways and suitable for use and location.
   1. Rigid and Intermediate Steel Conduit: Use threaded rigid steel conduit fittings unless otherwise indicated. Comply with NEMA FB 2.10.
   2. EMT: Use setscrew, cast-metal fittings. Comply with NEMA FB 2.10.
   3. Flexible Conduit: Use only fittings listed for use with flexible conduit. Comply with NEMA FB 2.20.

E. Install nonferrous conduit or tubing for circuits operating above 60 Hz. Where aluminum raceways are installed for such circuits and pass through concrete, install in nonmetallic sleeve.

F. Do not install aluminum conduits, boxes, or fittings in contact with concrete or earth.

G. Install surface raceways only where indicated on Drawings.

3.2 INSTALLATION

A. Comply with NECA 1 and NECA 101 for installation requirements except where requirements on Drawings or in this article are stricter. Comply with NECA 102 for aluminum conduits. Comply with NFPA 70 limitations for types of raceways allowed in specific occupancies and number of floors.
B. Keep raceways at least 6 inches (150 mm) away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.

C. Complete raceway installation before starting conductor installation.

D. Comply with requirements in Section 260529 "Hangers and Supports for Electrical Systems" for hangers and supports.

E. Arrange stub-ups so curved portions of bends are not visible above finished slab.

F. Install no more than the equivalent of three 90-degree bends in any conduit run except for control wiring conduits, for which fewer bends are allowed. Support within 12 inches (300 mm) of changes in direction.

G. Conceal conduit and EMT within finished walls, ceilings, and floors unless otherwise indicated. Install conduits parallel or perpendicular to building lines.

H. Support conduit within 12 inches (300 mm) of enclosures to which attached.

I. Stub-ups to Above Recessed Ceilings:
   1. Use EMT, IMC, or RMC for raceways.
   2. Use a conduit bushing or insulated fitting to terminate stub-ups not terminated in hubs or in an enclosure.

J. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.

K. Coat field-cut threads on PVC-coated raceway with a corrosion-preventing conductive compound prior to assembly.

L. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors including conductors smaller than No. 4 AWG.

M. Terminate threaded conduits into threaded hubs or with locknuts on inside and outside of boxes or cabinets. Install bushings on conduits up to 1-1/4-inch (35mm) trade size and insulated throat metal bushings on 1-1/2-inch (41-mm) trade size and larger conduits terminated with locknuts. Install insulated throat metal grounding bushings on service conduits.

N. Install raceways square to the enclosure and terminate at enclosures with locknuts. Install locknuts hand tight plus 1/4 turn more.

O. Do not rely on locknuts to penetrate nonconductive coatings on enclosures. Remove coatings in the locknut area prior to assembling conduit to enclosure to assure a continuous ground path.

P. Cut conduit perpendicular to the length. For conduits 2-inch (53-mm) trade size and larger, use roll cutter or a guide to make cut straight and perpendicular to the length.

Q. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb (90-kg) tensile strength. Leave at least 12 inches (300 mm) of slack at each end of pull wire. Cap underground raceways designated as spare above grade alongside raceways in use.

R. Surface Raceways:
1. Install surface raceway with a minimum 2-inch (50-mm) radius control at bend points.
2. Secure surface raceway with screws or other anchor-type devices at intervals not exceeding 48 inches (1200 mm) and with no less than two supports per straight raceway section. Support surface raceway according to manufacturer's written instructions. Tape and glue are not acceptable support methods.

S. Install raceway sealing fittings at accessible locations according to NFPA 70 and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings according to NFPA 70.

T. Install devices to seal raceway interiors at accessible locations. Locate seals so no fittings or boxes are between the seal and the following changes of environments. Seal the interior of all raceways at the following points:
   1. Where conduits pass from warm to cold locations, such as boundaries of refrigerated spaces.
   2. Where an underground service raceway enters a building or structure.
   3. Where otherwise required by NFPA 70.

U. Mount boxes at heights indicated on Drawings. If mounting heights of boxes are not individually indicated, give priority to ADA requirements. Install boxes with height measured to bottom of box unless otherwise indicated.

