BID DOCUMENTS COVER SHEET

CONTRACT DOCUMENTS

FOR

P-4001.C Campus Safety Center
AT

CONTRA COSTA COLLEGE
2600 Mission Bell Drive,
San Pablo, California 94806

&

P-4001.L Campus Safety Center
AT

LOS MEDANOS COLLEGE
2700 East Leland Road,
Pittsburg, California 94565

CONTRA COSTA COMMUNITY COLLEGE DISTRICT

LPAS Architecture + Design
2484 Natomas Park Dr,
Sacramento, CA 95833

July 2016
# SECTION 00010
## TABLE OF CONTENTS

### DIVISION 00  PROCUREMENT AND CONTRACTING REQUIREMENTS
- **SECTION 00001** TITLE PAGE
- **SECTION 00007** Not Used
- **SECTION 00010** TABLE OF CONTENTS
- **SECTION 00015** PROJECT DIRECTORY
- **SECTION 00016** LOS MEDANOS COLLEGE CAMPUS MAP
- **SECTION 00100** NOTICE INVITING BIDS
- **SECTION 00200** INSTRUCTIONS TO BIDDERS
- **SECTION 00210** INFORMATION AVAILABLE TO BIDDERS
- **SECTION 00300** BID PROPOSAL FORM
- **SECTION 00350** NON-COLLUSION AFFIDAVIT
- **SECTION 00400** STATEMENT OF BIDDER'S QUALIFICATIONS
- **SECTION 00450** CERTIFICATION OF SITE VISIT
- **SECTION 00500** PAYMENT AND PERFORMANCE BONDS
- **SECTION 00510** NOTICE OF AWARD
- **SECTION 00600** CONSTRUCTION AGREEMENT
- **SECTION 00650** NOTICE TO PROCEED
- **SECTION 00700** GENERAL CONDITIONS

### DIVISION 01  GENERAL REQUIREMENTS
- **SECTION 01010** SUMMARY OF WORK
- **SECTION 01050** FIELD ENGINEERING
- **SECTION 01140** Not Used
- **SECTION 01311** PROJECT MANAGEMENT AND COORDINATION
- **SECTION 01312** PROJECT MEETINGS
- **SECTION 01330** SUBMITTAL PROCEDURES
- **SECTION 01340** ADMINISTRATIVE FORMS AND LOGS
- **SECTION 01400** QUALITY CONTROL REQUIREMENTS
- **SECTION 01415** Not Used
TECHNICAL SPECIFICATIONS, prepared by LPAS

DIVISION 03 -- CONCRETE

SECTION 03 10 00 - Concrete Forming and Accessories
SECTION 03 20 00 - Concrete Reinforcing
SECTION 03 30 00 - Cast-in-Place Concrete

DIVISION 04 -- MASONRY

DIVISION 05 -- METALS

SECTION 05 31 00 - Steel Decking
SECTION 05 40 00 - Cold-Formed Metal Framing

DIVISION 06 -- WOOD, PLASTICS, AND COMPOSITES

DIVISION 07 -- THERMAL AND MOISTURE PROTECTION

SECTION 07 13 00 - Sheet Waterproofing
SECTION 07 21 00 - Thermal Insulation
SECTION 07 25 00 - Weather Barriers
SECTION 07 54 00 - Thermoplastic Membrane Roofing
SECTION 07 62 00 - Sheet Metal Flashing and Trim
SECTION 07 71 00 - Roof Specialties
SECTION 07 92 00 - Joint Sealants

DIVISION 08 -- OPENINGS

SECTION 08 11 13 - Hollow Metal Doors and Frames
SECTION 08 14 16 - Flush Wood Doors
SECTION 08 31 00 - Access Doors and Panels
SECTION 08 46 00 - Glazed Interior Wall and Door Assemblies
SECTION 08 51 13 - Aluminum Windows
SECTION 08 56 54 - Security and Detention Windows
SECTION 08 71 00 - Door Hardware
SECTION 08 80 00 - Glazing

DIVISION 09 -- FINISHES
SECTION 09 05 61 - Common Work Results for Flooring Preparation
SECTION 09 21 16 - Gypsum Board Assemblies
SECTION 09 22 36.23 - Metal Lath
SECTION 09 24 00 - Portland Cement Plastering
SECTION 09 30 00 - Tiling
SECTION 09 51 00 - Acoustical Ceilings
SECTION 09 65 00 - Resilient Flooring
SECTION 09 68 13 - Tile Carpeting
SECTION 09 90 00 - Painting and Coating

DIVISION 10 -- SPECIALTIES
SECTION 10 21 13.13 - Metal Toilet Compartments
SECTION 10 26 01 - Wall and Corner Guards
SECTION 10 28 00 - Toilet, Bath, and Laundry Accessories
SECTION 10 44 00 - Fire Protection Specialties
SECTION 10 51 00 - Lockers

DIVISION 13 -- SPECIAL CONSTRUCTION
SECTION 13 34 19 - Metal Building Systems

ADDITIONAL DOCUMENTS- DESIGN CRITERIA

DRAWINGS prepared by LPAS

END OF SECTION 00010
SECTION 00015
PROJECT DIRECTORY

ARCHITECT: LPAS Architecture
2484 Natomas Park Drive, Suite 100
Sacramento, CA 95833

Vincent Maloney
(415) 213-0335

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

Ray Pyle, Chief Facilities Planner
(925) 229-1000, Ext. 1270

Ben Azarnoush, Director of Design
(925) 229-1000, Ext. 1280

CONSTRUCTION MANAGEMENT: Critical Solutions, Inc.
1801 Oakland Blvd. Suite 300
Walnut creek, CA 94596
(925) 944-5060

Kelly Johnson, Project Manager
(925) 944-5060

Rob Mohr, Construction Manager
(510) 704-3220

LMC - BUILDINGS & GROUNDS: Russ Holt Buildings & Grounds Manager
(925) 473-7375

END OF SECTION 00015
SECTION 00016

Pre-bid meeting location in PS RM 20
Location to be determined during Bid walk #1, see Section 00100
NOTICE IS HEREBY GIVEN that the Governing Board of the Contra Costa Community College District (District), Martinez, California, will receive sealed bid proposals for the furnishing of all labor, materials, equipment, transportation and services for the construction of the project entitled **P-4001 Construction Cost Estimate** (Range): $1,500,000 to $1,600,000, **License Required: MH-Unit/Commercial Modular Manufacturers and General B**

In general, work consists of designing, delivering and installing a new modular buildings at the Contra Costa College and Los Medanos College campuses to house their respective Campus Safety Centers. It is expected design work will begin September 2016, with submission of construction documents to DSA before November 1, 2016, with site construction beginning on or before May 1, 2017. The modular manufacturer selected to provide Services per this bid proposal will be required to be an integral member of the Project team to provide a well-integrated and watertight modular building design working in conjunction with LPAS, the AOR, to meet the needs of the DISTRICT within the Project program, budget and schedule. A more detailed scope of work can be found in Summary of Work, Section 01010, of these bid documents.

Project documents including but not limited to Site plans, floor Plans and Elevations can be viewed at the DISTRICT Website: [http://www.4cd.edu/webapps/bids](http://www.4cd.edu/webapps/bids)

The following Exhibits are provided:

- Exhibit A - Campus Safety Center Floor Plans, and Elevation dated 12/07/2015
- Exhibit B - Tentative Project Schedule

Hard copies of plans and specifications shall be available for purchase at ARC located at 5753 Pacheco Blvd., Pacheco, California, Phone: (925) 682-6930. To purchase plans at ARC’s Public Planroom website use the link: [https://order.e-arc.com/arcEOC/PWELL_Main.asp?mem=23](https://order.e-arc.com/arcEOC/PWELL_Main.asp?mem=23). Go to the Public Planroom for access to the documents without a login required. Payment for hardcopies shall be the responsibility of the bidder, and shall be made directly to ARC. The District does not provide hardcopies of bid documents or reimburse cost of printing, delivery, or any expenses related to the bidding process.

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

All questions related to this project must be in writing and are directed to:

**Jovan Esprit – Contract Manager**
Contra Costa Community College District
500 Court St., Martinez, CA 94553
Email: jesprit@4cd.edu
Facsimile: 925-370-6517
Each bid shall be made on the bid form, which is included in the Bid Documents and when submitted, shall be accompanied by a Bid Bond or Certified Cashier’s Check in the amount of 10% of bid (made payable to the Contra Costa Community College District). The District reserves the right to forfeit Bid Bond submitted for failure of the successful bidder to secure Payment & Performance Bonds.

Important Information:

Pre-Bid Meeting and Job Walk (mandatory)
Date / Time: Tuesday August 2, 2016/11:00AM

Pre-Bid Meeting and Job Walk #1, Location: Los Medanos College
2700 East Leland Drive
Pittsburg, CA 94565
Meet in Room PS 20 (see Campus Map Section 00016)

Pre-Bid Meeting and Job Walk #2, Location: Tuesday August 2, 2016/1:30PM
Contra Costa College
2600 Mission Bell Drive
San Pablo, CA 94806
Meeting Location To Be Announced During Job Walk #1

Last Date / Time for Bidder’s Requests for Information: Tuesday August 9, 2016/ 4:00PM

Last Day to Issue Addendum: Tuesday August 16, 2016
Bids Due No Later Than, Date / Time: Tuesday August 23, 2016/2:00PM
Bids Must Be Received at: Contra Costa Community College District (Lobby)
500 Court St, Martinez, CA 94553
Attn: Jovan Esprit – Contracts Manager (CCCCD)

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

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

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

Attention is directed to Section 4100 through 4113 of the Public Contract Code concerning subcontractors.

Attention is directed to Agreement Form, Article 5, and GENERAL CONDITIONS, Article 8, paragraphs 8.4.1
and 8.4.2, regarding liquidated damages. Liquidated Damages shall be set at \( \$1000 \) Dollars for each calendar day the work is delayed beyond Substantial Completion and \( \$500 \) Dollars for each calendar day beyond Final Completion. The Governing Board of the Contra Costa Community College District reserves the right to reject any and all bids and/or waive any informality or irregularity in any bid received. No bidder may withdraw their Bid for a period of ninety (90) days after the date set for opening thereof.

END OF SECTION 00100
1.1 ISSUING OF DOCUMENTS

A. Complete sets of Bidding Documents may be purchased at ARC Reprographic Services located at 5753 Pacheco Blvd., Pacheco, California, (925) 682-6930 or via the ARC Reprographic Services internet website, www.e-arc.com. Payment shall be made to ARC Reprographic Services for the cost of printing. To order documents via the internet, log on to https://order.e-arc.com/arcEOC/PWELL_Main.asp?mem=23. In the lower left side of the webpage under “PUBLIC PLANROOM”, click the "GO→" button and select the documents you need to order.

B. Bidding Documents may be examined at the Contra Costa Community College District, 500 Court Street, Martinez, CA 94553. By Appointment: Georgette Stewart, Facilities Department, phone: (925)229-6847.

1.2 QUALIFICATIONS OF BIDDERS

A. Bidders may be required to furnish evidence satisfactory to the District and the Architect that he has sufficient means and has had sufficient experience in the class of work called for to enable him to complete the Contract in a satisfactory manner.

B. Bidders shall be Contractors properly licensed in accordance with the laws of the State of California.

C. The successful Bidder shall furnish satisfactory Certificates of Insurance coverage as specified in the Contract Documents.

1.3 RECEIPT AND OPENING OF BIDS

A. Contra Costa Community College District hereinafter referred to as the District, will receive Bids at the same time and place specified in the Notice inviting Bids.

B. Complete the Bid Form included in the Project Manual.

C. The envelopes containing the Bids shall be sealed, addressed to the District, and designated as “P-4001 Campus Safety Center Project at CCC and LMC – Contra Costa Community College District”. The envelope shall contain the name and address of the Bidder.

D. Bids that are mailed shall have the previously described envelope placed inside an envelope addressed to: CONTRA COSTA COMMUNITY COLLEGE DISTRICT, 500 Court Street, Martinez, CA 94553 ATTENTION: JOVAN ESPRIT, Contracts Manager. Bids should be mailed in time to be received prior to the time set forth in the Advertisement for Bids.

E. Bids which are conditional (or which make alterations, omissions, or reservations to the terms of the Bidding Documents) may be rejected as non-responsive.

F. All monetary figures are required, both in writing and in numerals. In event of conflict between written quotations and numerical quotations, written quotations shall govern.

G. Type or print all bid data legibly in ink except signatures which shall be in script. Mistakes may be crossed out and corrections inserted, if each is initialed in ink by signer of Bid.
H. Bidder's business address and signature shall be on the Bid. A Bid by a partnership shall furnish the full names of partners and be signed in the partnership name by one member of the partnership, or by authorized representative, followed by the signature and designation of the person signing. Bids by corporations, with corporate seal affixed, shall be signed with the legal name of the corporation followed by the name of the state of incorporation and by the signature and designation of the person authorized to bind it to the matter. The name of each person signing shall also be typed or printed below the respective signatures. When required by the District, satisfactory evidence of authority of the office signing in behalf of the corporation shall be furnished.

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

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

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

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

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

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

D. Delivery of Bid Protest or Response:

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

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

3. Bidder shall submit any Bid Protest or Response to:
   David Wetmore
   Director of Purchasing & Contracts
   Contra Costa Community College District
   500 Court Street, Martinez, CA. 94553
   925-370-7512 (fax)

E. Content of Bid Protest:

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

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

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

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

1.8 AWARD AND REJECTION OF BIDS

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

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

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

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

4. Request proof that the successful Bidder can provide performance and payment bonds as required.

1.9 EXAMINE DOCUMENTS AND VISIT SITE

A. Before submitting a Bid, the Bidder shall examine the Bidding Documents, visit the site of the work, attend the required site visit arranged by the District and obtain Certification of Attendance signed by the District, ascertain existing conditions and limitations, including
those of labor, and include in the Bid a sum to cover the cost of all items described in the Contract Documents.

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

1.10 DISCREPANCIES, AMBIGUITIES, OR CONFLICTS

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

1.11 ADDENDA

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

1.12 FORM OF AGREEMENT

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

1.13 AWARD OF CONTRACT

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

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

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

END OF SECTION 00200
SECTION 00210
INFORMATION AVAILABLE TO BIDDERS

PART 1 - REPORT AND INFORMATION

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

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

A. Existing College Complex Drawings
B. Campus Utilities Maps
C. LMC Geotech Report

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

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

END OF SECTION 00210
SECTION 00300
BID PROPOSAL FORM

PROJECT NUMBER / NAME: P-4001 Campus Safety Center

CAMPUS / LOCATIONS: Contra Costa College 2600 Mission Bell Drive, San Pablo, CA 94806 and Los Medanos College, 2700 East Leland Drive, Pittsburg, CA 94565

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

Herein Referred to as "District"

1. INTRODUCTION

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

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

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

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

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

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

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

H. The District reserves the right to award the Additive/Deductive Alternates, if any, through change orders as budget allows within 30 calendar days after the Award of Contract.

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

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

1. Design and Construction Document Phase Through DSA Approval Both Colleges
   _______________________________ Dollars ($____________________)

2. Supply & Install A Complete Modular Building at Los Medanos College
   _______________________________ Dollars ($____________________)

3. Supply & Install A Complete Modular Building at Contra Costa College
   _______________________________ Dollars ($____________________)

B. ALTERNATES – ADDITIVE:

1. NONE
   _______________________________ Dollars ($____________________)

C. TOTAL FOR BASE BID PLUS ADD ALTERNATES
   _______________________________ Dollars ($____________________)

3. COMPLETION TIME

A. For establishing the Date of Final Completion the contract time for the Base Bid shall be as indicated in Section 00600, Construction Agreement. This time may be subject to modification to facilitate the work, as mutually agreed upon at a later date.

B. The Bidder certifies that the Bid is based on the Contract Time for completion as stated in Section 00600, Construction Agreement. Bidder further certifies that the Base Bid amount is sufficient to cover all labor, materials, central office and construction site overhead, profit, and all other costs related to the completion of the Project for the entire Project construction time for both the General Contractor and all Subcontractors, as stated above in paragraphs 2 and 3.
4. ADDENDA

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

None [    ]
Addendum No.: ________ dated ________________
Addendum No.: ________ dated ________________
Addendum No.: ________ dated ________________

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

5. DESIGNATION OF SUBCONTRACTORS

A. The Bidder has set forth a complete list indicating the type of work, name, and business address of each Subcontractor who will perform work in excess of one-half of one percent of the Contract Sum.

B. Any portion of the work in excess of the specified amount having no designated Subcontractor shall be performed by the Bidder.

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

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

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

<table>
<thead>
<tr>
<th>Type of Work</th>
<th>Subcontractor's Name</th>
<th>Business Address/Phone</th>
<th>CSLB License # and DIR Registration #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>3</td>
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<td></td>
</tr>
</tbody>
</table>

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

6. ACCEPTANCE AND AWARD

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

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

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

7. BID SECURITY

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

   ( ) Bid Bond Issued By: ________________________________

   ( ) Certified or Cashier's Check No. ________________________________

   Issued by: ________________________________

8. BIDDER'S BUSINESS INFORMATION

B. Individual [ ]:

   Personal Name: ________________________________

   Business Name: ________________________________

   Address: ________________________________

   ___________ Zip Code: ___________

   Telephone: ________________________________

   Fax Number: ________________________________

C. Partnership [ ]:

   Co-partners' Names: ________________________________
Business Name: ________________________________
Address: ___________________________________
______________________ Zip Code: __________

Telephone: ________________________________
Fax Number: ________________________________

D. Corporation [ ]:
Firm Name: ________________________________
Address: ___________________________________
______________________ Zip Code: __________

Telephone: ________________________________
Fax Number: ________________________________

State of Incorporation: ________________________________
President: ___________________________________
Secretary: ___________________________________
Treasurer: ___________________________________
Manager: ___________________________________

E. Power of Attorney: Name: ________________________________
Title: ________________________________

F. Contractor License No. ____________ State of ____________

G. Bidder is submitting this proposal on behalf of a Joint Venture. Names, license numbers, and relevant information are given on a separate attachment: Yes [ ] No [ ].

H. Upon request, furnish appropriate documentation to substantiate and/or support the data given.
9. The undersigned hereby certifies under penalty of perjury under the laws of the State of California that all the information submitted by the Bidder in connection with this Bid and all the representations herein made are true and correct.

Executed this ______________ day of ______________________________, 20________

______________________________
CSLB License No.: Exp: DIR Registration No.:

______________________________
Firm Name

______________________________
Signature

______________________________
By (Print or Type Name)

______________________________
Title

End of Section 00300
NONCOLLUSION AFFIDAVIT
(TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID)

State of California
County of Contra Costa

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

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

Date: __________________________ Signature: ________________________________

State of California
County of Contra Costa

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

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

WITNESS my hand and official seal.

Date: __________________________ Signature: ________________________________

[SEAL] END OF SECTION 00350
SECTION 00400

STATEMENT OF BIDDER’S QUALIFICATIONS

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

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

(Name)

I am the ___________________________ of __________________________________

(Title)      (Company / Entity)

Firm Name: ___________________________________________ Check One:  □ Corporation
(as it appears on license)  □ Partnership
                      □ Sole Proprietor  □ Joint Venture

Contact Person: _____________________________

Address: _____________________________

Phone: _____________________________ Fax: _____________________________

Email: _____________________________ Tax ID No.: _____________________________

If firm is a sole proprietor or partnership:

Owner(s) of Company _____________________________

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

________________________

________________________

________________________

_________________________________________
For Bidders That Are Corporations:

1a. Date incorporated: ________________________________

1b. Under the laws of what state: ________________________

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

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

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

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

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

1a. Date of formation: ________________________________________

1b. Under the laws of what state: _______________________________

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

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

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

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

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

1a. Date of commencement of business. ____________________________

1b. Tax ID number of company owner ______________________________

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

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

<table>
<thead>
<tr>
<th>Person’s Name</th>
<th>Construction Company</th>
<th>Dates of Person’s Participation with Company</th>
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</table>

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

1a. Date of commencement of joint venture. ____________________________

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

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

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

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

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

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

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

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

8. Has any owner, partner or (for corporations) officer of your firm operated another construction  
   firm under any other name in the last five (5) years?  
   ☐ Yes ☐ No  
   If “yes,” explain on a separate signed page (referring to this question), including the reason for  
   the change.
9. Have you attached your latest copy of a **REVIEWED** OR **AUDITED** financial statement with accompanying notes and supplemental information?
   - [ ] Yes  
   - [ ] No  

   **NOTE:** A financial statement that is not either reviewed or audited is not acceptable. A letter verifying availability of a line of credit may also be attached; however, it will be considered as supplemental information only, and is not a substitute for the required financial statement.

10. Is the attached Financial Statement for the identical organization of the Bidder?
    - [ ] Yes  
    - [ ] No  

   If “no”, explain the relationship and financial responsibility of the organization whose financial statement of provided (i.e., parent/subsidiary, etc.)

   ____________________________________________________________________________
   ____________________________________________________________________________

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

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

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

   - [ ]  
   - [ ]  
   - [ ]  

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

14. On a separate signed page (referring to this question), list all construction projects completed by your organization in the past three years, and for each project, state: (i) a general description of the work performed by your organization on the project; (ii) the owner's name, name of the owner's representative, the owner's address and telephone number; (iii) the initial and final contract amount; (iv) the initial and final dates of completion; and (v) whether the project was completed within contract time and contract budget.

15. Has a claim or other demand ever been made against your organization’s California Contractors License Bond?
    - [ ] Yes  
    - [ ] No  

   If yes, on a separate signed page (referring to this question), state the following: (i) the name,
address and telephone number of each person or entity making claim or demand; (ii) the date of each claim or demand; (iii) the circumstances giving rise to each such claim or demand; and (iv) the disposition of each such claim or demand.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Dated: _____________

__________________________
(Printed Name)

__________________________
(Signature)

**NOTARY PUBLIC**

=========================================================================================================================================================================================================================================================================================

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

STATE OF CALIFORNIA  
) ss.
COUNTY OF CONTRA COSTA  

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

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

Witness my hand and official seal.

__________________________
Notary Public

[SEAL]

=========================================================================================================================================================================================================================================================================================

**END OF SECTION 00400**
SECTION 00450

CERTIFICATION OF SITE VISIT

The Governing Board of the
Contra Costa Community College District
500 Court Street
Martinez, California 94553

Gentlemen/Ladies:

I visited the **P-4001 Campus Safety Center Project** site,

on ________________________________

to inspect the proposed work, which would be turned over to me in its present condition, with a representative of the Contra Costa Community College District in order to acquaint myself with the proposed work so that I might fully understand the facilities, difficulties, and restrictions attending the execution of the work under the contract, and acknowledge I had the opportunity to check the Record Drawing as-built drawings and/or previous Contract Documents, site conditions and Bid Documents with the authorized representative of the District.

**Owner Representative:**

Project/Construction Manager - CSI ________________________________ Date __________________

Or

Manager – Buildings & Grounds ________________________________ Date __________________

**Bidder:**

Name of Firm or Company _____________________________________________

Authorized Signatory ______________________________________________________________________

Address __________________________________________________________________________________

Phone Number __________________ Fax Number __________________

NOTE: Any bidder who fails to return this CERTIFICATION, fully executed, including signature of company representative AND a Contra Costa Community College District representative, with the proposal form, may have their bid rejected as non-responsive.

END OF SECTION 00450
PAYMENT BOND
(CALIFORNIA PUBLIC WORK)

KNOW ALL MEN BY THESE PRESENTS:

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

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

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

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

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

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

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

PRINCIPAL/CONTRACTOR:

________________________________________

By: ______________________________________

SURETY:

________________________________________

By: ______________________________________

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

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

Any claims under this bond may be addressed to:

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

__________________________________  __________________________________________

__________________________________  __________________________________________

Telephone:________________________ Telephone: ____________________________

STATE OF CALIFORNIA          )
) ss.
COUNTY OF                   )

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

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

WITNESS my hand and official seal.

__________________________________ (SEAL)
Notary Public in and for said State

Commission expires: ____________________________

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

KNOW ALL MEN BY THESE PRESENTS:

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

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

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

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

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

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

Whenever Principal shall be, and is declared by the Obligee to be, in default under the Contract, the Surety shall promptly either remedy the default, or shall promptly complete the Contract through its agents or independent contractors, subject to acceptance and approval of such agents or independent contractors by Obligee as hereinafter set forth, in accordance with its terms and conditions and to pay and perform all obligations of Principal under the Contract, including, without limitation, all obligations with respect to warranties, guarantees and the payment of liquidated damages; or, at Obligee’s sole discretion and election, Surety shall obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Obligee of the lowest responsible bidder, arrange for a contract between such bidder and the Obligee and make available as Work progresses (even though there should be a default or succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the “balance of the Contract price” (as hereinafter defined), and to pay and perform all obligations of Principal under the Contract, including, without limitation, all obligations with respect to warranties, guarantees and the payment of liquidated damages. The term “balance of the Contract price,” as used in this paragraph, shall mean the total amount payable to Principal by the Obligee under the Contract and any modifications thereto, less the amount previously paid by the Obligee to the Principal, less any withholdings by the Obligee allowed under the Contract.

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

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

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

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

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

PRINCIPAL/CONTRACTOR:

__________________________________________

By: _______________________________________

SURETY:

__________________________________________

By: _______________________________________

Attorney-in-Fact

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

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

IMPORTANT: THIS IS A REQUIRED FORM.

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

Any claims under this bond may be addressed to:

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

__________________________________________  ____________________________________________

__________________________________________  ____________________________________________

Telephone: ___________________________  Telephone: ___________________________
STATE OF CALIFORNIA  )
    ) ss.
COUNTY OF    )

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

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

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

WITNESS my hand and official seal.

____________________________            (SEAL)

Notary Public in and for said State

Commission expires:__________________

NOTE: A copy of the power-of-attorney to local representatives of the bonding company
must be attached hereto.
SECTION 00510

NOTICE OF AWARD

DATE: _____________________

TO: _____________________________________________

ADDRESS: _______________________________________

PROJECT: ________________________________________

The Contract Sum of your contract is ___________________________ Dollars, ($__________________).

You must comply with the following conditions within ten (10) calendar days of the date of this Notice of Award, that is, by ____________________.

1. You must deliver to the District two fully executed counterparts of Section 00600, “Construction Agreement.”

2. You must deliver to the District the “Contract Performance Bond,” and “Payment Bond,” executed by you and your surety, which are included in Section 00500.

3. You must deliver to District the insurance certificates required in Section 00700, for insurance required in Section 00600, Construction Agreement.

Failure to comply with these conditions within the time specified will entitle District to consider your bid abandoned, to annul this Notice of Award, and to declare your Bid Security forfeited. Within ten (10) calendar days after you comply with these conditions, the District will return to you one fully signed counterpart of the Construction Agreement.

Contra Costa Community College District

By: _____________________________

Title: _____________________________

END OF DOCUMENT
SECTION 00600
CONSTRUCTION AGREEMENT

CONTRACT NO. ______________________
(Construction Agreement)

========================================================================================

This Agreement shall not be enforceable until ratified and approved by the Contra Costa Community College District's Governing Board. The estimated Board meeting date is _______________________.

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

Contractor
Address: ___________________________________________
_____________________________________________________
_____________________________________________________

(§1.2) Effective Date: ________________________________

(§1.3) The Work: P-4001 Campus Safety Center at
CONTRA COSTA COLLEGE 2600 Mission Bell Drive, San Pablo, CA 94806 and
LOS MEDANOS COLLEGE 2700 East Leland Drive, Pittsburg, CA 94565

(§1.4) Completion Time: 433 Calendar Days from the Notice to Proceed to Substantial Completion, and 30 Calendar Days from Substantial Completion to Final Completion (Remaining Work).

(§1.5.1) Liquidated Damages, Substantial Completion: $1000 per Calendar Day beyond the Contract Substantial Completion Date.

(§1.5.2) Liquidated Damages, Remaining Work/Final Completion: $500/ per calendar day Remaining Work is delayed beyond the Contract Final Completion Date.

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

(§1.7) Contract Sum: ______ MILLION ______ THOUSAND, ______ HUNDRED DOLLARS and NO CENTS ($00,000,000.00)

2. SCOPE OF WORK:

See Section 01010 Summary of Work of the Project Documents

3. WORK CONTRACT, CHANGES

(a) By their signatures below, effective on the above date, these parties promise and agree as set forth in this Agreement, incorporating by these references labor and materials contained in Section 2, Scope of Work.
(b) Contractor shall, at Contractor's own cost and expense, and in a workmanlike manner, fully and faithfully perform and complete the work; and will furnish all materials, labor, services, equipment, and transportation necessary, convenient and proper in order fairly to perform the requirements of this contract, all strictly in accordance with the Public Agency’s drawings and specifications.

(c) The work can be changed only with Public Agency’s prior written order specifying such change and its cost agreed to by the parties; and the Public Agency shall never have to pay more than specified in Section 1.7 without such an order.

4. TIME: NOTICE TO PROCEED AND ACCEPTANCE

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

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

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

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

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

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

5. LIQUIDATED DAMAGES

5.1 LIQUIDATED DAMAGES - SUBSTANTIAL COMPLETION

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

5.2 LIQUIDATED DAMAGES - THE REMAINING WORK

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

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

7. PAYMENT

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

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

8. PAYMENTS WITHHELD

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

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

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

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

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

(a) Claims for damages because of bodily injury, sickness, disease, or death of any person District would require indemnification and coverage for employee claim;

(b) Claims for damages insured by usual personal injury liability coverage, which are sustained by a person as a result of an offense directly or indirectly related to employment of such person by the Contractor or by another person;

(c) Claims for damages because of injury or destruction of tangible property, including loss of use resulting therefrom, arising from operations under the Contract Documents;

(d) Claims for damages because of bodily injury, death of a person, or property damage arising out of the ownership, maintenance, or use of a motor vehicle, all mobile equipment, and vehicles moving under their own power and engaged in the Work;

(e) Claims involving contractual liability applicable to the Contractor’s obligations under the Contract Documents, including liability assumed by and the indemnity and defense obligations of the Contractor and the Subcontractors; and

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

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

**Subcontractor Insurance Requirements:** The Contractor shall require its Subcontractors to take out and maintain similar public liability insurance and property damage insurance as required under the above paragraph, titled “Contractor’s Liability Insurance, in amounts commensurate with the value of the subcontract. A “claims made” or modified “occurrence” policy shall not satisfy the requirements of the above paragraph, titled “Contractor’s Liability Insurance, without prior written approval of the District.

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

The Additional Insured Endorsement included on all such insurance policies shall state that coverage is afforded the additional insured with respect to claims arising out of operations performed by or on behalf of the insured. If the Additional Insured have other insurance which is applicable to the loss, such other insurance shall be on an excess or contingent basis. The insurance provided by the Contractor must be designated in the policy as primary to any insurance obtained by the Public Agency. The amount of the insurer’s liability shall not be reduced by the existence of such other insurance.
Workers’ Compensation Insurance: During the term of this Contract, the Contractor shall provide workers’ compensation insurance for all of the Contractor’s employees engaged in Work under this Contract on or at the Site of the Project and, in case any of the Contractor’s Work is subcontracted, the Contractor shall require the Subcontractor to provide workers’ compensation insurance for all the Subcontractor’s employees engaged in Work under the subcontract. Any class of employee or employees not covered by a Subcontractor’s insurance shall be covered by the Contractor’s insurance. In case any class of employees engaged in Work under this Contract on or at the Site of the Project is not protected under the Workers’ Compensation laws, the Contractor shall provide or cause a Subcontractor to provide adequate insurance coverage for the protection of those employees not otherwise protected. The Contractor shall file with the District certificates of insurance as required under Section 00700, Article 11.6, and in compliance with Labor Code § 3700.

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

(a) Workers’ Compensation Insurance: $1,000,000.00; Contractor is aware of and complies with Labor Code Section 3700 and the Worker’s Compensation Law.

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

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

(c) Insurance Covering Special Hazards

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

   (1) Automotive and truck where operated in amounts $1,000,000.00
   (2) Material Hoist where used in amounts $1,000,000.00
   (3) Explosion, Collapse and Underground (XCU coverage) $1,000,000.00

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

Builder’s Risk/ “All Risk” Insurance/Course-of-Construction Insurance Requirements: The Contractor, during the progress of the Work and until final acceptance of the Work by District upon completion of the entire Contract, shall maintain Builder’s Risk, Course of Construction or similar first party property coverage issued on a replacement cost value basis consistent with the total replacement cost of all insurable Work and the Project included within the Contract Documents. Coverage is to insure against all risks of accidental direct physical loss, and must include, by the basic grant of coverage or by endorsement, the perils of vandalism, malicious mischief (both without any limitation regarding vacancy or occupancy), fire, sprinkler leakage, civil authority, sonic boom, earthquake, flood, collapse, wind, lightning, smoke and riot. The coverage must include debris removal, demolition, increased costs due to enforcement of building ordinance and law in the repair and replacement of damage and undamaged portions of the property, and reasonable costs for the Architect’s and engineering services and expenses
required as a result of any insured loss upon the Work and Project which is the subject of the Contract Documents, including completed Work and Work in progress, to the full insurable value thereof. Such insurance shall include the District and the Architect as additional named insureds, and any other person with an insurable interest as designated by the District.

The Contractor shall submit to the District for its approval all items deemed to be uninsurable. The risk of the damage to the Work due to the perils covered by the “Builder’s Risk/All Risk” Insurance, as well as any other hazard which might result in damage to the Work, is that of the Contractor and the surety, and no claims for such loss or damage shall be recognized by the District nor will such loss or damage excuse the complete and satisfactory performance of the Contract by the Contractor.

10. **BONDS**

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

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

On signing this contract, Contractor shall deliver to Public Agency for approval good and sufficient bonds with sureties, in amount(s), specified in the specifications or special provisions, guaranteeing faithful performance of this contract and payment for all labor and materials hereunder.

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

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

11. **FAILURE TO PERFORM**

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

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

13. **SUBCONTRACTORS**

Public Contract Code Sections 4100-4113 are incorporated herein.

14. **WAGE RATES**

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

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

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

15. **HOURS OF LABOR**

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

16. **APPRENTICES**

Properly indentured apprentices may be employed on this work in accordance with Labor Code Sections 1777.5 and 1777.6, forbidding discrimination.
17. **PREFERENCE FOR MATERIALS**

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

18. **ASSIGNMENT**

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

19. **NO WAIVER BY PUBLIC AGENCY**

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

20. **HOLD HARMLESS AND INDEMNITY**

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

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

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

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

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

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

22. **GOVERNMENT CODE SECTION 10532**

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

23. **WARRANTY**

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

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

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

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

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

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

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

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

(1) Obtain all warranties that would be given in normal commercial practice;
(2) Require all warranties to be executed, in writing, for the benefit of the District, if directed by the District; and
(3) Enforce all warranties for the benefit of the District, if directed by the District.

(h) In the event the Contractor’s warranty under paragraph (b) of this clause has expired, the District may bring suit at its expense to enforce a subcontractor’s, manufacturer’s, or supplier’s warranty.
(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the District nor for the repair of any damage that results from any defect in District-furnished material or design.

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

24. CONSEQUENTIAL DAMAGES

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

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

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

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

25. HAZARDOUS MATERIALS

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

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

26. SAFETY

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

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

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

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

27. SIGNATURES AND ACKNOWLEDGEMENT

Public Agency

By: ___________________________________________________________
    David Wetmore, Director of Purchasing and Contracts

Note to Contractor: (1) Execute acknowledgement form below, and (2) if a corporation, affix Corporate Seal.
Contractor hereby also acknowledging awareness of and compliance with Labor Code S1861 concerning Worker's Compensation Law.

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

______________________________________________________
Print NAME and TITLE

_____________________________  _________________________
License Number  Federal ID Number

NOTARY PUBLIC

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

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

Dated: ________________________________

(NOTARIAL SEAL)

END OF SECTION 00600
SECTION 00650
NOTICE TO PROCEED

Date: __________________________

TO: _______________________________________________________

ADDRESS: ____________________________________________________

PROJECT: _____________________________________________________

You are notified that the Contract Time under the above contract will commence to run on _______________. By that date, you are to start performing your obligations under the Contract Documents. In accordance with Section 00600, Construction Agreement, the date of Substantial Completion is _________________, and the date for Final Completion is ________________________.

CONTRA COSTA COMMUNITY COLLEGE DISTRICT

By: ______________________________________________________

             Ray Pyle

Title: Chief Facilities Planner

END OF DOCUMENT
# GENERAL CONDITIONS

## Table of Contents

<table>
<thead>
<tr>
<th>Article</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ARTICLE 1</strong></td>
<td>GENERAL CONDITIONS</td>
<td>1</td>
</tr>
<tr>
<td>1.1</td>
<td>BASIC DEFINITIONS</td>
<td>1</td>
</tr>
<tr>
<td>1.2</td>
<td>EXECUTION, CORRELATION AND INTENT</td>
<td>5</td>
</tr>
<tr>
<td>1.3</td>
<td>OWNERSHIP AND USE OF ARCHITECT’S DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS</td>
<td>9</td>
</tr>
<tr>
<td><strong>ARTICLE 2</strong></td>
<td>DISTRICT</td>
<td>10</td>
</tr>
<tr>
<td>2.1</td>
<td>INFORMATION AND SERVICES REQUIRED OF THE DISTRICT</td>
<td>10</td>
</tr>
<tr>
<td>2.2</td>
<td>DISTRICT’S RIGHT TO CARRY OUT THE WORK</td>
<td>13</td>
</tr>
<tr>
<td><strong>ARTICLE 3</strong></td>
<td>THE CONTRACTOR</td>
<td>15</td>
</tr>
<tr>
<td>3.1</td>
<td>SUPERVISION AND CONSTRUCTION PROCEDURES</td>
<td>15</td>
</tr>
<tr>
<td>3.2</td>
<td>SUPERVISION</td>
<td>16</td>
</tr>
<tr>
<td>3.3</td>
<td>LABOR AND MATERIALS</td>
<td>17</td>
</tr>
<tr>
<td>3.4</td>
<td>WARRANTY</td>
<td>19</td>
</tr>
<tr>
<td>3.5</td>
<td>TAXES</td>
<td>20</td>
</tr>
<tr>
<td>3.6</td>
<td>PERMITS, FEES AND NOTICES</td>
<td>21</td>
</tr>
<tr>
<td>3.7</td>
<td>Not used</td>
<td>21</td>
</tr>
<tr>
<td>3.8</td>
<td>CONTRACTOR’S CONSTRUCTION SCHEDULES</td>
<td>21</td>
</tr>
<tr>
<td>3.9</td>
<td>Not used</td>
<td>22</td>
</tr>
<tr>
<td>3.10</td>
<td>DOCUMENTS AND SAMPLES AT THE SITE</td>
<td>22</td>
</tr>
<tr>
<td>3.11</td>
<td>SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND SUBSTITUTIONS</td>
<td>23</td>
</tr>
<tr>
<td>3.12</td>
<td>INTEGRATION OF WORK</td>
<td>27</td>
</tr>
<tr>
<td>3.13</td>
<td>CLEANING UP</td>
<td>27</td>
</tr>
<tr>
<td>3.14</td>
<td>ACCESS TO WORK</td>
<td>28</td>
</tr>
<tr>
<td>3.15</td>
<td>ROYALTIES AND PATENTS</td>
<td>29</td>
</tr>
<tr>
<td>3.16</td>
<td>INDEMNIFICATION</td>
<td>29</td>
</tr>
<tr>
<td>3.17</td>
<td>SUBMISSION OF DAILY REPORTS</td>
<td>30</td>
</tr>
<tr>
<td>3.18</td>
<td>EXECUTION OF THE WORK</td>
<td>31</td>
</tr>
<tr>
<td>3.19</td>
<td>DSA VERIFIED REPORTS AND CERTIFICATE OF COMPLIANCE</td>
<td>34</td>
</tr>
<tr>
<td>3.20</td>
<td>NOISE CONTROL</td>
<td>34</td>
</tr>
<tr>
<td><strong>ARTICLE 4</strong></td>
<td>ADMINISTRATION OF THE CONTRACT</td>
<td>35</td>
</tr>
<tr>
<td>4.1</td>
<td>ARCHITECT</td>
<td>35</td>
</tr>
<tr>
<td>4.2</td>
<td>ARCHITECT’S ADMINISTRATION OF THE CONTRACT</td>
<td>35</td>
</tr>
</tbody>
</table>
### Article 4: Inspector of Record
- **Responsibility for Additional Charges Incurred by the District**
- **Disputes**

### Article 5: Subcontractors
- **Definitions**

### Article 6: Construction by District or by Separate Contractors
- **District’s Right to Perform Construction and to Award Separate Contracts**
- **Constructive Ownership of Project Site and Material**
- **District’s Right to Clean Up**

### Article 7: Changes in the Work
- **Changes**
- **Change Orders (“CO”)**
- **Construction Change Directive**
- **Request for Information (“RFI”)**
- **Request for Proposal (“RFP”)**
- **Change Order Request (“COR”)**
- **Cost of Change Orders**

### Article 8: Time
- **Definitions**
- **Hours of Work**
- **Progress and Completion**
- **Extensions of Time – Liquidated Damages**

### Article 9: Payments and Completion
- **Contract Sum**
- **Cost Breakdown**
- **Progress Payments**
- **Applications for Progress Payments**
- **Warranty of Title**
- **Decisions to Withhold Payment**
- **Nonconforming Work**
- **Subcontractor Payments**
- **Project Record Documents**
- **Completion of the Work**
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.11</td>
<td>PARTIAL OCCUPANCY OR USE</td>
<td>71</td>
</tr>
<tr>
<td>9.12</td>
<td>COMPLETION AND FINAL PAYMENT</td>
<td>72</td>
</tr>
<tr>
<td>9.13</td>
<td>SUBSTITUTION OF SECURITIES</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td><strong>ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY</strong></td>
<td></td>
</tr>
<tr>
<td>10.1</td>
<td>SAFETY PRECAUTIONS AND PROGRAMS</td>
<td>73</td>
</tr>
<tr>
<td>10.2</td>
<td>SAFETY OF PERSONS AND PROPERTY</td>
<td>76</td>
</tr>
<tr>
<td>10.3</td>
<td>EMERGENCIES</td>
<td>78</td>
</tr>
<tr>
<td>10.4</td>
<td>HAZARDOUS MATERIALS</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td><strong>ARTICLE 11 INSURANCE AND BONDS</strong></td>
<td>80</td>
</tr>
<tr>
<td>11.1</td>
<td>Not used</td>
<td>80</td>
</tr>
<tr>
<td>11.2</td>
<td>Not used</td>
<td>80</td>
</tr>
<tr>
<td>11.3</td>
<td>Not used</td>
<td>80</td>
</tr>
<tr>
<td>11.4</td>
<td>Not used</td>
<td>80</td>
</tr>
<tr>
<td>11.5</td>
<td>OTHER INSURANCE</td>
<td>80</td>
</tr>
<tr>
<td>11.6</td>
<td>PROOF OF INSURANCE</td>
<td>80</td>
</tr>
<tr>
<td>11.7</td>
<td>COMPLIANCE</td>
<td>81</td>
</tr>
<tr>
<td>11.8</td>
<td>WAIVER OF SUBROGATION</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td><strong>ARTICLE 12 UNCOVERING AND CORRECTION OF WORK</strong></td>
<td>81</td>
</tr>
<tr>
<td>12.1</td>
<td>UNCOVERING OF WORK</td>
<td>81</td>
</tr>
<tr>
<td>12.2</td>
<td>CORRECTION OF WORK</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td><strong>ARTICLE 13 MISCELLANEOUS PROVISIONS</strong></td>
<td>82</td>
</tr>
<tr>
<td>13.1</td>
<td>GOVERNING LAW AND REGULATIONS</td>
<td>82</td>
</tr>
<tr>
<td>13.2</td>
<td>SUCCESSORS AND ASSIGNS</td>
<td>84</td>
</tr>
<tr>
<td>13.3</td>
<td>WRITTEN NOTICE</td>
<td>84</td>
</tr>
<tr>
<td>13.4</td>
<td>RIGHTS AND REMEDIES</td>
<td>84</td>
</tr>
<tr>
<td>13.5</td>
<td>TESTS AND INSPECTIONS</td>
<td>84</td>
</tr>
<tr>
<td>13.6</td>
<td>TRENCH EXCAVATION</td>
<td>87</td>
</tr>
<tr>
<td>13.7</td>
<td>WAGE RATES, TRAVEL, AND SUBSISTENCE</td>
<td>87</td>
</tr>
<tr>
<td>13.8</td>
<td>RECORDS OF WAGES PAID</td>
<td>88</td>
</tr>
<tr>
<td>13.9</td>
<td>APPRENTICES</td>
<td>90</td>
</tr>
<tr>
<td>13.10</td>
<td>ASSIGNMENT OF ANTITRUST CLAIMS</td>
<td>92</td>
</tr>
<tr>
<td>13.11</td>
<td>STATE AUDIT</td>
<td>92</td>
</tr>
<tr>
<td>13.12</td>
<td>Not Used</td>
<td>92</td>
</tr>
<tr>
<td>13.13</td>
<td>INDUSTRY STANDARDS</td>
<td>93</td>
</tr>
<tr>
<td>13.14</td>
<td>PRODUCTS</td>
<td>94</td>
</tr>
</tbody>
</table>
## ARTICLE 14  TERMINATION OR SUSPENSION OF THE CONTRACT

### 14.1 TERMINATION BY THE CONTRACTOR FOR CAUSE

### 14.2 TERMINATION BY THE DISTRICT FOR CAUSE

### 14.3 TERMINATION OF CONTRACT BY DISTRICT (CONTRACTOR NOT AT FAULT)

### 14.4 REMEDIES OTHER THAN TERMINATION
ARTICLE 1

GENERAL CONDITIONS

1.1 BASIC DEFINITIONS

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

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

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

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

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

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

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

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

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

1.1.10 Contractor’s Construction Schedule. The document prepared by the Contractor, which details the events of construction and establishes completion dates for the various stages of the Work and the entire project.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1.1.27 Locality in which the work is performed means the county in which the Project is located.

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

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

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

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

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

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

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

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

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

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

1.1.38 **Site** refers to the grounds of the Project as defined in the Contract Documents and such adjacent lands as may be directly affected by the performance of the Work.

1.1.39 **The Specifications.** The Specifications are that portion of the Contract Documents consisting of the written requirements for material, equipment, construction systems, instructions, quality assurance standards, workmanship, and performance of related services.

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

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

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

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

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

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

1.1.46 Workers includes laborers, workers, and mechanics.

1.2 EXECUTION, CORRELATION AND INTENT

1.2.1 Correlation and Intent

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

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

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

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

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

1.2.2 Addenda and Deferred Approvals

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

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

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

1.2.3 Specification Interpretation

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

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

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

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

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

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

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

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

(a) General Notes, when identified as such, shall be incorporated into other portions of Drawings.
(b) Schedules, when identified as such, are complementary with other notes and other portions of Drawings including those identified as General Notes.
(c) Larger scale drawings shall take precedence over smaller scale drawings.
(d) At no time shall the Contractor base construction on scaled drawings.

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

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

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

(a) General Conditions take precedence over Drawings and Specifications.
(b) Special Conditions take precedence over General Conditions.
(c) The Agreement shall take precedent over the Special Conditions.
(d) In the case of disagreement or conflict between or within standards, specifications, and drawings, the more stringent, higher quality, and greater quantity of Work shall apply.

1.3 Ownership and Use of Architect’s Drawings, Specifications and Other Documents

The Drawings, Specifications, and other contract documents for the Project are the property of the District and/or Architect pursuant to Education Code § 17316. The Contractor may retain one contract record set. Neither the Contractor nor any Subcontractor, or material or equipment supplier shall own or claim a copyright in the Drawings, Specifications, and other documents prepared by the Architect. All copies except the Contractor’s record set, shall be returned or properly accounted for upon completion of the Work. The Drawings, Specifications, and other documents prepared by the Architect, and copies thereof furnished to the Contractor are not to be used by the Contractor or any Subcontractor, Sub-subcontractor, or material or equipment supplier on other projects or for additions to this Project outside the scope of the Work. The District and/or Architect hereby grants the Contractor, Subcontractors, Sub-subcontractors, and material or equipment suppliers a limited license to use applicable portions of the Drawings, Specifications, and other documents prepared for the Project in the execution of their Work under the Contract Documents. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the District’s property interest or other reserved right.
ARTICLE 2

DISTRICT

2.1 INFORMATION AND SERVICES REQUIRED OF THE DISTRICT

2.1.1 Site Survey.

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

2.1.2 Soils.

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

2.1.3 Contractor Reliance.

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

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

2.1.4 Utilities.

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

2.1.4.2 Utilities – Removal and Restoration

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

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

Contractor shall coordinate its Work with all utilities, including, but not limited to electricity, water, gas and telephone and meet with said utilities prior to the start of any work.

2.1.4.3 Other Utilities.

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

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

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

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

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

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

2.1.5 Existing Utility Lines; Removal, Relocation.

2.1.5.1 Main or Trunkline Facilities

If the Contractor while performing the contract discovers utility facilities not identified by the District in the Contract Documents, Contractor shall, within five (5) days, notify the District and utility in writing.

The District has the responsibility to identify, with reasonable accuracy, main or trunkline facilities on the drawings and specifications. In the event that main or trunkline utility facilities are not identified with reasonable accuracy in the drawings and specifications, District shall assume the responsibility for their timely removal, relocation, or protection.

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

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

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

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

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

Nothing herein shall be construed to relieve the utility from any obligation as required either by law or by contract to pay the cost of removal or relocation of existing utility facilities.
2.1.5.2 **Assessment.** These subparagraphs shall not be construed to preclude assessment against the Contractor for any other delays in completion of the Work. Nothing in these subparagraphs shall be deemed to require the District to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the Site can be inferred from the presence of other visible facilities, such as buildings, or meter junction boxes on or adjacent to the Site.

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

2.1.6 **Easements.**

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

2.2 **DISTRICT’S RIGHT TO CARRY OUT THE WORK**

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

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

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

THE CONTRACTOR

3.1 SUPERVISION AND CONSTRUCTION PROCEDURES

3.1.1 Contractor.

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

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

(b) Performance of the work. The Contractor shall carefully study the approved drawings and specifications and shall plan its schedule of operations well ahead of time. If at any time it is discovered that work is being done which is not in accordance with the approved drawings and specifications, the contractor shall correct the work immediately.

All inconsistencies or times which appear to be in error in the drawings and specifications shall promptly be called to the attention of the Architect or, Engineer, for interpretation or correction. Local conditions which may affect the structure shall be brought to the Architect’s attention at once. In no case, shall the instruction of the Architect be construed to cause work to be done which is not in conformity with the approved drawings, specifications, change orders, construction change directives, and as required by law.

