

**SECTION 01010  
SUMMARY OF WORK**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

- A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Division 1 Specification Sections shall apply to this Section without limitation.

**1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01290 – “Payment Procedures”
- B. Section 01310 – “Construction Scheduling”
- C. Section 01312 – “Project Meetings”
- D. Section 01330 – “Submittal Procedures”
- E. Section 01400 – “Quality Control Requirements”
- F. Section 01540 – “Site Security and Safety”
- G. Section 01770 – “Contract Closeout Procedures”
- H. Section 01780 – “Project Record Documents”
- I. Divisions 2 through 16 Sections for Summary of Work requirements for the work in those Sections.

**1.3 WORK DESCRIPTIONS WITHOUT FORCE**

- A. All general descriptions and/or general summaries of the work noted in this section, or elsewhere within the Contract Documents, are without force and effect on the Contract Work described and indicated in detail the Construction Documents. These general descriptions and summaries are for general reference and descriptive purposes only and in no way offer the complete and concise description of all the Work required by the Contract Documents.

**1.4 WORK COVERED BY CONTRACT DOCUMENTS**

- A. Work of this Contract: The project will include providing and installing 400+ signs throughout the campus.

**1.5 CONTRACTS**

- A. Perform the work under a single, fixed-price Contract.

**1.6 WORK BY DISTRICT AND SEPARATE CONTRACTORS**

- A. Items noted “NIC” (Not in Contract) will either be furnished and installed by District or provided under separate contracts. Coordinate with work of District and these separate contracts.

**1.7 WORK SEQUENCE**

- A. Construct Work in Phases as shown in the Contract Documents. Coordinate construction schedule and construction operations with District and the Architect.
- B. The Work shall be carried out so that the entire work is complete within the required time. See Section 01015, Project Phasing, if applicable.
- C. During construction operations, adjacent facilities will be occupied and their functions maintained. Contractor shall take all measures necessary to avoid any impacts to campus operations.
- D. Scheduling of Contractor's use of the areas and times involved shall be determined in cooperation with the District. See Sections 01015 Project Phasing and 01416 Special Procedures, if applicable.

**1.8 ADDITIONAL WORK SCHEDULE REQUIREMENTS**

- A. Contractor shall notify the District, Architect, Project Manager, Buildings and Grounds Manager and Campus Police Services, 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 campus or public thoroughfares, parking areas, driveways and walkways. Contractor must obtain written permission prior to effecting such closures and interruptions. See Sections 01015, Project Phasing for further details.
- B. See also Sections 01015 Project Phasing, if applicable, and 01310 Construction Scheduling.

**1.9 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.

**1.10 USE OF PREMISES**

- A. Contractor shall only use the premises for work, storage, staging areas, and vehicular parking as designated in the Contract Documents.
- B. If the areas on the premises designated in the Contract Documents are not sufficient for staging and storage, Contractor shall obtain and pay for the use of additional staging and storage areas as needed, without adjustments to Contract Sum or Contract Time. If the areas on the premises designated in the Contract Documents are not sufficient for vehicular parking, the Contractor shall coordinate with the District Project Manager to locate additional parking on the premises as needed. If additional on-premises parking cannot be identified, the Contractor and the District shall negotiate alternative parking or personnel transportation arrangements.

**1.11 PROTECTION OF EXISTING STRUCTURES AND UTILITIES**

- A. The Drawings may not show all existing water, gas, electrical, and hot water lines, and other items known or suspected to exist in the area of the work.
- B. Contractor shall locate these installations before proceeding with demolition or other operations which may cause damage, maintain them in service where appropriate, and repair damage caused by the performance of the Work, at no increase in the Contract Sum.

- C. In addition to notification, if a structure or utility is damaged, take appropriate action as specified in the General Conditions.

**1.12 USE AND OCCUPANCY OF WORK PRIOR TO ACCEPTANCE BY DISTRICT**

- A. The District may use and occupy the building before formal acceptance under the following conditions:
  - 1. A Certificate of Substantial Completion shall be prepared and executed as provided in the Contract Documents. See Section 01770 Contract Closeout Procedures. The Certificate of Substantial Completion shall be accompanied by a written endorsement of the Contractor's insurance carrier and surety permitting occupancy by the District during the remaining period of the work.
  - 2. Occupancy by the District shall not be construed as being an acceptance of that part of the Work occupied.
  - 3. The Contractor will not be held responsible for damage to the occupied part of the Work resulting from the District's occupancy.
  - 4. Occupancy by the District shall not be deemed to constitute a waiver of existing claims the District or Contractor may have against each other.
  - 5. Comply with Specification Section 01740, Warranties/Guaranties, and 01770 Contract Closeout Procedures for the Work or any Phase of Work.
  - 6. The District will pay for utility costs associated with occupancy during construction.

**1.14 NOISE CONTROL**

- A. See Section 01416, Special Procedures, for Noise Control requirements.

**1.15 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.

**1.16 MISCELLANEOUS PROVISIONS**

- A. Items shown or scheduled to be salvaged will remain the property of the District. Store as directed by the Project Manager.

**PART 2 - PRODUCTS**

Not Used.

**PART 3 - EXECUTION**

Not Used.

**END OF SECTION 01010**

**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 Division 1 Specification Sections shall apply to this Section without limitation.

**1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- B. Section 01015 – “Project Phasing”
- C. Section 01311 – “Project Management and Coordination”
- D. Divisions 2 through 16 Sections for Field Engineering requirements for the work in those sections.

**1.3 SUBMITTALS**

- A. Contractor shall submit name and address of Surveyor and professional Engineer to District and Architect for approval prior to their work on the Project.
- B. On request of District and Architect, Contractor shall submit documentation to verify accuracy of field engineering work, at no additional cost to the District.
- C. At completion of each Phase 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.

**1.4 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.

**1.5 QUALIFICATIONS OF SURVEYOR OR ENGINEERS**

- A. Contractor shall only use a qualified licensed engineer or registered land surveyor, approved by the District.

**1.6 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.

**1.7 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 under provisions of Section 01770

**1.8 EXAMINATION**

- A. Verify locations of survey control points prior to starting Work.
- B. Promptly notify Architect of any discrepancies discovered.

**1.9 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.

**1.10 QUALITY CONTROL**

- A. Employ a professional Engineer 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.

**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 01250**

**CONTRACT MODIFICATION 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 REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- B. Section 01310 – “Construction Scheduling”
- C. Section 01311 – “Project Management and Coordination”
- D. Section 1330 – “Submittal Procedures”
- E. Section 1770 – “Contract Closeout Procedures”
- F. Divisions 2 through 16 Sections for Contract Modification Procedures requirements for the work in those Sections

**1.3 SUMMARY**

- A. Any change in scope of Work or deviation from Contract Documents including, without limitation, extra work, or alterations or additions to or deductions from the original Work, shall not invalidate the original Contract, and shall be performed under the terms and conditions of the Contract Documents.
- B. Changes in the work generally will begin with Requests for Information (RFI), followed by a response from the District and/or Architect, and possibly a Request for Proposal (RFP), a Contractor Proposed Change Order (POC), a negotiated Proposed Change Order, followed by a formal Change Order (CO) authorizing the Change in the Work. A Construction Change Directive (CCD) may be used in the absence of agreement on the terms of the Change in the Work.

**1.4 CHANGES - No Changes Without Authorization**

- A. There shall be no change whatsoever in the drawings, specifications, or in the Work without a District executed Change Order, District executed Construction Change Directive, or District approved no cost order by the Architect for a minor change in the Work as herein provided.
- B. 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.

- C. 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.
- D. 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 Section, all Change Orders shall be prepared and issued by the Architect and shall become effective when executed by the District’s Governing Board, the Architect, and the Contractor.
- E. Should any Change Order result in an increase in the Contract price, the cost of such Change Order shall be agreed to, in writing, in advance by Contractor and District and be subject to the monetary limitations set forth in Public Contract Code. 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.

**1.5 REQUEST FOR INFORMATION (“RFI”)**

- A. Definition: An RFI is a written request prepared by the Contractor requesting the Architect to provide additional information necessary to clarify or amplify an item which the Contractor believes is not clearly shown or called for in the drawings or specifications, or to address problems which have arisen under field conditions. The Contractor shall not submit an RFI to the District or the Architect if it pertains to a Subcontractor’s request for clarification of the Contractor’s Subcontract or contractor’s construction documents, or any other Contract Documents prepared by the Contractor.
- B. Scope: The RFI shall reference all the applicable Contract Documents including specification section, detail, page numbers, drawing numbers, and sheet numbers, etc. The Contractor shall make suggestions and interpretations of the issue raised by the RFI. An RFI cannot modify the Contract Cost, Contract Time, or the Contract Documents. The Contractor shall use RFI format provided by the District.
  - 1. The Contractor shall be responsible for Contractor and Subcontractor costs to implement and administer RFIs throughout the duration of the Project. The Contractor shall maintain an RFI log with all RFIs, including revisions, listed with a short description of the request, the date, the status, and the disposition of the RFI. Regardless of the number of RFIs submitted, the Contractor shall not be entitled to additional compensation.
  - 2. The Contractor shall be responsible for both the District and District consultants costs, including the Architect, for answering RFIs if an RFI requests an interpretation or decision of a matter where the information sought is equally available to the party making such

request, as determined by the District; at the District's discretion, such costs may be deducted from progress payments or the final payment.

3. The Architect or the District may issue a Request for Proposal which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications. The Contractor shall then prepare and submit an estimate within 14 Calendar Days. If the Contractor fails or refuses to submit a Proposal within said 14 day period, the District's Representative or the District shall determine the fair and reasonable cost of the Work indicated in a Request for Proposal which shall be binding on the Contractor.
4. Supplemental Instruction or Bulletin: The Architect or the District may issue an Architect's Supplemental Instruction (ASI) or Bulletin to the Contractor.
  - a. If the Contractor is satisfied with the Supplemental Instruction or Bulletin and does not request change in Contract Sum or Contract Time, then the direction of the Work shall be executed without a Change Order.
  - b. If the Contractor believes that the Supplemental Instruction or Bulletin results in a change in Contract Sum or Contract Time, then the Contractor shall notify the District in writing within seven (7) Calendar Days after receiving the response. If the District disagrees with the Contractor, then the Contractor may give notice of intent to submit a Claim as described in the General Conditions, and submit its Claim within seven (7) Calendar Days of the District's response. If the District agrees with the Contractor, then the Contractor must submit a cost or time extension proposal within 14 Calendar Days of the District's response to the RFI. The Contractor's failure to deliver either the foregoing notice of Claim or proposal by the respective deadlines stated above shall result in waiver of the right to file a proposal or Claim.
- C. The Contractor shall reference each RFI to an activity of the Construction Schedule and shall note time criticality of the RFI, indicating time within which a response is required. The Contractor's failure to reference RFI to an activity on the Construction Schedule and note time criticality on the RFI shall constitute the Contractor's waiver of any claim for time delay or interruption to the Work resulting from any delay in responding to the RFI. The Contractor must submit time critical RFIs at least 30 Days prior to the scheduled start date of the affected Work activity.
- D. Response Time: The Architect must respond to a RFI in writing within a reasonable time, normally 14 days for routine RFIs, 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. District or the Architect will endeavor to respond within five (5) working Days from receipt of RFI with a written response to the Contractor, provided that the RFI complies with the paragraph above and is determined by the Architect or District to be time critical. Failure of the Contractor to plan ahead or mitigate problems shall not be cause for a determination that an RFI is time critical. The District or the Architect may return an RFI requesting additional information should the original RFI be

incomplete or inadequately describe the information requested or conditions encountered. The Contractor shall distribute responses to all appropriate Subcontractors.

- E. If the Contractor is satisfied with the response and does not request a change in Contract Sum or Contract Time, then the response shall be executed without a change.
- F. Only the Contractor and/or the District may initiate changes in the scope of Work or deviation from Contract Documents.
  - 1. Contractor may initiate changes by submitting an RFI or a letter providing Notice of Concealed or Unknown Conditions, or Notice of Hazardous Waste Conditions.
    - a. RFIs shall be submitted to seek clarification of or request changes in the Contract Documents. RFIs shall not be submitted to the District seeking clarification of any errors or omissions on behalf of the Contractor's preparation of the construction documents or any other Contract Documents prepared by the Contractor.
    - b. Differing Site Conditions: The Contractor shall submit a Notice of Differing Site Conditions by RFI to resolve problems regarding differing conditions encountered in the execution of the Work pursuant to General Conditions, which shall govern. If the District and the Architect determine that a change in Contract Sum or Contract Time is justified, the District and the Architect will issue RFP or CCD.
    - c. Hazardous Waste Conditions: The Contractor shall submit Notices of Hazardous Waste Conditions by RFI to resolve problems regarding undocumented hazardous materials encountered in the execution of the Work pursuant in General Conditions, which shall govern. If the District and the Architect determine that a change in Contract Sum or Contract Time is justified, the District and the Architect will issue RFP or CCD.
  - 2. The Contractor may submit to the Architect a written Request for Information (RFI) if one of the following conditions occurs:
    - a. Contractor discovers what appears to be an unforeseen condition or circumstance that is not described in the Contract Documents.
    - b. The Contractor discovers what appears to be a conflict or inconsistency within the Contract Documents and the intent of the Contract Documents cannot be reasonably inferred.
    - c. The Contractors discovers what appears to be an error or omission in the Contract Documents and the intent of the Contract Documents cannot be reasonably inferred.
    - d. The Contractor considers a portion of the Contract Documents is not sufficiently explained or detailed for the Contractor to proceed with that portion of the Work.
    - e. The Contractor who, after a full search of the Contract Documents and upon exercising required due diligence, fails to locate the required information.
- G. If the Contractor believes that the RFI response results in Change in the Contract Sum or the Contract Time, the Contractor shall notify the District in writing within seven (7) calendar Days after receiving the response. If the District disagrees with the Contractor, then the Contractor may give notice of intent to submit a Claim as described in General Conditions, and submit its

Claim within 30 Calendar Days of the District’s response. If the District agrees with the Contractor, then the Contractor must submit a cost or time extension proposal within 21 Calendar Days of the District’s response to the RFI. The Contractor’s failure to deliver either the foregoing notice of Claim or proposal by the respective deadlines stated above shall result in waiver of the right to file a proposal or Claim.

- H. Contractor shall identify RFIs with sequential numbering (i.e. 001, 002, 003 etc.) with a separate number assigned to each RFI. Resubmittal of apparent unresolved RFI issues shall be on a new RFI form with the initial RFI number amended with a sequential Revision suffix (.R1, .R2, .R3 etc.) until the issue is resolved.
- I. Unless otherwise directed by the Project Manager, the Contractor shall submit each RFI on the form required by the District.
  - 1. The Contractor shall fill in all required information. Include additional information, data, sketches and the like on separate sheets as necessary; limit sheet size to 8-1/2 by 11 inches if possible. RFIs without all required information may be returned without action to the Contractor for resubmittal. Resubmittal in accordance with the specified requirements shall be the Contractors’ responsibility.
  - 2. The Contractors own proposed form may be used, if in the Project Manager’s judgment, it is equal to the form required by the District and it contains all pertinent information.
- J. In each request, include the following information, type or printed legibly in block letters with black ink:
  - 1. Project name as it appears on the Contract Documents
  - 2. Contractor’s RFI identification number.
  - 3. Title of issue.
  - 4. Contract Document reference pertaining to the issue.
  - 5. Description of issue.
  - 6. Contractor’s proposed written and graphic solution, Architect will determine if the proposal is in compliance with the Contract Documents and design intent of Project. Contractor’s failure to make reasonable effort to propose realistic solutions may result in the Request for Information being returned with no action.
  - 7. Date of submission to Architect.
  - 8. Date that response is needed to avoid impact to Construction schedule and cost. Time for response shall be reasonable to allow for processing and review, research, and written response by the appropriate party.
  - 9. Urgency (normal or high).
  - 10. Justification for high urgency.
  - 11. Contractors’ name and the printed name and signature of Contractors’ representative responsible for issuance of request.
  - 12. Name (individual and company) of responsible for originating RFI and his or her relationship to the Contractor.
  - 13. Photographic image of condition. Furnish digital image if possible.
  - 14. Photocopy of Contract Documents or sketch of condition (with dimensions) that pertains to this issue.

- K. Limit each RFI to a single subject or issue. RFIs with multiple subject or issues may be returned to the Contractor without response. Resubmittal in accordance with the specified requirements shall be the Contractor’s responsibility.
- L. Transmit each RFI to the District Project Manager as necessary to expedite the Project and to allow adequate time for review without delay to the Work. Do not transmit RFIs directly to the Architect, Architect’s Consultants, or others.
- M. RFIs that do not meet the requirements of this Section will be returned to the Contractor with an explanation for its return.
- N. Inappropriate RFIs, as described hereinafter, will be returned to the Contractor with an explanation for its return but without further action:
  - 1. RFIs that are received by the Architect from an entity other than the Contractor (such as a Subcontractor, Sub-subcontractor, supplier or others.)
  - 2. RFIs that transmit or contain a request for a substitution.
  - 3. RFIs that transmit or constitute a submittal.
  - 4. RFIs that are submitted without the Contractors’ thorough review of the Contract Documents or in a manner that suggests that specific portions of the Contract Documents are assumed to be excluded or taken as an isolated portion of the Contract Documents in part rather than whole.
  - 5. RFIs that are submitted in an untimely manner without adequate coordination or scheduling of the Work or related trades.
  - 6. RFIs that are submitted as a proposed or requested Change Order or other Contract Modification.
  - 7. RFIs that do not constitute a good faith request for required information.
- O. Contractor shall be responsible for resubmittal of information contained in inappropriate RFIs in accordance with the requirements of the appropriate portion of the Contract Documents.
- P. If information requested by the Contractor in an RFI is apparent from field observations, is contained in the Contract Documents, or can be reasonably inferred from them, the Contractor shall be responsible to the District for all reasonable fees charged by the Architect for additional services required to furnish such information. The amount of such additional services will be deducted from the Contractor’s next payment application by the District and those funds will be forwarded to the Architect as compensation.
- Q. The quantity of RFIs submittal by the Contractor shall not be the basis for any claim by the Contractor.
- R. Should the Contractor proceed with Work affect by an RFI issue before receipt of a written response from the Architect within the time described hereinbefore, that portion of the Work not performed in accordance with the requirements of the response shall be subject to the removal and replacement by the Contractor at no increase in Contract Sum or Contract Time.
- S. Maintain a current and accurate Request for Information Log as follows:
  - 1. For each RFI, include the RFI number, subject matter, date submitted, date returned. Maintain current status of each RFI at all times.
  - 2. Submit log weekly and as requested by Project Manager or Architect.

3. Accurately maintain log for the duration of the Contract.

**1.6 REQUEST FOR PROPOSAL (“RFP”)**

- A. Definition: An RFP is a written request prepared by the Architect requesting the Contractor to submit to the District and the Architect an estimate of the effect of a proposed change on the Contract Price and the Contract Time.
- B. Scope: An RFP shall contain adequate information, including any necessary drawings and specifications, to enable Contractor to provide the cost breakdowns required by this Specification Section. The Contractor shall not be entitled to any Additional Compensation for preparing a response to an RFP, whether ultimately accepted or not.
- C. District Requested RFP: the Contractor shall furnish a proposal within 21 Calendar Days of the District’s RFP. Upon approval of RFP, the District will issue a PCO directing the Contractor to proceed with the extra Work. If the parties do not agree on the price for an RFP, the District may issue a CCD. Upon receipt of CCD, the Contractor shall promptly proceed with the change of Work involved and concurrently respond to the District’s CCD within 10 Calendar Days. The Contractor shall perform the changed Work notwithstanding any claims or disagreements of any nature.

**1.7 PROPOSED CHANGE ORDER (PCO) REQUEST**

- A. Definition: A PCO 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 the General Conditions.
- B. Changes in Price: A PCO shall include breakdowns per this specification section to validate any change in Contract Price due to proposed change or claim.
- C. Changes in Time: A PCO 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 the Construction Scheduling Specifications of these Contract Documents. Any changes in time will be granted only if there is an impact to the critical path. If contractor fails to request a time extension in a PCO, then the Contractor is thereafter precluded from requesting or claiming a delay.
- D. The Contractor may propose changes by submitting a Proposed Change Order (PCO form, see section 01340) to the District’s Representative, describing the proposed change and its full effect on the Work. The Contractor shall include a statement describing the reason for the change and the effect on the Contract Sum and Contract Time with full documentation including detailed cost and schedule breakout, and a statement describing the effect on Work by separate or other the Contractors. Document any requested substitutions in accordance with the Contract Documents. Cost for Work in approved PCOs shall not be applied for by the Contractor or paid by the District until the PCOs are included in a Change Order (CO form, see section 01340)
- E. Cost Proposal and Procedures: Whenever the Contractor is required in this Section to prepare a Proposed Change Order form (PCO), and whenever the Contractor is entitled to submit a cost proposal and elects to do so, the Contractor shall prepare and submit to the District and the

Architect for consideration a proposal using the PCO form found in the Contract Documents, or other similarly prepared form previously approved by the District. All cost proposals must contain detailed line-item backup with a complete breakdown of costs for credits, deducts and extras, which itemizes materials, labor, equipment, taxes, overhead and profit. All Subcontractor Work shall be so indicated. Subcontractor quotes for any subcontractor tier submitted as lump sum or without the required line-item breakdown will be rejected. After receipt of a proposal with a detailed breakdown, the District and the Architect will act promptly thereon.

1. If the District and the Architect approves a proposal, the PCO will be routed for Contractor signatures, the District Representative signatures, and the District signature.
2. If a proposal is not acceptable to the District or the Architect because it does not agree with costs and/or time included in the proposal, the District or the Architect will submit in a response what it believes to be a reasonable cost and/or adjustment, if any. Except, as otherwise provided in this Section, the Contractor shall have seven (7) Calendar Days in which to respond to the District with a revised proposal.
3. When necessity to proceed with a change does not allow the District sufficient time to conduct a proper cost and schedule analysis of a proposal (or revised proposal), the District may direct the Contractor to proceed on a basis to be determined at earliest practical date. In this event, the value of the Change, with corresponding equitable adjustment to Contract, shall not be more than the increase or less than the decrease initially proposed.

### **1.8 CHANGE ORDERS (“CO”)**

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

- A. A description of a change in the Work;
- B. The amount of the adjustment in the Contract Sum, if any; and
- C. The extent of the adjustment in the Contract Time, if any.
- D. Change Order Forms: Whether or not noted on the executed form of Change Order, all Change Orders approved by the District are deemed to include and incorporate the following provision:
 

“The adjustment of the Contract Price and the Contract Time for the changes noted in a Change Order (the “Changes”) represents the full and complete adjustment of the Contract Price and the Contract Time due the Contractor for providing and completing such Changes, including without limitation: (i) all costs (whether direct or indirect) for labor, equipment, materials, tools, supplies and/or services; (ii) all general and administrative costs (including without limitation, home office, field office and Site General Conditions costs) and profit; and (iii) all impacts, delays, disruptions, interferences or hindrances in providing and completing the Changes. The Contractor waives all rights, including without limitation, those arising under Civil Code Section 1542, for any other adjustment of the Contract Price or the Contract Time on account of a Change Order or the performance and completion of the Changes.”
- E. Correlation of Other Items
  1. Contractor shall promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum as shown on the Change Order prior to the last day of the next monthly pay period.

2. Within 15 days, Contractor shall promptly revise Progress schedules, look ahead schedules, and the Contractors Master Schedule to reflect any Change in Contract Time, revise sub schedules to adjust times for other items of work affected by the change and resubmit to the District for review and approval. The Contractors shall not make changes to tasks in any schedule not impacted by the Change.
  3. Contractor is responsible to promptly enter Changes in Project Record Documents.
- F. All Changes:
1. Documentation of Change in Contract Sum and Contract Time:
    - a. Contractor shall maintain detailed records of all Work performed on a time-and-material basis.
    - b. Contractor shall document each proposal for a change in cost or time with sufficient data to allow detailed line item evaluation and analysis of the proposal.
    - c. Contractor shall, on request, provide additional data to support computations for:
      - i) Quantities of products, materials, labor and equipment.
      - ii) Taxes, insurance, and bonds.
      - iii) Overhead and profit.
      - iv) Justification for any change in Contract Time and new Progress Schedule showing revision due, if any. Justification for change shall comply with Construction Scheduling Section 01310.
      - v) Credit for deletions from Contract, similarly documented.
    - d. Contractor shall support each claim for additional costs and for Work performed under Force Account with additional information including:
      - i) Credit for deletions from Contract, similarly documented.
      - ii) Origin and date of claim.
      - iii) Dates and times Work was performed and by whom.
      - iv) Time records and wage rates paid.
      - v) Invoices and receipts for products, materials, equipment and subcontracts, similarly documented.

G. COST OF CHANGE ORDERS

1. It is the responsibility of the Contractor to notify the District within seven (7) Calendar Days if there is a cost change related to a change in the Work. Notification beyond this time limit may result in future claims being time barred.
2. Within 14 Calendar days after a request is made for a change that impacts the Contract Sum, the critical path, or the Contract Time, 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.

3. 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 CO or 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.
4. 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 a properly formatted claim per the General Conditions and this Specification Section. 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 this Specification Section; or
  - d. By cost of material and labor and percentage of overhead and profit. (Force Account)

H. COST DETERMINATION

1. Total cost of extra Work or of Work omitted shall be the sum of construction labor costs, material costs, equipment rental costs, as defined herein plus overhead and profit as allowed herein and by the General Conditions. This limit applies in all cases of claims for extra Work, whether calculating cost proposals, Change Orders or CCDs, or calculating claims of all types, and applies even in the event of fault, negligence, strict liability, or tort claims of all kinds, including strict liability or negligence. The Contractor may recover no other costs arising out of or connected with the performance of extra Work, of any nature. No special, incidental or consequential damages may be claimed or recovered against the District, its representatives or agents, whether arising from breach of contract, negligence or strict liability, unless specifically authorized in the Contract Documents.
2. Application of Overhead and Profit: (Overhead shall be as defined in this Specification Section.)
  - a. Total overhead and profit on labor for extra Work shall not exceed 20 percent.
  - b. Total overhead and profit on materials for extra Work shall not exceed 20 percent.
  - c. Total overhead and profit on equipment rental for extra Work shall not exceed 10 percent.

- d. When extra Work is performed by a first tier Subcontractor the Contractor shall receive a 5 percent markup on Subcontractors' total costs of extra Work. First tier Subcontractor's markup on its Work shall not exceed 15 percent.
  - e. When extra Work is performed by a lower tier Subcontractor, the Contractor shall receive a total of 5 percent markup on all lower tier Subcontractors' total costs of extra Work. First tier Subcontractors and lower tier Subcontractors shall divide the 15 percent markup as mutually agreed.
  - f. Notwithstanding the foregoing, in no case shall the total markup on any extra Work exceed 20 percent of the direct cost, notwithstanding the actual number of contract tiers.
  - g. On proposals covering both increases and decreases in Contract Sum, overhead and profit shall be allowed on the net increase only. When the net difference is a deduction, no percentage for overhead and profit shall be allowed, but rather the deduction shall apply.
  - h. No markup will be allowed on permits, fees, insurance, and bonds.
- I. Taxes: All State sales and use taxes, Contra Costa County and applicable City sales taxes, shall be included. Federal and Excise tax shall not be included.
- J. Accord and Satisfaction: Every Change Order and accepted CCD shall constitute a full accord and satisfaction, and release, of all the Contractor (and if applicable, Subcontractor) claims for additional time, money or other relief arising from or relating to the subject matter of the change including, without limitation, impacts of all types, cumulative impacts, inefficiency, overtime, delay and any other type of claim. The Contractor may elect to reserve its rights to disputed claims arising from or relating to the changed Work at the time it signs a Change Order or approves a CCD, but must do so expressly in a writing delivered concurrently with the executed Change Order or approved CCD, and must also submit a Claim for the reserved disputed items pursuant to the General Conditions no later than 30 Calendar Days of the Contractor's first written notice of its intent to reserve rights.
- K. COST BREAKDOWN
- 1. Labor: the Contractor will be paid cost of labor for workers (not including the project superintendent, or forepersons unless forepersons work greater than 50% of the time and then only when authorized by the District), used in actual and direct performance of extra Work. Labor rate, whether employer is the Contractor, Subcontractor or other forces, will be sum of following:
    - a. Actual Wages: Actual wages paid shall include any employer payments to or on behalf of workers for health and welfare, pension, vacation, and similar purposes.
    - b. Labor surcharge: Payments imposed by local, county, state, and federal laws and ordinances, and other payments made to, or on behalf of, workers, other than actual wages such as taxes and worker's compensation insurance. Such labor surcharge shall not exceed that set forth in federal and state tax regulations and in the Prevailing Wage schedule which is in effect on date upon which extra Work is accomplished and which schedule is incorporated herein by reference as though fully set forth herein.
  - 2. Material: Only materials furnished and installed in the Work by the Contractor and necessarily used in performance of extra Work will be paid for. The Contractor and any

and all subcontractors will submit proof of material cost satisfactory to the District when requested. Cost of such materials will be cost, including sales tax, to purchaser (Contractor, Subcontractor or other forces) from supplier thereof, except as the following are applicable:

- a. If cash or trade discount by actual supplier is offered or available to purchaser, it shall be credited to the District notwithstanding fact that such discount may not have been taken.
  - b. For materials salvaged upon completion of extra Work, salvage value of materials shall be deducted from cost, less discounts, of materials.
  - c. If cost of a material is, in opinion of the District, excessive, then cost of material shall be deemed to be lowest current wholesale price at which material is available in quantities concerned delivered to Site, less any discounts as provided in this Specification Section.
3. Equipment Rental: For the Contractor- or Subcontractor-owned equipment, payment will be made at rental rates listed for equipment in California Department of Transportation official equipment rental rate schedule which is in effect on date upon which extra Work is accomplished and which schedule is incorporated herein by reference as though fully set forth herein.
- a. If there is no applicable rate for an item of equipment, then payment shall be made for the Contractor- or Subcontractor-owned equipment at rental rate listed in the most recent edition of the Association of Equipment Distributors (AED) book.
  - b. For rented equipment, payment will be made based on actual rental invoices. Equipment used on extra Work shall be of proper size and type. If, however, equipment of unwarranted size or type and cost is used, cost of use of equipment shall be calculated at rental rate for equipment of proper size and type, as determined by the District.
  - c. Rental rates paid shall be deemed to cover cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals. Unless otherwise specified, manufacturer's ratings, and manufacturer-approved modifications, shall be used to classify equipment for determination of applicable rental rates.
  - d. Individual pieces of equipment or tools not listed in said publication and having a replacement value of \$250 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefore as payment is included in payment for labor.
  - e. Rental time will not be allowed while equipment is inoperative due to breakdowns.
  - f. For equipment on Site, rental time to be paid for equipment shall be time equipment is in operation on extra Work being performed or on standby as approved by the District. The following shall be used in computing rental time of equipment:
    - i) When hourly rates are listed, less than 30 minutes of operation shall be considered to be ½ hour of operation.
    - ii) When daily rates are listed, less than four hours of operation shall be considered to be ½ Day of operation.

- g. For equipment that must be brought to Site to be used exclusively on extra Work, cost of transporting equipment to Site and its return to its original location shall be determined as follows:
    - i) District will pay for costs of loading and unloading equipment.
    - ii) Cost of transporting equipment in low bed trailers shall not exceed hourly rates charged by established haulers.
    - iii) Cost of transporting equipment shall not exceed applicable minimum established rates of California Public Utilities Commission.
    - iv) District will not make any payment for transporting and loading and unloading equipment if equipment is used on Work in any other way than upon extra Work.
  - h. Rental period may begin at time equipment is unloaded at Site of extra Work and terminate at end of the performance of the extra Work or Day on which the District directs the Contractor to discontinue use of equipment, whichever first occurs. Excluding Saturdays, Sundays, and the District’s legal holidays, unless equipment is used to perform extra Work on such Days, rental time to be paid per Day shall be four hours for zero to four hours of operation, six hours for four to six hours of operation and eight hours for six to eight hours of operation. Hours to be paid for equipment that is operated less than eight hours due to breakdowns, shall not exceed eight hours less the number of hours equipment is inoperative due to breakdowns.
4. Work Performed by Special Forces or Other Special Services: When the District, the Architect and the Contractor by agreement, determine that special service or item of extra Work cannot be performed by forces of the Contractor or those of any Subcontractors, service or extra Work item may be performed by specialists. Invoices for service or item of extra Work on basis of current market price thereof may be accepted without complete itemization of labor, material, and equipment rental costs when it is impracticable and not in accordance with established practice of the special service industry to provide complete itemization. In those instances wherein the Contractor is required to perform extra Work necessitating a fabrication or machining process in a fabrication or machine shop facility away from Site, charges for that portion of extra Work performed in such facility may, by agreement, be accepted as a specialist billing. The District must be notified in advance of all off-Site Work. In lieu of overhead and profit provided in this Section, 15 percent will be added to specialist invoice price, after deduction of any cash or trade discount offered or available, whether or not such discount may have been taken.
- L. FORCE-ACCOUNT WORK
- 1. If it is impracticable because of nature of Work, or for any other reason, to fix an increase or decrease in price definitely in advance, the Contractor may be directed to proceed at a not-to-exceed (NTE) maximum price which shall not under any circumstances be exceeded. Subject to such limitation, such extra Work shall be paid for at actual necessary cost for Force-Account Work or at the negotiated cost, as determined by the District. The cost for Force-Account Work shall be determined pursuant to this Specification Section.
  - 2. Force-Account Work shall be used when it is not either possible or practical to price the changed Work prior to the start of that Work. In these cases, Force-Account Work will be

utilized during the pricing and negotiation phase of the change. Once negotiations have been concluded and a bilateral agreement has been reached, the tracking of the Work under Force-Account is no longer necessary. Force-Account Work shall also be used when negotiations between the District and the Contractor have broken apart and a bilateral agreement on the value of the changed Work cannot be reached. The District may approve other uses of Force-Account Work.