V. Recessed Boxes in Masonry Walls: Saw-cut opening for box in center of cell of masonry block, and install box flush with surface of wall. Prepare block surfaces to provide a flat surface for a raintight connection between box and cover plate or supported equipment and box.

W. Horizontally separate boxes mounted on opposite sides of walls so they are not in the same vertical channel.

X. Locate boxes so that cover or plate will not span different building finishes.

Y. Support boxes of three gangs or more from more than one side by spanning two framing members or mounting on brackets specifically designed for the purpose.

Z. Fasten junction and pull boxes to or support from building structure. Do not support boxes by conduits.

AA. Set metal floor boxes level and flush with finished floor surface.

BB. Set nonmetallic floor boxes level. Trim after installation to fit flush with finished floor surface.

3.3 SLEEVE AND SLEEVE-SEAL INSTALLATION FOR ELECTRICAL PENETRATIONS

A. Install sleeves and sleeve seals at penetrations of exterior floor and wall assemblies. Comply with requirements in Section 260544 "Sleeves and Sleeve Seals for Electrical Raceways and Cabling."

3.4 FIRESTOPPING

A. Install firestopping at penetrations of fire-rated floor and wall assemblies. Comply with requirements in Section 078413 "Penetration Firestopping."
3.5 PROTECTION

A. Protect coatings, finishes, and cabinets from damage and deterioration.

1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
2. Repair damage to PVC coatings or paint finishes with matching touchup coating recommended by manufacturer.

END OF SECTION
1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
   1. Sleeves for raceway and cable penetration of non-fire-rated construction walls and floors.
   2. Sleeve-seal systems.
   5. Silicone sealants.

B. Related Requirements:
   1. Section 078413 "Penetration Firestopping" for penetration firestopping installed in fire-resistance-rated walls, horizontal assemblies, and smoke barriers, with and without penetrating items.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. LEED Submittals:
   1. Product Data for Credit EQ 4.1: For sealants, documentation including printed statement of VOC content.
   2. Laboratory Test Reports for Credit EQ 4: For sealants, documentation indicating that products comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

PART 2 - PRODUCTS

2.1 SLEEVES

A. Wall Sleeves:
2. Cast-Iron Pipe Sleeves: Cast or fabricated “wall pipe,” equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop unless otherwise indicated.

B. Sleeves for Conduits Penetrating Non-Fire-Rated Gypsum Board Assemblies: Galvanized-steel sheet; 0.0239-inch (0.6-mm) minimum thickness; round tube closed with welded longitudinal joint, with tabs for screw-fastening the sleeve to the board.

C. PVC-Pipe Sleeves: ASTM D 1785, Schedule 40.

D. Molded-PVC Sleeves: With nailing flange for attaching to wooden forms.

E. Molded-PE or -PP Sleeves: Removable, tapered-cup shaped, and smooth outer surface with nailing flange for attaching to wooden forms.

F. Sleeves for Rectangular Openings:
   2. Minimum Metal Thickness:
      a. For sleeve cross-section rectangle perimeter less than 50 inches (1270 mm) and with no side larger than 16 inches (400 mm), thickness shall be 0.052 inch (1.3 mm).
      b. For sleeve cross-section rectangle perimeter 50 inches (1270 mm) or more and one or more sides larger than 16 inches (400 mm), thickness shall be 0.138 inch (3.5 mm).

2.2 SLEEVE-SEAL SYSTEMS

A. Description: Modular sealing device, designed for field assembly, to fill annular space between sleeve and raceway or cable.

1. Manufacturers: Subject to compliance with requirements, provide products by the following:
   a. Advance Products & Systems, Inc.
   b. CALPICO, Inc.
   c. Metraflex Company (The).
   d. Pipeline Seal and Insulator, Inc.
   e. Proco Products, Inc.
   f. Or Approved Equal.

2. Sealing Elements: EPDM rubber interlocking links shaped to fit surface of pipe. Include type and number required for pipe material and size of pipe.

3. Pressure Plates: Stainless steel.

4. Connecting Bolts and Nuts: Stainless steel of length required to secure pressure plates to sealing elements.

2.3 SLEEVE-SEAL FITTINGS

A. Description: Manufactured plastic, sleeve-type, waterstop assembly made for embedding in concrete slab or wall. Unit shall have plastic or rubber waterstop collar with center opening to match piping OD.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   a. Presealed Systems.
   b. Or Approved Equal.