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

(c) Verified Reports. The Contractor shall make and submit to the District from time to time, verified reports as required in Section 36 of Title 21 and Section 4-366 of Title 24.

Contractor shall fully comply with any and all reporting requirements of Education Code Sections 81147, et seq., in the manner prescribed by Title 24, as applicable.
3.1.2 Contractor Responsibility.

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

3.1.3 Obligations not Changed by Architect’s Actions.

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

3.1.4 Acceptance/Approval of Work.

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

3.1.5 Performance of Work With Own Force.

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

3.2 SUPERVISION

3.2.1 Full Time Supervision.

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

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

3.2.3 Right to Remove.

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

3.3 LABOR AND MATERIALS

3.3.1 Contractor to Provide.

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

3.3.2 Quality.

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

3.3.3 Replacement.

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

3.3.4 Discipline.

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

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

3.3.6 Delivery of Material.

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

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

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

3.3.8 Title to Materials.

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

3.3.9 Assemblies.

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

3.4 **WARRANTY**

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

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

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

3.4.1.3 If, in the opinion of the District, defective Work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the District, the District will attempt to give the notice required by this Article. If the Contractor cannot be contacted or does not comply with the District’s requirements for correction within a reasonable time as determined by the District, the District may, notwithstanding the provisions of this article, proceed to make such correction or attention which shall be charged against Contractor. Such action by the District will not relieve the Contractor of the guarantee provided in this Article or elsewhere in this Contract.

3.4.1.4 This Article does not in any way limit the guarantee on any items for which a longer warranty or guaranty is specified or on any items for which a manufacturer gives a guarantee for a longer period. Contractor shall furnish District all appropriate guaranty or warranty certificates upon completion of the project.

3.4.2 Format - All Warranties/Guaranties and shall include:

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

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

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

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

3.4.4 Warranty and/or Guaranty Tags.

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

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

- a. Type of product/material
- b. Model number
- c. Serial number
- d. Contract number
- e. Warranty/Guaranty period (months) from to
- f. Inspector’s signature
- g. Construction Contractor
  - Address
  - Telephone number
- h. Warranty or Guaranty contact
  - Address
  - Telephone number
- j. WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE DURING THE WARRANTY PERIOD.

3.5 TAXES

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

3.6.1 Payment.

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

3.6.2 Compliance.

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

3.6.3 Responsibility.

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

3.7 **Not used.**

3.8 **CONTRACTOR’S CONSTRUCTION SCHEDULES**

3.8.1 Requirements.

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

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

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

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

(e) Contractor shall include in the schedule all shop drawings, and deferred submittals. Include activities for the submittal, District/Architect’s review (minimum duration of 14 calendar days), procurement (or fabrication as applicable); and link the finish of the procurement/fabrication activity to the start of the related field activity at the Site.

3.8.2 Failure to Meet Requirements.

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

3.9 Not used.

3.10 DOCUMENTS AND SAMPLES AT THE SITE

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

3.11 **SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND SUBSTITUTIONS**

3.11.1 Submittals defined.

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

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

3.11.1.3 *Contractor’s Responsibilities.* Contractor shall obtain and shall submit all required shop drawings, samples, etc., required by the Specifications with such promptness as to cause no delay in its own Work or in that of any other contractor or subcontractor but in no event later than ten (10) days after the award of the Contract. No extensions of time will be granted to Contractor or any Subcontractor because of its failure to have shop drawings and samples submitted in accordance with the Schedule. Each Subcontractor shall submit all shop drawings, samples, and manufacturer’s descriptive data for the review of the District, the Contractor, and the Architect through the Contractor. By submitting shop drawings, product data, samples, etc., the Contractor represents that it has determined and verified all materials, field measurements, catalog numbers, related field construction criteria, and other relevant data in connection with each such submission, and that it has checked, verified, and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents, including the construction schedule. The submission of the shop drawings, product data, samples, etc., shall not deviate from the requirements of the Contract Documents including detailing and design intent which is specifically outlined in Contract Documents except as specifically authorized by the District/Architect or through an accepted substitution pursuant to Paragraph 3.10.4. All deviations from
the Contract Documents shall be narratively described in a transmittal accompanying the shop drawings. However, shop drawings shall not be used as a means of requesting a substitution, the procedure for which is defined in Paragraph 3.10.4, “Substitutions.” Review by District and Architect shall not relieve the Contractor or any Subcontractor from its responsibility in preparing and submitting proper shop drawings in accordance with the Contract Documents. Any submission, which in District/Architect’s opinion is incomplete, contains errors, or has been checked superficially will be returned un-reviewed by the District/Architect for resubmission by the Contractor. Contractor shall stamp, sign, and date each submittal indicating its representation that the submittal meets all of the requirements of the Contract Documents and evidence Contractor’s review through execution of the following stamp to be placed on each shop drawings:

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

___________________________
Signature of Contractor and date”
amount as requested by the Contractor, of: (1) manufacturers’ descriptive data for materials, equipment, and fixtures, including catalog sheets showing dimensions, performance, characteristics, and capacities; (2) wiring diagrams and controls; (3) schedules; (4) all seismic calculations and other calculations; and (5) other pertinent information as required by the District or Architect.

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

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

3.11.3 Sample Submissions Procedure.

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

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

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

3.11.3.4 Not used.

3.11.3.5 Not used.

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

3.11.4 Substitutions.

3.11.4.1 One Product Specified. Unless the Specifications state that no substitution is permitted, whenever the Contract Documents indicate any specific material, product, thing or service, or any specific name, make, trade name, or catalog number, with or without the words “or equal,” such specification shall be deemed to be used for the purpose of facilitating description of the material,
product, thing or service desired and shall be deemed to be followed by the words “or equal” unless the Contract Documents specify “no substitution allowed”, “no equal”, “no equivalent”, or other language with similar meaning, in which case no substitutions will be allowed. Pursuant to Paragraph 3.11.4.3, the Contractor may, unless otherwise stated, within three (3) work days after the bid opening, submit a substitution request for any material, product, thing or service, which shall be materially equal or better in every respect to that so indicated or specified (“Specified Item”) and will completely accomplish the purpose of the Contract Documents.

(a) **Products Specified Which are Commercially Unavailable.** If the Contractor fails to make a request for substitutions for products, within three (3) work days after bid opening, and such products subsequently become commercially unavailable, the Contractor may request a substitution for such commercially unavailable item. The decision to grant this request is solely at the District’s discretion. The written approval of the District, consistent with the procedure for Change Orders, shall be required for the use of a proposed substitute material. The District may condition its approval of the substitution upon the delivery to District of an extended warranty or guaranty or other assurances of adequate performance of the substitution as well as an equitable deduction in the contract sum should the substituted item cost less than the Specified Item. All risks of delay due the approval of a requested substitution by the District, DSA, or any other governmental agency having jurisdiction, shall be on the requesting party. All additional costs, all procurement and construction delays, and all costs for review by the Architect or its consultants shall be the responsibility of the Contractor and will be deducted from Contractor’s pay request.

3.11.4.2 **Substitution Request Form.** Requests for substitutions of materials, products, things or services in place of a Specified Item must be submitted to the District in writing on the District’s Substitution Request Form (“Request Form”) within three (3) work days after bid opening, except as provided for in Paragraph 3.11.4.1.

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

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

3.11.4.3 In completing the Request Form, the bidder shall state, with respect to each requested substitution, that the bidder will agree to provide the Specified Item in the event that the District denies the bidder’s request for such requested substitution. In the event the District denies the bidder’s requested substitution for a Specified Item, the bidder shall provide the Specified Item without any additional cost or charge to the District, and waives all rights to submit a claim.

3.11.4.4 After bids are opened, the apparent lowest bidder shall provide, within three (3) days of opening such bids, any and all Drawing, Specifications, samples, performance data, calculations, and other information, as may be required to assist the Architect and the District in determining whether the proposed substitution is acceptable. The burden of establishing these facts shall be upon the bidder.
3.11.4.5 After the District’s receipt of such evidence by the bidder, the District will make its final decision as to whether the bidder’s request for substitution for any Specified Items will be granted. The decision as to whether a proposed request for substitution is equal to a Specified Item shall be at the sole discretion of the District. Any request for substitution that is granted by the District shall be documented and processed through a Change Order. The District may condition its approval of any substitution upon delivery to the District of an extended warranty or guaranty or other assurances of adequate performance of the substitution. Any and all risks of delay due to approval by the District, DSA or any other governmental agency having jurisdiction shall be on the bidder.

3.11.4.6 If the Architect and District accept a proposed substitution, the Contractor agrees to pay for all District expenses, including but not limited to Division of the State Architect fees, engineering and design services, compensation to the Architect and affected engineers for their required time to process such substitution through the Division of the State Architect, if required, and to make all changes and adjustments in materials or the work of all trades directly or indirectly affected by the substituted item or items at no cost to the District.

3.12 INTEGRATION OF WORK

3.12.1 Scope.

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

3.12.2 Structural Members.

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

3.12.3 Subsequent Removal.

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

3.13 CLEANING UP

3.13.1 Contractor’s Responsibility.

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

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

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

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

3.13.2 Failure to Cleanup.

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

3.14 ACCESS TO WORK

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

CONTRACTOR IS AWARE THAT THIS CONTRACT MAY BE SPLIT INTO SEVERAL PHASES AS ADDRESSED IN ARTICLE 6.
3.15 **ROYALTIES AND PATENTS**

3.15.1 Payment and indemnity for Infringement.

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

3.15.2 Review.

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

3.16 **INDEMNIFICATION**

3.16.1 Contractor.

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

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

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

(b) Any bodily injury to or death of persons or damage to property caused by any act, omission or breach of Contractor or any person, firm or corporation employed by Contractor, either directly or by independent contract, including all damages or injury to, loss (including theft), or loss of use of, any property, sustained by any person, firm or corporation, including District, arising out of or in any way connected with Work
covered by this Agreement or the Contract Documents, whether said injury or damage occurs either on or off District property, but not for any loss, injury, death or damages caused by the sole or active negligence or willful misconduct of the District.

(c) Any dispute between Contractor and Contractor’s subcontractors/supplies/sureties, including, but not limited to, any failure or alleged failure of the Contractor (or any person hired or employed directly or indirectly by the Contractor) to pay any Subcontractor or Materialman of any tier or any other person employed in connection with the Work and/or filing of any stop notice or mechanic’s lien claims.

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

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

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

3.17 SUBMISSION OF DAILY REPORTS

3.17.1 General.

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

3.17.2 Labor.

The report required by Paragraph 3.17.1 shall show names of workers, classifications, hours worked.

3.17.3 Materials.

The report required by Paragraph 3.17.1 shall describe materials used.
3.17.4 Equipment.

The report required by Paragraph 3.17.1 shall show type of equipment, size, and hours of operation, including loading and transportation, if applicable.

3.18 EXECUTION OF THE WORK

3.18.1 Examination.

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

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

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

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

3.18.2 Existing Site and/or Building Conditions.

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

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

3.18.3 Existing Utilities.

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

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

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

3.18.4 Preparation.

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

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

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

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

3.18.5 Construction Layout.

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

3.18.6 Installation.

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

3.18.6.1 Make vertical work plumb and make horizontal work level.

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

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

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

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

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

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

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

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

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

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

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

3.18.16 District-Installed Products

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

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

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

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

3.19.1 Contractor Actions.

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


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

3.20 **NOISE CONTROL**

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

**ARTICLE 4**

**ADMINISTRATION OF THE CONTRACT**

**4.1 ARCHITECT**

4.1.1 Replacement of Architect.

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

**4.2 ARCHITECT’S ADMINISTRATION OF THE CONTRACT**

4.2.1 Status.

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

4.2.2 Site Visits.

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

4.2.3 Limitations of Construction Responsibility.

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

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

4.2.5 Payment Applications.

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

4.2.6 Rejection of Work.

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

4.2.7 Warranties and Guaranties Upon Completion.

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

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

4.2.8 Interpretation.

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

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

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

4.3 INSPECTOR OF RECORD

4.3.1 General.

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

4.3.2 Inspector’s Duties.

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

4.3.3 Inspector’s Authority to Reject or Stop Work.

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

4.3.4 Inspector’s Facilities.

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

4.3.5 Testing Times.

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

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

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

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

4.5 DISPUTES

4.5.1 Decision of Architect.

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

4.5.2 Architect’s Review.

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

4.5.3 Documentation if Resolved.

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

4.5.4 Actions if Not Resolved.

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

4.5.5 Architect’s Written Decision.

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

4.5.6 Continuing Contract Performance.

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

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

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

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

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

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

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

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

4.5.8 Claims for Extension of Time.

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

4.5.9 Claims Procedures.

4.5.9.1 Procedure applicable to all Claims:

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

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

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

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

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

(1) Cover letter.

(2) Summary of factual basis of Claim and amount of Claim.

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

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

h. Certification.

i. Chronology of events and related correspondence.

j. Daily reports and logs.

(f) Certification: The Contractor (and subcontractors, if applicable) shall submit with the Claim a certification under penalty of perjury:

(1) That the Contractor has reviewed the Claim and that such Claim is made in good faith;

(2) Supporting data are accurate and complete to the best of the Contractor’s knowledge and belief;

(3) The amount requested accurately reflects the amount of compensation for which the Contractor believes the District is liable.

(4) That the Contractor is familiar with Government Code Sections 12650 et seq. and Penal Code Section 72 and that false Claims can lead to substantial fines and/or imprisonment.

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

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

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

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

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

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

ARTICLE 5

SUBCONTRACTORS

5.1 DEFINITIONS

5.1.1 Subcontractual Relations

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

5.1.2 Subcontractor Licenses.

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

5.1.3 Substitution of Subcontractor

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

5.1.4 Contingent Assignment of Subcontracts and Other Contracts

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

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

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

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

ARTICLE 6

CONSTRUCTION BY DISTRICT OR BY SEPARATE CONTRACTORS

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

6.1.1 Separate Contracts.

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

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

(c) To ensure proper execution of its subsequent Work, Contractor shall measure and inspect Work already in place and shall at once report to the Architect in writing any discrepancy between executed Work as built and the Contract Documents.

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

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

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

**CONTRACTOR IS AWARE THAT THIS CONTRACT MAY BE SPLIT INTO SEVERAL PHASES. IF THE CONTRACT IS SPLIT INTO PHASES THEN CONTRACTOR HAS MADE ALLOWANCE FOR ANY DELAYS OR DAMAGES WHICH MAY ARISE FROM COORDINATION WITH CONTRACTORS FOR OTHER PHASES. IF ANY DELAYS SHOULD ARISE FROM ANOTHER CONTRACTOR WORKING ON A DIFFERENT PHASE, CONTRACTOR’S SOLE REMEDY FOR DAMAGES, INCLUDING DELAY DAMAGES, SHALL BE AGAINST THE CONTRACTOR WHO CAUSED SUCH DAMAGE AND NOT THE DISTRICT. CONTRACTOR SHALL PROVIDE ACCESS TO OTHER CONTRACTORS FOR OTHER PHASES AS NECESSARY TO PREVENT DELAYS AND DAMAGES TO OTHER CONTRACTORS WORKING ON OTHER PHASES OF CONSTRUCTION.**

6.1.2 District’s Right to Carry Out the Work.

See Paragraph 2.2.

6.1.3 Designation as Contractor.

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

6.1.4 Contractor Duties.

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

6.2 **CONSTRUCTIVE OWNERSHIP OF PROJECT SITE AND MATERIAL**

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

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

**ARTICLE 7**

**CHANGES IN THE WORK**

7.1 **CHANGES**

7.1.1 No Changes Without Authorization.

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

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

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

7.1.2 Architect Authority.

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

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

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

7.3 CONSTRUCTION CHANGE DIRECTIVE

7.3.1 Definition.

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

7.3.2 Use to Direct Change

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

7.4 REQUEST FOR INFORMATION (“RFI”)

7.4.1 Definition.

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

7.4.2 Scope.

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

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

7.4.4 Costs Incurred.

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

7.5 REQUEST FOR PROPOSAL (“RFP”)

7.5.1 Definition.

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

7.5.2 Scope.

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

7.6 CHANGE ORDER REQUEST (“COR”)

7.6.1 Definition.

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

7.6.2 Changes in Sum.

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

7.6.3 Changes in Time.

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

7.7  **COST OF CHANGE ORDERS**

7.7.1 Scope.

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

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

7.7.2 Determination of Cost.

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

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

(b) By unit prices contained in Contractor’s original bid and incorporated in the Project documents or fixed by subsequent agreement between District and Contractor;

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

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

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

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

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

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

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

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

Necessary loading and transportation costs for equipment used on the extra Work shall be included. If equipment is used intermittently and, when not in use, could be returned to its rental source at less expense to the District than holding it at the Work Site, it shall be returned unless the Contractor elects to keep it at the Work Site at no expense to the District.

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

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

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

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

7.7.3 Format for Proposed Cost Change.

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

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

(g) Subtotal

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

(i) Subtotal

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

(k) TOTAL

(l) Time

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

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

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

7.7.4 Net Deductive Change Orders

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

7.7.5 Discounts, Rebates, and Refunds.

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

7.7.6 Accounting Records.

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

7.7.7 Notice Required.

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

7.7.8 Applicability to Subcontractors.

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

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

ARTICLE 8

TIME

8.1 DEFINITIONS

8.1.1 Contract Time.

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

8.1.2 Notice to Proceed.

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

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

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

8.1.3 Computation of Time.

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

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

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

### 8.2 HOURS OF WORK

**8.2.1 Sufficient Forces.**

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

**8.2.2 Performance During Working Hours.**

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

**8.2.3 Costs for After Hours Inspections.**

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

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

If the Contractor elects to perform Work outside the Inspector’s regular working hours, costs of any inspections required outside regular working hours shall be invoiced to the Contractor by the District and deducted from the next Progress Payment.
8.3 PROGRESS AND COMPLETION.

8.3.1 Time of the Essence.

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

8.4 EXTENSIONS OF TIME – LIQUIDATED DAMAGES

8.4.1 Liquidated Damages.

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

8.4.2 Excusable Delay.

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

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

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

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

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

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

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

8.4.3 Notice by Contractor Required.

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

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

8.4.4 No Additional Compensation for Delays within Contractor’s Control

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

CONTRACTOR SHALL ONLY BE ENTITLED TO COMPENSATION FOR DELAY WHEN THE FOLLOWING CONDITIONS ARE MET: (1) THE DISTRICT IS RESPONSIBLE FOR THE DELAY; (2) THE DELAY IS UNREASONABLE UNDER THE CIRCUMSTANCES INVOLVED; AND (3) THE DELAY WAS NOT WITHIN THE CONTEMPLATION OF DISTRICT AND CONTRACTOR.
ARTICLE 9

PAYMENTS AND COMPLETION

9.1 CONTRACT SUM

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

9.2 COST BREAKDOWN

9.2.1 Required Information.

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

(a) Within ten (10) days of the award of the Contract, a detailed breakdown of the Contract Sum (hereinafter “Schedule of Values” or “SOV”) for each Project or Site;

(b) Within ten (10) days of the award of the Contract, a schedule of estimated monthly payment requests due the Contractor showing the values and construction time of the various portions of the Work to be performed by it and by its Subcontractors or material and equipment suppliers containing such supporting evidence as to its correctness as the District may require;

(c) Within ten (10) days of the award of the Contract, the name, address, telephone number, teletypewriter number, California State Contractors License number, classification and monetary value of all Subcontracts for parties furnishing labor, material, or equipment for completion of the Project.

9.2.2 District Approval Required.

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

9.3 PROGRESS PAYMENTS

9.3.1 Payments to Contractor.

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

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

The SOV items of Work shall include a prorated portion of Contractor’s home office and field office overhead, profit, insurance, (except to the extent expressly identified in a Proposal Item) and/or other financing, as well as General Conditions costs, (e.g., routine time related Site cleanup and maintenance, temporary power and lighting, security, temporary trailer rental, temporary fence rentals, and the like). The SOV shall also not include separate line items to prepare submittals, or other Work items not at the Project Site, unless expressly identified in these Contract Documents as specific exceptions.

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

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

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

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

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

(d) The consent of any Surety shall be obtained to the extent required prior to payment for any materials stored off-site;

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

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

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

9.3.3 No Waiver.

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

9.3.4 Issuance of Certificate of Payment.

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

9.4 APPLICATIONS FOR PROGRESS PAYMENTS

9.4.1 Procedure.

9.4.1.1 Application for Progress. On or before the fifth (5th) day of each calendar month during the progress of the Work, Contractor shall submit to the Architect an itemized Application for Progress Payment for operations completed in accordance with the Schedule of Values. Such application shall be notarized, if required, and supported by the following or such portion thereof as Architect requires:

(a) The amount paid to the date of the Application to the Contractor, to all its Subcontractors, and all others furnishing labor, material, or equipment for its Contract;

(b) The amount being requested under the Application for Payment by the Contractor on its own behalf and separately stating the amount requested on behalf of each of the Subcontractors and all others furnishing labor, material, and equipment under the Contract;

(c) The balance that will be due to each of such entities after said payment is made;

(d) A certification that the Record Drawings and Annotated Specifications are current;
(e) Itemized breakdown of work done for the purpose of requesting partial payment;
(f) An updated construction schedule in conformance with Paragraph 3.8;
(g) The additions to and subtractions from the Contract Sum and Contract Time;
(h) A summary of the retentions held;
(i) Material invoices, evidence of equipment purchases, rentals, and other support and details of cost as the District may require from time to time;
(j) The percentage of completion of the Contractor’s Work by line item; and
(k) An updated Schedule of Values from the preceding Application for Payment.

9.4.2 Prerequisites for Progress Payments.

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

(a) Installation of the Project sign;
(b) Receipt by Architect of submittals;
(c) Installation of field office;
(d) Installation of temporary facilities and fencing;
(e) Submission of documents listed in the Paragraph 9.2 relating to Cost Breakdown;
(f) Contractor’s Construction Schedule (Schedule to be CPM based in conformance with Paragraph 3.8);
(g) Schedule of unit prices;
(h) Submittal Schedule;
(i) Copies of necessary permits;
(j) Copies of authorizations and licenses from governing authorities;
(k) Initial progress report;
(l) Surveyor qualifications;
(m) Written acceptance of District’s survey of rough grading;
(n) List of all subcontractors, with names, license numbers, telephone numbers, and scope of work;
(o) All bonds and insurance endorsements; and
(p) Resumes of General Contractor’s Project Manager and superintendent.

9.4.2.2 All Payment Requests. No payment requests will be processed unless Contractor has submitted copies of the Certified Payroll records for the Work which correlates to the payment request and a proper CPM schedule pursuant to Paragraph 3.8 is submitted.
9.4.2.3 Any payments made to Contractor where criteria set forth in Paragraph 9.4.2.1 or 9.4.2.2 have not been met shall not constitute a waiver of said criteria by District. Instead, such payment shall be construed as a good faith effort by District to resolve differences so Contractor may pay its Subcontractors and suppliers and that Contractor agrees that failure to submit such items may constitute a breach of contract by Contractor and may subject Contractor to termination.

9.5 **WARRANTY OF TITLE**

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

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

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

9.6 **DECISIONS TO WITHHOLD PAYMENT**

9.6.1 **Reasons to Withhold Payment.**

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

(a) Defective Work not remedied;
(b) Stop Notices served upon the District;
(c) Liquidated damages assessed against the Contractor;
(d) The cost of completion of the Contract if there exists reasonable doubt that the Work can be completed for the unpaid balance of any Contract Sum or by the completion date;
(e) Damage to the District or other contractor;
(f) Unsatisfactory prosecution of the Work by the Contractor;
(g) Failure to store and properly secure materials;
(h) Failure of the Contractor to submit on a timely basis, proper and sufficient documentation required by the Contract Documents, including, without limitation, acceptable monthly progress schedules, shop drawings, submittal schedules, schedule of values, product data and samples, proposed product lists, executed Construction Change Directives, and verified reports;

(i) Failure of the Contractor to maintain record drawings;

(j) Erroneous estimates by the Contractor of the value of the Work performed, or other false statements in an Application for Payment;

(k) Unauthorized deviations from the Contract Documents;

(l) Failure of the Contractor to prosecute the Work in a timely manner in compliance with established progress schedules and completion dates.

(m) Failure to properly pay prevailing wages as defined in Labor Code section 1720, et seq.;

(n) Failure to properly maintain or clean up the Site;

(o) Payments to indemnify, defend, or hold harmless the District;

(p) Any payments due to the District including but not limited to payments for failed tests, or utilities changes or permits;

(q) Failure to submit an acceptable schedule in accordance with Paragraph 3.8; or

(r) Failure to pay Subcontractor or suppliers as required by Paragraph 9.8.1.

9.6.2 Reallocation of Withheld Amounts.

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

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

9.6.3 Payment After Cure.

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

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

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

9.8 SUBCONTRACTOR PAYMENTS

9.8.1 Payments to Subcontractors.

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

9.8.2 No Obligation of District for Subcontractor Payment.

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

9.8.3 Payment Not Constituting Approval or Acceptance.

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

9.8.4 Joint Checks.

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

9.9 PROJECT RECORD DOCUMENTS

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

Contractor shall dedicate one complete full size set of the Contract Drawings and one complete Project Manual for use in recording as-built conditions.

Contractor shall submit to District in hard copy one original and two copies of all Project Record Documents. In addition, one electronic copy in electronic media format shall be submitted to District. District reserves the right to require resubmittal in accordance with these General Conditions if the documents are inaccurate or incomplete, or otherwise fail to meet the requirements of these Contract Documents.

9.9.6 Project Record Drawings

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

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

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

   9.9.6.1 Dimensional changes to the Contract Drawings (horizontal and/or vertical)
   9.9.6.2 Revisions or any modification to details shown on the Contract Drawings
9.9.6.3 Depths of various elements of foundations in relation to main floor level or survey datum.

9.9.6.4 Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.

9.9.6.5 Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.

9.9.6.6 Locations of underground work, points of connection with existing utilities, changes in direction, valves, manholes, catch basins, capped stub outs, invert elevations and similar items.

9.9.6.7 Final, actual numbering of each electrical circuit.

9.9.6.8 Revisions to routing of piping and conduits.

9.9.6.9 Revisions to electrical circuitry.

9.9.6.10 Actual equipment locations.

9.9.6.11 Duct size and routing.

9.9.6.12 Changes made by Change Order, CCD, ASI, or any other directive.

9.9.6.13 Details not on original Contract Drawings.

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

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

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

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

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

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

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

9.9.8  Project Record Product Data

Contractor shall, during the construction period, maintain one copy of each Project Record Product Data submittal for "Project Record Document" purposes.

Contractor shall arrange Project Record Product Data by Specification Section number, and provide names, addresses, fax numbers, emails addresses, and telephone number of Subcontractors and suppliers. Information to be provided includes:

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

9.9.9  Miscellaneous Project Record Submittals

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

9.9.10  Electronic Media Format

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

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

9.10.1.1  Electronic Media of All Project Record Documents described in Article 9.9.10 above.
9.10.1.2  Record Samples
9.10.1.3  Field records for variable and concealed conditions
9.10.1.4  Operating and maintenance manuals and data
9.10.1.5  Warranties, guaranties, and bonds
9.10.1.6  Warranty Tags
9.10.1.7  Spare Parts Data
9.10.1.8  Service and maintenance contracts
9.10.1.9  Certified and approved fire inspection documents, when required

9.10.2  Initial Punch List and Inspection

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

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

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

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

l. Finished and decorative work shall have marks, dirt and superfluous labels removed.

m. Final cleanup.

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

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

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

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

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

9.10.3 Substantial Completion

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

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

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

9.10.3.2 The Notice of Completion shall be submitted to the Contractor for their written acceptance of responsibilities assigned to them in such Notice prior to District filing the Notice of Completion for purposes of initiating the release of Retention for the Work or Phase of Work.
9.10.3.3 The District shall withhold from Contractor payment the value of remaining Work, Work to be corrected, incomplete Work, and an amount identified for Punch List Work, and as otherwise identified in Public Contract Code.

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

9.10.4 Final Inspection

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

Operations and Maintenance Manuals and Warranty and Guaranty documents. At least ten (10) days prior to final inspection, three (3) copies of complete operations and maintenance manuals, repair parts lists, service instructions for all electrical and mechanical equipment, and equipment warranties shall be submitted. All installation, operating, and maintenance information and drawings shall be bound in 8½" x 11" binders. Provide a table of contents in front and all items shall be indexed with tabs. Each manual shall also contain a list of subcontractors, with their addresses and the names of persons to contact in cases of emergency. Identifying labels shall provide names of manufactures, their addresses, ratings, and capacities of equipment and machinery. Additional requirements for Operations and Maintenance manuals may be found in other Specifications and Sections of the Contract Documents.

Upon receipt of the Contractor’s request for Final Inspection, and not before, the Contractor, Architect, and Construction Manager, shall meet to go over the Contract Documents to identify the administrative requirements for contract close-out.

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

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

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

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

When the Architect determines that all final punch list items have been completed, a final Project Inspection Report will be issued. Any outstanding administrative close-out requirements will be identified and a value for withholding from Progress Payment or Final Payment will be assigned.
The Project Inspector (IOR), the Construction Manager, and the Contractor shall, at all times, be together during all inspections. The Contractor shall give 24-hour notice to the District for such inspections.

9.10.5 Final Completion

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

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

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

Should District determine that the Work is incomplete or defective or that administrative requirements have not been completed:

9.10.5.3 District’s Representative promptly will so notify Contractor, in writing, listing the incomplete or defective items.

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

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

9.11 PARTIAL OCCUPANCY OR USE

9.11.1 District’s Rights.

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

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

9.11.3 No Waiver.

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

9.12 COMPLETION AND FINAL PAYMENT

9.12.1 Final Inspection.

Contractor shall comply with all Punch List and Inspection procedures under Paragraph 9.10

Upon receipt and approval of such final Application for Payment as required in Article 9.10.5.5 and elsewhere, the Architect shall issue a final Certificate of Payment stating that to the best of its knowledge, information, and belief, and on the basis of its observations, inspections, and all other data accumulated or received by the Architect in connection with the Work, such Work has been completed in accordance with the Contract Documents. The District shall thereupon inspect such Work and either accept the Work as complete or notify the Architect and the Contractor in writing of reasons why the Work is not complete. Upon acceptance of the Work of the Contractor as fully complete (which, absent unusual circumstances, will occur when the Punch List items have been satisfactorily completed), the District shall record a Notice of Completion with the County Recorder, and the Contractor shall, upon receipt of payment from the District, pay the amounts due Subcontractors.

9.12.2 Retainage.

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

9.12.3 Procedures for Application for Final Payment.

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

(a) A full and final waiver or release of all Stop Notices in connection with the Work shall be submitted by Contractor, including a release of Stop Notice in recordable form, together with (to the extent permitted by law) a copy of the full and final release of all Stop Notice rights.
(b) The Contractor shall have made all corrections to the Work which are required to remedy any defects therein, to obtain compliance with the Contract Documents or any requirements of applicable codes and ordinances, or to fulfill any of the orders or directions of District required under the Contract Documents.

(c) Each Subcontractor shall have delivered to the Contractor all written guarantees, warranties, applications, and bonds required by the Contract Documents for its portion of the Work.

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

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

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

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

9.13 **SUBSTITUTION OF SECURITIES**

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

**ARTICLE 10**

**PROTECTION OF PERSONS AND PROPERTY**

10.1 **SAFETY PRECAUTIONS AND PROGRAMS**

10.1.1 Contractor Responsibility.

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

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

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

10.1.2 Subcontractor Responsibility.

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

10.1.3 Cooperation.

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

10.1.4 Accident Reports.

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

10.1.5 First-Aid Supplies at Site.

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

10.1.6 Material Safety Data Sheets and Compliance with Proposition 65.

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

10.1.7 Non-Utilization of Asbestos Material.

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

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

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

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

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

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

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

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

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

10.2.1 The Contractor.

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

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

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

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

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

10.2.2 Contractor Notices.

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

10.2.3 Safety Barriers and Safeguards.

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

10.2.4 Use or Storage of Hazardous Material.

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

10.2.5 Protection of Work.

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

The Contractor, at Contractor’s expense, will remove all mud, water, or other elements as may be required for the proper protection and prosecution of its Work.
Contractor shall take adequate precautions to protect existing roads, sidewalks, curbs, pavements, utilities, adjoining property and structures (including, without limitation, protection from settlement or loss of lateral support), and to avoid damage thereto, and repair any damage thereto caused by construction operations. All permits, licenses, or inspection fees required for such repair Work shall be obtained and paid for by Contractor.

10.2.6 Requirements for Existing Sites.

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

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

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

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

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

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

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

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

10.2.7 Shoring and Structural Loading.

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

10.2.8 Conformance Within Established Limits.

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

10.2.9 Subcontractor Enforcement of Rules.

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

10.2.10 Site Access.

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

10.3 EMERGENCIES

10.3.1 Emergency Action.

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

10.3.2 Accident Reports.

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

10.4.1 **Discovery of Hazardous Materials.**

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

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

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

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

10.4.2 **Hazardous Material Work Limitations.**

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

10.4.3 **Indemnification by Contractor for Hazardous Material Caused by Contractor.**

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

10.4.4 Terms of Hazardous Material Provision.

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

ARTICLE 11

INSURANCE AND BONDS

11.1 Not used

11.2 Not used

11.3 Not used

11.4 Not used

11.5 OTHER INSURANCE

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

11.6 PROOF OF INSURANCE

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

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

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

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

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

In the event of the failure of any contractor to furnish and maintain any insurance required by this Article 11, or in Section 00600, Construction Agreement, the Contractor shall be in default under the Contract. Compliance by Contractor with the requirement to carry insurance and furnish certificates or policies evidencing the same shall not relieve the Contractor from liability assumed under any provision of the Contract Documents, including, without limitation, the obligation to defend and indemnify the District and the Architect.

11.8  **WAIVER OF SUBROGATION**

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

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

**ARTICLE 12**

**UNCOVERING AND CORRECTION OF WORK**

12.1  **UNCOVERING OF WORK**

12.1.1  Uncovering Work for Required Inspections.

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

12.1.2  Costs for Inspections not Required.

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

12.2.1 Correction of Rejected Work.

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

12.2.2 One-Year Warranty or Guaranty Corrections.

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

12.2.3 District’s Rights if Contractor Fails to Correct.

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

ARTICLE 13

MISCELLANEOUS PROVISIONS

13.1 GOVERNING LAW AND REGULATIONS

The Contract shall be governed by the law of the place where the Project is located.

13.1.1 Specific reference in the Specifications to codes and regulations or requirements of regulatory agencies shall mean the latest printed edition of each adopted by the
regulatory agency in effect at the time of the opening of Proposals, except as may be otherwise specifically stated in the Contract Documents.

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

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

13.1.4 This section shall cover the general requirements for regulatory requirements pertaining to the Work and is supplementary to all other regulatory requirements mentioned or referenced elsewhere in the Contract Documents.

13.1.5 Code, laws, ordinances, rules and regulations referred to shall have full force and effect as though printed in full in these Specifications. Code, laws, ordinances, rules and regulations are not furnished to Contractor because Contractor is assumed to be and shall be familiar with these requirements, including readily available access to these requirements. The listing of applicable codes, laws, and regulations for hazardous waste abatement Work in the Contract Documents is supplied to Contractor as a courtesy and shall not limit Contractor's responsibility for complying with all applicable laws, regulations or ordinances having application to the Work. Where conflict among the requirements or with these Specifications occurs, the most stringent requirements shall be used with no change in Contract Sum or Contract Time.

13.1.6 Contractor shall conform to all applicable federal, state, and local codes, laws, ordinances, rules and regulations, whether or not referenced in the Contract Documents.

13.1.7 Precedence:

13.1.7.1 Where specified requirements differ from the requirements of applicable codes, ordinances and standards, the more stringent requirements shall take precedence.

13.1.7.2 Where Contract Documents require or describe products or execution of better quality, higher standard or greater size than required by applicable codes, ordinances and standards, Contract Documents shall take precedence so long as such increase is legal.

13.1.7.3 Where no requirements are identified on Contract Documents, comply with all requirements of applicable codes, ordinances and standards of governing authorities have jurisdiction.

13.1.7.4 If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to District for a decision before proceeding.
13.2 **SUCCESSORS AND ASSIGNS**

The District and the Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to the other party hereto and to partners, successors, assigns, and legal representatives of such other party in respect to covenants, agreements, and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

13.3 **WRITTEN NOTICE**

In the absence of specific notice requirements in the Contract Documents, written notice shall be deemed to have been duly served if delivered in person to the individual, member of the firm or entity, or to an officer of the corporation for which it was intended, or if delivered at or sent by registered or certified mail to the last business address known to the party giving notice.

13.4 **RIGHTS AND REMEDIES**

13.4.1 **Duties and Obligations Cumulative.**

Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

13.4.2 **No Waiver.**

No action or failure to act by the Inspector, the District, or the Architect shall constitute a waiver of a right or duty afforded them under the Contract Documents, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.

13.5 **TESTS AND INSPECTIONS**

13.5.1 **Compliance.**

Tests, inspections, and approvals of portions of the Work required by the Contract Documents will comply with Title 24, and with all other laws, ordinances, rules, regulations, or orders of public authorities having jurisdiction.

13.5.2 **Independent Testing Laboratory.**

The District will select and pay an independent testing laboratory to conduct all tests and inspections required by regulatory agencies. Selection of the materials required to be tested shall be made by the laboratory or the District’s representative and not by the Contractor. All costs for all other tests shall be included in the Bid Price and shall be paid for by the Contractor. Any costs or expenses of inspection or testing required by regulatory agencies, incurred outside of a fifty (50) mile radius from the Project Site or not located in a contiguous county to the Site, whichever distance is greater, shall be paid.
for by the District, invoiced by the District to the Contractor, and deducted from the next Progress Payment.

13.5.3 Contractor Responsibilities

13.5.3.1 Package and deliver to laboratory at designated location adequate samples of materials proposed to be used which require testing. Samples shall be selected by laboratory personnel. Allow proper time for selecting samples, and making tests or considerations.

13.5.3.2 Cooperate with laboratory personnel, and provide access to work and to manufacturer’s facilities.

13.5.3.3 Provide incidental labor and facilities to provide access to work to be tested, to obtain and handle samples as selected by laboratory personnel at the site or at source of products to be tested, to facilitate tests and inspections, and for storage and curing of test samples.

13.5.3.4 Schedule all tests and inspections with the testing and inspections firm and to notify Construction Manager and Project Inspector a minimum of 3 working days prior to expected time for operations requiring inspection and testing services. Do not allow work to be covered prior to inspection and testing.

13.5.3.5 Cooperate fully with the testing laboratory’s personnel and with special inspectors in inspection any part of the construction and in taking any samples of materials required to be tested. Provide access to the work. The Contractor’s personnel shall furnish and cut or prepare all samples in the presence of either the testing laboratory personnel or the special inspectors and secure the witness’s initial on each sample prepared.

13.5.3.6 Notify the testing laboratory to send a bonded messenger to pick up the initialed samples the same day the samples were prepared. Alert the testing laboratory 3 working days in advance as to the times and location of the required sampling, tests and inspections so as to not delay the work of the project, and make sure that the required sampling, tests inspections are promptly completed.

13.5.4 Contractor Paid Test/Inspection Reports:

13.5.4.1 Reports will comply with Section 4-335(d), Part 1, Title 24, CCR.

13.5.4.2 Include every test and inspection made regardless of whether such tests and inspections indicate that the material and procedures are satisfactory or unsatisfactory.

13.5.4.3 Include records of special sampling operations as required.

13.5.4.4 Indicate that materials were sampled and tested in accordance with requirements of CCR regulations and Construction Documents.

13.5.4.5 Indicate specified design strength of materials such as masonry, concrete and steel.

13.5.4.6 State whether or not materials and procedures comply with requirements of the Construction Documents.
13.5.4.7 Submit copies of reports to Construction Manager, District, Architect, Project Inspector, Structural Engineer, Civil Engineer, Soils Engineer and Contractor within 14 days of tests. Submit copies of reports of non-complying materials and procedures immediately.

13.5.5 Advance Notice to Inspector.

The Contractor shall notify the Inspector a sufficient time in advance of its readiness for required observation or inspection so that the Inspector may arrange for same, but no less than 2 work days. The Contractor shall notify the Inspector a sufficient time in advance, but no less than 2 work days, of the manufacture of material to be supplied under the Contract Documents which must, by terms of the Contract Documents, be tested in order that the Inspector may arrange for the testing of the material at the source of supply.

13.5.6 Testing Off-Site.

Any material shipped by the Contractor from the source of supply, prior to having satisfactorily passed such testing and inspection or prior to the receipt of notice from said Inspector that such testing and inspection will not be required, shall not be incorporated in the Work.

13.5.7 Additional Testing or Inspection.

If the Inspector, the Architect, the District, or public authority having jurisdiction determines that portions of the Work require additional testing, inspection, or approval not included under Paragraph 13.5.1, the Inspector will, upon written authorization from the District, make arrangements for such additional testing, inspection, or approval. The District shall bear such costs except as provided in Paragraph 13.5.7.

13.5.8 Costs for Retesting.

If such procedures for testing, inspection, or approval under Paragraphs 13.5.1 and 13.5.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, the Contractor shall bear all costs arising from such failure, including those of re-testing, re-inspection, or re-approval, including, but not limited to, compensation for the Architect’s services and expenses. Any such costs shall be paid by the District, invoiced to the Contractor, and deducted from the next Progress Payment.

13.5.9 Retesting Covered Work.

Re-examination of previously tested and inspected work may be ordered by the District, Architect, or by the Project Inspector. The Contractor shall uncover such work if retesting is ordered. If work is found in accordance with Contract Documents, the District will pay costs of uncovering, removing, retesting and replacing. If work is found not in accordance with Contract Documents, the District will deduct the cost of retesting from the Contract Sum by Change Order and the Contractor will bear the costs of uncovering, removing and replacing work.
13.5.10 Costs for Premature Test.

In the event the Contractor requests any test or inspection for the Project and is not completely ready for the inspection, the Contractor shall be invoiced by the District for all costs and expenses resulting from that testing or inspection, including, but not limited to, the Inspector’s and Architect’s fees and expenses, and the amount of the invoice of shall be deducted from the next Progress Payment.

13.6 TRENCH EXCAVATION

13.6.1 Trenches Greater Than Five Feet.

Pursuant to Labor Code § 6705, if the Contract Price exceeds $25,000 and involves the excavation of any trench or trenches five (5) feet or more in depth, the Contractor shall, in advance of excavation, submit to the District or a registered civil or structural engineer employed by the District or Architect, a detailed plan showing the design of shoring for protection from the hazard of caving ground during the excavation of such trench or trenches. Said detailed plan shall be prepared by a California licensed civil or structural engineer employed by the Contractor.

13.6.2 Excavation Safety.

If such plan varies from the Shoring System Standards established by the Construction Safety Orders, the plan shall be prepared by a registered civil or structural engineer, but in no case shall such plan be less effective than that required by the Construction Safety Orders. No excavation of such trench or trenches shall be commenced until said plan has been accepted in writing by the District or by the person to whom authority to accept has been delegated by the District.

13.6.3 No Tort Liability of District.

Pursuant to Labor Code § 6705, nothing in this Article shall impose tort liability upon the District or any of its employees.

13.6.4 No Excavation Without Permits.

The Contractor shall not commence any excavation Work until it has secured all necessary permits including the required CAL OSHA excavation/shoring permit. Any permits shall be prominently displayed on the Site prior to the commencement of any excavation.

13.7 WAGE RATES, TRAVEL, AND SUBSISTENCE

13.7.1 Wage Rates.

Pursuant to the provisions of Article 2 (commencing at § 1720), Chapter 1, Part 7, Division 2, of the Labor Code, the District has obtained the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this public works project is to be performed for each craft, classification, or type of worker needed for this Project from the Director of the Department of Industrial Relations (“Director”). These rates are on file at the administrative office of the DISTRICT and are also available from the Director of the Department of Industrial Relations. Copies will be made available to any interested party on request. The Contractor shall post a copy of such wage rates at appropriate, conspicuous, weatherproof points at the Site.
Any worker employed to perform work on the Project, but such work is not covered by any classification listed in the published general prevailing wage rate determinations or per diem wages determined by the Director of the Department of Industrial Relations, shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly corresponds to the employment of such person in such classification.

13.7.2 Holiday and Overtime Pay.

Holiday and overtime work, when permitted by law, shall be paid for at the rate set forth in the prevailing wage rate determinations issued by the Director of the Department of Industrial Relations or at least one and one-half (1½) times the specified basic rate of per diem wages, plus employer payments, unless otherwise specified in the contract documents or authorized by law.

13.7.3 Wage Rates Not Affected by Subcontracts.

The Contractor shall pay and shall cause to be paid each worker engaged in the execution of the Work on the Project not less than the general prevailing rate of per diem wages determined by the Director, regardless of any contractual relationship which may be alleged to exist between the Contractor or any Subcontractor and such workers.

13.7.4 Per Diem Wages.

The Contractor shall pay and shall cause to be paid to each worker needed to execute the Work on the Project per diem wages including, but not limited to, employer payments for health and welfare, pensions, vacation, travel time and subsistence pay as provided for in Labor Code §1773.1.

13.7.5 Forfeiture and Payments.

Pursuant to Labor Code §1775 and the District’s Labor Compliance Program, the Contractor shall forfeit to the District, not more than Fifty Dollars ($50.00) for each calendar day, or portion thereof, for each worker paid less than the prevailing wages rates as determined by the Director of the Department of Industrial Relations, for the work or craft in which the worker is employed for any Work done under the Agreement by the Contractor or by any Subcontractor under it. The amount of the penalty shall be determined by the Labor Commissioner and shall be based on consideration of: (1) whether the Contractor or Subcontractor’s failure to pay the correct rate of per diem wages was a good faith mistake and, if so, the error was promptly and voluntarily correct upon being brought to the attention of the Contractor or Subcontractor; and (2) whether the Contractor or Subcontractor has a prior record of failing to meet its prevailing wage obligations. Further details regarding the enforcement of paying prevailing wage rates, reporting violations, withholding contract payments, forfeitures and hearing to review withholding of contract payments are set forth in the District’s Labor Compliance Program.

13.8 RECORDS OF WAGES PAID

13.8.1 Payroll Records.

(a) Pursuant to §1776 of the Labor Code, each Contractor and Subcontractor shall keep an accurate payroll record showing the name, address, social security number, work classification and straight time and overtime hours worked each day.
and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed in connection with the Project.

(b) All payroll records shall be certified and submitted to the District with each application for payment, but shall not be submitted less than once per month. All payroll records shall be available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:

1. A certified copy of an employee’s payroll record shall be made available for inspection or furnished to the employee or their authorized representative on request.

2. A certified copy of all payroll records shall be made available for inspection or furnished upon request to a representative of District, the Division of Labor Standards Enforcement or the Division of Apprenticeship Standards of the Department of Industrial Relations.

3. A certified copy of all payroll records shall be made available upon request by the public for inspection or for copies thereof. However, a request by the public shall be made through the District, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to Paragraph (2) above, the requesting party shall, prior to being provided the records, reimburse the costs, according to law for the preparation by the Contractor, Subcontractor(s), and the entity through which the request was made. The public shall not be given access to such records at the principal office of the Contractor.

(c) The certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the Division of Labor Standards Enforcement.

(d) The Contractor or Subcontractor(s) shall file a certified copy of all payroll records with the entity that requested such records within 10 calendar days after receipt of a written request.

(e) Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the District, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or obliterated to prevent disclosure of an individual’s name, address and social security number. The name and address of the Contractor awarded the Contract or the Subcontractor(s) performing the Contract shall not be marked or obliterated. Any copy of records made available for inspection by, or furnished to, a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (Section 175a of Title 29 of the United States Code) shall be marked or obliterated only to prevent disclosure of an individual’s name and social security number.

(f) The Contractor shall inform the District of the location of all payroll records, including the street address, city and county, and shall, within five working days, provide a notice of a change of location and address.
The Contractor or Subcontractor(s) shall have 10 calendar days in which to comply subsequent to receipt of a written notice requesting payroll records. In the event that the Contractor or Subcontractor(s) fails to comply within the 10-day period, the Contractor or Subcontractor(s) shall, as a penalty to the District, forfeit Twenty-Five Dollars ($25.00) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

Responsibility for compliance with this Article and the District’s Labor Compliance Program shall rest upon the Contractor.

13.8.2 Withholding of Contract Payments & Penalties.

The District may withhold or delay contract payments to the Contractor and/or any Subcontractor if:

(a) The required prevailing rate of per diem wages determined by the Director of the Department of Industrial Relations is not paid to all workers employed on the Project; or

(b) The Contractor or Subcontractor(s) fail to submit all required certified payroll records with each application for payment, but not less than once per month; or

(c) The Contractor or Subcontractor(s) submit incomplete or inadequate payroll records; or

(d) The Contractor or Subcontractor(s) fail to comply with the Labor Code requirements concerning apprentices; or

(e) The Contractor or Subcontractor(s) fail to comply with the District’s Labor Compliance Program; or

(f) The Contractor or Subcontractor(s) fail to comply with any applicable state laws governing labor on public works projects.

Any withholding of contract payments and penalties are set forth in the District’s Labor Compliance Program.

13.9 APPRENTICES

13.9.1 Apprentice Wages and Definitions.

All apprentices employed by the Contractor to perform services under the Contract shall be paid the standard wage paid to apprentices under the regulations of the craft or trade for which he or she is employed, and as determined by the Director of the Department of Industrial Relations, and shall be employed only at the Work of the craft or trade to which he or she is registered. Only apprentices, as defined in §3077 of the Labor Code, who are in training under apprenticeship standards that have been approved by the Chief of the Division of Apprenticeship Standards and who are parties to written apprenticeship agreements under Chapter 4 (commencing with §3070) of Division 3, are eligible to be employed under this Contract. The employment and training of each apprentice shall be in accordance
with the apprenticeship standards and apprentice agreements under which he or she is training, or in accordance with the rules and regulations of the California Apprenticeship Council.

13.9.2 Employment of Apprentices.

Contractor agrees to comply with the requirements of Labor Code §1777.5. The Contractor awarded the Project, or any Subcontractor under him or her, when performing any of the Work under the Contract or subcontract, employs workers in any apprenticeable craft or trade, the Contractor and Subcontractor shall employ apprentices in the ratio set forth in Labor Code §1777.5. The Contractor or any Subcontractor must apply to any apprenticeship program in the craft or trade that can provide apprentices to the Project site for a certificate approving the Contractor or Subcontractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected. However, the decision of the apprenticeship program to approve or deny a certificate shall be subject to review by the Administrator of Apprenticeship. The apprenticeship program or programs, upon approving the Contractor or Subcontractor, shall arrange for the dispatch of apprentices to the Contractor or Subcontractor. The Contractor or Subcontractor covered by an apprenticeship program’s standards shall not be required to submit any additional application in order to include additional public works contracts under that program. “Apprenticeable craft or trade” as used in this Article means a craft or trade determined as an apprenticeable occupation in accordance with the rules and regulations prescribed by the California Apprenticeship Council. The ratio of work performed by apprentices to journeyman employed in a particular craft or trade on the Project shall be in accordance with Labor Code §1777.5.