3. Whenever any Force-Account Work is in progress, definite price for which has not been agreed on in advance, the Contractor shall report to the District each Business Day in writing in detail amount and cost of labor, equipment, and material used, and any other expense incurred in Force-Account Work on the preceding day, by using a preapproved cost proposal form. No claim for compensation for Force-Account Work will be allowed unless report shall have been made and acknowledged by the District.
4. Whenever Force-Account Work is in progress, definite price for which has not been agreed on in advance, the Contractor shall report to the District when 75 percent of the NTE amount has been expended.
5. RECORDS AND CERTIFICATION
  - a. Force-Account (cost reimbursement) charges shall be recorded daily and summarized in preapproved cost proposal form. The Contractor or authorized representative shall complete and sign form each Day and submit to the District Representative for review and approval. The Contractor shall also provide with the form: the names and classifications of workers and hours worked by each; an itemization of all materials used; a list by size type and identification number of equipment and hours operated; and an indication of all Work performed by specialists.
  - b. No payment for Force-Account Work shall be made until the Contractor submits original invoices substantiating materials and equipment charges.
  - c. District shall have the right to audit all records in possession of the Contractor relating to activities covered by the Contractor's claims for modification of Contract, including Force-Account Work and CCD Work.
  - d. Further, the District will have right to audit, inspect, or copy all records maintained in connection with this Contract, including financial records, in possession of the Contractor relating to any transaction or activity occurring or arising out of, or by virtue of, the Contract. If the Contractor is a joint venture, right of the District shall apply collaterally to same extent to records of joint venture sponsor, and of each individual joint venture member. This right shall be specifically enforceable, and any failure of the Contractor to voluntarily comply shall be deemed an irrevocable waiver and release of all claims then pending that were or could have been subject to the General Condition of Contract.
6. Force-Account Work shall be paid as extra Work under this Section. Methods of determining payment for Work and materials provided in this paragraph shall not apply to performance of Work or furnishings of material that, in judgment of the District, may properly be classified under items for which prices are otherwise established in Contract Documents.

- a. Basis for Establishing Costs:
  - i) 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.
  - ii) 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.
  - iii) Tool and Equipment Rental: No payment will be made for the use of tools which have a replacement value of \$250 or less.
- b. 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.
- c. Invoices: Vendors' invoices for material, equipment rental, and other expenditures shall be submitted with the PCO. 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.
- d. Overhead and Profit: Overhead and profit is defined and shall be applied as in this Specification Section.

M. DISTRICT-FURNISHED MATERIALS

- 1. District reserves right to furnish materials, as it deems advisable, and the Contractor shall have no claims for costs and overhead and profit on such materials.

N. OVERHEAD DEFINED

- 1. The following includes, but is not limited to, costs that are deemed included in overhead for all Contract Modifications, including COs, Force-Account Work or CCD Work, whether incurred by the Contractor, Subcontractors, or suppliers, and the Contractor shall not invoice or receive payment for these costs separately:
  - a. Drawings: field drawings, Shop Drawings, etc., including submissions of drawings.
  - b. Routine field inspection of Work proposed.
  - c. General Superintendence, including Site Superintendent, Project Engineers, Project Management or Construction Management services provided by the Contractor.

- d. General administration and preparation of cost proposals, schedule analysis, change orders and other supporting documentation as necessary.
- e. Computer services.
- f. Reproduction services.
- g. Salaries of, superintendent, foremen, timekeeper, storekeeper and secretaries
- h. Janitorial services
- i. Temporary on Site facilities, including for any extended periods of Contract Time:
  - i) Offices
  - ii) Telephones
  - iii) Plumbing
  - iv) Electrical: Power, lighting, etc.
  - v) Platforms
  - vi) Fencing, barricades, signage, etc.
  - vii) Water
- 2. Home office expenses
- 3. Insurance and Bond premiums
- 4. Procurement and use of vehicles and fuel used coincidentally in Work otherwise included in the Contract Documents
- 5. Surveying
- 6. Estimating
- 7. Protection of Work
- 8. Handling and disposal fees
- 9. Final cleanup
- 10. Small tools
- 11. Warranty
- 12. All Contract General Conditions
- 13. Other incidental Work
- O. Deductive Change Orders: All deductive Change Order(s) shall be prepared in the same manner as additive change orders using the same forms and formulas, with negative numbers. Overhead and profit will be neither added nor deducted when calculating deductive changes.
- P. 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.
- Q. 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.

- R. 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 the General Conditions of these Contract Documents. 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.
- S. Applicability to Subcontractors: Any requirements under this Section shall be equally applicable to COs or Construction Change Directives issued to Subcontractors by the Contractor to the same extent required by the Contractor.
- T. Alteration to Change Order Language: Contractor shall not alter or reserve time in Change Orders or Construction Change Directives. Contractor shall execute finalized Change Orders and proceed with the Work. If Contractor intends to reserve time, without an approved CPM schedule prepared pursuant to the Construction Scheduling Specification, the Contractor may be prosecuted pursuant to the False Claim Act.

**1.9 CONSTRUCTION CHANGE DIRECTIVE**

- A. 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 and 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 the Disputes paragraphs of these Contract Documents. A Construction Change Directive shall be used in the absence of agreement on the terms of a CO.
- B. Construction Change Directives: If at any time the Architect or the District believes in good faith that a timely Change Order will not be agreed upon using the foregoing procedures, the Architect or the District may issue a CCD with a recommended cost and/or time adjustment.
  - 1. Upon receipt of CCD, the Contractor shall promptly proceed with the change of Work involved and concurrently respond to the District’s CCD within 10 Calendar Days.
    - a. Contractor’s response must be any one of following:
      - i) Return CCD signed, thereby accepting the District’s response, time, and cost.
      - ii) Submit a (revised if applicable) proposal with supporting documentation (if applicable, reference original proposal number followed by letter R1, R2, etc. for each revision.
      - iii) Give notice of intent to submit a Claim as described in the General Conditions, and submit its Claim with 30 Calendar Days.
    - b. If the CCD provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:



- i) Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation.
    - ii) Unit prices stated in the Contract Documents or subsequently agreed upon.
    - iii) Force account.
    - iv) Cost to be determined in a manner agreed.
  - C. A CCD signed by the Contractor indicates the agreement of the Contractor therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a PCO.
  - D. If the Contractor does not respond promptly, or disagrees with the method for adjustment in the Contract Sum, the method and the adjustment shall be determined by the District on the basis of published estimating guides, District or Architect estimating consultant analysis, or reasonable and historical expenditures and savings of those performing similar Work including, in case of an increase in the Contract Sum, a reasonable allowance for overhead and profit. If the parties still do not agree on the price for a CCD, the Contractor may file a Claim per General Conditions. The Contractor shall keep and present, in such form as the District may prescribe, an itemized accounting together with appropriate supporting data.
  - E. The amount of credit to be allowed by the Contractor for a deletion or change which results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect and the District. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.
- 1.10** Responses: For all responses for which the Contract Documents, including without limitation this Section, do not provide a specific time period, recipients shall respond within a reasonable time.
- 1.11** Disputes: For all disputes arising from the procedures herein, the Contractor shall follow this Section and the Contract General Conditions.

**PART 2 – PRODUCTS**

Not Used.

**PART 3 – EXECUTION**

Not Used.

**END OF SECTION 01250**

**SECTION 01290  
PAYMENT 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 REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- B. Section 01250 – “Contract Modification Procedures”
- C. Section 01300 – “Labor Compliance Program”
- D. Section 01312 – “Project Meetings”
- E. Section 01330 – “Submittal Procedures”
- F. Section 01770 – “Contract Closeout Procedures”
- G. Section 01780 – “Project Record Documents”
- H. Divisions 2 through 16 Sections for Payment Procedures requirements for the work in those sections.

**1.3 SUMMARY**

- A. This Section includes descriptions of requirements and procedures for determining the quantity of Work performed during each pay period in project and the procedures for obtaining payment for Work performed.

**1.4 CONTRACT SUM**

- A. 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.

**1.5 SCHEDULE OF VALUES**

- A. On hardcopy and in digital format using Microsoft Project 2010 version, the Contractor shall, within ten (10) days of the award of the Contract, provide a detailed breakdown of the Contract Price, hereinafter referred to as the Schedule of Values (SOV), for the Project and broken out by each phase of the Project.
- B. The SOV shall include Contractor’s overhead, profit, insurance, cost of bonds (except to the extent expressly identified in a Proposal Item) and/or other financing, as well as general conditions costs, (e.g., Site cleanup and maintenance, temporary roads, access, signage off-Site access roads, temporary power and lighting, security, and the like). These 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.

- C. District, Architect, and Project Manager shall review the breakdown in conjunction with the Master Construction Schedule to ensure that the amounts listed in the Schedule of Values are, in fact, fair market cost allocations for the Work items listed. Upon favorable review by the District, District will accept this Schedule of Values for use. District shall be the sole judge of fair market cost allocations.
- D. District will reject any attempt to increase the cost of early activities, i.e., “front loading,” resulting in a complete reallocation of moneys until such “front loading” is corrected. Repeated attempts at “front loading” may result in suspension or termination of the Work for default, or refusal to process progress payments until such time as the Schedule of Values is acceptable to District.
- E. The Schedule of Values shall list line item costs for Project Closeout, Operations and Maintenance Manuals, Warranties, final test reports, and like items as required by this and other sections of the Contract Documents.
- F. Format and Content: Use the Project Manual Table of Contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each Specification Section.
  - 1. Identification: Include the following Project Identification on the Schedule of Values:
    - a. Project name and Campus;
    - b. Name of Architect;
    - c. District’s project number;
    - d. Contractor’s name and address;
    - e. Date of submittal.
  - 2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
    - a. Related Specification Section or Division;
    - b. Description of the Work;
    - c. Name of subcontractor;
    - d. Name of manufacturer or fabricator;
    - e. Name of supplier;
    - f. Change Orders (numbers) that affect value;
    - g. Dollar value:
      - i) Percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.

Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual Table of Contents, individual Specification Sections, and the Construction Schedule. Provide several line items for principal subcontract amounts, where appropriate. Include separate line items under required principal subcontracts. A line item for Bonds must be supported by the evidence of the Bond cost at the time of application

for payment. Provide individual line items for operation and maintenance manuals, punch list activities, Project Record Documents, Title 24 closeout, LEED commissioning, and demonstration and training. If the values for administrative close-out items are not realistic and supportable, the Schedule of Values will not be accepted.

3. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
4. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
  - a. Differentiate between items stored on-site and items stored off-site. If specified, include evidence of insurance or bonded warehousing.
5. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
6. Provide separate line item in the Schedule of Values for maintenance and updating of Project Record Documents as specified in Section 01780 (Project Record Documents).
7. Provide a separate line item for DSA verified report retention. See General Conditions.
8. Allowances: Provide a separate line item in the Schedule of Values for each allowance.
9. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
10. Schedule Updating: When Change Orders result in a change in the Contract Sum, include each Change Order as a new line item, with additional line items for detail if the change involves multiple subcontractors or significant Work in more than one Specification Section.

**1.6 SCHEDULE OF ESTIMATED MONTHLY PAYMENT REQUESTS**

- A. Within ten (10) days of the award of the Contract, the Contractor shall provide 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, and containing such supporting evidence as the District may require.

**1.7 SUBCONTRACTOR LISTING**

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

**1.8 DISTRICT APPROVAL**

- A. The District shall review all submittals required above in a timely manner. All submittals must be approved by the District before becoming the supporting basis for any Contractor payment request.

**1.9 PROGRESS PAYMENTS**

- A. Within thirty (30) days after approval of the Request for Payment, Contractor shall be paid a sum equal to ninety percent (90%) 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.

- B. 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.
- C. Notwithstanding anything to the contrary stated above, the Contractor may include in its Request for Payment the value of any structural steel, mail order materials, G.F.R.C. panels and other such custom-made materials prepared specifically for the Project and unique to the Project so long as all of the following requirements are satisfied:
  - 1. The aggregate cost of materials stored off-site shall not exceed Twenty-Five Thousand Dollars (\$25,000) at any time without the prior written approval of the District, to be given or withheld in the District's sole discretion;
  - 2. Title to such materials shall be vested in the District as evidenced by documentation satisfactory in form and substance to the District, including, but not limited to, recorded financing statements, UCC filings and UCC searches;
  - 3. 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;
  - 4. The consent of any Surety shall be obtained to the extent required prior to payment for any materials stored off-site;
  - 5. Representatives of the District shall have the right to make inspections of the storage areas at any time; and
  - 6. 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.
- D. 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.
- E. 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.

**1.10 APPLICATIONS FOR PROGRESS PAYMENTS**

- A. 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 herein. 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.

- B. 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.
- C. Progress Payment Procedures include the following:
1. *Pre-application Meeting:* On or before the 5<sup>th</sup> Day of each calendar month during the progress of the Work, Contractor shall attend a pre-Application meeting with District's Representatives, including the Architect, Project Manager and Project Inspector. Contractor shall provide a complete draft of the proposed Application for Payment for review. The Contractor shall revise and resubmit the draft Application for Payment, if required by District.
  2. *Application for Progress Payment:* On or before the tenth (10th) 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 and as required by the specifications.
  3. The Contractor shall submit Applications for Payment in a form pre-approved by the District, either on or following the format of AIA G702/G703. Information shall include:
    - 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. Where the Work is separated into Phases, provide Applications for Payment showing values correlated with each Phase separately.
    - g. An updated Construction Schedule in conformance with the requirements of Section 01310, Construction scheduling.
    - h. All additions to and subtractions from the Contract Price and Contract Time;

- i. A summary of the retentions held;
  - j. Material invoices, evidence of equipment purchases, rentals, and other support and details of cost as the District may require;
  - k. An updated Schedule of values showing percentage of completion of the Contractor's Work by line item.
- D. Prerequisites for Progress Payments include the following:
- 1. The following items must be submitted and approved before the first payment request will be accepted for processing:
    - a. Cost curve based on the Construction Schedule and the Schedule of Values;
    - b. List of all subcontractors;
    - c. List of Contractor's staff assignments;
    - d. Installation of the Project signs and other required temporary facilities and controls, including field office(s) required by Section 01500;
    - e. Complete Schedule of Values;
    - f. Initial Construction Schedule, due within 10 days after Notice to Proceed;
    - g. Submittal Schedule;
    - h. Copies of any required permits;
    - i. Copies of authorizations and licenses from governing authorities, if required;
    - j. Initial progress report;
    - k. Surveyor qualifications;
    - l. All bonds and insurance endorsements;
    - m. Resumes of Contractor's Project Manager, Record Documents Recorder, and job site Superintendent.
    - n. Other early submittals required by the Contract Documents.
- E. No payment requests will be processed unless Contractor has:
- 1. Submitted copies of the Certified Payroll records for the Payment Request Work period.
  - 2. Provided an updated Construction Schedule.
  - 3. Provided an updated Schedule of Values.
  - 4. Provided all other payment request related items required by the Contract Documents.
- F. Payment requests that are not in compliance with the Contract Documents will be returned with no action taken.
- G. If Contractor is late submitting an Application for Payment, that Application may be processed at any time during the one-month period, but may result in processing of the Contractor's Application for Payment being delayed for more than a day-for-day basis. The District and its representative shall not be responsible for any such Payment being delayed due to late, incomplete, or inaccurate submission by the Contractor.
- H. Any payments made to Contractor where criteria set forth in the Contract Documents 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 or other penalty.

**1.11 WARRANTY OF TITLE**

- A. 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.
- B. 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.
- C. 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.
- D. 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.

**1.12 DECISIONS TO WITHHOLD PAYMENT**

- A. 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 1.10 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:
  - 1. Defective Work not remedied;
  - 2. Stop Notices served upon the District;
  - 3. Liquidated damages assessed against the Contractor;
  - 4. The cost of completion of the Contract if there exists reasonable doubt that the Work can be completed for the unpaid balance of any Contract Price or by the completion date;
  - 5. Damage to the District or other contractor;
  - 6. Unsatisfactory prosecution of the Work by the Contractor;
  - 7. Failure to store and properly secure materials;
  - 8. 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 Change Order, Construction Change Directives, and verified reports;



9. Failure of the Contractor to maintain record drawings;
10. Erroneous estimates by the Contractor of the value of the Work performed, or other false statements in an Application for Payment;
11. Unauthorized deviations from the Contract Documents;
12. Failure of the Contractor to prosecute the Work in a timely manner in compliance with established progress schedules and completion dates.
13. Failure to properly pay prevailing wages as defined in Labor Code section 1720, et seq.;
14. Failure to properly maintain or clean up the Site;
15. Payments to indemnify, defend, or hold harmless the District;
16. Any payments due to the District including but not limited to payments for failed tests, or utilities changes or permits;
17. Failure to submit an acceptable schedule in accordance with Section 01310;
18. Failure to pay Subcontractor or suppliers as required herein;
19. Failure to provide release from material suppliers or subcontractors when requested to do so.

**1.13 RE-ALLOCATION OF WITHHELD AMOUNTS**

- A. District may, in its discretion, apply any withheld amount to payment of outstanding claims or obligations as defined in herein. In so doing, District shall make such payments on behalf of Contractor.
- B. 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.
- C. 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.
- D. 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 therefore.

**1.14 PAYMENT AFTER CURE**

- A. 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.

**1.15 NONCONFORMING WORK**

- A. 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.
- B. 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.

**1.16 SUBCONTRACTOR PAYMENTS**

- A. 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.

**1.17 NO OBLIGATION OF DISTRICT FOR SUBCONTRACTOR PAYMENT**

- A. 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.

**1.18 PAYMENT NOT CONSTITUTING APPROVAL OR ACCEPTANCE**

- A. 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.

**1.19 JOINT CHECKS**

- A. 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.

**1.20 NO WAIVER**

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

**1.21 FINAL PAYMENT**

- A. Contractor shall comply with requirements of Section 01770 Contract Closeout Procedures.
- B. Contractor shall maintain the presence of Project Superintendent and Project Manager until the Work is complete.
- C. Under no circumstances shall Contractor demobilize its forces prior to completion of the Final Punchlist. Upon receipt of Contractor’s written notice that all of the Final Punchlist items have been fully completed and the Work is ready for final inspection and acceptance, Architect shall inspect the Work and shall submit to Contractor and District a final inspection report noting which work, if any, is required to be completed in accordance with the Contract Documents. Absent unusual circumstances, this report shall consist of the Punchlist items not yet satisfactorily completed.
- D. Upon completion of the Work contained in the Final Inspection report, the Contractor shall notify the District and Architect, who shall again inspect such Work. If the Architect and the District finds the Work contained in such Final Inspection report acceptable under the Contract Documents and, therefore, the Work fully completed, it shall notify Contractor, who may then submit to the Architect its final Application for Payment.
- E. Upon receipt and approval of such final Application for Payment, the Architect shall issue a final Certificate of Payment stating that to the best of its knowledge, information, and belief, and on the basis of its observations, inspections, and all other data accumulated or received by the Architect in connection with the Work, such Work has been completed in accordance with the Contract Documents. The District shall thereupon inspect such Work and either accept the Work as complete or notify the Architect and the Contractor in writing of reasons why the Work is not complete. Upon acceptance of the Work of the Contractor as fully complete (which, absent unusual circumstances, will occur when the Punch List items have been satisfactorily completed), the District shall record a Notice of Completion with the County Recorder, and the Contractor shall, upon receipt of payment from the District, pay the amounts due Subcontractors.
- F. The following conditions must be fulfilled prior to Final Payment:
  - 1. 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.
  - 2. The Contractor shall have made all corrections to the Work 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.
  - 3. 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.
  - 4. Contractor must have completed all requirements set forth in Section 01770 Contract Closeout Procedures.
  - 5. Architect shall have reviewed and approved a Final Application for Payment.

- 6. The Contractor shall have completed final clean up as required by Section 01710 Cleaning Requirements.

**1.22 RETAINAGE**

- A. The retainage, less any amounts disputed by the District or which the District has the right to withhold, shall be paid:
  - 1. After approval by District and Architect of the Contractor’s final Application for Payment;
  - 2. After satisfaction of all terms and conditions set forth in the Contract Documents, and
  - 3. After thirty-five (35) days after the acceptance of the Work by the District Governing Board and recording of the Notice of Completion by District.
- B. 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.

**1.23 SUBSTITUTION OF SECURITIES**

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

**1.24 ALLOWANCES**

- A. District will authorize and direct Contractor regarding provisions in this paragraph.
- B. Allowance Amount: as listed in Section 01210 (Allowances).
- C. District shall determine in its sole discretion which costs, if any, it will authorize in writing to be paid from the Allowance. Generally, the Allowance will be used only for District-initiated changes in the Scope of Work.
- D. Costs for Allowance Work shall be determined as provided in Section 01250, Contract Modification Procedures.

**PART 2 – PRODUCTS**

Not Used.

**PART 3 – EXECUTION**

Not Used.

**END OF SECTION 01290**

**SECTION 01300**  
**LABOR COMPLIANCE PROGRAM**

**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 0 and Division 1 Specification Sections shall apply to this Section without limitation.

**1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- B. Section 01290 – “Payment Procedures”
- B. Section 01770 – “Contract Closeout Procedures”
- C. Divisions 2 through 16 Sections for Labor Compliance Program requirements for the work in those Sections.

**1.3 SUMMARY**

- A. The District implements a Labor Compliance Program in an effort to fulfill the need and intent of monitoring, documenting and reporting the wage rates and payments to workers employed on or at a public works construction project.
- B. Contractors and subcontractors performing work on District projects will be expected to adhere to the labor compliance provisions outlined in Division 2, Part 7, Chapter 1 of the California Labor Code §1720- 1861 including, but not limited to, the reporting of certified payroll, payment of prevailing wages and the employment of apprentices.

**1.4 LABOR COMPLIANCE PROGRAM REQUIREMENTS**

- A. California Labor Code Section 1770, et seq., and Education Code Section 17424 require that contractors on Public works projects pay their workers based on the prevailing wage rates which are established and issued by the Department of Industrial Relations, Division of Labor Statistics and Research.
  - 1. Pursuant to the provisions of Division 2, Part 7, Chapter 1, Article 2 of the California Labor Code §1770, et seq., the District has obtained from the Director of the California Department of Industrial Relations the general prevailing rate of per diem wages and the prevailing rate for straight time, holiday time and overtime work in the locality in which the work is to be performed for each craft, classification or type of worker needed to execute the contract. The prevailing wage determination can be accessed online at <http://www.dir.ca.gov/dlsr/DPreWageDetermination.htm>. Copies of the prevailing rate of per diem wages are also on file at the District office, which shall be made available to any interested party on request. Per diem wages shall be deemed to include employer payments for health and welfare, pensions, vacation, travel time and subsistence pay as

provided in California Labor Code §1773.1 and as shown in the Director's determination. For apprenticeship or other training programs authorized by California Labor Code §3093, and similar purposes, when the term "per diem wages" is used herein it shall have the meaning as defined in the prevailing wage determination as published by the Director of the California Department of Industrial Relations and California Labor Code.

2. The contractor shall post at an appropriate conspicuous weatherproof point on the site of the project a copy of the prevailing wage determination published by the Director of the California Department of Industrial Relations which is applicable to the project and the Notice of Approval of the Labor Compliance Program.
3. There shall be paid to each worker of the contractor or any subcontractor, of any tier, engaged in the work, not less than the general prevailing wage rate regardless of any contractual relationship which may be alleged to exist between the contractor or any subcontractor, of any tier, and such worker. The contractor and subcontractors will be required to pay all workers on a weekly basis. Each worker needed to execute the work on the project shall also be paid travel and subsistence payments, as such travel and subsistence payments are defined in the prevailing wage determination published by the Director of the California Department of Industrial Relations.
4. Holiday and overtime work, when permitted by law, shall be paid for at the rate identified in the prevailing wage determination issued by the Director of the California Department of Industrial Relations. In accordance with Labor Code §1815, work performed by employees of contractors in excess of 8 hours per day, and 40 hours during any one week, shall be permitted upon public work upon compensation for all hours worked in excess of 8 hours per day at not less than 1 1/2 times the basic rate of pay.
5. The Contractor shall forfeit fifty dollars (\$50.00) for each calendar day or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of the California Department of Industrial Relations for such work or craft in which such worker is employed by the contractor or by any subcontractor, of any tier, in connection with the work. Pursuant to California Labor Code §1775, the difference between such prevailing wage rates and the amount paid to each worker for each calendar day, or portion thereof, for which each worker was paid less than the prevailing wage rate, shall be paid to each worker in the addition to the penalties. The amount of forfeiture shall be determined by the Labor Commissioner and shall be based on consideration of the contractor's mistake, inadvertence, or neglect in failing to pay the correct rate of prevailing wages. The contractor's previous record in meeting the prevailing wage obligations or the contractor's willful failure to pay the correct rates of prevailing wages may influence the amount of penalty.
6. In accordance with Labor Code §1813, the contractor or subcontractor shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five dollars (\$25) for each worker employed in the execution of the contract by the respective contractor or subcontractor for each calendar day during which the worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of this article. In awarding any contract for public work, the awarding body shall cause to be inserted in the contract a stipulation to this effect. The awarding body shall take cognizance of all violations of this article committed in the course of the execution of the contract, and shall report them to the Division of Labor Standards Enforcement.

- B. California Labor Code Section 1776 requires contractors to keep accurate payroll records of trade workers on all public works projects and to submit copies of certified payroll records upon request.
1. Pursuant to California Labor Code §1776, the contractor and every subcontractor, of any tier, shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per them wages paid to each journeyman, apprentice, worker or other employee employed by them in connection with the public works project. The payroll records shall be certified and submitted bi-weekly to the Labor Compliance Representative and shall be available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:
  2. A certified copy of an employee’s payroll record shall be made available for inspection or furnished to such employee or his/her authorized representative on request;
  3. A certified copy of all payroll records shall be made available for inspection or furnished upon request to the District, the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards of the Department of Industrial Relations;
  4. A certified copy of payroll records shall be made available upon request to the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through the District, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. The contractor shall have ten (10) days in which to completely comply, subsequent to receipt of written notice specifying in what respects the contractor must comply herewith. Should noncompliance be evident after such 10-day period, the contractor shall, as a penalty to the District, forfeit Twenty-Five Dollars (\$25.00) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated.
- C. California Labor Code Section 1777.5 requires contractors to employ registered apprentices on Public works projects.
1. Per California Labor Code §1777.5(e), the contractor and all subcontractors shall notify an approved training program that can supply apprentices to the area of the public works project. The contractor and subcontractors shall submit contract award information to the applicable joint apprenticeship committee which shall include an estimate of journeyman hours to be performed under the contract, the number of apprentices to be employed, and the approximate dates the apprentices will be employed. Additionally, the contractor and subcontractors shall request, from the joint apprenticeship committee, dispatch of apprentices on the public works project using the state form DAS-142.
  2. All apprentices employed by the contractor to perform any of the work shall be paid the prevailing wages identified by the Director of the California Department of Industrial Relations. Only apprentices, as defined in California Labor Code §3077 who are in training under apprenticeship standards and written apprenticeship agreements under California Code §§3070, et seq., are eligible to be employed for the work. The employment and training of each apprentice shall be in accordance with the provisions of the apprenticeship standards and apprentice agreements under which such apprentice is training or the standards established by the Division of Apprenticeship Standards.

3. The ratio of work performed by apprentices to journeymen, who shall be employed in the work, may be the ratio stipulated in the apprenticeship standards under which the joint apprenticeship committee operates, but in no case shall the ratio be less than one hour (1) of apprentice work for each five (5) hours of labor performed by a journeyman, except as otherwise provided in California Labor Code §1777.5. Any ratio shall apply during any day or portion of a day when any journeyman, or the higher standard stipulated by the joint apprenticeship committee, is employed at the site of the Work and shall be computed on the basis of the hours worked during the day by journeymen so employed, except for the and surveyor classification. The Contractor shall employ apprentices for the number of hours computed as above before the completion of the work. The contractor shall, however, endeavor, to the greatest extent possible, to employ apprentices during the same time period that the journeymen in the same craft or trade are employed at the site of the Work. Where an hourly apprenticeship ratio is not feasible for a particular craft or trade, the Division of Apprenticeship Standards, upon application of a joint apprenticeship committee, may order a minimum ratio of not less than one apprentice for each five journeymen in a craft or trade classification. This article shall not apply to contracts of general contractors, or to contracts of specialty contractors not bidding for work through a general or prime contractor, involving less than thirty thousand dollars (\$30,000).
  4. The contractor or any subcontractor, of any tier, who performs any of the work by employment of journeymen or apprentices in any apprenticeable craft or trade and who is not contributing to a fund or funds to administer and conduct the apprenticeship program in any such craft or trade in the area of the site of the work, to which fund or funds other contractors in the area of the site of the work are contributing, shall contribute to the fund or funds in each craft or trade in which it employs journeymen or apprentices in the same amount or upon the same basis and in the same manner as the other contractors do, but where the trust fund administrators are unable to accept such funds, contractors not signatory to the trust agreement shall pay a like amount to the California Apprenticeship Council. The contractors shall provide proof of such contributions when requested, including checks, check stubs, receipts, or other records required to prove that all required payments were made.
  5. In the event the contractor willfully fails to comply with the provisions of California Labor Code §1777.5, and pursuant to California Labor Code §1777.7, the contractor shall: (i) be denied the right to bid on any public works contract for a period of one (1) year from the date the determination of non-compliance is made by the administrator of apprenticeship; and (ii) forfeit, as a civil penalty, one hundred dollars (\$100.00) and up to three hundred dollars (\$300.00) for each calendar day of noncompliance. The District shall withhold such amount from the contract price then due or to become due upon request of the Division of Apprenticeship Standards.
- D. This Labor Compliance Program (“LCP”) contains the labor compliance standards required by state and federal laws, regulations and directives, as well as policies and contract provisions, which include, but are not limited to, the following:
1. Contractors’ payments of applicable general prevailing wage rates.
  2. Contractors’ employment of properly registered apprentices.
  3. Contractors’ providing certified payroll records.



4. LCP monitoring a construction site for the verification of proper payments of prevailing wage rates and work classification.
  5. LCP conducting pre-job conferences with contractors/subcontractors.
  6. LCP withholding contract payments and imposing penalties for noncompliance.
  7. LCP preparation and submittal of annual reports.
- E. Parsons Brinckerhoff, as authorized and empowered through contract with the Contra Costa Community College District, will provide the Labor Compliance Program. The Contractor shall coordinate through the District's Representative for the program and contact information of the Labor Compliance Program.

**END OF SECTION 01300**

**SECTION 01305  
DELAY AND EXTENSIONS TO THE WORK**

**PART 1 – GENERAL**

**1.1 RELATED DOCUMENTS**

- A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Division 1 Specification Sections shall apply to this Section without limitation.

**1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- C. Section 01310 – “Construction Scheduling”
- D. Section 01311 – “Project Management and Coordination”
- E. Divisions 2 through 16 Sections for Delay and Extensions to the Work requirements for the work in those Sections.

**1.3 SUMMARY**

- A. This Section includes administrative and procedural requirements for evaluation of excusable delays including delays due to abnormal or adverse weather conditions.

**1.4 DELAYS AND EXTENSIONS TO THE WORK**

- A. Contractor must complete all Work within the time specified in these Contract Documents. The Contractor will be granted an extension of time and will not be assessed liquidated damages or the cost of engineering and inspection for any delay in substantially completing the Work (or parts thereof) beyond the time set elsewhere in the Contract Documents, provided that such delay was caused by unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include fire, floods, abnormal weather (as described below), and earthquakes, embargoes, changes made pursuant to the provisions of “Changes in work” elsewhere in the Contract Documents or acts or neglect of the District not contemplated by the Contract Documents. In all cases, any extension of time is conditioned on the following:
  1. That the cause is not due to the fault or negligence of the Contractor, and the Contractor has taken reasonable precautions to prevent the delays and minimize the effects thereof; and
  2. That the Contractor notifies the District, Architect, Project Manager, and project Inspector in writing within five (5) days from the beginning of such delay, specifying the nature of the delay and the measures that have been or will be taken to prevent or minimize the delay. Failure to submit written notice within this time period shall constitute an absolute waiver of any claim for a time extension.