2.4 GROUT
   A. Description: Nonshrink; recommended for interior and exterior sealing openings in non-fire-rated walls or floors.
   C. Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.
   D. Packaging: Premixed and factory packaged.

2.5 SILICONE SEALANTS
   A. Silicone Sealants: Single-component, silicone-based, neutral-curing elastomeric sealants of grade indicated below.
      1. Grade: Pourable (self-leveling) formulation for openings in floors and other horizontal surfaces that are not fire rated.
      2. Sealant shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
   B. Silicone Foams: Multicomponent, silicone-based liquid elastomers that, when mixed, expand and cure in place to produce a flexible, nonshrinking foam.

PART 3 - EXECUTION

3.1 SLEEVE INSTALLATION FOR NON-FIRE-RATED ELECTRICAL PENETRATIONS
   A. Comply with NECA 1.
   B. Comply with NEMA VE 2 for cable tray and cable penetrations.
   C. Sleeves for Conduits Penetrating Above-Grade Non-Fire-Rated Concrete and Masonry-Unit Floors and Walls:
      1. Interior Penetrations of Non-Fire-Rated Walls and Floors:
         a. Seal annular space between sleeve and raceway or cable, using joint sealant appropriate for size, depth, and location of joint. Comply with requirements in Section 079200 "Joint Sealants."
         b. Seal space outside of sleeves with mortar or grout. Pack sealing material solidly between sleeve and wall so no voids remain. Tool exposed surfaces smooth; protect material while curing.
2. Use pipe sleeves unless penetration arrangement requires rectangular sleeved opening.
3. Size pipe sleeves to provide 1/4-inch (6.4-mm) annular clear space between sleeve and raceway or cable unless sleeve seal is to be installed.
4. Install sleeves for wall penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of walls. Cut sleeves to length for mounting flush with both surfaces of walls. Deburr after cutting.
5. Install sleeves for floor penetrations. Extend sleeves installed in floors 2 inches (50 mm) above finished floor level. Install sleeves during erection of floors.

D. Sleeves for Conduits Penetrating Non-Fire-Rated Gypsum Board Assemblies:
   1. Use circular metal sleeves unless penetration arrangement requires rectangular sleeved opening.
   2. Seal space outside of sleeves with approved joint compound for gypsum board assemblies.

E. Roof-Penetration Sleeves: Seal penetration of individual raceways and cables with flexible boot-type flashing units applied in coordination with roofing work.

F. Aboveground, Exterior-Wall Penetrations: Seal penetrations using cast-iron pipe sleeves and mechanical sleeve seals. Select sleeve size to allow for 1-inch (25-mm) annular clear space between pipe and sleeve for installing mechanical sleeve seals.

G. Underground, Exterior-Wall and Floor Penetrations: Install cast-iron pipe sleeves. Size sleeves to allow for 1-inch (25-mm) annular clear space between raceway or cable and sleeve for installing sleeve-seal system.

3.2 SLEEVE-SEAL-SYSTEM INSTALLATION

A. Install sleeve-seal systems in sleeves in exterior concrete walls and slabs-on-grade at raceway entries into building.

B. Install type and number of sealing elements recommended by manufacturer for raceway or cable material and size. Position raceway or cable in center of sleeve. Assemble mechanical sleeve seals and install in annular space between raceway or cable and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

3.3 SLEEVE-SEAL-FITTING INSTALLATION

A. Install sleeve-seal fittings in new walls and slabs as they are constructed.

B. Assemble fitting components of length to be flush with both surfaces of concrete slabs and walls. Position waterstop flange to be centered in concrete slab or wall.

C. Secure nailing flanges to concrete forms.

D. Using grout, seal the space around outside of sleeve-seal fittings.

END OF SECTION
SECTION 260553
IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY
A. Section Includes:
   1. Identification for raceways.
   2. Identification of power and control cables.
   3. Identification for conductors.
   5. Warning labels and signs.
   6. Instruction signs.
   7. Equipment identification labels.
   8. Miscellaneous identification products.