13.9.3 Submission of Contract Information.

Prior to commencing work on the Project, the Contractor and Subcontractors shall submit contract award information to the applicable apprenticeship program(s) that can supply apprentices to the Project and make the request for the dispatch of apprentices in accordance with the Labor Code. The information submitted shall include an estimate of journeyman hours to be performed under the Contract, the number of apprentices proposed to be employed, and the approximate dates the apprentices would be employed. A copy of this information shall also be submitted to the District. Within 60 days after concluding work on the Project, the Contractor and Subcontractors shall submit to the District, if requested, and to the apprenticeship program a verified statement of the journeyman and apprentice hours performed on the Project.

13.9.4 Apprentice Fund.

The Contractor or any Subcontractor under him or her, who, in performing any of the Work under the Contract, employs journeymen or apprentices in any apprenticeable craft or trade shall contribute to the California Apprenticeship Council the same amount that the Director determines is the prevailing amount of apprenticeship training contributions in the area of the Project. The Contractor and Subcontractors may take as a credit for payments to the California Apprenticeship Council any amounts paid by the Contractor or Subcontractor to an approved apprenticeship program that can supply apprentices to the Project. The Contractor and Subcontractors may add the amount of the contributions in computing his or her bid for the Contract.

13.9.5 Prime Contractor Compliance.

The responsibility of compliance with Article 13 and §1777.5 of the Labor Code for all apprenticeable occupations is with the Prime Contractor. Any Contractor or Subcontractor that knowingly
violates the provisions of this Article or Labor Code §1777.5 shall be subject to the penalties set forth in Labor Code §1777.7 and the District’s Labor Compliance Program.

13.10 **ASSIGNMENT OF ANTITRUST CLAIMS**

13.10.1 Application.

Pursuant to Government Code § 4551, in entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or Subcontractor offers and agrees to assign to the District all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act, (15 U.S.C. § 15) or under the Cartwright Act (Chapter 2 [commencing with § 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from the purchase of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties. If the District receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under Chapter 11 (commencing with § 4550) of Division 5 of Title 1 of the Government Code, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the District any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the District as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.

13.10.2 Assignment of Claim.

Upon demand in writing by the assignor, the District shall, within one (1) year from such demand, reassign the cause of action assigned pursuant to this Article if the assignor has been or may have been injured by the violation of law for which the cause of action arose and the District has not been injured thereby or the District declines to file a court action for the cause of action.

13.11 **STATE AUDIT**

Pursuant to and in accordance with the provisions of Government Code § 10532, or any amendments thereto, all books, records, and files of the District, the Contractor, or any Subcontractor connected with the performance of this Contract involving the expenditure of state funds in excess of Ten Thousand Dollars ($10,000.00), including, but not limited to, the administration thereof, shall be subject to the examination and audit of the Office of the Auditor General of the State of California for a period of three (3) years after final payment is made under this Contract. Contractor shall preserve and cause to be preserved such books, records, and files for the audit period.

13.12 **Not Used**

(a)
13.13 **INDUSTRY STANDARDS**

13.13.1 Applicability of Standards.

Unless the Contract Documents specify more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

13.13.2 Publication Dates.

Comply with standards in effect as of date of the Contract Documents, unless otherwise indicated.

13.13.3 Minimum Quantity or Quality Levels.

The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

13.13.4 Copies of Standards.

Each entity engaged in construction on Project must be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not contained within the Contract Documents. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source and make them available on request.

13.13.5 Abbreviations and Acronyms for Industry Organizations.

Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale Research's "Encyclopedia of Associations" or in Columbia Books' "National Trade & Professional Associations of the U.S."
13.14 **PRODUCTS**

13.14.1 All products are to be new and not previously incorporated into or used in any other project or facility. Products salvaged or recycled from other projects are not considered new products and are not permitted.

13.14.2 The term product, as used in the Contract Documents, includes materials, equipment, systems, and like terms of similar intent.

13.14.3 Products include materials, machinery, components, equipment, fixtures and systems forming the Work and purchased for incorporation into the Work.

13.14.4 Do not reuse materials and/or equipment removed from existing premises except as specifically permitted by the Contract Documents.

13.14.5 Provide interchangeable components of the same manufacturer, for similar components.

13.14.6 Named products are items identified in the Contract Documents by manufacturer’s product name, including make or model number or other designation shown or listed in manufacturer’s published product literature that is current as of date of the Contract Documents.

13.14.7 **TRANSPORTATION AND HANDLING**

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

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

13.14.8 **SHIPPING REQUIREMENTS**

13.14.8.1 Preparation for Shipment: All equipment shall be suitably packaged to facilitate handling and to protect against damage during transit and storage. All equipment shall be protected from exposure to the elements and shall be kept dry at all times.

13.14.8.2 Painted and coated surfaces shall be protected against impact, abrasion, discoloration, and other damage. Painted and coated surfaces which are damaged prior to acceptance of equipment shall be repainted to the satisfaction of District at the expense of Contractor.

13.14.9 **PRODUCT DELIVERY, STORAGE, AND HANDLING**

13.14.9.1 Store products only in staging area per provisions of the Contract Documents.

13.14.9.2 Handle, store, and protect products in accordance with manufacturer’s instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate-controlled enclosures.
13.14.9.3 For exterior storage of fabricated products, place on appropriate supports, above ground.

13.14.9.4 Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.

13.14.9.5 Deliver, store and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer’s written instructions.

13.14.9.6 Contractor shall comply with the following without limitation:

(a) Contractor shall bear the responsibility for delivery of equipment, spare parts, special tools, and materials to the Site and shall comply with the requirements specified herein and provide required information concerning the shipment and delivery of the materials specified in the Contract Documents.

(b) Electrical equipment and all equipment with antifriction or sleeve bearings shall be stored in weather-tight structures maintained at a temperature above 60 degree Fahrenheit. Electrical equipment controls and insulation shall be protected against moisture and water damage. All space heaters furnished in or with equipment shall be connected and operated continuously or according to manufacturer's requirements.

(c) Equipment and materials shall not have any pitting, rust, decay, or other deleterious effects of storage when installed in the Work.

(d) Store products to allow for inspection, measurement, and/or counting of units.

(e) Store materials in a manner that will not endanger adjacent Work.

(f) Store products that are subject to damage by the elements, under cover in a weather-tight enclosure above ground, with ventilation adequate to prevent condensation.

(g) Store cementitious products and materials on elevated platforms.

(h) Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.

ARTICLE 14

TERMINATION OR SUSPENSION OF THE CONTRACT

14.1 TERMINATION BY THE CONTRACTOR FOR CAUSE

14.1.1 Grounds for Termination.

The Contractor may terminate the Contract if the Work is stopped for a period of thirty (30) consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons performing portions of the Work for whom the Contractor is contractually responsible, for only the following reasons:

(a) Issuance of an order of a court or other public authority having jurisdiction; or
An act of government, such as a declaration of national emergency.

14.1.2 Notice of Termination.

If one of the above reasons exists, the Contractor may, upon written notice of seven (7) additional days to the District, terminate the Contract and recover from the District payment for Work executed and for reasonable costs verified by the Architect with respect to materials, equipment, tools, construction equipment, and machinery, including reasonable overhead, profit, and damages.

14.2 TERMINATION BY THE DISTRICT FOR CAUSE

14.2.1 Grounds for Termination.

The District may terminate the Contractor and/or this Contract for the following reasons:

(a) Persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials;

(b) Persistently or repeatedly is absent, without excuse, from the job site;

(c) Fails to make payment to Subcontractors, suppliers, materialmen, etc.;

(d) Persistently disregards laws, ordinances, rules, regulations, or orders of a public authority having jurisdiction; or

(e) Becomes bankrupt or insolvent, including the filing of a general assignment for the benefit of creditors; or

(e) Otherwise is in substantial breach of a provision of the Contract Documents.

14.2.2 Notification of Termination.

When any of the above reasons exist, the District may, without prejudice to any other rights or remedies of the District and after giving the Contractor and the Contractor’s surety, if any, written notice of seven (7) days, except in the event of an emergency or critical path delay to the schedule in which case the District may give written notice of forty-eight (48) hours, terminate the Contract and may, subject to any prior rights of the surety:

(a) Take possession of the Project and of all material, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;

(b) Accept assignment of Subcontracts. Contractor acknowledges and agrees that if the District (in its sole and absolute discretion) decides to takeover completion of the Project, the Contractor agrees to immediately assign all subcontracts to the District which the District has chosen to accept; and

(c) Complete the Work by any reasonable method the District may deem expedient, including contracting with a replacement contractor or contractors.

14.2.3 Payments Withheld.

If the District terminates the Contract for one of the reasons stated in Paragraph 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is complete. All costs associated
with the termination and completion of the Project shall be the responsibility of the Contractor and/or its surety.

14.2.4 Payments Upon Completion.

If the unpaid balance of the Contract Sum exceeds costs of completing the Work, including compensation for professional services and expenses made necessary thereby, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the District. The amount to be paid to the Contractor, or District, as the case may be, shall be certified by the Architect upon application. This payment obligation shall survive completion of the Contract.

14.3 TERMINATION OF CONTRACT BY DISTRICT (CONTRACTOR NOT AT FAULT)

14.3.1 Termination for Convenience.

District may terminate the Contract upon fifteen (15) calendar days of written notice to the Contractor and use any reasonable method the District deems expedient to complete the project, including contracting with replacement contractor or contractors, if it is found that reasons beyond the control of either the District or Contractor make it impossible or against the District’s interest to complete the work. In such a case, the Contractor shall have no claims against the District except: (1) the actual cost for labor, materials, and services performed which may be documented through timesheets, invoices, receipts, or otherwise, and (2) ten percent (10%) profit and overhead, and (3) five percent (5%) termination cost of the total of items (1) and (2). Contractor acknowledges and agrees that if the District (in its sole and absolute discretion) decides to takeover completion of the Project, the Contractor agrees to immediately assign all subcontracts to the District which the District has chosen to accept.

14.3.2 Non-Appropriation of Funds/ Insufficient Funds.

In the event that sufficient funds are not appropriated to complete the Project or the DISTRICT determines that sufficient funds are not available to complete the Project, DISTRICT may terminate or suspend the completion of the Project at any time by giving written notice to the Contractor. In the event that the DISTRICT exercises this option, the DISTRICT shall pay for any and all work and materials completed or delivered onto the site for which value is received, and the value of any and all work then in progress and orders actually placed which cannot be canceled up to the date of notice of termination. The value of work and materials paid for shall include a factor of fifteen percent (15%) for the Contractor’s overhead and profit and there shall be no other costs or expenses paid to Contractor. All work, materials and orders paid for pursuant to this provision shall become the property of the DISTRICT. DISTRICT may, without cause, order Contractor in writing to suspend, delay or interrupt the Project in whole or in part for such period of time as DISTRICT may determine. Adjustment shall be made for increases in the cost of performance of the Agreement caused by suspense, delay or interruption.

14.4 REMEDIES OTHER THAN TERMINATION

If a default occurs, the District may, without prejudice to any other right or remedy, including, without limitation, its right to terminate the Contract pursuant to Article 14.2, do any of the following:

(a) Permit the Contractor to continue under this Contract, but make good such deficiencies or complete the Contract by whatever method the District may deem
expedient, and the cost and expense thereof shall be deducted from the Contract Price or paid by the Contractor to the District on demand;

(b) If the workmanship performed by the Contractor is faulty or defective materials are provided, erected or installed, then the District may order the Contractor to remove the faulty workmanship or defective materials and to replace the same with work or materials that conform to the Contract Documents, in which event the Contractor, at its sole costs and expense, shall proceed in accordance with the District’s order and complete the same within the time period given by the District in its notice to the Contractor; or

(c) Initiate procedures to declare the Contractor a non-responsible bidder for a period of two to five years thereafter.

All amounts expended by the District in connection with the exercise of its rights hereunder shall accrue interest from the date expended until paid to the District at the maximum legal rate. The District may retain or withhold any such amounts from the Contract Price. If the Contractor is ordered to replace any faulty workmanship or defective materials pursuant to Paragraph (b) above, the Contractor shall replace the same with new work or materials approved by the Architect and the District, and, at its own cost, shall repair or replace, in a manner and to the extent the Architect and the District shall direct, all work or material that is damaged, injured or destroyed by the removal of said faulty workmanship or defective material, or by the replacement of the same with acceptable work or materials. In no event shall anything in this Paragraph be deemed to constitute a waiver by the District of any other rights or remedies that it may have at law or in equity, it being acknowledged and agreed by the Contractor that the remedies set forth in this Paragraph are in addition to, and not in lieu of, any other rights or remedies that the District may have at law or in equity.

END OF SECTION 00700
PART 1 - GENERAL

1.1 RELATED DOCUMENTS
   A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Specification Sections shall apply to this Section without limitation.

1.2 WORK DESCRIPTIONS WITHOUT FORCE
   A. All general descriptions and/or general summaries of the work noted in this section, or elsewhere within the Contract Documents, are without force and effect on the Contract Work described and indicated in detail the Contract Documents. These general descriptions and summaries are for general reference and descriptive purposes only and in no way offer the complete and concise description of all the Work required by the Contract Documents.

1.3 WORK COVERED BY CONTRACT DOCUMENTS
   A. The Contra Costa College and Los Medanos College Safety Center Project consists of designing, manufacturing, delivery and installation of a complete and fully operational new Modular Building for each college per the Contract Documents. The Contractor shall work with LPAS, the Architect of Record (AOR), to integrate a partial one story framed structure into its modular design. The resulting integrated design will then be assembled into final construction documents that will be submitted to DSA on or prior to December 1, 2016. The modular design and framed structure is the same for each campus. The DSA approved drawings will be incorporated into bid documents by LPAS for the framed one story structure and related sitework, landscaping, and utilities outside of the scope of this agreement. This out-of-scope work will be competitively bid and performed by others under separate contract issued by the District.

   B. In addition to fabricating, delivering and installing a complete and fully operational new modular building at each college, the Contractor will also be responsible for, but not limited to:
      - excavation of modular foundation footings;
      - forming and installing concrete foundations;
      - excavation of utility trenches extending to points of connections (POCs) five feet outside the modular footprint;
      - connecting the modular utilities to the POCs;
      - backfilling and compaction all trenches associated with modular work above, and;
      - off haul of work related sitework spoils and debris.

   C. Work performed by others include:
      - site clearing and excavation providing a level, certified building pad for the modular manufacturer to perform its scope of work outlined in these documents;
• trenching and installing utility POCS within five feet of the modular footprint;
• area drainage;
• backfilling trenches related to their work activities;
• landscaping and irrigation;
• parking and walkways, and;
• framing the partial one story integrated structure.

D. Developing Construction Documents includes but is not limited to:

• Working with the AOR to provide a modular design showing how its modular units will structurally integrate with a single framed structure, as designed by the AOR, complete for DSA submission on or before November 1, 2016. Contractor will be responsible for the structural engineering and stamped drawings of any modifications made to its modular units that will allow for a complete integration of the framed structure and meeting with DSA as needed to clarify or review design.
• Allowing for a series of meetings with the AOR over a 10 consecutive working day period to develop integrated drawings that meet the AOR’s intent of the building as shown on AOR drawings.
• Providing all internal partition walls lay-out as indicated on AOR drawings.
• Providing finishes per standard material as required.
• Providing lighting plan per architect recommendation.
• Submitting documentation to the DISTRICT showing conformance with Title 24 and Code regulation and requirements in state of California, as required for modular buildings.
• Coordinating all its drawings with AOR prior to submission to DSA on or before November 1, 2016, for final review and approval.
• Providing four (4) sets of 90% construction documents to the District for review and approval on or before October 3, 2016. Design shall incorporate District and/or college building and IT standards and the Design Criteria found in Additional Documents.

E. Construction and Administration includes but is not limited to:

• Providing In-plant Inspector (DSA -5) and final verified report to DSA and to the District office as required. Services provided by in plant inspector shall be contractually independent of the Contractor.
• Contractor shall coordinate and timely schedule through District IOR, all on-site special testing and inspections related to its work activities in the field.
• Special Inspection may be performed by the District IOR if the IOR has been specially approved for such purposes. Where other Special Testing Inspectors are required to comply with DSA or California Building Code and/or Title 24 requirements, the IOR will manage coordination, scheduling and timely reporting of results to the DISTRICT, AOR, and DSA if required.
• The DISTRICT may also require Special Testing Inspection for any other shop fabrication
procedures that preclude the complete inspection of the work after assembly. The DISTRICT may require Special Testing and Inspection at the job site in addition to those required in the laboratory if deemed necessary because of the special use of the materials or methods of construction.

- The Contractor will ensure that Project work is designed and constructed to Title 24 California Code of Regulations, DISTRICT standards and any other requirements of Local and State Agencies having jurisdiction.

1.4 CONTRACTS
   A. Perform the work under a single, fixed-price Contract.

1.5 WORK SEQUENCE
   A. During construction operations, various adjoining areas will be occupied and their functions maintained. Temporary construction separations such as walls for sound and dust control, as well as pathway barricades, signage and clearly marked temporary pedestrian path of travel detours will be required and provided by the Contractor.
   B. Scheduling of Contractor’s use of the areas and times involved shall be determined in cooperation with the District. Notify the District a minimum of 10-days prior to commencement of work.
   C. Construction activities shall be performed between the hours of 7AM and 5PM, Monday through Friday, unless otherwise required. No Work shall be performed outside the above hours without prior written authorization from the Construction Manager.

1.6 ADDITIONAL WORK SCHEDULE REQUIREMENTS: See Section 01140, Work Restrictions.

1.7 CAMPUS HOLIDAYS
   A. The College is closed with no classes held on the following holidays: Labor Day; Native American Day; Veteran’s Day; Thanksgiving; Winter Recess; Martin Luther King Day; President’s Day; Spring Recess. The Contractor may work on these days with prior approval by the District.

1.8 USE OF PREMISES
   A. Contractor shall only use the premises for work, storage, staging areas, and vehicular parking as designated in the Contract Documents.

1.9 EXISTING AREA CONDITION SURVEY
   A. Prior to commencement of work, jointly survey the existing area to be remodeled with the District and Architect, noting and recording existing damage such as cracks, sags, and other damage on Site Plan/Floor Plans.
   B. This record shall serve as a basis for determination of subsequent damage to these items due to settlement, movement, demolition, or Contractor’s operations.
   C. Existing damage observed shall be marked and the official record of existing damage shall be signed by the parties making the survey.
D. Cracks, sags, and damage to the area and other items not noted in the original survey but subsequently observed shall be reported immediately to the Architect.

E. Contractor shall take photographs or video recordings and submit these to the District for review of adequacy and approval in order to comply with this requirement.

1.10 PROTECTION OF EXISTING STRUCTURES AND UTILITIES

A. The Drawings may not show all existing water, gas, electrical, and hot water lines, and other items known or suspected to exist in the area of the work.

B. Contractor shall locate these installations before proceeding with demolition or other operations which may cause damage, maintain them in service where appropriate, and repair damage caused by the performance of the Work, at no increase in the Contract Sum.

C. In addition to notification, if a structure or utility is damaged, take appropriate action as specified in the General Conditions.

1.12 USE AND OCCUPANCY OF WORK PRIOR TO ACCEPTANCE BY DISTRICT

A. The District may use and occupy the building, or portions thereof, before formal acceptance under the following conditions:

1. A Certificate of Substantial Completion shall be prepared and executed as provided in the Contract Documents. The Certificate of Substantial Completion shall be accompanied by a written endorsement of the Contractor’s insurance carrier and surety permitting occupancy by the District during the remaining period of the work.

2. Occupancy by the District shall not be construed as being an acceptance of that part of the Work occupied.

3. The Contractor will not be held responsible for damage to the occupied part of the Work resulting from the District’s occupancy.

4. Occupancy by the District shall not be deemed to constitute a waiver of existing claims the District or Contractor may have against each other.

5. Comply with Warranties/Guaranties, and Contract Closeout Procedures for the Work included in Section 00700, General Conditions.

6. The District will pay for utility costs associated with occupancy during construction.

1.13 PROTECTION OF EXISTING IMPROVEMENTS

A. Provide barricades, coverings, or other types of protection necessary to prevent damage to existing improvements indicated to remain in place.

B. Protect improvements on adjoining properties as well as those on the District’s property.

C. Protect existing trees and other vegetation indicated to remain in place, against unnecessary cutting, breaking or skinning of roots, skinning and bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line.

D. Restore any improvements damaged by this work to their original condition as acceptable to the District or other parties or authorities having jurisdiction.
1.14  HAZARDOUS MATERIALS
   A.  Comply with all requirements included in other sections of Contract Documents.

1.15  MISCELLANEOUS PROVISIONS
   A.  Items shown, described or scheduled to be salvaged will remain the property of the District. Store as directed by the Construction Manager.

PART 2 - PRODUCTS
Not Used.

PART 3 - EXECUTION
Not Used.

END OF SECTION 01010
SECTION 01050
FIELD ENGINEERING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Specification Sections shall apply to this Section without limitation.

1.2 SUBMITTALS
A. Contractor shall submit name and address of Surveyor and Professional Engineer to District for approval prior to their work on the Project.
B. On request of District and Architect, Contractor shall submit documentation to verify accuracy of field engineering work, at no additional cost to the District.
C. At completion of the Work, Contractor shall submit a certificate signed by a licensed engineer or surveyor certifying that all elevations and locations of improvements are in conformance with Contract Documents.

1.3 REQUIREMENTS
A. Contractor shall provide and pay for field engineering services by an engineer licensed in the State of California, required for the Project, including, without limitation:
   1. Survey work required in execution of the Project.
   2. Civil or other professional engineering services specified, or required to execute Contractor’s construction methods.

1.4 QUALIFICATIONS OF SURVEYOR OR ENGINEERS
A. Contractor shall only use a qualified licensed engineer or registered land surveyor, approved by the District, of the discipline required for specific service on Project, licensed in the State of California.
B. Submit evidence of Engineer's errors and omissions insurance coverage to District, in the form of a current Insurance Certificate.

1.5 SURVEY REFERENCE POINTS
A. Existing basic horizontal and vertical control points for the project are those designated on the Drawings.
B. Contractor shall locate and protect control points prior to starting Site Work and preserve all permanent reference points during construction. In addition, Contractor shall:
   1. Make no changes or relocation without prior written notice to District and Architect.
   2. Report to District and Architect when any reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
3. Require surveyor to replace project control points based on original survey control that may be lost or destroyed.
4. Contractor to locate and protect existing survey control and reference points.
5. Control datum for survey is that indicated on Drawings.
6. Protect survey control points prior to starting Site Work; preserve permanent reference points during construction.
7. Promptly report to Architect, District, and Project Inspector the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
8. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice.

1.6 PROJECT RECORD DOCUMENTS
A. Maintain complete, accurate log of control and survey work as it progresses. Indicate dimensions, locations, angles, and elevations of construction and Site Work.
B. Submit Record Documents as required under provisions of these Contract Documents.

1.7 EXAMINATION
A. Verify locations of survey control points prior to starting Work. Promptly notify District and Architect of any discrepancies discovered.

1.8 SURVEY REQUIREMENTS
A. Provide field engineering services. Utilize recognized engineering survey practices.
B. Establish a minimum of two permanent bench marks on Site, referenced to established control points. Record locations, with horizontal and vertical data, on Project Record documents.
C. Establish lines and levels, locate and lay out by instrumentation and similar appropriate means:
   1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
   2. Grid or axis for structures.
   3. Building foundation, column locations, and ground floor elevations.
D. Periodically verify layouts by same means.

PART 2 – PRODUCTS - Not Used

PART 3 – EXECUTION
3.1 Contractor is responsible for meeting all applicable codes, OSHA, and other safety and shoring requirements.
3.2 Contractor is responsible for any re-surveying required by correction of nonconforming work with no additional cost to the District or its representatives.

END OF SECTION 01050
SECTION 01311
PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Specification Sections shall apply to this Section without limitation.

1.2 SUMMARY
A. This Section specifies the administrative requirements and includes descriptions of required project coordination for the work including, but not limited to, the following:
   1. Coordination
   2. Coordination of Contract Closeout

1.3 COORDINATION
A. Coordinate scheduling, submittals, and Work of the various Sections of Specifications to assure efficient and orderly sequence of Work, with provisions for accommodating items to be installed later and for accommodating items to be installed by other District contractors.
B. Resolve differences or disputes concerning coordination, interference, or extent of Work of the various Sections of the Specifications.
C. Coordinate completion and cleanup of Work of separate Sections in preparation for Substantial Completion.
D. Coordinate requests for substitutions to assure compatibility of space, of operating elements, and effect on work of other sections.
E. Cooperate with District and District suppliers and/or contractors during move-in and occupancy of the completed Work.
F. Contractor shall coordinate construction operations and means and method of construction included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.
   1. Coordinate structural, mechanical, and electrical elements prior to installation. All penetrations of structural elements must first receive approval of Architect and District pursuant to the submittal process described in Section 00700, General Conditions. Rerouting of ductwork, piping, or conduit and resulting changes to other work caused by failure to coordinate beforehand is the responsibility of the Contractor and shall not be considered justification for either additional cost or time.
   2. Schedule construction operations in sequence required to obtain the best constructed results where installation of one part of the Work depends on installation of other components, before or after its own installation.
   3. Coordinate installation of different components with other contractors or other trades to ensure maximum and appropriate accessibility for required maintenance, service,
and repair. Where availability of space is limited, coordinate installation of different components to ensure maximum and appropriate performance and accessibility for required maintenance, service, operations, and repair of all components, and building systems.

4. Make adequate provisions to accommodate items scheduled for later installation.

5. The manner in which the Specifications are divided into Divisions and Sections is not intended to indicate division of work between trades nor indicate trade union or jurisdictional agreements.
   a. Assign and subcontract construction activities, and employ workers in a manner that will not risk jurisdictional disputes that could result in conflicts, delays, claims, or losses.

1.4 ADMINISTRATIVE COORDINATION

A. Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work.

1.5 COORDINATION OF THE WORK

A. Coordinate use of project space and sequence of installation of mechanical, electrical, structural, and other Work which is indicated diagrammatically on Drawings. Follow routings shown for pipes, ducts, and conduits as closely as practicable, with due allowance for available physical space; make runs parallel with lines of building. Utilize space efficiently for maximum and appropriate accessibility for other installations, for maintenance, service, operations, and for repairs.

B. Contractor shall use large scale drawings, if their preparation is required as part of Work of these specifications, together with shop drawings if applicable and layout drawings of other affected sections of these specifications to check, to coordinate, and to integrate the Work of various sections to prevent interferences.

C. Perform and complete checking and coordination before commencing construction in the affected areas.

D. In finished areas, except as otherwise shown, conceal pipes, ducts, and wiring in the construction. Coordinate locations of plumbing, fixtures, electrical fixtures, and fixtures and outlets with finish elements.

1.6 CONSERVATION

A. Contractor shall coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
   1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections of the Specifications for disposition of salvaged materials that are designated as District’s property.

1.7 MEANS AND METHODS

A. Contractor is solely responsible for construction means, methods, techniques, sequences, and procedures for performing all Work.
1.8 ADMINISTRATIVE AND SUPERVISORY PERSONNEL
   A. Contractor shall provide other administrative and supervisory personnel as required for proper performance of the Work.
      1. Include specific or dedicated personnel required for coordination of operations with other contractors.

1.9 COORDINATION WITH WORK BY DISTRICT
   A. Coordinate service connections for District furnished and District installed equipment. Verify that service connections are correct sizes and in required locations.
   B. Coordinate support and anchorage for equipment furnished and installed by the District. Provide blocking and backing as shown or directed to facilitate installation of equipment by others.

1.10 PERIODIC VERIFIED REPORTS
   A. The Contractor shall complete and submit the Final Verified Report required by DSA when applicable. In addition to other conditions precedent to Final Payment, the Contractor's completion and submission of the Final Verified Report is an express condition precedent to the District's obligation to make the Final Payment. In addition to completion and submission of the Final Verified Report, as a material obligation under the Contract Documents, the Contractor shall comply all DSA requests for reports or other data relating to the Work, the status thereof or conformity of the Work to the Contract Documents.

PART 2 - PRODUCTS - Not Used.

PART 3 - EXECUTION - Not Used.

END OF SECTION 01311
SECTION 01312
PROJECT MEETINGS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and Specification Sections shall apply to this Section without limitation.

1.2 SUMMARY

A. This Section specifies administrative requirements and provides descriptions of the required project meetings for the Work and all phases of the Project. These meetings include, but not limited to, the following:

1. Preconstruction Conference
2. Schedule Review Meetings
3. Weekly Project Progress Meetings
4. Construction Schedule and Application for Payment Meetings
5. Special Meetings

1.3 PRECONSTRUCTION CONFERENCE

A. District will schedule and conduct the Preconstruction Conference at a time and place to be determined.

B. Contractor and all major subcontractors, as requested by the District, shall attend the Preconstruction Conference.

C. Meeting agenda will include, but is not limited to, discussion of the following items:

1. Construction Schedules
2. Personnel and vehicle permit procedures
3. Use of premises
4. Location of Contractor’s on-Site facilities
5. Security
6. Housekeeping
7. Submittal and RFI procedures
8. Inspection and testing procedures, on-Site and off-Site
9. Utility shutdown procedures
10. Control and reference point survey procedures
11. Injury and Illness Prevention Program
12. Schedule of Values
13. Schedule of Submittals
14. Project Directory
15. Emergency Contact List

1.4 SCHEDULE OF VALUES & CONSTRUCTION SCHEDULE MEETING

A. See Section 00700, General Conditions, for requirements. Meetings will be held as requested by the District, or as required by the District.

1.5 SHOP DRAWINGS & SUBMITTALS SCHEDULE MEETING

A. See Section 00700, General Conditions, for specific requirements. Meetings will be held as requested by the District, or as required by the District.

1.6 WEEKLY PROGRESS MEETINGS

A. Weekly Progress Meetings will be scheduled throughout duration of Work at a time acceptable to the District. Weekly Progress Meetings will be held weekly unless otherwise directed by District.
   1. Meetings shall be held at Construction Manager’s on-site office, unless otherwise directed by the District.
   2. The District’s Construction Manager will prepare an agenda, if needed.
   3. The District or Architect will record meeting notes of the Weekly Progress Meetings. Within 3 working days after the meeting, the District or Architect will distribute minutes to attendees via e-mail, and to those affected by decisions made at the meeting. Attendees can either submit comments or additions to the minutes within 3 working days. The minutes will constitute a final documentation of the results of meeting.

B. Weekly Progress Meetings shall be attended by the Contractor’s project manager, project engineer, and job superintendent, District Construction Manager, Architect and Engineers, the Inspector of Record, and others as appropriate to agenda topics for each meeting.

C. Agenda will contain the following items, as appropriate:
   1. Review, revise as necessary, and approve previous meeting minutes
   2. Review Work progress since last meeting
   3. Status of Construction Schedule, delivery schedules, adjustments
   4. Submittal, RFI, and Change Order status
   5. Review of the Contractor’s safety program activities and results, including report on any serious injury and/or damage accidents
   6. Review of non-conforming Work (if any)
   7. Other items relating to or affecting progress of Work
1.7 Special Meetings

A. District may call special meetings by notifying the desired participants. Special meetings may be held without advance notice in emergency situations.

B. At any time during the progress of Work, District shall have authority to require Contractor to attend a meeting with any or all of the subcontractors engaged in the Work, or in other work, and notice of such meeting shall be duly observed and complied with by Contractor.

C. Contractor shall schedule and conduct its own periodic coordination meetings as necessary to discharge coordination responsibilities.

D. Contractor shall give District 5 work days written notice of its coordination meetings. Contractors shall maintain and distribute minutes of coordination meetings to District. Attendees shall have 3 work days to submit comments or additions to minutes. Minutes will constitute final documentation of results of coordination meetings.

1.8 GUARANTEES/WARRANTIES, BONDS, AND SERVICE & MAINTENANCE CONTRACTS REVIEW MEETING

A. Ten Months following date of final acceptance, Contractor to hold a meeting to review guarantees/warranties, bonds, and service maintenance contracts for materials and equipment. Implement repair or replacement of defective items, and extend service and maintenance contracts, as desired by District.

B. Attending shall be:
   1. District Project Representatives
   2. Architect and Architect’s consultants, as appropriate
   3. Campus Buildings & Ground Representatives
   4. Contractor
   5. Subcontractors, as appropriate
   6. Others, as appropriate

PART 2 - PART 2 – PRODUCTS - Not Used

PART 3 - PART 3 – EXECUTION - Not Used

END OF SECTION 01312
SECTION 01330
SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Division 1 Specification Sections shall apply to this Section without limitation.

1.2 RELATED DOCUMENTS SPECIFIED IN OTHER SECTIONS

A. Section 01010 – “Summary of Work”
B. Section 01400 – “Quality Control Requirements”
C. Section 01820 – “Demonstration and Training”
D. Divisions 03 10 00 through 13 34 19 plus the Design Criteria in Additional documents for Submittal Procedures requirements for the work in these sections

1.3 SUMMARY

A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other Submittals.

1.4 DEFINITIONS

A. Action Submittals, as used herein are written and/or graphic information that requires Architect and/or District responsive action. Submittals may be rejected for not complying with requirements. Prepare and submit Action Submittals as required by individual Specification Sections.

B. Informational Submittals, as used herein are written and/or graphic information that does not require Architect responsive action. Submittals may be rejected for not complying with requirements. Prepare and submit Informational Submittals as required by individual Specification Sections.

C. Manufactured, as used herein applies to standard units usually mass-produced, and “fabricated” means items specifically assembled or made out of selected materials to meet individual design requirements.

D. Submittal Descriptions: Submittals requirements are specified in the technical sections. Submittals are identified by description as follows:

1. Preconstruction Submittals, as used herein are submittals which are required following a Notice to Proceed and prior to commencing Work or any Phase of the Work on site. Examples include, but are not limited to:
   a. Certificates of insurance
   b. Surety bonds
   c. List of proposed products
d. Construction Schedule  
e. Submittal Log  
f. Schedule of Values  
g. Safety plan  
h. Waste Management Plan  
i. Quality Control Plan  
j. Others as required by the Contract Documents  

2. Shop Drawings, as used herein are drawings, diagrams, schedules, and other data, which are prepared by Contractor, Subcontractors, manufacturers, fabricators, suppliers, or distributors illustrating some portion of the Work, and include: illustrations; fabrication, erection, layout and setting drawings; manufacturer’s standard drawings; schedules; descriptive literature, instructions, catalogs, and brochures; performance and test data including charts; wiring and control diagrams; and all other drawings and descriptive data pertaining to materials, equipment, piping, duct and conduit systems, and methods of construction as may be required to show that the materials, equipment, or systems and their position conform to the requirements of the Contract Documents.  
a. Shop drawings shall establish the actual detail of all manufactured or fabricated items, indicate proper relation to adjoining work, amplify design details of mechanical and electrical systems and equipment in proper relation to physical spaces in the structure, and incorporate minor changes of design or construction to suit actual conditions.  

3. Product data, as used herein are catalog cuts, illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate a material, product, or system for some portion of the Work. This includes samples of warranty language when the contract requires extended product warranties.  

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

5. Design Data, as used herein are design calculations, mix designs, analyses or other data pertaining to a part of Work.  

6. Test Reports, as used herein, include:  
a. Reports signed by authorized official of testing laboratory that a material, product or system identical to the material, product or system to be provided has been tested in accord with specified requirements. (Testing must have been within three years of date of contract award for the project.)  
b. Reports which include findings of a test required to be performed by the Contractor on an actual portion of the work or prototype prepared for the project before shipment to job site.
c. Reports which include findings of a test made at the job site or on sample taken from the job site, on portion of work during or after installation.
d. Investigation reports.
e. Daily performance logs.
f. Manufacturer or Installer checklists.
g. Manufacturer's Factory or Field Reports, including documentation of the testing and verification actions taken by manufacturer at the factory or manufacturer's representative at the job site, in the vicinity of the job site, or on a sample taken from the job site, on a portion of the work, during or after installation, to confirm compliance with manufacturer's standards or instructions. The documentation must be signed by an authorized official of a testing laboratory or agency and must state the test results; and indicate whether the material, product, or system has passed or failed the test.
h. Final acceptance test and operational test procedure.

7. Manufacturer's Instructions. Preprinted material describing installation of a product, system or material, including special notices, checklists, and Material Safety Data sheets concerning impedances, hazards and safety precautions.

8. Operation and Maintenance Data. Data that is furnished by the manufacturer or the system provider to the equipment operating and maintenance personnel, including manufacturer's help and product line documentation necessary to maintain and install equipment. This data is needed by District operating and maintenance personnel for the safe and efficient operation, maintenance and repair of the item. This data is intended to be incorporated in the Operations and Maintenance manual submittals.

9. Closeout Submittals. Documentation to record compliance with technical or administrative requirements in order to meet all requirements necessary to properly close out the Construction Contract. Also, submittal requirements necessary to properly close out a major phase of construction on a multi-phase contract. These include, but are not limited to:
   a. Record Drawings, pdf and CAD file
   b. As-built drawings
   c. Others as required by the Contract Documents. See Section 00700 General Conditions.

1.5 PREPARATION AND FORMAT
A. Transmit each submittal, except sample installations and sample panels to the District Project Manager.
B. Transmit submittals with transmittal form prescribed by District and standard for the Project.
   1. On the transmittal form identify Contractor, indicate date of submittal, and include information prescribed by transmittal form and required in paragraph entitled "Identifying Submittals." Process transmittal forms to record actions regarding sample[s].
C. Identifying Submittals: When submittals are provided by a Subcontractor, the Contractor shall prepare, review and stamp with Contractor's approval stamp all specified submittals prior to
submitting for District approval. Identify submittals, except sample installations and sample panels, with the following information permanently adhered to or noted on each separate component of each submittal and noted on transmittal form. Mark each copy of each submittal identically, with the following:

1. District Project Number and title.
2. Construction contract number.
3. Date of the drawings and revisions.
4. Product identification and location in project.
5. Name, address, and telephone number of subcontractor, supplier, manufacturer and any other second tier Contractor associated with submittal.
6. Section number of the specification section which requires the submittal.
7. When a resubmission, add numeric revision suffix on submittal description, for example, submittal 18 would become 18R1, to indicate resubmission.

D. Format for Shop Drawings

1. Shop drawings are not to be less than 8 1/2 by 11 inches nor more than 30 by 42 inches, except for full size patterns or templates. Prepare drawings to accurate size, with scale indicated, unless other form is required.
2. Drawings are to be suitable for reproduction and be of a quality to produce clear, distinct lines and letters with dark lines on a white background.
3. Present 8 1/2 by 11 inches sized shop drawings as part of the bound volume for submittals required by section. Present larger drawings in sets.
4. Include on each drawing the drawing title, number, date, and revision numbers and dates, in addition to information required in paragraph entitled "Identifying Submittals."
5. Number drawings in a logical sequence. Each drawing is to bear the number of the submittal in a uniform location adjacent to the title block. Place the District Project number and number in the margin, immediately below the title block, for each drawing.
6. Reserve a blank space on the right hand side of each sheet for the Architect’s disposition stamp.
7. Dimension drawings, except diagrams and schematic drawings and prepare drawings demonstrating interface with other trades to scale. Use the same unit of measure for shop drawings as indicated on the contract drawings. Identify materials and products for work shown.
8. Include the nameplate data, size and capacity on drawings. Also include applicable federal, military, industry and technical society publication references.

E. Format of Product Data and Manufacturer’s Instructions

1. Present product data submittals for each section as a complete, bound volume. Include table of contents, listing page and catalog item numbers for product data.
2. Indicate by prominent notation each product which is being submitted; indicate specification section number and paragraph number to which it pertains.
3. Supplement product data with material prepared for Project to satisfy submittal requirements for which product data does not exist. Identify this material as developed specifically for project, with information and format as required for submission of Certificates.

4. Include the manufacturer’s name, trade name, place of manufacture, and catalog model or number on all product data. Also include applicable industry and technical society publication references. Should manufacturer's data require supplemental information for clarification, include such information in the submittal.

5. Where equipment or materials are specified to conform to industry and technical society reference standards of the organizations such as American National Standards Institute (ANSI), ASTM International (ASTM), National Electrical Manufacturer's Association (NEMA), Underwriters Laboratories (UL), and Association of Edison Illuminating Companies (AEIC), submit proof of such compliance. The label or listing by the specified organization will be acceptable evidence of compliance.
   a. In lieu of the label or listing, submit a certificate from an independent testing organization, competent to perform testing, and approved by the District Project Manager. State on the certificate that the item has been tested in accordance with the specified organization's test methods and that the item complies with the specified organization’s reference standard.

6. Collect required data submittals for each specific material, product, unit of work, or system into a single submittal and marked for choices, options, and portions applicable to the submittal. Mark each copy of the product data identically. Partial submittals will [not] be accepted for expedition of construction effort.

7. Submit manufacturer’s instructions prior to installation.

F. Format of Samples
1. Furnish samples in sizes below, unless otherwise specified or unless the manufacturer has prepackaged samples of approximately same size as specified:
   a. Sample of Equipment or Device: Full size.
   b. Sample of Materials Less Than 2 by 3 inches: Built up to 8 1/2 by 11 inches.
   c. Sample of Materials Exceeding 8 1/2 by 11 inches: Cut down to 8 1/2 by 11 inches and adequate to indicate color, texture, and material variations.
   d. Sample of Linear Devices or Materials: 10 inch length or length to be supplied, if less than 10 inches. Examples of linear devices or materials are conduit and handrails.
   e. Sample of Non-Solid Materials: Pint. Examples of non-solid materials are sand and paint.
   f. Color Selection Samples: 2 by 4 inches. Where samples are specified for selection of color, finish, pattern, or texture, submit the full set of available choices for the material or product specified. Sizes and quantities of samples are to represent their respective standard unit.
   g. Sample Panel: 4 by 4 feet.
   h. Sample Installation: 100 square feet.
2. Samples Showing Range of Variation: Where variations in color, finish, pattern, or texture are unavoidable due to nature of the materials, submit sets of samples of not less than three units showing extremes and middle of range. Mark each unit to describe its relation to the range of the variation.

3. Reusable Samples: Incorporate returned samples into work only if so specified, indicated, or approved by Architect and District. Incorporated samples are to be in undamaged condition at time of use.

4. Recording of Sample Installation: Note and preserve the notation of area constituting sample installation but remove notation at final clean up of project.

G. Format of Design Data and Certificates. Provide design data and certificates on 8 1/2 by 11 inches paper. Provide a bound volume for submittals containing numerous pages.

H. Format of Test Reports and Manufacturer's Field Reports
   1. Provide reports on 8 1/2 by 11 inches paper in a complete bound volume.
   2. Indicate by prominent notation, each report in the submittal. Indicate specification number and paragraph number to which it pertains.

I. Format of Operation and Maintenance Data shall comply with the requirements specified in Section 01785 Operation and Maintenance data for O&M Data format.

J. Format of Preconstruction Submittals and Closeout Submittals.
   1. When submittal includes a document which is to be used in Project or become part of Project Record, other than as a submittal, do not apply Contractor's approval stamp to document, but to a separate sheet accompanying document.
   2. Provide all dimensions in English units only.

1.6 QUANTITY OF SUBMITTALS

A. Number of Copies of Shop Drawings. Submit six (6) requiring review and approval by Architect or District.

B. Number of Copies of Product Data and Manufacturer's Instructions. Submit in compliance with quantity requirements specified for shop drawings.

C. Number of Samples.
   1. Submit two (2) samples, or three (3) sets of samples showing range of variation, of each required item. One approved sample or set of samples will be retained by District and one will be returned to Contractor.
   2. Submit one sample panel or provide one sample installation where directed. Include components listed in technical section or as directed.
   3. When required by Contract Documents, provide one sample installation where directed by Architect or District.
   4. Submit one sample of non-solid materials.

D. Number of Copies Design Data and Certificates. Submit in compliance with quantity requirements specified for shop drawings.
E. Number of Copies Test Reports and Manufacturer's Field Reports. Submit in compliance with quantity and quality requirements specified for shop drawings.

F. Number of Copies of Operation and Maintenance Data. Submit three(3) copies of O&M Data to the District Project Manager for review and approval.

G. Number of Copies of Preconstruction Submittals and Closeout Submittals. Unless otherwise specified, submit three(3) sets of administrative submittals.

1.7 SUBMITTALS, GENERAL

A. Contractor shall obtain and shall submit all required shop drawings, samples, technical data, and other submittals as required by the Contract Documents with such promptness as to cause no delay in its own Work or in that of any other contractor or subcontractor.

1. As required by the Contract Documents, the Contractor shall obtain and submit with shop drawings all seismic and other calculations, and all product data from equipment manufacturers.

B. Prepare a complete Submittal Log and maintain it as the Work progresses. Submit the initial Submittal Log for approval by District at the same time as the Schedule. Include the Contractor's anticipated submission dates and the approval needed dates (if approval is required).

1. Re-submit submittal log and annotate monthly by the Contractor with actual submission and approval dates. When all items on the log have been fully approved, no further re-submittal is required.

2. Carefully control procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Log."

3. Except as specified otherwise, allow review period of at least fifteen (15) working days for submittals requiring Architect or District approval. Period of review for submittals requiring approval begins when District receives submittal from Contractor.

4. For submittals requiring review by fire protection engineer and/or DSA, allow review period, beginning when District receives submittal thirty (30) calendar days for return of submittal to the Contractor.

5. Period of review for each resubmittal is the same as for initial submittal.

C. The District may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections.

D. Units of weights and measures used on all submittals are to be the same as those used in the contract drawings.

E. Each submittal is to be complete and in sufficient detail to allow ready determination of compliance with contract requirements.

F. No extensions of time will be granted to Contractor or any Subcontractor because of its failure to have shop drawings, samples, product data and/or other required submittals submitted in accordance with the approved Submittal Log and Master Construction Schedule.

G. Each Subcontractor shall submit all shop drawings, samples, product data and other required submittals for the review by the District and the Architect through the Contractor.
H. By submitting shop drawings, samples, product data and other required submittals, the Contractor represents that it has determined and verified all materials, field measurements, catalog numbers, related field construction criteria, and other relevant data in connection with each such submission, and that it has checked, verified, and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents, including the construction schedule.

I. Partial submittals are not acceptable, will be considered non-responsive, and will be returned without review by either District or Architect.

J. Mark each copy of each submittal to show which products and options are applicable.

K. The submission of the shop drawings, samples, product data and other required submittals, shall not deviate from the requirements of the Contract Documents including detailing and design intent which is specifically outlined in Contract Documents except as specifically authorized by the Architect or through an accepted substitution, per the requirements of the Contract Documents.

L. Deviations from the Contract Documents

1. Any deviations from the Contract Documents shall be fully described in a transmittal accompanying the shop drawings, samples, product data and other required submittals. However, such submittals shall not be used as a means of requesting a substitution, the procedure for which is defined elsewhere in the Contract Documents.

2. Architect and District approval is required for any proposed deviation from the accepted design which still complies with the Contract Documents before the Contractor is authorized to proceed with material acquisition or installation. If necessary to facilitate the project schedule, the Contractor and the Architect may discuss a submittal proposing a deviation with the District Project Manager prior to officially submitting it to the District. However, the District reserves the right to review the submittal before providing an opinion, if deemed necessary. In any case, the District will not formally agree to or provide a preliminary opinion on any deviation without either the Architect’s approval or recommended approval.

3. The District reserves the right to reject any deviation which may impact furniture, furnishings, equipment selections, and/or operations decisions that were made previously and based on the District reviewed and approved Project design.

4. Contractor is responsible for the dimensions and design of connection details and construction of work. Failure to point out deviations may result in the District requiring rejection and removal of such work at the Contractor’s expense.

5. After submittals have been accepted by the Architect, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

M. Review by District and Architect shall not relieve the Contractor or any Subcontractor from its responsibility in preparing and submitting proper submittals in accordance with the Contract Documents.

N. Any submission, which in Architect’s opinion is incomplete, contains errors, or been superficially checked will be returned by the Architect without review for resubmission by the Contractor.
O. Electronic copies of the stamped and signed Contract Documents will not be provided by District or Architect for Contractor’s use unless:
   1. Contractor shall first request and obtain written approval from Architect prior to use of any Architect’s CAD files, drawings, or other documents for submittal purposes.
   2. Contractor shall be responsible for all reproduction, printing, and delivery cost associated with the use of any requested drawings and/or CAD files.
   3. Contractor provides disclaimer letters to the Architect and District (15) working days in advance of any proposed use of Architect’s documents and/or digital files. Such disclaimer letter shall be in a form acceptable to Architect and District.
   4. Contractor shall not reuse any Architect’s documents and/or electronic files for submittal purposes without prior written approval.

P. Coordinate preparation and processing of submittals with performance of construction activities.
   1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
   2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
      a. Architect and Project Manager reserve the right to withhold action on a submittal requiring coordination with other submittals until all such related submittals are received. No extension of the Contract Time will be authorized.
      b. Architect and Project Manager will return incomplete submittals to the Contractor without review. No extension of Contract Time will be authorized due to incomplete Contractor submittals.

Q. Submittals Schedule: Comply with requirements in Section 00700 General Conditions in planning for required submittals and relating them to scheduled construction activities.
   1. Initial Review: Allow seven (7) working days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will, through the Project Manager, advise Contractor when a submittal review must be delayed for coordination reasons.
   2. Intermediate Review: If intermediate submittal review is necessary, process it in the same manner as an initial submittal.
   3. Re-submittal Review: Allow five (5) working days for review of each re-submittal.
   4. Sequential Review: Where sequential review of submittals by Architect’s consultants, District, or other parties is indicated, allow ten (10) working days for initial review of each submittal.

R. Re-submittals: Make re-submittals in same form and number of copies as initial submittal.
   1. Note date and content of previous submittal.
   2. Note date and content of revision in label or title block and clearly indicate extent of revision(s).
   3. Resubmit submittals until they are marked “No Exceptions Taken” or “Make Corrections Noted” by the Architect.
S. After submittals have been accepted by the Architect, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.8 ARCHITECT’S REVIEW

A. Architect’s review is for general conformance with design concept only, and does not relieve Contractor in any way from compliance with Contract Documents, nor does it in any way constitute grounds for a Change Order. Contractor remains solely responsible for details and accuracy of all quantities and dimensions, and selection of fabrication and/or installation processes.