- B. No extension of time will be granted for a delay caused by a shortage of materials, unless the Contractor furnishes to the District documentary proof that he has diligently made every effort to obtain such materials from all known sources within reasonable distance of the work and further proof, in the form of schedule data as required in Section 01310 that the inability to obtain such materials as originally planned did in fact cause a delay in final completion of the Work which could not be compensated for by revising the sequence of the Contractor's operations. Only the physical shortage of material will be considered as a cause for extension of time, and no consideration will be given to any claim that material could not be obtained at a reasonable, practical or economical cost or price, unless it is shown to satisfaction of the District that such material could have been obtained only at exorbitant prices, taking into account the quantities involved and the usual practices in obtaining such quantities.
- C. The term "shortage of materials," as used in this section, shall apply only to materials, articles, parts or equipment which are standard items and shall not apply to materials, parts, articles or equipment which are processed, made, constructed, fabricated or manufactured to meet the specific requirements of the Contract Documents.
- D. No extensions of time will be granted for delay that have no measurable impact on the completion of the Work (or parts thereof) under the Contract Documents. When extensions of time are granted, they will be limited to the period equivalent to the actual number of days lost on the critical path or controlling operations of the current approved Construction Schedule, taking into account the extent to which that delay could be decreased by reasonable mitigation measures by the Contractor. All requests for extensions of time must be supported with a critical path analysis showing the critical path and impacts to it. Contractor's failure to submit this analysis will be sufficient cause for denial of any request for a time extension.
- E. Within a reasonable period of time after the Contractor submits the notice of delay along with any other information required by this section, the District will determine whether an extension of time is justified and, if so, the number of days for the extension.

**1.5 ABNORMAL OR ADVERSE WEATHER CONDITIONS**

- A. Time extensions caused by abnormal weather will be allowed only if there is rain in excess of 0.5 inch in a 24 hours period, as measured at the Concord, CA, Airport weather station maintained by the National Weather Service, for a number of days that exceeds the number of average rain days.
- B. In addition, before a time extension may be granted for abnormal weather, Contractor must establish to District satisfaction that the rain either significantly impacted at least 75% of the planned work of the critical path operations for a particular day or prohibited at least five (5) hours of work on the critical path operations planned for that day.
- C. In the event that the project experiences favorable weather for a particular month (e.g. a number of actual rain days less than that allocated for allowable rain days per month), the cumulative float resulting from such favorable weather shall accrue to the project.
- D. Rain delay shall be only for the actual period of time established pursuant to full compliance with the above requirements.
- E. Contractor shall take reasonable steps to mitigate potential weather delays, such as dewatering the Site, providing access roads that are stable under abnormal or adverse weather conditions, and covering work and material that could be affected adversely by weather. Failure to do so shall be cause for the District to not grant a time extension due to abnormal or adverse

weather, where Contractor could have avoided or mitigated the potential delay by exercising reasonable care.

- F. Abnormal weather may be a valid basis for a time extension under the Contract. The term “abnormal weather” is defined as the occurrence rain conditions that exceed the criteria set forth that cause impact to Contractor’s operations.
- G. Contractor shall employ reasonable methods to mitigate the impact of abnormal weather (i.e. dewatering, protection of site, etc.) The occurrence of rain during non-work hours or having minimal impact to work on the controlling operation shall not constitute a day of abnormal weather.

**1.6 ENTITLEMENT TO CLAIM FOR DELAY AND EXTENSIONS TO THE WORK**

- A. Any Contractor claim for damages or additional compensation based on delay shall be limited to only those circumstances where the Contractor has fulfilled all of the following three (3) requirements:
  - 1. Contractor has established its entitlement to a time extension pursuant to the provisions described above regarding delay and extensions to the Work.
  - 2. The delay was caused solely by the District by District’s issuance of changes made pursuant to the provisions of “Changes in Work” elsewhere in these Contract Documents, or by or acts of neglect of the district.
  - 3. The delay was unreasonable under the circumstances and not within the contemplation of the parties and/or the Contract Documents.
- B. It is expressly understood and agreed that delays caused by the District will be non-compensable when there are concurrent delays caused by the Contractor. Also, Contractor shall have no entitlement to additional compensation for any delay where there have been concurrent delays caused by non-compensable delays, including, but not limited to, fire, floods, tidal waves, earthquakes, epidemics, quarantine restrictions, strikes, labor disputes and freight embargoes weather days.
- C. In the event that the Contractor submits a claim for additional costs associated with overhead, the Contractor shall, within 60 calendar days of the District’s written request, submit to the District an audit examination and report performed by an independent Certified Public Accountant certifying the Contractor’s actual unanticipated overhead costs. The independent Certified Public Accountant’s audit examination shall be performed in conformance with the requirements of the American Institute of Certified Public Accountants Attestation Standards. The audit examination and report shall depict the Contractor’s project and company-wide financial records and shall specify the actual overall average daily rates for both field and home office overhead for the entire duration of the project, and whether the costs have been properly allocated. The rates of field and home office overhead shall exclude all unallowable costs as determined in the Federal Acquisition Regulations, 48 CFR, Chapter 1, Part 31. The audit examination shall determine if the rates of field and home office overhead;
  - 1. Are allowable in conformance with the requirements of the Federal Acquisition Regulations, 48 CFR, Chapter 1, Part 31;
  - 2. Are adequately supported by reliable documentation; and
  - 3. Related solely to the project under examination.

- D. Upon the District's written request, the Contractor shall make its financial records available for audit by the District for the purpose of verifying the actual rate of overhead specified in the audit submitted by the Contractor. The overhead specified in the audit, submitted by the Contractor, will be subject to review and approval by the District.

**PART 2 – PRODUCT**

Not Used.

**PART 3 – EXECUTION**

Not Used.

**END OF SECTION 01305**

## **SECTION 01310**

### **CONSTRUCTION SCHEDULING**

#### **PART 1 - GENERAL**

##### **1.1 RELATED DOCUMENTS**

- A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Division 1 Specification Sections shall apply to this Section without limitation.

##### **1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- B. Section 01290 – “Payment Procedure”
- C. Section 01312 – “Project Meetings”
- D. Section 01330 – “Submittal Procedures”
- E. Section 01770 – “Contract Closeout Procedures”
- F. Divisions 2 through 16 Sections for Construction Scheduling requirements for the work in those Sections.

##### **1.3 SUMMARY**

- A. This Section describes the requirements for Project construction schedules and reports.
- B. Development of schedules, cost loading of the schedule, and schedule updates, monthly payment requests, and project status reporting requirements of the Contract shall employ computerized Critical Path Method (CPM) scheduling.
- C. All CPM schedules shall be cost loaded based on Schedule of Values as approved by District and Architect.

##### **1.4 FAILURE TO MEET SCHEDULING REQUIREMENTS**

- A. Failure of the Contractor to provide proper schedules as required by this Section is a material breach of the contract and grounds for termination pursuant to the General Conditions. 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.

**1.5 SCHEDULER'S QUALIFICATIONS**

- A. Contractor shall utilize experienced scheduling personnel qualified to use Microsoft Office Project 2010 CPM scheduling software. Experience level required is set forth below. Contractor may employ such personnel directly or may employ a consultant for this purpose.
- B. Within five (5) days after bid opening, the apparent successful low bidder shall provide to District and Architect a written verification either that Contractor has the required personnel under its employ or that Contractor will employ a CPM scheduling consultant. This written verification shall include:
  - 1. Name of the individual who will perform all required CPM scheduling tasks during the entire Project .
  - 2. Resume of the individual, to include description of similar, recent construction projects on which the individual has successfully created and updated computerized CPM schedules. Experience must include at least two projects of similar nature, scope and value not less than three-fourths the Contract Sum of this Project.
  - 3. Contact persons for all referenced projects with current telephone and address information.
- C. District or Architect reserves right to accept or reject Contractor's scheduler, and right to reject them at any time.
- D. District or Architect also reserves right to refuse replacement of Contractor's scheduler if it believes such replacement will negatively affect the Project.

**1.6 CONSTRUCTION SCHEDULES, GENERAL**

- A. Upon Notice to Proceed, Contractor shall immediately commence development of Initial and Master CPM Schedules.
- B. All construction schedules shall be based on and incorporate all milestones and completion dates specified in the Contract Documents. See also Sections 01010, Summary of Work and 01015, Project Phasing. Show in the schedule the sequence in which the Contractor proposes to perform the Work and dates on which the Contractor contemplates starting and completing all schedule activities. The scheduling of the entire project is required. Contractor management personnel shall actively participate in its development. Subcontractors and suppliers working on the Project shall also contribute in developing and maintaining an accurate Project Schedule. Provide a schedule that is a forward planning as well as a project monitoring tool.
- C. Use the approved Project Schedule to measure the progress of the Work and to aid in evaluating time extensions.
- D. Make the schedule cost loaded and activity coded.
- E. The schedule will provide the basis for all progress payments. If the Contractor fails to submit any schedule within the time prescribed, the District may withhold approval of progress payments until the Contractor submits the required schedule.

- F. Provide a Schedule Status Report on at least a monthly basis. If, in the opinion of the District , the Contractor falls behind the approved schedule, the Contractor shall take all steps necessary to improve its progress including those that may be required by the Architect or Project Manager, without additional cost to the District. In this circumstance, the District may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules as the District deems necessary to demonstrate how the approved rate of progress will be regained.
- G. Failure of the Contractor to comply with the requirements of the District shall be grounds for a determination that the Contractor is not prosecuting the Work with sufficient diligence to ensure completion within the time specified in the Contract Documents. Upon making this determination, the District may terminate the Contractor's right to proceed with the Work, or any separable part of it, in accordance with the default terms of the Contract.
- H. Use the schedule as the basis for determining Contract earnings during each update period and therefore the amount of each progress payment. Lack of an approved schedule update, or qualified scheduling personnel, will result in the inability of the Architect to evaluate contract earned value for the purposes of payment. Failure of the Contractor to provide all required information will result in the disapproval of the Initial, Master and subsequent schedule Updates. In the event schedule revisions are directed by the District and those revisions have not been included in subsequent revisions or Updates, the District may hold retainage up to the maximum allowed by Contract, each payment period, until such revisions to the Master Schedule have been made.
- I. No construction schedule shall exceed time limits set forth in the Contract Documents. 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.
- J. All schedules must indicate the beginning and completion of all Phases of Work and shall use the "critical path method" for the value reporting, planning, and scheduling of all Work required under the Contract Documents.
- K. Overall time of completion and time of completion for each Phase of Work shown on any construction schedule shall adhere to completion times as stated in the Agreement, unless an earlier (advanced) time of completion is requested by Contractor and agreed to by District. Any such agreement shall be formalized by a Change Order.
  - 1. District is not required to accept an advanced schedule, i.e., one that shows early completion dates for the Work or any Phase of the Work.
  - 2. In the event agreement is reached between Contractor and District on an advanced schedule, Contractor shall not be entitled to extra compensation if Contractor completes its Work, for whatever reason (excepting approved changes with added time components) beyond completion date(s) shown in any approved advanced schedule but within the originally specified completion dates.
  - 3. Contractor shall not submit a schedule showing early completion without indicating float time through the date set for Project completion by District.



4. Contractor's schedule shall account for all days past early completion as float which belongs to the Project. Usage of float shall not entitle Contractor to any delay claim for damages due to delay.
- L. Float Ownership: Neither the District nor the Contractor owns float. The Project owns the float. As such, liability for delay of the Substantial Completion Date(s) rests with the party whose actions, last in time, actually cause delay to the Substantial Completion Date(s).
    1. For example, if Party A uses some, but not all of the float and Party B later uses remainder of the float as well as additional time beyond the float, Party B shall be liable for the time that represents a delay to the Substantial Completion Date.
    2. Party A would not be responsible for the time since it did not consume the entire float and additional float remained; therefore, the Substantial Completion Date was unaffected.
  - M. The architect may disapprove of any construction schedule or require modification to it if, in the opinion of the Architect or District, adherence to the construction schedule will not cause the Work to be completed in accordance with the Agreement.
  - N. Use MS Office Project 2010, compatible with Windows operating system for creation and updates of all required construction schedules. Contractor shall provide digital schedule files to District on CD at times requested by District.
  - O. Transmit construction schedule files under form approved by District.

**1.7 CPM SCHEDULE FORMAT AND LEVEL OF DETAIL**

- A. All Work activity durations shall be in Workdays.
- B. Each Schedule (Initial, Master, and Updates) shall be the basis for evaluating job progress, payment requests, and time extension requests associated with the changes.
- C. Responsibility for developing all CPM Schedules and monitoring actual progress rests with Contractor. CPM Schedules shall comply with following requirements:
  1. All Contractor, Subcontractor and assigned Contractor work shall be shown in a logical work sequence that demonstrates a coordinated plan of work for all contractors. The intent is to provide a common basis of acceptance, understanding and communication, as well as interface with other contractors.
  2. Activities related to the delivery of Contractor and District-furnished equipment to be Contractor installed per Contract shall be shown.
    - a. District-furnished District Installed materials and equipment, if any, shall be identified as separate activities.
  3. Show District and other agency activities that could impact progress. These activities include, but are not limited to: approvals, submittal reviews, environmental permit approvals by State regulators, inspections, utility tie-in, Owner Furnished Equipment (OFE) and Notice to Proceed (NTP) for Phasing requirements.

4. All activities shall be identified through codes or other identification to indicate the Phase of Work and Contractor/Subcontractor responsibility to which they pertain.
5. Organize the schedule to clearly identify each Phase of Work for the Project. See also Section 01015 Project Phasing.
6. Show the critical path in red. For each activity, show early start, late start, early finish, late finish, durations measured in days, float, predecessor and successor activities, planned workday/week for the activity, and scheduled/actual progress payments.
7. Reasonable activity durations are those that allow the progress of ongoing activities to be accurately determined between update periods. Less than 2 percent of all non-procurement activities shall have durations greater than 20 work days or 30 calendar days unless otherwise approved by District and Architect. Procurement activities are defined herein.
  - a. Procurement Activities
    - i) The schedule must include activities associated with the submittal, approval, procurement, fabrication and delivery of long lead materials, equipment, fabricated assemblies and supplies. Long lead procurement activities are those with an anticipated procurement sequence of over 90 calendar days. A typical procurement sequence includes the string of activities: submit, approve, procure, fabricate, and deliver. Procurement of all contract required material and equipment shall be identified as a separate activity.
  - b. Include time for fabrication and delivery of manufactured products for the Work.
  - c. Show dependencies between procurement and related construction activity.
8. Activity durations shall be total number of actual work days required to perform that activity.
9. Provide activity coding to enable sorting by responsibility, location, Phase of Work, and CSI division. Assign activity codes to any activity or sequence of activities added to the schedule as a result of a Change Orders, when approved by the District with a Change Order code. Integrate the code values to the Contractor's numbering system. An activity shall not have more than one Change Order code.
10. The start and completion dates of all items of Work, Work Phases, their major components, and milestone completion dates shall be included.
11. Mandatory Tasks. The following tasks must be included and properly scheduled:
  - a. Submission, review and acceptance of design packages.
  - b. Submission of layout drawings.
  - c. Submission and approval of O & M manuals.
  - d. Submission and approval of as-built drawings.
  - e. Contractor's pre-final inspection.
  - f. Correction of punch list from Contractor's pre-final inspection.
  - g. District's pre-final inspection.

- h. Correction of punch list from District's pre-final inspection.
  - i. Final inspection.
12. Dependencies (or relationships) between activities shall be shown.
  13. Contractor's Shop Drawing and Samples Submittal Schedule: As part of the Master CPM submittal, the Contractor shall prepare a separate schedule for review and approval by the Architect and the District, detailing the processing and approval of submittals and shop drawings for all Contract-required material and equipment. This schedule shall be extracted from the Master CPM Schedule. Activities that are dependent on submittal acceptance or material delivery shall not be scheduled to start earlier than expected acceptance or delivery dates.
    - a. Include time for submittals, resubmittals, and reviews by District and DSA. Coordinate with accepted schedule for submission of shop drawings, samples and other submittals.
    - b. Contractor shall be responsible for all impacts resulting from resubmittal of either shop drawings or any other required submittal.
  14. Complete all activity descriptions, including what Work is to be accomplished, where, and when.
  15. The costs associated with each Work activity shall be the total of labor, material, equipment, including overhead and profit of Contractor. The sum of the costs for all activities shall equal the total Contract value.
  16. Include an identify code for each activity corresponding to either the Contractor or Subcontractor responsible for performing the Work.
  17. Identify the Work activities that constitute the critical path. No more than twenty-five (25%) of the activities shall be critical or near critical. Near critical is defined as float in the range of one (1) to (10) days.
  18. Include at least twenty (20) workdays for developing punch list(s), completion of punch list items and final clean-up for the Work or any designated portion thereof. No other activities shall be scheduled during this period.
  19. Show detailed Subcontractor Work activities. In addition, furnish copies of Subcontractor schedules upon which CPM was built.
    - a. Also furnish for each Subcontractor, as determined by District, submitted on Subcontractor letterhead a statement certifying that Subcontractor concurs with Contractor's Master CPM Schedule, and that Subcontractor's related schedules have been incorporated.
    - b. Subcontractor schedules shall be independently derived and not a copy or subset of the Contractor's Master Schedule.
    - c. Furnish schedule for Contractor/Subcontractor CPM schedule meetings which shall be held prior to submission of Master CPM schedule to District. District shall be permitted to attend scheduled meetings as an observer.

20. Submit a list of anticipated non-Work days, such as weekends, holidays, and/or other observances.
- D. Seasonal weather conditions (which do not constitute a delay as defined herein) shall be considered in the planning and scheduling of all work influenced by high or low ambient temperatures or presence of high moisture for the completion of the Work within the allotted Contract Time. See Section 01305 (Delay and Extensions to the Work.)
- E. Failure by Contractor to include any element of Work required for performance of the Work on any Project schedule shall not excuse Contractor from completing all Work required within the Contract Time.
- F. Contractor shall schedule all deferred approval items and shop drawings in its various CPM schedules. 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.
- G. CPM Logic Requirements
1. The schedule interval shall extend from NTP date to the required contract completion date. The contract completion activity (End Project) shall finish based on the required contract duration in the Contract Documents, as adjusted for any approved contract time extensions. The first scheduled work period shall be the day after NTP is acknowledged by the Contractor. Schedule activities on a calendar to which the activity logically belongs. Activities may be assigned to a 7 day calendar when the contract assigns calendar day durations for the activity such as a District acceptance activity if the Contract Documents specify Calendar Days. If the Contractor intends to perform physical work less than seven days per week, schedule the associated activities on a calendar with non-work periods identified including weekends and holidays. Assign the Category of Work Code – Weather Sensitive Installation to those activities that are weather sensitive. Original durations must account for anticipated normal adverse weather. The District will interpret all work periods not identified as non-work periods on each calendar as meaning the Contractor intends to perform work during those periods.
  2. The schedule shall start no earlier than the date on which the NTP was acknowledged. Include as the first activity in the project schedule an activity called "Start Project"( or NTP). The "Start Project" activity shall have an "ES" constraint date equal to the date that the NTP was acknowledged, and a zero day duration
  3. Schedule Constraints and Open Ended Logic Constrain completion of the last activity in the schedule by the contract completion date. Schedule calculations shall result in a negative float when the calculated early finish date of the last activity is later than the contract completion date. Include as the last activity in the project schedule an activity called "End Project". The "End Project" activity shall have an "LF" constraint date equal to the contract completion date for the project, and with a zero day duration or by using the "project must finish by" date in the scheduling software. The schedule shall have no constrained dates other than those specified in the contract. The use of artificial float constraints such as "zero fee float" or "zero total float" are typically prohibited. There

shall only be 2 open ended activities: Start Project (or NTP) with no predecessor logic and End Project with no successor logic.

4. In the event the Preliminary or Initial project schedule calculates an early completion date of the last activity prior to the contract completion date, the Contractor shall identify those activities that it intends to accelerate and/or those activities that are scheduled in parallel to support the Contractor's "early" completion. The last activity shall have a late finish constraint equal to the contract completion date and the schedule will calculate positive float. The District will not approve an early completion schedule with zero float on the longest path. The District is under no obligation to accelerate activities for which it is responsible to support a proposed early contract completion.
5. Interim Completion Dates. Constrain contractually specified interim completion dates to show negative float when the calculated early finish date of the last activity in that phase is later than the specified interim completion date.
6. Start Phase. Include as the first activity for a project phase an activity called "Start Phase X" where "X" refers to the phase of work. The "Start Phase X" activity shall have an "ES" constraint date equal to the date on which the NTP was acknowledged, and a zero day duration.
7. End Phase. Include as the last activity for a project phase an activity called "End Phase X" where "X" refers to the phase of work. The "End Phase X" activity shall have an "LF" constraint date equal to the specified completion date for that phase and a zero day duration.
8. Phase "X" Hammock. Include a hammock type activity for each project phase called "Phase X" where "X" refers to the phase of work. The "Phase X" hammock activity shall be logically tied to the earliest and latest activities in the phase.
9. Default Progress Data Disallowed. Do not automatically update Actual Start and Finish dates with default mechanisms that may be included in the scheduling software. Activity Actual Start (AS) and Actual Finish (AF) dates assigned during the updating process shall match those dates provided from Daily Reports. Failure of the Contractor to document the AS and AF dates on the Daily Report for every in-progress or completed activity, and failure to ensure that the data contained on the Daily Reports is the sole basis for schedule updating shall result in the disapproval of the Contractor's updated schedule and the inability of the Architect or District to evaluate Contractor progress for payment purposes. Updating of the percent complete and the remaining duration of any activity shall be independent functions. Disable program features which calculate one of these parameters from the other.
10. Other Logic Requirements:
  - a. Activities that have progressed before all preceding logic has been satisfied (Out-of-Sequence Progress) will be allowed only on a case-by-case basis subject to approval by the District. Propose logic corrections to eliminate all out of sequence progress or justify not changing the sequencing for approval prior to submitting an updated project schedule. Correct out of sequence progress that continues for

more than two update cycles by logic revision, as approved by the Architect and District.

- b. Lag durations contained in the project schedule shall not have a negative value. Do not use Start to Finish (SF) relationships.
  - c. 3.3.8 Schedule calculations shall retain the logic between predecessors and successors even when the successor activity starts and the predecessor activity has not finished. Software features that in effect sever the tie between predecessor and successor activities when the successor has started and the predecessor logic is not satisfied ("progress override") will not be allowed.
11. Milestones. The schedule must include milestone activities for each significant project event including but not limited to: All Phases, foundation/substructure construction complete; superstructure construction complete; building dry-in or enclosure complete to allow the initiation of finish activities; permanent power complete; and building systems commissioning complete (for each applicable Phase of Work).

**1.8 MASTER CPM SCHEDULE**

- A. Within 20 calendar days from the Notice to Proceed, Contractor shall submit a detailed Master CPM Schedule presenting an orderly and realistic plan for completion of the Work, in conformance with requirements specified herein.
- B. Failure of the Master CPM Schedule to include any element of the Work or any inaccuracy in the Master Progress Schedule will not relieve Contractor from responsibility for accomplishing the Work in accordance with the Contract.
- C. District’s acceptance of the Master CPM Schedule shall be for its use in monitoring and evaluating job progress, payment requests, and time extension requests, and shall not, in any manner, impose a duty of care upon District, or act to relieve Contractor of its responsibility for means and methods of construction.
- D. Contractor shall, within thirty (30) days from the Notice to Proceed date, meet with District Project Manager and Architect to review the Master CPM Schedule submittal.
  - 1. Contractor shall have its Construction Manager, Project Superintendent, Project Scheduler, and key Subcontractor representatives, as required by District and Architect, in attendance. The meeting will take place over a continuous one-day period.
  - 2. Architect’s review will be limited to submittal's conformance to Contract requirements. Review may also include:
    - a. Critical path method principles and tenets utilized
    - b. Clarifications of Contract Requirements
    - c. Directions to include activities and information missing from the submittal
    - d. Requests to Contractor to clarify its schedule
  - 3. Within five (5) days of the Schedule Review Meeting, Contractor shall respond in writing to all questions and comments expressed by District, Project Manager and Architect at the Meeting.

**1.9 ADJUSTMENTS TO THE MASTER CPM SCHEDULE**

- A. Contractor shall revise the Master CPM Schedule submittal to address all review comments from the review meeting described above, and resubmit the Master Schedule for District review and approval.
  - 1. District, within ten (10) days from date that Contractor submitted the revised schedule, will either:
    - a. Accept the Master Schedule as submitted, or
    - b. Advise Contractor in writing to review any part or parts of schedule which either do not meet Contract requirements, or are unsatisfactory for District to purposes of monitoring Project progress, resources, and status, or to evaluate monthly payment request by Contractor.
  - 2. District may accept the Master Schedule with conditions that the first monthly CPM schedule Update be revised to correct identified deficiencies.
  - 3. When the Master Schedule is accepted, it shall be considered the Master CPM Schedule which will then be immediately updated to reflect the current status of the work.
  - 4. District reserves right to require Contractor to adjust, add to, or clarify any portion of schedule which may later be discovered to be insufficient for monitoring the Work or approving payment requests. No additional compensation will be due to the Contractor for any such adjustments, additions, or clarifications.
- B. Acceptance of Contractor's Master Schedule by District will be based upon schedule's compliance with Contract requirements and accepted CPM principles.
  - 1. In assigning activity durations and proposing Work sequences, Contractor agrees to utilize sufficient and necessary management and other resources to perform work in accordance with the approved Master Schedule.
  - 2. Upon submittal and District approval of any Master Schedule Update, such updated schedule shall then be considered the "current" Master CPM Schedule.
  - 3. Submission of Contractor's master Schedule to District shall not relieve Contractor of total responsibility for scheduling, sequencing, and executing the Work to comply with requirements of Contract Documents, including recovery from adverse effects such as delays resulting from ill-timed work.
- C. Submittal of the Master CPM Schedule, and subsequent Updates shall be understood to be the Contractor's representation that the Master Schedule meets all requirements of Contract Documents , and that the Work shall be executed in the sequence and within the time indicated on the schedule.
- D. Contractor shall distribute the Master CPM Schedule to Subcontractors for review and written acceptance, which shall be noted on Subcontractors' letterhead to Contractor and transmitted to District for the Project record.

**1.10 MASTER CPM SCHEDULE MONTHLY UPDATES**

- A. Following acceptance of Contractor's Master CPM Schedule, Contractor shall monitor the progress of Work and adjust the Master Schedule each month to reflect actual progress and to illustrate any anticipated changes to planned activities.
1. Each Master Schedule Update submitted by Contractor shall be complete, including all information requested for the original Master Schedule submittal.
  2. Each Update submitted by Contractor shall continue to show all work activities including those already completed. Any completed activities shall accurately reflect "as built" information by indicating when Work activities were actually started and completed. Contractor shall warrant the accuracy of as-built information shown on each schedule Update.
- B. A meeting will be held on approximately the sixteenth (16th) of each month with District Project Manager, Architect and Inspector to review the Master Schedule Update submittal and progress payment application. Conduct periodic schedule update meetings for the purposes of reviewing the Contractor's proposed out of sequence corrections, determining causes for delay, correcting logic, maintaining schedule accuracy and determining earned value. Provide a computer with the scheduling software loaded and a projector during the meeting which allows all meeting participants to view the proposed schedule update during the meeting. The meeting and resultant approvable schedule update shall be a condition precedent to a formal submission of the Update and to the submission of an invoice for payment. The meeting will be a working interactive exchange which will allow the District and the Contractor the opportunity to review the Updated schedule on a real time and interactive basis. The Contractor's authorized scheduling representative will organize, sort, filter and schedule the update as requested by the District and the Architect. A rough draft of the proposed activity logic corrections and narrative report shall be provided to the Architect and the District Project Manager 48 hours in advance of the meeting.
1. At this monthly meeting, a minimum requirement for review shall be included, but not limited to the following items:
    - a. Percent complete of each Work activity
    - b. Time impact evaluations for Change Orders and Time Extension Requests, if any
    - c. Actual and anticipated Work activity sequence changes
    - d. Anticipated Work activity duration changes
    - e. Actual and anticipated Contractor delays
  2. These meetings are a critical component of overall monthly schedule update submittal and Contractor shall ensure appropriate personnel attend. At a minimum, Contractor's Project Engineer, General Superintendent, and Scheduler shall attend these meetings.
  3. Status of Activities. Update information, including Actual Start Dates (AS), Actual Finish Dates (AF), Remaining Durations (RD), and Percent Complete shall be subject to the approval of the District at to the meeting. As a minimum, address the following items on an activity by activity basis during each progress meeting.



- a. 3.6.2.1 Start and Finish Dates. Accurately show the status of the AS and/or AF dates for each activity currently in-progress or completed since the last update. The District may allow an AF date to be assigned with the percent complete less than 100% to account for the value of work remaining but not restraining successor activities. Only assign AS dates when actual progress occurs on an activity.
  - b. 3.6.2.2 Remaining Duration. Update the estimated RD for all incomplete activities independent of Percent Complete. Remaining Durations may exceed the activity original duration (OD) or may exceed the activity's prior update RD if the Government considers the current OD or RD to be understated based on current progress, insufficient work crews actually manning the job, unrealistic OD or deficiencies that must be corrected that restrain successor activities.
  - c. Percent Complete. Update the percent complete for each activity started, based on the realistic assessment of earned value. Activities which are complete but for remaining minor punch list work and which do not restrain the initiation of successor activities may be declared 100 percent complete. To allow for proper schedule management, cost load the correction of punch list from District pre-final inspection activity(ies) for each Phase not less than 1 percent of the total value of that Phase, which activity(ies) may be declared 100 percent complete upon completion and correction of all punch list work identified during District's pre-final inspection(s).
  - d. Logic Changes. Specifically identify and discuss all logic changes pertaining to NTP on change orders, change orders to be incorporated into the schedule, Contractor proposed changes in work sequence, corrections to schedule logic for out-of-sequence progress, and other changes that have been made pursuant to contract provisions. The District will only approve logic revisions for the purpose of keeping the schedule valid in terms of its usefulness in calculating a realistic completion date, correcting erroneous logic ties, and accurately sequencing the work.
  - e. Other Changes. Other changes required due to delays in completion of any activity or group of activities include: 1) delays beyond the Contractor's control, such as strikes and unusual weather. 2) delays encountered due to submittals, District activities, deliveries or work stoppages which make re-planning the work necessary. 3) Changes required to correct a schedule that does not represent the actual or planned prosecution and progress of the work.
- C. Within five (5) working days after monthly schedule update meeting, Contractor shall submit the updated Master CPM Schedule Update.
  - D. Within five (5) work days of receipt of above noted revised submittals, District or Architect will either accept or reject monthly Master CPM Schedule Update submittal.
    - 1. If accepted, percent complete shown in monthly update will be basis for Application for Payment by the Contractor. The schedule update shall be submitted as part of the Contractor's Application for Payment.
    - 2. If rejected, update shall be corrected and resubmitted by Contractor before the Application for Payment is submitted.

3. District and Architect will not review Contractor’s application for payment if the updated monthly schedule not provided and approved by District.
- E. Neither updating, changing or revising of any report, curve, schedule or narrative submitted by Contractor under this Contract, nor District’s review or acceptance of any such report, curve, schedule or narrative, shall have the effect of amending or modifying in any way the Contract Final Completion date or any Phase completion dates, or of modifying or limiting in any way Contractor’s obligations under this Contract.
- F. Updating the Master CPM Schedule to reflect actual progress shall not be considered revisions to the Schedule.
- G. To clarify any revisions to the schedule, the Contractor shall provide District with a written narrative explaining the reasons for each Work activity revision. For revisions affecting the sequence of work, the Contractor shall provide a schedule diagram which compares the original sequence to the revised sequence of work. The Contractor shall provide the written narrative and schedule diagram for revisions two (2) working days in advance of the monthly schedule update meeting.
- H. Schedule revisions shall not be incorporated into any Master Schedule Update until the revisions have been reviewed and approved by District. District may request further information and justification for Master Schedule revisions. Contractor shall, within three (3) days of any such District request, provide District with a complete written narrative response.
- I. If the Contractor's revision is still not accepted by District, and the Contractor disagrees with District's position, the Contractor has three (3) work days from receipt of District's letter rejecting the revision to provide a written narrative providing full justification and explanation for the revision. The Contractor's failure to respond in writing within three (3) work days of District's written rejection of a schedule revision shall be contractually interpreted as acceptance of District's position, and the Contractor waives its rights to subsequently dispute or file a claim regarding District's position.
- J. At District's discretion, the Contractor may be required to provide subcontractor(s) certifications of Work activity performance regarding any proposed Master Schedule revisions affecting said subcontractor(s).