1.3 ACTION SUBMITTALS
A. Product Data: For each electrical identification product indicated.
B. Samples: For each type of label and sign to illustrate size, colors, lettering style, mounting provisions, and graphic features of identification products.
C. Identification Schedule: An index of nomenclature of electrical equipment and system components used in identification signs and labels.

1.4 QUALITY ASSURANCE
B. Comply with NFPA 70.
D. Comply with ANSI Z535.4 for safety signs and labels.
E. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.
1.5 COORDINATION

A. Coordinate identification names, abbreviations, colors, and other features with requirements in other Sections requiring identification applications, Drawings, Shop Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual; and with those required by codes, standards, and 29 CFR 1910.145. Use consistent designations throughout Project.

B. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.

C. Coordinate installation of identifying devices with location of access panels and doors.

D. Install identifying devices before installing acoustical ceilings and similar concealment.

PART 2 - PRODUCTS

2.1 POWER AND CONTROL RACEWAY IDENTIFICATION MATERIALS

A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway size.

B. Colors for Raceways Carrying Circuits at 600 V or Less:
   1. Black letters on an orange field.
   2. Legend: Indicate voltage and system.

C. Vinyl Labels for Raceways Carrying Circuits at 600 V or Less: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound clear adhesive tape for securing ends of legend label.

D. Snap-Around Labels for Raceways Carrying Circuits at 600 V or Less: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.

E. place by gripping action.

2.2 CONDUCTOR IDENTIFICATION MATERIALS

A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils (0.08 mm) thick by 1 to 2 inches (25 to 50 mm) wide.

B. Self-Adhesive, Self-Laminating Polyester Labels: Preprinted 3-mil- (0.08-mm-) thick flexible label with acrylic pressure-sensitive adhesive that provides a clear, weather- and chemical-resistant, self-laminating, protective shield over the legend. Labels sized to fit the conductor diameter such that the clear shield overlaps the entire printed legend.

2.3 FLOOR MARKING TAPE

A. 2-inch- (50-mm-) wide, 5-mil (0.125-mm) pressure-sensitive vinyl tape, with yellow and black stripes and clear vinyl overlay.

1.
2.4 EQUIPMENT IDENTIFICATION LABELS

A. Adhesive Film Label: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch (10 mm).

B. Adhesive Film Label with Clear Protective Overlay: Machine printed, in black, by thermal transfer or equivalent process. Minimum letter height shall be 3/8 inch (10 mm). Overlay shall provide a weatherproof and UV-resistant seal for label.

2.5 CABLE TIES

A. General-Purpose Cable Ties: Fungus inert, self extinguishing, one piece, self locking, Type 6/6 nylon.
   1. Minimum Width: 3/16 inch (5 mm).
   2. Tensile Strength at 73 deg F (23 deg C), According to ASTM D 638: 12,000 psi (82.7 MPa).
   3. Temperature Range: Minus 40 to plus 185 deg F (Minus 40 to plus 85 deg C).

B. UV-Stabilized Cable Ties: Fungus inert, designed for continuous exposure to exterior sunlight, self extinguishing, one piece, self locking, Type 6/6 nylon.
   1. Minimum Width: 3/16 inch (5 mm).
   2. Tensile Strength at 73 deg F (23 deg C), According to ASTM D 638: 12,000 psi (82.7 MPa).
   3. Temperature Range: Minus 40 to plus 185 deg F (Minus 40 to plus 85 deg C).

C. Plenum-Rated Cable Ties: Self extinguishing, UV stabilized, one piece, self locking.
   1. Minimum Width: 3/16 inch (5 mm).
   2. Tensile Strength at 73 deg F (23 deg C), According to ASTM D 638: 7000 psi (48.2 MPa).
   3. UL 94 Flame Rating: 94V-0.
   4. Temperature Range: Minus 50 to plus 284 deg F (Minus 46 to plus 140 deg C).
   5. Color: Black.

2.6 MISCELLANEOUS IDENTIFICATION PRODUCTS

A. Paint: Comply with requirements in painting Sections for paint materials and application requirements. Select paint system applicable for surface material and location (exterior or interior).

B. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.
PART 3 - EXECUTION

3.1 INSTALLATION

A. Verify identity of each item before installing identification products.

B. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.

C. Apply identification devices to surfaces that require finish after completing finish work.

D. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.