B. The Architect’s review shall neither be construed as a complete check which relieves the Contractor, Subcontractor, manufacturer, fabricator, or supplier from responsibility for any deficiency that may exist or from any departures or deviations from the requirements of the Contract Documents unless the Contractor has, in writing, called the Architect’s attention to the deviations at the time of submission.

C. The Architect’s review shall not relieve the Contractor or Subcontractors from responsibility for errors of any sort in any required submittals, for proper fitting of the Work, coordination of the differing subcontractor trades, and Work which is not indicated on any submittal at the time of submission.

D. In reviewing shop drawings, samples, product data and other required submittals, the Architect will not verify dimensions and field conditions.

E. The Architect will review and approve shop drawings, samples, product data and other required submittals for aesthetics and for conformance with the design concept of the Work and the Contract Documents.

F. Architect will review each submittal, make marks to indicate corrections or modifications required, and return it.

G. Contractor and Subcontractors shall be solely responsible for any quantities which may be shown on either the submittals or the Contract Documents.

H. Architect will not review submittals that do not bear Contractor’s approval stamp and will return them to the Contractor without review.

I. Architect will stamp each submittal appropriately to indicate action to be taken, as follows:

1. No Exceptions Taken: Work covered by submittal may proceed provided it complies with the requirements of the Contract Documents. Compliance with Contract Documents is a condition of acceptance of the Work.

2. Make Corrections Noted: Work covered by the submittal may proceed provided it complies with Architect and or Engineer notations and/or corrections. Contractor shall make all noted corrections. Compliance with Contract Documents is a condition of acceptance of the Work.

3. Revise and Resubmit: Do not proceed with any Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise the submittal in accordance with Architect and/or Engineer notations and resubmit without delay. Repeat if necessary.
4. Rejected. See Remarks: Do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Prepare a new submittal in accordance with Architect/Engineer’s notations and resubmit without delay.

J. Use of Submittals for Construction: Use only final submittals with Architect’s mark indicating “No Exceptions Taken” or “Make Corrections Noted.”

K. Informational Submittals: Architect will review each submittal but will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.

1.9 REJECTED SUBMITTALS

A. Contractor shall make corrections required by the Architect and resubmit.

B. If the Contractor considers any correction or notation on the returned submittals to constitute a change to the contract drawings or specifications, he shall provide notice to the Architect and District.

C. If changes are necessary to submittals, the Contractor shall make such revisions and submission of the submittals in accordance with the procedures above. No item of work requiring a submittal change is to be accomplished until the changed submittals are approved.

1.10 NO EXCEPTIONS TAKEN OR MAKE CORRECTIONS NOTED SUBMITTALS

A. Acceptance will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor is responsible for the satisfactory construction of all work.

1.11 NO EXCEPTIONS TAKEN OR MAKE CORRECTIONS NOTED SAMPLES

A. Acceptance of a sample is only for the characteristics or use named in such acceptance and is not be construed to change or modify any contract requirements. Before submitting samples, the Contractor to assure that the materials or equipment will be available in quantities required in the project. No change or substitution will be permitted after a sample has been accepted.

B. Match the accepted samples for Materials and equipment incorporated in the work. If requested, accepted samples, including those which may be damaged in testing, will be returned to the Contractor, at his expense, upon completion of the contract. Samples not accepted will also be returned to the Contractor at its expense, if so requested. Failure of any materials to pass the specified tests will be sufficient cause for refusal to consider, under this contract, any further samples of the same brand or make of that material. District reserves the right to disapprove any material or equipment which previously has proved unsatisfactory in service.

C. Samples of various materials or equipment delivered on the site or in place may be taken by the District Project Manager for testing. Samples failing to meet contract requirements will automatically void previous acceptance, and Contractor shall replace such materials or equipment at Contractor expense to meet contract requirements.

D. Acceptance of the Contractor's samples by the AOR or District does not relieve the Contractor of his responsibilities under the contract.
1.12 WITHHOLDING OF PAYMENT

A. Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

B. No payment for materials incorporated in the work will be made if all required Designer of Record or required District approvals have not been obtained.

C. No payment will be made for any materials incorporated into the work for any conformance review submittals or information only submittals found to contain errors or deviations from the Solicitation or Accepted Proposal.

1.13 SUBMITTAL REQUIREMENTS

A. Shop Drawings

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

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

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

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

5. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed detail.
6. Fully illustrate requirements of the Contract Documents. Include the following information, as applicable:
   a. Dimensions
   b. Weights and measures
   c. Identification of products
   d. Fabrication and installation drawings
   e. Roughing-in and setting diagrams
   f. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring
   g. Electrical power requirements
   h. Shopwork manufacturing instructions
   i. Templates and patterns
   j. Schedules
   k. Design calculations
   l. Compliance with specified standards
   m. Notation of coordination requirements
   n. Notation of dimensions established by field measurement
   o. Relationship to adjoining construction clearly indicated
   p. Seal and signature of California professional engineer or other engineer if specified
   q. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring
   r. Other information as necessary or required by the Contract Documents

B. Samples

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

2. Labels and Instructions. All samples of materials shall be supplied with the manufacturer’s descriptive labels and application instructions.
3. Architect’s Review. The Architect will review and, if appropriate, approve submissions and will return them to the Contractor with the Architect’s stamp and signature applied thereto, indicating the timing for review and appropriate action in compliance with the Contract Documents.

4. Identification: Attach label on unexposed side of Samples that includes the following information:
   a. Generic description of Sample
   b. Product name and name of manufacturer
   c. Sample source
   d. Number and title of appropriate Specification Section
   e. District Project name and number
   f. Contractor’s name
   g. Date of submittal

5. Disposition: Maintain sets of all approved Samples at Project site, available for quality-control comparisons throughout the course of the Project. Sample sets may be used to determine final acceptance of construction associated with each sample or sample set.
   a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
   b. Samples not incorporated into the Work, if any, or otherwise designated as District’s property, are the property of Contractor.

6. Samples for Initial Selection: Submit manufacturer’s color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
   a. Number of Samples: Submit 6 full sets of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer’s product line.

7. Samples for Verification: Where required by the Contract Documents, submit full-size units of Samples, prepared from the same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
   a. Number of Samples: Unless indicated otherwise, submit six sets of Samples. Architect will retain two Sample sets; remaining four sets will be returned.
      i) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
      ii) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by Sample, submit at least four sets of paired units that show approximate limits of variations.
8. District’s Property. All shop drawings, computer disks, annotated specifications, samples, and other submittals shall become the District’s property upon receipt by the District or Architect.

C. Other Submittals

1. General: Prepare and submit Submittals required by other Specification Sections.
   a. Test and Inspection Reports: Comply with requirements specified in Section 01400 Quality Control Requirements.
   b. Coordination Drawings: Comply with requirements specified in Section 01311 Project Management and Coordination.
      i) Coordination Drawings are required where limited space availability necessitates maximum utilization of space for efficient installation of different components or if coordination is required for installation of products and materials fabricated by separate entities.

2. Product Data: Submit manufacturer’s printed literature in original form as required in the Contract Documents. Submittal shall include specifications, physical dimensions, and ratings of all equipment. Furnish performance curves for all fans and pumps. Where printed literature describes items in addition to that item being submitted, submitted item shall be clearly marked on submittal and superfluous information shall be crossed out in the same manner on all copies. Equipment submittals shall be complete and include space requirements, weight, electrical and mechanical requirements, performance data, and any supplemental information that may be available or requested.

3. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.


5. Installer Certificates: Prepare written statements on manufacturer’s letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.

6. Manufacturer Certificates: Prepare written statements on manufacturer’s letterhead certifying that product complies with requirements in the Contract Documents.

7. Material Certificates: Prepare written statements on manufacturer’s letterhead certifying that material complies with requirements in the Contract Documents.

8. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency’s standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.

9. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
10. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
   a. Name of evaluation organization
   b. Date of evaluation
   c. Time period when report is in effect
   d. Product and manufacturer’s names
   e. Description of product
   f. Test procedures and results
   g. Limitations of use

11. Schedule of Tests and Inspections: Comply with requirements specified in Section 01400 Quality Control Requirements.

12. Preconstruction Test Reports: Prepare test reports written by a qualified testing agency, on testing agency’s standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

13. Compatibility Test Reports: Prepare test reports written by a qualified testing agency, on testing agency’s standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.

14. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency’s standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.

15. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements specified in Section 01785 (Operation and Maintenance Data.)

16. Manufacturer’s Installation and Operations Instructions: Prepare written or published information that documents manufacturer’s recommendations, guidelines, and procedures for installing or operating a product or equipment. Manufacturer’s Instructions shall be available for review on site at all times. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
   a. Preparation of substrates
   b. Required substrate tolerances
   c. Sequence of installation or erection
   d. Required installation tolerances
   e. Required adjustments
   f. Recommendations for cleaning and protection

17. Manufacturer’s Field Reports: Prepare written information documenting factory-authorized service representative’s tests and inspections. Include the following, as applicable:
a. Name, address, and telephone number of factory-authorized service representative making report.
b. Statement on condition of substrates and their acceptability for installation of product.
c. Statement that products at Project site comply with requirements.
d. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
e. Results of operational and other tests and a statement of whether observed performance complies with requirements.
f. Statement whether conditions, products, and installation will affect warranty.
g. Other required items indicated in individual Specification Sections.

PART 2 - PRODUCTS:
Not Used.

PART 3 - EXECUTION:
Not Used.

END OF SECTION 01330
SECTION 01340
ADMINISTRATIVE FORMS & LOGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Specification Sections shall apply to this Section without limitation.

1.2 SUMMARY

A. This section specifies the information and format requirements for administrative forms and logs.

1.3 ADMINISTRATIVE FORMS & LOGS

A. The Contractor shall use District provided administrative forms for the Work or the District Project Management software, EADOC, should District choose to use. Administrative forms and logs include, but are not limited to, the following:

1. Transmittal Form
2. Submittal Transmittal Form
3. Request for Information Form
4. Substitution Request Form
5. 3-Week Projected Construction Schedule Form
6. 3-Week Testing & Inspection Schedule Form
7. Proposed Change Order Form*
8. Change Order Form*
9. Request for Information Log Form
10. Submittal Log Form
11. Proposed Change Order Log Form
12. Change Order Log Form
13. Contractor's Proposal for Contract Modification Form* (includes sample numbers to demonstrate calculations only)
14. Contractor Production Report
15. Construction Directive Form

1.4 FORMS INCORPORATED BY REFERENCE

A. Forms available from the California Department of General Services, Division of the State Architect, http://www.dgs.ca.gov/dsa/Forms.aspx, related to administration, construction, testing, and inspection of public work school facilities are hereby incorporated by reference into these Contract Documents.
1.5 CONTRACTOR RESPONSIBILITIES

A. Nothing in this Section, including, but not limited to, the above forms and log forms, shall be construed to limit, relieve, or release Contractor from liability to District for any damages sustained as a result of inaccurate or incorrect information supplied by the Contractor.

PART 2 – PRODUCTS - Not Used.

PART 3 – EXECUTION - Not Used.

END OF SECTION 01340
SECTION 01400
QUALITY CONTROL REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Division 1 Specification Sections shall apply to this Section without limitation.

1.2 SUMMARY
A. This Section includes Administrative and Procedural Requirements for Quality Control and Quality Assurance Services includes, but not limited to, the followings:
   1. Quality assurance and control of installation.
   2. References.
   3. Inspection and testing laboratory services
   4. Manufacturers’ field services and reports
   5. Field sample
   6. DSA Project Inspector if applicable
   7. Inspection by the Division of the State Architect if applicable
   8. Conflicts

1.3 QUALITY ASSURANCE/CONTROL OF INSTALLATION
A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions and workmanship, to produce Work of specified quality.
B. Comply fully with manufacturers' written instructions, including each step in sequence.
C. When manufacturers' instructions conflict with Contract Documents, request clarification from District’s Representative before proceeding.
D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
E. All Work shall be performed by persons qualified to produce workmanship of specified quality.
F. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.
G. Contractor's Line of Authority: Contractor shall provide one person who shall be both knowledgeable and responsible for all work to be performed on the Project at all times during normal work hours. In Contractor’s absence, Contractor’s appointed representative shall be responsible for all directions given him and said directions shall be binding as if given to the Contractor. Contractor’s representative shall be responsible to coordinate all Work to be performed on the Project.
H. Shop and field work shall be performed only by mechanics skilled and experienced in the fabrication and installation of the work involved. All work on this Project shall be done in accordance with the best practices of the various trades involved and in accordance with the Contract Documents, approved shop drawings and these specifications.

I. All work shall be erected and installed plumb, level, square and true and in proper alignment and relationship to the work of other trades. All finished work shall be free from defects. The District’s Representatives reserve the right to reject any materials and workmanship that are not considered to be of the highest standards of the trades involved. Any such inferior material or workmanship shall be removed and replaced at no additional cost or time impact to the District.

J. The specifications and recommendations of the manufacturer whose materials are used shall be strictly adhered to during the application or installation of materials. Manufacturer’s specifications, installation instructions, and testing and startup directions shall be available for inspection on Site.

K. Any additional work beyond that specified or illustrated in the Contract Documents, or any modification thereto, that is necessary to obtain the guarantees specified in the Contract Documents shall be provided by the Contractor without any additional cost or time impact to the District.

1.4 REFERENCES

A. Conform to reference standards in force on the most recent date of issue of the approved Contract Documents.

B. When specified reference standards conflict with Contract Documents, request clarification from District’s Representative before proceeding.

C. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

D. The Contractor shall be responsible for being current and knowledgeable for all building codes involved for all trades under his direction.

E. Provide all work and materials in full in accordance with the latest applicable Rules and Regulations of the California Code of Regulations Title 24 Building Code Standards, the State Fire Marshal, Safety Orders of the Division of Industrial Safety, and any other applicable laws or regulations. Nothing in these plans or specifications is to be construed to permit Work not conforming to these Codes.

F. American Society for Testing and Materials (ASTM):

   1. 29 CFR 1910, Subpart A, Section 1910.7: Definitions and Requirements for a National Recognized Testing Laboratory.

H. NIST: National Institute of Standards and Technology.

I. Furnish all material and labor required to comply with these Rules and Regulations without any additional cost to District.
1.5 MANUFACTURERS’ FIELD SERVICES AND REPORTS
A. When specified in individual Specification Sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, testing, adjusting, and balancing of equipment as applicable, and to provide instructions when necessary.
B. Provide four (4) sets of Manufacturer’s Field Representative report to District and Architect for review within 5 days of field observation.
C. Manufacturer’s Field Service: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections.

1.6 FIELD SAMPLES
A. Install field samples at the site for District and Architect review as required by individual Specifications Sections.
B. Samples accepted by the Architect in writing represent the quality level required for the Work.
C. Where a field sample is specified in individual sections to be removed, clear area after field sample has been accepted by Architect.

1.7 PROJECT INSPECTOR
A. District will employ a Project Inspector in accordance with the regulations of the DSA and subject to the provision of Part 1, Title 24, CCR. Project Inspector’s authority, rights and duties shall be as set forth in Section 4-342, Part 1, Title, 24, CCR.

1.8 INSPECTION BY THE DIVISION OF THE STATE ARCHITECT
A. Work will be monitored and observed through periodic site visits by the Division of the State Architect Field Inspector according to Section 4-334, Part 1, Title 24, CCR.

1.9 CONFLICTS
A. Contractor shall comply with rules of documents interpretation as indicated in Contract General Conditions including, but not limited to the following items:
   1. Contract Documents take precedence over statutory requirements or standard 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.
   2. This shall not operate to allow deviations from code requirements, prior approvals and other provisions as specified.
   3. Modifications to published statutory requirements currently adopted or enforced by regulating agencies having jurisdiction shall take precedence over said published requirements.
B. Conflicts within Contract Documents and/or between Project Manual (including specifications) Drawings, Addenda: The more stringent requirement shall govern.
C. Subcontractor, supplier, and installer work may be called for in any section of the Contract Documents; Project Manual Specifications, Drawings and Addenda. Work by any one discipline is not limited to any specific section of the Project Manual, Drawings, Addenda, and Contract Documents shall be bid in total and not in parts.

D. If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding. Contractor shall, within (15) working days, notify the Architect in writing for the context of requirements.

E. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Contractor shall, within (15) working days, notify any uncertainties to the Architect and District for a decision before proceeding.

1.10 QUALITY CONTROL, GENERAL

A. District will provide inspections, tests, and similar quality control services required performed by the Division of the State Architect. All other tests are Contractor’s responsibility.

1. District will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and description of types of testing and inspecting they are engaged to perform.

2. Costs for retesting and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.

1.11 QUALITY CONTROL: LABORATORY, TESTS, AND REPORTING REQUIREMENTS

A. Construction materials testing laboratories must be accredited by a laboratory accreditation authority and will be required to submit a copy of the Certificate of Accreditation and Scope of Accreditation.

1. The laboratory's scope of accreditation must include the appropriate ASTM standards (E 329, C 1077, D 3666, D 3740, A 880, E 543) listed in the technical sections of the specifications.

B. Laboratories engaged in Hazardous Materials Testing shall meet the requirements of OSHA and EPA. The policy applies to the specific laboratory performing the actual testing, not just the Corporate Office.

C. Laboratory Accreditation Authorities: Laboratory Accreditation Authorities include the National Voluntary Laboratory Accreditation Program (NVLAP) administered by the National Institute of Standards and Technology at: http://ts.nist.gov/ts/htdocs/210/214/214.htm the American Association of State Highway and Transportation Officials (AASHTO) program at http://www.transportation.org/aashto/home.nsf/frontpage , International Accreditation Services, Inc. (IAS) at http://www.iasonline.org, the American Association for Laboratory Accreditation (A2LA) program at http://www.a2la.org/.
D. Capability Check: The District retains the right to check laboratory equipment in the proposed laboratory and the laboratory technician's testing procedures, techniques, and other items pertinent to testing, for compliance with the standards set forth in this Contract.

E. Test Results: Cite applicable Contract requirements, tests or analytical procedures used. Provide actual results and include a statement that the item test or analyzed conforms or fails to conform to specified requirements.

1. If the item fails to conform, notify the District immediately. Conspicuously stamp the cover sheet for each report in large red letters "CONFORMS" or "DOES NOT CONFORM" to the specification requirements, whichever is applicable.

2. Test results must be signed by a testing laboratory representative authorized to sign certified test reports.

3. Furnish the signed reports, certifications, and other documentation to the District via the QC Manager.

4. Furnish the signed reports, certifications, and a summary report of field tests at the end of each month to the District. Attach a copy of the summary report to the last daily Contractor Quality Control Report of each month.

1.12 NOTIFICATION ON NON-COMPLIANCE

A. The District will notify the Contractor of any detected non-compliance with the Contract. Take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the District may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders will be made the subject of claim for extension of time for excess costs or damages by the Contractor.

PART 2 - PRODUCTS - Not Used.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work constitutes acceptance of existing conditions by the Contractor.

B. Verify existing substrate is capable of structural support or attachment of new Work being applied or attached.

C. Examine and verify specific conditions described in individual specification sections.

D. Verify utility services are available, of correct characteristics, and in correct locations.

3.2 TEST AND INSPECTION LOG

A. Prepare a record of tests and inspections. Include the following:

1. Date test or inspection was conducted.

2. Description of the Work tested or inspected.

3. Date test or inspection results were transmitted to Architect.
4. Identification of testing agency or special Inspector conducting test or inspection.
   B. Maintain test and inspection log at project site. Post changes and modifications as they occur. Provide access at the Project site to the District and Architect, during normal working hours, to Contractor generated test and inspection logs

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

3.4 PREPARATION AND PROTECTION
   A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
   B. Protect construction exposed by or for quality-control service activities.
   C. Repair and protection are Contractor’s responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01400
SECTION 01416
SPECIAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
   A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Division 1 Specification Sections shall apply to this Section without limitation.

1.2 SUMMARY
   A. In Compliance with CEQA requirements, the District conducted an Initial Study to ascertain if the project may have an effect on the environment. The Initial Study identified potential impacts on the environment. However, all potential impacts of the proposed Project can be avoided or reduced to a less-than-significant level by implementation of the following mitigation measures. Contractor shall conform with the following mitigation measures, including but not limited to, the following:
      1. Noise Control
      2. Dust Control
      3. Traffic Control
      4. Spill Prevention, Control and Countermeasures
      5. Tree Protection
      6. Migratory Bird Protection
      7. Cultural Resources Protection
   B. In no case shall the restrictions identified in this Section limit the Contractor’s responsibility for compliance with all Federal, state, and local safety ordinances and regulations.

1.3 NOISE CONTROL
   A. The intent of this Section is to minimize construction noise within construction areas, lay-down areas, and communities adjacent to the construction site. To this end, the Contractor and all subcontractors, suppliers, and vendors, are required to comply with all applicable noise regulations, specification requirements, and the noise level limits specified herein.
   B. The Contractor shall use equipment with efficient noise-suppression devices and employ other noise abatement measures such as enclosures and barriers necessary for the protection of the public, as necessary.
   C. The Contractor shall schedule and conduct operations in a manner that will minimize, to the greatest extent feasible, the disturbance to the public in areas adjacent to the Work and to occupants of buildings in the vicinity of the Work.
   D. Noise Control Measures. Contractor shall implement the following noise-control measures to reduce and control noise generated from construction, demolition, and construction related activities:
      1. Restrict noise-producing construction activities to between 7:00 a.m. and 7:00 p.m. on weekdays. If construction is scheduled for Saturdays or Sundays to avoid disrupting college operations, restrict noise-producing construction activities to between 9:00 a.m. and 5:00
p.m. Construction on Sundays shall be avoided, if possible, and there will be no construction on public holidays without prior written request submitted to and written approval returned by the District, at its sole discretion. A decision by the District to deny Sunday or holiday work shall not be deemed to cause a delay in the Contract Time. When activities must occur outside the hours specified above, conform with notification requirements of this Section and utilize local barriers around equipment and other noise attenuating devices if necessary to limit noise to acceptable levels.

2. Comply with all City of San Pablo requirements regarding both allowable hours of Work and noise level limitations.

3. All construction equipment shall have appropriate mufflers, intake silencers, and other required noise-control features, shall be properly maintained and in compliance with State standards.

4. Vehicles and other gas or diesel powered equipment shall be prohibited from unnecessary warming up, idling, and engine revving.

5. Impact tools shall utilize “quiet technology” to minimize noise.

E. Secure written permission from Construction Manager at least three (3) working days prior to using noisy and vibratory equipment, such as jackhammers, concrete saws, impact tools, and high frequency electrical equipment. Cooperate with District if the use of noisy equipment becomes objectionable to college employees and/or students.

F. The work must be conducted so that nearby residents and college operations in surrounding facilities and classrooms will not be disturbed at any time during any phase of the Work including, but not limited to, the following requirements:

1. Do not use loud vocal or mechanical signals. Use of outside speakers, loud radios and similar devices are prohibited.

2. Work shall be performed in a manner to prevent nuisance conditions such as noise which exhibits a specific audible frequency or tone (e.g., backup alarms, poorly maintained equipment, brake squeal, etc.) or impact noise (e.g., jackhammers, hoe rams). The District will make any final interpretation concerning whether or not nuisance noise conditions exist. Only the District representatives and specifically designated College representatives have the authority to stop the Work until nuisance noise conditions are resolved, without additional Contract Time or compensation for the Contractor.

1.4 DUST CONTROL

A. Contractor shall implement dust control measures to protect air quality during construction to control dust emissions generated during construction, implement the following Bay Area Air Quality Management District (BAAQMD) measures for construction emissions of particulate matter over 10 microns in size (PM10).

1.5 TRAFFIC CONTROL

A. Contractor shall implement traffic control to minimize the effects of construction traffic on the campus and surrounding residential areas, as appropriate.

B. Contractor shall notify the District, Architect, Construction Manager, Project Inspector, Campus Police Department, city and county agencies, as applicable, a minimum of five (5) working days in advance of performing work which necessitates closing or interfering with traffic on public
thoroughfares, parking areas, driveways and walks. Obtain written permission prior to effecting such closures and interruptions.

### 1.6 SPILL PREVENTION, CONTROL AND COUNTERMEASURES

A. Contractor shall implement Spill Prevention, Control and Countermeasures to minimize the potential for and effects from spills of hazardous, toxic or petroleum substances during construction and demolition activities.

B. The federal reportable spill quantity for petroleum products, as defined in 40 CFR 110, is any oil spill that includes any of the following:
   1. Violates applicable water quality standards.
   2. Causes a film or sheen on or discoloration of the water surface or adjoining shoreline.
   3. Causes a sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines.

C. If a spill is reportable, notify the District’s Representative and take action to contact appropriate safety and clean-up crews.
   1. A written description of reportable releases must be submitted to the District’s Representative and to the San Francisco Bay Regional Water Quality Control Board (RWQCB). This submittal must contain a description of the spill, including the type of material and an estimate of the amount spilled, the date of the release, an explanation of why the spill occurred and a description of the steps taken to prevent and control future releases. Document the releases on a spill report form.
   2. If a reportable spill has occurred and results determine that project activities have adversely affected surface water or groundwater quality, the District will engage a registered environmental assessor at Contractor’s expense for a detailed analysis to identify the likely cause of contamination. This analysis will conform to American Society for Testing and Materials (ASTM) standards and will include recommendations for reducing or eliminating the source or mechanisms of contamination.
   3. Based on this analysis, the Contractor shall select and implement measures to control contamination, with a performance standard that groundwater quality must be returned to baseline conditions. These measures will be subject to approval by the District.

### 1.7 TREE PROTECTION

A. Definitions:
   1. **Dripline:** If applicable, the area on the ground from the trunk of any tree to the point directly below the outermost tips of the foliage of that tree.
   2. **Root Protection Zone (“RPZ”):** If applicable, the areas enclosed with tree protection fencing as designated on the drawing(s).
   3. **Tree damage:** If applicable, tree damage shall include, but not limited to, the following: Significant injury to the root system or other parts of a tree including burning, application of toxic substances, damaging through contact with equipment or machinery, changing the natural grade within the Dripline or RPZ, compacting the soil within the Dripline or RPZ, interfering with the normal water requirements of the tree, unauthorized trenching or excavating within the Dripline or RPZ, or unauthorized removal of more than 1/3 of the live wood, foliage or roots.
B. Root Protection: No storage of materials or equipment will be allowed within the Dripline. Whenever possible, excavation shall be on a radial line, diverging from the tree trunk. For items of Work delayed materially beyond Date of Substantial Completion, provide update submittal within 14 Days after acceptance, listing date of acceptance as start of warranty period.

C. Exposure to harmful substances: No storage or dumping of any substances that may be harmful to trees shall occur at any location on the Site.

D. Where construction is to be performed in the vicinity of trees and shrubbery, the Work shall be carried on in a manner that will cause minimum damage. District will designate trees that are to be removed. Under no circumstances are additional trees to be removed without written permission from District. Trees and shrubbery that are not to be removed shall be protected from injury or damage resulting from Contractor’s operations.

E. Any tree that is removed without District’s permission or is irreparably damaged, in the opinion of District, shall cost Contractor in damages [$100.00] per square inch of cross section, measured at 4 ½ feet above ground, but not less than [$250.00], such cost to be deducted from monies due or to become due under the Contract. If tree protection is not performed or is not performed adequately and District determines that a tree has been irreparably damaged, Contractor shall pay the same amount of damages as for unauthorized removal of a tree. Contractor shall immediately report all tree damage to District, so that District may determine applicable damages.

1.8 MIGRATORY BIRD PROTECTION

A. If applicable, conduct vegetation and tree removal outside of the migratory bird nesting season. The typical nesting season for migratory birds in this part of California is March 1st through July 31.

B. If vegetation and tree removal must take place during the nesting season, these activities shall be preceded by a survey for nesting migratory birds by the District’s qualified ornithologist. If bird nests are discovered in the trees or on the buildings, they shall not be removed while the nest(s) are active.

1.9 CULTURAL RESOURCES PROTECTION

A. If buried cultural resources, such as chipped or ground stone, historic debris, building foundations or human bones or paleontological resources are discovered inadvertently during ground-disturbing activities, Contractor shall avoid any further disturbance of the materials and immediately discontinue earthwork within 100 feet of the find. Contractor shall notify District’s Representative immediately upon encountering cultural resources. Contractor shall be prepared to move on to another location or phase of work, allowing sufficient time for District’s Representative to evaluate the nature and significance of the find and implement appropriate management procedures.

B. In the event that prehistoric human remains are encountered, further excavation or disturbance of the site shall cease immediately, pursuant to Health and Safety Code 7050.5. Contractor shall notify District’s Representative immediately upon encountering human remains. Contractor shall move on to another location or phase of Work to allow proper assessment of the situation.

C. If human remains of Native American origin are discovered during project construction, it will be necessary to comply with State laws relating to the disposition of Native American burials, which fall under the jurisdiction of the NAHC (Public Resources Code (PRC) Section 5097. Consequently,
if any human remains are discovered or recognized in any location other than a dedicated cemetery, there will be no further excavation or disturbance of the site or any nearby areas reasonably suspected to overlie adjacent human remains:

1. Until the Contra Costa County Coroner has been informed and has determined that no investigation of the cause of death is required;
2. If the remains are of Native American origin;
   a. The descendants of the deceased Native American(s) have made a recommendation to the landowner or the person responsible for the excavation work regarding means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98 or
   b. The NAHC has been unable to identify a descendent or the descendent failed to make a recommendation within 24 hours after being notified by the NAHC.

PART 2 – PRODUCTS - Not Used.

PART 3 – EXECUTION - Not Used.

END OF SECTION 01416
SECTION 01500
TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
   A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Specification Sections shall apply to this section without limitation.

1.2 REQUIRED TEMPORARY FACILITIES AND CONTROLS
   A. Contractor shall provide and maintain all temporary facilities, utilities, and controls as required to perform the Work and as required herein. Materials, installation, and maintenance of temporary utilities and facilities shall be in compliance with all applicable local and State regulatory requirements. Remove temporary utilities and facilities, including associated materials and equipment, when no longer required. Restore and recondition existing facilities used during construction and areas of the Site, roads, driveways, parking lots, landscaping, and any other existing improvements either damaged or disturbed by the installation of temporary facilities or utilities to their original condition. Remove and properly dispose of debris resulting from removal and reconditioning operations.

   B. Contractor shall furnish and install requirements for temporary utilities, facilities, security, and protection, which include but are not limited to the following:

      1. Temporary Electric Power and Lighting
         a. The District will make available existing electric power sources in its distribution system to facilitate the Contractor’s completion of the Work. Contractor shall provide temporary power, power outlets for construction operations, with branch wiring and distribution boxes located as required to complete the Work.
         b. Contractor shall provide and maintain electrical power at the Site for its construction purposes, temporary facilities and trailers. Contractor shall provide all necessary wiring and appurtenances for connection to District’s system. Connect to District power at location(s) as directed by District.
         c. Contractor shall provide and maintain distribution of temporary electrical power and lighting to the Work, and for use by the Project Inspector and District Project Manager where applicable.
         d. Contractor shall provide temporary power main service disconnect and over current protection, if required, at convenient locations and as required by governing codes.
         e. The Contractor shall be responsible for providing temporary facilities as required to deliver power service from the point of connection to the point(s) of intended use.
         f. Contractor shall verify characteristics of District power available for temporary service use, and provide all transformers and/or other equipment necessary to modify District power for temporary use by the Contractor. Contractor shall pay all costs associated with any necessary modifications to District power for temporary use on the Work.
g. The Contractor shall provide, install, and maintain temporary electrical lighting wherever necessary to provide illumination for the proper performance and/or observation of the Work. Where required, a minimum of 20 foot-candles for rough work and 50 foot-candles for finish work shall be provided.

2. Temporary Communications/Telephone
   a. Contractor shall provide, maintain, and pay for all required communications and data services (including without limitation telephone, facsimile, e-mail and internet) to all Project field offices to include a multi-function printer, copier, scanner, fax unit commencing at the time of Project mobilization, including all installation, connection, and monthly charges required to perform work. The installation and removal of all temporary telephone and data distribution shall be the sole responsibility of the Contractor without adjustment of the Contract Sum or the Contract Time. Routing of the new lines shall be acceptable to the District.
   b. Not used.
   c. Coin operated phones are not acceptable.
   d. Contractor to provide a list of important telephone numbers at each telephone on the site offices including, but not limited to the following:
      i) Police and Fire Departments
      ii) Campus Police
      iii) Ambulance Service
      iv) Contractor’s home office
      v) All Principal Subcontractors’ field and home offices
      vi) Architect’s office
      vii) Engineer’s office
      viii) District office
      ix) Project Manager
      x) Project Inspector
      xi) Building & Grounds Department
      xii) Testing Laboratory
   e. Provide superintendent with cellular telephone for use when away from field office.

3. Temporary Water
   a. The District will furnish and pay for water during the course of the work to the extent water is available on the Site. The Contractor shall be responsible for providing all temporary facilities required to deliver District water from the point of connection to point of intended use on the Project.
   b. Contractor shall be allowed to utilize water from the District for domestic use only. Water shall not be provided nor used for dust control, street cleaning, cleaning tools,
or vehicle washing. Water used for such purposes shall be provided by the Contractor at its expense.

c. Contractor shall provide and maintain necessary temporary water supply connections, pipes, hoses, nozzles, and fittings required. Before final acceptance, all temporary water supply components installed by Contractor shall be removed in a manner approved by District’s Representative.

d. Unnecessary waste of water will not be permitted. Special hydrant wrenches shall be used for opening and closing fire hydrants, in no case shall pipe wrenches be used for this purpose. Obtain approval of governing agency prior to opening any fire hydrant.

e. Contractor shall provide and use backflow preventers on water lines at point of connection to any District water supply. Backflow preventers shall comply with requirements of California Uniform Plumbing Code. The installation and removal of all temporary backflow preventers on the Site shall be the sole responsibility of the Contractor without any adjustment to either the Contract Sum or the Contract Time. Before final acceptance, all temporary connections and piping installed by Contractor shall be removed in a manner approved by District’s Representative.

4. Temporary Fences

a. Temporary fence provided by others. Contractor shall provide padlocks used for securing gates into the project area. Padlocks shall be designed to prohibit cutting of shackle. Contractor shall coordinate keying strategy with District.

b. Contractor shall be responsible for locking gates and shall be secured with minimum 3/8-inch-thick, 30 grade coil chain, minimum 5/16-inch cable. Gates shall be kept closed and locked at all times when not in use.

c. Fences which interfere with construction operations shall not be relocated or dismantled until District gives written permission to do so, and the timing of fence relocation or dismantling has been agreed upon. Where fences must be maintained across the construction easement, adequate gates shall be installed.

d. Contractor will be responsible for maintaining security by limiting number of keys and restricting distribution to authorized personnel.

e. Security Enclosure and Lockup: Install substantial temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft and similar violation of security.

f. Contractor shall provide secure lockup for its own stored materials and equipment which are of value or attractive for theft.

g. Contractor shall be responsible for proper security for its own materials, tools, equipment, supplies and completed and partially completed Work.

5. Temporary Protection of Public and Private Property

a. Contractor shall protect, shore, brace, support and maintain all existing underground utilities including but not limited to the following: all pipes, conduits, drains and other underground construction uncovered or otherwise affected by Contractor’s construction operations.
b. All pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences and other surfaces structures affected by Contractor’s construction operations, together with all sod and shrubs in yards, planting areas, and medians, shall be restored to their original condition, wherever affected by Contractor’s construction operations. All replacements shall be made with new materials.

c. Contractor shall be responsible for all damage to streets, roads, highways, shoulders, ditches, embankments, culverts, bridges and other public or private property, regardless of location or character, which may be caused by transporting equipment, materials, or workers to or from the Work, Site or any part thereof, whether by Contractor or its Subcontractors. Contractor shall be solely responsible without adjustment of the Contract Sum or the Contract Time to make satisfactory and acceptable arrangements with the District, or the agency or authority having jurisdiction over the damaged property, concerning its repair or replacement or payment of costs incurred in connection with the damage.

d. All fire hydrants and water control valves shall be kept free from obstruction and available for use at all times.

6. **Temporary Sanitary Facilities**
   a. Temporary sanitary toilets for use of all workers throughout the course of the Work provided by others.

7. **Temporary Pollution Control**
   a. Contractor shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris and other substances resulting from construction activities. No sanitary wastes shall be permitted to enter any drain or watercourses other than sanitary sewers. No sediment, debris or other substance shall be permitted to enter sanitary sewers without authorization of the receiving sanitary sewer service and all possible Best Management Practices (BMPs) shall be taken to prevent such materials from entering any drain to watercourse. Rate of discharge for storm water may be not increased by the Project during or following construction.

   b. In the event that dewatering of excavations is required, Contractor shall obtain the necessary approval and permits for discharge of the dewatering effluent from the local jurisdiction. Contractor shall be responsible for assuring that water quality of such discharge meets the appropriate permit requirements prior to any discharge.

   c. Contractor shall comply with the District’s Storm Water Pollution Prevention Plan, if applicable for this Project.

8. **Construction Aids**
   a. Contractor shall furnish, install, maintain and operate all construction aids as required for the performance of the Work. Such construction aids include, but are not limited to, elevators and hoists, cranes, temporary enclosures, swing staging, scaffolding, and temporary stairs.

9. **Erosion Control**
   a. Contractor shall comply with the District Storm Water Pollution Prevention Plan for this Project if applicable.
b. Contractor shall prevent soil erosion on the Site and adjacent property resulting from its construction activities to the maximum extent practical, including implementation of Best Management practices. Effective measures shall be initiated prior to the commencement of clearing, grading, excavation or other operations that will disturb the natural protection.

c. Work shall be scheduled to expose areas subject to erosion for the shortest possible time and natural vegetation shall be preserved to the greatest extent practicable. Temporary storage, temporary construction buildings and temporary Field office buildings shall be located and construction traffic routed to minimize erosion. Contractor shall provide temporary fast-growing vegetation or other suitable ground cover shall be provided as necessary to control runoff.

10. **Vehicular and Pedestrian Traffic Controls**

   a. The Campus is an active site, with vehicular and pedestrian traffic occurring at all times of the day and all days of the week. Contractors shall coordinate with District’s Representative concerning vehicular traffic associated with the construction in order to minimize disruption to college operations. Delivery trucks and large equipment shall enter the Contractors access gate and shall use the route mutually agreed upon between District and Contractor. Contractor shall provide signage directing construction and delivery traffic to this gate. Contractor shall provide information regarding sign types, size, material, text and locations to be reviewed and approved by the District Representative, and the Campus prior to installation. See Article 12 below for additional requirements.

   b. Contractor shall keep all required Fire District and emergency vehicle access paths free from obstruction at all times during the Project.

11. **Temporary Signage**

   a. Sign must be reviewed and approved by the District and the Campus prior to installation. Contractor shall use an experienced sign company to produce all temporary signs. Install signs where indicated in Contract Documents, and as required by the District. Unauthorized signs are not permitted.

12. **Temporary Heat and Ventilation**

   a. Provide temporary heat as required to maintain adequate environmental conditions to facilitate progress of the work, to meet specified minimum environmental conditions for the Work and to protect materials and finishes from damage due to improper temperature and humidity conditions.

   b. Portable heaters shall be standard units complete with controls, appropriate safety features, and bear testing lab approval markings.

   c. Provide adequate forced ventilation of enclosed areas as required for proper installation and curing of materials, to disperse humidity, and to prevent hazardous accumulations of dust, fumes, vapors and gases.

   d. HVAC Equipment: Unless District authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.
i) Use of gasoline-burning space heater, open-flame heater or salamander-type heating units is prohibited.

ii) Heating Units: Listed and labeled for type of fuel being consumed, by a testing agency acceptable to authorities having jurisdiction and marked for intended use.

PART 2 – PRODUCTS

2.1 MATERIALS - Not used

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Locate Contractor facilities where they will serve Project adequately and result in minimum interference with performance of Work. Relocate and modify facilities as required by progress of the Work during entire project including all phases of project.

B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

C. Contractor shall verify and coordinate all relocation of facilities with the District Construction Manager.

3.2 OPERATION, TERMINATION AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

B. Maintenance: Maintain facilities in good operating condition until removal.

1. Where appropriate, maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.

C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion and acceptance by the District.

D. Termination and Removal: Remove each temporary facility, provided by Contractor, when need for its service has ended, when it has been replaced by authorized use a permanent facility or no later than Final Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.

13. Materials and facilities that constitute temporary facilities are property of Contractor. District reserves the right to take possession of Project Identification signs at no cost to the District.

END OF SECTION 01500
SECTION 01505
CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Specification Sections shall apply to this Section without limitation.

1.2 SUMMARY

A. The District has established that this Project shall generate the least amount of waste possible and that processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors shall be employed.

B. Of the inevitable waste that is generated, as many of the waste materials as economically feasible shall be reused, salvaged, or recycled. Waste disposal in landfills shall be minimized.

1.3 WASTE MANAGEMENT GOALS FOR THE PROJECT

A. The District has established that this Project shall minimize the creation of construction and demolition waste, and shall divert a minimum of 75% of Project generated waste from landfills. Factors that contribute to waste such as over packaging, improper storage, ordering error, poor planning, breakage, mishandling, and contamination, shall be minimized. Of the inevitable waste that is generated, as many of the waste materials as economically feasible shall be reused, salvaged, or recycled. Waste disposal in landfills shall be minimized. Both recycled and waste need to be logged and documented by volume and weight.

B. Diversion Goals: A minimum 75% of total Project waste shall be diverted from landfill. The following waste categories, at a minimum, shall be diverted from landfill. These materials include, but not limited to:

1. Landscape and land clearing debris (green wood materials)
2. Asphalt pavement
3. Gravel and aggregate products
4. Concrete
5. Masonry scrap and rubble (brick, concrete, masonry, stone)
6. Metals (ferrous and nonferrous)
7. Clean wood (dimensional lumber, sheet goods, millwork, scrap, pallets)
8. Plastics (films, containers, PVC products, polyethylene products)
9. Asphalt/Bituminous roofing
10. Insulation Materials
11. Glass (un-tempered)
12. Door and window assemblies
13. Carpet and carpet pad
14. Fibrous acoustic materials
15. Ceiling Tiles
16. Plumbing fixtures and equipment
17. Mechanical equipment
18. Lighting fixtures and electrical components
19. Cardboard packing and packaging
20. Furniture
21. Sheet Rock
22. Electronic Waste
23. Universal Waste
24. Paper

1.4 REFERENCES AND RESOURCES


B. The following sources provided for references:
   1. BuildingGreen.com
   2. California Integrated Waste Management Board
   3. EPA Office of Solid Waste and Energy Response

1.5 QUALITY ASSURANCE:

A. Regulatory Requirements. Comply with applicable requirements of the State of California, local ordinances and regulations concerning management of construction, clearing, and inert materials.

B. Disposal Site, Recyclers and Waste Materials Processors. Use only facilities properly permitted by the State of California, and/or by local authorities where applicable.

1.6 WASTE DIVERSION DOCUMENTATION

A. Provide the District with delivery receipts for the recovered materials and waste materials sent to the permitted recycling facilities, processing facilities, or landfill with the following information on a form to be approved by the District:
   1. Name of firm accepting the recovered materials or waste materials
   2. Specify type of facility (e.g. retail facility, recycler, processor, Class III landfill, MRF)
   3. Location of the facility
   4. Type of materials
   5. Net weights (or volume) of each type of material
   6. Date of delivery

B. Application for Progress Payments: Contractor shall submit with each Application for Progress Payment a Summary of the project waste generated. Failure to submit this information shall render the Application for Payment incomplete and shall delay Progress Payment. The District and its representatives shall not be responsible for delaying Progress Payments. With each Application for Payment, submit required Progress Documentation, including:
   1. manifest,
2. weight tickets,
3. receipts,
4. and invoices specifically identifying the project and waste material.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION

3.1 STORAGE AND HANDLING

A. Site Storage
1. Remove materials for recycling and recovery from the work locations to approved containers or storage area as required. Failure to remove waste or recovered materials will be considered cause for withholding payment and termination of Contract.
2. Position containers for recyclable and recoverable waste materials at a designated location on the Project Site. If materials are sorted on site, also provide a sorting area and necessary storage containers.
3. Change-out loaded containers for empty containers, as demand requires.
4. If recovered materials are stored on-site for project duration provide adequate security from pilferage.

B. Handling
1. Deposit indicated recyclable, and recoverable materials in storage areas or containers in a clean (no mud, adhesive, solvents, petroleum contamination), debris-free condition. Do not deposit contaminated materials into the containers until such time as such materials have been cleaned.
2. Insure all recovered materials are made safe for handling and storage.
3. If the contamination chemically combines with the material so that it cannot be cleaned, do not deposit into the recycle containers. In such case, request resolution by the District for disposal of the contaminated material. Directions from the District do not relieve the Contractor of responsibility for compliance with all legal and regulatory requirements for disposal, nor shall such directions cause a request for modification of the Contract.

3.2 PROJECT CONDITIONS

A. Site Condition:
1. Signs and instructions should be clear, and easy to understand. All recycling containers should be clearly labeled and lists of acceptable and unacceptable materials will be posted throughout the site. Whenever possible, they should be in multiple-languages, especially in Spanish, and in graphic symbols.
2. The Contractor shall ensure the safety of all personnel involved in the waste management process.
3. A site management plan shall be created by the Contractor including: work areas, materials processing areas, materials storage and disposal areas, worker hand-washing and changing stations, first aid and medical information.

END OF SECTION 01505
SECTION 01785
OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Specification Sections shall apply to this Section without limitation.

1.2 SUMMARY
A. This section includes administrative and procedural requirements for Operation and Maintenance (O&M) data and documents.

1.3 FORMAT
A. Contractor shall compile O&M manuals for all building equipment including mechanical, plumbing and electrical equipment, commissioned or not.
B. Submit O&M Data specifically applicable to this contract and a complete and concise depiction of the provided equipment, product, or system, stressing and enhancing the importance of system interactions, troubleshooting, and long-term preventative maintenance and operation. Organize and present information in sufficient detail to clearly explain O&M requirements at the system, equipment, component, and subassembly level. Include an index preceding each submittal. Submit in accordance with this section and Section 00700, General Conditions.

1. Package Quality. Documents must be fully legible. Poor quality copies and material with hole punches obliterating the text or drawings will not be accepted.
2. Package Content. Data package content shall be as shown in the paragraph titled "Schedule of Operation and Maintenance Data Packages." Comply with the data package requirements specified in the individual technical sections, including the content of the packages and addressing each product, component, and system designated for data package submission.
3. Changes to Submittals. Manufacturer-originated changes or revisions to submitted data shall be furnished by the Contractor if a component of an item is so affected subsequent to acceptance of the O&M Data. Changes, additions, or revisions required by the Architect or District Project Manager for final acceptance of submitted data, shall be submitted by the Contractor within 30 calendar days of the notification of this change requirement.

1.4 SYSTEMS COVERED
A. The Contractor shall supply the required information for all systems identified in Contract Documents. A separate manual or chapter shall be provided for all new equipment or systems referenced in the Contract Documents.

1.5 COMPUTER PROGRAMS
A. When any equipment requires operation by computer programs, submit copy of original program on CD, with a hard-copy and an electronic copy (Adobe PDF format) of all user manuals
and guides for operating the programs. Program shall be Windows compatible, latest edition or as requested by the District. Provide required licenses to District at no additional cost.

1.6 SUPPLEMENTAL DATA

A. Contractor shall prepare written text and/or special drawings to provide necessary information when manufacturer’s standard printed data is not available and/or additional information is necessary for a proper understanding and operation and maintenance of equipment or systems, or when it is necessary to supplement data included in the manual or Project documents.

1.7 SCHEDULE OF INFORMATION FOR OPERATION AND MAINTENANCE DATA PACKAGES

A. Supply all of the following, when and where applicable, for each O&M data package:
   1. Safety precautions
   2. Operator prestart
   3. Startup, shutdown, and post-shutdown procedures
   4. Normal operations
   5. Emergency operations
   6. Operator service requirements
   7. Environmental conditions
   8. Lubrication data
   9. Preventive maintenance plan and schedule
   10. Cleaning recommendations
   11. Troubleshooting guides and diagnostic techniques
   12. Wiring diagrams and control diagrams
   13. Maintenance and repair procedures
   14. Removal and replacement instructions
   15. Spare parts and supply list
   16. Special tools required to service or maintain the equipment
   17. Corrective maintenance man-hours
   18. Product submittal data
   19. O&M submittal data
   20. Parts identification
   21. Warranty information
   22. Personnel training requirements
   23. Testing equipment and special tool information
   24. Testing and performance data
   25. Installing Subcontractor information

PART 2 – PRODUCTS - Not Used.

PART 3 – EXECUTION - Not Used.

END OF SECTION 01785
SECTION 01820

DEMONSTRATION AND TRAINING PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
   A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Specification Sections shall apply to this Section without limitation.

1.2 SUMMARY
   A. This Section includes administrative and procedural requirements for instructing District’s personnel, including the following:
      1. Demonstration of operation of systems, subsystems, and equipment
      2. Training in operation and maintenance of systems, subsystems, and equipment
      3. Demonstration and training videos

1.3 SUBMITTALS
   A. At completion of training, provide two (2) complete training manuals for the District’s use.
   B. Attendance Record: For each training module, provide list of participants and length of instruction time.

1.4 QUALITY ASSURANCE
   A. Instructor Qualifications: A factory-authorized service representative or District approved equivalent, complying with requirements in Section 01400 Quality Control Requirements, and technical specification sections where required. Service representative shall be experienced in operation and maintenance procedures and training for Project specific systems and equipment.
   B. Contractor shall coordinate instruction schedule and verify availability of educational materials, instructor’s personnel, audiovisual equipment, and facilities needed to avoid delays.
   C. For instruction that must occur outdoors, review weather forecast and provide alternatives if conditions are unfavorable.

1.5 COORDINATION
   A. Contractor shall coordinate instruction schedule with District Construction Manager.
   B. Provide written notice, ten (10) working days in advance, to District Construction Manager and Architect prior to scheduling any instruction sessions. District Construction Manager shall furnish Contractor with names and positions of intended participants.
PART 2 - PRODUCTS

2.1 INSTRUCTION PROGRAM

A. Program Structure: Contractor shall develop and provide instruction program that includes group training modules for each system and equipment not part of a system, but included in individual Specification Sections.

B. Training Modules: Contractor shall develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following:

1. Review basis of system design
2. Operational requirements and criteria, including:
   a. System, subsystem, and equipment descriptions
   b. Operating standards
   c. Regulatory requirements
   d. Operating characteristics
   e. Limiting conditions
   f. Performance curves
3. Detailed review of documentation, including:
   a. Emergency manuals and procedures
   b. Operations manuals and procedures
   c. Maintenance manuals and procedures
   d. Identification systems
   e. Warranties and Guarantees
   f. Maintenance service agreements and similar continuing commitments
   g. Normal shutdown instructions
   h. Required sequences for electric or electronic systems
   i. Special operating instructions and procedures
   j. Troubleshooting and diagnostics
   k. Test and inspection procedures

PART 3 - EXECUTION

3.1 PREPARATION

A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a combined training manual.