**1.11 WEEKLY LOOK AHEAD SCHEDULE**

- A. At each Weekly Progress Meeting, the Contractor shall provide and present a time scaled three (3) week schedule: one (1) week behind and two (2) week look ahead schedule that is based on and correlated by activity number in the current Master CPM Schedule Update. Provide a two week look ahead schedule in bar chart format, showing daily activities for that period.

**1.12 RECOVERY SCHEDULE**

- A. If any Master CPM Schedule Update shows a Phase of Work substantial completion date five (5) calendar days beyond any approved Phase of Work substantial completion date the Contractor shall submit to District proposed schedule revisions to recover the lost time within seven (7) calendar days. As part of this Recovery Schedule submittal the Contractor shall

provide a written narrative for each schedule revision made to recapture the lost time. If the revisions include sequence changes, the Contractor shall provide a schedule diagram comparing the original sequence to the revised sequence of work.

- B. Recovery Schedule revisions shall not be incorporated into any Master Schedule Update until the revisions have been reviewed and approved by the District.
- C. If the Contractor's Recovery Schedule revisions are not accepted by District, District and the Contractor shall follow the procedures in paragraph 1.10 H through J, above.
- D. If requested by the Architect or District, Contractor 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 that are behind schedule. The additional schedule shall include a new arrow or precedence diagram and schedule reports conforming to the requirements herein, designed to show how the Contractor intends to accomplish the Work to meet the completion date.
- E. 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.

**1.13 TIME IMPACTS EVALUATION (TIE) FOR CHANGE ORDERS AND OTHER POTENTIAL DELAYS**

- A. When Contractor is directed to proceed with changed Work which the Contractor considers have a time impact, the Contractor shall prepare and submit, within seven (7) calendar days from the direction to proceed, a Time Impact Evaluation (TIE) which includes both a written narrative and a schedule diagram depicting how the changed work affects other schedule activities. The schedule diagram shall show how the Contractor proposes to incorporate the changed Work in the schedule, and how it impacts the current Master CPM Schedule and critical path. The Contractor is responsible for requesting time extensions based on the TIEs impact on the critical path. The diagram must correspond to the main sequences of Work activities in the current Master CPM Schedule, to enable District to evaluate time impact of changed work to the scheduled critical path.
- B. Contractor shall be required to comply with the above requirements for all types of delays such as, but not limited to, Contractor/Subcontractor delays, adverse weather delays, strikes, procurement delays, fabrication delays, etc.
- C. Contractor shall be responsible for all costs associated with the preparation of Time Impact Evaluations, and the process of incorporating them into the current schedule update. The Contractor shall provide District with 3 copies of each TIE.
- D. Once agreement between District and Contractor has been reached on a TIE, the Contract time will be adjusted accordingly. If agreement is not reached on a TIE, the Contract time may be extended in an amount District allows, and the Contractor may submit a claim for additional time.
- E. If the Contractor does not submit a TIE within the required seven (7) calendar days for any issue, it is mutually agreed that the Contractor does not require a time extension for said issue.

**1.14 TIME EXTENSIONS**

- A. The Contractor is responsible for requesting time extensions for time impacts that, in the opinion of the Contractor, impact the critical path of the current Master CPM Schedule.
- B. 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).
- C. Where an event for which District is responsible impacts the projected Substantial Completion date of the Work, or any Phase of the Work, the Contractor shall provide a written mitigation plan, including a schedule diagram, which explains how (e.g., increase crew size, overtime, etc.) the impact can be mitigated. The Contractor shall also include a detailed cost breakdown of the labor, equipment, and material the Contractor would expend to mitigate District caused time impact. The Contractor shall submit its mitigation plan to District within seven (7) calendar days from the date of discovery of said impact. The Contractor is responsible for the cost to prepare the mitigation plan.
- D. Contractor's failure to a request time extension, provide a TIE, or provide the required mitigation plan will result in Contractor waiving its right to both a time extension and to recovering any costs to mitigate the delay.
- E. No time extensions will be granted under this Contract for the cumulative effect of changes in the Work.
- F. District will not be obligated to consider any time extension request unless requirements of Contract Documents have been met.
- G. Failure of the Contractor to perform in accordance with the current Master CPM Schedule Update shall not be excused because of submittal of a time extension request.

**PART 2 - PRODUCTS**

Not applicable to this section.

**PART 3 - EXECUTION**

Not applicable to this section.

**END OF SECTION 01310**

## **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 Division 1 Specification Sections shall apply to this Section without limitation.

##### **1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 - "Summary of Work"
- B. Section 01312 - "Project Meetings"
- C. Section 01330 - "Submittal Procedures"
- D. Section 01505 - "Construction Waste Management"
- E. Section 01540 - "Site Security and Safety"
- F. Section 01770 - "Contract Closeout Procedures"
- G. Divisions 2 through 16 Sections for Project Management and Coordination requirements for the work in those Sections.

##### **1.3 SUMMARY**

- A. This Section specifies the administrative requirements and includes descriptions of required Project Coordination for the work and all Phases of Project including, but not limited to, the following:
  - 1. Coordination
  - 2. Pre-construction Conference
  - 3. Project Meetings
  - 4. Pre-installation Conferences-Coordination
  - 5. Underground and Utilities Coordination
  - 6. Electrical and Mechanical Coordination
  - 7. Coordination with Work by District
  - 8. Special Meetings-Coordination
  - 9. Coordination of Contract Closeout

##### **1.4 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. Contractor's decisions if consistent with requirements of the Contract Documents shall be final.
- C. Coordinate completion and clean-up 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. Coordinate sequence of Work to accommodate District occupancy as specified by the Contract Documents for Project Phasing as specified in Section 01015. Cooperate with District and District suppliers and/or contractors during move-in and occupancy of the completed Work at each Phase.
- 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. 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.

### **1.5 PRECONSTRUCTION CONFERENCE**

- A. The District Project Manager will schedule a conference after Notice to Proceed and prior to the start of Work.
- B. Attendance Required: District representatives, Architect and consultants, DSA Project Inspector, District Project Manager, Contractor, certain Subcontractors as requested by the District and others as appropriate.

**1.6 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. Such administrative coordination activities include, but are not limited to, the following:
1. Preparation of and coordination of Contractor's Construction Schedule and Phasing Schedule
  2. Preparation of the Schedule of Values and Original Construction Schedule
  3. Coordinate installation and removal of temporary facilities and controls
  4. Coordinate and delivery and processing of submittals, and samples
  5. Coordinate progress meetings, testing, and inspection
  6. Preinstallation conferences
  7. Mockups
  8. Startup and adjustment of systems
  9. Project closeout activities

**1.7 Project Documents Management and Exchange:**

The Contractor, District, IOR, and Architect shall mutually utilize an internet based system for the exchange and tracking of Project documents. See Specification Section 01318, Document Management System.

**1.8 PRE-INSTALLATION CONFERENCES AND COORDINATION**

- A. Contractor shall be responsible to convene pre-installation conferences as required by individual Section of the Specifications. Include all affected parties. Also refer to Section 01312 for additional Project Meetings and Coordination requirements.

**1.9 COORDINATION OF THE WORK**

- A. Contractor shall use large scale drawings, if their preparation is required as part of Work of these specifications, together with shop drawings 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.
- B. Perform and complete checking and coordination before commencing construction in the affected areas.

**1.10 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 for disposition of salvaged materials that are designated as District's property.

**1.11 MEANS AND METHODS**

- A. Contractor is solely responsible for construction means, methods, techniques, sequences, and procedures for performing all Work.

**1.12 COORDINATION KEY PERSONNEL NAMES**

- A. Contractor prior to starting construction operations shall submit a list of key personnel assignments, including Contractor's Project Manager, Superintendent, Assistant Superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including office and cell telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.
  1. Contractor shall submit (10) copies of key personnel list to the Architect, and District.
  2. Post copies of list in Project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times, and provide current list to the District and Architect.

**1.13 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.

**1.14 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.

**1.15 DAILY CONSTRUCTION REPORTS**

- A. On a daily basis, Contractor shall submit a daily activity report to DISTRICT for each workday, including weekends and holidays, when worked. Contractor shall develop the daily construction reports on a computer generated data-base capable of sorting daily Work, manpower and man-hours by Contractor, Subcontractor, area, sub area, and change order work. Upon request of DISTRICT, furnish computer disk of this database. Obtain DISTRICT's written approval of daily construction report data base format prior to implementation. Include in report:
  1. Project name and Project number
  2. Contractor's name and address
  3. Weather, temperature and any unusual site conditions
  4. Brief description and location of the day's scheduled activities and any special problems and accidents, including Work of Subcontractors. Descriptions shall be referenced to CPM scheduled activities.



5. Worker quantities for its own Work force and for Subcontractors of any tier.
6. Equipment, other than hand tools, utilized by Contractor and Subcontractors.

**1.16 PERIODIC VERIFIED REPORTS**

- A. The Contractor shall complete and submit the Final Verified Report required by DSA 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 Division 1 Specification Sections shall apply to this Section without limitation.

**1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- B. Section 01400 – “Quality Control Requirements”
- C. Section 01770 – “Contract Closeout Procedures”
- D. Divisions 2 through 16 Sections for Project Meetings requirements for the work in those Sections.

**1.3 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 Meeting
  - 2. Schedule Review Meetings
  - 3. Weekly Project Progress Meetings
  - 4. Progress Schedule and Application for Payment Meetings
  - 5. Special Meetings

**1.4 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 shall attend the Preconstruction Conference. This includes, but is not limited to, the following:
  - 1. Demolition Subcontractor
  - 2. Structural Steel Subcontractor
  - 3. Mechanical Subcontractor
  - 4. Electrical Subcontractor
  - 5. Plumbing Subcontractor
  - 6. Hazardous Material Abatement Subcontractor
- C. Meeting agenda will include, but is not limited to, discussion of the following items:

- 1. 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. Initial Schedule
- 13. Schedule of Values
- 14. Schedule of Submittals
- 15. Project Directory
- 16. Emergency Contact List

**1.5 SCHEDULE OF VALUES AND INITIAL SCHEDULE MEETING**

- A. Contractor shall meet with District and Architect within 10 days of submittal of the draft Schedule of Values and Initial Schedule to review and evaluate the Schedule of Values and the Initial Schedule.

**1.6 SHOP DRAWINGS & SUBMITTALS SCHEDULE MEETING**

- A. Contractor shall meet with District and Architect within 10 days of submittal of the draft Shop Drawings and Submittals Schedule to review and evaluate the Shop Drawings and Submittals Schedule.

**1.7 WEEKLY PROGRESS MEETINGS**

- A. Weekly Progress Meetings will be scheduled throughout duration of Work and all phases of the project at a time acceptable to the District. Progress meetings will be held weekly unless otherwise directed by District.
  - 1. Meetings shall be held at Project Manager’s on-site office unless otherwise directed by the District.
  - 2. The Project Manager will prepare an agenda and distribute it 2 working Days in advance of meeting to Contractor.
- B. Progress meetings shall be attended by the Contractor’s project manager, project engineer, and job superintendent, District Project 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 of Work progress since last meeting

- 3. Status of Construction Work 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

**1.8 SPECIAL MEETINGS**

- A. Contractor or District may call special meetings by notifying the desired participants. Notify District no less than 5 work days in advance, and provide the reason for the meeting. 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 his own periodic coordination meetings as necessary to discharge coordination responsibilities.
- D. Contractor shall give District 5 work days written notice of his 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.

Not Used

**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 01290 – “Payment Procedures”
- C. Section 01310 – “Construction Scheduling”
- D. Section 01400 – “Quality Control Requirements”
- E. Section 01770 – “Project Closeout Procedures”
- F. Section 01780 – “Project Record Documents”
- G. Divisions 2 through 16 sections 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 (listing submittal schedule, including shop drawings and samples)
  - f. Schedule of prices
  - 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
    - b. As-built drawings
    - c. Others as required by the Contract Documents. See Section 01770 Contract Closeout Procedures.

**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 Initial Schedule (See Section 01310 Construction Scheduling). 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. Quality Control Certification. Stamp each sheet of each submittal with a quality control certifying statement, except that data submitted in bound volume or on one sheet printed on two sides may be stamped on the front of the first sheet only. When approving authority is Architect or District, Contractor shall certify submittals with the following certifying statement:

"I hereby certify that the (equipment) (material) (article) shown and marked in this submittal is that proposed to be incorporated with contract Number [\_\_\_\_], is in compliance with the Contract Documents, does not constitute an unapproved substitution, deviation, or variation, can be installed in the allocated spaces, and is submitted for District approval.

I further certify that I have reviewed and approved the field dimensions and the construction criteria, and have also made written notation regarding any information in the shop drawings that does not fully conform to the Contract Documents. This submittal has been coordinated with all other submittals received to date, and this duty of coordination has not been delegated to subcontractors, material suppliers, the Architect, or the Engineers on this project.

For the Contractor:

Certified by Submittal Reviewer \_\_\_\_\_, Date \_\_\_\_\_  
(Signature )

Certified by QC Manager \_\_\_\_\_, Date \_\_\_\_\_"  
(Signature)

- J. Partial submittals are not acceptable, will be considered non-responsive, and will be returned without review by either District or Architect.
- K. Mark each copy of each submittal to show which products and options are applicable.
- L. 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. .
- M. 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.
- N. 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.
- O. 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.
- P. 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.
- Q. 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, or return without review, 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.
- R. Submittals Schedule: Comply with requirements in Section 01310 (Construction Scheduling) in planning for required submittals and relating them to scheduled construction activities.
1. Initial Review: Allow (15) 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 (10) 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 (15) working days for initial review of each submittal.
- S. 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.
- T. 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, one (1) PDF format digital file, 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.
4. **Welding Certificates:** Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Report (PQR) on AWS forms. Include names of firms and personnel certified.
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 Division 1 Specification Sections shall apply to this Section without limitation.

**1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01290 – “Payment Procedures”
- B. Section 01310 – “Construction Scheduling”
- C. Section 01311 – “Project Management and Coordination”
- D. Section 01330 – “Submittal Procedures”
- E. Section 01780 – “Project Record Documents”
- F. Divisions 2 through 16 Sections for Administrative Forms & Logs requirements for the Work in those Sections.

**1.3 SUMMARY**

- A. This section specifies the information and format requirements for administrative forms and logs.

**1.4 ADMINISTRATIVE FORMS & LOGS**

- A. Administrative forms and logs include, but are not limited to, the following:
  - 1. Transmittal Form
  - 2. Submittal Transmittal Form
  - 3. Request for Information Form
  - 4. Substitution Request Form
  - 5. 3-Week Projected Construction Schedule Form
  - 6. 3-Week Testing & Inspection Schedule Form
  - 7. Proposed Change Order Form\*
  - 8. Change Order Form\*
  - 9. Request for Information Log Form
  - 10. Submittal Log Form

11. Proposed Change Order Log Form
  12. Change Order Log Form
  13. Contractor's Proposal for Contract Modification Form\* (includes sample numbers to demonstrate calculations only)
  14. Contractor Production Report
- B. Forms generated by project management software may be substituted if substitution forms contain essentially the same information as shown in these contract documents. Allowance for the use of substitute forms is at the sole discretion of the District, and shall be requested and approved before use of the substitute form. Forms marked with an asterisk (\*) may NOT be substituted under any condition.
- C. Microsoft Excel files of these forms are available for Contractor use from the District.

#### **1.5 FORMS INCORPORATED BY REFERENCE**

- A. Forms available from the California Department of General Services, Division of the State Architect, <http://www.dgs.ca.gov/dsa/Forms.aspx>, related to administration, construction, testing, and inspection of public work school facilities are hereby incorporated by reference into these Contract Documents.

#### **1.6 CONTRACTOR RESPONSIBILITIES**

- A. Nothing in this Section 01340 including, but not limited to the above forms and log forms shall be construed to limit, relieve, or release Contractor from liability to District for any damages sustained as a result of inaccurate or incorrect information supplied by the Contractor.

#### **PART 2 - PRODUCTS**

Not Used.

#### **PART 3 - EXECUTION**

Not Used.











**CONTRA COSTA COMMUNITY COLLEGE DISTRICT**

500 Court Street, Martinez, CA 94553

**SUBSTITUTION REQUEST FORM**

Contractor Name: \_\_\_\_\_  
 Contract #: \_\_\_\_\_

RFS # \_\_\_\_\_ Date: \_\_\_\_\_  
 DSA Application #: \_\_\_\_\_  
 Campus: \_\_\_\_\_  
 Project No., Name: \_\_\_\_\_

Contractor pursuant to General Conditions submits the proposed items. If the District accepts such items as described, the undersigned may furnish such item with all necessary labor, materials, equipment and incidentals to perform and complete the Work.

Item No.	SPECIFIED ITEM OR DRAWING	SPECIFICATION SECTION	PROPOSED SUBSTITUTION (and name of Subcontractor if different)

**CERTIFICATION**

Under penalty of perjury under the Laws of California, I certify that the proposed substitution will be readily available, perform adequately the functions and achieve the results called for by the design concept, be similar in substance to that specified, and be suited to the same use as that specified in Contract Documents.

Contractor: \_\_\_\_\_

(Please print name of company)	Name and Title (print/type)	Contractor Authorized Representative	Date
A. Does the substitution affect dimensions shown on Drawings?			
B. Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitution?			
C. What effect does the substitution have on other trades?			
D. Will substitution cause change to Project Schedule, or to critical delivery dates? Add ? Shorten ?			
E. Differences between proposed substitution and specified item?			
F. What is the Cost Differential including all mark-ups?			
G. Are Manufacturer's guarantees for the proposed item the same as for item specified? Explain differences.			
H. The undersigned accepts full responsibility for delays caused by redesign of other items of the Work necessitated by substitution.			
I. The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.			

<b>A/E Response:</b>	<b>District Representative Response:</b>
<input type="radio"/> Accepted	<input type="radio"/> Accepted
<input type="radio"/> Not Accepted	<input type="radio"/> Not Accepted
<input type="radio"/> Accepted As Noted	<input type="radio"/> Accepted As Noted
<input type="radio"/> Received Too Late	<input type="radio"/> Received Too Late
BY: _____ Date: _____	BY: _____ Date: _____







**CONTRA COSTA COMMUNITY COLLEGE DISTRICT**

500 Court Street, Martinez, CA 94553

**PROPOSED CHANGE ORDER**

**PCO No.:** \_\_\_\_\_

Contractor Name:	_____
Contract #:	_____
Contract Date:	_____
NTP Date:	_____
GL #:	_____

Date: \_\_\_\_\_

DSA File #: 7-C1

DSA Application #: \_\_\_\_\_

Campus: \_\_\_\_\_

Project No., Name: \_\_\_\_\_

**PRELIMINARY CHANGE AS FOLLOWS:**

Within (7) days provide and submit to the Project Manager a complete and itemized proposal including but not limited to the following items: cost breakdown of Labor, Material, Equipment, Markup, Construction Schedule, etc. Provide either ADD or DEDUCT to the original Contract Amount.

Scope of Work:	Ref. (Drawings, Specifications, Others):
Final Cost of this PCO	\$0.00
The Contractor requests that time will be <input type="checkbox"/> Increased; <input type="checkbox"/> Decreased; By _____ Working Days	

**NOTE:** The Contractor waives any claim for further adjustments of the Contract Sum and Contract Time related to the changes in Work as described above .

<b>1 - REVIEWED &amp; RECOMMENDED</b> (Architect/Engineer of Record)	<b>5 - CONTRACTOR ACCEPTANCE</b>
Stamp ( when applicable)	Company Name:
Signature/Date	Address:
<b>2 - CONSTRUCTION MANAGER (CM) - (when applicable)</b>	Authorized Representative, Name & Title (PRINT)
Signature / Date	Signature / Date
<b>3 - PROJECT INSPECTOR (PI) - (when applicable)</b>	<b>6 - DISTRICT REPRESENTATIVE</b>
Signature / Date	Signature / Date
<b>4 - PROJECT MANAGER (PM)</b>	DSA APPROVAL (when applicable)
Signature / Date	



**CONTRA COSTA COMMUNITY COLLEGE DISTRICT**

500 Court Street, Martinez, CA 94553

**CHANGE ORDER No.:** \_\_\_\_\_

Contractor Name: _____ Contract #: _____ Contract Date: _____ NTP Date: _____ GL #: _____	Date: _____ DSA File #: <u>7-C1</u> DSA Application #: _____ Campus: _____ Project No., Name: _____
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**THE CONTRACT IS CHANGED AS FOLLOWS:** (Attach Contractor Change Order Request or Proposal - if applicable)

ADJUSTMENT TO CONTRACT AMOUNT / TIME	
Original Contract Amount	\$0.00
Prior Contract Adjustments	\$0.00
Contract Sum Prior to this Change Order	\$0.00
Adjustment Per This Change Order	\$0.00
Revised Contract Amount	\$0.00
Original Contract Period: _____	Start Date: _____ End Date: _____
The Contract Time will be _____ Increased; _____ Decreased; By _____ Calendar Days	
Revised Contract Completion Date: _____	

**NOTE:** The Contractor waives any claim for further adjustments of the Contract Sum and Contract Time related to the above changes in Work.

<b>1 - REVIEWED &amp; RECOMMENDED</b> (Architect/Engineer of Record)  Stamp (when applicable) _____ Signature/Date _____	<b>5 - CONTRACTOR ACCEPTANCE</b> Company Name: _____  Address: _____  Authorized Representative, Name & Title (PRINT) _____  Signature / Date _____
<b>2 - CONSTRUCTION MANAGER (CM) - (when applicable)</b>  Signature / Date _____	<b>6 - DISTRICT AUTHORIZED REPRESENTATIVE</b>  C.O. NOT VALID WITHOUT Signature / Date _____
<b>PROJECT INSPECTOR (PI) - (when applicable)</b>  Signature / Date _____	<b>4 - PROJECT MANAGER (PM)</b>  Signature / Date _____
<b>DSA APPROVAL (when applicable)</b>	











**CONTRACTOR'S PROPOSAL FOR CONTRACT MODIFICATION**

**DATE:** January 0, 1900

<b>Project No. and Name:</b> L-612 STUDENT SERVICE CENTER REMODEL		<b>CONTRACT NO.:</b> 0	
<b>Contractor:</b> 0		<b>PCO NO.:</b> 0	
<b>SHORT DESCRIPTION OF CHANGE:</b>		Description attached	
<b>PRIME CONTRACTOR'S WORK</b>			
1. Direct Materials			\$30,000.00
2. Sales Tax on Materials	8.25 % of Line 1	8.25%	\$2,475.00
3. Direct Labor			\$60,000.00
4. Not used		NA	
5. SUBTOTAL Materials and Labor (Add lines 1-4)			\$92,475.00
6. Rental Equipment			\$0.00
7. Sales Tax on Rental Equipment	8.25 % of Line 5	8.25%	\$0.00
8. Equipment Ownership and Operating Expenses			\$30,000.00
9. SUBTOTAL Equipment (Add Lines 6-8)			\$30,000.00
<b>SUMMARY</b>			
10. Prime Contractor's Work (Add Lines 5 and 9)			\$122,475.00
11. Overhead and Profit On Prime Material and Labor	15.00 % of Line 5	15.00%	\$13,871.25
12. Overhead and Profit On Prime Equipment	10.00 % of Line 9	10.00%	\$3,000.00
13. Total of all Subcontractor's Work (Line 10 of Sub Summary page)			\$10,279.05
14. Prime O&P On Subcontractor's Work	5.00 % of Line 13	5.00%	\$513.95
15. Subcontractor O&P All Mat'l and Labor (Line 11 of Sub Summary page)			\$520.17
16. Subcontractor O&P All Equipment (Line 12 of Sub Summary page)			\$681.12
17. TOTAL COST (Add Lines 10-16)			\$151,340.55
<b>Estimated time extension and justification:</b>		<b>Work Days</b>	0
<b>Prime Contractor's Comments:</b>			
<b>Prime Contractor's Name:</b>			
<b>Signature and Title of Preparer:</b>			<b>Date:</b>
<p>(1) Material (attach itemized quantity and unit cost plus sales tax)</p> <p>(3) Labor (attach itemized hours and rates)</p> <p>(3, 7) Equipment (attach invoices)</p> <p>(13) If Subcontractor performed Work, use Subcontractor's sheets to calculate costs. Subcontractor overhead and profit (all tiers cumulative) not to exceed fifteen percent (15%) of direct material, labor, and equipment on Subcontractor Summary sheet. This information propagates automatically to (13) and (16).</p> <p>(14) General Contractor's Overhead and Profit on Subcontractor work. No more than five percent (5%) of Item (13) if work was performed by Subcontractor.</p> <p>(v. 10/2011)</p>			



**CONTRACTOR'S PROPOSAL FOR CONTRACT MODIFICATION**

DATE: **January 0, 1900**

Project No. and Name: L-612 STUDENT SERVICE CENTER REMODEL		CONTRACT NO.: 0	
Subcontractor: <b>SUBCONTRACTOR SUMMARY</b>		PCO NO.: 0	
SHORT DESCRIPTION OF CHANGE: 0			
<b>SUBCONTRACTOR'S WORK SUMMARY</b>			
1. Direct Materials			\$1,125.00
2. Sales Tax on Materials	8.25 % of Line 1	8.25%	\$92.81
3. Direct Labor			\$2,250.00
4. Not used		NA	
5. SUBTOTAL Materials and Labor (Add lines 1-4)			\$3,467.81
6. Rental Equipment			\$6,015.00
7. Sales Tax on Rental Equipment	8.25 % of Line 6	8.25%	\$496.24
8. Equipment Ownership and Operating Expenses			\$ 300.00
9. SUBTOTAL Equipment (Add Lines 6-8)			\$6,811.24
<b>SUMMARY</b>			
10. Total Subcontractor Work (Add Lines 5 and 9)			\$10,279.05
11. * O&P On All Subcontractor Material and Labor	15.00 % of Line 5	15.00%	\$ 520.17
12. * O&P On All Subcontractor Equipment	10.00 % of Line 9	10.00%	\$681.12
13. TOTAL SUBCONTRACTOR COST (Add Lines 10-12)			\$11,480.35
* See Project Manual Section 01250, Contract Modification Procedures, 1.8.H regarding distribution of subcontractor markups.			
(1) Material (attach itemized quantity and unit cost plus sales tax) (3) Labor (attach itemized hours and rates) (5, 7) Equipment (attach invoices) (10) If Subcontractor performed Work, use Subcontractor's sheets to calculate costs.  (11) and (12) Subcontractor overhead and profit (all tiers cumulative) not to exceed fifteen percent (15%) of direct material, labor, and ten (10%) on equipment on Subcontractor Summary sheets.			

**CONTRACTOR'S PROPOSAL FOR CONTRACT MODIFICATION**      **DATE:** January 0, 1900

<b>Project No. and Name:</b> L-612 STUDENT SERVICE CENTER REMODEL		<b>CONTRACT NO.:</b> 0	
<b>Tier 1 Subcontractor:</b> Somebody1		<b>PCO NO.:</b> 0	
<b>SHORT DESCRIPTION OF CHANGE:</b> Description attached 0			
<b>TIER 1 SUBCONTRACTOR'S WORK</b>			
1. Direct Materials			\$1,000.00
2. Sales Tax on Materials	8.25 % of Line 1	8.25%	\$82.50
3. Direct Labor			\$2,000.00
4. Not used		NA	
5. SUBTOTAL Materials and Labor (Add lines 1-4)			\$3,082.50
6. Rental Equipment			\$6,000.00
7. Sales Tax on Rental Equipment	8.25 % of Line 5	8.25%	\$495.00
8. Equipment Ownership and Operating Expenses			\$ -
9. SUBTOTAL Equipment (Add Lines 6-8)			\$6,495.00
<b>SUMMARY</b>			
10. TIER 1 Contractor's Work (Add Lines 5 and 9)			\$9,577.50
11. Total of all Subcontractor's Work (See Backup)			\$701.55
12. TOTAL COST (Add Lines 15-16)			\$10,279.05
<b>Subcontractor's Comments</b>			
<b>Subcontractor's Name:</b>			
<b>Signature and Title of Preparer:</b>			<b>Date:</b>
<small>(1) Material (attach itemized quantity and unit cost plus sales tax)                  (3) Labor (attach itemized hours and rates)                  (3, 7) Equipment (attach invoices)                  (10) If Subcontractor performed Work, use Subcontractor's sheets to calculate costs. Subcontractor overhead and profit (all tiers cumulative) not to exceed fifteen percent (15%) of direct material, labor, and equipment on Subcontractor Summary sheets.                  v.10.2011</small>			



**INSTRUCTIONS FOR PREPARING CONTRACTOR PROPOSAL FOR CONTRACT MODIFICATION**

(09/11)

All contract modification proposals shall be addressed to the District and be received only from the Prime Contractor. Proposals must clearly state the conditions and scope of the modification and shall be accompanied by a breakdown of costs, as indicated. Lump sum costs will not be accepted in either the prime or sub-contractor's breakdown of direct costs. The total cost for labor, material, and equipment for each item shall be transferred to the corresponding item on the front of this form.

The 1 Subcontractor: Somebody1

Contract No.: \_\_\_\_\_

Date: January 0, 1900

**BREAKDOWN OF DIRECT COSTS**

POD #: 0

Item No.	Name of Work	Qty	Unit	Material		Labor	Total Cost	R or O	Days	Rate	Equipment Rental Cost	Overtime Cost
				Unit Cost	Total Cost							
1		1		\$1,000.00	\$1,000.00	\$2,000.00	2,000.00	r	2	3,000.00	6,000.00	
2				\$		\$					\$	
3				\$		\$					\$	
4				\$		\$					\$	
5				\$		\$					\$	
6				\$		\$					\$	
7				\$		\$					\$	
8				\$		\$					\$	
9				\$		\$					\$	
10				\$		\$					\$	
11				\$		\$					\$	
12				\$		\$					\$	
13				\$		\$					\$	
14				\$		\$					\$	
15				\$		\$					\$	
16				\$		\$					\$	
17				\$		\$					\$	
18				\$		\$					\$	
19				\$		\$					\$	
20				\$		\$					\$	
21				\$		\$					\$	
22				\$		\$					\$	
23				\$		\$					\$	
24				\$		\$					\$	
25				\$		\$					\$	
26				\$		\$					\$	
27				\$		\$					\$	
28				\$		\$					\$	
29				\$		\$					\$	
30				\$		\$					\$	
31				\$		\$					\$	
32				\$		\$					\$	
33				\$		\$					\$	
34				\$		\$					\$	
35	Continuation Page 1 of 1 ( JMO				Cont. Total	Cont. Total	Cont. Total	Cont. Total				
DIRECT Tier 1 Subcontractor's Totals				Total \$	1,000.00	Total \$	2,000.00				Rental Cost \$	6,000.00
												Overtime Cost

**CONTRACTOR'S PROPOSAL FOR CONTRACT MODIFICATION**

**DATE:** January 0, 1900

(10/11)

<b>Project No. and Name:</b> L-612 STUDENT SERVICE CENTER REMODEL		<b>CONTRACT NO.:</b> 0	
<b>Tier 2 Subcontractor:</b> Nobody2		<b>PCO NO.:</b> 0	
<b>SHORT DESCRIPTION OF CHANGE:</b> 0		Description attached	
<b>TIER 2 SUBCONTRACTOR'S WORK</b>			
1. Direct Materials		\$ 100.00	
2. Sales Tax on Materials	8.25 % of Line 1	8.25%	\$8.25
3. Direct Labor		\$ 200.00	
4. Not used		NA	
5. SUBTOTAL Materials and Labor (Add lines 1-4)			\$308.25
6. Rental Equipment		\$ -	
7. Sales Tax on Rental Equipment	8.25 % of Line 5	8.25%	\$0.00
8. Equipment Ownership and Operating Expenses		\$ 300.00	
9. SUBTOTAL Equipment (Add Lines 6-8)			\$300.00
<b>SUMMARY</b>			
10. TIER 2 Contractor's Work (Add Lines 5 and 9)		\$608.25	
11. Total of all Subcontractor's Work (See Backup)		\$93.30	
12. TOTAL COST (Add Lines 10 and 11)			\$701.55
<b>Tier 2 Subcontractor's Comments:</b>			
<b>Tier 2 Subcontractor's Name:</b>			
<b>Signature and Title of Preparer:</b>			<b>Date:</b>
<p>(1) Material (attach itemized quantity and unit cost plus sales tax)</p> <p>(3) Labor (attach itemized hours and rates)</p> <p>(3, 7) Equipment (attach invoices)</p> <p>(10) If Subcontractor performed Work, use Subcontractor's sheets to calculate costs. Subcontractor overhead and profit (all tiers cumulative) not to exceed fifteen percent (15%) of direct material, labor, and equipment on Subcontractor Summary sheets.</p> <p>v.10/2011</p>			

**INSTRUCTIONS FOR PREPARING CONTRACTOR PROPOSAL FOR CONTRACT MODIFICATION**

(10/11)  
 All contract modification proposals shall be addressed to the District and be received only from the Prime Contractor. Proposals must clearly state the conditions and scope of the modification and shall be accompanied by a breakdown of costs, as indicated. Lump sum costs will not be accepted in either the prime or sub-contractor's breakdown of direct costs. The total cost for labor, material, and equipment for each item shall be transferred to the corresponding item on the front of this form.