E. Attach signs and plastic labels that are not self-adhesive type with mechanical fasteners appropriate to the location and substrate.

F. Attach plastic raceway and cable labels that are not self-adhesive type with clear vinyl tape with adhesive appropriate to the location and substrate.

G. System Identification Color-Coding Bands for Raceways and Cables: Each color-coding band shall completely encircle cable or conduit. Place adjacent bands of two-color markings in contact, side by side. Locate bands at changes in direction, at penetrations of walls and floors, at 50-foot (15-m) maximum intervals in straight runs, and at 25-foot (7.6-m) maximum intervals in congested areas.

H. Aluminum Wraparound Marker Labels and Metal Tags: Secure tight to surface of conductor or cable at a location with high visibility and accessibility.

I. Cable Ties: For attaching tags. Use general-purpose type, except as listed below:

   1. Outdoors: UV-stabilized nylon.
   2. In Spaces Handling Environmental Air: Plenum rated.

J. Painted Identification: Comply with requirements in painting Sections for surface preparation and paint application.

3.2 IDENTIFICATION SCHEDULE

A. Accessible Raceways and Cables within Buildings: Identify the covers of each junction and pull box of the following systems with self-adhesive vinyl labels with the wiring system legend and system voltage. System legends shall be as follows:

   2. Power.
   3. UPS.

B. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use color-coding conductor tape to identify the phase.

   1. Color-Coding for Phase] Identification, 600 V or Less: Use colors listed below for ungrounded branch-circuit conductors.
a. Color shall be factory applied.
b. Colors for 208/120-V Circuits:
   1) Match Existing.

c. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches (150 mm) from terminal points and in boxes where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.

C. Warning Labels for Indoor Cabinets, Boxes, and Enclosures for Power and Lighting: Self-adhesive warning labels.
   2. Identify system voltage with black letters on an orange background.
   3. Apply to exterior of door, cover, or other access.

D. Equipment Identification Labels: On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules, and the Operation and Maintenance Manual. Apply labels to disconnect switches and protection equipment, central or master units, control panels, control stations, terminal cabinets, and racks of each system. Systems include power, lighting, control, communication, signal, monitoring, and alarm systems unless equipment is provided with its own identification.
   1. Labeling Instructions:
      a. Indoor Equipment: Adhesive film label with clear protective overlay. Unless otherwise indicated, provide a single line of text with 1/2-inch- (13-mm-) high letters on 1-1/2-inch- (38-mm) high label; where two lines of text are required, use labels 2 inches (50 mm) high.
      b. Outdoor Equipment: Engraved, laminated acrylic or melamine label.
      c. Unless provided with self-adhesive means of attachment, fasten labels with appropriate mechanical fasteners that do not change the NEMA or NRTL rating of the enclosure.
   2. Equipment to Be Labeled:
      a. Receptacles.

END OF SECTION
PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY
A. Section Includes:
   1. Receptacles, receptacles with integral GFCI, and associated device plates.
   2. Receptacles with integral surge-suppression units.

1.3 DEFINITIONS
A. EMI: Electromagnetic interference.
B. GFCI: Ground-fault circuit interrupter.
C. Pigtail: Short lead used to connect a device to a branch-circuit conductor.
D. UTP: Unshielded twisted pair.

1.4 ADMINISTRATIVE REQUIREMENTS
A. Coordination:
   1. Receptacles for Owner-Furnished Equipment: Match plug configurations.
   2. Cord and Plug Sets: Match equipment requirements.

1.5 ACTION SUBMITTALS
A. Product Data: For each type of product.
B. Shop Drawings: List of legends and description of materials and process used for premarking wall plates.

1.6 INFORMATIONAL SUBMITTALS
A. Field quality-control reports.
1.7 **CLOSEOUT SUBMITTALS**

A. **Operation and Maintenance Data:** For wiring devices to include in all manufacturers’ packing-label warnings and instruction manuals that include labeling conditions.

**PART 2 - PRODUCTS**

2.1 **MANUFACTURERS**

A. Manufacturers’:

1. Cooper Wiring Devices; Division of Cooper Industries, Inc. (Cooper).
2. Hubbell Incorporated; Wiring Device-Kellems (Hubbell).
5. Or Approved Equal.