B. Set up as required at instructional location.

END OF SECTION 01820
SECTION 03 10 00
CONCRETE FORMING AND ACCESSORIES

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Formwork for cast-in place concrete, with shoring, bracing and anchorage.
   B. Openings for other work.
   C. Form accessories.
   D. Form stripping.

1.02 RELATED REQUIREMENTS
   A. Section 03 20 00 - Concrete Reinforcing.
   B. Section 03 30 00 - Cast-in-Place Concrete.
   C. Section 05 12 00 - Structural Steel: Placement of embedded steel anchors and plates in cast-in-place concrete.
   D. Section 05 31 00 - Steel Decking: Placement of steel anchors in composite decking.

1.03 REFERENCE STANDARDS
   B. ACI 301 - Specifications for Structural Concrete; American Concrete Institute International; 2010 (Errata 2012).
   C. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; American Concrete Institute; 2011.
   D. ACI 347 - Guide to Formwork for Concrete; American Concrete Institute; 2004.
   E. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2015.

1.04 SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
   B. Product Data: Provide data on void form materials and installation requirements.
   C. Delegated Design Data: As required by authorities having jurisdiction.

PART 2 PRODUCTS

2.01 FORMWORK - GENERAL
   A. Provide concrete forms, accessories, shoring, and bracing as required to accomplish cast-in-place concrete work.
   B. Design and construct to provide resultant concrete that conforms to design with respect to shape, lines, and dimensions.
   C. Comply with applicable state and local codes with respect to design, fabrication, erection, and removal of formwork.
   D. Comply with relevant portions of ACI 347, ACI 301, and ACI 318.
   E. Use the following form types:
      1. Basement Walls Not Exposed To View: Site fabricated plywood.
      2. Basement Walls Exposed To View: Site fabricated rough sawn lumber.

2.02 WOOD FORM MATERIALS
   A. Plywood: Douglas Fir species; solid one side grade; sound undamaged sheets with clean, true edges.
   B. Lumber: Douglas fir species; Construction grade (minimum); with grade stamp clearly visible.
2.03 FORMWORK ACCESSORIES
A. Form Ties: Removable type, galvanized metal, fixed length, cone type, with waterproofing washer, free of defects that could leave holes larger than 1 inch (25 mm) in concrete surface.
B. Form Release Agent: Capable of releasing forms from hardened concrete without staining or discoloring concrete or forming bugholes and other surface defects, compatible with concrete and form materials, and not requiring removal for satisfactory bonding of coatings to be applied.
   1. Composition: Colorless reactive, mineral oil-based, soy-based, or vegetable-oil based compound.
   2. Do not use materials containing diesel oil or petroleum-based compounds.
   3. VOC Content: In compliance with applicable local, State, and federal regulations.
   4. Products:
      c. Substitutions: See Section 01 60 00 - Product Requirements.
C. Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Sized as required, of sufficient strength and character to maintain formwork in place while placing concrete.
D. Embedded Anchor Shapes, Plates, Angles and Bars: As specified in Section 05 12 00.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify lines, levels and centers before proceeding with formwork. Ensure that dimensions agree with drawings.

3.02 EARTH FORMS
A. Hand trim sides and bottom of earth forms. Remove loose soil prior to placing concrete.

3.03 ERECTION - FORMWORK
A. Erect formwork, shoring and bracing to achieve design requirements, in accordance with requirements of ACI 301.
B. Provide bracing to ensure stability of formwork. Shore or strengthen formwork subject to overstressing by construction loads.
C. Arrange and assemble formwork to permit dismantling and stripping. Do not damage concrete during stripping. Permit removal of remaining principal shores.
D. Align joints and make watertight. Keep form joints to a minimum.
E. Install void forms in accordance with manufacturer's recommendations. Protect forms from moisture or crushing.
F. Coordinate this section with other sections of work that require attachment of components to formwork.

3.04 APPLICATION - FORM RELEASE AGENT
A. Apply form release agent on formwork in accordance with manufacturer's recommendations.
B. Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.

3.05 INSERTS, EMBEDDED PARTS, AND OPENINGS
A. Provide formed openings where required for items to be embedded in passing through concrete work.
B. Locate and set in place items that will be cast directly into concrete.
C. Coordinate with work of other sections in forming and placing openings, slots, reglets, recesses, sleeves, bolts, anchors, other inserts, and components of other work.
D. Install accessories in accordance with manufacturer's instructions, so they are straight, level, and plumb. Ensure items are not disturbed during concrete placement.
3.06 FORM CLEANING
   A. Clean forms as erection proceeds, to remove foreign matter within forms.
   B. Clean formed cavities of debris prior to placing concrete.

3.07 FORMWORK TOLERANCES
   A. Construct formwork to maintain tolerances required by ACI 117, unless otherwise indicated.

3.08 FIELD QUALITY CONTROL
   A. An independent testing agency will perform field quality control tests, as specified in Section 01 40 00 - Quality Requirements.
   B. Do not reuse wood formwork more than 1 times for concrete surfaces to be exposed to view. Do not patch formwork.

3.09 FORM REMOVAL
   A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads.
   B. Store removed forms to prevent damage to form materials or to fresh concrete. Discard damaged forms.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
A. Reinforcing steel for cast-in-place concrete.
B. Supports and accessories for steel reinforcement.

1.02 RELATED REQUIREMENTS
A. Section 03 10 00 - Concrete Forming and Accessories.
B. Section 03 30 00 - Cast-in-Place Concrete.

1.03 REFERENCE STANDARDS
A. ACI 301 - Specifications for Structural Concrete; American Concrete Institute International; 2010 (Errata 2012).
B. ACI 318 - Building Code Requirements For Structural Concrete and Commentary; American Concrete Institute International; 2011.
C. ACI SP-66 - ACI Detailing Manual; American Concrete Institute International; 2004.
I. ASTM A767/A767M - Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement; 2009.
J. ASTM A996/A996M - Standard Specification for Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement; 2014.
M. CRSI (DA4) - Manual of Standard Practice; Concrete Reinforcing Steel Institute; 2009.
N. CRSI (P1) - Placing Reinforcing Bars; Concrete Reinforcing Steel Institute; 2011.

1.04 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Shop Drawings: Comply with requirements of ACI SP-66. Include bar schedules, shapes of bent bars, spacing of bars, and location of splices.
   1. Prepare shop drawings under seal of a Professional Structural Engineer experienced in design of work of this type and licensed in California.
C. Manufacturer's Certificate: Certify that reinforcing steel and accessories supplied for this project meet or exceed specified requirements.
D. Reports: Submit certified copies of mill test report of reinforcement materials analysis.
1.05 QUALITY ASSURANCE
   A. Perform work of this section in accordance with ACI 301.
      1. Maintain one copy of each document on project site.
   B. Welders’ Certificates: Submit certifications for welders employed on the project, verifying AWS qualification within the previous 12 months.

PART 2 PRODUCTS

2.01 REINFORCEMENT
   A. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi) (420 MPa).
      1. Plain billet-steel bars.
      2. Galvanized in accordance with ASTM A767/A767M, Class I.
   B. Reinforcing Steel: ASTM A706/A706M, deformed low-alloy steel bars.
      1. Galvanized in accordance with ASTM A767/A767M, Class I.
   C. Reinforcing Steel: Deformed bars, ASTM A996/A996M Grade 40 (280), Type A.
      1. Galvanized in accordance with ASTM A767/A767M, Class I.
   D. Reinforcing Steel Mat: ASTM A704/A704M, using ASTM A615/A615M, Grade 40 (40,000 psi) (280 MPa) steel bars or rods, unfinished.
   E. Stirrup Steel: ASTM A1064/A1064M steel wire, galvanized in accordance with ASTM A641/A641M, regular coating.
   F. Steel Welded Wire Reinforcement (WWR): Galvanized, deformed type; ASTM A1064/A1064M.
   G. Reinforcement Accessories:
      1. Tie Wire: Annealed, minimum 16 gage, 0.0508 inch (1.29 mm).
      2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.

2.02 RE-BAR SPLICING:
   A. Coupler Systems: Mechanical devices for splicing reinforcing bars; capable of developing full steel reinforcing design strength in tension and compression.
   B. Dowel Bar Splicer with Dowel-Ins: Mechanical devices for connecting dowels; capable of developing full steel reinforcing design strength in tension and compression.
   C. Taper Tie Hole Plug: Mechanical device for plugging tie holes; anchors optional flush or recessed grout.
   D. Grout: Cementitious, non-metallic, non-shrink grout for use with manufacturer’s grout sleeve reinforcing bar coupler system.

2.03 FABRICATION
   A. Fabricate concrete reinforcing in accordance with CRSI (DA4) - Manual of Standard Practice.

PART 3 EXECUTION

3.01 PLACEMENT
   A. Place, support and secure reinforcement against displacement. Do not deviate from required position.
   B. Do not displace or damage vapor barrier.
   C. Accommodate placement of formed openings.
   D. Conform to applicable code for concrete cover over reinforcement.

3.02 FIELD QUALITY CONTROL
   A. An independent testing agency, as specified in Section 01 40 00, will inspect installed reinforcement for conformance to contract documents before concrete placement.

END OF SECTION
SECTION 03 30 00
CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Concrete for composite floor construction.
B. Floors and slabs on grade.
C. Concrete foundations and anchor bolts for pre-engineered building.
D. Joint devices associated with concrete work.
E. Miscellaneous concrete elements, including equipment pads.
F. Concrete curing.

1.02 RELATED REQUIREMENTS
A. Section 03 10 00 - Concrete Forming and Accessories: Forms and accessories for formwork.
B. Section 03 20 00 - Concrete Reinforcing.
C. Section 07 92 00 - Joint Sealants: Products and installation for sealants for saw cut joints and isolation joints in slabs.
D. Section 07 95 13 - Expansion Joint Cover Assemblies.

1.03 REFERENCE STANDARDS
A. ACI 117 - Standard Specifications for Tolerances for Concrete Construction and Materials; American Concrete Institute International; 2010.
B. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; American Concrete Institute International; 1991 (Reapproved 2009).
C. ACI 301 - Specifications for Structural Concrete; American Concrete Institute International; 2010 (Errata 2012).
D. ACI 302.1R - Guide for Concrete Floor and Slab Construction; American Concrete Institute International; 2004 (Errata 2007).
E. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete; American Concrete Institute International; 2000.
F. ACI 305R - Hot Weather Concreting; American Concrete Institute International; 2010.
G. ACI 308R - Guide to Curing Concrete; American Concrete Institute International; 2001 (Reapproved 2008).
H. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; American Concrete Institute International; 2011.
I. ACI 347 - Guide to Formwork for Concrete; American Concrete Institute International; 2004.
AA. ASTM E154/E154M - Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover; 2008a (Reapproved 2013).
AC. ASTM E1643 - Standard Practice for Selection, Design, Installation and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill under Concrete Slabs; 2011.
AD. ASTM E1745 - Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs; 2011.

1.04 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements and installation instructions.
C. Mix Design: Submit proposed concrete mix design.
   1. Indicate proposed mix design complies with requirements of ACI 301, Section 4 - Concrete Mixtures.
   2. Indicate proposed mix design complies with requirements of ACI 318, Chapter 5 - Concrete Quality, Mixing and Placing.
D. Project Record Documents: Accurately record actual locations of embedded utilities and components that will be concealed from view upon completion of concrete work.
E. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.05 QUALITY ASSURANCE
A. Perform work of this section in accordance with ACI 301 and ACI 318.
   1. Maintain one copy of each document on site.
B. Follow recommendations of ACI 305R when concreting during hot weather.

PART 2 PRODUCTS
2.01 FORMWORK
A. Comply with requirements of Section 03 10 00.
2.02 REINFORCEMENT
   A. Comply with requirements of Section 03 20 00.

2.03 CONCRETE MATERIALS
   A. Cement: ASTM C150, Type I - Normal Portland type.
      1. Acquire all cement for entire project from same source.
      1. Acquire all aggregates for entire project from same source.
   C. Fly Ash: ASTM C618, Class C or F.
   D. Calcined Pozzolan: ASTM C618, Class N.
   E. Water: Clean and not detrimental to concrete.

2.04 ADMIXTURES
   A. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight
      of cement.

2.05 ACCESSORY MATERIALS
   A. Non-Shrink Cementitious Grout: Premixed compound consisting of non-metallic aggregate, cement,
      water reducing and plasticizing agents.
      1. ASTM C1107/C1107M; Grade A, B, or C.
      2. Minimum Compressive Strength at 48 Hours, ASTM C109/C109M: 2,000 pounds per
         square inch (13.7 MPa).

2.06 BONDING AND JOINTING PRODUCTS
   A. Latex Bonding Agent: Non-redispersable acrylic latex, complying with ASTM C1059/C1059M,
      Type II.
      1. Products:

2.07 CURING MATERIALS
   A. Evaporation Reducer: Liquid thin-film-forming compound that reduces rapid moisture loss
      caused by high temperature, low humidity, and high winds; intended for application immediately
      after concrete placement.
   B. Curing and Sealing Compound, Moisture Emission Reducing: Liquid, membrane-forming, clear
      sealer, for application to newly placed concrete; capable of providing adequate bond for flooring
      adhesives, initially and over the long term; with sufficient moisture vapor impermeability to
      prevent deterioration of flooring adhesives due to moisture emission.
      1. Use this product to cure and seal all slabs to receive adhesively applied flooring or roofing.
      2. Comply with ASTM C309 and ASTM C1315 Type I Class A.
      3. VOC Content: Less than 100 g/L.

2.08 CONCRETE MIX DESIGN
   A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
   B. Concrete Strength: Establish required average strength for each type of concrete on the basis
      of field experience or trial mixtures, as specified in ACI 301.
      1. For trial mixtures method, employ independent testing agency acceptable to Architect for
         preparing and reporting proposed mix designs.
   C. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates
      recommended or required by manufacturer.
   D. Normal Weight Concrete:
      1. Compressive Strength, when tested in accordance with ASTM C39/C39M at 28 days:
         3,000 pounds per square inch (20.7 MPa).
2. Fly Ash Content: Maximum 15 percent of cementitious materials by weight.
3. Calcined Pozzolan Content: Maximum 10 percent of cementitious materials by weight.

2.09 MIXING
A. Transit Mixers: Comply with ASTM C94/C94M.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify lines, levels, and dimensions before proceeding with work of this section.

3.02 PREPARATION
A. Where new concrete is to be bonded to previously placed concrete, prepare existing surface by cleaning with steel brush and applying bonding agent in accordance with manufacturer's instructions.
   1. Use latex bonding agent only for non-load-bearing applications.

3.03 PLACING CONCRETE
A. Place concrete in accordance with ACI 304R.
B. Place concrete for floor slabs in accordance with ACI 302.1R.
C. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.
D. Place concrete continuously without construction (cold) joints wherever possible; where construction joints are necessary, before next placement prepare joint surface by removing laitance and exposing the sand and sound surface mortar, by sandblasting or high-pressure water jetting.
E. Finish floors level and flat, unless otherwise indicated, within the tolerances specified below.

3.04 FLOOR FLATNESS AND LEVELNESS TOLERANCES
A. Maximum Variation of Surface Flatness:
   1. Exposed Concrete Floors: 1/4 inch (6 mm) in 10 ft (3 m).
   2. Under Seamless Resilient Flooring: 1/4 inch (6 mm) in 10 ft (3 m).
   3. Under Carpeting: 1/4 inch (6 mm) in 10 ft (3 m).
B. Correct the slab surface if tolerances are less than specified.
C. Correct defects by grinding or by removal and replacement of the defective work. Areas requiring corrective work will be identified. Re-measure corrected areas by the same process.

3.05 CONCRETE FINISHING
A. Repair surface defects, including tie holes, immediately after removing formwork.
B. Unexposed Form Finish: Rub down or chip off fins or other raised areas 1/4 inch (6 mm) or more in height.
C. Concrete Slabs: Finish to requirements of ACI 302.1R, and as follows:
   1. Surfaces to Receive Thin Floor Coverings: "Steel trowel" as described in ACI 302.1R; thin floor coverings include carpeting, resilient flooring, seamless flooring, thin set quarry tile, and thin set ceramic tile.
   2. Other Surfaces to Be Left Exposed: Trowel as described in ACI 302.1R, minimizing burnish marks and other appearance defects.

3.06 CURING AND PROTECTION
A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
   1. Normal concrete: Not less than 7 days.
C. Surfaces Not in Contact with Forms:
1. Slabs and Floors To Receive Adhesive-Applied Flooring: Curing compounds and other
   surface coatings are usually considered unacceptable by flooring and adhesive
   manufacturers. If such materials must be used, either obtain the approval of the flooring
   and adhesive manufacturers prior to use or remove the surface coating after curing to
   flooring manufacturer's satisfaction.
2. Initial Curing: Start as soon as free water has disappeared and before surface is dry.
   Keep continuously moist for not less than three days by water ponding, water-saturated
   sand, water-fog spray, or saturated burlap.
3. Final Curing: Begin after initial curing but before surface is dry.

3.07 FIELD QUALITY CONTROL
   A. An independent testing agency will perform field quality control tests, as specified in Section 01
      40 00 - Quality Requirements.
   B. Provide free access to concrete operations at project site and cooperate with appointed firm.
   C. Submit proposed mix design of each class of concrete to inspection and testing firm for review
      prior to commencement of concrete operations.
   D. Tests of concrete and concrete materials may be performed at any time to ensure conformance
      with specified requirements.
   E. Compressive Strength Tests: ASTM C39/C39M. For each test, mold and cure three concrete
      test cylinders. Obtain test samples for every 100 cu yd (76 cu m) or less of each class of
      concrete placed.
   F. Perform one slump test for each set of test cylinders taken, following procedures of ASTM
      C143/C143M.

3.08 DEFECTIVE CONCRETE
   A. Test Results: The testing agency shall report test results in writing to Architect and modular
      building manufacturer within 24 hours of test.
   B. Defective Concrete: Concrete not conforming to required lines, details, dimensions, tolerances
      or specified requirements.
   C. Repair or replacement of defective concrete will be determined by the Architect. The cost of
      additional testing shall be borne by modular building manufacturer when defective concrete is
      identified.
   D. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction
      of Architect for each individual area.

3.09 PROTECTION
   A. Do not permit traffic over unprotected concrete floor surface until fully cured.

3.10 SCHEDULE - CONCRETE TYPES AND FINISHES
   A. Foundation Walls: 3,000 pounds per square inch (20.7 MPa) 28 day concrete, form finish with
      honeycomb filled surface.

END OF SECTION
SECTION 05 31 00
STEEL DECKING

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Roof deck.
B. Composite floor deck.
C. Bearing plates and angles.

1.02 RELATED REQUIREMENTS
A. Section 03 20 00 - Concrete Reinforcing.
B. Section 03 30 00 - Cast-in-Place Concrete: Concrete topping over metal deck.
C. Section 05 12 00 - Structural Steel: Support framing for openings larger than 18 inches (450 mm) and shear stud connectors.
D. Section 05 12 00 - Structural Steel: Placement of embedded steel anchors for bearing plates in cast-in-place concrete.

1.03 REFERENCE STANDARDS
E. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2015.
F. AWS D1.1/D1.1M - Structural Welding Code - Steel; American Welding Society; 2011 w/Errata.
I. FM DS 1-29 - Roof Deck Securement and Above-Deck Roof Components; Factory Mutual System; 2006.
N. SDI (DM) - Publication No.31, Design Manual for Composite Decks, Form Decks, Roof Decks; Steel Deck Institute; 2007.

1.04 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittals procedures.
B. Shop Drawings: Indicate deck plan, support locations, projections, openings, reinforcement, pertinent details, and accessories.
C. Product Data: Provide deck profile characteristics, dimensions, structural properties, and finishes.
D. Certificates: Certify that products furnished meet or exceed specified requirements.
E. Welders Certificates: Certify welders employed on the Work, verifying AWS qualification within the previous 12 months.

1.05 QUALITY ASSURANCE

A. Design deck layout, spans, fastening, and joints under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in California.

PART 2 PRODUCTS

2.01 STEEL DECK

A. All Deck Types: Select and design metal deck in accordance with SDI Design Manual.
   1. Calculate to structural working stress design and structural properties specified.

B. Roof Deck: Non-composite type, fluted steel sheet:
   2. Minimum Base Metal Thickness: 22 gage, 0.0299 inch (0.76 mm).
   3. Nominal Height: 1-1/2 inch (38 mm).
   4. Profile: Fluted; SDI NR.
   5. Formed Sheet Width: 24 inch (600 mm).
   7. End Joints: Lapped, welded.

C. Composite Floor Deck: Fluted steel sheet embossed to interlock with concrete:
   2. Span Design: Double.
   3. Minimum Base Metal Thickness: 22 gage, 0.0299 inch (0.76 mm).
   4. Nominal Height: 1-1/2 inches (38 mm).
   5. Profile: Fluted; SDI NR.
   6. Formed Sheet Width: 24 inch (600 mm).
   7. Side Joints: Lock seam.

2.02 ACCESSORY MATERIALS

A. Bearing Plates and Angles: ASTM A36/A36M steel, unfinished.
B. Welding Materials: AWS D1.1/D1.1M.
C. Fasteners: Galvanized hardened steel, self tapping.
D. Powder Actuated Mechanical Fasteners: Steel; with knurled shank and forged ballistic point. Comply with applicable requirements of ICC-ES AC70.
   1. Design Requirements: Provide number and type of fasteners that comply with the applicable requirements of SDI design method for roof deck and floor deck applications and ICC-ES AC43.
E. Mechanical Fasteners: Steel; hex washer head, self-drilling, self-tapping.
   1. Design Requirements for Sidelap Connections: Provide number and type of fasteners that comply with the applicable requirements of SDI design method for roof deck and floor deck applications and ICC-ES AC43.
F. Weld Washers: Mild steel, uncoated, 3/4 inch (19 mm) outside diameter, 1/8 inch (3 mm) thick.
G. Flute Closures: Closed cell foam rubber, 1 inch (25 mm) thick; profiled to fit tight to the deck.

2.03 FABRICATED DECK ACCESSORIES

A. Sheet Metal Deck Accessories: Metal closure strips, wet concrete stops, and cover plates, 22 gage, 0.0299 inch (0.76 mm) thick sheet steel; of profile and size as indicated; finished same as deck.
B. Roof Sump Pans: Formed sheet steel, 14 gage, 0.0747 inch (1.90 mm) minimum thickness, flat bottom, sloped sides, recessed 1-1/2 inches (38 mm) below roof deck surface, bearing flange 3 inches (75 mm) wide, sealed watertight.

C. Floor Drain Pans: Formed sheet steel, 14 gage, 0.0747 inch (1.90 mm) minimum thickness, flat bottom, sloped sides, recessed 1-1/2 inches (38 mm) below floor deck surface, bearing flange 3 inches (75 mm) wide, sealed watertight.

**PART 3 EXECUTION**

**3.01 INSTALLATION**

A. Erect metal deck in accordance with SDI Design Manual and manufacturer's instructions. Align and level.

B. On concrete and masonry surfaces provide minimum 4 inch (100 mm) bearing.

C. On steel supports provide minimum 1-1/2 inch (38 mm) bearing.

D. Fasten deck to steel support members at ends and intermediate supports at 12 inches (300 mm) on center maximum, parallel with the deck flute and at each transverse flute using methods specified.
   1. Welding: Use fusion welds through weld washers.

E. Clinch lock seam side laps.

F. Drive mechanical sidelap connectors completely through adjacent lapped sheets; positively engage adjacent sheets with minimum three-thread penetration.

G. At welded male/female side laps weld at 18 inches (450 mm) on center maximum.

H. Weld deck in accordance with AWS D1.3/D1.3M.

I. At deck openings from 6 inches (150 mm) to 18 inches (450 mm) in size, provide 2 by 2 by 1/4 inch (50 by 50 by 6 mm) steel angle reinforcement. Place angles perpendicular to flutes; extend minimum two flutes beyond each side of opening and fusion weld to deck at each flute.

J. At floor edges, install concrete stops upturned to top surface of slab, to contain wet concrete. Provide stops of sufficient strength to remain stationary without distortion.

K. Close openings above walls and partitions perpendicular to deck flutes with single row of foam cell closures.

L. Position roof drain pans with flange bearing on top surface of deck. Fusion weld at each deck flute.

M. Position floor drain pans with flange bearing on top surface of deck. Fusion weld at each deck flute.

N. Immediately after welding deck and other metal components in position, coat welds, burned areas, and damaged surface coating, with touch-up primer.

**END OF SECTION**
PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Formed steel stud exterior wall and interior wall framing.
   B. Formed steel joist and purlin framing and bridging.

1.02 RELATED REQUIREMENTS
   A. Section 05 31 00 - Steel Decking.
   B. Section 07 21 00 - Thermal Insulation: Insulation within framing members.
   C. Section 07 25 00 - Weather Barriers: Weather barrier over sheathing.
   D. Section 07 62 00 - Sheet Metal Flashing and Trim: Head and sill flashings.
   E. Section 07 92 00 - Joint Sealants.
   F. Section 09 21 16 - Gypsum Board Assemblies: Lightweight, non-load bearing metal stud framing.
   G. Section 09 22 16 - Non-Structural Metal Framing.
   H. Section 09 22 36.23 - Metal Lath.
   I. Section 09 24 00 - Portland Cement Plastering.
   J. Section 09 51 00 - Suspended Acoustical Ceilings: Ceiling suspension system.

1.03 REFERENCE STANDARDS
   A. AISI S100-12 - North American Specification for the Design of Cold-Formed Steel Structural Members; American Iron and Steel Institute; 2012.
   C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2015.
   D. ASTM C955 - Standard Specification for Load-Bearing (Transverse and Axial) Steel Studs, Runners (Tracks), and Bracing or Bridging for Screw Application of Gypsum Panel Products and Metal Plaster Bases; 2011c.
   F. PS 1 - Structural Plywood; 2009.

1.04 ADMINISTRATIVE REQUIREMENTS
   A. Coordinate with work of other sections that is to be installed in or adjacent to the metal framing system, including but not limited to structural anchors, cladding anchors, utilities, insulation, and firestopping.

1.05 SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
   B. Product Data: Provide data on standard framing members; describe materials and finish, product criteria, limitations.
   C. Shop Drawings: Indicate component details, framed openings, bearing, anchorage, loading, welds, and type and location of fasteners, and accessories or items required of related work.
      1. Indicate stud and ceiling joist layout.
      2. Describe method for securing studs to tracks and for bolted framing connections.
3. Provide design engineer's stamp on shop drawings.

D. Manufacturer's Installation Instructions: Indicate special procedures, conditions requiring special attention.

1.06 QUALITY ASSURANCE

A. Designer Qualifications: Design framing system under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed in California.

B. Manufacturer Qualifications: Company specializing in manufacturing the types of products specified in this section, and with minimum three years of documented experience.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Metal Framing:
   4. Substitutions: See Section 01 60 00 - Product Requirements.

B. Framing Connectors and Accessories:
   1. Same manufacturer as metal framing.

2.02 FRAMING SYSTEM

A. Provide primary and secondary framing members, bridging, bracing, plates, gussets, clips, fittings, reinforcement, and fastenings as required to provide a complete framing system.

B. Design Criteria: Provide completed framing system having the following characteristics:
   1. Design: Calculate structural characteristics of cold-formed steel framing members according to AISI S100-12.
   2. Structural Performance: Design, engineer, fabricate, and erect to withstand specified design loads for project conditions within required limits.
   3. Design Loads: In accordance with applicable codes.
   4. Live load deflection meeting the following, unless otherwise indicated:
      b. Roofs: Maximum vertical deflection under live load of 1/240 of span.
   5. Able to tolerate movement of components without damage, failure of joint seals, undue stress on fasteners, or other detrimental effects when subject to seasonal or cyclic day/night temperature ranges.
   6. Able to accommodate construction tolerances, deflection of building structural members, and clearances of intended openings.

C. Shop fabricate framing system to the greatest extent possible.

D. Deliver to site in largest practical sections.

2.03 FRAMING MATERIALS

A. Studs and Track: ASTM C955; studs formed to channel, "C", or "Sigma" shape with punched web; U-shaped track in matching nominal width and compatible height.
   1. Gage and Depth: As required to meet specified performance levels.

   1. Gage and Depth: As required to meet specified performance levels.

C. Framing Connectors: Factory-made, formed steel sheet.
   1. Material: ASTM A653/A653M SS Grade 33 and 40 (minimum), with G90/Z275 hot dipped galvanized coating for base metal thickness less than 10 gage, 0.1345 inch (3.42 mm), and factory punched holes and slots.
   2. Structural Performance: Maintain load and movement capacity required by applicable code, when evaluated in accordance with AISI S100-12.
3. Movement Connections: Provide mechanical anchorage devices that accommodate movement using slotted holes, shouldered screws or screws and anti-friction or stepped bushings, while maintaining structural performance of framing. Provide movement connections where indicated on drawings.
a. Provide top track with long leg track and head of wall movement connectors; minimum track length of 12 feet (3660 mm).
5. Wall Stud Bridging Connections: Provide mechanical load-transferring devices that accommodate wind load torsion and weak axis buckling induced by axial compression loads. Provide bridging connections where indicated on the drawings.

2.04 ACCESSORIES
A. Bracing, Furring, Bridging: Formed sheet steel, thickness determined for conditions encountered; finish to match framing components.
B. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, Type I - Inorganic, complying with VOC limitations of authorities having jurisdiction.
C. Water-Resistive Barrier: As specified in Section 07 25 00.

2.05 FASTENERS
A. Self-Drilling, Self-Tapping Screws, Bolts, Nuts and Washers: Hot dip galvanized per ASTM A153/A153M.
B. Anchorage Devices: Powder actuated.

PART 3 EXECUTION
3.01 INSTALLATION OF STUDS
A. Install components in accordance with manufacturers’ instructions and ASTM C1007 requirements.
B. Place studs at 16 inches (400 mm) on center; not more than 2 inches (50 mm) from abutting walls and at each side of openings. Connect studs to tracks using clip and tie method.
C. Construct corners using minimum of three studs. Install double studs at wall openings, door and window jambs.
D. Install load bearing studs full length in one piece. Splicing of studs is not permitted.
E. Coordinate placement of insulation in multiple stud spaces made inaccessible after erection.
F. Install intermediate studs above and below openings to align with wall stud spacing.
G. Provide deflection allowance in stud track, directly below horizontal building framing at non-load bearing framing.
H. Attach cross studs to studs for attachment of fixtures anchored to walls.
I. Install framing between studs for attachment of mechanical and electrical items, and to prevent stud rotation.

3.02 INSTALLATION OF JOISTS AND PURLINS
A. Install framing components in accordance with manufacturer’s instructions.
B. Make provisions for erection stresses. Provide temporary alignment and bracing.

3.03 WALL SHEATHING
A. Wall Sheathing: Secure with long dimension perpendicular to wall studs, with ends over firm bearing and staggered, using self-tapping screws.
   1. Place water-resistive barrier horizontally over wall sheathing, weather lapping edges and ends.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Sheet membrane waterproofing.

1.02 RELATED REQUIREMENTS
   A. Section 03 30 00 - Cast-in-Place Concrete: Concrete substrate.
   B. Section 07 21 00 - Thermal Insulation: Insulation used for protective cover.
   C. Section 07 62 00 - Sheet Metal Flashing and Trim: Metal parapet, coping, and counterflashing.
   D. Section 07 92 00 - Joint Sealants: Sealing moving joints in waterproofed surfaces that are not required to be treated in this section.

1.03 REFERENCE STANDARDS
   D. ASTM D1876 - Standard Test Method for Peel Resistance of Adhesives (T-Peel Test); 2008.
   H. ASTM E154/E154M - Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover; 2008a (Reapproved 2013).

1.04 SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
   B. Product Data: Provide data for membrane, flexible flashings, and joint and crack sealants.
   C. Certificate: Certify that products meet or exceed specified requirements.
   D. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.05 WARRANTY
   A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
   B. modular building manufacturer shall correct defective Work within a five year period after Date of Substantial Completion; remove and replace materials concealing waterproofing at no extra cost to Owner.
   C. Provide five year manufacturer warranty for waterproofing failing to resist penetration of water.

PART 2 PRODUCTS

2.01 WATERPROOFING APPLICATIONS
   A. Self-Adhered Modified Bituminous Sheet Waterproofing: Use at foundation walls.
      1. Cover with drainage panel.

2.02 MEMBRANE MATERIALS
   A. Self-Adhered Modified Bituminous Membrane:
1. Thickness: 60 mil (0.060 inch) (1.5 mm).

2. Tensile Strength:
   a. Membrane: 325 pounds per square inch (2.24 MPa), minimum, measured according to ASTM D412 Method A, using die C and at spindle-separation rate of 2 inches (50 mm) per minute.

3. Elongation at Break: 300 percent, minimum, measured according to ASTM D412.

4. Water Vapor Permeance: 0.05 perm (2.9 ng/(Pa s sq m)), maximum, measured in accordance with ASTM E96/E96M.

5. Peel Strength: 7 pounds per inch (1226 N/m), minimum, when tested according to ASTM D903.

6. Lap Adhesion Strength: 5 pounds per inch (875.6 N/m), minimum, when tested according to ASTM D1876.

7. Puncture Resistance: 50 pounds (22.67 kg), minimum, measured in accordance with ASTM E154/E154M.

8. Water Absorption: 0.1 percent increase in weight, maximum, measured in accordance with ASTM D570, 24 hour immersion.

9. Hydrostatic Resistance: Resists the weight of 200 feet (61 m) when tested according to ASTM D5385/D5385M.

10. Adhesives, Sealants, Tapes, and Accessories: As recommended by membrane manufacturer.

11. Manufacturers:

B. Seaming Materials: As recommended by membrane manufacturer.

C. Membrane Sealant: As recommended by membrane manufacturer.

D. Termination Bars: Aluminum; compatible with membrane and adhesives.

E. Thinner and Cleaner: As recommended by adhesive manufacturer, compatible with sheet membrane.

2.03 ACCESSORIES

A. Sealant for Cracks and Joints In Substrates: Resilient elastomeric joint sealant compatible with substrates and waterproofing materials.

B. Drainage Panel: Drainage layer with geotextile filter fabric on earth side.
      a. Products:
         3) Mar-flex Waterproofing & Building Products; Type II Drain Core Foundation Dimpleboard:  www.mar-flex.com.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify substrate surfaces are durable; free of matter detrimental to adhesion or application of waterproofing system.

C. Verify that items that penetrate surfaces to receive waterproofing are securely installed.

3.02 PREPARATION

A. Protect adjacent surfaces not designated to receive waterproofing.
B. Clean and prepare surfaces to receive waterproofing in accordance with manufacturer's instructions.

C. Do not apply waterproofing to surfaces unacceptable to membrane manufacturer.

D. Fill non-moving joints and cracks with a filler compatible with waterproofing materials.

E. Prepare building expansion joints as indicated on drawings.

F. Surfaces for Adhesive Bonding: Apply surface conditioner at a rate recommended by manufacturer. Protect conditioner from rain or frost until dry.

G. Concrete Surfaces for Adhesive Bonding: Prepare concrete substrate according to ASTM D5295/D5295M.
   1. Remove substances that inhibit adhesion including form release agents, curing compounds admixtures, laitance, moisture, dust, dirt, grease and oil.
   2. Repair surface defects including honeycombs, fins, tie holes, bug holes, sharp offsets, rutted cracks, ragged corners, deviations in surface plane, spalling and delaminations, as described in the reference standard.
   3. Remove and replace areas of defective concrete as specified in Section 03 30 00.
   4. Prepare concrete for adhesive bonded waterproofing using mechanical or chemical methods described in the referenced standard.
   5. Test concrete surfaces as described in the referenced standards. Verify surfaces are ready to receive adhesive bonded waterproofing membrane system.

3.03 INSTALLATION - MEMBRANE

A. Install membrane waterproofing in accordance with manufacturer's instructions.

B. Roll out membrane. Minimize wrinkles and bubbles.

C. Self-Adhering Membrane: Remove release paper layer. Roll out on substrate with a mechanical roller to encourage full contact bond.

D. Overlap edges and ends and seal by method recommended by manufacturer, minimum 3 inches (75 mm). Seal permanently waterproof. Apply uniform bead of sealant to joint edge.

E. Reinforce membrane with multiple thickness of membrane material over joints, whether joints are static or dynamic.

F. Weather lap joints on sloped substrate in direction of drainage. Seal joints and seams.

G. Install flexible flashings. Seal items penetrating through membrane with flexible flashings. Seal watertight to membrane.

H. Seal membrane and flashings to adjoining surfaces. Install termination bar at all edges. Install counterflashing over all exposed edges.

3.04 INSTALLATION - DRAINAGE PANEL AND PROTECTION BOARD

A. Place drainage panel directly against membrane, butt joints, place to encourage drainage downward. Scribe and cut boards around projections, penetrations, and interruptions.

3.05 SCHEDULE

A. Foundation Wall: One ply of CPE membrane waterproofing; three plies at inside corners; adhesive applied.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Board insulation at over roof deck and exterior wall behind cement plaster wall finish.
   B. Batt insulation and vapor retarder in exterior wall and roof construction.
   C. Batt insulation for filling perimeter window and door shim spaces and crevices in exterior wall and roof.

1.02 RELATED REQUIREMENTS
   A. Section 01 61 16 - Volatile Organic Compound (VOC) Content Restrictions.
   B. Section 05 40 00 - Cold-Formed Metal Framing: Board insulation as wall sheathing.
   C. Section 07 21 19 - Foamed-In-Place Insulation: Plastic foam insulation other than boards.
   D. Section 07 25 00 - Weather Barriers: Separate air barrier and vapor retarder materials.
   E. Section 07 54 00 - Thermoplastic Membrane Roofing: Insulation specified as part of roofing system.
   F. Section 09 21 16 - Gypsum Board Assemblies: Acoustic insulation inside walls and partitions.

1.03 REFERENCE STANDARDS

1.04 SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
   B. Product Data: Provide data on product characteristics, performance criteria, and product limitations.
   C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
   D. Manufacturer's Installation Instructions: Include information on special environmental conditions required for installation and installation techniques.

1.05 FIELD CONDITIONS
   A. Do not install insulation adhesives when temperature or weather conditions are detrimental to successful installation.

PART 2 PRODUCTS

2.01 APPLICATIONS
   A. Insulation Over Metal Stud Framed Walls, Continuous: Extruded polystyrene board.
   B. Insulation in Metal Framed Walls: Batt insulation with integral vapor retarder.
   C. Insulation Over Roof Deck: Polyisocyanurate board.
2.02 FOAM BOARD INSULATION MATERIALS

A. Extruded Polystyrene Board Insulation: Extruded polystyrene board; ASTM C578; with either natural skin or cut cell surfaces, and the following characteristics:
   1. Flame Spread Index: 25 or less, when tested in accordance with ASTM E84.
   2. Smoke Developed Index: 450 or less, when tested in accordance with ASTM E84.
   3. R-value (RSI-value): 1 inch (25 mm) of material at 72 degrees F (22 C): 5 (0.88), minimum.
   5. Water Absorption, Maximum: 0.3 percent, by volume.
   6. Manufacturers:

2.03 BATT INSULATION MATERIALS

A. Where batt insulation is indicated, either glass fiber or mineral fiber batt insulation may be used, at modular building manufacturer's option.

B. Glass Fiber Batt Insulation: Flexible preformed batt or blanket, complying with ASTM C665; friction fit.
   1. Flame Spread Index: 75 or less, when tested in accordance with ASTM E84.
   2. Smoke Developed Index: 450 or less, when tested in accordance with ASTM E84.
   3. Combustibility: Non-combustible, when tested in accordance with ASTM E136, except for facing, if any.
   5. Manufacturers:
      c. Owens Corning Corporation; EcoTouch PINK FIBERGLAS Insulation: www.ocbuildingspec.com.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation.

B. Verify substrate surfaces are flat, free of honeycomb, fins, irregularities, or materials or substances that may impede adhesive bond.

3.02 BOARD INSTALLATION AT EXTERIOR WALLS

A. Install rigid insulation directly to steel studs or exterior grade sheathing at 16 inches (406 mm) on center with manufacturer recommended mechanical fasteners. Tape all joints with manufacturer's minimum 4 inch (102 mm) wide sealant tape; comply with ASTM E2357.

B. Install boards horizontally on walls.
   1. Install in running bond pattern.

C. Cut and fit insulation tightly to protrusions or interruptions to the insulation plane.

D. Tape insulation board joints.

3.03 BOARD INSTALLATION OVER LOW SLOPE ROOF DECK

A. Board Installation Over Roof Deck, General:
   1. See applicable roofing specification section for specific board installation requirements.
   2. Fasten insulation to deck in accordance with roofing manufacturer's written instructions and applicable Factory Mutual requirements.
   3. Do not apply more insulation than can be covered with roofing in same day.
3.04 BATT INSTALLATION

A. Install insulation and vapor retarder in accordance with manufacturer's instructions.

B. Install in exterior wall and roof spaces without gaps or voids. Do not compress insulation.

C. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.

D. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation.

E. Staple or nail facing flanges in place at maximum 6 inches (150 mm) on center.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES

A. Water-Resistive Barrier: Under exterior wall cladding, over sheathing or other substrate; not air tight or vapor retardant.

B. Air Barriers: Materials that form a system to stop passage of air through exterior walls, joints between exterior walls and roof, and joints around frames of openings in exterior walls.

1.02 RELATED REQUIREMENTS

A. Section 05 40 00 - Cold-Formed Metal Framing: Water-resistive barrier under exterior cladding.

B. Section 07 21 00 - Thermal Insulation: Vapor retarder installed in conjunction with batt insulation.

C. Section 07 54 00 - Thermoplastic Membrane Roofing: Vapor retarder installed as part of roofing system.

D. Section 07 62 00 - Sheet Metal Flashing and Trim: Metal flashings installed in conjunction with weather barriers.

E. Section 07 92 00 - Joint Sealants: Sealing building expansion joints.

F. Section 09 21 16 - Gypsum Board Assemblies: Water-resistive barrier under exterior cladding.

1.03 DEFINITIONS

A. Weather Barrier: Assemblies that form either water-resistive barriers, air barriers, or vapor retarders.

B. Air Barrier: Air tight barrier made of material that is relatively air impermeable but water vapor permeable, both to the degree specified, with sealed seams and with sealed joints to adjacent surfaces. Note: For the purposes of this specification, vapor impermeable air barriers are classified as vapor retarders.

C. Water-Resistive Barrier: Water-shedding barrier made of material that is moisture resistant, to the degree specified, intended to be installed to shed water without sealed seams.

1.04 REFERENCE STANDARDS


1.05 SUBMITTALS

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

B. Product Data: Provide data on material characteristics, performance criteria, and limitations.
1.06 QUALITY ASSURANCE
   A. Installer Qualifications: Company accredited and certified under the Air Barrier Association of America (ABAA) Quality Assurance Program (QAP).

PART 2 PRODUCTS

2.01 WEATHER BARRIER ASSEMBLIES
   A. Water-Resistive Barrier: Provide on exterior walls under exterior cladding and where indicated in other sections.
      1. Use building paper unless otherwise indicated.
      2. Under Portland cement stucco, use two separate layers of building paper.
   B. Air Barrier:
      1. On outside surface of sheathing of exterior walls use air barrier sheet, mechanically fastened type.

2.02 WATER-RESISTIVE BARRIER MATERIALS (NEITHER AIR BARRIER NOR VAPOR RETARDER)
   A. Building Paper: Asphalt-saturated Kraft building paper complying with requirements of ICC-ES AC38 Grade D.
      1. Water Penetration Resistance: Withstand a water head of 21 inches (55 cm), minimum, for minimum of 5 hours, when tested in accordance with AATCC 127.
      2. Manufacturers:
         b. Substitutions: See Section 01 60 00 - Product Requirements.
   B. Plastic Sheet: Polymeric-based sheet complying with requirements of ICC-ES AC38 Grade D with 60-minute water-resistance; do not use polyethylene sheet.

2.03 AIR BARRIER MATERIALS (WATER VAPOR PERMEABLE AND WATER-RESISTIVE)
   A. Air Barrier Sheet, Mechanically Fastened:
      1. Air Permeance: 0.004 cubic feet per minute per square foot (0.02 L/s/sq m), maximum, when tested in accordance with ASTM E2178.
      2. Water Vapor Permeance: 5 perms (286 ng/(Pa s sq m)), minimum, when tested in accordance with ASTM E96/E96M Procedure A (desiccant procedure).
      3. Ultraviolet and Weathering Resistance: Approved in writing by manufacturer for minimum of 6 months weather exposure.
      4. Surface Burning Characteristics: Flame spread index of 25 or less, and smoke developed index of 50 or less, when tested in accordance with ASTM E84.
      5. Seam and Perimeter Tape: Polyethylene self adhering type, mesh reinforced, 2 inches (50 mm) wide, compatible with sheet material; unless otherwise specified.
      6. Products:
         b. Substitutions: See Section 01 60 00 - Product Requirements.

2.04 ACCESSORIES
   A. Sealants, Tapes, and Accessories for Sealing Weather Barrier and Sealing Weather Barrier to Adjacent Substrates: As specified or as recommended by weather barrier manufacturer.

PART 3 EXECUTION

3.01 EXAMINATION
   A. Verify that surfaces and conditions are ready to accept the work of this section.
3.02 PREPARATION
   A. Remove projections, protruding fasteners, and loose or foreign matter that might interfere with proper installation.

3.03 INSTALLATION
   A. Install materials in accordance with manufacturer's instructions.
   B. Water-Resistive Barriers: Install continuous barrier over surfaces indicated, with sheets lapped to shed water but with seams not sealed.
   C. Air Barriers: Install continuous air tight barrier over surfaces indicated, with sealed seams and with sealed joints to adjacent surfaces.
   D. Mechanically Fastened Sheets - On Exterior:
      1. Install sheets shingle-fashion to shed water, with seams generally horizontal.
      2. Overlap seams as recommended by manufacturer but at least 6 inches.
      3. Overlap at outside and inside corners as recommended by manufacturer but at least 12 inches (305 mm).
      4. For applications specified to be air tight, seal seams, laps, penetrations, tears, and cuts with self-adhesive tape; use only large-headed, gasketed fasteners recommended by the manufacturer.
      5. Install water-resistive barrier over jamb flashings.
      6. Install air barrier and vapor retarder UNDER jamb flashings.
      7. Install head flashings under weather barrier.
      8. At openings to be filled with frames having nailing flanges, wrap excess sheet into opening; at head, seal sheet over flange and flashing.
   E. Openings and Penetrations in Exterior Weather Barriers:
      1. Install flashing over sills, covering entire sill frame member, extending at least 5 inches (125 mm) onto weather barrier and at least 6 inches (150 mm) up jambs; mechanically fasten stretched edges.
      2. At openings to be filled with frames having nailing flanges, seal head and jamb flanges using a continuous bead of sealant compressed by flange and cover flanges with at least 4 inches (100 mm) wide; do not seal sill flange.
      3. At openings to be filled with non-flanged frames, seal weather barrier to all sides of opening framing, using flashing at least 9 inches (230 mm) wide, covering entire depth of framing.
      4. At head of openings, install flashing under weather barrier extending at least 2 inches (50 mm) beyond face of jambs; seal weather barrier to flashing.
      5. At interior face of openings, seal gap between window/door frame and rough framing, using joint sealant over backer rod.
      6. Service and Other Penetrations: Form flashing around penetrating item and seal to weather barrier surface.

3.04 FIELD QUALITY CONTROL
   A. Do not cover installed weather barriers until required inspections have been completed.

3.05 PROTECTION
   A. Do not leave materials exposed to weather longer than recommended by manufacturer.
   B. Do not leave paper- or felt-based barriers exposed to weather for longer than one week.

END OF SECTION
SECTION 07 54 00
THERMOPLASTIC MEMBRANE ROOFING

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Adhered system with thermoplastic roofing membrane.
B. Insulation, flat and tapered.
C. Vapor retarder.
D. Roofing stack boots, roofing expansion joints, and walkway pads.

1.02 RELATED REQUIREMENTS
A. Section 05 31 00 - Steel Decking: Product requirements for acoustical insulation for deck flutes, for placement by this section.
B. Section 07 62 00 - Sheet Metal Flashing and Trim: Counterflashings.
C. Section 07 71 00 - Roof Specialties: Prefabricated roofing expansion joint flashing.
D. Section 07 72 00 - Roof Accessories: Roof-mounted units; prefabricated curbs.
E. Section 22 10 06 - Plumbing Piping Specialties: Roof drains.

1.03 REFERENCE STANDARDS

1.04 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.
C. Specimen Warranty: For approval.
D. Shop Drawings: Indicate joint or termination detail conditions and conditions of interface with other materials.
E. Manufacturer's Installation Instructions: Indicate membrane seaming precautions and perimeter conditions requiring special attention.
F. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
G. Warranty:
   1. Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
   2. Submit installer's certification that installation complies with all warranty conditions for the waterproof membrane.
1.05 QUALITY ASSURANCE
   A. Perform work in accordance with NRCA Roofing and Waterproofing Manual.

1.06 DELIVERY, STORAGE, AND HANDLING
   A. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.
   B. Store products in weather protected environment, clear of ground and moisture.

1.07 FIELD CONDITIONS
   A. Do not apply roofing membrane during unsuitable weather.
   B. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

1.08 WARRANTY
   A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
   B. System Warranty: Provide manufacturer's system warranty agreeing to repair or replace roofing that leaks or is damaged due to wind or other natural causes.
      1. Warranty Term: 20 years.
      2. For repair and replacement include costs of both material and labor in warranty.

PART 2 PRODUCTS

2.01 MANUFACTURERS
   A. Thermoplastic Polyolefin Membrane Materials:
   B. Insulation:

2.02 ROOFING - UNBALLASTED APPLICATIONS
   A. Thermoplastic Membrane Roofing: One ply membrane, fully adhered, over insulation.
   B. Roofing Assembly Requirements:
         a. Field applied coating may not be used to achieve specified SRI.
      2. Factory Mutual Classification: Class I and windstorm resistance of I-90, in accordance with FM DS 1-28.
      3. Insulation Thermal Value (R), minimum: R-30 (); provide insulation of thickness required.
   C. Acceptable Insulation Types - Constant Thickness Application: Any of the types specified.
      1. Minimum 2 layers of cellulose, perlite, molded polystyrene, polyisocyanurate, glass fiber, extruded polystyrene, or composite board.
      2. Bottom layer of cellulose, perlite, molded polystyrene, polyisocyanurate, glass fiber, extruded polystyrene, composite, or cellular glass board covered with single layer of cellulose, perlite, molded polystyrene, polyisocyanurate, glass fiber, extruded polystyrene, or composite board.
   D. Acceptable Insulation Types - Tapered Application: Any of the types specified.
      1. Tapered polyisocyanurate, perlite, or extruded polystyrene board.
2. Tapered polyisocyanurate, perlite, extruded polystyrene, or cellular glass board covered with uniform thickness cellulose, perlite, molded polystyrene, polyisocyanurate, glass fiber, extruded polystyrene, or composite board.
3. Uniform thickness cellulose, perlite, composite, polyisocyanurate, extruded polystyrene, molded polystyrene, glass fiber, or cellular glass board covered with tapered polyisocyanurate, extruded polystyrene, or perlite board.