The 2 Subcontractor: Nobody2 Contract No.: 0 Date: January 0, 1900  
 Breakdown of Direct Costs PO# : 0

Item No.	Name of Work	Material		Labor		Total Cost	R. or O.	Days	Rate	Equipment	
		Unit	Unit Cost	Unit Cost	Rate					Rental Cost	Owned Cost
1		1	\$100.00	\$200.00	0	1	\$100.00				
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
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32											
33											
34											
35	Continuation Page ( Yes / No )										
DIRECT THE 2 Subcontractor's Totals		Total	\$ 100.00	Total	\$ 200.00	Total		Total	\$ 300.00	Total	\$ 300.00

**CONTRACTOR'S PROPOSAL FOR CONTRACT MODIFICATION**

**DATE:** January 0, 1900

<b>Project No. and Name:</b> L-612 STUDENT SERVICE CENTER REMODEL		<b>CONTRACT NO.:</b> 0	
<b>Tier 3 Subcontractor:</b>		<b>PCO NO.:</b> 0	
<b>SHORT DESCRIPTION OF CHANGE:</b>		Description attached	
0			
<b>TIER 3 SUBCONTRACTOR'S WORK</b>			
1. Direct Materials		\$ 25.00	
2. Sales Tax on Materials	8.25 % of Line 1	8.25%	\$2.06
3. Direct Labor		\$ 50.00	
4. Not used		NA	
5. SUBTOTAL Materials and Labor (Add lines 1-4)			\$77.06
6. Rental Equipment		\$ 15.00	
7. Sales Tax on Rental Equipment	8.25 % of Line 5	8.25%	\$1.24
8. Equipment Ownership and Operating Expenses		\$ -	
9. SUBTOTAL Equipment (Add Lines 6-8)			\$16.24
<b>SUMMARY</b>			
10. TIER 3 Contractor's Work (Add Lines 5 and 9)		\$93.30	
<b>Tier 3 Subcontractor's Comments</b>			
<b>Tier 3 Subcontractor's Name:</b>			
<b>Signature and Title of Preparer:</b>			<b>Date:</b>
<small>(1) Material (attach itemized quantity and unit cost plus sales tax)                  (3) Labor (attach itemized hours and rates)                  (5, 7) Equipment (attach invoices)                  (10) If Subcontractor performed Work, use Tiered Subcontractor's sheets to calculate costs. Subcontractor overhead and profit (all tiers cumulative) not to exceed fifteen percent (15%) of direct material, labor, and equipment on Subcontractor Summary sheets.</small>			

**INSTRUCTIONS FOR PREPARING CONTRACTOR PROPOSAL FOR CONTRACT MODIFICATION**

(01/11)

All contract modification proposals shall be addressed to the District and be received only from the Prime Contractor. Proposals must clearly state the conditions and scope of the modification and shall be accompanied by a breakdown of costs, as indicated. Lump sum costs will not be accepted in either the prime or sub-contractor's breakdown of direct costs. The total cost for labor, material, and equipment for each item shall be transferred to the corresponding item on the front of this form.

Tier 3 Subcontractor: 0 Contract No.: 0 Date: January 0, 1900  
 PCD #: 0

**BREAKDOWN OF DIRECT COSTS**

Item No.	Name of Work	Qty	Unit	Material		Labor	R or O	Days	Rate	Equipment		Owned Cost					
				Unit Cost	Total Cost					Rental Cost							
1																	
2				\$5.00	25.00	\$10.00	R	1	\$15.00	\$15.00	\$	\$					
3																	
4																	
5																	
6																	
7																	
8																	
9																	
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31																	
32																	
33																	
34																	
35	Continuation Page 1 Yes (No)				Cont. Total	90.00	Cont. Total		Cont. Total		15.00	Owned Cost					
DIRECT Tier 3 Subcontractor's Totals											Cont. Total	90.00	Cont. Total		15.00	Owned Cost	

CONTRACTOR PRODUCTION REPORT (ATTACH ADDITIONAL SHEETS IF NECESSARY)					DATE	
CONTRACT NO		PROJECT NUMBER AND NAME			REPORT NO	
CONTRACTOR			SUPERINTENDENT		SCHED REF, IF NOT WHY	
AM WEATHER		PM WEATHER		MAX TEMP	MIN TEMP	
WORK PERFORMED TODAY						
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS	
WAS A JOB SAFETY MEETING HELD THIS DATE? (If YES attach copy of the meeting minutes)				Yes	TOTAL WORK HOURS ON JOB SITE THIS DATE, INCL CONT SHEETS	
WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? (If YES attach copy of completed OSHA report)				No	CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	
WAS CRANEMANLIFT/TRENCHING/SCAFFOLDING/ ELEC/HIGH WORK/ HAZMAT WORK DONE? (If YES attach statement or checklist showing inspection performed.)				No	TOTAL WORK HOURS FROM START OF CONSTRUCTION	
WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? (If YES attach description of incident and proposed action.)				No		
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED				SAFETY REQMTS HAVE BEEN MET.	
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)						
Schedule Activity No.	Submital #	Description of Equipment/Material Received				
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.						
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (incl Make and Model)			Hours Used	
Schedule Activity No.	REMARKS					
CONTRACTOR/SUPT Sign				Title	DATE	

4296/1 (9/98)

SHEET OF

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 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- B. Section 01311 – “Project Management and Coordination”
- C. Section 01330 – “Submittal Procedures”
- D. Section 01412 – “Regulatory Requirements – Hazardous Material”
- E. Divisions 2 through 16 Sections for Quality Control Requirements for the work in those sections.

**1.3 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. Mock-ups
  - 4. Inspection and testing laboratory services
  - 5. Manufacturers’ field services and reports
  - 6. Field sample
  - 7. DSA Project Inspector
  - 8. Inspection by the Division of the State Architect
  - 9. Conflicts

**1.4 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 manufacturer’s 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.

**1.5 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. ASTM 548: Guide for General Criteria Used for Evaluating Laboratory Competence.
- G. Code of Federal Regulations (CFR):
  - 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.

**1.6 MOCK-UPS**

- A. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals and finishes.
- B. Where mock-up is specified in individual Sections to be removed, clear area after mock-up has been accepted by District’s Representative.
- C. Mock-ups: Full-size, physical assemblies that are constructed on site. Mockups are used to verify selections made under sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not Samples. Approved mockups establish the standard by which the Work will be judged.
- D. Laboratory Mockups: Full-size, physical assemblies that are constructed at testing facility to verify performance characteristics.
- E. Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work.
  - 1. Contractor shall build mockups in location and of size indicated, or if not indicated, as directed by Architect.
  - 2. Notify District and Architect five (5) working days in advance of dates and times when mockups will be constructed.
  - 3. Contractor shall demonstrate the complete range of aesthetic effects, details, and workmanship for the Work they represent.

**1.7 INSPECTION AND TESTING LABORATORY SERVICES**

- A. See Section 01411 Testing Laboratory Services

**1.8 MANUFACTURERS' FIELD SERVICES AND REPORTS**

- A. Submit qualifications of observer to District and Architect 30 days in advance of required observations.
- B. 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.
- C. Manufacturer's Field Representatives shall report to the Contractor and the District, any observations, site decisions, or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- D. Provide five (5) sets of Manufacturer's Field Representative report to District and Architect for review within 10 days of field observation.
- E. Manufacturer's Field Service: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Section 01330 (Submittal Procedures.)

**1.9 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.

**1.10 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.
- B. Project Inspector's authority, rights and duties shall be as set forth in Section 4-342, Part 1, Title, 24, CCR.
- C. The Project Inspector shall make semi-monthly reports in writing to the Architect with copies forwarded to District, Project Manager, and the DSA in accordance with Section 4-337, Part 1, Title 24, CCR.
- D. The Project Inspector shall notify the Division of the State Architect:
  - 1. When work is started on project.
  - 2. Minimum (2) working days in advance of time when foundation trenches will be complete and ready for footing forms.
  - 3. Minimum (2) working days in advance for first placing of concrete.
  - 4. When work is suspended for period of more than two weeks.
- E. The Project Inspector shall keep records of certain phases of construction that shall be maintained on the project site until completion. Upon completion, these records shall be

copied, with the original delivered to the District for the permanent school records and the copy forwarded to the Architect. The record shall include, but is not limited, to the following:

1. The time and placing of concrete and the time and date of removal of forms in each portion of the structure.
  2. Weighmasters tickets delivered with each load of concrete delivered to site.
  3. Identification marks of welders, lists of defective welds, and manner of correction of defects.
  4. Certification of grounding of electrical system.
- F. The Project Inspector shall monitor the work of Special Inspectors and testing laboratories to ensure testing program is satisfactorily completed.
  - G. The Project Inspector shall notify the Contractor in writing of deviations from Contract Documents. Copies of such notice shall be forwarded immediately to the Architect, Project Manager, District and the Division of the State Architect (DSA).
  - H. The Project Inspector shall make and submit Verified Reports in accordance with Section 4-336, Part 1, Title 24, CCR. Verified Reports shall be submitted directly to the Division of the State Architect with a copy forwarded to the Architect.
  - I. The Project Inspector shall prepare detailed statements of fact regarding materials, operations and other related issues when requested by the Construction Manager. Such statements shall be submitted directly to the Construction Manager with a copy forwarded to the Architect.
  - J. The District may employ roofing and waterproofing specialist, in addition to the Project Inspector to inspect and monitor application of roofing, waterproofing, and related flashings.
  - K. Contractor shall cooperate with all Project inspectors. Provide access to the work at all times whether it is in preparation or progress. Provide proper facilities for access and inspection.
  - L. Perform work with the knowledge of the Inspectors. Cover no work prior to inspection.
  - M. Notify Inspectors in writing at least (2) working days prior to expected time for operations requiring inspection.
  - N. If work is performed on Saturdays, Sundays, Holidays or beyond normal working hours, the Inspectors will be paid at overtime rates by the District. The cost of the Inspectors' premium time will be deducted by the District from the Contract Sum by Change Order.
  - O. The Contractor shall pay the cost of the Inspector's salary for the time the Inspector is required on the project beyond the allotted Contract Time. The cost of the Inspector's salary shall be in addition to liquidated damages outlined in Supplementary Conditions and will be deducted by the District from the Contract Sum by Change Order.

**1.11 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.

**1.12 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 specification 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.

**1.13 QUALITY ASSURANCE**

- A. General: Qualifications requirements in this Article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Installer Qualifications: A firm or individual with experience in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
  - 1. Minimum Experience: 5 years or 5 similar projects, unless indicated otherwise.
- C. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

- D. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to product required units.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that is similar to those indicated for this Project in material, design, and extent.
- F. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 548; and with additional qualifications specified in individual Sections; and acceptable to authorities having jurisdiction.
  - 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
  - 2. NVLAP: A testing agency accredited according to NIST’s National Voluntary Laboratory Accreditation Program.
- G. Factory-Authorized Service Representative Qualifications: An authorized representative who is trained and approved by manufacturer to inspect installation of manufacturer’s products that are similar in material, design, and extent to those indicated for this Project.
- H. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
  - 1. Contractor responsibilities include:
    - a. Provide test specimens representative of proposed products and construction.
    - b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
    - c. Provide sizes and configurations of test assemblies, mockups, and laboratory mockups, to adequately demonstrate capability of products to comply with performance requirements.
    - d. Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.
    - e. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
    - f. When testing is complete, remove test specimens, assemblies, mockups, and laboratory mockups; do not reuse products on Project.
  - 2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
- I. Pre-work Meetings: The Contractor shall hold and document Pre-work Meetings for Subcontractors at least 3 work days prior to Subcontractors beginning work at the site for the first time. A copy of the completed New Subcontractor Preparatory Phase Checklist for each Pre-work Meeting shall be provided as an attachment to the Daily Report for that day, with a

sign-in sheet for all persons that were present at the meeting. The Checklist is provided at the end of this section.

1. The Pre-work Meeting shall be conducted in order to review and confirm the requirements of the Work per the Contract Documents, coordinate the Work, identify required tests and inspections, and establish a goal to obtain quality construction by planning ahead and identifying potential problems.
2. Notify the Construction Manager and the District Project Manager at least three (3) work days in advance of each Pre-work Meeting. Conduct the Pre-work Meeting with the superintendent and the foreman responsible for the work and any District representatives that wish to attend.
3. Go over the following at the Pre-work Meeting prior to allowing a Subcontractor to begin work on site:
  - a. Review the General Conditions and other Contract Specifications governing work at the Project location. Review rules governing use of workspace, parking, laydown areas, conduct of employees, and access to and from the worksite.
  - b. Review the Project Preconstruction Meeting Minutes and review pertinent portions with the new Subcontractor.
  - c. Review each paragraph of the applicable technical specification sections;
  - d. Review the contract drawings;
  - e. Verify that appropriate shop drawings and submittals for materials and equipment have been submitted and approved. Verify receipt of approved factory test results, when required;
  - f. Review the testing plan and ensure that provisions have been made to provide the required testing;
  - g. Examine the work area to ensure that the required preliminary work has been completed;
  - h. Examine the required materials, equipment and sample work to ensure that they are on hand and conform to the approved shop drawings and submitted data;
  - i. Review the Contractor's approved Site Safety Plan and appropriate Activity Hazard review to ensure that applicable safety requirements are met, and that required Material Safety Data Sheets (MSDS) are submitted;
  - j. Establish the quality of workmanship required;
  - k. Discuss specific controls used and the construction methods and the approach that will be used to provide quality construction by planning ahead and identifying potential problems for each definable feature of work.

#### **1.14 QUALITY CONTROL, GENERAL**

- A. District will provide inspections, tests, and similar quality control services specified to be performed by independent agencies, except where indicated as Contractor's responsibility. Costs for District-provided inspections and tests are not included in Contract Sum.

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.
- B. Where tests and inspections are indicated as Contractor's cost and/or responsibility, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
    - a. Contractor shall not employ same entity engaged by District, unless agreed to in writing by District.
  2. Testing of equipment, systems, components, assemblies, and other non-structural elements of the Work that require testing shall be performed in accordance with the Contract Documents and Manufacturer's recommended testing protocols. The Contractor shall submit Manufacturer's Installation Instructions and Manufacturer's recommended tests in accordance with Section 01330, Submittal Procedures, prior to installation and testing of equipment, systems, components, assemblies, and other non-structural elements of the Work. Test results shall be recorded and submitted original Manufacturer's documents.
  3. Notify Project Inspector and testing agencies, at least (5) working days or as indicated otherwise in advance of time when Work that requires testing or inspecting will be performed.
  4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
  5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
  6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Retesting/Re-inspecting:
1. Where quality-control services are Contractor's responsibility, provide quality-control services, including retesting and re-inspecting, for construction that replaces or is necessitated by Work that failed to comply with the Contract Documents.
  2. Where quality-control services are District's responsibility, 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, by way of a deductive Change Order.
- D. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to the Work
  2. Incidental labor and facilities necessary to facilitate tests and inspections
  3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
  4. Facilities for storage and field curing of test samples.
  5. Preliminary design mix proposed for use for material mixes that require control by testing agency.
  6. Security and protection for samples and for testing and inspecting equipment at Project site.
- E. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
1. Schedule times for tests, inspections, obtaining samples, and similar activities. Provide timely notice of the Work's readiness for all required tests and inspections.
- F. Testing and Inspection Log: The Contractor shall provide a detailed list of all Tests and Inspections required by the Contract Documents for each of the Project Phases. Submit the Test and Inspection Log with the submittal of the Master CPM Schedule.
1. Distribution: Distribute schedule to District, Architect, Project Manager, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

**1.15 QUALITY CONTROL PROGRAM**

- A. Information for the District: Prior to commencing Work, the Contractor may obtain a single copy set of the current report forms from the District. The report forms will consist of the Contractor Production Report, Contractor Production Report (Continuation Sheet), Contractor Quality Control (CQC) Report, CQC Report (Continuation Sheet), Preparatory Phase Checklist, Rework Items List, and Testing Plan and Log. Deliver the following to the District during Construction:
1. CQC Report: Mail or hand-carry the original (wet signatures) and 2 copies by 10:00 AM the next working day after each day that work is performed and for every seven consecutive calendar days of no-work.
  2. Contractor Production Report: Mail or hand-carry the original (wet signatures) and 2 copies by 10:00 AM the next working day after each day that work is performed and for every seven consecutive calendar days of no-work, attached to the CQC Report.]
  3. Preparatory Phase Checklist: Original attached to the original CQC Report and one copy attached to each QC Report copy.
  4. Field Test Reports: Mail or hand-carry the original within two working days after the test is performed, attached to the original CQC Report and one copy attached to each QC Report copy.
  5. Monthly Summary Report of Tests: Submit the report at the end of each month.
  6. Testing Plan and Log: Submit the report at the end of each month.



7. Rework Items List: Submit lists containing new entries daily, in the same manner as the CQC Report.
8. CQC Meeting Minutes: Mail or hand-carry the original within two working days after the meeting is held, attached to the original CQC Report and one copy attached to each CQC Report copy.
9. QC Certifications: As required herein.

**B. QUALITY CONTROL PROGRAM REQUIREMENTS**

1. Contractor shall establish and maintain a QC program as described in this section. This QC program is a key element in meeting the objectives of Quality Control and LEED Certification and systems commissioning. The QC program consists of the Contractor Organization, QC Plan, a Coordination and Mutual Understanding Meeting, QC meetings, submittal review and certification, testing, and QC certifications and documentation necessary to provide materials, equipment, workmanship, fabrication, construction and operations which comply with the requirements of this Contract.
  - a. The QC program must cover on-site and off-site work and be keyed to the work sequence.
  - b. No construction work or testing may be performed unless the QC Manager is on the work site.
  - c. The QC Manager must report to an officer of the firm and not be subordinate to the Project Superintendent.
  - d. The QC Manager, Project Superintendent and other Contractor and Subcontractor personnel must work together effectively. Although the QC Manager is the primary individual responsible for quality control, all individuals will be held responsible for the quality of work on the job.
2. Acceptance of the QC Plan is required prior to the start of construction. The District reserves the right to require changes in the QC Plan and operations as necessary, including removal of personnel, to ensure the specified quality of work.
3. The District reserves the right to interview any member of the Contractor's organization at any time in order to verify the submitted qualifications.
4. The District may require the removal of any individual for non-compliance with quality requirements specified in the Contract.

**C. Preliminary Construction Work Authorized Prior to Acceptance.** The only construction work that is authorized to proceed prior to the acceptance of the QC Plan is mobilization of storage and office trailers, temporary utilities, and surveying.

**D. Notification of Changes:** Notify the District, in writing, of any proposed changes in the QC Plan or changes to the Contractor organization personnel, a minimum of 10 work days prior to a proposed change. Proposed changes are subject to acceptance by the District.

**E. QC Manager and Duties:** Provide a QC Manager at the Work site to implement and manage the QC program.

1. The QC Manager may serve as the Contractor Project Manager or Contractor Project Engineer provided they are able to adequately manage and implement the QC program on this Contract.

2. The QC Manager is required to attend the weekly meetings, conduct new subcontractor Pre-Work Preparatory Phase meetings, perform submittal review and certification, ensure testing is performed and provide QC certifications and documentation required in this Contract.
3. The QC Manager is responsible for managing and coordinating the documentation performed by Contractor testing laboratory personnel and any other inspection and testing personnel required by this Contract not coordinated, overseen, and paid by the District.
4. Qualifications: A graduate of a four year accredited college or university program in one of the following disciplines: Engineering, Architecture, Construction Management, Engineering Technology, Building Construction, or Building Science, with a minimum of 10 years experience as a Project Superintendent, QC Manager, Project Manager, Project Engineer or Construction Manager on similar size and type construction contracts which included the major trades that are part of this Contract.
  - a. The individual must be familiar with the requirements of DSA, OSHA and Cal OSHA, and have experience in the areas of hazard identification, safety compliance, and sustainability.
5. Alternate QC Manager Duties and Qualifications: Designate an alternate for the QC Manager at the work site to serve in the event of the designated QC Manager's absence.
  - a. The period of absence may not exceed two weeks at one time, and not more than 30 workdays during a calendar year.
  - b. The qualification requirements for the Alternate QC Manager must be the same as for the QC Manager.

**1.16 QUALITY CONTROL (QC) PLAN**

- A. QC Plan Requirements: Provide, for acceptance by the District, a Construction QC Plan submitted in a three-ring binder that includes a table of contents, with major sections identified with tabs, with pages numbered sequentially, and that documents the proposed methods and responsibilities for accomplishing quality control, LEED Certification, and system commissioning activities during the construction of the Project and include:
  1. A chart showing the Contractor management organizational structure.
  2. Names and qualifications, in resume format, for each person in the Contractor management organization.
  3. Duties, responsibilities, and authorities of each person in the Contractor management organization, including home office personnel responsible for this Project.
  4. A listing of outside organizations, such as architectural and consulting engineering firms, that will be employed by the Contractor and a description of the services these firms will provide.
  5. Letters signed by an officer of the firm appointing the QC Manager and Alternate QC Manager and stating that they are responsible for implementing and managing the QC program as described in this Contract. Include in this letter their authority to stop work which is not in compliance with the Contract. Include copies of the letters in the QC Plan.
  6. Procedures for reviewing, certifying, and managing submittals.

7. Provide the name(s) of the person(s) in the QC organization authorized to review and certify submittals prior to submission to the Architect or District. Provide the initial submittal of the Submittal Log as specified in Section 01330 SUBMITTAL PROCEDURES.
  8. Testing laboratory information required herein.
  9. A Testing Plan and Log that includes the tests required, referenced by the specification paragraph number requiring the test, the frequency, and the person responsible for each test. Use District forms to log and track tests.
  10. Procedures to identify, record, track, and complete rework items. Use District forms to record and track rework items.
  11. Procedures for coordinating, tracking and documenting all required certifications for subcontractors, testing laboratories, suppliers, personnel, etc.
- B. QC Manager shall ensure that certifications are current, appropriate for the work being performed, and will not lapse during any period of the contract that the work is being performed.
- C. Coordination of Activities: Coordinate activities included in various sections to assure efficient and orderly installation of each component. Coordinate operations included under different sections that are dependent on each other for proper installation and operation.
- D. Attendees: As a minimum, the Contractor's personnel required to attend include an officer of the firm, the Project Manager, Project Superintendent, QC Manager, Alternate QC Manager, A/E, and subcontractor representatives. Minutes of the meeting will be prepared by the QC Manager and signed by the Contractor and the District. Provide a copy of the signed minutes to all parties.
- E. Agenda Items Include:
1. Procedures for submission, review and approval of submittals are also described in Section 01330 SUBMITTAL PROCEDURES.
  2. Review of sampling and testing procedures required under this Contract.

**1.17 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.

**1.18 QC CERTIFICATIONS AND DOCUMENTATION**

- A. CQC Report Certification. Contain the following statement within the CQC Report:
 

"On behalf of the Contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report."
- B. Invoice Certification. Furnish a certificate to the District with each payment request, signed by the QC Manager, attesting that as-built drawings are current and, coordinated, and attesting that the work for which payment is requested, including stored material, is in compliance with Contract requirements.
- C. Documentation: Maintain current and complete records of on-site and off-site QC program operations and activities.
- D. Construction Documentation: Reports are required for each day that work is performed and must be attached to the Contractor Quality Control Report prepared for the same day.
  - 1. Maintain current and complete records of on-site and off-site QC program operations and activities on the required forms.
  - 2. Reports are required for each day work is performed.
  - 3. Account for each calendar day throughout the life of the Contract.
  - 4. Every space on the forms must be filled in. Use N/A if nothing can be reported in one of the spaces.
  - 5. The Project Superintendent and the QC Manager must prepare and sign the Contractor Production and CQC Reports, respectively.

6. The reporting of work must be identified by terminology consistent with the construction schedule.
  7. In the "remarks" sections of the reports, enter pertinent information including directions received, problems encountered during construction, Work progress and delays, conflicts or errors in the drawings or specifications, field changes, safety hazards encountered, instructions given and corrective actions taken, delays encountered and a record of visitors to the work site, quality control problem areas, deviations from the QC Plan, construction deficiencies encountered, meetings held.
  8. For each entry in the report(s), identify the Schedule Activity No. that is associated with the entered remark.
- E. Quality Control Validation. Establish and maintain the following in a series of three ring binders. Binders shall be divided and tabbed as shown below. These binders must be readily available to the District during all business hours.
1. All completed Preparatory Phase Checklists, arranged by specification section.
  2. All milestone inspections, arranged by Activity Number.
  3. An up-to-date copy of the Testing Plan and Log with supporting field test reports, arranged by specification section.
  4. Copies of all contract modifications, arranged in numerical order. Also include documentation that modified work was accomplished.
  5. An up-to-date copy of the Rework Items List.
  6. Maintain up-to-date copies of all punch lists issued by the QC staff to the Contractor and Sub-Contractors and all punch lists issued by the District.
  7. Commissioning documentation including Cx checklists, schedules, tests, and reports.
- F. Testing Plan and Log:
1. As tests are performed, the QC Manager will record on the "Testing Plan and Log" the date the test was performed and the date the test results were forwarded to the District.
  2. Attach a copy of the updated "Testing Plan and Log" to the last daily CQC Report of each month.
- G. Rework Items List: The QC Manager must maintain a list of work that does not comply with the Contract, identifying what items need to be reworked, the date the item was originally discovered, the date the item will be corrected by, and the date the item was corrected. There is no requirement to report a rework item that is corrected the same day it is discovered.
1. The Contractor is responsible for including rework items identified by the District or its representative.
- H. As-Built Drawings: The QC Manager is required to ensure the as-built drawings, required by Section 01780 CLOSEOUT SUBMITTALS are kept current on a daily basis and marked to show deviations which have been made from the Contract Drawings. Ensure each deviation has been identified with the appropriate modifying documentation (e.g. PCO No., CO No., Request for Information No., etc.). The QC Manager must initial each revision.
1. Upon completion of work, the QC Manager will furnish a certificate attesting to the accuracy of the as-built drawings prior to submission to the District.

**1.19 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 to test and inspection log for Architect and Project Manager's reference during normal working hours.

**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. See also Section 01730, Cutting and Patching.

- 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.

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<b>NEW SUBCONTRACTOR CHECKLIST</b>		<b>PREPARATORY PHASE</b>		SPEC SECTION(S)	DATE
(CONTINUED ON SECOND PAGE)					
PROJECT NO.	SUBCONTRACTOR:	SCHEDULE ACTIVITY NO.	CONTRACT NO.		
<b>PERSONNEL PRESENT</b>	DISTRICT REP NOTIFIED _____ HOURS IN ADVANCE:		YES <input type="checkbox"/>		NO <input type="checkbox"/>
	NAME	POSITION	COMPANY/DISTRICT		
<b>SUBMITTALS</b>	REVIEW SUBMITTALS AND/OR SUBMITTAL REGISTER. HAVE ALL SUBMITTALS BEEN APPROVED? YES <input type="checkbox"/> NO <input type="checkbox"/>				
	IF NO, WHAT ITEMS HAVE NOT BEEN SUBMITTED? _____				
	ARE ALL MATERIALS ON HAND? YES <input type="checkbox"/> NO <input type="checkbox"/>				
IF NO, WHAT ITEMS ARE MISSING? _____					
CHECK APPROVED SUBMITTALS AGAINST DELIVERED MATERIAL. (THIS SHOULD BE DONE AS MATERIAL ARRIVES.)					
COMMENTS: _____					
<b>MATERIAL STORAGE</b>	ARE MATERIALS STORED PROPERLY? YES <input type="checkbox"/> NO <input type="checkbox"/>				
	IF NO, WHAT ACTION IS TAKEN? _____				
<b>SPECIFICATIONS</b>	REVIEW EACH PARAGRAPH OF SPECIFICATIONS. _____				
	DISCUSS PROCEDURE FOR ACCOMPLISHING THE WORK. _____				
	CLARIFY ANY DIFFERENCES. _____				

<b>PRELIMINARY WORK &amp; PERMITS</b>	<p>ENSURE PRELIMINARY WORK IS CORRECT AND PERMITS ARE ON FILE.</p> <p>IF NOT, WHAT ACTION IS TAKEN? _____</p> <p>_____</p> <p>_____</p> <p>_____</p>			
<b>TESTING</b>	<p>IDENTIFY TEST TO BE PERFORMED, FREQUENCY, AND BY WHOM. _____</p> <p>_____</p> <p>_____</p> <p>WHEN REQUIRED? _____</p> <p>_____</p> <p>WHERE REQUIRED? _____</p> <p>_____</p> <p>REVIEW TESTING PLAN. _____</p> <p>_____</p> <p>HAVE TEST FACILITIES BEEN APPROVED? _____</p> <p>_____</p>			
<b>SAFETY</b>	<p>ACTIVITY HAZARD REVIEW CONDUCTED?                      YES <input type="checkbox"/>                      NO <input type="checkbox"/></p> <p>REVIEW APPLICABLE PORTION OF SAFETY PLAN. _____</p> <p>_____</p> <p>_____</p>			
<b>MEETING COMMENTS</b>	<p>DISTRICT COMMENTS DURING MEETING.</p> <p>_____</p> <p>_____</p> <p>_____</p>			
<b>OTHER ITEMS OR REMARKS</b>	<p>OTHER ITEMS OR REMARKS:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%; text-align: center; padding: 2px;">SITE SUPERINTENDENT</td> <td style="width: 20%; text-align: center; padding: 2px;">DATE</td> <td style="width: 20%;"></td> </tr> </table>		SITE SUPERINTENDENT	DATE	
SITE SUPERINTENDENT	DATE			

**END OF SECTION 01400**

**SECTION 01412**

**HAZARDOUS MATERIALS**

**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 provision in the General Conditions and other Division 1 Specification Sections shall apply to this Section without limitation.

**1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- B. Section 01311 – “Project Management and Coordination”
- C. Section 01312 – “Project Meetings”
- D. Section 01420 – “References”
- E. Divisions 2 through 16 Sections for Hazardous Materials requirements for the work in those Sections.

**1.3 SUMMARY**

- A. This Section describes Project requirements applicable to Work in connection with hazardous materials, hazardous waste, abatement and disposal including, but not limited to, asbestos and asbestos-containing materials, lead-based paint, polychlorinated biphenyls, petroleum-contaminated soils and materials, construction and demolition debris and any other hazardous substance or hazardous waste. This Section supplements the requirements elsewhere in the Contract Documents.

**1.4 DISCOVERY OF HAZARDOUS MATERIALS**

- A. 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.

- B. 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).
- C. Should the discovery of contaminants cause delay to Contractor’s operation, extension of Contract Time will be granted by District in accordance with Section 00700 (General Conditions) and Section 01310 (Construction Scheduling.) 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.
- D. 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. See Section 01310 (Construction Scheduling) regarding requirement to demonstrate Time Impacts.

**1.5 SUBSURFACE HAZARDOUS MATERIALS**

- A. If Contractor encounters surface contamination, the following provisions and precautionary measures shall be implemented during construction.
  - 1. Contractor’s personnel shall be alert for and immediately report to District’s Representative any detectable chemical odors, unusual debris, or discolored soil.
  - 2. Disposal requirements: Soils containing hazardous materials shall be disposed by Contractor at permitted treatment, recycling, or disposal facilities in accordance with CCR Title 23, Division 3, Chapter 15 (Discharge of Waste to Land). Determine to which permitted treatment, recycling, or disposal facilities the soil will be delivered.
  - 3. Dewatering: Construct, operate and maintain as required by applicable laws, codes and standards and to complete the Work all necessary cofferdams, channels, pipes, flumes, drains, sumps, well points and protective works; and furnish, install, operate and maintain all necessary pumping and other equipment for dewatering the areas of Work suspected of containing hazardous materials; and control all surface flow and groundwater as may be encountered while performing the Work. Remove all water that may accumulate in the excavation while the Work progresses so that all Work can be performed in dry conditions. All contaminated water shall be removed from the excavation before it is backfilled. The excavation shall be kept free from water until backfilling has progressed to a height above the water source.
  - 4. Water sampling and chemical analysis: Water samples shall be collected from the holding tanks and submitted to a State-Certified chemical analysis laboratory. Chemical analyses required for the samples shall at a minimum include: TPHg following EPA Test Methods 5030/8015 (modified); benzene, toluene, ethylbenzene and total xylenes (BTEX) following EPA Test Method 8020; and chlorinated solvents following EPA Test Method 8010. Perform additional chemical analyses that may be required for disposal or recycling of the water.