B. **Source Limitations:** Obtain each type of wiring device and associated wall plate from single source from single manufacturer.

2.2 **GENERAL WIRING-DEVICE REQUIREMENTS**

A. **Wiring Devices, Components, and Accessories:** Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

B. Comply with NFPA 70.

C. **Devices that are manufactured for use with modular plug-in connectors may be substituted under the following conditions:**

1. Connectors shall comply with UL 2459 and shall be made with stranding building wire.
2. Devices shall comply with the requirements in this Section.

2.3 **GFCI RECEPTACLES**

A. **General Description:**

1. Straight blade, feed-through type.
2. Comply with NEMA WD 1, NEMA WD 6, UL 498, UL 943 Class A, and FS W-C-596.
3. Include indicator light that shows when the GFCI has malfunctioned and no longer provides proper GFCI protection.

B. **Duplex GFCI Convenience Receptacles, 125 V, 20 A:**

1. Products: Subject to compliance with requirements - available products that may be incorporated into the Work include, but are not limited to, the following:

   a. Cooper; VGF20.
   b. Hubbell; GFR5352L.
   c. Pass & Seymour; 2095.
   d. Leviton; 7590.
2.4 WALL PLATES

A. Single and combination types shall match corresponding wiring devices.
   1. Plate-Securing Screws: Metal with head color to match plate finish.
   4. Material for Damp Locations: Thermoplastic with spring-loaded lift cover, and listed and labeled for use in wet and damp locations.

2.5 FINISHES

A. Device Color:
   1. Wiring Devices Connected to Normal Power System: As selected by Architect unless otherwise indicated or required by NFPA 70 or device listing.

B. Wall Plate Color: For plastic covers, match device color.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Comply with NECA 1, including mounting heights listed in that standard, unless otherwise indicated.

B. Coordination with Other Trades:
   1. Protect installed devices and their boxes. Do not place wall finish materials over device boxes and do not cut holes for boxes with routers that are guided by riding against outside of boxes.
   2. Keep outlet boxes free of plaster, drywall joint compound, mortar, cement, concrete, dust, paint, and other material that may contaminate the raceway system, conductors, and cables.
   3. Install device boxes in brick or block walls so that the cover plate does not cross a joint unless the joint is troweled flush with the face of the wall.
   4. Install wiring devices after all wall preparation, including painting, is complete.

C. Conductors:
   1. Do not strip insulation from conductors until right before they are spliced or terminated on devices.
   2. Strip insulation evenly around the conductor using tools designed for the purpose. Avoid scoring or nicking of solid wire or cutting strands from stranded wire.
   3. The length of free conductors at outlets for devices shall meet provisions of NFPA 70, Article 300, without pigtails.
   4. Existing Conductors:
      a. Cut back and pigtail, or replace all damaged conductors.
b. Straighten conductors that remain and remove corrosion and foreign matter.
c. Pigtail existing conductors is permitted, provided the outlet box is large enough.

D. Device Installation:

1. Replace devices that have been in temporary use during construction and that were installed before building finishing operations were complete.
2. Keep each wiring device in its package or otherwise protected until it is time to connect conductors.
3. Do not remove surface protection, such as plastic film and smudge covers, until the last possible moment.
4. Connect devices to branch circuits using pigtails that are not less than 6 inches (152 mm) in length.
5. When there is a choice, use side wiring with binding-head screw terminals. Wrap solid conductor tightly clockwise, two-thirds to three-fourths of the way around terminal screw.
6. Use a torque screwdriver when a torque is recommended or required by manufacturer.
7. When conductors larger than No. 12 AWG are installed on 15- or 20-A circuits, splice No. 12 AWG pigtails for device connections.
8. Tighten unused terminal screws on the device.
9. When mounting into metal boxes, remove the fiber or plastic washers used to hold device-mounting screws in yokes, allowing metal-to-metal contact.

E. Receptacle Orientation:

1. Install ground pin of vertically mounted receptacles up, and on horizontally mounted receptacles to the left.

F. Device Plates: Do not use oversized or extra-deep plates. Repair wall finishes and remount outlet boxes when standard device plates do not fit flush or do not cover rough wall opening.