2.03 ROOFING MEMBRANE AND ASSOCIATED MATERIALS

A. Membrane:
   1. Material: Thermoplastic polyolefin (TPO) complying with ASTM D6878/D6878M.
   3. Thickness: 0.045 inch (1.1 mm), minimum.
   4. Sheet Width: Factory fabricated into largest sheets possible.
   5. Solar Reflectance: 0.75, minimum, initial, and 0.65, minimum, 3-year, certified by Cool Roof Rating Council.
   6. Thermal Emissivity: 0.80, minimum, initial, and 0.79, minimum, 3-year, certified by Cool Roof Rating Council.

B. Seaming Materials: As recommended by membrane manufacturer.

C. Flexible Flashing Material: Same material as membrane.

2.04 DECK SHEATHING AND COVER BOARDS

A. Deck Sheathing and Cover Board: Glass mat faced gypsum panels, ASTM C1177/C1177M, fire resistant type, 1/4 inch (6 mm) thick.
   1. Products:

2.05 INSULATION

A. Extruded Polystyrene (XPS) Board Insulation: Extruded polystyrene board with natural skin surface, and with the following characteristics:
   1. Type: ASTM C578, Type IV.
   2. R-value of 5 (RSI-value of 0.88); 1 inch (25 mm) of material at 72 degrees F (22 C), minimum.
   3. Board Size: 48 by 96 inch (1220 by 2440 mm).
   4. Tapered Board: Slope as indicated; minimum thickness 1/2 in (13 mm); fabricate of fewest layers possible.

2.06 ACCESSORIES

A. Prefabricated Roofing Expansion Joint Flashing: As specified in Section 07 71 00.

B. Stack Boots: Prefabricated flexible boot and collar for pipe stacks through membrane; same material as membrane.

C. Cant and Edge Strips: Wood fiberboard, compatible with roofing materials; cants formed to 45 degree angle.

D. Insulation Joint Tape: Glass fiber reinforced type as recommended by insulation manufacturer, compatible with roofing materials; 6 inches (150 mm) wide; self adhering.

E. Insulation Fasteners: Appropriate for purpose intended and approved by roofing manufacturer.
   1. Length as required for thickness of insulation material and penetration of deck substrate, with metal washers.

F. Membrane Adhesive: As recommended by membrane manufacturer.

G. Surface Conditioner for Adhesives: Compatible with membrane and adhesives.
H. Insulation Adhesive: As recommended by insulation manufacturer.
I. Strip Reglet Devices: Galvanized steel, maximum possible lengths per location, with attachment flanges.
J. Sealants: As recommended by membrane manufacturer.
K. Walkway Pads: Suitable for maintenance traffic, contrasting color or otherwise visually distinctive from roof membrane.
   1. Composition: Asphaltic with mineral granule surface or Roofing membrane manufacturer's standard.
   2. Size: 18 by 18 inch (460 by 460 mm).
   3. Surface Color: White or yellow.

PART 3 EXECUTION

3.01 INSTALLATION - GENERAL
A. Perform work in accordance with NRCA Roofing and Waterproofing Manual and manufacturer's instructions.
B. Do not apply roofing membrane during unsuitable weather.
C. Do not apply roofing membrane when ambient temperature is outside the temperature range recommended by manufacturer.
D. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
E. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

3.02 EXAMINATION
A. Verify that surfaces and site conditions are ready to receive work.
B. Verify deck is supported and secure.
C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.
D. Verify deck surfaces are dry and free of snow or ice.
E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and cant strips are in place.

3.03 INSULATION - UNDER MEMBRANE
A. Attachment of Insulation:
   1. Mechanically fasten insulation to deck in accordance with roofing manufacturer's instructions and Factory Mutual requirements.
   2. Embed second layer of insulation into full bed of adhesive in accordance with roofing and insulation manufacturers' instructions.
B. Lay subsequent layers of insulation with joints staggered minimum 6 inch (150 mm) from joints of preceding layer.
C. Place tapered insulation to the required slope pattern in accordance with manufacturer's instructions.
D. On metal deck, place boards perpendicular to flutes with insulation board edges bearing on deck flutes.
E. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
F. Tape joints of insulation in accordance with roofing and insulation manufacturers' instructions.
G. At roof drains, use factory-tapered boards to slope down to roof drains over a distance of 18 inches (450 mm).
H. Do not apply more insulation than can be covered with membrane in same day.
3.04 MEMBRANE APPLICATION
   A. Roll out membrane, free from wrinkles or tears. Place sheet into place without stretching.
   B. Shingle joints on sloped substrate in direction of drainage.
   C. Fully Adhered Application: Apply adhesive to substrate at rate of ____ gal/square (____ L/sq m). Fully embed membrane in adhesive except in areas directly over or within 3 inches (75 mm) of expansion joints. Fully adhere one roll before proceeding to adjacent rolls.
   D. Overlap edges and ends and seal seams by contact adhesive, minimum 3 inches (75 mm). Seal permanently waterproof. Apply uniform bead of sealant to joint edge.
   E. At intersections with vertical surfaces:
      1. Extend membrane over cant strips and up a minimum of 6 inches (150 mm) onto vertical surfaces.
      2. Fully adhere flexible flashing over membrane and up to nailing strips.
   F. Around roof penetrations, seal flanges and flashings with flexible flashing.
   G. Install roofing expansion joints. Make joints watertight.
      1. Install prefabricated joint components in accordance with manufacturer's instructions.
   H. Coordinate installation of roof drains and sumps and related flashings.

3.05 FIELD QUALITY CONTROL
   A. See Section 01 40 00 - Quality Requirements, for general requirements for field quality control and inspection.

3.06 CLEANING
   A. See Section 01 74 19 - Construction Waste Management and Disposal, for additional requirements.
   B. Remove bituminous markings from finished surfaces.
   C. In areas where finished surfaces are soiled by work of this section, consult manufacturer of surfaces for cleaning advice and conform to their documented instructions.
   D. Repair or replace defaced or damaged finishes caused by work of this section.

3.07 PROTECTION
   A. Protect installed roofing and flashings from construction operations.
   B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

END OF SECTION
SECTION 07 62 00
SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Fabricated sheet metal items, including flashings and counterflashings.
B. Sealants for joints within sheet metal fabrications.

1.02 RELATED REQUIREMENTS
A. Section 07 71 00 - Roof Specialties: Manufactured copings, flashings, and expansion joint covers.
B. Section 07 72 00 - Roof Accessories: Manufactured metal roof curbs.
C. Section 07 92 00 - Joint Sealants: Sealing non-lap joints between sheet metal fabrications and adjacent construction.

1.03 REFERENCE STANDARDS
B. AAMA 2603 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2015.
D. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2015.
I. SMACNA (ASMM) - Architectural Sheet Metal Manual; Sheet Metal and Air Conditioning Contractors’ National Association; 2012.

1.04 QUALITY ASSURANCE
A. Perform work in accordance with SMACNA (ASMM) and CDA A4050 requirements and standard details, except as otherwise indicated.

PART 2 PRODUCTS

2.01 SHEET MATERIALS
A. Galvanized Steel: ASTM A653/A653M, with G90/Z275 zinc coating; minimum 24 gage (0.0239 inch) (0.61 mm) thick base metal.
B. Aluminum: ASTM B209 (ASTM B209M); 20 gage (0.032 inch) (0.81 mm) thick; anodized finish of color as selected.
C. Pre-Finished Aluminum: ASTM B209 (ASTM B209M); 20 gage (0.032 inch) (0.81 mm) thick; plain finish shop pre-coated with modified silicone coating.

2.02 ACCESSORIES
A. Fasteners: Galvanized steel, with soft neoprene washers.
B. Primer: Zinc chromate type.
C. Protective Backing Paint: Zinc molybdate alkyd.
D. Sealant to be Concealed in Completed Work: Non-curing butyl sealant.
E. Sealant to be Exposed in Completed Work: ASTM C920; elastomeric sealant, 100 percent silicone with minimum movement capability of plus/minus 25 percent and recommended by manufacturer for substrates to be sealed; clear.
F. Plastic Cement: ASTM D4586, Type I.

2.03 FABRICATION
A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
B. Form pieces in longest possible lengths.
C. Hem exposed edges on underside 1/2 inch (13 mm); miter and seam corners.
D. Form material with flat lock seams, except where otherwise indicated. At moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
E. Fabricate corners from one piece with minimum 18 inch (450 mm) long legs; seam for rigidity, seal with sealant.
F. Fabricate flashings to allow toe to extend 2 inches (50 mm) over roofing gravel. Return and brake edges.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.
B. Verify roofing termination and base flashings are in place, sealed, and secure.

3.02 PREPARATION
A. Install starter and edge strips, and cleats before starting installation.
B. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil (0.4 mm).

3.03 INSTALLATION
A. Secure flashings in place using concealed fasteners. Use exposed fasteners only where permitted.
B. Apply plastic cement compound between metal flashings and felt flashings.
C. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
D. Seal metal joints watertight.

END OF SECTION
SECTION 07 71 00
ROOF SPECIALTIES

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Manufactured roof specialties, including copings, fascias, gravel stops, and vents.

1.02 REFERENCE STANDARDS
   C. AAMA 2603 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2015.
   F. SMACNA (ASMM) - Architectural Sheet Metal Manual; Sheet Metal and Air Conditioning Contractors' National Association; 2012.

1.03 SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
   B. Product Data: Provide data on shape of components, materials and finishes, anchor types and locations.
   C. Shop Drawings: Indicate configuration and dimension of components, adjacent construction, required clearances and tolerances, and other affected work.
   D. Samples: Submit two appropriately sized samples of coping and gravel stop.

1.04 QUALITY ASSURANCE
   A. Perform work in accordance with SMACNA (ASMM) details.

PART 2 PRODUCTS

2.01 MANUFACTURERS
   A. Roof Edge Flashings and Copings:
      2. Substitutions: See Section 01 60 00 - Product Requirements.
   B. Pipe and Penetration Flashings:
      2. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 COMPONENTS
   A. Roof Edge Flashings: Factory fabricated to sizes required; mitered, welded corners; concealed fasteners.
      1. Configuration: Fascia, cant, and edge securement for roof membrane;
      2. Pull-Off Resistance: Tested in accordance with ANSI/SPRI/FM 4435/ES-1 RE-1 and RE-2 to positive and negative design wind pressure as defined by applicable code.
      3. Material: Formed aluminum sheet, 0.050 inch (1.3 mm) thick, minimum.
      5. Products:
B. Copings: Factory fabricated to sizes required; mitered, welded corners; concealed fasteners.
   1. Configuration: Concealed continuous hold down cleat at both legs; internal splice piece at joints of same material, thickness and finish as cap; concealed stainless steel fasteners.
   2. Pull-Off Resistance: Tested in accordance with ANSI/SPRI/FM 4435/ES-1 RE-3 to positive and negative design wind pressure as defined by SPRI ES-1.
   3. Material: Formed aluminum sheet, 0.050 inch (1.3 mm) thick, minimum.
   4. Finish: 70 percent polyvinylidene fluoride.
   5. Color: To be selected by Architect from manufacturer’s standard range.
   6. Products:

C. Pipe and Penetration Flashing: Base of thermoplastic, compatible with TPO roof systems, and capable of accommodating pipes sized between 0.375 inches (9.5 mm) and 12 inches (30.5 cm).

D. Engineered Roof Perimeter Blocking: Prefabricated 20 gage, 0.036 inch (0.91 mm) galvanized steel retainer for rigid insulaiton; with cleat to accept copings; attach to roof deck in lieu of wood blocking at roof edge; for low slope roof installations.
   1. Products:
      b. Substitutions: See Section 01 60 00 - Product Requirements.

2.03 ACCESSORIES
A. Sealant for Joints in Linear Components: As recommended by component manufacturer.
B. Adhesive for Anchoring to Roof Membrane: Compatible with roof membrane and approved by roof membrane manufacturer.

2.04 FINISHES
A. Clear Anodized Finish: AAMA 611 AA-M12C22A41 Class I clear anodic coating not less than 0.7 mils (0.018 mm) thick.
B. PVDF (Polyvinylidene Fluoride) Coating: Superior Performance Organic Finish, AAMA 2605; multiple coat, thermally cured fluoropolymer finish system; color as scheduled.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify that deck, curbs, roof membrane, base flashing, and other items affecting work of this Section are in place and positioned correctly.

3.02 INSTALLATION
A. Install components in accordance with manufacturer’s instructions.
B. Seal joints within components when required by component manufacturer.
C. Anchor components securely.
D. Coordinate installation of components of this section with installation of roofing membrane and base flashings.

END OF SECTION
SECTION 07 92 00
JOINT SEALANTS

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Nonsag gunnable joint sealants.
B. Joint backings and accessories.

1.02 RELATED REQUIREMENTS
A. Section 01 61 16 - Volatile Organic Compound (VOC) Content Restrictions: Additional requirements for sealants and primers.
B. Section 07 13 00 - Sheet Waterproofing: Sealing cracks and joints in waterproofing substrate surfaces using materials specified in this section.
C. Section 07 25 00 - Weather Barriers: Sealants required in conjunction with air barriers and vapor retarders.
D. Section 08 80 00 - Glazing: Glazing sealants and accessories.
E. Section 09 21 16 - Gypsum Board Assemblies: Sealing acoustical and sound-rated walls and ceilings.
F. Section 09 30 00 - Tiling: Sealant between tile and plumbing fixtures and at junctions with other materials and changes in plane.

1.03 REFERENCE STANDARDS

1.04 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.
   1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
   2. List of backing materials approved for use with the specific product.
   3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
   4. Substrates the product should not be used on.
   5. Substrates for which use of primer is required.
   6. Installation instructions, including precautions, limitations, and recommended backing materials and tools.
   7. Sample product warranty.
   8. Certification by manufacturer indicating that product complies with specification requirements.
C. Product Data for Accessory Products: Submit manufacturer's technical data sheet for each product to be used, including physical characteristics, installation instructions, and recommended tools.
D. Color Cards for Selection: Where sealant color is not specified, submit manufacturer’s color cards showing standard colors available for selection.

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

1.06 WARRANTY
A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
B. Correct defective work within a five year period after Date of Substantial Completion.
C. Warranty: Include coverage for installed sealants and accessories that fail to achieve watertight seal, exhibit loss of adhesion or cohesion, or do not cure.

PART 2 PRODUCTS

2.01 MANUFACTURERS
A. Nonsag Sealants: Permits application in joints on vertical surfaces without sagging or slumping.

2.02 JOINT SEALANT APPLICATIONS
A. Scope:
   1. Exterior Joints: Seal open joints, whether or not the joint is indicated on the drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.
      a. Wall expansion and control joints.
      b. Joints between door, window, and other frames and adjacent construction.
      c. Joints between different exposed materials.
      d. Openings below ledge angles in masonry.
      e. Other joints indicated below.
   2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
      a. Joints between door, window, and other frames and adjacent construction.
      b. In sound-rated wall and ceiling assemblies, gaps at electrical outlets, wiring devices, piping, and other openings; between wall/ceiling and other construction; and other flanking sound paths.
      c. Other joints indicated below.
   3. Do not seal the following types of joints.
      a. Joints indicated to be treated with manufactured expansion joint cover or some other type of sealing device.
      b. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
      c. Joints where installation of sealant is specified in another section.

B. Exterior Joints: Use nonsag non-staining silicone sealant, unless otherwise indicated.
   1. Lap Joints in Sheet Metal Fabrications: Butyl rubber, non-curing.

C. Interior Joints: Use nonsag polyurethane sealant, unless otherwise indicated.
   3. Wall, Ceiling, and Floor Joints Where Tamper-Resistance is Required: Nonsag tamper-resistant silyl-terminated polyurethane sealant.
   4. In Sound-Rated Assemblies: Acrylic emulsion latex sealant.
D. Interior Wet Areas: Bathrooms, restrooms, and breakroom; fixtures in wet areas include plumbing fixtures, countertops, cabinets, and other similar items.

E. Sound-Rated Assemblies: Walls and ceilings identified as "STC-rated", "sound-rated", or "acoustical".

F. Areas Where Tamper-Resistance is Required: As indicated on the drawings.

2.03 JOINT SEALANTS - GENERAL

A. Sealants and Primers: Provide products with levels of volatile organic compound (VOC) content as indicated in Section 01 61 16.

2.04 NONSAG JOINT SEALANTS

A. Non-Staining Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
   1. Movement Capability: Plus and minus 50 percent, minimum.
   2. Non-Staining To Porous Stone: Non-staining to light-colored natural stone when tested in accordance with ASTM C1248.
   3. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
   5. Cure Type: Single-component, neutral moisture curing.
   6. Service Temperature Range: Minus 65 to 180 degrees F (Minus 54 to 82 degrees C).
   7. Products:

B. Mildew-Resistant Silicone Sealant: ASTM C920, Grade NS, Uses M and A; single component, mildew resistant; not expected to withstand continuous water immersion or traffic.
   2. Products:

C. Tamper-Resistant, Silyl-Terminated Polyurethane (STPU) Sealant: ASTM C920, Grade NS, Uses M and A; single component; not expected to withstand continuous water immersion or traffic.
   1. Movement Capability: Plus and minus 12-1/2 percent, minimum
   2. Hardness Range: 50 to 60, Shore A, when tested in accordance with ASTM C661.
   3. Color: Match adjacent finished surfaces.
   4. Products:

D. Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; multicomponent; not expected to withstand continuous water immersion or traffic.
   2. Color: Match adjacent finished surfaces.
   3. Products:
E. Non-Curing Butyl Sealant: Solvent-based; ASTM C1311; single component, nonsag, non-skinning, non-hardening, non-bleeding; vapor-impermeable; intended for fully concealed applications.

2.05 ACCESSORIES
A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
   1. Type for Joints Not Subject to Pedestrian or Vehicular Traffic: ASTM C1330; Type O - Open Cell Polyurethane.
   2. Open Cell: 40 to 50 percent larger in diameter than joint width.
B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify that joints are ready to receive work.
B. Verify that backing materials are compatible with sealants.
C. Verify that backer rods are of the correct size.

3.02 PREPARATION
A. Remove loose materials and foreign matter that could impair adhesion of sealant.
B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

3.03 INSTALLATION
A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
B. Perform installation in accordance with ASTM C1193.
C. Perform acoustical sealant application work in accordance with ASTM C919.
D. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer.
E. Install bond breaker backing tape where backer rod cannot be used.
F. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
G. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
H. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.

3.04 POST-OCCUPANCY
A. Post-Occupancy Inspection: Perform visual inspection of entire length of project sealant joints at a time that joints have opened to their greatest width; i.e. at the low temperature in the thermal cycle. Report failures immediately and repair.

END OF SECTION
SECTION 08 11 13
HOLLOW METAL DOORS AND FRAMES

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Non-fire-rated hollow metal doors and frames.
   B. Hollow metal frames for wood doors.
   C. Thermally insulated hollow metal doors with frames.
   D. Sound-rated hollow metal doors and frames.
   E. Hollow metal borrowed lites glazing frames.

1.02 RELATED REQUIREMENTS
   A. Section 08 71 00 - Door Hardware.
   B. Section 08 80 00 - Glazing: Glass for doors and borrowed lites.
   C. Section 09 91 13 - Exterior Painting: Field painting.
   D. Section 09 91 23 - Interior Painting: Field painting.

1.03 ABBREVIATIONS AND ACRONYMS
   B. HMMA - Hollow Metal Manufacturers Association.
   C. NAAMM - National Association of Architectural Metal Manufacturers.
   D. UL - Underwriters Laboratories.

1.04 REFERENCE STANDARDS
   C. ANSI/SDI A250.8 - Specifications for Standard Steel Doors and Frames (SDI-100); 2014.
   E. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2015.
   I. ASTM E413 - Classification for Rating Sound Insulation; 2010.
   J. BHMA A156.115 - American National Standard for Hardware Preparation in Steel Doors and Steel Frames; 2014 (ANSI/BHMA A156.115).
   M. NAAMM HMMA 831 - Hardware Locations for Hollow Metal Doors and Frames; 2011.
S. UL 752 - Standard for Bullet-Resisting Equipment; Current Edition, Including All Revisions.

1.05 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes; and one copy of referenced standards/guidelines.
C. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and any indicated finish requirements.
D. Manufacturer's Certificate: Certification that products meet or exceed specified requirements.

1.06 QUALITY ASSURANCE
A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
B. Copies of Documents at Project Site: Maintain at the project site a copy of each referenced document that prescribes installation requirements.

1.07 DELIVERY, STORAGE, AND HANDLING
A. Comply with NAAMM HMMA 840 or ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.
B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion and adverse effects on factory applied painted finish.

PART 2 PRODUCTS
2.01 MANUFACTURERS
A. Hollow Metal Doors and Frames:
B. Security and Bullet Resistant Hollow Metal Doors and Frames:

2.02 DESIGN CRITERIA
A. Requirements for Hollow Metal Doors and Frames:
   1. Steel used for fabrication of doors and frames shall comply with one or more of the following requirements; Galvannealed steel conforming to ASTM A653/A653M, cold-rolled steel conforming to ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel conforming to ASTM A1011/A1011M, Commercial Steel (CS) Type B for each.
   2. Accessibility: Comply with ICC A117.1 and ADA Standards.
   3. Exterior Door Top Closures: Flush end closure channel, with top and door faces aligned.
   4. Door Edge Profile: Manufacturers standard for application indicated.
   5. Typical Door Face Sheets: Flush.
7. Hardware Preparations, Selections and Locations: Comply with NAAMM HMMA 830 and NAAMM HMMA 831 or BHMA A156.115 and ANSI/SDI A250.8 (SDI-100) in accordance with specified requirements.

B. Combined Requirements: If a particular door and frame unit is indicated to comply with more than one type of requirement, comply with the specified requirements for each type; for instance, an exterior door that is also indicated as being sound-rated must comply with the requirements specified for exterior doors and for sound-rated doors; where two requirements conflict, comply with the most stringent.

2.03 HOLLOW METAL DOORS

A. Exterior Doors: Thermally insulated.
   1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
      a. Level 1 - Standard-duty.
      b. Physical Performance Level C, 250,000 cycles; in accordance with ANSI/SDI A250.4.
      c. Model 1 - Full Flush.
      d. Door Face Metal Thickness: 16 gage, 0.053 inch (1.3 mm), minimum.
   2. Door Thickness: 1-3/4 inch (44.5 mm), nominal.

B. Interior Doors, Non-Fire Rated:
   1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
      a. Level 2 - Heavy-duty.
      b. Physical Performance Level B, 500,000 cycles; in accordance with ANSI/SDI A250.4.
      c. Model 1 - Full Flush.
      d. Door Face Metal Thickness: 14 gage, 0.067 inch (1.7 mm), minimum.
   2. Core Material: Vertical steel stiffeners.
   3. Door Thickness: 1-3/4 inch (44.5 mm), nominal.

C. Sound-Rated Interior Doors:
   1. Based on SDI Standards: ANSI/SDI A250.8 (SDI-100).
      a. Level 2 - Heavy-duty.
      b. Physical Performance Level B, 500,000 cycles; in accordance with ANSI/SDI A250.4.
      c. Model 1 - Full Flush.
      d. Door Face Metal Thickness: 14 gage, 0.067 inch (1.7 mm), minimum.
   2. Sound Transmission Class (STC) Rating of Door and Frame Assembly: STC of 45, calculated in accordance with ASTM E413, and tested in accordance with ASTM E90.
   3. Door Thickness: As required to meet acoustic requirements indicated.
   4. Opening Force of Sound-Rated Doors, Non-Fire Rated: 5 lbs (22.2 N), maximum, in compliance with ADA Standards.

2.04 HOLLOW METAL FRAMES

A. Comply with standards and/or custom guidelines as indicated for corresponding door in accordance with applicable door frame requirements.

B. Exterior Door Frames: Full profile/continuously welded type.
   1. Galvanizing: Components hot-dipped zinc-iron alloy-coated (galvannealed) in accordance with ASTM A653/A653M, with A40/ZF120 coating.
   2. Frame Metal Thickness: 18 gage, 0.042 inch (1.0 mm), minimum.
   3. Weatherstripping: Separate, see Section 08 71 00.

C. Interior Door Frames, Non-Fire Rated: Full profile/continuously welded type.
   1. Terminated Stops: Provide at interior doors; closed end stop terminated 6 inch (150 mm), maximum, above floor at 45 degree angle.

D. Sound-Rated Door Frames: Fully welded type.
   1. Frame Metal Thickness: 18 gage, 0.042 inch (1.0 mm), minimum.

E. Frames for Wood Doors: Comply with frame requirements in accordance with corresponding door.
2.05 ACCESSORIES
   A. Louvers: Roll formed steel with overlapping frame; factory-painted finish, color as shown on the drawings; factory-installed.
   B. Glazing: As specified in Section 08 80 00, factory installed.
   C. Removable Stops: Formed sheet steel, shape as indicated on drawings, mitered or butted corners; prepared for countersink style tamper proof screws.
   D. Silencers: Resilient rubber, fitted into drilled hole; 3 on strike side of single door, 3 on center mullion of pairs, and 2 on head of pairs without center mullions.
   E. Temporary Frame Spreaders: Provide for factory- or shop-assembled frames.

2.06 FINISHES
   A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.

PART 3 EXECUTION

3.01 EXAMINATION
   A. Verify existing conditions before starting work.
   B. Verify that opening sizes and tolerances are acceptable.
   C. Verify that finished walls are in plane to ensure proper door alignment.

3.02 INSTALLATION
   A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.
   B. Coordinate frame anchor placement with wall construction.
   C. Coordinate installation of hardware.
   D. Coordinate installation of glazing.
   E. Coordinate installation of electrical connections to electrical hardware items.

3.03 TOLERANCES
   A. Clearances Between Door and Frame: Comply with related requirements of specified door and frame standards or custom guidelines indicated.
   B. Maximum Diagonal Distortion: 1/16 in (1.5 mm) measured with straight edge, corner to corner.

3.04 ADJUSTING
   A. Adjust for smooth and balanced door movement.
   B. Adjust sound control doors so that seals are fully engaged when door is closed.
   C. Test sound control doors for force to close, latch, and unlatch; adjust as necessary in compliance with requirements.

3.05 SCHEDULE
   A. Refer to Door and Frame Schedule on the drawings.

END OF SECTION
SECTION 08 14 16
FLUSH WOOD DOORS

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Flush wood doors; flush and flush glazed configuration; non-rated and acoustical.

1.02 RELATED REQUIREMENTS
   A. Section 08 11 13 - Hollow Metal Doors and Frames.
   B. Section 08 71 00 - Door Hardware.
   C. Section 08 80 00 - Glazing.
   D. Section 09 91 23 - Interior Painting: Field finishing of doors.

1.03 REFERENCE STANDARDS
   B. ANSI A135.4 - American National Standard for Basic Hardboard; 2012.
   F. ASTM E413 - Classification for Rating Sound Insulation; 2010.
   H. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014.
   I. WDMA I.S. 1A - Interior Architectural Wood Flush Doors; Window and Door Manufacturers Association; 2013. (ANSI/WDMA I.S. 1A)

1.04 WARRANTY
   A. Interior Doors: Provide manufacturer's warranty for the life of the installation.
   B. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials, and telegraphing core construction.

PART 2 PRODUCTS

2.01 MANUFACTURERS
   A. Wood Veneer Faced Doors:

2.02 DOORS AND PANELS
   A. All Doors: See drawings for locations and additional requirements.
      1. Quality Level: Custom Grade, Standard Duty performance, in accordance with AWI/AWMAC/WI (AWS).
      2. Wood Veneer Faced Doors: 5-ply unless otherwise indicated.
   B. Interior Doors: 1-3/4 inches (44 mm) thick unless otherwise indicated; flush construction.
      1. Provide solid core doors at all locations.
      2. Sound Retardant Doors: Minimum STC of 55, calculated in accordance with ASTM E413, tested in accordance with ASTM E90.
      3. Wood veneer facing for field transparent finish.
2.03 DOOR AND PANEL CORES
   A. Non-Rated Solid Core and 20 Minute Rated Doors: Type particleboard core (PC), plies and faces as indicated.
   B. Sound Resistant Doors: Equivalent to Type particleboard core (PC) construction with core as required to achieve STC rating specified; plies and faces as indicated.

2.04 DOOR FACINGS
   A. Veneer Facing for Transparent Finish: Natural birch, veneer grade in accordance with quality standard indicated, plain sliced (flat cut), with slip match between leaves of veneer, running match of spliced veneer leaves assembled on door or panel face.
      1. Vertical Edges: Any option allowed by quality standard for grade.

2.05 ACCESSORIES
   A. Metal Louvers:
      1. Material and Finish: Roll formed steel; pre-painted finish to color as selected.
      2. Louver Blade: Inverted V blade, sight proof.
   B. Glazed Openings:
      2. Glazing: Single vision units, 1/4 inch (6 mm) glass.
      3. Tint: Clear.
   C. Glazing Stops: Aluminum channel shape, butted corners; prepared for countersink style tamper proof screws.

2.06 DOOR CONSTRUCTION
   A. Fabricate doors in accordance with door quality standard specified.
   B. Cores Constructed with stiles and rails:
      1. Provide solid blocks at lock edge for hardware reinforcement.
      2. Provide solid blocking for other throughbolted hardware.
   C. Glazed Openings: Non-removable stops on non-secure side; sizes and configurations as indicated on drawings.
   D. Factory machine doors for hardware other than surface-mounted hardware, in accordance with hardware requirements and dimensions.
   E. Factory fit doors for frame opening dimensions identified on shop drawings, with edge clearances in accordance with specified quality standard.
   F. Provide edge clearances in accordance with the quality standard specified.

2.07 FACTORY FINISHING - WOOD VENEER DOORS
   A. Finish work in accordance with AWI/AWMAC/WI (AWS), Section 5 - Finishing for grade specified and as follows:
      1. Transparent:
         a. System - 1, Lacquer, Nitrocellulose.
         b. Sheen: Flat.
   B. Seal door top edge with color sealer to match door facing.

PART 3 EXECUTION
3.01 EXAMINATION
   A. Verify existing conditions before starting work.
   B. Verify that opening sizes and tolerances are acceptable.
   C. Do not install doors in frame openings that are not plumb or are out-of-tolerance for size or alignment.

3.02 INSTALLATION
   A. Install doors in accordance with manufacturer's instructions and specified quality standard.
B. Factory-Finished Doors: Do not field cut or trim; if fit or clearance is not correct, replace door.
C. Use machine tools to cut or drill for hardware.
D. Coordinate installation of doors with installation of frames and hardware.
E. Coordinate installation of glazing.

### 3.03 TOLERANCES

A. Conform to specified quality standard for fit and clearance tolerances.
B. Conform to specified quality standard for telegraphing, warp, and squareness.

### 3.04 ADJUSTING

A. Adjust doors for smooth and balanced door movement.
B. Adjust closers for full closure.

END OF SECTION
SECTION 08 31 00
ACCESS DOORS AND PANELS

PART 1 GENERAL
1.01 SECTION INCLUDES
A. Wall access door and frame units.
B. Ceiling access door and frame units.

1.02 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide sizes, types, finishes, hardware, scheduled locations, and details of adjoining work.
C. Shop Drawings: Indicate exact position of all access door units.

PART 2 PRODUCTS
2.01 ACCESS DOOR AND PANEL APPLICATIONS
A. Walls, Unless Otherwise Indicated:
   2. Size: 12 by 12 inch (305 by 305 mm), unless otherwise indicated.
   4. Tool-operated spring or cam lock; no handle.
   5. In All Wall Types: Surface mounted face frame and door surface flush with frame surface.
B. Walls in Wet Areas:
   2. Size: 12 by 12 inch (305 by 305 mm), unless otherwise indicated.
   4. Tool-operated spring or cam lock; no handle.
   5. In All Wall Types: Surface mounted face frame and door surface flush with frame surface.
C. Ceilings, Unless Otherwise Indicated: Same type as for walls.
   1. Material: Steel.
   2. Size in Lay-in Grid Ceilings: To match grid module.
   3. Size in Other Ceilings: 12 by 12 inch (305 by 305 mm), unless otherwise indicated.
   4. Standard duty, hinged door.
   5. Tool-operated spring or cam lock; no handle.

2.02 WALL AND CEILING UNITS
A. Manufacturers:
B. Access Doors: Factory fabricated door and frame units, fully assembled units with corner joints welded, filled, and ground flush; square and without rack or warp; coordinate requirements with assemblies that units are to be installed in.
   1. Style: Exposed frame with door surface flush with frame surface.
      a. In Gypsum Board: Use drywall bead type frame.
   2. Door Style: Single thickness with rolled or turned in edges.
   3. Frames: 16 gage, 0.0598 inch (1.52 mm), minimum.
   4. Heavy Duty Frames: 14 gage, 0.0747 inch (1.89 mm), minimum.
   5. Hardware:
      a. Hinges for Non-Fire-Rated Units: Concealed, constant force closure spring type.
      b. Latch/Lock: Screw driver slot for quarter turn cam latch.
PART 3 EXECUTION

3.01 EXAMINATION
   A. Verify that rough openings are correctly sized and located.

3.02 INSTALLATION
   A. Install units in accordance with manufacturer's instructions.
   B. Install frames plumb and level in openings. Secure rigidly in place.
   C. Position units to provide convenient access to the concealed work requiring access.

END OF SECTION
SECTION 08 46 00
GLAZED INTERIOR WALL AND DOOR ASSEMBLIES

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Framed glazed interior wall and door assemblies.

1.02 RELATED REQUIREMENTS
A. Section 08 71 00 - Door Hardware.

1.03 REFERENCE STANDARDS
H. ASTM E413 - Classification for Rating Sound Insulation; 2010.
I. WDMA I.S. 1A - Interior Architectural Wood Flush Doors; Window and Door Manufacturers Association; 2013. (ANSI/WDMA I.S. 1A)

1.04 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Manufacturer's descriptive literature for each component in partition assembly.
C. Shop Drawings: Drawings showing layout, dimensions, identification of components, and interface with adjacent construction.
   1. Include field measurements of openings.
   2. Include Elevations Showing:
      a. Locations and identification of manufacturer-supplied door hardware and fittings.
      b. Locations and sizes of cut-outs and drilled holes for other door hardware.
   3. Include Details Showing:
      a. Requirements for support and bracing of overhead track.
      b. Installation details.
      c. Appearance of manufacturer-supplied door hardware and fittings.
D. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
E. Specimen Warranty.
F. Manufacturer's Installation Instructions: Include complete preparation, installation, and cleaning requirements.

1.05 DELIVERY, STORAGE, AND HANDLING
A. Store products in manufacturer's unopened packaging until installation.

1.06 WARRANTY
A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
B. Correct defective Work within a one year period after Date of Substantial Completion.

985-0007 / CCCCD Safety
Centers - Modular Buildings

08 46 00 - 1
GLAZED INTERIOR WALL AND DOOR ASSEMBLIES
C. Provide five year manufacturer warranty against excessive degradation of metal finishes. Include provision for replacement of units with excessive fading, chalking, or flaking.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Framed Glazed Interior Wall and Door Assemblies:
   2. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 PERFORMANCE REQUIREMENTS

A. Acoustical Performance: Provide glass partitions and door assemblies tested by qualified testing agency, calculated in accordance with ASTM E413, tested in accordance with ASTM E90, and rated for not less than Sound Transmission Class (STC) indicated.
   1. Partition STC Rating: 35, minimum, for framed partition.

2.03 FRAMED GLAZED INTERIOR WALL AND DOOR ASSEMBLIES

A. Framed Glazed Interior Wall Assembly: Factory fabricated assemblies consisting of center-glazed rectilinear aluminum framing with screw spline or clip joinery.
   1. Configuration: As indicated on drawings.
   2. Profile Width: 1-1/2 inch (38 mm).
   3. Profile Face Trim: 1-1/2 inch (38 mm) wide by 3/8 inch (9.5 mm) deep, snap in place.
   4. Frame Finish: Class I natural anodized.
   5. Coordinate wall and door assembly preparation and provide hardware as necessary for fully operable installation.
   6. Design system to withstand normal operation without damage, racking, sagging, or deflection.
   7. Factory assembled to greatest extent practical; may be disassembled to accommodate shipping constraints.

B. Pivoting Flush Wood Doors: Complying with WDMA I.S. 1A standards, Premium Grade, with AA Grade veneer faces.

2.04 MATERIALS

A. Glass: Flat glass meeting requirements of ASTM C1036, Type I - Transparent Flat Glass, Class 1 - Clear, Quality Q3, fully tempered in accordance with ASTM C1048, Kind FT, and as follows:
   1. Thickness: 1/4 inch (6.4 mm).
   2. Glazing Gaskets: Provide flexible vinyl for non-fire rated and elastomeric silicone for fire rated frames.
   3. Temper glass materials horizontally; visible tong marks or tong mark distortions are not permitted.

B. Aluminum Components: Conforming to ASTM B221 (ASTM B221M), alloy 6063, T5 temper.

C. Sealant: One-part silicone sealant, conforming to ASTM C920, clear.

2.05 FINISHES

A. Class I Natural Anodized Finish: AAMA 611 AA-M12C22A41 Clear anodic coating not less than 0.7 mils (0.018 mm) thick.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify floor flatness of 1/8 inch in 10 feet (3 mm in 3 m), non-cumulative.
B. Do not begin installation until supports and adjacent substrates have been properly prepared.
C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
3.02 PREPARATION
   A. Clean substrates thoroughly prior to installation.
   B. Prepare substrates using the methods recommended by the manufacturer for achieving acceptable result for the substrate under the project conditions.

3.03 INSTALLATION
   A. Install in accordance with glazed interior wall and door assembly manufacturer's instructions.
   B. Fit and align glazed interior wall and door assembly level and plumb.

3.04 ADJUSTING
   A. Adjust glazed interior wall and door assembly to operate smoothly from sliding or pivoting positions.

3.05 CLEANING
   A. Clean installed work to pristine condition.

3.06 PROTECTION
   A. Protect installed products until Date of Substantial Completion.
   B. Touch-up, repair or replace damaged products before Date of Substantial Completion.

END OF SECTION
SECTION 08 51 13
ALUMINUM WINDOWS

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Extruded aluminum windows with fixed sash.
B. Factory glazing.

1.02 RELATED REQUIREMENTS
A. Section 07 25 00 - Weather Barriers: Sealing frame to weather barrier installed on adjacent construction.
B. Section 07 92 00 - Joint Sealants: Sealing joints between window frames and adjacent construction.
C. Section 08 43 13 - Aluminum-Framed Storefronts: Operable sash within framing system.
D. Section 08 44 13 - Glazed Aluminum Curtain Walls: Operable sash within framing system.
E. Section 08 80 00 - Glazing.

1.03 REFERENCE STANDARDS
B. AAMA CW-10 - Care and Handling of Architectural Aluminum From Shop to Site; 2015.

1.04 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide component dimensions.
C. Shop Drawings: Indicate opening dimensions, elevations of different types, framed opening tolerances, method for achieving air and vapor barrier seal to adjacent construction, anchorage locations, , and installation requirements.
D. Grade Substantiation: Prior to submitting shop drawings or starting fabrication, submit one of the following showing compliance with specified grade:
   1. Evidence of AAMA Certification.
2. Evidence of WDMA Certification.
3. Evidence of CSA Certification.
4. Test report(s) by independent testing agency itemizing compliance.

E. Test Reports: Prior to submitting shop drawings or starting fabrication, submit test report(s) by independent testing agency showing compliance with performance requirements in excess of those prescribed by specified grade.

1.05 QUALITY ASSURANCE

A. Manufacturer and Installer Qualifications: Company specializing in fabrication of commercial aluminum windows of types required, with not fewer than three years of experience.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Comply with requirements of AAMA CW-10.
B. Protect finished surfaces with wrapping paper or strippable coating during installation. Do not use adhesive papers or sprayed coatings that bond to substrate when exposed to sunlight or weather.

1.07 WARRANTY

A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
B. Correct defective Work within a five year period after the Date of Substantial Completion.
C. Provide five year manufacturer warranty against failure of glass seal on insulating glass units, including interpane dusting or misting. Include provision for replacement of failed units.
D. Provide five year manufacturer warranty against excessive degradation of exterior finish. Include provision for replacement of units with excessive fading, chalking, or flaking.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Aluminum Windows:
   2. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 WINDOWS

A. Aluminum Windows: Extruded aluminum frame and sash, factory fabricated, factory finished, with operating hardware, related flashings, and anchorage and attachment devices.
   1. Frame Depth: 3-1/2 inches (88.9 mm).
   2. Fabrication: Joints and corners flush, hairline, and weatherproof, accurately fitted and secured; prepared to receive anchors; fasteners and attachments concealed from view; reinforced as required for operating hardware and imposed loads.
   3. Perimeter Clearance: Minimize space between framing members and adjacent construction while allowing expected movement.
   4. Movement: Accommodate movement between window and perimeter framing and deflection of lintel, without damage to components or deterioration of seals.
   5. System Internal Drainage: Drain to the exterior by means of a weep drainage network any water entering joints, condensation occurring in glazing channel, and migrating moisture occurring within system.

B. Performance Requirements: Provide products that comply with the following:
   1. Grade: AAMA/WDMA/CSA 101/I.S.2/A440 requirements for specific window type:
      a. Performance Class (PC): R.
   2. Design Pressure (DP): In accordance with applicable codes.
   3. Member Deflection: Limit member deflection to flexure limit of glass in any direction, with full recovery of glazing materials.
   4. Water Leakage: No uncontrolled leakage on interior face when tested in accordance with ASTM E331 at differential pressure of 12.11 psf (580 Pa).
5. Air Leakage: Maximum of 0.1 cu ft/min sq ft (0.5 L/sec sq m) per unit area of outside frame dimension, with 6.27 psf (300 Pa) differential pressure when tested in accordance with ASTM E283.

6. Condensation Resistance Factor of Frame: 50, measured in accordance with AAMA 1503.

7. Overall U-value, Including Glazing: 0.35, maximum, measured on the window size required for this project.

C. Fixed, Non-Operable Type:
   2. Glazing: Single; clear; transparent.
   4. Interior Finish: Class I natural anodized.

2.03 MATERIALS
   A. Extruded Aluminum: ASTM B221 (ASTM B221M), 6063 alloy, T6 temper.

2.04 FINISHES
   A. Class I Natural Anodized Finish: AAMA 611 AA-M12C22A41 Clear anodic coating not less than 0.7 mils (0.018 mm) thick.

PART 3 EXECUTION

3.01 EXAMINATION
   A. Verify that wall openings and adjoining air and vapor seal materials are ready to receive aluminum windows.

3.02 INSTALLATION
   A. Install windows in accordance with manufacturer's instructions.
   B. Attach window frame and shims to perimeter opening to accommodate construction tolerances and other irregularities.
   C. Align window plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work.
   D. Install sill and sill end angles.
   E. Provide thermal isolation where components penetrate or disrupt building insulation. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
   F. Install glass and infill panels in accordance with requirements specified in Section 08 80 00.

3.03 TOLERANCES
   A. Maximum Variation from Level or Plumb: 1/16 inches every 3 ft (1.5 mm/m) non-cumulative or 1/8 inches per 10 ft (3 mm/3 m), whichever is less.

3.04 CLEANING
   A. Remove protective material from factory finished aluminum surfaces.
   B. Remove excess glazing sealant by moderate use of mineral spirits or other solvent acceptable to sealant and window manufacturer.

END OF SECTION
PART 2 PRODUCTS

1.01 ASSEMBLIES

A. Security and Detention Windows:
   1. Dimensions, profiles, features, and performance specified and indicated on drawings are required; do not deviate unless specifically approved by Architect under substitution procedures specified in Section 01 60 00.
   2. Design to fit openings indicated on drawings; design to accommodate deviation of actual construction from dimensions shown on drawings.
   3. Fabricate frames and sash with corners mitered or coped full depth with concealed welded joints.
   4. Design anchorages to provide performance equivalent to that required for window unit; provide anchorages at least equivalent to those by which the tested units were anchored to the test frame.
   5. Separate dissimilar metals to prevent corrosion by galvanic action by painting contact surfaces with primer or with sealant or tape recommended by manufacturer for the purpose.
   6. Weld components before finishing and in concealed locations, to greatest extent possible; minimize distortion and discoloration of finish; remove residue of welding; grind exposed welds smooth and finish to match.
   7. Label units to indicate which side is which, such as inside/outside or secure/non-secure; use labels that are removable after installation but durable enough not to be lost during delivery, storage, handling, and installation.

1.02 COMPONENTS

A. Aluminum Framing: ASTM B221 (ASTM B221M) extrusions of alloy and temper selected by manufacturer for strength, corrosion resistance, and finish required; not less that 0.125 inch (3.2 mm) thick at any location of frame and sash members.

B. Frame Anchors: Mild steel plates, shapes, or bars, concealed in completed construction; provide all anchorage devices necessary to securely fasten windows to adjacent construction; use security fasteners for exposed anchors.
   1. Provide minimum of 2 anchors per side of window plus 1 additional anchor for each 18 inches (457 mm) or fraction thereof more than 36 inches (915 mm) in height or width.

C. Glazing Seals: Factory installed; molded EPDM or neoprene compressible gaskets and compression strips.

D. Deal Trays: Formed stainless steel, recessed into counter or sill for mounting under glazing frame.
   1. Clear Opening Height: 1-1/2 inches (38 mm).
   2. Tray Dimensions: 12 by 8 inches (305 by 203 mm), wide by deep.

E. Speaking Aperture Covers: Stainless steel, round, allowing passage of speech at normal volume without distortion; listed and labeled by UL as bullet resisting to UL 752 Level 1.

1.03 FINISHES

A. Class I Natural Anodized Finish: AAMA 611 AA-M12C22A41 Clear anodic coating not less than 0.7 mils (0.018 mm) thick.

END OF SECTION
SECTION 08 71 00
DOOR HARDWARE

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Hardware for wood and hollow metal doors.
   B. Electrically operated and controlled hardware.
   C. Thresholds.
   D. Weatherstripping, seals and door gaskets.

1.02 RELATED REQUIREMENTS
   A. Section 08 11 13 - Hollow Metal Doors and Frames.
   B. Section 08 14 16 - Flush Wood Doors.
   C. Section 08 71 10 - Basis of Design Door Hardware - Hager.

1.03 REFERENCE STANDARDS
   C. BHMA A156.1 - American National Standard for Butts and Hinges; Builders Hardware Manufacturers Association, Inc.; 2013 (ANSI/BHMA A156.1).
   D. BHMA A156.2 - American National Standard for Bored and Preassembled Locks & Latches; Builders Hardware Manufacturers Association; 2011 (ANSI/BHMA A156.2).
   E. BHMA A156.3 - American National Standard for Exit Devices; Builders Hardware Manufacturers Association; 2014 (ANSI/BHMA A156.3).
   F. BHMA A156.4 - American National Standard for Door Controls - Closers; Builders Hardware Manufacturers Association, Inc.; 2013 (ANSI/BHMA A156.4).
   G. BHMA A156.5 - American National Standard for Cylinders and Input Devices for Locks; Builders Hardware Manufacturers Association; 2014 (ANSI/BHMA A156.5).
   H. BHMA A156.6 - American National Standard for Architectural Door Trim; Builders Hardware Manufacturers Association; 2010 (ANSI/BHMA A156.6).
   I. BHMA A156.7 - American National Standard for Template Hinge Dimensions; Builders Hardware Manufacturers Association; 2014 (ANSI/BHMA A156.7).
   J. BHMA A156.8 - American National Standard for Door Controls - Overhead Stops and Holders; Builders Hardware Manufacturers Association, Inc.; 2010 (ANSI/BHMA A156.8).
   K. BHMA A156.9 - American National Standard for Cabinet Hardware; Builders Hardware Manufacturers Association; 2010 (ANSI/BHMA A156.9).
   L. BHMA A156.13 - American National Standard for Mortise Locks & Latches Series 1000; Builders Hardware Manufacturers Association; 2012 (ANSI/BHMA A156.13).
   N. BHMA A156.16 - American National Standard for Auxiliary Hardware; Builders Hardware Manufacturers Association; 2013 (ANSI/BHMA A156.16).
   O. BHMA A156.18 - American National Standard for Materials and Finishes; Builders Hardware Manufacturers Association, Inc.; 2012 (ANSI/BHMA A156.18).
   P. BHMA A156.21 - American National Standard for Thresholds; Builders Hardware Manufacturers Association; 2014 (ANSI/BHMA A156.21).
Q. BHMA A156.22 - American National Standard for Door Gasketing and Edge Seal Systems, Builders Hardware Manufacturers Association; 2012 (ANSI/BHMA A156.22).


S. BHMA A156.24 - American National Standard for Delayed Egress Locking Systems; Builders Hardware Manufacturers Association; 2012 (ANSI/BHMA A156.24).


U. BHMA A156.115 - American National Standard for Hardware Preparation in Steel Doors and Steel Frames; 2014 (ANSI/BHMA A156.115).


W. DHI (LOCS) - Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames; Door and Hardware Institute; 2004.

X. DHI WDHS.3 - Recommended Locations for Architectural Hardware for Flush Wood Doors; Door and Hardware Institute; 1993; also in WDHS-1/WDHS-5 Series, 1996.


1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordinate the manufacture, fabrication, and installation of products that door hardware will be installed upon.

B. Furnish templates for door and frame preparation to manufacturers and fabricators of products requiring internal reinforcement for door hardware.

C. Convey Owner's keying requirements to manufacturers.

D. Preinstallation Meeting: Convene a preinstallation meeting one week prior to commencing work of this section; require attendance by all affected installers.

1.05 SUBMITTALS

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

B. Product Data: Manufacturer's catalog literature for each type of hardware, marked to clearly show products to be furnished for this project.

C. Hardware Schedule: Detailed listing of each item of hardware to be installed on each door. Use door numbering scheme as included in the Contract Documents. Identify electrically operated items and include power requirements.