5. Laboratory chemical analysis reports associated with the water samples shall be provided to District's Representative.
6. Removal of dewatering equipment: After having served their purpose, all protective works and dewatering pumps, shall be decontaminated and removed from the Site. Contractor is responsible for permanent disposal of all equipment that cannot be decontaminated or recycled in accordance with all applicable laws and regulations.
7. Fees: Pay for any fees associated with the treatment, recycling, or disposal of these soils. Any additional soil sampling and chemical analyses required for acceptance of the soil at facilities other than those described above may be deemed to be the responsibility of the Contractor.
8. Transport: Transport the soils to the selected facilities under approved manifests and submit copies of these manifests and the facility weight tickets to District's Representative.

#### **1.6 HAZARDOUS MATERIAL WORK LIMITATIONS**

- A. 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 is 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 Specification Section 01250 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.
- B. To protect construction workers and members of the public from known or undiscovered hazardous building materials, including asbestos and lead, undertake all demolition activities in accordance with Cal-OSHA standards, contained in Title 8 of the California Code of Regulations (CCR). See Hazardous Materials Removal Specifications (02080, 02081, 02082 and 02085) and Reports for additional requirements.
- C. During demolition activities, all building materials containing lead paint shall be removed in accordance with Cal-OSHA Lead in Construction Standard, title 8 and California Code of Regulations 1532.1.
- D. All potentially friable asbestos-containing materials (ACMs) shall be removed in accordance with National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines prior to building demolition or renovation that may disturb the materials. Applicable standards include the following:
  1. The facility shall be inspected before any renovation occurs in which 160 square feet or more of building materials or 260 linear feet or more of pipe insulation will be disturbed at a regulated facility or any demolition occurs at a regulated facility.

2. An asbestos notification form shall be submitted to the Bay Area Air Quality Management District (BAAQMD) for any regulated asbestos abatement project or regulated demolition 10 working days before the activity begins.
  3. If ACMs are discovered during a renovation or demolition, they must be removed before the project may proceed. Also, the Cal-OSHA and California Environmental Protection Agency (Cal-EPA) hazardous waste regulation apply in most cases.
- E. No Work will be accepted until asbestos contamination is reduced to levels deemed acceptable by the District's asbestos consultant.
- F. 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.

**1.7 INDEMNIFICATION BY CONTRACTOR FOR HAZARDOUS MATERIAL CAUSED BY CONTRACTOR**

- A. 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.

**1.8 TERMS OF HAZARDOUS MATERIAL PROVISION**

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

**1.9 NON-UTILIZATION OF ASBESTOS MATERIAL**

- A. 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.
- B. Asbestos and/or asbestos-containing products shall be defined as all items containing, but not limited to, chrysotile, amosite, anthophyllite, tremolite, and antinolite.
- C. Any or all material containing greater than one-tenth of one percent (>.1%) asbestos shall be defined as asbestos-containing material.

**1.10 REMOVAL OF CONTRACTOR INSTALLED ASBESTOS MATERIALS**

- A. 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.

1. 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.
2. The asbestos removal contractor shall be appropriately licensed and registered, qualified in the removal of asbestos and shall be approved by the asbestos consultant, who shall have sole discretion and final determination in this matter.
3. The asbestos consultant shall be approved by the District, who shall have sole discretion and final determination in this matter.

**1.11 NATURALLY OCCURRING ASBESTOS**

- A. To protect construction workers and members of the public from exposure to known areas of naturally-occurring asbestos (NOA), all ground disturbing activities will be undertaken in accordance with all applicable Cal-OSHA standards, contained in Title 8 of the California Code of Regulations (CCR). In addition, any ground-disturbing activity in an area that meets one or more of the applicability criteria for the Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying and Surface Mining Operations, as adopted by the California Air Resources Board (CARB), is subject to the requirements therein. Per Section 93105 (b) of the ATCM, these criteria are as follows:
  1. The area to be disturbed is located in a geographic ultramafic rock unit; or
  2. The area to be disturbed has naturally-occurring asbestos, serpentine, or ultramafic rock as determined by the owner/operator, or the Air Pollution Control Officer (APCO); or
  3. Naturally-occurring asbestos, serpentine, or ultramafic rock is discovered by the District, a registered geologist, or the APCO in the area to be disturbed after the start of any construction, grading, quarrying, or surface mining operation.

**1.12 REFERENCES TO REGULATORY REQUIREMENTS**

- A. Codes, laws, ordinances, rules and regulations applicable to the Work shall have full force and effect as though printed in full in the Contract Documents. Codes, laws, ordinances, rules and regulations are not furnished to Contractor, because Contractor is assumed to be familiar with their requirements. The listing herein of applicable codes, laws, and regulations for hazardous waste abatement work 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 Contract Documents exists, the most stringent requirements shall be used.
- B. Conform to all applicable codes, laws, ordinances, rules and regulations that are in effect on date of contracting.



**1.13 LAWS, ORDINANCES, RULES, AND REGULATIONS**

- A. During prosecution of Work under Contract Documents, Contractor shall comply with applicable laws, ordinances, rules and regulations including, but not limited to, those listed below.
- B. Federal:
  - 1. Statutory Requirements:
    - a. Resource Conservation and Recovery Act, 42 U.S.C. Sections 6901 *et seq.*
    - b. Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, 42 U. S.C. Sections 9601 *et seq.*
    - c. Toxic Substances Control Act of 1976, 15 U.S.C., Sections 2601 *et seq.*
    - d. Hazardous Materials Transportation Act of 1975, 49 U.S.C. Sections 1801 *et seq.*
    - e. Clean Water Act, 33 U.S.C. Sections 1251 *et seq.*
    - f. Safe Drinking Water Act, 42 U.S.C., Sections 3001 *et seq.*
    - g. Clean Air Act, Section 112, 42 U.S.C., Section 7412
    - h. Occupational Safety and Health Act of 1970, 29 U.S.C., Sections 651 *et seq.*
    - i. Underground Storage Tank Law, 42 U.S.C., Sections 6991 *et seq.*
    - j. The Emergency Planning and Community Right to Know Act of 1986, 42 U.S.C., Sections 11011 *et seq.*
  - 2. Environmental Protection Agency (EPA):
    - a. 40 C.F.R. Parts 260, 264, 265, 268, 270
    - b. 40 C.F.R. Parts 258 *et seq.*
    - c. 40 C.F.R. Part 761
    - d. 40 C.F.R. Parts 122-124
  - 3. Occupational Safety and Health Administration (OSHA):
    - a. OSHA Worker Protection Standards, Title 29 C.F.R. Part 1926.58, Construction Standards and 29 C.F.R. 1910.1001 General Industry Standard
    - b. OSHA, 29 C.F.R. Part 1926.1101, Construction Standards for Asbestos
    - c. OSHA, Lead Exposure in Construction: Interim Final Rule, 29 C.F.R. 1926.62
    - d. National Emission Standard for Hazardous Air Pollutants, Title 40 C.F.R. Part 61
    - e. Asbestos Hazardous Emergency Response Act, Title 40 C.F.R. 763
  - 4. Department of Transportation:
    - a. Title 49 C.F.R. 173.1090
    - b. Title 49 C.F.R. 172
    - c. Title 49 C.F.R. 173

d. DOT, HM 181 and MH126f

C. State of California Requirements:

1. Statutory Law:

- a. The Carpenter-Presley-Tanner Hazardous Substance Account Act, Health & Safety Code, Sections 25300 *et seq.*
- b. Health and Safety Code, Section 25359.4
- c. Hazardous Waste Control Law, Health & Safety Code, Sections 25100 *et seq.*
- d. Porter-Cologne Water Quality Control Act, Water Code, Sections 13000 *et seq.*
- e. Health and Safety Code, Sections 25915-25924
- f. California Labor Code Chapter 6, including, without limitation, Sections 6382, 6501.5-6501.9, 6503.5, 9021.5, 9080
- g. Business and Professions Code, including without limitation, Sections 7058.5, 7065.01, 7118.5
- h. Underground Storage of Hazardous Substance Act, Health and Safety Code, Sections 25280 *et seq.*
- i. Petroleum Underground Storage Tank Cleanup, Health and Safety Code, Sections 25299.10 *et seq.*
- j. Safe Drinking Water and Toxic Enforcement Act of 1986, Health & Safety Code, Sections 25249.5 *et seq.* (Proposition 65)
- k. Above Ground Petroleum Storage Act, Health and Safety Code, Sections 25270 *et seq.*
- l. Hazardous Materials Release Response Plans and Inventory, Health and Safety Code, Chapter 6.95

2. Administrative Code and Regulations:

- a. Title 22 CCR Division 4.5, Environmental Health Standards for the Management of Hazardous Waste, Sections 6600 *et seq.*
- b. Title 8 CCR, Section 1529, Asbestos
- c. Title 8 CCR, Section 1532.1, Lead in Construction
- d. Title 23 CCR, Sections 2610 *et seq.*

3. Local Agency Requirements:

- a. Bay Area Air Quality Management District, Fugitive Dust Rules
- b. Bay Area Air Quality Management District Regulation 11, Rule 2
- c. State Water Resource Control Board, General Construction and Land Disturbance Activities (Order 2009-009 DWQ)

4. Local Agency Requirements:

- a. Pleasant Hill Fire Department

**PART 2 - PRODUCTS**

Not Used.

**PART 3 - EXECUTION**

Not Used.

**END OF SECTION 01412**

**SECTION 01420**  
**REFERENCES**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

- A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Division 1 Specification Sections shall apply to this Section without limitation.

**1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- B. Section 01312 – “Project Meetings”
- E. Section 01770 – “Contract Closeout Procedures”
- F. Division 2 through 16 for References requirements for the work in those Sections.

**1.3 INDUSTRY STANDARDS**

- A. 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.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents, unless otherwise indicated.
- C. Conflicting Requirements: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.
  - 1. 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.
- D. 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.
  - 1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source and make them available on request.
- E. 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."

- F. 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 in the following list. Names, telephone numbers, and Web site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.
  
- I. Abbreviations and Acronyms for State Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

**PART 2 - PRODUCTS**

Not Used.

**PART 3 - EXECUTION**

Not Used.

**END OF SECTION 01420**

**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 Division 1 Specification Sections shall apply to this section without limitation.

**1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- C. Section 01311 – “Project Management and Coordination”
- D. Section 01412 – “Regulatory Requirements – Hazardous Material”
- F. Section 01505 – “Construction Waste Management”
- H. Section 01710 – “Cleaning Requirements”
- I. Section 01770 – “Contract Closeout Procedures”
- J. Divisions 2 through 16 Sections for specific requirements for Temporary Facilities and Controls for the Work in those Sections.

**1.3 TEMPORARY FACILITIES AND CONTROLS PLANS**

- A. Prior to the start of Work, Contractor shall provide full size drawings of site plan drawings illustrating the following for each Phase of the Work:
  - 1. Locations and dimensions of temporary facilities including, but not limited to, all site trailers. Include floor plan layouts and pertinent details.
  - 2. Equipment and material storage areas.
  - 3. Pedestrian access paths and crossings,
  - 4. Location of way finding and other signage,
  - 5. Contractor haul routes and avenues of ingress/egress to the campus and Project construction sites.
  - 6. All fenced area and details of the fence installation.
  - 7. Identify any areas which may have to be paved or graveled to control dust or prevent tracking of mud.
  - 8. Other items including locations of safety and construction fences and/or barriers, construction entrances, trash dumpsters, temporary sanitary facilities, and worker parking areas.
- B. Contractor shall submit (7) sets of Temporary Facilities and Control Plans for review by District and Architect.

**1.4 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 pay for electric power required to complete the Work. The installation and removal of all temporary distributions of power throughout the Site shall be the sole responsibility of the Contractor without adjustment to the Contract Price or the Contract Time. The Contract Price shall not be adjusted on account of any disruption, reduction or elimination of electrical power service to the Site, unless the same is caused by the District's non-payment of undisputed utility charges for such electrical power service. Contractor shall provide power outlets for construction operations, with branch wiring and distribution boxes located as required to complete the Work.
    - b. Contractor shall provide and maintain electrical power at the Site for construction purposes, for temporary facilities and trailers, and for any other site offices or trailers required by the Contract Documents.. Contractor shall provide all necessary wiring and appurtenances for connection to District's system. Connect to District power at location(s) as directed by District.
    - c. Contractor shall provide and maintain distribution of temporary electrical power and lighting to the Work and for use by the Project Inspector and District Project Manager.
    - d. Contractor shall provide temporary power main service disconnect and over current protection at convenient locations and as required by governing codes.
    - e. The Contractor shall be responsible for providing temporary facilities as required to deliver power service from the point of connection to the point(s) of intended use.
    - f. Contractor shall verify characteristics of District power available for temporary service use, and provide all transformers and/or other equipment necessary to modify District power for temporary use by the Contractor. Contractor shall pay all costs associated with any necessary modifications to District power for temporary use on the Work.
    - g. The Contractor shall provide, install, and maintain temporary electrical lighting wherever necessary to provide illumination for the proper performance and/or

observation of the Work. Where required, a minimum of 20 foot-candles for rough work and 50 foot-candles for finish work shall be provided.

**2. Temporary Fences**

- a. Temporary Fencing: Contractor shall provide temporary fencing around specified construction areas for safety and protection. Provide chain link fencing not less than eight (8) feet in height, complete with metal posts and required bracing, anchorage, visual screening, and with truck and pedestrian gates. All vehicle and Pedestrian gates and openings shall have gates secured after hours of operation.
- b. Contractor shall provide padlocks used for securing all gates. Padlocks shall be designed to prohibit cutting of shackle. Contractor shall coordinate keying strategy with District.
- c. Contractor shall be responsible for locking gates and shall be secured with minimum 3/8 inch thick, 30 grade coil chain, minimum 5/16 inch cable. Gates shall be kept closed and locked at all times when not in use.
- d. All existing fences affected by the Work shall be maintained by Contractor until Final Completion of Project. Fences which interfere with construction operations shall not be relocated or dismantled until District gives written permission to do so, and the timing of fence relocation or dismantling has been agreed upon. Where fences must be maintained across the construction easement, adequate gates shall be installed. Site Enclosure Fence: Contractor shall furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gate.
- e. Contractor will be responsible for maintaining security by limiting number of keys and restricting distribution to authorized personnel.
- f. Security Enclosure and Lockup: Install substantial temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft and similar violation of security.
- g. Contractor shall provide secure lockup for stored materials and equipment which are of value or attractive for theft.
- h. Contractor shall be responsible for project security for materials, tools, equipment, supplies and completed and partially completed Work.
- i. On completion of the Work across any tract of land, Contractor shall restore all fences to their original or to a better condition, and to their original locations.

**3. Temporary Protection of Public and Private Property**

- a. Contractor shall protect, shore, brace, support and maintain all existing underground utilities including but not limited to the following: all pipes, conduits, drains and other underground construction uncovered or otherwise affected by construction operations.
- b. All pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences and other surfaces structures affected by construction operations, together with all sod and shrubs in yards, planting areas, and medians, shall be restored to



their original condition, wherever affected by construction operations. All replacements shall be made with new materials.

- c. Contractor shall be responsible for all damage to streets, roads, highways, shoulders, ditches, embankments, culverts, bridges and other public or private property, regardless of location or character, which may be caused by transporting equipment, materials, or workers to or from the Work, Site or any part thereof, whether by Contractor or Subcontractors. Contractor shall be solely responsible without adjustment of the Contract Price or the Contract Time to make satisfactory and acceptable arrangements with the District, or the agency or authority having jurisdiction over the damaged property, concerning its repair or replacement or payment of costs incurred in connection with the damage.
- d. All fire hydrants and water control valves shall be kept free from obstruction and available for use at all times.

**4. Temporary Sanitary Facilities**

- a. Contractor shall provide and maintain temporary sanitary toilets for use of all workers throughout the course of the Work.. At a minimum, sanitary facilities shall be located at the trailer site, Contractor staging area(s) and adjacent to Work areas.
- b. Sanitary facilities shall be of reasonable capacity, properly maintained throughout the Project, and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least (1) toilet will be furnished for each (15) persons. Contractor shall enforce the use of such sanitary facilities by all personnel at the Site.
- c. Contractor shall comply with all minimum requirements of the Contra Costa Health Department or other public agency having jurisdiction.
- d. Maintain temporary facilities in a sanitary condition at all times during the Project.
- e. Contractor will keep sanitary facilities free from graffiti.
- f. Use of toilet facilities in the Work under construction shall not be permitted.
- g. Contractor is not permitted to use existing campus toilet facilities.
- h. All Portable toilets shall be located within fenced areas of the Project Site
- i. Contractor shall be responsible for providing access to the temporary toilet facilities.

**5. Temporary Barriers and Enclosures**

- a. See Section 01015 (Project Phasing) for other requirements.
- b. Contractor shall provide barriers to prevent unauthorized entry to construction areas to allow for District's use of the Site, and to protect existing facilities and adjacent improvements from damage during construction operations.
- c. Contractor shall provide barricades as required by the Contract Documents, governing agencies, and/or field conditions in order to protect public access pathways to existing buildings scheduled to remain open during any Phase of the Work.
- d. Contractor shall protect vehicular traffic, stored materials, Site, and existing structures from damage.

- e. Contractor shall provide and maintain temporary enclosures to prevent public entry to any construction area, and to protect all persons using other existing buildings and portions of the Site and/or Premises Contractor shall maintain safe access to all existing facilities to remain in operation during any Phase of the Work.

**6. 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.

**7. Vehicular and Pedestrian Traffic Controls**

- a. The college campus is an active site, with vehicular and pedestrian traffic occurring at all times of the day and all days of the week. Contractors shall coordinate with District's Representative concerning vehicular traffic associated with the construction in order to minimize disruption to college operations. Delivery trucks and large equipment shall enter the Contractors access gate and shall use the route mutually agreed upon between District and Contractor at the beginning of each Phase of work. Contractor shall provide signage directing construction and delivery traffic to this gate. Contractor shall provide information regarding sign types, size, material, text and locations to be reviewed and approved by the District Representative prior to installation.
- b. Contractor shall keep all required fire department and emergency vehicle access paths free from obstruction at all times during the Project.
- c. See also Section 01416 Special Procedures, Traffic Control Plan.

**8. Temporary Signage**

- a. See Section 01015, Project Phasing, for other signage requirements
- b. Project Identification and Temporary Signs: Contractor shall provide Project identification and other signs. Engage an experienced sign company to produce project signs. Install signs where indicated in Contract Documents. Unauthorized signs are not permitted.
- c. Contractor shall provide minimum dimension 8' – 0" wide by 4'- 0" high sign containing, Contra Costa Community College District, Project Name, Architect's firm name and other related information as directed by District. Install in two (2) visible locations as approved by District.
- d. Sign must be reviewed and approved by the District prior to installation.
- e. Contractor shall provide temporary directional signs for construction personnel and visitors.
- f. Contractor shall maintain and touch-up signs so they are legible at all times.

**PART 2 – PRODUCTS**

**2.1 TEMPORARY FACILITIES/TEMPORARY FIELD OFFICE**

- A. Contractor shall provide Temporary Field Offices: Prefabricated or mobile units with serviceable finishes, heating and air conditioning systems, temperature controls, and foundations adequate for normal loading.

**2.2 EQUIPMENT**

- A. Fire Extinguishers: Contractor shall provide Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures according to NFPA 10.
- B. First Aid Supplies: In compliance with governing regulations.

**2.3 MATERIALS**

Not used

**PART 3 - EXECUTION**

**3.1 INSTALLATION, GENERAL**

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of Work. Relocate and modify facilities as required by progress of the Work during entire project including all phases of project.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.
- C. Contractor shall verify and coordinate all relocation of facilities with the District, Project Manager.

**3.2 OPERATION, TERMINATION AND REMOVAL**

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
  - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion and acceptance by the District.
- D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use a permanent facility or no later than Final completion. Complete or, if necessary, restore permanent construction that may have been

delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.

1. 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.
2. Remove temporary paving not intended for or acceptable for integration into permanent paving. Where area is intended for landscape development, remove soil and aggregate fill that do not comply with requirements for fill or subsoil. Remove materials contaminated with road oil, asphalt and other petrochemical compounds, and other substances that might impair growth of plant materials or lawns. Repair or replace street paving, curbs and sidewalks at temporary entrances, as required by authorities having jurisdiction.
3. Clean and renovate permanent facilities used during construction period prior to Final Completion. Comply with final cleaning requirements specified in Section 01770, Contract Closeout Procedures.

**END OF SECTION 01500**

**SECTION 01505**

**CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT**

**PART 1 - GENERAL**

**1.1 RERLATED DOCUMENTS**

- A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Division 1 Specification Sections shall apply to this Section without limitation.

**1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- B. Section 01412 - “Regulatory Requirements – Hazardous Material”
- C. Section 02225 - “Demolition”
- D. Divisions 2 through 16 Sections for Construction and Demolition Waste Management requirements for the work in those Sections.

**1.3 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.

**1.4 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. The Waste Management Plan shall establish a program for reusing or recycling material which are recyclable. 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

## **1.5 DEFINITIONS**

- A. Clean: Untreated and unpainted; not contaminated with oils, grease solvents, caulk, no Freon with air-conditioning units or similar products.
- B. Class III Landfill: A landfill that accepts non-hazardous waste such as household, commercial, and industrial waste, including construction, remodeling, repair, and demolition operations.
- C. Commingled or Off-site Separation: Collecting all material types into a single bin or mixed collection system and separating the waste materials into recyclable material types in an off-site facility.
- D. Construction and Demolition Waste: Solid wastes typically including building materials, packaging, trash debris and rubble resulting from construction, remodeling repair and demolition operations. Hazardous materials are not included.
- E. Debris: Including both combustible and noncombustible wastes, such as leaves and tree trimmings that result from construction or maintenance and repair work.
- F. Deconstruction: The process of removing existing building materials from renovation and demolition projects for the purposes of reuse, and recycling, in a efficient and safe manner possible.
- G. Divert or Diversion from Landfill: To remove, or have removed, from the site for recycling, reuse or salvage material that might otherwise be sent to a landfill. Diversion from Landfill does

- not include using the material as alternative daily cover at a landfill site, nor does it include burning, incinerating, transformation processing or thermally destroying waste.
- H. Inert Fill: A permitted facility that accepts inert waste such as asphalt and concrete exclusively.
  - I. Recovery: Any process that reclaims materials, substances, energy, or other products contained within or derived from waste on-site. It includes waste-to-energy, composting, and other processes.
  - J. Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product.
  - K. Recycle (recycling): To sort, separate, process, treat or reconstitute solid waste and other discarded materials for the purpose of redirecting such materials into the manufacture of useful products. The process of collecting and preparing recyclable materials in their original form, or in manufacturing processes, that do not cause the destruction/contamination of recyclable materials in a manner that precludes further use. Recycling does not include burning, incinerating, transforming or thermally destroying waste.
  - L. Return: To give back reusable items or unused products to vendors.
  - M. Reuse: Using a material or product that is recovered from construction, renovation, or demolition activities.
  - N. Reuse on Site: To reuse excess of discarded construction material in some manner on the Project site.
  - O. Rubbish: Including both combustible and noncombustible wastes, such as paper, boxes, glass, crockery, metal and lumber scrap, tin cans, and bones.
  - P. Salvage: to remove a waste material from the Project site for resale or reuse.
  - Q. Sources Separation: Sorting the recovered materials into specific material types with no or a minimum amount of contamination on site.
  - R. Time-Based Separation: Collecting waste during each phase of construction or deconstruction which results in primarily one major type of recovered material. The material is removed before it becomes mixed with the material from the next phase of construction.
  - S. Waste Materials: Large and small pieces of listed materials which are excess to contract requirements and generally include materials to be recycled and/or recovered from existing construction and items of trimmings, cuttings, and damaged goods resulting from new installations, which can be effectively used in the Work. Extra material or material that has reached the end of its useful life in its intended use.

## 1.6 REFERENCES AND RESOURCES

- A. This information is provided for Contractor's convenience only, and the District does not warrant its accuracy. County specific information is available on the Contra Costa County Waste Reduction and Recycling web page at <http://www.co.contra-costa.ca.us/depart/cd/recycle/index.html>. Additional information may also be found at the county conservation web page at <http://www.cccounty.us/index.aspx?NID=285>. Refer to the Contra Costa County Builder's Guide to Reuse & Recycling and the Contra Costa County Recycling Guide. Both are available from Contra Costa County. Contact Lorna Thomson at 925-

674-8823 (lorna.thomson@dcd.cccounty.us) for assistance in the management of construction & demolition debris.

- B. The recyclers listed below provided for the convenience of Contractor. No preference is given to the recyclers listed below. Contractor shall contact any additional resources as required to complete the work. Some of the names and numbers may be out of date, and Contractor shall not rely on the information presented in this Section in preparing its Bid or its Waste Management Plan.
1. Cardboard:  
Contact: National Recycling Corporation (510) 268-1022; California Waste Solutions (510) 836-6200; Community Conservation (510) 524-0113. May find the public will remove if made available.
  2. Clean, untreated, dimensional wood and pallet wood:  
Contact: California Waste Solutions (510) 836-6200, Waste Management, Inc. (916) 374-2711.
  3. Usable Palettes  
Contact: Return to product vendors or recycle: Industrial Pallet (510) 489-4050.
  4. Beverage containers:  
Contact: California Waste Solutions (510) 836-6200 .
  5. Metals from banding, ductwork, piping, rebar, roofing, steel studs, other trim, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze:  
Contact: Alliance Metals (510) 547-2408; Aaron Metals (510) 569-6767; DC Metals (510) 836-2655; Lakeside Non-Ferrous Metals, (510) 444-5466; Waste Management, Inc., (916) 374-2711.
  6. Carpet and pad:  
Contact: Return to manufacturer; donate large remnants to Habitat for Humanity (510) 251-6304 or other non-profit.
  7. Paint:  
Contact, paint recycles: E-Coat, Kelly Moore (916) 921-0165.  
Contact, hazardous waste management: Alameda County Household Waste Management Program (800) 606-6606; Safety Clean (510) 832-7942.
  8. Insulation:  
Check with manufacturer or installer for take-back programs.
  9. Brick:  
Contact, (whole bricks): A Bygone Era; Ohmega Salvage (510) 843-7368.
  10. Gypsum Board:  
Contact: Zanker Resource Management (408) 263-2383.
- C. The following sources provided for references:
1. BuildingGreen.com
  2. California Integrated Waste Management Board



3. EPA Office of Solid Waste and Energy Response
4. Construction Waste Management Handbook

**1.7 WASTE MANAGEMENT PLAN**

- A. Waste Management Plan: Within 10 calendar days after receipt of Notice of Award of Bid, or prior to any waste removal, whichever occurs sooner, Contractor shall submit to the District and District’s Representative a Waste Management Plan, tailored to this project and site, for review and acceptance. The Plan shall include, but not limited to, the following:
  1. The Contractor shall designate an on-site party (or parties) as the Waste Management Plan Program Manager responsible for instructing workers and overseeing and documenting results of implementation of the Waste Management Plan for the Project.
  2. Indicate how the Contractor proposes to recover at least 75% of the wastes for reuse and recycling.
  3. The Waste Management Plan should coordinate the recovery effort with the construction, and renovation / demolition schedule.
  4. Indicate compliance with this specification’s section on Quality Assurance.
  5. Description of the regular meetings to address waste management.
  6. Include a list of reuse facilities, recycling facilities and processing facilities that will be receiving the recovered materials (including take back by District or on-site auctions.)
  7. If some of the materials will be donated or sold on-site auctions, describe the process and identify the organizations that may receive the materials.
  8. Identify materials that are not recyclable or not recovered which will be disposed of in a landfill (or other means acceptable by the State of California and local ordinance and regulations) and explain why the materials are not recovered.
  9. List the permitted landfill, or other permitted disposal facilities, that will be accepting the disposed waste materials.
  10. Indicate instances or situations where compliance with the requirements of this specification do not apply or do not appear to be possible.
  11. Identify each type of waste material to be reused or recycled and estimate the amount, by weight.
  12. Provide estimate of time requirements for demolition and for the removal of valuable reusable items and materials.
- B. Revise and resubmit Plan as required by District.
- C. Approval of Contractor’s Plan will not relieve Contractor of responsibility for compliance with applicable environmental regulations.

**1.8 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.

C. Pre-Work Waste Management Meeting.

1. Prior to beginning work at the site, schedule and conduct a meeting to review the Waste Management Plan and discuss procedures, schedules, coordination and specific requirements for waste materials recycling and disposal. Discuss coordination and interface between Contractor, sub-contractors, architect, engineers, project manager, District, and other waste management activities. Identify and resolve problems of compliance with requirements. Record minutes of the meeting, identifying conclusions reached and matters requiring further resolution. Maintain waste management as an agenda item at future construction meetings.
2. Attendees: Contractor and related contractor personnel associated with work of this section, including personnel in charge of the waste management program; Waste Management Plan Program Manager; architect; engineers; material and equipment suppliers where appropriate; and such additional District personnel as District deems appropriate.
3. Plan Revision: Make revisions to Waste Management Plan agreed upon during the meeting and incorporate resolutions agreed to be made subsequent to the meeting. Submit revised plan to architect or the District personnel as District deems appropriate for approval.

**1.9 RECYCLING PROGRAM**

- A. The recycling program could utilize one or a combination of any of the following common waste diversion strategies:
  1. Sources Separation
  2. Time-Based Separation
  3. Commingled or Off-site Separation
  4. Back haul of packaging
  5. On-site sales auctions and removal.
- B. Waste Material management hierarchy can be viewed as: reuse on-site, recycle on-site, reuse off-site, and recycle off-site.

**1.10 WASTE MANAGEMENT PLAN IMPLEMENTATION**

- A. Plan Distribution:
  1. Contractor shall provide copies of the Waste Management Plan to the Job Site Foreman, each Subcontractor, job site Superintendent, Project Inspector, Project Manager, District, Construction Manager, and Architect or Engineer.
  2. Contractor shall provide Waste Management Plan to comply with this Section 01505.
- B. Instruction: Contractor shall provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages and/or phases of the Project.
- C. Meetings: Contractor shall conduct Construction Waste Management meetings. Meetings shall include all subcontractors affected by the Waste Management Plan. At a minimum, waste management goals and issues shall be discussed at the following meetings:

1. Pre-bid meetings.
  2. Pre-construction meeting; (including pre-construction meeting for each phase of Project)
  3. Regularly scheduled job-site meetings.
- D. Separation Facilities: Contractor shall designate a specific area or areas to facilitate separation of materials for potential reuse, salvage, recycling, and return. Recycling and waste bin areas are to be kept neat and clean and clearly marked in order to avoid co-mingling of materials. Bins shall be protected during non-working hours from offsite contamination. Secure waste collection areas to protect from wind, access, rain, run off, ground contamination, etc.
- E. Materials Handling Procedures: Materials to be recycled shall be protected from contamination, and shall be handled, stored and transported in a manner that meets the requirements set by the designated facilities for acceptance.
- F. This Section shall apply to all phases of Project. **[Insert LEED reference if appropriate.]**

**1.11 PROGRESS DOCUMENTATION**

- A. Provide the Waste Program Manager 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
  7. Value of the materials or tipping fee paid
- B. Document on form shall be reviewed and approved by District and Architect.
- C. 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 delay Progress Payment. With each Application for Payment, submit required Progress Documentation, including:
1. Manifest;
  2. Weight tickets;
  3. Receipts; and
  4. Invoices specifically identifying the project and waste material.
- D. Record Submittals: With Record Submittals as specified in Section 01330, submit the following:
1. Summary of solid waste disposal and diversion. Submit on form preapproved by District and Architect.
  2. Estimate of total Project waste to be generated; name of the landfill(s) where Project waste would normally be disposed of.
  3. Estimate of amounts (weight, feet, square yards, gallons, etc.) All waste categories listed.

4. Estimate of net cost revenue or additional costs resulting from separating and recycling, (versus land filling), each material. Net means that the following have been subtracted from the cost of separating and recycling:

## **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 C&D Quality Manager for disposal of the contaminated material. Directions from the C&D Quality Manager 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 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 01540**  
**SITE SECURITY AND SAFETY**

**PART 1 – GENERAL**

**1.1 RELATED DOCUMENTS**

- A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Division 1 Specification Sections shall apply to this Section without limitation.

**1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- B. Section 01311 – “Project Management and Coordination”
- C. Section 01312 – “Project Meetings”
- D. Section 01412 – “Hazardous Materials”
- E. Section 01770 – “Contract Closeout Procedures”
- F. Section 01780 – “Project Record Documents”
- G. Divisions 2 through 16 Sections for Site Security and Safety requirements for the work in those Sections.

**1.3 SUMMARY**

- A. This Section specifies the requirements for Site safety and security.

**1.4 CONTRACTOR RESPONSIBILITIES**

- A. The Contractor is constructive owner of Project site.
- B. 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.
- C. 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).
- D. 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.
- E. 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 at the Site, the Contractor shall provide the District with the Contractor’s proposed site specific safety plan for the Work for the District’s review.