G. Arrangement of Devices: Unless otherwise indicated, mount flush, with long dimension vertical and with grounding terminal of receptacles on top. Group adjacent switches under single, multigang wall plates.

H. Adjust locations of floor service outlets and service poles to suit arrangement of partitions and furnishings.

3.2 GFCI RECEPTACLES

A. Install in non-feed-through wiring for GFCI receptacles where protection of downstream receptacles is not required.

3.3 IDENTIFICATION

A. Comply with Section 260553 "Identification for Electrical Systems."

B. Identify each receptacle with panelboard identification and circuit number. Use hot, stamped, or engraved machine printing with black filled lettering on face of plate, and durable wire markers or tags inside outlet boxes.
3.4 FIELD QUALITY CONTROL

A. Perform the following tests and inspections:

1. Test Instruments: Use instruments that comply with UL 1436.
2. Test Instrument for Convenience Receptacles: Digital wiring analyzer with digital readout or illuminated digital-display indicators of measurement.

B. Tests for Convenience Receptacles:

1. Line Voltage: Acceptable range is 105 to 132 V.
2. Percent Voltage Drop under 15-A Load: A value of 6 percent or higher is unacceptable.
3. Ground Impedance: Values of up to 2 ohms are acceptable.
4. GFCI Trip: Test for tripping values specified in UL 1436 and UL 943.
5. Using the test plug, verify that the device and its outlet box are securely mounted.
6. Tests shall be diagnostic, indicating damaged conductors, high resistance at the circuit breaker, poor connections, inadequate fault current path, defective devices, or similar problems. Correct circuit conditions, remove malfunctioning units and replace with new ones, and retest as specified above.

C. Wiring device will be considered defective if it does not pass tests and inspections.

D. Prepare test and inspection reports.

END OF SECTION
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Bid Set

Replacement Project

Drinking Fountain

College District

Peralta Community
# ABBREVIATIONS

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# GENERAL NOTES

1. Provide a complete drawing showing the position and orientation of the old water main line. All work shall be performed in accordance with the latest edition of the California Plumbing Code, San Francisco, 1991, Government Code in effect on date of award.

2. All design, planning, etc., shall be done in strict accordance with the specifications and drawings.

3. Provide all drawings and plans in a neat and attractive format. All work shall be designed and installed by the contractor.

4. The drawings and plans submitted shall be a complete set of plans, including all details and specifications, in the format and size required.

5. All plans and specifications shall contain all necessary information to enable the contractor to complete the work in accordance with the specifications and drawings.

6. All materials shall be of the highest quality and shall be installed in accordance with the specifications and drawings.

7. All work shall be completed in a neat and attractive format. All work shall be designed and installed by the contractor.

8. The drawings and plans submitted shall be a complete set of plans, including all details and specifications, in the format and size required.

9. All plans and specifications shall contain all necessary information to enable the contractor to complete the work in accordance with the specifications and drawings.

10. All work shall be completed in a neat and attractive format. All work shall be designed and installed by the contractor.

11. The drawings and plans submitted shall be a complete set of plans, including all details and specifications, in the format and size required.

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35. The drawings and plans submitted shall be a complete set of plans, including all details and specifications, in the format and size required.
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**PLUMBING FIXTURE AND CONNECTION SCHEDULE**

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**DRAIN AND CLEANOUT SCHEDULE**

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## General Notes

1. Each drinking fountain shall be provided with a dedicated circuit and the circuit breaker shall be located in a bulkhead.
2. Provide GFCI and one GFI in each fountain in all (1) drinking fountain circuits, 120V.
3. Contact shall be provided to the building manager to inform the contractor if a fixture is not available or the correct fixture cannot be installed.
4. Contact shall coordinate with all trades in the location of all (1) drinking fountain in areas not visible [1] to male options.
5. Contractor shall provide all outlet for electric and mechanical room.
6. Contractor shall affix all tags and markings as per specifications.
7. All installations shall be checked before the contractor is reported.
8. No electric connections shall be made to electrical equipment during installation of the equipment shall be completed.
9. No conduit shall be installed until the conduit is cut and start to allow upward and downward wiring in all locations where the conduits are required to be in compliance with the conduit markings.
10. Inspect completed work prior to final acceptance.