D. Keying Schedule: Submit for approval of Owner.

E. Keys: Deliver with identifying tags to Owner by security shipment direct from hardware supplier.

F. Warranty: Submit manufacturer's warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

G. Project Record Documents: Record actual locations of concealed equipment, services, and conduit.

H. Maintenance Materials and Tools: Furnish the following for Owner's use in maintenance of project.
   1. See Section 01 60 00 - Product Requirements, for additional provisions.
   2. Extra Lock Cylinders: Ten for each master keyed group.
3. Tools: One set of all special wrenches or tools applicable to each different or special hardware component, whether supplied by the hardware component manufacturer or not.

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

1.07 DELIVERY, STORAGE, AND HANDLING
   A. Package hardware items individually; label and identify each package with door opening code to match hardware schedule.

1.08 WARRANTY
   A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
   B. Provide five year warranty for door closers and panic hardware.

PART 2 PRODUCTS
2.01 MANUFACTURERS
   A. Allegion Brands; Ives, LCN, Schlage, Steelcraft, or Von Duprin: www.allegion.com/us.
   E. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 DOOR HARDWARE - GENERAL
   A. Provide hardware specified or required to make doors fully functional, compliant with applicable codes, and secure to the extent indicated.
   B. Provide items of a single type of the same model by the same manufacturer.
   C. Provide products that comply with the following:
      1. Applicable provisions of federal, state, and local codes.
      4. Auxiliary Hardware: BHMA A156.16.
      5. Hardware Preparation for Steel Doors and Steel Frames: BHMA A156.115.
      6. Hardware Preparation for Wood Doors with Wood or Steel Frames: BHMA A156.115W.
      7. Hardware for Smoke and Draft Control Doors (Indicated as “S” on Drawings): Provide hardware that enables door assembly to comply with air leakage requirements of the applicable code.
      8. Products Requiring Electrical Connection: Listed and classified by UL as suitable for the purpose specified and indicated.
   D. Function: Lock and latch function numbers and descriptions of manufactures series as as shown on the drawings.
   E. Electrically Operated and/or Controlled Hardware: Provide all power supplies, power transfer hinges, relays, and interfaces required for proper operation; provide wiring between hardware and control components and to building power connection.
   F. Finishes: Identified in schedule.

2.03 LOCKS AND LATCHES
   A. Locks: Provide a lock for every door, unless specifically indicated as not requiring locking.
      1. Hardware Sets indicate locking functions required for each door.
      2. If no hardware set is indicated for a swinging door provide an office lockset.
      3. Trim: Provide lever handle or pull trim on outside of all locks unless specifically stated to have no outside trim.
4. Lock Cylinders: Provide key access on outside of all locks unless specifically stated to have no locking or no outside trim.

B. Electrically Operated Locks: Fail secure unless otherwise indicated.

C. Lock Cylinders: Manufacturer’s standard tumbler type, six-pin interchangeable core.
   1. Provide cams and/or tailpieces as required for locking devices required.

D. Keying: Grand master keyed.
   1. Include construction keying.
   2. Key to existing keying system.
   3. When providing keying information, comply with DHI Handbook "Keying systems and nomenclature”.

E. Latches: Provide a latch for every door that is not required to lock, unless specifically indicated "push/pull" or "not required to latch".

2.04 HINGES

A. Hinges: Provide hinges on every swinging door.
   1. Provide five-knuckle full mortise butt hinges unless otherwise indicated.
   2. Provide hinges in the quantities indicated.
   3. Provide non-removable pins on outswinging doors.
   4. Where electrified hardware is mounted in door leaf, provide power transfer hinges.

B. Butt Hinges: Comply with BHMA A156.1 and A156.7; heavy weight, unless otherwise indicated.
   1. Provide hinge width required to clear surrounding trim.

C. Quantity of Hinges Per Door:
   1. Doors From 60 inches (1.5 m) High up to 90 inches (2.3 m) High: Three hinges.

2.05 PUSH/PULLS

A. Push/Pulls: Comply with BHMA A156.6.
   1. Provide push and pull on doors not specified to have lockset, latchset, exit device, or auxiliary lock.
   2. On solid doors, provide matching push plate and pull plate on opposite faces.

2.06 CYLINDRICAL LOCKSETS

A. Locking Functions: As defined in BHMA A156.2, and as follows.
   1. Passage: No locking, always free entry and exit.
   2. Privacy: F76, emergency tool unlocks.
   3. Office: F81, key not required to lock, remains locked upon exit.
   4. Communicating: F80 or F113.
   5. Always-Locked: F86, key required to lock, may not be left unlocked.
   6. Store Door: F91, locked by key from both sides, not an emergency exit (must be unlocked during occupied hours).

B. Manufacturers - Cylindrical Locksets:
   1. Assa Abloy Brands; Corbin Russwin, Sargent, or Yale: www.assaabloydss.com.

2.07 EXIT DEVICES

A. Locking Functions: Functions as defined in BHMA A156.3, and as follows:
   1. Entry/Exit, Always-Locked: Key outside retracts latchbolt but does not unlock lever, no latch holdback.

B. Manufacturers - Exit Devices:
   2. Substitutions: See Section 01 60 00 - Product Requirements.
2.08 CLOSERS

2.09 STOPS AND HOLDERS
A. Stops: Complying with BHMA A156.8; provide a stop for every swinging door, unless otherwise indicated.
   1. Provide wall stops, unless otherwise indicated.
   2. If wall stops are not practical, due to configuration of room or furnishings, provide overhead stop.
   3. Stop is not required if positive stop feature is specified for door closer; positive stop feature of door closer is not an acceptable substitute for a stop unless specifically so stated.

2.10 GASKETING AND THRESHOLDS
A. Gaskets: Complying with BHMA A156.22.
   1. On each exterior door, provide weatherstripping gaskets, unless otherwise indicated; top, sides, and meeting stiles of pairs.
      a. Where exterior door is also required to have fire or smoke rating, provide gaskets functioning as both smoke and weather seals.
   2. On each exterior door, provide door bottom sweep, unless otherwise indicated.
B. Thresholds: Complying with BHMA A156.21.
   1. At each exterior door, provide a threshold unless otherwise indicated.
C. Fasteners At Exterior Locations: Non-corroding.
D. Manufacturers - Gasketing and Thresholds:
   3. Substitutions: See Section 01 60 00 - Product Requirements.

2.11 PROTECTION PLATES AND ARCHITECTURAL TRIM
A. Protection Plates:
   1. Kickplate: Provide on push side of every door with closer, except aluminum storefront and glass entry doors.
B. Drip Guard: Provide projecting drip guard over all exterior doors unless they are under a projecting roof or canopy.

2.12 KEY CONTROLS
A. Key Management System: For each keyed lock on project, provide one set of consecutively numbered duplicate key tags with hanging hole and snap catch.
B. Facility Manager's Key Cabinet: Sheet steel construction, piano hinged door with key lock.
   2. Capacity: Actual quantity of keys, plus 25 percent additional capacity.
   3. Size key hooks to hold 6 keys each.
   5. Key cabinet lock to building keying system.

2.13 FIRE DEPARTMENT LOCK BOX
A. Fire Department Lock Box: Heavy-duty, surface mounted, solid stainless-steel box with hinged door and interior gasket seal; single drill resistant lock with dust covers and tamper alarm.
   2. Finish: Manufacturer's standard dark bronze.

PART 3 EXECUTION

3.01 EXAMINATION
A. Verify that doors and frames are ready to receive work; labeled, fire-rated doors and frames are present and properly installed, and dimensions are as indicated on shop drawings.
B. Verify that electric power is available to power operated devices and of the correct characteristics.

3.02 INSTALLATION
A. Install hardware in accordance with manufacturer's instructions and applicable codes.
B. Use templates provided by hardware item manufacturer.
C. Mounting heights for hardware from finished floor to center line of hardware item.
   1. For steel doors and frames: Comply with DHI "Recommended Locations for Architectural Hardware for Steel Doors and Frames."
   2. For Wood Doors: Comply with DHI "Recommended Locations for Architectural Hardware for Wood Flush Doors."
D. Set exterior door thresholds with full-width bead of elastomeric sealant on each point of contact with floor providing a continuous weather seal; anchor thresholds with stainless steel countersunk screws.

3.03 ADJUSTING
A. Adjust work under provisions of Section 01 70 00.
B. Adjust hardware for smooth operation.
C. Adjust gasketing for complete, continuous seal; replace if unable to make complete seal.

3.04 CLEANING
A. Clean adjacent surfaces soiled by hardware installation. Clean finished hardware per manufacturer's instructions after final adjustments has been made. Replace items that cannot be cleaned to manufacturer's level of finish quality at no additional cost.

3.05 PROTECTION
A. Protect finished Work under provisions of Section 01 70 00.
B. Do not permit adjacent work to damage hardware or finish.

END OF SECTION
SECTION 08 80 00
GLAZING

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Glass.

1.02 RELATED REQUIREMENTS
A. Section 07 25 00 - Weather Barriers.
B. Section 07 92 00 - Joint Sealants: Sealants for other than glazing purposes.
C. Section 08 11 13 - Hollow Metal Doors and Frames: Glazed lites in doors and borrowed lites.
D. Section 08 14 16 - Flush Wood Doors: Glazed lites in doors.
E. Section 08 43 13 - Aluminum-Framed Storefronts: Glazing furnished by storefront manufacturer.
F. Section 08 51 13 - Aluminum Windows: Glazing furnished by window manufacturer.

1.03 REFERENCE STANDARDS
K. GANA (GM) - GANA Glazing Manual; Glass Association of North America; 2009.
L. GANA (SM) - GANA Sealant Manual; Glass Association of North America; 2008.

1.04 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data on Glass Types: Provide structural, physical and environmental characteristics, size limitations, special handling or installation requirements.
C. Product Data on Glazing Compounds: Provide chemical, functional, and environmental characteristics, limitations, special application requirements. Identify available colors.
D. Certificates: Certify that products meet or exceed specified requirements.

1.05 QUALITY ASSURANCE
A. Perform Work in accordance with GANA Glazing Manual and GANA Sealant Manual for glazing installation methods.
1.06 WARRANTY
   A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
   B. Sealed Insulating Glass Units: Provide a five (5) year warranty to include coverage for seal
      failure, interpane dusting or misting, including replacement of failed units.

PART 2 PRODUCTS

2.01 INSULATING GLASS UNITS
   A. Sealed Insulating Glass Units: Vision glass, double glazed.
      1. Application: All exterior glazing unless otherwise indicated.
      2. Outboard Lite: Annealed float glass, 1/4 inch (6 mm) thick, minimum.
         a. Tint: Green.
         b. Coating: Low-E (solar control type), on #2 surface.
      3. Inboard Lite: Annealed float glass, 1/4 inch (6 mm) thick, minimum.
         a. Tint: Clear.
      4. Total Thickness: 1 inch (25 mm).
      5. Glazing Method: Gasket glazing.

2.02 GLAZING UNITS
   A. Sealed Insulating Glass Units: Obscure glazing.
      1. Outboard Lite: Annealed float glass, 1/4 inch (6 mm) thick, minimum.
         a. Tint: Clear.
         b. Coating: Same as on vision units, on #2 surface.
      2. Inboard Lite: Fully tempered float glass, 1/4 inch (6 mm) thick.
         a. Tint: Clear.
         b. Opacifier: Ceramic frit, on #3 surface.
         c. Opacifier Color: white.
      3. Total Thickness: 1 inch (25 mm).
   B. Single Vision Glazing:
      1. Application: All interior glazing unless otherwise indicated.
      2. Type: Annealed float glass.
      3. Tint: Clear.
      4. Thickness: 1/4 inch (6 mm).
      1. Application: Provide this type of glazing in the following locations:
         a. Glazed lites in doors, except fire doors.
         b. Glazed sidelights to doors, except in fire-rated walls and partitions.
         c. Other locations required by applicable federal, state, and local codes and regulations.
         d. Other locations indicated on the drawings.
      2. Type: Fully tempered float glass as specified.
      3. Tint: Clear.
      4. Thickness: 1/4 inch (6 mm).
   D. Bullet Resistant Glazing: Laminated glass/polycarbonate glazing.
      1. Application: Locations indicated on the drawings.
      2. Performance: UL Level 3 Bullet Resistance
   E. Two-Way (Transparent) Mirror:
      1. Application: Locations indicated on the drawings.
      2. Thickness: 1/4 inch (6 mm).

2.03 EXTERIOR GLAZING ASSEMBLIES
   A. Performance Criteria: Select type and thickness of glass to withstand dead and live loads
      caused by positive and negative wind pressure acting normal to plane of glass.
      1. Glass thicknesses listed are minimum.
2.04 GLASS MATERIALS

A. Float Glass: Provide float glass based glazing unless noted otherwise.
   1. Annealed Type: ASTM C1036, Type I - Transparent Flat, Class 1 - Clear, Quality-Q3.
   2. Heat-Strengthened and Fully Tempered Types: ASTM C1048, Kind HS and Kind FT.
   3. Tinted Types: ASTM C1036, Class 2 - Tinted, color and performance characteristics as indicated.
   4. Thicknesses: As indicated; for exterior glazing comply with requirements indicated for wind load design regardless of thickness indicated.

B. Two-Way (Transparent) Mirror Glass: Mirror quality float glass (Q2) with factory coating.
   1. Manufacturers:

2.05 SEALED INSULATING GLASS UNITS

A. Sealed Insulating Glass Units: Types as indicated.
   1. Application: Exterior, except as otherwise indicated.
   2. Durability: Certified by an independent testing agency to comply with ASTM E2190.
   3. Edge Spacers: Aluminum, bent and soldered corners.
   4. Edge Seal: Glass to elastomer.
   5. Purge interpane space with dry hermetic air.

2.06 GLAZING ACCESSORIES

A. Setting Blocks: Neoprene, 80 to 90 Shore A durometer hardness; ASTM C864 Option II.
   Length of 0.1 inch for each square foot (25 mm for each square meter) of glazing or minimum 4 inch (100 mm) x width of glazing rabbet space minus 1/16 inch (1.5 mm) x height to suit glazing method and pane weight and area.

B. Glazing Tape, Back Bedding Mastic Type: Preformed, butyl-based, 100 percent solids compound with integral resilient spacer rod applicable to application indicated; hardness range of 5 to 30 cured Shore A durometer; coiled on release paper; black color.
   1. Width: As required for application.
   2. Thickness: As required for application.

C. Glazing Gaskets: Resilient silicone extruded shape to suit glazing channel retaining slot; ASTM C864 Option II; black color.

D. Glazing Clips: Manufacturer's standard type.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that openings for glazing are correctly sized and within tolerance.

B. Verify that surfaces of glazing channels or recesses are clean, free of obstructions that may impede moisture movement, weeps are clear, and ready to receive glazing.

3.02 PREPARATION

A. Clean contact surfaces with solvent and wipe dry.

B. Seal porous glazing channels or recesses with substrate compatible primer or sealer.

C. Prime surfaces scheduled to receive sealant.

3.03 INSTALLATION - EXTERIOR/INTERIOR DRY METHOD (GASKET GLAZING)

A. Place setting blocks at 1/4 points with edge block no more than 6 inch (152 mm) from corners.

B. Rest glazing on setting blocks and push against fixed stop with sufficient pressure on gasket to attain full contact.

C. Install removable stops without displacing glazing gasket; exert pressure for full continuous contact.
3.04 INSTALLATION - INTERIOR DRY METHOD (TAPE AND TAPE)
   A. Cut glazing tape to length and set against permanent stops, projecting 1/16 inch (1.6 mm) above sight line.
   B. Place setting blocks at 1/4 points with edge block no more than 6 inch (152 mm) from corners.
   C. Rest glazing on setting blocks and push against tape for full contact at perimeter of pane or unit.
   D. Place glazing tape on free perimeter of glazing in same manner described above.
   E. Install removable stop without displacement of tape. Exert pressure on tape for full continuous contact.
   F. Knife trim protruding tape.

3.05 CLEANING
   A. Remove glazing materials from finish surfaces.
   B. Remove labels after Work is complete.
   C. Clean glass and adjacent surfaces.

3.06 PROTECTION
   A. After installation, mark pane with an 'X' by using removable plastic tape or paste.

END OF SECTION
SECTION 09 05 61
COMMON WORK RESULTS FOR FLOORING PREPARATION

PART 1 GENERAL

1.01 SECTION INCLUDES

A. This section applies to all floors identified in the contract documents as to receive the following types of floor coverings:
   1. Resilient tile and sheet.
   2. Carpet tile.
   3. Thin-set ceramic tile and stone tile.

B. Preparation of new concrete floor slabs for installation of floor coverings.

C. Testing of concrete floor slabs for moisture and alkalinity (pH).

D. Remediation of concrete floor slabs due to unsatisfactory moisture or alkalinity (pH) conditions.
   1. Modular building manufacturer shall perform all specified remediation of concrete floor slabs. If such remediation is indicated by testing agency's report and is due to a condition not under modular building manufacturer's control or could not have been predicted by examination prior to entering into the contract, a contract modification will be issued.

1.02 RELATED REQUIREMENTS

A. Section 03 30 00 - Cast-in-Place Concrete: Moisture emission reducing curing and sealing compound for slabs to receive adhered flooring, to prevent moisture content-related flooring failures; to remain in place, not to be removed.

1.03 REFERENCES


C. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring; 2011.


F. RFCI (RWP) - Recommended Work Practices for Removal of Resilient Floor Coverings; Resilient Floor Covering Institute; October 2011.

1.04 SUBMITTALS

A. Floor Covering and Adhesive Manufacturers' Product Literature: For each specific combination of substrate, floor covering, and adhesive to be used; showing:
   1. Moisture and alkalinity (pH) limits and test methods.
   2. Manufacturer's required bond/compatibility test procedure.

B. Testing Agency's Report:
   1. Description of areas tested; include floor plans and photographs if helpful.
   2. Summary of conditions encountered.
   3. Moisture and alkalinity (pH) test reports.
   5. Recommendations for remediation of unsatisfactory surfaces.
   7. Submit report not more than two business days after conclusion of testing.

C. Adhesive Bond and Compatibility Test Report.

D. Copy of RFCI (RWP).
E. Remedial Materials Product Data: Manufacturer's published data on each product to be used for remediation.

1.05 QUALITY ASSURANCE
A. Moisture and alkalinity (pH) testing shall be performed by an independent testing agency employed and paid by modular building manufacturer.
B. Testing Agency Qualifications: Independent testing agency experienced in the types of testing specified.
   1. Submit evidence of experience consisting of at least 3 test reports of the type required, with project Owner's project contact information.
C. modular building manufacturer's Responsibility Relating to Independent Agency Testing:
   1. Provide access for and cooperate with testing agency.
   2. Confirm date of start of testing at least 10 days prior to actual start.
   3. Allow at least 4 business days on site for testing agency activities.
   4. Achieve and maintain specified ambient conditions.
   5. Notify Architect when specified ambient conditions have been achieved and when testing will start.

1.06 FIELD CONDITIONS
A. Maintain ambient temperature in spaces where concrete testing is being performed, and for at least 48 hours prior to testing, at not less than 65 degrees F (18 degrees C) or more than 85 degrees F (30 degrees C).
B. Maintain relative humidity in spaces where concrete testing is being performed, and for at least 48 hours prior to testing, at not less than 40 percent and not more than 60 percent.

PART 2 PRODUCTS
2.01 MATERIALS
A. Patching Compound: Floor covering manufacturer's recommended product, suitable for conditions, and compatible with adhesive and floor covering. In the absence of any recommendation from flooring manufacturer, provide a product with the following characteristics:
   1. Cementitious moisture-, mildew-, and alkali-resistant compound, compatible with floor, floor covering, and floor covering adhesive, and capable of being feathered to nothing at edges.
   2. Compressive Strength: 3000 psi, minimum, after 28 days, when tested in accordance with ASTM C109/C109M or ASTM C472, whichever is appropriate.
B. Alternate Flooring Adhesive: Floor covering manufacturer's recommended product, suitable for the moisture and pH conditions present; low-VOC. In the absence of any recommendation from flooring manufacturer, provide a product recommended by adhesive manufacturer as suitable for substrate and floor covering and for conditions present.
C. Remedial Floor Coating: Single- or multi-layer coating or coating/overlay combination intended by its manufacturer to resist water vapor transmission to degree sufficient to meet flooring manufacturer's emission limits, resistant to the level of alkalinity (pH) found, and suitable for adhesion of flooring without further treatment.
   1. If testing agency recommends any particular products, use one of those.

PART 3 EXECUTION
3.01 CONCRETE SLAB PREPARATION
A. Perform following operations in the order indicated:
   1. Preliminary cleaning.
   2. Moisture vapor emission tests; 3 tests in the first 1000 square feet (100 square meters) and one test in each additional 1000 square feet (100 square meters), unless otherwise indicated or required by flooring manufacturer.
3. Internal relative humidity tests; in same locations as moisture vapor emission tests, unless otherwise indicated.
4. Alkalinity (pH) tests; in same locations as moisture vapor emission tests, unless otherwise indicated.
5. Specified remediation, if required.
6. Patching, smoothing, and leveling, as required.
7. Other preparation specified.
9. Protection.

B. Remediations:
1. Excessive Moisture Emission or Relative Humidity: If an adhesive that is resistant to the level of moisture present is available and acceptable to flooring manufacturer, use that adhesive for installation of the flooring; if not, apply remedial floor coating over entire suspect floor area.
2. Excessive Alkalinity (pH): If remedial floor coating is necessary to address excessive moisture, no additional remediation is required; if not, if an adhesive that is resistant to the level present is available and acceptable to the flooring manufacturer, use that adhesive for installation of the flooring; otherwise, apply a skim coat of specified patching compound over entire suspect floor area.

3.02 PRELIMINARY CLEANING
A. Clean floors of dust, solvents, paint, wax, oil, grease, asphalt, residual adhesive, adhesive removers, film-forming curing compounds, sealing compounds, alkaline salts, excessive laitance, mold, mildew, and other materials that might prevent adhesive bond.
B. Do not use solvents or other chemicals for cleaning.

3.03 MOISTURE VAPOR EMISSION TESTING
A. Where the floor covering manufacturer's requirements conflict with either the referenced test method or this specification, comply with the manufacturer's requirements.
B. Where this specification conflicts with the referenced test method, comply with the requirements of this section.
C. Test in accordance with ASTM F1869 and as follows.
D. Plastic sheet test and mat bond test may not be substituted for the specified ASTM test method, as those methods do not quantify the moisture content sufficiently.
E. In the event that test values exceed floor covering manufacturer's limits, perform remediation as indicated. In the absence of manufacturer limits, perform remediation if test values exceed 3 pounds per 1000 square feet (1.4 kg per 93 square meters) per 24 hours.
F. Report: Report the information required by the test method.

3.04 INTERNAL RELATIVE HUMIDITY TESTING
A. Where the floor covering manufacturer's requirements conflict with either the referenced test method or this specification, comply with the manufacturer's requirements.
B. Where this specification conflicts with the referenced test method, comply with the requirements of this section.
C. Test in accordance with ASTM F2170 Procedure A and as follows.
D. Testing with electrical impedance or resistance apparatus may not be substituted for the specified ASTM test method, as the values determined are not comparable to the ASTM test values and do not quantify the moisture content sufficiently.
E. In the event that test values exceed floor covering manufacturer's limits, perform remediation as indicated. In the absence of manufacturer limits, perform remediation if any test value exceeds 75 percent relative humidity.
F. Report: Report the information required by the test method.
3.05 ALKALINITY TESTING
   A. Where the floor covering manufacturer's requirements conflict with either the referenced test method or this specification, comply with the manufacturer's requirements.
   B. The following procedure is the equivalent of that described in ASTM F710, repeated here for the modular building manufacturer's convenience.
   C. Use a wide range alkalinity (pH) test paper, its associated chart, and distilled or deionized water.
   D. Place several drops of water on a clean surface of concrete, forming a puddle approximately 1 inch (25 mm) in diameter. Allow the puddle to set for approximately 60 seconds, then dip the alkalinity (pH) test paper into the water, remove it, and compare immediately to chart to determine alkalinity (pH) reading.
   E. In the event that test values exceed floor covering manufacturer's limits, perform remediation as indicated. In the absence of manufacturer limits, perform remediation if alkalinity (pH) test value is over 10.

3.06 PREPARATION
   A. See individual floor covering section(s) for additional requirements.
   B. Comply with requirements and recommendations of floor covering manufacturer.
   C. Fill and smooth surface cracks, grooves, depressions, control joints and other non-moving joints, and other irregularities with patching compound.
   D. Do not fill expansion joints, isolation joints, or other moving joints.

3.07 ADHESIVE BOND AND COMPATIBILITY TESTING
   A. Comply with requirements and recommendations of floor covering manufacturer.

3.08 APPLICATION OF REMEDIAL FLOOR COATING
   A. Comply with requirements and recommendations of coating manufacturer.

3.09 PROTECTION
   A. Cover prepared floors with building paper or other durable covering.

END OF SECTION
SECTION 09 21 16
GYPSUM BOARD ASSEMBLIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Performance criteria for gypsum board assemblies.
B. Metal stud wall framing.
C. Acoustic insulation.
D. Gypsum sheathing.
E. Gypsum wallboard.
F. Joint treatment and accessories.
G. Water-resistive barrier over exterior wall sheathing.

1.02 RELATED REQUIREMENTS

A. Section 01 61 16 - Volatile Organic Compound (VOC) Content Restrictions.
B. Section 05 40 00 - Cold-Formed Metal Framing: Exterior wind-load-bearing metal stud framing.
C. Section 07 21 00 - Thermal Insulation: Acoustic insulation.
D. Section 07 25 00 - Weather Barriers: Water-resistive barrier over sheathing.
E. Section 07 92 00 - Joint Sealants: Sealing acoustical gaps in construction other than gypsum board or plaster work.
F. Section 09 22 16 - Non-Structural Metal Framing.
G. Section 09 30 00 - Tiling: Tile backing board.

1.03 REFERENCE STANDARDS

A. AISI S100-12 - North American Specification for the Design of Cold-Formed Steel Structural Members; American Iron and Steel Institute; 2012.
B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2015.
H. ASTM C954 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs From 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness; 2015.
I. ASTM C1002 - Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; 2014.
U. ASTM E413 - Classification for Rating Sound Insulation; 2010.
V. GA-216 - Application and Finishing of Gypsum Board; Gypsum Association; 2013.
W. UL 752 - Standard for Bullet-Resisting Equipment; Current Edition, Including All Revisions.

1.04 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Shop Drawings: Indicate special details associated with fireproofing and acoustic seals.
C. Product Data: Provide data on metal framing, gypsum board, accessories, and joint finishing system.
D. Product Data: Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.
E. Test Reports: Bullet resistant sheathing and wallboard.

PART 2 PRODUCTS
2.01 GYPSUM BOARD ASSEMBLIES
A. Provide completed assemblies complying with ASTM C840 and GA-216.
B. Interior Partitions, Indicated as Acoustic: Provide completed assemblies with the following characteristics:
   1. Acoustic Attenuation: STC of 45-49 calculated in accordance with ASTM E413, based on tests conducted in accordance with ASTM E90.

2.02 METAL FRAMING MATERIALS
A. Manufacturers - Metal Framing, Connectors, and Accessories:
   2. Substitutions: See Section 01 60 00 - Product Requirements.
B. Non-Loadbearing Framing System Components: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 for the spacing indicated, with maximum deflection of wall framing of L/240 at 5 psf (L/240 at 240 Pa).
   1. Studs: "C" shaped with flat or formed webs with knurled faces.
   2. Runners: U shaped, sized to match studs.
C. Loadbearing Studs for Application of Gypsum Board: As specified in Section 05 40 00.
D. Partition Head to Structure Connections: Provide mechanical anchorage devices that accommodate deflection using slotted holes, screws and anti-friction bushings, preventing rotation of studs while maintaining structural performance of partition.
   1. Structural Performance: Maintain lateral load resistance and vertical movement capacity required by applicable code, when evaluated in accordance with AISI SG02-1.

2.03 BOARD MATERIALS

A. Manufacturers - Gypsum-Based Board:

B. Gypsum Wallboard: Paper-faced gypsum panels as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
1. Application: Use for vertical surfaces and ceilings, unless otherwise indicated.
2. Glass mat faced gypsum panels as defined in ASTM C1658/C1658M, suitable for paint finish, of the same core type and thickness may be substituted for paper-faced board.
3. Unfaced fiber-reinforced gypsum panels as defined in ASTM C1278/C1278M, suitable for paint finish, of the same core type and thickness may be substituted for paper-faced board.
4. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
5. Thickness:
   a. Vertical Surfaces: 5/8 inch (16 mm).
6. Glass Mat Faced Products:
   a. Georgia-Pacific Gypsum; DensArmor Plus Fireguard C.
   b. National Gypsum Company; Gold Bond eXP Fire-Shield Interior Extreme Gypsum Panel.

C. Abuse Resistant Wallboard:
1. Application: High-traffic areas indicated.
2. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
3. Unfaced Type: Interior fiber-reinforced gypsum panels as defined in ASTM C1278/C1278M.
4. Type: Fire resistance rated Type X, UL or WH listed.
5. Thickness: 5/8 inch (16 mm).
7. Products:
   a. Georgia-Pacific Gypsum; ToughRock Fireguard X Mold Guard Abuse-Resistant.
   b. National Gypsum Company; Gold Bond Hi-Abuse XP Gypsum Board.
   c. Substitutions: See Section 01 60 00 - Product Requirements.

D. Impact Resistant Wallboard:
2. Indentation: Level 1, minimum, when tested in accordance with ASTM C1629/C1629M.
3. Soft Body Impact: Level 3, minimum, when tested in accordance with ASTM C1629/C1629M.
4. Hard Body Impact: Level 2, minimum, when tested in accordance with ASTM C1629/C1629M.
5. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
6. Type: Fire resistance rated Type X, UL or WH listed.
7. Thickness: 5/8 inch (16 mm).
9. Products:
   a. National Gypsum Company; Gold Bond Hi-Impact XP Gypsum Board.
   b. Substitutions: See Section 01 60 00 - Product Requirements.

E. Backing Board For Wet Areas: One of the following products:
1. Mold Resistance: Score of 10, when tested in accordance with ASTM D3273.
2. Glass Mat Faced Board: Coated glass mat water-resistant gypsum backing panel as defined in ASTM C1178/C1178M.
   a. Fire Resistant Type: Type X core, thickness 5/8 inch (16 mm).
   b. Products:
      1) National Gypsum Company; Gold Bond eXP Tile Backer.
      2) Substitutions: See Section 01 60 00 - Product Requirements.

F. Backing Board For Non-Wet Areas: Water-resistant gypsum backing board as defined in ASTM C1396/C1396M; sizes to minimum joints in place; ends square cut.
   1. Application: Vertical surfaces behind thinset tile, except in wet areas.
   2. Type: Type X, in locations indicated.
   3. Type X Thickness: 5/8 inch (16 mm).
   5. Products:
      a. National Gypsum Company; Gold Bond XP Gypsum Board.
      b. Substitutions: See Section 01 60 00 - Product Requirements.

G. Ceiling Board: Special sag resistant gypsum ceiling board as defined in ASTM C1396/C1396M; sizes to minimize joints in place; ends square cut.
   1. Application: Ceilings, unless otherwise indicated.
   2. Thickness: 5/8 inch (16 mm).
   4. Products:
      a. Georgia-Pacific Gypsum; ToughRock Span 24 Ceiling Board.
      b. Substitutions: See Section 01 60 00 - Product Requirements.

H. Exterior Sheathing Board: Sizes to minimize joints in place; ends square cut.
   1. Application: Exterior sheathing, unless otherwise indicated.
   2. Edges: Square, for vertical application.

2.04 ACCESSORIES

A. Acoustic Insulation: ASTM C665; preformed glass fiber, friction fit type, unfaced.

B. Acoustic Sealant: Acrylic emulsion latex or water-based elastomeric sealant; do not use solvent-based non-curing butyl sealant.

C. Water-Resistive Barrier: As specified in Section 07 25 00.

D. Beads, Joint Accessories, and Other Trim: ASTM C1047, galvanized steel or rolled zinc, unless noted otherwise.

E. Joint Materials: ASTM C475 and as recommended by gypsum board manufacturer for project conditions.
   1. Tape: 2 inch (50 mm) wide, coated glass fiber tape for joints and corners, except as otherwise indicated.
   3. Chemical hardening type compound.

F. High Build Drywall Surfacer: Vinyl acrylic latex-based coating for spray application, designed to take the place of skim coating and separate paint primer in achieving Level 5 finish.

G. Abuse Resistant Finishes:
   1. Acrylic, water-based, non-textured, high build, tintable primer and surfacer.
   2. Products:

H. Screws for Fastening of Gypsum Panel Products to Cold-Formed Steel Studs Less than 0.033 inch (0.84 mm) in Thickness and Wood Members: ASTM C1002; self-piercing tapping screws, corrosion resistant.

I. Screws for Fastening of Gypsum Panel Products to Steel Members from 0.033 to 0.112 inch (0.84 to 2.84 mm) in Thickness: ASTM C954; steel drill screws, corrosion resistant.
PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that project conditions are appropriate for work of this section to commence.

3.02 FRAMING INSTALLATION

A. Metal Framing: Install in accordance with ASTM C754 and manufacturer’s instructions.
B. Studs: Space studs at 16 inches on center (at 406 mm on center).
   1. Extend partition framing to structure where indicated and to ceiling in other locations.
   2. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.
   3. Partitions Terminating at Structure: Attach top runner to structure, maintain clearance between top of studs and structure, and connect studs to track using specified mechanical devices in accordance with manufacturer's instructions; verify free movement of top of stud connections; do not leave studs unattached to track.

C. Openings: Reinforce openings as required for weight of doors or operable panels, using not less than double studs at jambs.

D. Blocking: Install mechanically fastened steel channel blocking for support of:
   1. Wall mounted cabinets.
   2. Plumbing fixtures.
   3. Toilet partitions.
   4. Toilet accessories.

3.03 ACOUSTIC ACCESSORIES INSTALLATION

A. Acoustic Insulation: Place tightly within spaces, around cut openings, behind and around electrical and mechanical items within partitions, and tight to items passing through partitions.

B. Acoustic Sealant: Install in accordance with manufacturer’s instructions.

3.04 BOARD INSTALLATION

A. Comply with ASTM C 840, GA-216, and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.

B. Exterior Sheathing: Comply with ASTM C1280. Install sheathing vertically, with edges butted tight and ends occurring over firm bearing.
   1. Paper-Faced Sheathing: Immediately after installation, protect from weather by application of water-resistant barrier.

C. Installation on Metal Framing: Use screws for attachment of gypsum board.

D. Bullet Resistant Sheathing and Wallboard:
   1. Install bullet resistant sheathing according to manufacturer's written recommendations and with manufacturer approved fasteners.
   2. Cover all joints between boards with a 4 inch (102 mm) strip of the same thickness material as the boards, centered on the joint.

3.05 INSTALLATION OF TRIM AND ACCESSORIES

A. Control Joints: Place control joints consistent with lines of building spaces and as indicated.

B. Corner Beads: Install at external corners, using longest practical lengths.

C. Edge Trim: Install at locations where gypsum board abuts dissimilar materials.

3.06 JOINT TREATMENT

A. Glass Mat Faced Gypsum Board and Exterior Glass Mat Faced Sheathing: Use fiberglass joint tape, bedded and finished with chemical hardening type joint compound.


C. Finish gypsum board in accordance with levels defined in ASTM C840, as follows:
1. Level 5: Walls and ceilings to receive semi-gloss or gloss paint finish and other areas specifically indicated.
2. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.
3. Level 2: In utility areas, behind cabinetry, and on backing board to receive tile finish.
4. Level 1: Fire rated wall areas above finished ceilings, whether or not accessible in the completed construction.

D. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
   1. Feather coats of joint compound so that camber is maximum 1/32 inch (0.8 mm).
   2. Taping, filling, and sanding is not required at surfaces behind fixed cabinetry.

E. Where Level 5 finish is indicated, spray apply high build drywall surfacer over entire surface after joints have been properly treated; achieve a flat and tool mark-free finish.

3.07 TOLERANCES
   A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet (3 mm in 3 m) in any direction.

END OF SECTION
SECTION 09 22 36.23
METAL LATH

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Metal lath for Portland cement and gypsum plaster.

1.02 RELATED REQUIREMENTS
   A. Section 05 40 00 - Cold-Formed Metal Framing: Sheathing on exterior walls.
   B. Section 07 25 00 - Weather Barriers: Weather barrier under exterior plaster and stucco.
   C. Section 09 21 16 - Gypsum Board Assemblies: Water-resistive barrier under exterior plaster
      and stucco.
   D. Section 09 24 00 - Portland Cement Plastering.

1.03 REFERENCE STANDARDS
   A. ASTM C841 - Standard Specification for Installation of Interior Lathing and Furring; 2003
      (Reapproved 2013).
   C. ASTM C1063 - Standard Specification for Installation of Lathing and Furring to Receive Interior
      and Exterior Portland Cement-Based Plaster; 2014b.

1.04 SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
   B. Product Data: Provide data on furring and lathing components, structural characteristics,
      material limitations, and finish.

PART 2 PRODUCTS

2.01 MANUFACTURERS
   A. Metal Lath:
      3. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 FRAMING AND LATH ASSEMBLIES
   A. Provide completed assemblies with the following characteristics:
      1. Maximum Deflection of Vertical Assemblies: 1:360 under lateral point load of 100 lbs (445
         N).
      2. Maximum Deflection of Horizontal Assemblies: 1:240 deflection under dead loads and
         wind uplift.

2.03 LATH
      1. Weight: To suit application, comply with deflection criteria, and as specified in ASTM
         C841 for framing spacing.
   B. Corner Mesh: Formed sheet steel, minimum 0.018 inch (0.5 mm) thick, perforated flanges
      shaped to permit complete embedding in plaster, minimum 2 inch (50 mm) size; same finish as
      lath.
   C. Beads, Screeds, Joint Accessories, and Other Trim: Depth governed by plaster thickness,
      maximum possible lengths.
      1. Material: Formed sheet steel with rust inhibitive primer, expanded metal flanges.
PART 3  EXECUTION

3.01  EXAMINATION

A. Verify existing conditions before starting work.
B. Verify that substrates are ready to receive work and conditions are suitable for application.
C. For exterior plaster and stucco on stud walls, verify that weather barrier has been installed over sheathing substrate completely and correctly.
D. Do not begin until unacceptable conditions have been corrected.
E. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02  INSTALLATION - GENERAL

A. Install lath and furring for Portland cement plaster in accordance with ASTM C1063.

3.03  CONTROL AND EXPANSION JOINTS

A. Locate joints as indicated on drawings.
B. Construct control joints of back-to-back casing beads set 1/4 inch (6 mm) apart. Set both beads over 6 inch (150 mm) wide strip of polyethylene sheet.

3.04  LATH INSTALLATION

A. Apply metal lath taut, with long dimension perpendicular to supports.
B. Lap ends minimum 1 inch (25 mm). Secure end laps with tie wire where they occur between supports.
C. Continuously reinforce internal angles with corner mesh, except where the metal lath returns 3 inches (75 mm) from corner to form the angle reinforcement; fasten at perimeter edges only.
D. Place corner bead at external wall corners; fasten at outer edges of lath only.
E. Place base screeds at termination of plaster areas; secure rigidly in place.
F. Place 4 inch (100 mm) wide strips of metal lath centered over junctions of dissimilar backing materials. Secure rigidly in place.
G. Place lath vertically above each top corner and each side of door frames to 6 inches (150 mm) above ceiling line.
H. Place casing beads at terminations of plaster finish. Butt and align ends. Secure rigidly in place.
I. Place additional strip mesh diagonally at corners of lathed openings. Secure rigidly in place.

3.05  TOLERANCES

A. Maximum Variation from True Lines and Levels: 1/8 inch in 10 feet (3 mm in 3 m).
B. Maximum Variation from True Position: 1/8 inch (3 mm).

END OF SECTION
SECTION 09 24 00
PORTLAND CEMENT PLASTERING

PART 1 GENERAL
1.01 SECTION INCLUDES
   A. Portland cement plaster for installation over metal lath.

1.02 RELATED REQUIREMENTS
   A. Section 05 40 00 - Cold-Formed Metal Framing: Structural metal framing for plaster.
   B. Section 09 21 16 - Gypsum Board Assemblies: Metal stud framing and furring for plaster.
   C. Section 09 22 36.23 - Metal Lath: Metal furring and lathing for plaster.
   D. Section 09 90 00 - PAINTING AND COATING.

1.03 REFERENCE STANDARDS

1.04 SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements, for submittals procedures.
   B. Product Data: Provide data on plaster materials, characteristics and limitations of products specified.

1.05 QUALITY ASSURANCE
   A. Installer Qualifications: Company specializing in performing the work of this section with minimum three years documented experience.

1.06 FIELD CONDITIONS
   A. Do not apply plaster when substrate or ambient air temperature is under 50 degrees F (10 degrees C) or over 80 degrees F (27 degrees C).
   B. Maintain minimum ambient temperature of 50 degrees F (10 degrees C) during installation of plaster and until cured.

PART 2 PRODUCTS
2.01 PORTLAND CEMENT PLASTER ASSEMBLIES
   A. Exterior Stucco: Portland cement plaster system, made of finish, brown, and scratch coat and reinforcing mesh.
      1. Provide continuous exterior insulation as part of the system.
      2. Provide weather resistive barrier and air barrier as part of the system.

2.02 PLASTER MATERIALS
   A. Portland Cement, Aggregates, and Other Materials: In accordance with ASTM C926.
   B. Premixed Finish Coat: Same product as base coat.
   C. Portland Cement: ASTM C150, Type I.
      1. For finish coat: Gray color.
   D. Lime: ASTM C206, Type S.
   E. Water: Clean, fresh, potable and free of mineral or organic matter that could adversely affect plaster.
   F. Plaster Mix Reinforcement: Glass fibers, chopped to 1/2 inch (13 mm) nominal length, alkali resistant.
2.03 METAL LATH
A. Metal Lath and Accessories: As specified in Section 09 22 36.23.
B. Beads, Screeds, and Joint Accessories: As specified in Section 09 22 36.23.

2.04 PLASTER MIXES
A. Over Metal Lath: Three-coat application, mixed and proportioned in accordance with manufacturer's instructions.
B. Premixed Plaster Materials: Mix in accordance with manufacturer's instructions.
C. Second Coat: Same as first coat, except minimum 3 parts and maximum 5 parts aggregate.
D. Finish Coat:
   1. One part Portland cement.
   3. 3 parts sand, per sum of cementitious materials.
E. Mix only as much plaster as can be used prior to initial set.
F. Mix materials dry, to uniform color and consistency, before adding water.
G. Protect mixtures from freezing, frost, contamination, and excessive evaporation.
H. Do not retemper mixes after initial set has occurred.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify the suitability of existing conditions before starting work.
B. Metal Lath and Accessories: Verify lath is flat, secured to substrate, and joint and surface perimeter accessories are in place.
C. Mechanical and Electrical: Verify services within walls have been tested and approved.

3.02 PLASTERING
A. Apply premixed plaster in accordance with manufacturer's instructions.
B. Apply plaster in accordance with ASTM C926.
C. Three-Coat Application Over Metal Lath:
   1. Apply first coat to a nominal thickness of 3/8 inch (9 mm).
   2. Apply second coat to a nominal thickness of 3/8 inch (9 mm).
   3. Apply finish coat to a nominal thickness of 1/8 inch (3 mm).
D. Moist cure base coats.
E. Apply second coat immediately following initial set of first coat.
F. After curing, dampen previous coat prior to applying finish coat.
G. Finish Texture: Smooth trowel to a consistent and smooth finish.
H. Avoid excessive working of surface. Delay troweling as long as possible to avoid drawing excess fines to surface.
I. Moist cure finish coat for minimum period of 48 hours.

3.03 TOLERANCES
A. Maximum Variation from True Flatness: 1/8 inch in 10 feet (3 mm in 3 m).

END OF SECTION
SECTION 09 30 00
TILING

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Tile for floor applications.
B. Tile for wall applications.
C. Coated glass mat backer board as tile substrate.
D. Ceramic accessories.
E. Ceramic trim.
F. Non-ceramic trim.

1.02 RELATED REQUIREMENTS
A. Section 07 92 00 - Joint Sealants: Sealing joints between tile work and adjacent construction and fixtures.
B. Section 09 21 16 - Gypsum Board Assemblies: Tile backer board.

1.03 REFERENCE STANDARDS
E. ANSI A108.4 - American National Standard Specifications for Installation of Ceramic Tile with Organic Adhesives or Water Cleanable Tile-Setting Epoxy Adhesive; 2009 (Revised).
N. ANSI A118.4 - American National Standard Specifications for Modified Dry-Set Cement Mortar; 2012 (Revised).


T. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring; 2011.


1.04 SUBMITTALS

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

B. Product Data: Provide manufacturers’ data sheets on tile, mortar, grout, and accessories. Include instructions for using grouts and adhesives.

1.05 QUALITY ASSURANCE

A. Maintain one copy of and ANSI A108/A118/A136.1 and TCNA (HB) on site.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Protect adhesives from freezing or overheating in accordance with manufacturer's instructions.

1.07 FIELD CONDITIONS

A. Maintain ambient and substrate temperature of 50 degrees F (10 degrees C) during installation of mortar materials.

PART 2 PRODUCTS

2.01 TILE

A. Manufacturers: All products by the same manufacturer.
   2. Substitutions: See Section 01 60 00 - Product Requirements.

B. Glazed Wall Tile: ANSI A137.1, and as follows:
   1. Size and Shape: 6 inch (150 mm) square.
   2. Surface Finish: Matte glaze.
   3. Color(s): To be selected by Architect from manufacturer's full range.
   4. Trim Units: Matching bead, bullnose, cove, and base shapes in sizes coordinated with field tile.

2.02 TRIM AND ACCESSORIES

A. Ceramic Accessories: Glazed finish, same color and finish as adjacent field tile; same manufacturer as tile.

B. Ceramic Trim: Matching bullnose, double bullnose, cove base, and cove ceramic shapes in sizes coordinated with field tile.
   1. Applications:
      a. Open Edges: Bullnose.
      b. Inside Corners: Jointed.
   2. Manufacturers: Same as for tile.
C. Non-Ceramic Trim: Satin natural anodized extruded aluminum, style and dimensions to suit application, for setting using tile mortar or adhesive.
   1. Applications:
      a. Open edges of floor tile.
      b. Transition between floor finishes of different heights.
      c. Floor to wall joints.
   2. Manufacturers:
      b. Substitutions: See Section 01 60 00 - Product Requirements.

2.03 SETTING MATERIALS
A. Latex-Portland Cement Mortar Bond Coat: ANSI A118.4 or ANSI A118.15.
   1. Products:
      d. Substitutions: See Section 01 60 00 - Product Requirements.

2.04 GROUTS
A. Polymer Modified Grout: ANSI A118.7 polymer modified cement grout.
   1. Applications: Use this type of grout where indicated and where no other type of grout is indicated.
   2. Use sanded grout for joints 1/8 inch wide and larger; use unsanded grout for joints less than 1/8 inch wide.
   3. Color(s): As selected by Architect from manufacturer's full line.
   4. Products:

2.05 MAINTENANCE MATERIALS
A. Tile Sealant: Gunnable, silicone, siliconized acrylic, or urethane sealant; moisture and mildew resistant type.
   1. Applications: Between tile and plumbing fixtures.
B. Grout Sealer: Liquid-applied, moisture and stain protection for existing or new Portland cement grout.
   1. Composition: Water-based colorless silicone.

2.06 ACCESSORY MATERIALS
A. Concrete Floor Slab Crack Isolation Membrane: Material complying with ANSI A118.12; not intended as waterproofing.
   1. Thickness: 20 mils (0.5 mm), maximum.
   2. Crack Resistance: No failure at 1/16 inch (1.6 mm) gap, minimum.
B. Backer Board: Coated glass mat type complying with ASTM C1178/C1178M; inorganic fiberglass mat on both surfaces and integral acrylic coating vapor retarder.
C. Mesh Tape: 2-inch (50 mm) wide self-adhesive fiberglass mesh tape.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify that sub-floor surfaces are smooth and flat within the tolerances specified for that type of work and are ready to receive tile.
B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive tile.

C. Verify that concrete sub-floor surfaces are ready for tile installation by testing for moisture emission rate and alkalinity; obtain instructions if test results are not within limits recommended by tile manufacturer and setting materials manufacturer.

3.02 PREPARATION

A. Protect surrounding work from damage.
B. Vacuum clean surfaces and damp clean.
C. Seal substrate surface cracks with filler. Level existing substrate surfaces to acceptable flatness tolerances.
D. Install backer board in accordance with ANSI A108.11 and board manufacturer's instructions. Tape joints and corners, cover with skim coat of setting material to a feather edge.

3.03 INSTALLATION - GENERAL

A. Install tile, thresholds, and stair treads and grout in accordance with applicable requirements of ANSI A108.1A thru A108.13, manufacturer's instructions, and TCNA (HB) recommendations.
B. Lay tile to pattern indicated. Do not interrupt tile pattern through openings.
C. Cut and fit tile to penetrations through tile, leaving sealant joint space. Form corners and bases neatly. Align floor joints.
D. Place tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make grout joints without voids, cracks, excess mortar or excess grout, or too little grout.
E. Form internal angles square and external angles bullnosed.
F. Install ceramic accessories rigidly in prepared openings.
G. Install non-ceramic trim in accordance with manufacturer's instructions.
H. Sound tile after setting. Replace hollow sounding units.
I. Keep control and expansion joints free of mortar, grout, and adhesive.
J. Prior to grouting, allow installation to completely cure; minimum of 48 hours.
K. Grout tile joints unless otherwise indicated. Use standard grout unless otherwise indicated.
L. At changes in plane and tile-to-tile control joints, use tile sealant instead of grout, with either bond breaker tape or backer rod as appropriate to prevent three-sided bonding.

3.04 INSTALLATION - FLOORS - THIN-SET METHODS

A. Over interior concrete substrates, install in accordance with TCNA (HB) Method F113, dry-set or latex-Portland cement bond coat, with standard grout, unless otherwise indicated.
   1. Use uncoupling membrane under all tile unless other underlayment is indicated.

3.05 INSTALLATION - WALL TILE

A. Over coated glass mat backer board on studs, install in accordance with TCNA (HB) Method W245.

3.06 CLEANING

A. Clean tile and grout surfaces.

3.07 PROTECTION

A. Do not permit traffic over finished floor surface for 4 days after installation.

END OF SECTION
PART 1  GENERAL

1.01  SECTION INCLUDES
   A. Suspended metal grid ceiling system.
   B. Acoustical units.

1.02  RELATED REQUIREMENTS
   A. Section 01 61 16 - Volatile Organic Compound (VOC) Content Restrictions.

1.03  REFERENCE STANDARDS
   D. ASTM E1264 - Standard Classification for Acoustical Ceiling Products; 2014.
   E. CAL (CHPS LEM) - Low-Emitting Materials Product List; California Collaborative for High Performance Schools (CHPS); current edition at www.chps.net/.