- F. Contractor shall take, and require all subcontractors 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.
- G. 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.
- H. 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.
- I. Contractor shall maintain protection as necessary to protect the Work, as a whole and in part, and adjacent property and improvements from accidents, injuries or damage.
- J. Contractor shall protect the Work, material, and/or equipment to be incorporated therein, whether in storage on or off the Site, and under the care, custody, or control of the Contractor or the Contractor's Subcontractors.
- K. 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.
- L. 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.
  - 1. 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.
  - 2. 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.
  - 3. All Subcontractors and material or equipment suppliers shall cooperate fully with Contractor, the District, and all insurance carriers and loss prevention engineers.
  - 4. Subcontractors shall immediately 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.

**1.5 CONFORMANCE WITHIN ESTABLISHED LIMITS**

- A. 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 in the case of Subcontractors, and shall not unreasonably encumber the premises with construction equipment or materials.

**1.6 CONTRACTOR NOTICES**

- A. 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.

**1.7 SITE SAFETY OFFICER**

- A. Contractor shall designate a responsible member of its organization on the Work, whose duty shall be to enforce the Contractor’s Safety program Plan, 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 in writing by Contractor within ten (10) days of award of the Contract.
- B. District’s representative(s) shall be allowed access to accident/injury and illness reports, inspection reports, scheduling and construction meetings, and safety meetings.

**1.8 SAFETY PROGRAM PLAN**

- A. Prior to commencing Work at the Site, Contractor shall submit a Safety Program Plan specifically tailored for this Project and this Site that has been reviewed and approved by an Industrial Hygienist certified by the American Board of Industrial Hygiene or a Certified Safety Professional. The Safety Program Plan shall include the name, certification number, and certification seal of the Industrial Hygienist or Certified Safety Professional. Comply with the Safety Program and all applicable federal, state, and local regulation codes, rules, law and ordinances during the course of the Work.
- B. The Contractor’s Safety Program Plan 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 SS 8350 et seq.)
- C. Plan shall comply with the requirements of the Occupational Safety and Health Act, and other applicable federal, state and local standards.
- D. Contractor shall keep copies of all health and safety-related plans on the Project Site at all times.
- E. Receipt and/or review of the Safety Program Plan by District or Architect shall not relieve Contractor of any responsibility for complying with all applicable safety regulations.
- F. It is essential that Contractor and each Subcontractor implement an effective and vigorous site specific Safety Program for the Work.
- G. The Contractor shall have sole responsibility for Project safety, and shall be solely responsible for providing a safe workplace



H. Safety Program Plan Components:

1. Injury and Illness Prevention Program (IIPP): Conforming to the General Industrial Safety Orders (CCR Title 8, Division 1, Chapter 4, Subchapter 7, Section 3203), and the California Labor Code (Section 6401.7).
2. Site-Specific Safety and Health Plan (SSHP): This Plan shall describe the health and safety procedures that shall be implemented during the Work in order to ensure safety of the public and those performing the Work. Follow the guidelines for a SSHP listed in CCR Title 8, Division 1, Chapter 4, Subchapter 7, Section 5192, Item (b)(4)f.
3. Permit-Required Confined Space Program: (CCR Title 8, Division 1, Chapter 4, Subchapter 7, Section 5157). Permit-required space entry is allowed only through compliance with a permit-required confined space program meeting the requirements of Section 5157 of the General Industrial Safety Orders. During entry operations, or at the conclusion of entry operations, verbally notify Engineer of the permit space program followed, and of any hazards confronted or created in permit-required spaces during entry operations.
4. A written and certified workplace hazard assessment as required by OSHA and Cal OSHA, updated on a regular basis, and maintained on site. The certified hazard assessment shall be made available immediately upon request by the District, the Architect, or the Inspector of Record.

I. Supply sufficient hard hats to properly equip all employees, workers, and visitors. Hard hats shall be mandatory as per CAL OSHA Construction Safety orders.

J. Whenever an exposure exists, appropriate personal protective equipment (PPE) shall be used by all affected personnel. Contractor shall provide PPE to all personnel under Contractor’s direction and responsibilities.

K. After review by District and Architect, the implementation and enforcement of all Safety-related plans shall become the responsibility of the Contractor and Site Safety Officer. The Contractor shall notify the District in writing of any changes to Safety-related plans.

**1.9 SAFETY PRECAUTIONS**

A. 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:

1. Employees on the Work and other persons who may be affected thereby
2. The Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor’s Subcontractors or Sub-subcontractors
3. 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.

4. The Contractor shall at all times maintain good housekeeping practices to reduce the risk of fire damage.
  5. Good housekeeping practices shall be maintained continually on all areas of the Project Site and the Work. District may request that the Contractor hire additional staff or help until housekeeping in a work or storage area is improved. All scrap materials, rubbish and trash shall be removed daily from in and about the building and shall not be permitted to be scattered on adjacent property.
- B. Suitable storage space shall be provided outside immediate building areas for storing flammable materials and paints. Excess flammable liquids being used inside the building shall be kept in closed metal containers and be removed from the building during unused periods.
  - C. A fire extinguisher shall be available at each location where cutting or welding is being performed. Where electric or gas welding or cutting work is done, interposed shields of incombustible material shall be used to protect against fire damage due to sparks and hot metal. When temporary heating devices are used, a watchman shall be present to cover periods when other workmen are not on the premises.
  - D. The Contractor shall provide fire extinguishers in accordance with all OSHA and Cal OSHA requirements, and the recommendations NFPA Bulletins Nos. 10 and 241.

**1.10 REQUIREMENTS FOR EXISTING SITES**

- A. Provide substantial barricades around any shrubs or trees indicated to be preserved.
- B. Deliver materials to building area over route(s) designated by Architect.
- C. Take preventive measures to eliminate objectionable dust, noise, or other disturbances.
- D. 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.
- E. 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 a licensed land surveyor or civil engineer, and all lawfully required maps and records shall be filed with county and local authorities at no cost to the District. All related filing and plan check fees shall be paid by Contractor.
- F. 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.
- G. The Contractor, at Contractor’s expense, will remove all mud, water, or other elements as may be required for the proper protection of existing improvements, and prosecution of the Work.

- H. Protect all other property at the Site or adjacent thereto as required, such as trees, shrubs, lawns, walks, pavement, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

**1.11 SAFETY AND EMERGENCY CONDITIONS**

- A. **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 herein. Emergency conditions shall be any condition at the Site which has the actual or potential for significant adverse effects to persons or property, whether or not resulting from the Contractor’s operations.
- B. **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 addition, if death, serious personal injuries, or serious property damages are caused, the accident shall be reported immediately by telephone or messenger to the District and Campus Police Department.
- C. The District’s Representatives and Project Inspector, as appropriate, shall be notified of the existence of such a condition, but shall not be called upon to perform any emergency service. The fact that the District may not respond to the emergency condition shall not be used as an excuse by the Contractor to neglect immediate action; nor will the District or its Representatives be liable for any resulting condition. The fact that a representative of the Contractor may not be present when emergency conditions occur shall not relieve the Contractor from an immediate response to the situation which shall return the disruption to normalcy.
- D. If the emergency circumstances are not the result of any fault or neglect of the Contractor, the Contract time shall be adjusted to reflect the actual direct effect of such actions to the then critical path of the Construction Progress Schedule. The foregoing notwithstanding, adjustments of the Contract Price or the Contract Time for actions taken by the Contractor in response to emergency circumstances shall be subject to the Contractor’s strict compliance with all other applicable provisions of the Contract Documents relating to notices and time for delivery of notices.

**1.12 SAFETY SIGNS AND BARRICADES**

- A. 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.
- B. Contractor shall properly protect the Work:
  - 1. With lights, guard rails, fencing, temporary covers and barricades.
  - 2. Enclose excavations with proper barricades.
  - 3. Brace and secure all parts of the Work against to protect against inclement weather and to prevent accidents.

- C. Provide such additional forms of protection that may be necessary under during the course of the Work.
- D. Contractor shall provide and maintain in good condition all protective measures required to adequately protect the public from hazards resulting from the Work. When regulated by Building Code, Cal OSHA, or other authority, such legal requirements for protection shall be considered as minimum requirements. Contractor shall be responsible for the protection in excess of such minimum requirements as required.
- E. Contractor shall prevent unauthorized persons from the entering the Work Site(s).

**1.13 CONTROL OF SITE**

- A. Contractor shall ensure that no alcohol, firearms, weapons, or controlled substances are present on the Project Site. Contractor shall immediately remove from the Site and terminate from this Project the employment of any employee found in violation of this provision.

**1.14 SITE SECURITY**

- A. Contractor shall take and be fully responsible for all reasonably required measures to protect and maintain the security of persons, existing facilities, and property at the Site, including prevention of theft, loss, and/or vandalism by persons lawfully present on the Site, including non-working times. Contractor's measures shall include, at a minimum, maintaining a log of all persons entering and leaving the Site, who they represent, what they are delivering, and to whom.
- B. No claim shall be made against District by reason of any act of an employee or trespasser, and Contractor shall repair all damage to District's property resulting from Contractor's failure to provide adequate security measures.
- C. Contractor shall maintain a lock on all Construction access gate at all times. Contractor shall appoint one person to monitor access through the gate and maintain the sign-in/out list. Alternatively, Contractor may provide a full-time security guard at the gate to control access and maintain the sign-in/out list. The sign in/out list shall be available to District at anytime upon request. If District determines that the gate has been left unlocked, Contractor shall, if requested by District, provide a full time guard at no additional expense to the District.
- D. 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.
- E. Contractor shall supply all security fencing, barricades, lighting, and other security measures as required to protect and control the Site.
- F. The Contractor shall be responsible for providing security services for the Site as needed for the protection of the Site and as determined in the District's sole discretion.

**1.15 OPERATORS OF MOBILE EQUIPMENT SAFETY**

- A. Under Federal and State Safety requirements, Contractor must certify that all operators of mobile equipment including but not limited to forklifts, cranes, man-lifts, scissor and boom lifts, and similar equipment are required to have been trained and/or certified on the proper

operation of such equipment. Copies of equipment training and certification records shall be forwarded, upon request, to District, Project Manager and Architect.

**1.16 SAFETY REQUIREMENTS**

- A. Contractor shall meet and comply with requirements of current local, State and Federal regulations.
- B. Contractor shall meet and comply with the following rules:
  - 1. The Contractor will provide and maintain at the Site first-aid supplies that comply with the current Occupational Safety and Health Regulations.
  - 2. Hard hats shall be worn at all times. (This includes welders when using welding hoods)
  - 3. Sleeved shirts shall be worn at all times. (No tank tops)
  - 4. If required, Fire Retardant Clothing (FRC) shall be supplied by Contractor for all their employees.
  - 5. One Hundred Percent (100%) Fall Protection Policy: All subcontract employees shall comply with Fall Protection Policy. The Policy simply states “Anytime employees are working from an unprotected elevation of six (6) feet or more, fall protection must be used.” Working, as stated above, means while traveling, stationary, or anytime exposed to a fall from a surface not protected by approved handrails, cable or some other approved fall elimination device. Adherence to this policy is a requirement of your Subcontract.
- C. Hazards Control:
  - 1. When use or storage of any hazardous materials or equipment, or unusual method is 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.
  - 2. Store volatile wastes in covered metal containers and remove from premises daily.
  - 3. Prevent accumulation of wastes that create hazardous conditions.
  - 4. Provide adequate ventilation during use of volatile or noxious substances.
- D. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
  - 1. Do not burn or bury rubbish or waste material on the Site.
  - 2. Do not dispose of volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
  - 3. Do not dispose of wastes into streams or waterways.
- E. Provide accident information on the forms provided by Contractor. This information shall be provided on the same day as the occurrence of said incident, and shall be submitted to District within a reasonable time.

**1.17 ADDITIONAL SAFETY CONTROLS**

- A. According to industry practices, it is the responsibility of the Contractor and subcontractors of every tier to exercise reasonable care to prevent work-related injuries and property and equipment damage at the Project site, as well as minimize risk to the public and third-party property. The Contractor, all sub-contractors, suppliers, and installers shall undertake loss control prevention practices according to the requirements set forth by federal, state and city laws, statutes, and the specific procedures developed for this Project.
- B. Contractors and subcontractors participating in the project will be expected to comply with the following safety and loss control requirements:
1. All sub-contractors, suppliers, and installers shall identify their contact person(s) to the Contractor.
  2. Follow District procedures regarding dealing with the media, including, but not limited to, TV, Radio, and Newspaper.
  3. All construction employees will be required to be attired in workpants, shirt and appropriate boots or closed toe shoes.
  4. Smoking is prohibited on the Project site.
  5. Controlling access to the construction site is a very high priority, and Contractors will be required to take whatever preventative measure, such as barriers, fencing, etc., as outlined in the contract specifications.
  6. Construction personnel cannot enter District property other than the construction site unless accompanied by District personnel, and they are allowed only 'incidental' contact with students. Violations of these requirements by any construction employee will result in a mandatory background check of that employee – including fingerprinting – as required by state law.
  7. Fall protection is mandatory on all projects in accordance with CAL OSHA, OSHA and any other Local, State, and Federal appropriate code and requirements.
  8. Personal radios, headsets, walkmans and CD players are not allowed on the job-site.
  9. All Contractors must attend the pre-construction safety meeting.
  10. No sexual reference or preference shall be permitted on any piece of clothing or the hardhat. Any employee observed disregarding this policy shall be removed from the job site until further notice from the District.
  11. Contractor personnel and subcontractor personnel at all levels will refrain from interacting with campus staff or students unless required to prevent an unsafe situation. Personnel found speaking to staff or students for any reason unrelated to the Work or Safety shall be removed from the site and not be allowed to return.
  12. All contractors' employees shall park in their designated parking area. Any sticker attached to the employees' vehicle that displays any form of sexual preference or reference shall be removed prior to parking at the site. Each employee will provide their license plate number to the Contractor. Any employee disregarding this policy shall be removed from the site until further notice from the District.
  13. The Contractor shall control the break time activities of the employees to assure the cleanup of all soda cans, food wrappers, plastic bottles, or food containers from the

break area. Such areas shall be cleaned immediately after the break and all waste placed in trash receptacles.

14. Theft or willful damage to any property of the District, student, or other campus or District personnel will be prosecuted fully by the District.
  15. No guns, switchblades, or knives with blades greater than two inches shall be allowed on the job site. Any employee disregarding this policy shall be removed from the site until further notice from the district.
- C. The Contractors and all sub-contractors, suppliers and installers participating in the Project will further be expected to comply with the following safety and loss control requirements:
1. The Emergency Response Plans (with particular emphasis on access and egress routes).
  2. Any Contractors' employee observed providing or selling cigarettes or other smoking materials to students shall be removed from the job site until further notice from the District.
  3. All Contractors will agree to conduct and fund post-injury drug screening of their employees. Those employees failing the test will be removed permanently from the job site.
  4. The District has the right to instruct the Contractor to correct an unsafe act or condition. If the Contractor fails to correct the unsafe act or condition within the requested time frame, the District or its representative may have the condition corrected and bill the non-compliant contractor for the costs associated with the correction.
  5. The District may require a follow-up meeting or contact if there is a death, serious and willful claim, serious disabling injury, adverse loss experience, major fire, or serious third party claim.
  6. Any contractor displaying, in the opinion of the Contractor or District, a repeated disregard for safety can be removed from the job-site.
- D. All Contractors will advise those non-English speaking employees in their native language either in a written format or via an interpreter of these policies.

**1.18 HAZARD COMMUNICATION PROGRAM SAFETY**

- A. Contractor shall have a copy of the Contractor's Hazard Communication Program which shall be forwarded to the District, Project Manager and Architect, and a copy is required to be in the possession of the Contractor on the Site. Documentation of employee Hazard Communication Training must be established by the Contractor prior to commencement of work.
- B. Any potential hazardous material or chemical brought onto the project is required to be accompanied by a Material Safety Data Sheet (MSDS). Copies of the MSDS shall be forwarded to the District, Architect, Project Manager and Project Inspector before the product is brought onto the project.
- C. Contractor is required to have material safety data sheets available in a readily accessible place at the job site for any material requiring a material safety data sheet per the Federal "hazard communication" standard, or employees' "right-to-know law." The Contractor is

also required to properly label any substance brought into the job site, and require that any person working with the material, or within the general area of the material, is informed of the hazards of the substance and follows proper handling and protection procedures.

- D. 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.
- E. Contractor shall notify the District, Architect, Project Manager and Project Inspector before any chemical/material creating noxious or toxic fumes is used.

**1.19 SHORING AND STRUCTURAL LOADING**

- A. 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.
- B. 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.
- C. 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.

**1.20 SAFETY AND ELECTRICAL STANDARDS**

- A. The Contractor shall comply with all safety and electrical standards to ensure that all its employees are protected by Ground Fault Circuit interrupters as required, throughout the course of the Contractor’s work.
- B. The Contractor is responsible for installation of any and all temporary power service for the project and shall provide it with Ground Fault Interrupter Protection with no additional cost to the District.

**1.21 HAZARDOUS SUBSTANCES**

- A. 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. See Section 01412, Hazardous Materials.
- B. The Contractor shall not receive, use or store at the Site any hazardous substance unless contained in a container labeled with the original label applied by the Manufacturer of such substance. The Contractor shall maintain at the Site and forward to the District, Architect, Project Manager and Project Inspector copies of the most current material safety data sheets



with respect to each hazardous substance received, used or stored at the Site by the Contractor

- C. The Contractor shall immediately forward to the District, Architect, Project Manager and Project Inspector any updated material safety data sheets.
- D. The Contractor shall properly label and inform the District, Architect, Project Manager and Project Inspector of, any pipes or piping systems containing hazardous substances used or maintained at the Site by the Contractor. Prior to the receipt of such materials at the Site, the contractor shall submit a list of all materials which the Contractor intends to receive, use or store at the Site that are classified as hazardous substances pursuant to applicable federal, state or local Employee or Community Right to Know statutes, regulations or requirements.

**1.22 SAFETY SURVEYS**

- A. Inspector of Record may conduct periodic safety surveys of the project. Any safety discrepancy observed will be reported to the appropriate Contractor Site Safety Representative for immediate correction.
- B. District, Architect, and/or Inspector of Record safety surveys do not, without any limitation, relieve the Contractor of their primary responsibility to self-inspect the Work and equipment, and to conduct the Work in a safe manner.
- C. Contractor shall provide the District, Architect, and Project Inspector with Monthly Contractor Accident Statistics Reports.

**PART 2 - PRODUCTS**

Not Used

**PART 3 - EXECUTION**

Not Used

**END OF SECTION 01540**

**SECTION 01610**  
**BASIC PRODUCT 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 RELATED DOCUMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- B. Section 01400 – “Quality Control Requirements”
- C. Section 01770 – “Contract Closeout Procedures”
- D. Divisions 2 through 16 Sections for Basic Product Requirements for the Work in those Sections.

**1.3 SUMMARY**

- A. This Section describes the basic requirements for the selection, handling, and storage of products to be used in the Project.

**1.4 PRODUCTS**

- A. 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.
- B. The term product, as used in the Contract Documents, includes materials, equipment, systems, and like terms of similar intent.
- C. Products include materials, machinery, components, equipment, fixtures and systems forming the Work and purchased for incorporation into the Work.
- D. Products do not include machinery and equipment used for preparation, fabrication, conveying and erection of the work. Products may also include existing materials or components required for reuse.
- E. Do not reuse materials and/or equipment removed from existing premises except as specifically permitted by the Contract Documents.
- F. Provide interchangeable components of the same manufacturer, for similar components.
- G. 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.

**1.5 TRANSPORTATION AND HANDLING**

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

- B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, and/or other damage.

**1.6 SHIPPING REQUIREMENTS**

- A. 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 boxed, crated, or otherwise completely enclosed and protected during shipment, handling, and storage. All equipment shall be protected from exposure to the elements and shall be kept dry at all times.
- B. 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. Any refinished items shall carry the warranty specified in the Contract Documents for new items.
- C. Grease and lubricating oil shall be applied to all bearings and similar items.
- D. Identification: Before shipping, each item of equipment shall be tagged or marked as identified in the delivery schedule or on the Shop Drawings. Complete packing lists and bills of material shall be included with each shipment.

**1.7 PRODUCT DELIVERY, STORAGE, AND HANDLING**

- A. Store products only in staging area per provisions of the Contract Documents.
- B. 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.
- C. For exterior storage of fabricated products, place on appropriate supports, above ground.
- D. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- E. Store loose granular materials on solid flat surfaces in a well-drained area.
- F. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- G. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.
- H. Deliver, store and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer’s written instructions.
- I. Schedule product deliveries to minimize long-term storage at the Project site and to prevent overcrowding of construction spaces.
- J. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.

- K. Deliver products to Project site in an undamaged condition in manufacturer’s original sealed container or other packaging system, complete with intact and legible labels and instructions for handling, storing, unpacking, protecting, and installing.
- L. Contractor shall comply with the following without limitation:
  1. 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. These requirements also apply to any sub-suppliers making direct shipments to the Site. Acceptance of the equipment shall be made only after it is installed, tested, placed in operation and found to comply with all the specified requirements.
  2. All items shall be checked against packing lists immediately on delivery to the Site for damage and for shortages. Damage and shortages shall be remedied with the minimum of delay.
  3. No metalwork (including miscellaneous steel shapes and reinforcing steel) shall be stored directly on the ground. Masonry products shall be handled and stored in a manner to hold breakage, chipping, cracking, and spilling to a minimum. Cement, lime, and similar products shall be stored off the ground on pallets and shall be covered and kept completely dry at all times. Pipe fittings and valves may be stored out of doors, but must be placed on wooden blocking. PVC pipe, geo-membranes, plastic liner, and other plastic materials shall be stored off the ground on pallets and protected from direct sunlight.
  4. 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.
  5. Equipment having moving parts such as gears, bearings, and seals, shall be stored fully lubricated with oil, grease, etc., unless otherwise instructed by the manufacturer. Manufacturer’s storage instructions shall be carefully followed.
  6. When required by the equipment manufacturer, moving parts shall be rotated a minimum of twice a month to ensure proper lubrication and to avoid metal to metal “welding”. Upon installation of the equipment, Contractor shall, at the discretion of District, start the equipment at one-half load for an adequate period of time to ensure that the equipment does not deteriorate from lack of use.
  7. When required by the equipment manufacturer, lubricant shall be changed upon completion of installation and as frequently as required thereafter during the period between installation and acceptance. New lubricants shall be put into the equipment by Contractor at the time of acceptance.
  8. Equipment and materials shall not have any pitting, rust, decay, or other deleterious effects of storage when installed in the Work.
  9. In addition to the protection specified for prolonged storage, the packing of spare units and spare parts shall be as for export packing and shall be suitable for long-term storage in a damp location. Each spare item shall be packed separately and shall be completely identified on the outside of the container.

10. Handling: Stored items shall be laid out to facilitate their retrieval for use in the Work. Care shall be taken when removing the equipment for use to ensure the precise piece of equipment is removed and that it is handled in a manner that does not damage the equipment.
11. Store products to allow for inspection, measurement, and/or counting of units.
12. Store materials in a manner that will not endanger adjacent Work.
13. 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.
14. Store cementitious products and materials on elevated platforms.
15. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
16. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
17. Protect stored products from damage.
18. Protect liquids from freezing.

**PART 2 - PRODUCTS**

Not Used

**PART 3 - EXECUTION**

Not Used

**END OF SECTION 01610**

**SECTION 01625**  
**PRODUCT OPTIONS AND SUBSTITUTIONS**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

- A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Division 1 specification Sections shall apply to this Section without limitation.

**1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- B. Section 01311 – “Project Management and Coordination”
- C. Section 01400 – “Quality Control Requirements”
- D. Section 01722 – “Execution Requirements”
- E. Section 01780 – “Project Record Documents”
- F. Division 2 through 16 Sections for specific requirements for Materials and Equipment (Product Options and Substitutions) for the work in those Sections.

**1.3 SUMMARY**

- A. This Section includes administrative and procedural requirements concerning product options and substitutions.

**1.4 GENERAL**

- A. The term product, as used in the Contract Documents, includes materials, equipment, systems, and like terms of similar intent.
- B. 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.
- C. Named products are identified in the Contract Documents by manufacturer’s product name, make or model number, and/or other specific designation.
  - 1. Do not use materials and/or equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- D. List of Manufacturers and Products Required. The Contractor shall require all Subcontractors to prepare and submit to the Contractor, within thirty (30) days of execution of the Subcontract, 4 copies of the comprehensive lists of manufacturers and products proposed for the Project, including information on materials, equipment, and fixtures required by the Contract Documents, as may be required for the Contractor’s or Architect’s approval.
  - 1. Approval of such lists of products shall not be construed as a substitute for the shop drawings, manufacturer’s descriptive data, and samples, required by the Contract

Documents, but rather shall be considered as a base from which more detailed submittals shall be developed for final review by the Contractor and the Architect.

**1.5 PRODUCT SELECTION AND SUBSTITUTION REQUIREMENTS**

- A. Substitutions are defined as any changes in products, materials, equipment, and/or methods of construction from those required by the Contract Documents, and that are proposed by the Contractor.
- B. When only one product is specified, and unless the Specifications state that no substitution is permitted, whenever the Contract Documents indicate any specific article, device, equipment, product, material, fixture, patented process, form, method, or type of construction or any specific name, make, trade name, or catalog number, with or without the words “or equal,” such specification shall be deemed to be used for the purpose of facilitating description of the material, process, or article desired and shall be deemed to be followed by the words “or equal” unless the Contract Documents specify “no substitution allowed”, “no equal”, “no equivalent”, “to match campus standard”, “single source,” or other language with similar meaning, in which case no substitutions will be allowed.
  - 1. Pursuant to Paragraph 3.11.4 of the General Conditions, the Contractor may, unless otherwise stated below, at time of bid offer any material, process, article, etc., which shall be materially equal or better in every respect to that so indicated or specified (“Specified Item”) and will completely accomplish the purpose of the Contract Documents.
- C. For products specified by naming only one manufacturer and including the words “no substitutions allowed”, “no equal”, “to match campus standard”, “single source” and/or other phrase with similar meaning:
  - 1. There is no product option due to necessity to match existing products or systems, to meet other design criteria or dependencies, or to comply with established standards. No substitution will be allowed.
  - 2. If product becomes unavailable due to no fault of Contractor, submit Request for Substitution, including all information required herein.
- D. When more than one product is specified, and in the absence of language stating “no substitutions allowed”, “no equal”, “to match campus standard”, “single source,” or other phrase with similar meaning:
  - 1. Select products of any named manufacturer meeting all specified requirements, or submit a request for substitution at time of bid.
  - 2. If product becomes unavailable due to no fault of Contractor, submit Request for Substitution (RFS), including all information required herein.
- E. For products specified by naming one or more products followed by the words “or approved equal”:
  - 1. Select products of any named manufacturer meeting all specified requirements, or submit a request for substitution at time of bid.
- F. For products specified only by reference standard, select any product meeting or exceeding all requirements of the specified standard.

- G. Compatibility of product options: If Contractor is given an option of selecting between two or more products for use on the Project; product selected shall be compatible with products previously selected, even if previously selected products were also options.
  - 1. Contractor shall be responsible for providing products and construction means and methods that are compatible with the products and construction means and methods of other contractors.
  
- H. Products Specified which are Commercially Unavailable. If the Contractor fails to make a request for substitutions for products, prior to the submission of its bid, and such products subsequently become commercially unavailable, the Contractor may request a substitution for such commercially unavailable item.
  - 1. 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.
  - 2. The District may condition its approval of the substitution upon the delivery to District of an extended warranty or other assurances of adequate performance of the substitution as well as an equitable deduction in the contract price should the substituted item cost less than the Specified Item.
  - 3. All risks of delay due to the approval of a requested substitution by the DSA, or any other governmental agency having jurisdiction, shall be on the requesting party. All additional costs, all procurement and construction delays, and all costs for review by the Architect or its consultants shall be the responsibility of the Contractor and will be deducted from Contractor’s pay request.
  
- I. Substitution Request Form. All requests for substitutions of products, materials, or processes in place of a Specified Item must be submitted in writing on the District’s Substitution Request Form (“Request Form”) at the time of submitting bids to the District, except as provided for in Paragraph 3.11.4 of the General Conditions. The Request Form must be accompanied by evidence as to whether the proposed substitution meets the requirements of the Contract Documents as specified herein.
  - 1. In completing the Request Form, the bidder must 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.
  
- J. After bids are opened, the apparent lowest responsive and responsible bidder shall provide, within five (5) days of opening such bids, any and all Drawing, Specifications, samples, performance data, calculations, and other information, as required herein 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.
  
- K. 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.
  - 1. Any request for substitution that is granted by the District shall be documented and processed through a Change Order.



2. The District may condition its approval of any substitution upon delivery to the District of an extended warranty or other assurances of adequate performance of the substitution.
  3. Any and all risks of delay due to approval by the DSA or any other governmental agency having jurisdiction shall be on the bidder.
  4. In the event that the bidder has agreed in the Request Form to provide the Specified Item and the District denies the bidder's requested substitution for a Specified Item, the bidder shall provide the Specified Item without any additional cost or charge to the District.
- L. If the Architect and District accept a proposed substitution, the Contractor agrees to pay for all engineering and design services, including, without limitation, compensation to the Architect and affected engineers for their required time to process such substitution through the Division of the State Architect, if required, and to make all changes and adjustments in materials or the work of all trades directly or indirectly affected by the substituted item or items at no cost to the District.
- M. Substitutions will not be considered for acceptance (or, at the District's sole discretion, District may make Contractor solely responsible for all resulting costs, expenses and other consequences of a substitution) when a substitution:
1. Results in delay meeting established construction milestones and/or Phase completion dates.
  2. Is indicated or implied on submittals without formal Substitution Request from Contractor.
  3. Is requested directly by a Subcontractor or supplier.
  4. Acceptance will require substantial revision to the Contract Documents.
  5. Disrupts the Contractor's Work progress or ability to perform efficiently.
- N. Substitute products shall not be ordered without written acceptance of Architect and District.
- O. Architect and/or District shall determine acceptability of proposed substitutions and reserve right to reject proposals due to insufficient information.
- P. Accepted substitutions will be evidenced by a Change Order. All Contract Document requirements apply to all Work involving substitutions.
- Q. Coordinate all substitute products with Contractor's Construction and Submittal Schedules.

**1.6 PRODUCT SUBSTITUTION REQUESTS: REQUIRED INFORMATION**

- A. Requests for substitutions of products, materials, or processes in place of a specified item must in writing on the District's Substitution Request Form at the time of submitting bids to the District.
- B. Except as provided in the Contract Documents with respect to "or equal" items, District will consider a Contractor's substitution request only when the specified product or products become unavailable due to no fault of Contractor.
- C. Requests for review of proposed substitute items will not be accepted from anyone other than Contractor.

- D. A Request for Substitution shall state the extent, if any, to which the evaluation and acceptance of the proposed substitute will prejudice Contractor’s achievement of Substantial Completion of the Work or any Phase of the Work on time pursuant to the completion dates specified in the Contract Documents, and whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with the District for Work on the Project.)
- E. Substitution Product List: Submit a list, in tabular form, showing specified product(s) and requested substitute product(s). Include generic names of products required, and manufacturer’s proprietary name for each product. Provide all product data for each requested substitute product, variations from specified product, and other pertinent data as specified herein.
- F. Submit separate submittals (four copies) for each product substitution requested, to include the following:
  - 1. A statement either explaining why the specified product cannot be provided or why the Contractor is proposing a substitution.
  - 2. Product identification, including specification section number, and title.
  - 3. Manufacturer’s literature, including product data and specifications.
  - 4. Physical samples, as applicable
  - 5. Color chart, as applicable.
  - 6. Name and address of similar projects on which product has been used, and dates of installation.
  - 7. Name, address, and telephone number of supplier, installer, and manufacturer’s representative.
  - 8. Construction methods: Include detailed description with drawings or other illustrations as required for clarity.
  - 9. Provide product availability information with projected delivery date.
  - 10. A completed Substitution Request Form (see Section 01340 “Administrative Forms and Logs”) for each product substitution requested. Submittals with an incomplete Substitution Request Form will be returned to the Contractor without review.
  - 11. A detailed comparison of the proposed substitution with specified product, listing all variations including all dimensional, weight, service requirements, and functional differences, if any. If variation(s) from the specified product is not identified in the submittal, it may be rejected.
  - 12. Indicate available maintenance, repair, and replacement services for substitute products.
  - 13. Contractor shall state whether the substitute will require a change in any of the Contract Documents (or provisions of any other direct contract with District for work on the Project) to adapt the design for the proposed substitute, and whether or not incorporation or use of the substitute in connection with Work is subject to payment of any license fee or royalty.
  - 14. Contractor shall provide an accurate cost comparison of the proposed substitution with the specified product and identify the net change in Contract Sum related to use of the proposed substitution.