1.04  ADMINISTRATIVE REQUIREMENTS
   A. Sequence work to ensure acoustical ceilings are not installed until building is enclosed, sufficient heat is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.
   B. Do not install acoustical units until after interior wet work is dry.

1.05  SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
   B. Product Data: Provide data on suspension system components.
   C. Samples: Submit two full size samples illustrating material and finish of acoustical units.

1.06  FIELD CONDITIONS
   A. Maintain uniform temperature of minimum 60 degrees F (16 degrees C), and maximum humidity of 40 percent prior to, during, and after acoustical unit installation.

PART 2  PRODUCTS

2.01  MANUFACTURERS
   A. Acoustic Panels:
      2. Substitutions: See Section 01 60 00 - Product Requirements.
   B. Suspension Systems:
      1. Same as for acoustical units.
      2. Substitutions: See Section 01 60 00 - Product Requirements.

2.02  ACoustical UNITS
   A. Acoustical Units - General: ASTM E1264, Class A.
   B. Acoustical Panels: Painted mineral fiber, ASTM E1264 Type III, with the following characteristics:
      1. VOC Content: As specified in Section 01 61 16.
      2. Size: 24 by 48 inches (600 by 1200 mm).
      3. Thickness: 3/4 inches (19 mm).
5. NRC Range: 0.68 to 0.78, determined in accordance with ASTM E1264.
7. Edge: Square.
10. Suspension System: Exposed grid.
11. Products:
   a. Armstrong Cirrus 565.
   b. Substitutions: See Section 01 60 00 - Product Requirements.

2.03 SUSPENSION SYSTEM(S)
A. Suspension Systems - General: Complying with ASTM C635/C635M; die cut and interlocking components, with stabilizer bars, clips, splices, perimeter moldings, and hold down clips as required.
B. Exposed Steel Suspension System: Formed steel, commercial quality cold rolled; heavy-duty.
   1. Profile: Tee; 15/16 inch (24 mm) wide face.
   2. Construction: Double web.

2.04 ACCESSORIES
A. Support Channels and Hangers: Galvanized steel; size and type to suit application, seismic requirements, and ceiling system flatness requirement specified.
B. Perimeter Moldings: Same material and finish as grid.
   1. At Exposed Grid: Provide L-shaped molding for mounting at same elevation as face of grid.
C. Acoustical Sealant For Perimeter Moldings: Non-hardening, non-skinning, for use in conjunction with suspended ceiling system.
D. Touch-up Paint: Type and color to match acoustical and grid units.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify existing conditions before starting work.
B. Verify that layout of hangers will not interfere with other work.

3.02 INSTALLATION - SUSPENSION SYSTEM
A. Install suspension system in accordance with ASTM C636/C636M, ASTM E580/E580M, and manufacturer's instructions and as supplemented in this section.
B. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of 1:360.
C. Install after major above-ceiling work is complete. Coordinate the location of hangers with other work.
D. Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.
E. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.
F. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.
G. Support fixture loads using supplementary hangers located within 6 inches (150 mm) of each corner, or support components independently.
H. Do not eccentrically load system or induce rotation of runners.
I. Perimeter Molding: Install at intersection of ceiling and vertical surfaces and at junctions with other interruptions.
   1. Install in bed of acoustical sealant.
   2. Use longest practical lengths.
   3. Overlap corners.

3.03 INSTALLATION - ACOUSTICAL UNITS
   A. Install acoustical units in accordance with manufacturer’s instructions.
   B. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.
   C. Fit border trim neatly against abutting surfaces.
   D. Install units after above-ceiling work is complete.
   E. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.
   F. Cutting Acoustical Units:
      1. Make field cut edges of same profile as factory edges.
   G. Install hold-down clips on panels within 20 ft (6 m) of an exterior door.

3.04 TOLERANCES
   A. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet (3 mm in 3 m).
   B. Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: 2 degrees.

END OF SECTION
SECTION 09 65 00
RESILIENT FLOORING

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Resilient sheet flooring.
B. Resilient tile flooring.
C. Static control resilient tile flooring.
D. Resilient base.
E. Installation accessories.

1.02 RELATED REQUIREMENTS
A. Section 01 61 16 - Volatile Organic Compound (VOC) Content Restrictions.
B. Section 09 05 61 - Common Work Results for Flooring Preparation: Independent agency testing of concrete slabs, removal of existing floor coverings, cleaning, and preparation.
C. Section 26 05 26 - Grounding and Bonding for Electrical Systems: Grounding and bonding of static control flooring to building grounding system.

1.03 REFERENCE STANDARDS
B. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring; 2011.

1.04 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide data on specified products, describing physical and performance characteristics; including sizes, patterns and colors available; and installation instructions.
C. Selection Samples: Submit manufacturer's complete set of color samples for Architect's initial selection.
D. Certification: Prior to installation of flooring, submit written certification by flooring manufacturer and adhesive manufacturer that condition of sub-floor is acceptable.

1.05 DELIVERY, STORAGE, AND HANDLING
A. Upon receipt, immediately remove any shrink-wrap and check materials for damage and the correct style, color, quantity and run numbers.
B. Store all materials off of the floor in an acclimatized, weather-tight space.
C. Maintain temperature in storage area between 55 degrees F (13 degrees C) and 90 degrees F (72 degrees C).

1.06 FIELD CONDITIONS
A. Store materials for not less than 48 hours prior to installation in area of installation at a temperature of 70 degrees F (21 degrees C) to achieve temperature stability. Thereafter, maintain conditions above 55 degrees F (13 degrees C).
PART 2 PRODUCTS

2.01 SHEET FLOORING

A. Linoleum Sheet Flooring: Homogeneous wear layer bonded to backing, with color and pattern through wear layer thickness.
   1. Minimum Requirements: Comply with ASTM F2034, Type corresponding to type specified.
   3. Wear Layer Thickness: 0.080 inch (2.0 mm), minimum, excluding backing.
   5. Color: To be selected by Architect from manufacturer's full range.
   7. Manufacturers:
      b. Substitutions: See Section 01 60 00 - Product Requirements.

B. Linoleum Welding Rod: Solid color linoleum produced by flooring manufacturer for heat welding seams, in color in color matching predominant flooring color.

2.02 TILE FLOORING

A. Static Control Tile: Homogenous; color and pattern throughout thickness.
   1. Minimum Requirements: Solid vinyl tile complying with ASTM F1700, Class 1, Type A.
   2. Electrical Resistance:
      a. Dissipative Tile: Resistance between 1.0 megohms and 1000 megohms as tested in accordance with ASTM F150.
   3. Tile Size: 12 by 12 inch (305 by 305 mm).
   5. Color: To be selected by Architect from manufacturer's full range.

2.03 RESILIENT BASE

A. Resilient Base: ASTM F1861, Type TS rubber, vulcanized thermoset; top set Style B, Cove.
   1. Height: 4 inch (100 mm).
   2. Thickness: 0.125 inch (3.2 mm) thick.
   4. Color: Color as selected from manufacturer's standards.
   5. Accessories: Premolded external corners and end stops.
   6. Manufacturers:
      c. Substitutions: See Section 01 60 00 - Product Requirements.

2.04 ACCESSORIES

A. Primers, Adhesives, and Seaming Materials: Waterproof; types recommended by flooring manufacturer.

B. Copper Grounding Strips: Type and size as recommended by static control flooring manufacturer.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that surfaces are flat to tolerances acceptable to flooring manufacturer, free of cracks that might telegraph through flooring, clean, dry, and free of curing compounds, surface hardeners, and other chemicals that might interfere with bonding of flooring to substrate.

B. Verify that wall surfaces are smooth and flat within the tolerances specified for that type of work, are dust-free, and are ready to receive resilient base.

C. Cementitious Sub-floor Surfaces: Verify that substrates are dry enough and ready for resilient flooring installation by testing for moisture and pH.
1. Test in accordance with Section 09 05 61.
2. Obtain instructions if test results are not within limits recommended by resilient flooring manufacturer and adhesive materials manufacturer.

3.02 PREPARATION
   A. Prepare floor substrates for installation of flooring in accordance with Section 09 05 61.

3.03 INSTALLATION
   A. Starting installation constitutes acceptance of sub-floor conditions.
   B. Install in accordance with manufacturer's instructions.
   C. Spread only enough adhesive to permit installation of materials before initial set.
   D. Place copper grounding strip in conductive adhesive and apply additional adhesive to top side of strip before installing static control flooring. Allow strip to extend beyond flooring in accordance with static control flooring manufacturer's instructions. Refer to Section 26 05 26 for grounding and bonding to building grounding system.
   E. Fit joints tightly.
   F. Set flooring in place, press with heavy roller to attain full adhesion.
   G. Where type of floor finish, pattern, or color are different on opposite sides of door, terminate flooring under centerline of door.
   H. Install edge strips at unprotected or exposed edges, where flooring terminates, and where indicated.
   I. Scribe flooring to walls, columns, cabinets, floor outlets, and other appurtenances to produce tight joints.

3.04 SHEET FLOORING
   A. Lay flooring with joints and seams parallel to longer room dimensions, to produce minimum number of seams. Lay out seams to avoid widths less than 1/3 of roll width; match patterns carefully at seams.
   B. Seams are prohibited in toilet rooms and custodial closets.
   C. Double cut sheet at seams.
   D. Finish seams in linoleum by heat welding.

3.05 TILE FLOORING
   A. Mix tile from container to ensure shade variations are consistent when tile is placed, unless manufacturer's instructions say otherwise.
   B. Lay flooring with joints and seams parallel to building lines to produce symmetrical tile pattern.

3.06 RESILIENT BASE
   A. Fit joints tightly and make vertical. Maintain minimum dimension of 18 inches (45 mm) between joints.
   B. Miter internal corners. At external corners, use premolded units. At exposed ends, use premolded units.
   C. Install base on solid backing. Bond tightly to wall and floor surfaces.

3.07 CLEANING
   A. Remove excess adhesive from floor, base, and wall surfaces without damage.
   B. Clean in accordance with manufacturer's instructions.

3.08 PROTECTION
   A. Prohibit traffic on resilient flooring for 48 hours after installation.

END OF SECTION
SECTION 09 68 13
TILE CARPETING

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Carpet tile, fully adhered.

1.02 RELATED REQUIREMENTS
   A. Section 01 61 16 - Volatile Organic Compound (VOC) Content Restrictions.
   B. Section 01 74 19 - Construction Waste Management and Disposal: Reclamation/Recycling of new carpet tile scrap.
   C. Section 09 05 61 - Common Work Results for Flooring Preparation: Independent agency testing of concrete slabs, removal of existing floor coverings, cleaning, and preparation.

1.03 REFERENCE STANDARDS
   B. ASTM F710 - Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring; 2011.
   C. CRI (CIS) - Carpet Installation Standard; Carpet and Rug Institute; 2011.

1.04 SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
   B. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns, colors available, and method of installation.
   C. Samples: Submit two carpet tiles illustrating color and pattern design for each carpet color selected.
   D. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning.

1.05 FIELD CONDITIONS
   A. Store materials in area of installation for minimum period of 24 hours prior to installation.

PART 2 PRODUCTS

2.01 MANUFACTURERS
   A. Tile Carpeting:
      2. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 MATERIALS
   A. Tile Carpeting: Tufted, manufactured in one color dye lot.
      1. Tile Size: 18 by 18 inch (450 by 450 mm), nominal.

2.03 ACCESSORIES
   A. Sub-Floor Filler: White premix latex; type recommended by flooring material manufacturer.
   B. Edge Strips: Rubber, color as selected by Architect.
   C. Adhesives:
      1. Compatible with materials being adhered; maximum VOC content of 50 g/L; CRI (GLP) certified; in lieu of labeled product, independent test report showing compliance is acceptable.
   D. Carpet Tile Adhesive: Recommended by carpet tile manufacturer; releasable type.
PART 3 EXECUTION

3.01 EXAMINATION
A. Verify that sub-floor surfaces are smooth and flat within tolerances specified for that type of work and are ready to receive carpet tile.
B. Verify that sub-floor surfaces are dust-free and free of substances that could impair bonding of adhesive materials to sub-floor surfaces.
C. Cementitious Sub-floor Surfaces: Verify that substrates are dry enough and ready for flooring installation by testing for moisture and pH.
   1. Test in accordance with Section 09 05 61.
   2. Obtain instructions if test results are not within limits recommended by flooring material manufacturer and adhesive materials manufacturer.

3.02 PREPARATION
A. Prepare floor substrates for installation of flooring in accordance with Section 09 05 61.

3.03 INSTALLATION
A. Starting installation constitutes acceptance of sub-floor conditions.
B. Install carpet tile in accordance with manufacturer's instructions and CRI (CIS).
C. Blend carpet from different cartons to ensure minimal variation in color match.
D. Cut carpet tile clean. Fit carpet tight to intersection with vertical surfaces without gaps.
E. Lay carpet tile in square pattern, with pile direction parallel to next unit, set parallel to building lines.
F. Fully adhere carpet tile to substrate.
G. Trim carpet tile neatly at walls and around interruptions.
H. Complete installation of edge strips, concealing exposed edges.

3.04 CLEANING
A. Remove excess adhesive without damage, from floor, base, and wall surfaces.
B. Clean and vacuum carpet surfaces.

END OF SECTION
SECTION 09 90 00  
PAINTING AND COATING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Surface preparation.
B. Field application of paints.
C. Scope: Finish all interior and exterior surfaces exposed to view, unless fully factory-finished.
D. Do Not Paint or Finish the Following Items:
   1. Items fully factory-finished unless specifically so indicated; materials and products having factory-applied primers are not considered factory finished.
   2. Items indicated to receive other finishes.
   3. Items indicated to remain unfinished.
   4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
   5. Stainless steel, anodized aluminum, bronze, terne, and lead items.
   6. Floors, unless specifically so indicated.
   7. Ceramic and other tiles.
   8. Glass.
   9. Acoustical materials, unless specifically so indicated.
   10. Concealed pipes, ducts, and conduits.

1.02 RELATED REQUIREMENTS

A. Section 01 61 16 - Volatile Organic Compound (VOC) Content Restrictions.
B. Section 05 50 00 - Metal Fabrications: Shop-primed items.

1.03 REFERENCE STANDARDS

C. SSPC (PM1) - Good Painting Practice: SSPC Painting Manual, Vol. 1; Society for Protective Coatings; Fourth Edition.

1.04 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide complete list of all products to be used, with the following information for each:
   1. Manufacturer's name, product name and/or catalog number, and general product category (e.g. "alkyd enamel").
   2. MPI product number (e.g. MPI #47).
   3. Cross-reference to specified paint system(s) product is to be used in; include description of each system.
   4. Manufacturer's installation instructions.
   5. If proposal of substitutions is allowed under submittal procedures, explanation of all substitutions proposed.
C. Samples: Submit three paper "draw down" samples, 8-1/2 by 11 inches (216 by 279 mm) in size, illustrating range of colors available for each finishing product specified.
   1. Where sheen is specified, submit samples in only that sheen.
   2. Where sheen is not specified, submit each color in each sheen available.
D. Certification: By manufacturer that all paints and coatings comply with VOC limits specified.
E. Manufacturer's Instructions: Indicate special surface preparation procedures.
F. Maintenance Data: Submit data including finish schedule showing where each product/color/finish was used, product technical data sheets, material safety data sheets (MSDS), care and cleaning instructions, touch-up procedures, repair of painted and coated surfaces, and color samples of each color and finish used.

1.05 MOCK-UP
A. See Section 01 40 00 - Quality Requirements, for general requirements for mock-up.
B. Provide door and frame assembly illustrating paint coating color, texture, and finish.
C. Mock-up may remain as part of the work.

1.06 DELIVERY, STORAGE, AND HANDLING
A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
C. Paint Materials: Store at minimum ambient temperature of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.

1.07 FIELD CONDITIONS
A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
C. Do not apply exterior coatings during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.
D. Minimum Application Temperatures for Latex Paints: 45 degrees F (7 degrees C) for interiors; 50 degrees F (10 degrees C) for exterior; unless required otherwise by manufacturer's instructions.
E. Provide lighting level of 80 ft candles (860 lx) measured mid-height at substrate surface.

PART 2 PRODUCTS

2.01 MANUFACTURERS
A. Provide all paint and coating products used in any individual system from the same manufacturer; no exceptions.
B. Paints:
C. Primer Sealers: Same manufacturer as top coats.
D. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 PAINTS AND COATINGS - GENERAL
A. Paints and Coatings: Ready mixed, unless intended to be a field-catalyzed coating.
   1. Provide paints and coatings of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
   2. Supply each coating material in quantity required to complete entire project's work from a single production run.
3. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer’s product instructions.

B. Primers: As follows unless other primer is required or recommended by manufacturer of top coats; where the manufacturer offers options on primers for a particular substrate, use primer categorized as “best” by the manufacturer.
   1. Gypsum Board: Interior Institutional Low Odor/VOC Primer Sealer; MPI #149.
   2. Steel -- Shop Primer: Interior/Exterior Quick Dry Alkyd Primer for Metal; MPI #76.

C. Volatile Organic Compound (VOC) Content:
   1. Provide coatings that comply with the most stringent requirements specified in the following:
      b. Ozone Transport Commission (OTC) Model Rule, Architectural, Industrial, and Maintenance Coatings; www.otcair.org; specifically:
         1) Opaque, Flat: 50 g/L, maximum.
         2) Opaque, Nonflat: 150 g/L, maximum.
         3) Opaque, High Gloss: 250 g/L, maximum.
         4) Varnishes: 350 g/L, maximum.
      c. Architectural coatings VOC limits of California.
   2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.

D. Chemical Content: The following compounds are prohibited:
   1. Aromatic Compounds: In excess of 1.0 percent by weight of total aromatic compounds (hydrocarbon compounds containing one or more benzene rings).
   2. Acrolein, acrylonitrile, antimony, benzene, butyl benzyl phthalate, cadmium, di (2-ethylhexyl) phthalate, di-n-butyl phthalate, di-n-octyl phthalate, 1,2-dichlorobenzene, diethyl phthalate, dimethyl phthalate, ethylbenzene, formaldehyde, hexavalent chromium, isophorone, lead, mercury, methyl ethyl ketone, methyl isobutyl ketone, methylene chloride, naphthalene, toluene (methylbenzene), 1,1,1-trichloroethane, vinyl chloride.

E. Flammability: Comply with applicable code for surface burning characteristics.

F. Sheens: Provide the sheens specified; where sheen is not specified, sheen will be selected later by Architect from the manufacturer's full line.

G. Colors: To be selected from manufacturer's full range of available colors.
   1. Selection to be made by Architect after award of contract.
   2. Allow for minimum of three colors for each system, unless otherwise indicated, without additional cost to Owner.
   3. Extend colors to surface edges; colors may change at any edge as directed by Architect.
   4. In finished areas, finish pipes, ducts, conduit, and equipment the same color as the wall/ceiling they are mounted on/under.

2.03 PAINT SYSTEMS - EXTERIOR

A. All Exterior Surfaces Indicated to be Painted, Unless Otherwise Indicated: Including primed metal.
   1. Preparation as specified by manufacturer.
   2. Two top coats and one coat primer recommended by manufacturer.

B. Gypsum Board and Plaster, Opaque, Alkyd, 3 Coat:
   1. One coat of alkyd primer sealer.
   2. Flat: Two coats of alkyd enamel.

C. Ferrous Metals, Primed, Alkyd, 2 Coat:
   1. Touch-up with rust-inhibitive primer recommended by top coat manufacturer.
2.04 PAINT SYSTEMS - INTERIOR
A. Paint I-OP - All Interior Surfaces Indicated to be Painted, Unless Otherwise Indicated: Including gypsum board.
   1. Two top coats and one coat primer.
   2. Top Coat(s): High Performance Architectural Interior Latex; MPI #138-141.
   3. Velvet: MPI gloss level 2; use this sheen at all locations.
   4. Semi-Gloss: MPI gloss level 5; use this sheen at all locations.
   5. Primer(s): As recommended by manufacturer of top coats.
B. Medium Duty Door/Trim: For surfaces subject to frequent contact by occupants, including metals:
   1. Two top coats and one coat primer.
   2. Top Coat(s): Interior Epoxy-Modified Latex; MPI #115, 215.
C. Heavy Duty Vertical and Overhead: Including gypsum board.
   1. Applications: See Finish Schedule.
   2. Two top coats and one coat primer; primer may be omitted if top coat manufacturer approves.
   3. Primer(s): As recommended by manufacturer of top coats.

2.05 ACCESSORY MATERIALS
A. Accessory Materials: Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required to achieve the finishes specified whether specifically indicated or not; commercial quality.
B. Patching Material: Latex filler.
C. Fastener Head Cover Material: Latex filler.

PART 3 EXECUTION
3.01 EXAMINATION
A. Do not begin application of coatings until substrates have been properly prepared.
B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
D. Test shop-applied primer for compatibility with subsequent cover materials.
E. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
   1. Gypsum Wallboard: 12 percent.
   2. Plaster and Stucco: 12 percent.

3.02 PREPARATION
A. Clean surfaces thoroughly and correct defects prior to coating application.
B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
D. Seal surfaces that might cause bleed through or staining of topcoat.
E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
F. Gypsum Board Surfaces to be Painted: Fill minor defects with filler compound. Spot prime defects after repair.
G. Plaster Surfaces to be Painted: Fill hairline cracks, small holes, and imperfections with latex patching plaster. Make smooth and flush with adjacent surfaces. Wash and neutralize high alkali surfaces.
H. Shop-Primed Steel Surfaces to be Finish Painted: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces. Re-prime entire shop-primed item.

I. Metal Doors to be Painted: Prime metal door top and bottom edge surfaces.

3.03 APPLICATION

A. Apply products in accordance with manufacturer's instructions.

B. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.

C. Apply each coat to uniform appearance.

D. Dark Colors and Deep Clear Colors: Regardless of number of coats specified, apply as many coats as necessary for complete hide.

E. Sand metal surfaces lightly between coats to achieve required finish.

F. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.

G. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.04 FIELD QUALITY CONTROL

A. See Section 01 40 00 - Quality Requirements, for general requirements for field inspection.

B. Owner will provide field inspection.

3.05 CLEANING

A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.06 PROTECTION

A. Protect finished coatings until completion of project.

B. Touch-up damaged coatings after Substantial Completion.

END OF SECTION
SECTION 10 14 00
SIGNAGE

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Building identification signs.

1.02 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Manufacturer's printed product literature for each type of sign, indicating sign styles, font, foreground and background colors, locations, overall dimensions of each sign.
C. Samples: Submit two samples of each type of sign, of size similar to that required for project, illustrating sign style, font, and method of attachment.
D. Selection Samples: Where colors are not specified, submit two sets of color selection charts or chips.
E. Manufacturer's Installation Instructions: Include installation templates and attachment devices.

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

1.04 DELIVERY, STORAGE, AND HANDLING
A. Package signs as required to prevent damage before installation.

PART 2 PRODUCTS

2.01 MANUFACTURERS
A. Dimensional Letter Signs:
   2. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 SIGNAGE APPLICATIONS
A. Building Identification Signs:
   1. Use individual metal letters.
   2. Mount on outside wall in location shown on drawings.

2.03 SIGN TYPES
A. Color and Font: Unless otherwise indicated:
   1. Character Font: Helvetica, Arial, or other sans serif font.
   2. Character Case: Upper case only.
   3. Character Color: Contrasting color.

2.04 DIMENSIONAL LETTERS
A. Metal Letters:
   1. Mounting: Concealed screws.

2.05 ACCESSORIES
A. Concealed Screws: Stainless steel, galvanized steel, chrome plated, or other non-corroding metal.

PART 3 EXECUTION

3.01 INSTALLATION
A. Install in accordance with manufacturer's instructions.
B. Install neatly, with horizontal edges level.
C. Locate signs where indicated:
D. Protect from damage until Substantial Completion; repair or replace damage items.

END OF SECTION
SECTION 10 21 13.13
METAL TOILET COMPARTMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Metal toilet compartments.

1.02 REFERENCE STANDARDS
A. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2015.

1.03 ADMINISTRATIVE REQUIREMENTS
A. Coordination: Coordinate the work with placement of support framing and anchors in walls and ceilings.

1.04 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Shop Drawings: Indicate partition plan, elevation views, dimensions, details of wall, floor, and ceiling supports, door swings.
C. Product Data: Provide data on panel construction, hardware, and accessories.

PART 2 PRODUCTS

2.01 MANUFACTURERS
A. Metal Toilet Compartments:
   2. Substitutions: Section 01 60 00 - Product Requirements.

2.02 MATERIALS
A. Stainless Steel Sheet: ASTM A666, Type 304.

2.03 COMPONENTS
A. Toilet Compartments: Stainless steel, floor-to-ceiling.
B. Doors, Panels, and Pilasters: Sheet steel faces, pressure bonded to sound deadening core, formed and closed edges; corners made with corner clips or mitered, welded, and ground smooth.
   1. Panel Faces: 22 gage, 0.0299 inch (0.76 mm).
   2. Door Faces: 22 gage, 0.0299 inch (0.76 mm).
   3. Pilaster Faces: 22 gage, 0.0299 inch (0.76 mm).
   4. Internal Reinforcement: Provide in areas of attached hardware and fittings. Mark locations of reinforcement for partition mounted washroom accessories.
C. Door and Panel Dimensions:
   1. Thickness: 1 inch (25 mm).
   2. Door Width for Handicapped Use: 36 inch (915 mm), out-swinging.
   3. Height: 58 inch (1473 mm).
D. Pilasters: 1-1/4 inch (32 mm) thick, of sizes required to suit compartment width and spacing.

2.04 ACCESSORIES
A. Pilaster Shoes: Formed chromed steel with polished finish, 3 inch (175 mm) high, concealing floor fastenings.
   1. Provide adjustment for floor variations with screw jack through steel saddles integral with pilaster.
   2. Provide ceiling attachment using two adjustable hanging studs, attached to above-ceiling framing.
B. Brackets: Polished chrome-plated non-ferrous cast metal.
C. Attachments, Screws, and Bolts: Stainless steel, tamper proof type.
   1. For attaching panels and pilasters to brackets: Through-bolts and nuts; tamper proof.
D. Hardware: Polished chrome plated non-ferrous cast metal:
   1. Pivot hinges, gravity type, adjustable for door close positioning; two per door.
   2. Thumb turn or sliding door latch with exterior emergency access feature.
   3. Door strike and keeper with rubber bumper; mounted on pilaster in alignment with door latch.
   4. Provide door pull for outswinging doors.

2.05 FINISHING
A. Stainless Steel Compartments: No. 4 finish.

PART 3 EXECUTION

3.01 EXAMINATION
A. Verify that field measurements are as indicated.
B. Verify correct location of built-in framing, anchorage, and bracing.

3.02 INSTALLATION
A. Install partitions secure, rigid, plumb, and level in accordance with manufacturer's instructions.
B. Maintain 3/8 to 1/2 inch (9 to 13 mm) space between wall and panels and between wall and end pilasters.
C. Attach panel brackets securely to walls using anchor devices.
D. Attach panels and pilasters to brackets. Locate head rail joints at pilaster center lines.

3.03 TOLERANCES
A. Maximum Variation From True Position: 1/4 inch (6 mm).
B. Maximum Variation From Plumb: 1/8 inch (3 mm).

3.04 ADJUSTING
A. Adjust and align hardware to uniform clearance at vertical edge of doors, not exceeding 3/16 inch (5 mm).
B. Adjust hinges to position doors in full closed position when unlatched. Return out swinging doors to closed position.

END OF SECTION
SECTION 10 26 01
WALL AND CORNER GUARDS

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Corner guards.

1.02 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Product Data: Indicate physical dimensions, features, anchorage details, and rough-in measurements.
C. Samples: Submit two sections of corner guard, 24 inch (600 mm) long, illustrating component design, configuration, color and finish.

PART 2 PRODUCTS

2.01 MANUFACTURERS
A. Wall and Corner Guards:

2.02 COMPONENTS
A. Corner Guards - Surface Mounted: High impact vinyl with extruded aluminum full height retainer and integral impact absorbing device.
   1. Performance: Resist lateral impact force of 100 lbs (445 N) at any point without damage or permanent set.
   2. Size: 2 inches (51 mm).
   3. Corner: Square.
   4. Color: As selected from manufacturer's standard colors.
   5. Length: One piece.
   6. Preformed end caps.

2.03 FABRICATION
A. Fabricate components with tight joints, corners and seams.
B. Pre-drill holes for attachment.
C. Form end trim closure by capping and finishing smooth.

PART 3 EXECUTION

3.01 EXAMINATION
A. Verify that rough openings, concealed blocking, and anchors are correctly sized and located.
B. Verify that field measurements are as indicated on Drawings.

3.02 INSTALLATION
A. Install components in accordance with manufacturer's instructions, level and plumb, secured rigidly in position to wall framing members only.

END OF SECTION
SECTION 10 28 00
TOILET, BATH, AND LAUNDRY ACCESSORIES

PART 1  GENERAL
1.01  SECTION INCLUDES
   A. Accessories for toilet rooms.
   B. Grab bars.

1.02  RELATED REQUIREMENTS
   A. Section 09 30 00 - Tiling: Ceramic washroom accessories.
   B. Section 10 21 13.13 - Metal Toilet Compartments.

1.03  REFERENCE STANDARDS
   C. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2015.

1.04  ADMINISTRATIVE REQUIREMENTS
   A. Coordinate the work with the placement of internal wall reinforcement, concealed ceiling supports, and reinforcement of toilet partitions to receive anchor attachments.

1.05  SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
   B. Product Data: Submit data on accessories describing size, finish, details of function, and attachment methods.
   C. Manufacturer's Installation Instructions: Indicate special procedures and conditions requiring special attention.

PART 2  PRODUCTS
2.01  MANUFACTURERS
   A. Toilet Accessories:
      3. Substitutions: Section 01 60 00 - Product Requirements.

2.02  MATERIALS
   A. Accessories - General: Shop assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.
   B. Stainless Steel Sheet: ASTM A666, Type 304.
   C. Mirror Glass: Annealed float glass, ASTM C1036 Type I, Class 1, Quality Q2, with silvering, protective and physical characteristics complying with ASTM C1503.
   D. Fasteners, Screws, and Bolts: Hot dip galvanized; tamper-proof; security type.

2.03  FINISHES
   A. Stainless Steel: No. 4 Brushed finish, unless otherwise noted.

2.04  TOILET ROOM ACCESSORIES
   A. Toilet Paper Dispenser: Single roll, semi-recessed, stainless steel unit with pivot hinge, tumbler lock.
B. Combination Towel Dispenser/Waste Receptacle: Recessed flush with wall, stainless steel; seamless wall flanges, continuous piano hinges, tumbler locks on upper and lower doors.
   1. Waste receptacle liner: Reusable, heavy-duty vinyl.
   2. Towel dispenser capacity: 400 C-fold.

C. Soap Dispenser: Liquid soap dispenser, wall-mounted, surface, with stainless steel cover and horizontal stainless steel tank and working parts; push type soap valve, check valve, and window gage refill indicator, tumbler lock.

D. Mirrors: Stainless steel framed, 1/4 inch (6 mm) thick annealed float glass; ASTM C1036.
   1. Shelf: Stainless steel; gage and finish to match mirror frame, turned down edges, welded to frame; 5 inches (125 mm) deep, full width of mirror.

E. Seat Cover Dispenser: Stainless steel, surface-mounted, reloading by concealed opening at base, tumbler lock.

F. Grab Bars: Stainless steel, nonslip grasping surface finish.
   1. Heavy Duty Grab Bars: Floor supports are not acceptable.
      a. Push/Pull Point Load: Minimum 1000 pound-force (4448.2 N), minimum.
      b. Dimensions: 1-1/2 inch (38 mm) outside diameter, minimum 0.125 inch (3.17 mm) wall thickness, exposed flange mounting, 1-1/2 inch (38 mm) clearance between wall and inside of grab bar.
      c. Length and Configuration: As indicated on drawings.

G. Sanitary Napkin Disposal Unit: Stainless steel, surface-mounted, self-closing door, locking bottom panel with full-length stainless steel piano-type hinge, removable receptacle.

PART 3 EXECUTION

3.01 EXAMINATION
   A. Verify existing conditions before starting work.
   B. Verify exact location of accessories for installation.
   C. Verify that field measurements are as indicated on drawings.

3.02 PREPARATION
   A. Deliver inserts and rough-in frames to site for timely installation.
   B. Provide templates and rough-in measurements as required.

3.03 INSTALLATION
   A. Install accessories in accordance with manufacturers’ instructions in locations indicated on the drawings.
   B. Install plumb and level, securely and rigidly anchored to substrate.
   C. Mounting Heights: As required by accessibility regulations, unless otherwise indicated.
      1. Grab Bars: As indicated on the drawings.
      2. Other Accessories: As indicated on the drawings.

3.04 PROTECTION
   A. Protect installed accessories from damage due to subsequent construction operations.

END OF SECTION
SECTION 10 44 00
FIRE PROTECTION SPECIALTIES

PART 1 GENERAL

1.01 SECTION INCLUDES
A. Fire extinguishers.
B. Fire extinguisher cabinets.
C. Accessories.

1.02 REFERENCE STANDARDS

1.03 SUBMITTALS
A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
B. Shop Drawings: Indicate cabinet physical dimensions.
C. Product Data: Provide color and finish.

PART 2 PRODUCTS

2.01 MANUFACTURERS
A. Fire Extinguishers:
   3. Substitutions: See Section 01 60 00 - Product Requirements.
B. Fire Extinguisher Cabinets and Accessories:
   4. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 FIRE EXTINGUISHERS
A. Fire Extinguishers - General: Comply with product requirements of NFPA 10 and applicable codes, whichever is more stringent.
B. Dry Chemical Type Fire Extinguishers: Carbon steel tank, with pressure gage.
   1. Class: A:B:C.
   2. Size: 5 pound (2.27 kg).
   3. Finish: Baked polyester powder coat, color as selected.

2.03 FIRE EXTINGUISHER CABINETS
A. Metal: Formed stainless steel sheet; 0.036 inch (0.9 mm) thick base metal.
B. Cabinet Configuration: Semi-recessed type.
   1. Sized to accommodate accessories.
C. Door: 0.036 inch (0.9 mm) thick, reinforced for flatness and rigidity; latch. Hinge doors for 180 degree opening with two butt hinge. Provide nylon catch.
D. Door Glazing: Plastic, clear, 1/8 inch (3 mm) thick acrylic. Set in resilient channel gasket glazing.
E. Cabinet Mounting Hardware: Appropriate to cabinet. Pre-drill for anchors.
F. Finish of Cabinet Interior: White enamel.

2.04 ACCESSORIES
A. Cabinet Signage: Dimensional signage mounted above cabinet; lettering on glass in cabinet.
PART 3 EXECUTION

3.01 EXAMINATION
   A. Verify existing conditions before starting work.
   B. Verify rough openings for cabinet are correctly sized and located.

3.02 INSTALLATION
   A. Install in accordance with manufacturer's instructions.
   B. Install cabinets plumb and level in wall openings, 48 inches (1219 mm) from finished floor to top of operable portion of extinguisher.
   C. Secure rigidly in place.
   D. Place extinguishers in cabinets.

END OF SECTION
SECTION 10 51 00
LOCKERS

PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Metal lockers.

1.02 REFERENCE STANDARDS
   A. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2015.

1.03 SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
   B. Product Data: Manufacturer's published data on locker construction, sizes and accessories.
   C. Shop Drawings: Indicate locker plan layout, numbering plan.

1.04 DELIVERY, STORAGE, AND HANDLING
   A. Protect locker finish and adjacent surfaces from damage.

PART 2 PRODUCTS

2.01 MANUFACTURERS
   A. Metal Lockers:
      1. Tiffin Metal Products; Sentinel Law Enforcement Lockers - Airflow Wardrobe Locker: www.tiffinmetal.com..
      2. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 METAL LOCKERS
   A. Lockers: Factory assembled, made of formed sheet steel, ASTM A653/A653M SS Grade 33/230, with G60/Z180 coating, stretcher leveled; metal edges finished smooth without burrs; baked enamel finished inside and out.
      1. Color: To be selected by Architect; allow for contrasting colors for locker bodies and doors.
   B. Locker Body: Formed and flanged; with steel stiffener ribs; electric spot welded.
   C. Frames: Formed channel shape, welded and ground flush, welded to body, resilient gaskets and latching for quiet operation.
      1. Door Frame: 16 gage, 0.0598 inch (1.52 mm), minimum.
   D. Doors: Hollow double pan, sandwich construction, 1-3/16 inch (30 mm) thick; welded construction, channel reinforced top and bottom with intermediate stiffener ribs, grind and finish edges smooth.
      1. Door Outer Face: 18 gage, 0.0478 inch (1.21 mm), minimum.
      2. Door Inner Face: 20 gage, 0.0359 inch (0.91 mm), minimum.
      3. Form recess for operating handle and locking device.
   E. Hinges: Two for doors under 42 inches (1 050 mm) high; three for doors over 42 inches (1 050 mm) high; weld securely to locker body and door.
      1. Hinge Thickness: 14 gage, 0.0747 inch (1.90 mm).
   F. Number Plates: Provide oval shaped aluminum plates. Form numbers 1 inch (___ mm) high of block font style, in contrasting color.

PART 3 EXECUTION

3.01 INSTALLATION
   A. Install in accordance with manufacturer's instructions.
   B. Install lockers plumb and square.
C. Bolt adjoining locker units together to provide rigid installation.
D. Replace components that do not operate smoothly.

3.02 CLEANING
A. Clean locker interiors and exterior surfaces.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES
   A. Manufacturer-engineered, shop-fabricated structural steel building frame.
   B. Exterior doors, windows, skylights, overhead doors, and louvers.

1.02 RELATED REQUIREMENTS
   A. Section 07 92 00 - Joint Sealants: Sealing joints between accessory components and wall system.
   B. Section 08 11 13 - Hollow Metal Doors and Frames.
   C. Section 08 51 13 - Aluminum Windows.
   D. Section 08 80 00 - Glazing.

1.03 REFERENCE STANDARDS
   F. ASTM A325M - Standard Specification for Structural Bolts, Steel, Heat Treated 830 MPa Tensile Strength (Metric); 2014.
   G. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2013.
   K. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; American Welding Society; 2012.

1.04 ADMINISTRATIVE REQUIREMENTS
   A. Preinstallation Meeting: Convene one week before starting work of this section.

1.05 SUBMITTALS
   A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
   B. Shop Drawings: Indicate assembly dimensions, locations of structural members, connections; wall and roof system dimensions, panel layout, general construction details, anchorages and method of anchorage, installation; framing anchor bolt settings, sizes, and locations from
datum, foundation loads; indicate welded connections with AWS A2.4 welding symbols; indicate net weld lengths; provide professional seal and signature.

C. Erection Drawings: Indicate members by label, assembly sequence, and temporary erection bracing.

1.06 QUALITY ASSURANCE
A. Design structural components, develop shop drawings, and perform shop and site work under direct supervision of a Professional Structural Engineer experienced in design of this Work.
   1. Design Engineer Qualifications: Licensed in California.
   2. Conform to applicable code for submission of design calculations as required for acquiring permits.
   3. Cooperate with regulatory agency or authority and provide data as requested.
B. Manufacturer Qualifications: Company specializing in the manufacture of products similar to those required for this project.
   1. Not less than 10 years of documented experience

1.07 WARRANTY
A. See Section 01 78 00 - Closeout Submittals, for additional warranty requirements.
B. Correct defective Work within a five year period after Date of Substantial Completion.

PART 2 PRODUCTS
2.01 MATERIALS - FRAMING
A. Structural Steel Members: ASTM A36/A36M.
B. Structural Tubing: ASTM A500/A500M, Grade B cold-formed.
C. Anchor Bolts: ASTM A307, galvanized to ASTM A153/A153M.
D. Bolts, Nuts, and Washers: ASTM A325 or ASTM A325M, Type 1, galvanized to ASTM A153/A153M, Class C.
E. Welding Materials: Type required for materials being welded.
F. Grout: ASTM C1107/C1107M, Non-shrink type, premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents, capable of developing minimum compressive strength of 2400 psi (17 MPa) in two days and 7000 psi (48 MPa) in 28 days.

2.02 ACCESSORY COMPONENTS
B. Windows: Specified in Section 08 51 13.

2.03 DESIGN CRITERIA
B. Installed Thermal Resistance of Roof System: R-value of 30 (RSI-value of 5.3).
C. Design members to withstand dead load, and design loads due to pressure and suction of wind calculated in accordance with applicable code.
D. Design members to withstand UL 580 Uplift Class 90.

2.04 FINISHES
A. Framing Members: Clean, prepare, and shop prime. Do not prime surfaces to be field welded.

PART 3 EXECUTION
3.01 EXAMINATION
A. Verify that foundation, floor slab, mechanical and electrical utilities, and placed anchors are in correct position.

3.02 ERECTION - FRAMING
A. Erect framing in accordance with AISC 360.
B. Provide for erection and wind loads. Provide temporary bracing to maintain structure plumb and in alignment until completion of erection and installation of permanent bracing.
C. Set column base plates with non-shrink grout to achieve full plate bearing.
D. Do not field cut or alter structural members without approval.
E. After erection, prime welds, abrasions, and surfaces not shop primed.

3.03 INSTALLATION - ACCESSORY COMPONENTS IN WALL SYSTEM
   A. Install door frames, doors, and windows and glass in accordance with manufacturer's instructions.

3.04 TOLERANCES
   A. Framing Members: 1/4 inch (6 mm) from level; 1/8 inch (3 mm) from plumb.
   B. Siding and Roofing: 1/8 inch (3 mm) from true position.

END OF SECTION
ADDITIONAL DOCUMENTS

DESIGN CRITERIA (Contra Costa College):

Building Type:

A. General: Relocatable buildings shall consist of prefabricated modules, including roof, walls, floors, doors, windows and electrical and mechanical services. Each module shall be designed as a rigid frame in each direction to the degree that it will support at least the "normal" lateral loadings (wind and seismic) and associated gravity loads, but may utilize shear walls to supplement or take the place of the rigid frame for lateral loads imposed. The relocatable buildings shall also have sufficient capacity to support both the gravity and lateral loads imposed by the over-framed site built structure.

B. Layout: Arrange modules as shown on drawings. Manufacturer’s standard component parts may be used, providing components, accessories and completed buildings conform to architectural design shown and requirements specified hereinafter.

C. Each Module Shall Conform to the Following Requirements:

1. General: Be capable of being shipped in knockdown or stand-up position; equipped with castings or other interconnecting pieces for accurate and easy field assembly, if the knockdown option is used.

2. Adjacent Modules: Be designed to connect to adjacent module with minimum amount of connections to form an integral building unit.

3. Transportation: Be capable of being conveniently transported as a unit on State or National Highways on stock equipment, or by attachment of trailer hitch and wheels to structural frame, without special permit.

Building Design Requirements:

A. General: Manufacturer shall have detailed drawings and specifications prepared for buildings to be furnished under this section, including all mechanical and electrical items. These documents shall be prepared by California registered Architect or Structural Engineer, herein-after called "Building Design Architect" or "Building Design Engineer". Drawings called for herein shall be in addition to shop drawings required under individual sections of the specifications. Drawings shall indicate the module serial number for each module and the location of the Module Serial Number Identification Plate.

B. Design Criteria: All work shall meet requirements of 2013 CBC and the Education Code, State of California.

Live Loads:  Roof - 20 psf reducible
           Floor Offices - 50 psf
           Floor Lobbies & Corridors – 100 psf
           Floor Storage – 125 psf

Wind: Exposure – C
       Basic Wind Speed – 115 mph
       Risk Category – III

Seismic: Site Class – D
         Ss – 2.476
S₁ – 1.029  
S₀₀₅ – 1.651  
S₀₁ – 1.029  
Risk Category – III  
Seismic Design Category – D  
Importance Factor – 1.25  

C. Approval: Successful bidder shall submit to Owner's Architect four copies of Drawings and two copies of Calculations, and other supporting documents prepared under A. above prior to doing any other work related to this project. These documents will be reviewed by Owner's Architect and required corrections, if any, shall be made by successful bidder before any filing with DSA, State of California. Filing fee will be paid by Owner. Successful bidder shall make all changes or corrections required by DSA and will deliver to Owner's Architect all original reproducible transparencies of approved drawings and calculations. Drawings become property of Owner.  

D. Fabrication or Erection: Shall not begin prior to approval of detail drawings and specifications by Owner's Architect and DSA. However, submittals and shop drawing processing may begin upon receipt of "start" letter. Approval of submittals subject to DSA review (e.g., roofing, suspended ceiling systems, finish materials) will be done subject to conditions of DSA approval of final plans and specifications. DSA approval procedures may require re-submittals of DSA-rejected materials.  

E. Wall Loads: Exterior walls shall be designed to withstand wind loads perpendicular to wall plane associated with Wind Loads noted in the Design Criteria; this requirement applies to all exterior walls of building section even though present configuration of building may be such that some of these walls are not exposed to wind. Interior walls shall be designed to withstand loads perpendicular to wall plane of 5 psf; interior walls are all walls other than exterior walls.  

F. Floors: Design live load shall be as noted in the Design Criteria. All floors shall be designed as diaphragms as required for resisting applied horizontal loads.  

G. Roofs: Design live load shall be as noted in the Design Criteria. All roofs shall be designed as diaphragms as required for resisting applied horizontal loads.  

H. Foundations:  
1. Anchorage: Modules shall be detailed to provide positive anchorages to foundations to resist all vertical and horizontal forces.  
2. Clearance: Building units shall be installed using manufacturer's standard minimum clearance between underside of frame and grade, plus size of foundation beams.  
3. Load: For purposes of proper design of foundations, total load pressure shall not be in excess of 1,500 psf unless noted otherwise in the owner provided geotechnical/geo-hazards report.  

I. Fabrication: Fabrication criteria shall be such that building shall be weather tight; with modules easily assembled into a building.  

J. Loading: Wherever stacks of material, erection equipment or other loads are carried by work during construction, make provisions to take care of stresses and strains resulting. Keep temporary bracing in place until permanent walls and roofs are completed; provide temporary bracing sufficient to keep structure stable, plumb and in line until completed. Place temporary bracing to allow freedom of workmen in building and erecting other work.
DESIGN CRITERIA (Los Medanos College):

I. Building Type:

A. General: Relocatable buildings shall consist of prefabricated modules, including roof, walls, floors, doors, windows and electrical and mechanical services. Each module shall be designed as a rigid frame in each direction to the degree that it will support at least the "normal" lateral loadings (wind and seismic) and associated gravity loads, but may utilize shear walls to supplement or take the place of the rigid frame for lateral loads imposed. The relocatable buildings shall also have sufficient capacity to support both the gravity and lateral loads imposed by the over-framed site built structure.

B. Layout: Arrange modules as shown on drawings. Manufacturer's standard component parts may be used, providing components, accessories and completed buildings conform to architectural design shown and requirements specified hereinafter.

C. Each Module Shall Conform to the Following Requirements:

1. General: Be capable of being shipped in knockdown or stand-up position; equipped with castings or other interconnecting pieces for accurate and easy field assembly, if the knockdown option is used.

2. Adjacent Modules: Be designed to connect to adjacent module with minimum amount of connections to form an integral building unit.

3. Transportation: Be capable of being conveniently transported as a unit on State or National Highways on stock equipment, or by attachment of trailer hitch and wheels to structural frame, without special permit.

II. Building Design Requirements:

A. General: Manufacturer shall have detailed drawings and specifications prepared for buildings to be furnished under this section, including all mechanical and electrical items. These documents shall be prepared by California registered Architect or Structural Engineer, herein-after called "Building Design Architect" or "Building Design Engineer". Drawings called for herein shall be in addition to shop drawings required under individual sections of the specifications. Drawings shall indicate the module serial number for each module and the location of the Module Serial Number Identification Plate.

B. Design Criteria: All work shall meet requirements of 2013 CBC and the Education Code, State of California.

Live Loads: Roof - 20 psf reducible
Floor Offices - 50 psf
Floor Lobbies & Corridors – 100 psf
Floor Storage – 125 psf

Wind: Exposure – C
Basic Wind Speed – 115 mph
Risk Category – III

Seismic: Site Class – D
S0 – 1.684
S1 – 0.600
S0S – 1.123
S01 – 0.600
Risk Category – III
Seismic Design Category – D
Importance Factor – 1.25

C. Approval: Successful bidder shall submit to Owner's Architect four copies of Drawings and two copies of Calculations, and other supporting documents prepared under A. above prior to doing any other work related to this project. These documents will be reviewed by Owner's Architect and required corrections, if any, shall be made by successful bidder before any filing with DSA, State of California. Filing fee will be paid by Owner. Successful bidder shall make all changes or corrections required by DSA and will deliver to Owner's Architect all original reproducible transparencies of approved drawings and calculations. Drawings become property of Owner.

D. Fabrication or Erection: Shall not begin prior to approval of detail drawings and specifications by Owner's Architect and DSA. However, submittals and shop drawing processing may begin upon receipt of "start" letter. Approval of submittals subject to DSA review (e.g., roofing, suspended ceiling systems, finish materials) will be done subject to conditions of DSA approval of final plans and specifications. DSA approval procedures may require re-submittals of DSA-rejected materials.

E. Wall Loads: Exterior walls shall be designed to withstand wind loads perpendicular to wall plane associated with Wind Loads noted in the Design Criteria; this requirement applies to all exterior walls of building section even though present configuration of building may be such that some of these walls are not exposed to wind. Interior walls shall be designed to withstand loads perpendicular to wall plane of 5 psf; interior walls are all walls other than exterior walls.

F. Floors: Design live load shall be as noted in the Design Criteria. All floors shall be designed as diaphragms as required for resisting applied horizontal loads.

G. Roofs: Design live load shall be as noted in the Design Criteria. All roofs shall be designed as diaphragms as required for resisting applied horizontal loads.

H. Foundations:

1. Anchorage: Modules shall be detailed to provide positive anchorages to foundations to resist all vertical and horizontal forces.

2. Clearance: Building units shall be installed using manufacturer's standard minimum clearance between underside of frame and grade, plus size of foundation beams.

3. Load: For purposes of proper design of foundations, total load pressure shall not be in excess of 1,500 psf unless noted otherwise in the owner provided geotechnical/geo-hazards report.

I. Fabrication: Fabrication criteria shall be such that building shall be weather tight; with modules easily assembled into a building.

J. Loading: Wherever stacks of material, erection equipment or other loads are carried by work during construction, make provisions to take care of stresses and strains resulting. Keep temporary bracing in place until permanent walls and roofs are completed; provide temporary bracing sufficient to keep structure stable, plumb and in line until completed. Place temporary bracing to allow freedom of workmen in building and erecting other work.