- a. The cost comparison shall include, but not be limited to, an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of such substitute, and include costs for redesign and/or claims of other contractors affected by the resulting change.
  - b. Architect or District may require Contractor to furnish additional cost data concerning the proposed substitute.
- 15. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by District and separate contractors that will be necessary to accommodate proposed substitution.
- 16. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
- 17. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities have jurisdiction.
- 18. Submit complete information identifying any changes to the Contractor's Construction Schedule required as a result of the proposed substitution.
  - a. If specified product or method of construction cannot be provided within Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or other reason for delays in delivery.
    - l) Contractor's certification that proposed substitution complies with requirements in the Contract Documents.
- 19. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.

**1.7 CONTRACTOR'S REPRESENTATION AND WARRANTY**

- A. Contractor's Substitution Request constitutes a representation and warranty that Contractor complies with all of the following requirements:
  - 1. Contractor has investigated proposed product and determined that it meets or exceeds, in all respects, the requirements for the specified product.
  - 2. Contractor shall provide the same warranty for substitution as for specified product.
  - 3. Contractor shall coordinate installation and make all other changes that may be required for Work to be integrated and complete in all respects.
  - 4. Contractor waives claims for any additional costs which may subsequently become apparent.
  - 5. Contractor shall compensate District for any Construction Document revisions and/or agency approval costs associated with any product substitution. Any such compensation shall be deducted from the Contract Sum by the District via Change Order.
  - 6. Contractor shall be responsible for maintaining the Construction Schedule and for recovering any time lost due to a product substitution.
  - 7. Contractor shall be responsible for any Construction Schedule delay caused by late ordering of available specified products caused by Substitution Requests that are subsequently rejected by the District.

8. Contractor shall compensate District for all costs, including extra costs for performing Work under Contract Documents, extra cost to other contractors, and any claims brought against District, caused by late Product Substitution Requests.

**1.8 ARCHITECT'S ACTION**

- A. Architect shall respond in writing to Contractor within (10) working days of receipt of a Substitution Request. Architect's response shall include a list of unacceptable product selections and a brief explanation of reasons for this action. Architect's response, or lack of response, does not constitute a waiver of requirement to comply with the Contract Documents.
- B. Architect shall notify Contractor in writing of decision to accept or reject Contractor's requested substitution.
- C. If necessary, Architect may request additional information or documentation for evaluation Substitution Request. Architect shall notify Contractor of acceptance or rejection of proposed substitution within (5) working days of receipt additional information of documentation.

**1.9 ADMINISTRATIVE REQUIREMENTS**

- A. Specified products, materials, or systems for Project may include engineering or on-file standards required by the regulatory agency. Contractor's substitution of products, materials or systems may require additional engineering, testing, reviews, approvals, assurances, or other information for compliance with regulatory agency requirements, or both. Contractor shall provide all agency approvals or other additional information required and pay additional costs for required District services made necessary by the substitution at no increase in Contract Sum or Contract time, and as a part of substitution proposal.

**PART 2 – PRODUCTS**

Not Used

**PART 3 – EXECUTION**

Not Used

**END OF SECTION 01625**

**SECTION 01710  
CLEANING 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 of General Conditions and other Division 1 Specification Sections shall apply to this Section without limitation

**1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01400 – “Quality Control Requirements”
- B. Section 01722 – “Execution Requirements”
- C. Section 01770 – “Contract Closeout Procedures”
- D. Divisions 2 through 16 Sections for specified Cleaning Requirements for the work in those Sections.

**1.3 DISPOSAL OF MATERIALS**

- A. See Section 01505 (Construction Waste Management) for additional requirements.
- B. As part of the scope of Work included within the contract Sum, Contractor shall be fully responsible for disposing of all construction debris, dirt and spoils resulting from the Work.
- C. All waste materials, debris, dirt and rubbish shall be disposed of at sites to be chosen by Contractor in accordance with applicable local, state and federal regulations and requirements of the Contract Documents. See also Sections 01505 and 01412.
- D. Contractor is cautioned that both the County of Contra Costa and cities within the County have regulations governing the disposal of rubble, broken pavement, and similar materials.
- E. Contractor shall become familiar with the requirements of the agency having jurisdiction over any contemplated disposal site and shall comply with requirements.
- F. The Contractor shall estimate, log and submit regular reports to the District, an estimate of quantities (e.g. tonnage) of waste materials disposed of for compliance with Section 01505. See Section 01505 for documentation requirements regarding the nature of materials, destination, volume, and tonnage.
- G. Under no circumstances shall rubbish, debris, waste, dust, dirt or surplus materials be allowed to accumulate in the building or on the Project site, and all such shall be removed continually as the Work progresses and by the end of each day’s Work.

- 1. Materials: In occupied building areas, only sufficient materials and flammable or toxic substances necessary for the Work being performed that day or shift shall be brought into the building and work areas. In no case shall flammable or toxic substances be stored in the building, and these substances shall be immediately removed from the building when not needed and not later than the end of the day’s Work.
- 2. Splattering or spilling of material shall be promptly cleaned up at time of occurrence.

- H. Contractor shall provide street sweeping whenever silt from construction site is carried over to adjacent public thoroughfares.
- I. Failure to maintain a clean and orderly project site may necessitate action by the District. In the event that the Contractor fails to clean up and maintain the project in a clean and orderly manner, the District may clean the job-site and charge the Contractor for such cleaning costs. Any cleaning costs incurred by District will be deducted from the Contract Sum by Change Order.
- J. All trash, debris, waste, and excess soil resulting from performance of the Work shall be disposed of at sites to be chosen by Contractor in accordance with applicable local, state, and federal regulations. If Contractor elects to dispose of soil on any private property, a permission letter shall be obtained from the property owner and presented to District prior to disposal. Contractor is advised that the property owner is required to obtain a fill permit from the applicable government agency(ies). In addition, placement of fill in wetland areas is subject to permit procedures of the US Army Corps of Engineers. At the completion of Work, a letter from each affected property owner releasing Contractor, Contra Costa County, District, and District consultants from any future liability.

**1.4 FINAL CLEANING**

- A. District’s Representative’s Inspection: Provide District at least twenty-four (24) hours advance notice of readiness for inspection.
- B. Any deficient cleaning, as determined by District’s Representative, shall be immediately corrected as directed by District at Contractor’s expense.
- C. Contractor shall execute final cleaning prior to final inspection, using only properly skilled workers.
- D. Remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials from exposed interior and exterior finished surfaces.
- E. Repair, patch, and touch up marred surfaces to match adjacent finishes.
- F. Clean interior and exterior surfaces exposed to view; remove temporary labels, stains and foreign substances, clean and/or polish all transparent and glossy surfaces,
- G. Vacuum carpeted and soft surfaces.
- H. Remove waste and surplus materials, rubbish, and construction facilities from Site.
- I. Wash and shine mirrors.
- J. Ventilating systems:
  - 1. Clean permanent filters and replace disposable filters of units operated during construction; in addition, clean ducts, blowers, and coils when units have been operated without filters during construction.
  - 2. Clean ducts, blower, and coils of units operated during construction.
- K. Clean surfaces of equipment; remove excess lubrication.
- L. Clean plumbing fixtures to a sanitary condition
- M. Vacuum and wipe inside of electrical panels and cabinetwork.
- N. Clean light fixtures and lamps.
- O. Broom clean interior spaces.

- P. Clean, damp mop, wax and polish resilient and hard-surfaced floors as specified.
- Q. Remove waste, debris and surplus materials from site. Clean grounds; remove stains, spill, and foreign substances from paved areas and sweep clean. Rake clean other exterior surfaces.
- R. Use cleaning materials which will not create hazards to health or property or cause damage to the Work. Use cleaning materials and methods recommended by the manufacturers of the products to be cleaned.
- S. Contractor shall not use nor permitted to use any kind of material/cleaning chemical that are not permitted for use in the State of California, or not permitted by the Health Department
- T. Schedule operations to prevent dust and other contaminants resulting from cleaning operations from adhering to wet or newly finished surfaces.
- U. Clean roofs, gutters, downspouts and drainage systems.
- V. Interior surfaces and areas where Work is performed shall be left in vacuum clean condition with all dust, dirt, stains, hand marks, paint spots, plaster droppings, and other blemishes and defects completely removed. To the extent of Contractor's operations, use or materials, the following requirements apply to all areas where Work is performed:
  - 1. Walls: Bare and painted surfaces shall be cleaned and free of dust, lint, streaks, or stains.
  - 2. Hardware and metal surfaces shall be cleaned and polished using non-corrosive and non-abrasive materials.
  - 3. Glass: New glass and soiled existing glass shall be washed and polished both sides and left free of dirt and spots. Labels shall be removed.
  - 4. Ceilings shall be clean and free of stains, handmarks, and defacing.
  - 5. Fixtures and Equipment: New mechanical and electrical fixtures and like items shall be cleaned and polished. Lighting fixtures shall be free of dust, dirt, stains, or waste material. Equipment and machinery shall be cleaned, serviced, and ready for use. Existing items shall be cleaned as required including ventilating supply and return equipment in walls and ceilings.
  - 6. Surfaces not mentioned shall be cleaned according to the intent of this Section and as required for District's Representative's approval.

**PART 2 – PRODUCTS**

Not Used

**PART 3 – EXECUTION**

Not Used

**END OF SECTION 01710**

**SECTION 01780**  
**PROJECT RECORD DOCUMENTS**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

- A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Division 1 Specification Sections shall apply to this Section without limitation.

**1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- B. Section 01250 – “Contract Modification Procedures”
- C. Section 01310 – “Construction Scheduling”
- D. Section 01311 – “Project Management and Coordination”
- E. Section 01330 – “Submittal Procedures”
- F. Section 01770 – “Contract Closeout Procedures”
- G. Divisions 2 through 16 Sections for Project Record Documents requirements for the work in those Sections.

**1.3 SUMMARY**

- A. This section includes administrative and procedural requirements for Project Record Documents, including but not limited to the following:
  - 1. Record Drawings
  - 2. Record Specifications
  - 3. Record Product Data
  - 4. Record MEP & Structural coordination documents
- B. Project Record Documents requirements include, but are not limited to, the following:
  - 1. Marked-up copies of Drawings
  - 2. Marked-up copies of Shop Drawings
  - 3. Newly prepared Drawings
  - 4. Marked-up Product Data submittals
  
  - 5. Field records, such as photographs, for variable and concealed conditions
  - 6. Record information for Work that is only schematically shown
  - 7. Maintenance forms for equipment
- C. Other Project closeout requirements are included in Section 01770, Contract Closeout Procedures.



- D. Contractor shall maintain Documents and Samples as follows:
  - 1. Contractor shall provide and store all required Project Record Documents and Samples in the field office apart from Contract Documents used for Construction. These materials shall be available at any time upon request by the District, Architect and Project Manager.
  - 2. Project Record Documents shall not to be used for construction purposes.
  - 3. Maintain Project Record Documents in good order, and in a clean, dry, legible condition.
- E. Contractor shall dedicate one complete full size set of the Contract Drawings and one complete Project Manual for use in recording as-built conditions.
- F. The Contractor shall update the Record Drawings and Annotated Specifications as often as necessary to keep them current, but no less often than weekly.
- G. The Record Drawings and Annotated Specifications shall be kept at the Site and available for review and inspection by the District and the Architect.

#### **1.4 PROJECT RECORD DRAWINGS**

- A. 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.
- B. On completion of the Work and prior to Application for Final Payment, the Contractor will provide one complete set of Record Drawings in Autocad (.dwg) file format and one complete set in Adobe PDF file format.
- C. 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.
  - 1. 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:
    - a. Dimensional changes to the Contract Drawings (horizontal and/or vertical)
    - b. Revisions or any modification to details shown on the Contract Drawings
    - c. Depths of various elements of foundations in relation to main floor level or survey datum.
    - d. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
    - e. Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
    - f. 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
    - g. Final, actual numbering of each electrical circuit
    - h. Revisions to routing of piping and conduits

- i. Revisions to electrical circuitry, including legends at electrical panels
  - j. Actual equipment locations
  - k. Duct size and routing
  - l. Changes made by Change Order, CCD, ASI, or any other directive
  - m. Details not on original Contract Drawings
2. 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.
  3. 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.
  4. Contractor shall mark important additional information that was either shown schematically or omitted from original Drawings.
  5. Contractor shall note Contractor Change Directive numbers; Bid Alternate numbers, if any, Change Order numbers, and similar identification.
  6. 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.
    - a. Accurately record information in an understandable and legible drawing technique.
    - b. Record data as soon as possible after it has been obtained. In the case of concealed installations, record and check the mark-up prior to concealment.
    - c. The District, Architect, Project Manager and Project Inspector will review all record documents each month prior to approval of Contractor's Application for Payment.
- D. Contractor shall prepare Record Drawings: Immediately prior to inspection for Certification of Substantial Completion of the Work or any Phase 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 electronic set, professionally drafted in AutoCAD format, of as-built Contract Drawings and Shop Drawings.
1. 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.
  2. 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.
- E. In addition to requirements of this Section, comply with supplemental requirements of other Divisions 2 through 16.

1. Section 01330, Submittal Procedures, requires the preparation of large scale, detailed layout drawings of the Work in Divisions 2 through 16. These layout drawings are not Shop Drawings as defined by Section 01330, but together with Shop Drawings or layout drawings of all other affected Sections are used to check, coordinate and integrate the work of the various Sections.
2. Contractor shall include required layout drawings as part of the Project Record Documents.

**1.5 PROJECT RECORD SPECIFICATION**

- A. 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.
- B. 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.
  1. In each Specification Section where products, materials or units of equipment are specified or scheduled, mark the Record copy with the proprietary name and model number of the product furnished.
  2. Where a specification allows Contractor to elect one of several brands, makes, or types of material or equipment, the annotations shall show which of the allowable items the Contractor has furnished.
  3. Record the name of the manufacturer, catalog number, supplier and installer and other information necessary to provide an accurate record of selections made, and coordinate documentation with Project Record Data submittals and maintenance manuals.
  4. Note any related Project Record Product Data that was submitted in maintenance manuals instead of Product Data submittals.
  5. Upon completion of mark-up, submit Project Record Specifications to District for District's records.

**1.6 ADDITIONAL REQUIREMENTS FOR FINAL PROJECT RECORD DOCUMENTS**

- A. Using a distinct Auto CAD layer, clearly indicate at each affected plan, detail, schedule, or other drawing as necessary, a full description of changes made during construction along with the actual location of specified items.
- B. "Cloud" all changes made using a distinct AutoCAD layer.
- C. Submit duplicate electronic files of all drawings in both Auto CAD and Adobe PDF Format.

**1.7 PROJECT RECORD PRODUCT DATA**

- A. Contractor shall, during the construction period, maintain one copy of each Project Record Product Data submittal for "Project Record Document" purposes.
  1. Mark Project Record Product Data to indicate the actual product installation where the installation varies substantially from that indicated in Project Record Product Data

submitted. Include any significant changes in the product as delivered and/or installed including any departures from the manufacturer's instructions and/or recommendations for installation.

2. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  3. Note related Change Orders and mark-up of Project Record Drawings, where applicable.
  4. Upon completion of mark-up, submit a complete set of Project Record Product Data to District for District's records.
  5. Where Project Record Product Data is required as part of maintenance manuals, submit marked-up Project Record Product Data as an insert in the manual, instead of submittal as Project Record Product Data.
  6. Contractor is responsible for mark-up and submittal of Project Record Product Data for its own Work.
- B. Material, Equipment and Finish Data:
1. General: Provide one (1) preliminary review copy and two (2) final copies each of a "Materials, Equipment and Finishes Manual" listing all finish materials, equipment (not provided under Divisions 15 and 16), and finishes installed in the Work.
  2. Submit the preliminary manuals to the Architect a minimum of two (2) weeks prior to Substantial Completion. The preliminary copies must comply with all of the requirements, except the hardboard covers.
  3. Obtain approval of preliminary copies prior to producing final copies.
  4. Deliver final manuals to the Architect prior to final acceptance and final payment. Architect will deliver manuals to the District.
  5. Format of Manual: Provide bound manuals with printed covers and spines. Title "Materials, Equipment and Finishes Manual". Organize data sequentially by Specification Section number on type written 8-1/2 by 11 inch pages. Provide each copy with a typewritten index and tabbed dividers between each separate Section. Mark each tab to indicate contents.
  6. Contents of Manual: Manuals shall contain all information needed to identify, maintain, and replace/duplicate any finish materials, equipment, and finishes installed in the Work for this Project. Where materials and product information has been described and likewise indicated in the "Operation and Maintenance Manuals", cross referencing to where they can be found may be done in lieu of duplication of the information. The information provided shall include, but not be limited to, the following:
    - a. Manufacturer's names and model numbers or product name; supplier's and subcontractor's name, address and phone and fax numbers; and all other pertinent information that might be required for replacement ordering or duplication at a later date.
    - b. For custom fabricated products which do not have model numbers or names, reference Project shop drawing submittal number and indicate "Fabricated per shop drawing submittal Number \_\_\_\_.
    - c. Proportions of mixes.
    - d. Color formula list for each paint color used.

- e. For power operated equipment, include complete and legible wiring diagrams together with cuts of repair parts and part numbers listed and instructions relative to care, adjustment and operation of the equipment.
  - f. For moisture protection and weather exposed products, include complete manufacturer's data with instructions on inspection, maintenance and repair.
  - g. Where applicable, provide information on care and maintenance, including manufacturer's recommendations for types of cleaning agents to be used and methods of cleaning. Provide information regarding cleaning agents and methods that could prove detrimental to the product.
- C. 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:
- 1. Trade Names
  - 2. Model or type numbers
  - 3. Assembly diagrams
  - 4. Operating instructions
  - 5. Cleaning instructions
  - 6. Maintenance instructions
  - 7. Recommended spare parts
  - 8. Product data

**1.8 MISCELLANEOUS PROJECT RECORD SUBMITTALS**

- A. Refer to other Specification Sections for miscellaneous record keeping requirements and submittals. Immediately prior to Substantial Completion of the Work or any Phase 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. Categories of miscellaneous records include, but are not limited to, the following:
- 1. Field records on excavations and foundations
  - 2. Field records on underground construction and similar work
  - 3. Survey showing locations and elevations of underground lines
  - 4. Invert elevations of drainage piping
  - 5. Surveys establishing building lines and levels
  - 6. Authorized measurements utilizing unit prices or allowances
  - 7. Records of plant treatment
  - 8. Ambient and substrate condition tests
  - 9. Certifications received in lieu of labels on bulk products
  - 10. Batch mixing and bulk delivery records
  - 11. Testing and qualification of tradespersons
  - 12. Documented qualification of installation firms
  - 13. Load and performance testing

14. Inspections and certifications by governing authorities
15. Leakage and water-penetration tests
16. Fire resistance and flame spread test results
17. Final inspection and correction procedures
18. Final As-Built Construction Schedule
19. Other

### **1.9 INSTALLATION, OPERATION, AND MAINTENANCE MANUALS**

- A. Submit Installation, Operation, and Maintenance Manuals in accordance with this Section, Section 01330, Submittal Procedures and Section 01785, Operation and Maintenance Data.

### **1.10 ELECTRONIC MEDIA FORMAT**

- A. Electronic Media Format: Electronic media format 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 Project Record Drawings, updated Specification Manuals, tables, charts, drawings, codes and all other matters reflected in hard copies. Electronic media files shall be delivered on a unique CD-ROM containing Adobe files of each completed Project Record Drawing and the complete Specifications Manual with all changes made during the Project.

### **1.11 DISTRICT'S RECOURSE**

- A. If Contractor is not able to provide Project Record Documents in specified formats, District has the right to complete the Work using other resources. Contractor agrees that any and all costs associated with District completion of this Work shall be deducted from the Contract Sum by Change Order.

## **PART 2 - PRODUCTS**

Not Used.

## **PART 3 - EXECUTION**

### **3.1 RECORDING**

- A. Post changes and modifications to the Contract Documents as they occur. Do not wait until the end of the Project. District may periodically review Project Record Documents to assure compliance with this requirement.

### **3.2 SUBMITTALS**

- A. At completion of Project, deliver all Project Record Documents to District, per Section 01330 (Submittal Procedures.)
- B. Accompany submittal with transmittal letter containing:
  1. Date
  2. Project title and number
  3. Contractor's name and address

4. Number and title of each Project Record Document
5. Certification that each document as submitted is complete and accurate and signature of Contractor or Contractor's authorized representative.

**END OF SECTION 01780**

## SECTION 01722

### EXECUTION 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 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS

- A. Section 01010 – “Summary of Work”
- B. Section 01015 – “Project Phasing”
- C. Section 01050 – “Field Engineering
- D. Section 01055 – “Conformance Surveying”
- E. Section 01311 – “Project Management and Coordination”
- F. Section 01710 – “Cleaning Requirements”
- G. Section 01770 – “Contract Closeout Procedures”
- H. Divisions 2 through 16 Sections for Execution Requirements for the work in those Sections.

##### 1.3 SUMMARY

- A. This Section includes Administrative and General procedural requirements governing execution of the Work including, but not limited to, the following:
  - 1. Construction layout
  - 2. General installation of products
  - 3. Coordination of District-installed products
  - 4. Starting and adjusting
  - 5. Protection of installed construction
  - 6. Correction of the Work

#### PART 2 - PRODUCTS

Not Used

#### PART 3 - EXECUTION

##### 3.1 EXAMINATION

- A. 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.



1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
    - a. Description of the Work
    - b. List of detrimental conditions, including substrates
    - c. List of unacceptable installation tolerances
    - d. Recommended corrections
  2. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
  3. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
  4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.
- B. 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.
1. Before construction, verify the location and points of connection of all utility services for each Phase of the Work and the entire Project.
- C. 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.
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.
  2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

### **3.2 PREPARATION**

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

- D. 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.

### 3.3 CONSTRUCTION LAYOUT

- A. 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.

### 3.4 INSTALLATION

- A. General Contractor shall locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
  1. Make vertical work plumb and make horizontal work level.
  2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
  3. Conceal pipes, ducts, and wiring in furnished areas, unless otherwise indicated.
  4. Maintain minimum headroom clearance of eight feet in spaces without a suspended ceiling.
- B. Contractor shall comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. 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.
- D. 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.
- E. Tools and Equipment: Do not use tools or equipment that produces harmful noise levels. Contractor shall comply with noise requirements in Section 01416, Special Procedures
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. 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.
- H. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
- I. Allow for building movement, including thermal expansion and contraction.
- J. 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.

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

**3.5 DISTRICT-INSTALLED PRODUCTS**

- A. Site Access: Provide access to Project site for District’s construction forces.
- B. Coordination: Coordinate construction and operations of the Work with work performed by District construction forces.
  - 1. 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.
  - 2. 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.

**3.6 PROTECTION OF INSTALLED CONSTRUCTION**

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer’s written instructions for temperature and relative humidity.

**3.7 CORRECTION OF THE WORK**

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements Section 01730, Cutting and Patching.
  - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition. See also Section 01500, Temporary Facilities and Controls.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and/or broken glass or reflective surfaces.

**END OF SECTION 01722**

## **SECTION 01730**

### **CUTTING AND PATCHING**

#### **PART 1 - GENERAL**

##### **1.1 RELATED DOCUMENTS**

- A. All Contract Documents shall be reviewed for applicable provisions related to the provisions in this document, and provisions in the General Conditions and other Division 1 Specification Sections shall apply to this section without limitation.
- B. Individual Product Specification Sections:
  - 1. Cutting and patching incidental to work of the section.
  - 2. Advance notification to other sections of openings required in work of those sections.
  - 3. Limitations on cutting structural members.

##### **1.2 RELATED REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01311 – “Project Management and Coordination”
- B. Section 01710 – “Cleaning Requirements”
- C. Section 01722 – “Execution Requirements”
- D. Divisions 2 through 16 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

##### **1.3 DEFINITIONS**

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to new or original conditions after installation of other Work.

##### **1.4 RESPONSIBILITIES**

- A. Contractor shall be responsible for all cutting, fitting, and patching, including associated excavation and backfill, required to complete the Work. This includes, but is not limited to:
  - 1. Making parts fit together properly
  - 2. Removal and replacement of defective Work
  - 3. Removal and replacement of Work not conforming to requirements of Contract Documents
  - 4. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit
  - 5. Attaching new materials to existing improvements
  - 6. Painting (or other finishes) to match adjacent or existing conditions

- B. Contractor shall not cut or alter any part of the Work in such a way that endangers or compromises the integrity of the Work, the work of others, or the Project.

## 1.5 QUALITY ASSURANCE

- A. Requirements for Cutting and Patching relating to structural elements: Do not cut and/or patch structural elements in a manner that would alter their structural design characteristics.
  - 1. Obtain written approval of the cutting and patching proposal from the Structural Engineer of Record prior to cutting and/or patching any structural elements. Structural elements include, but are not limited to:
    - a. Foundation construction
    - b. Structural Concrete
    - c. Structural Steel
    - d. Wood Framing
    - e. Bearing and retaining walls
    - f. Stair systems
    - g. Roofing and framing systems
    - h. Glue lam beam
    - i. Shear wall systems
  - 2. Where cutting and patching Work involves adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure. Contractor shall be responsible for any costs associated with required Structural Engineer and/or DSA reviews and approvals.
- B. Operational Limitations: Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decreased operational life or safety.
- C. Visual Requirements: Do not cut and patch exposed Work in a manner that would, in the Architect or District's opinion, reduce the building's aesthetic qualities. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching. Remove and replace construction cut and patched in a visually unsatisfactory manner as directed by District.
- D. Contractor shall ensure that all cutting, fitting, and patching shall achieve the security, strength, weather protection, and appearance for aesthetic match, efficiency, operational life, maintainability, safety of operational elements, and the continuity of existing fire ratings as required by the Contract Documents.
- E. Contractor shall ensure that cutting, fitting, and patching shall successfully duplicate undisturbed adjacent profiles, materials, textures, finishes, colors, and that materials shall match existing construction. Where there is dispute as to whether duplication is successful or has been achieved to a reasonable degree, the District's decision shall be final.
- F. Operational Elements: Do not cut and patch operating elements and/or related components in a manner that results in reducing their capacity to perform as intended, results in increased

maintenance requirements, that decreases operational life, or that affects system or component safety. Operating elements include, but are not limited to the following:

1. Fire-suppression systems.
  2. HVAC systems.
  3. Control systems.
  4. Mechanical systems piping and ducts.
  5. Air smoke barriers
  6. Telephone and communication systems.
  7. Electrical wiring systems.
  8. Primary operational systems and equipment.
- G. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or those results in increased maintenance or decreased operational life or safety. Miscellaneous elements include, but are not limited to the following items:
1. Exterior curtain wall construction
  2. Equipment supports
  3. Noise-and vibration-control elements and systems
  4. Water, moisture, or vapor barriers
  5. Membranes and flashings
  6. Vessels, and equipment

## **1.6 PAYMENT FOR COSTS**

- A. Cost caused by ill-timed or defective cutting and patching Work or Work not conforming to Contract Documents, including costs for additional services of the District and its consultants will be borne by the Contractor and deducted from the Contract Sum via Change Order by the District.
- B. Cost of Work cutting and patching Work performed upon approval from the District, other than defective or nonconforming Work, will be paid by District via written Change Order.

## **1.7 WARRANTY**

- A. Existing Warranties: Remove, replace, cut, patch, and repair materials and surfaces damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties of any affected Work.

## **PART 2 - PRODUCTS**

### **2.1 MATERIALS**

- A. Contractor shall provide for replacement and restoration of any Work affected by cutting and patching operations. Contractor shall comply with the Contract Documents and with the Industry Standard(s), for the type of Work involved. If not specified, Contractor shall first

recommend a product of a manufacturer or appropriate trade association for approval by the District.

- B. Materials to be cut and patched include those damaged by Contractor in the performance of the Work.
- C. Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible. If identical materials are unavailable or cannot be used, use materials whose installed performance will equal or exceed that of existing materials and that are visually compatible in the sole opinion of the District.

### **PART 3 - EXECUTION**

#### **3.1 INSPECTION**

- A. Contractor shall inspect existing conditions of the Site and the Work, including elements subject to movement or damage during cutting and patching, excavating and backfilling. After uncovering Work, Contractor shall inspect conditions affecting the installation of new products.
- B. Contractor shall report unsatisfactory or questionable conditions in writing to District as indicated in the Contract Documents, and shall proceed with Work as directed by District.

#### **3.2 PREPARATION**

- A. Contractor shall provide adequate shoring, bracing and supports as required to maintain structural integrity for all portions of the Project during cutting and patching operations.
- B. Contractor shall provide devices and means and methods to protect other portions of Project from damage during cutting and patching operations.
- C. Contractor shall provide all necessary protection from weather and extremes of temperature and humidity for the Project, including without limitation, any work that may be exposed by cutting and patching Work. Contractor shall keep excavations free from water.
- D. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- E. Do not cut existing pipe, conduit, or ductwork serving existing buildings and/or other improvements that are scheduled to be removed or relocated until provisions have been made to bypass them. Maintain all active existing services at all times.

#### **3.3 PERFORMANCE**

- A. With respect to performance, Contractor shall:
  - 1. Execute cutting and patching Work to provide finished installation complying with specified tolerances and matching adjacent finishes.
  - 2. Execute cutting and patching using means and methods that will prevent damage to other Work, and that will result in proper surfaces to receive installation of repairs and/or new Work.
  - 3. Execute cutting, demolition, patching, excavating, and backfilling by methods that will prevent damage to other Work and damage from settlement or other movement.
  - 4. Contractor shall employ original installer or fabricator to perform cutting and patching for:

- a. Weather-exposed surfaces and moisture-resistant elements such as roofing, sheet metal, sealants, waterproofing, and other similar Work.
- b. Exposed finished surfaces
5. Contractor shall fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces. Contractor shall conform to Contract Document requirements for penetrations. If a discrepancy exists between applicable Code requirements and the Contract Documents, the more stringent requirement shall apply.
6. Completed cutting and patching Work shall not affect the integrity of fire walls, ceilings, floors, smoke barriers, shafts, and similar components.
7. Contractor shall restore Work which has been cut or patched. Contractor shall install new products to provide completed Work in accordance with requirements of the Contract Documents and as required to match adjacent areas and surfaces.
8. Contractor shall refinish all continuous surfaces to nearest intersection as necessary to match the new finish to any existing finish.
9. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage adjacent Work to remain. If possible, review proposed procedures with original Installer and comply with his written recommendations.
  - a. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  - b. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
10. Concrete and Masonry: cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
11. Excavating and Backfilling: Comply with requirements in applicable Division 2 Sections where required by cutting and patching operations.
12. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
13. Proceed with patching after construction operations requiring cutting are complete.
14. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
15. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
16. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.



- a. Clean all materials affected by cutting and patching operations before applying finishes.
  - b. Restore any damaged pipe covering to original condition.
  - c. Floors and Walls: Where walls or partitions that are removed extend from one finished area into another, patch and repair floor and wall surfaces in the both spaces. As required to provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials as necessary to achieve uniform color and appearance.
  - d. Where patching occurs on a painted surface, apply specified primer and intermediate coats over the patch. Apply final coat over entire unbroken surface containing the patch. Provide additional coats as required until patched area blends completely with adjacent surfaces.
17. Ceilings: Patch, repair, or re-hang in-place ceilings as necessary to provide a level, planar surface of uniform appearance.
18. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weather-tight condition and results in a uniform visual appearance.
- B. Cleaning: Clean areas, spaces, materials, and/or equipment where cutting and patching Work is performed. Completely remove dirt, dust, cuttings, paint, mortar, oils, putty, adhesive, and any other similar materials.
- C. Alterations to Existing Work:
1. Existing work shall be cut, drilled, altered, removed, or temporarily removed and replaced as necessary for performance of work under the contract. Work that is replaced shall match similar existing work. Structural members shall not be cut or altered, except where noted on drawings, without authorization of the Structural Engineer. Work remaining in place, which is damaged or defaced during this contract, shall be restored to the condition existing at time of award of contract.
  2. Discolored or unfinished surface exposed by removal of existing work and indicated to be the final exposed surfaces shall be refinished or the material shall be replaced as necessary to make contiguous work uniform and harmonious. Work out of alignment, where exposed by removal of existing work, shall be called to the Architect's attention.

**END OF SECTION 01730**

**SECTION 01770**  
**CONTRACT CLOSEOUT 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 REQUIREMENTS SPECIFIED IN OTHER SECTIONS**

- A. Section 01010 – “Summary of Work”
- B. Section 01015 – “Project Phasing”
- C. Section 01290 – “Payment Procedures”
- D. Section 01310 – “Construction Scheduling”
- E. Section 01321 – “Photographic Documentation”
- F. Section 01330 – “Submittal Procedures”
- G. Section 01410 – “Regulatory Requirements”
- H. Section 01710 – “Cleaning Requirements”
- I. Section 01722 – “Execution Requirements”
- J. Section 01740 – “Warranties and Guaranties”
- K. Section 01780 – “Project Record Documents”
- L. Divisions 2 through 16 Sections for Contract Closeout Procedure requirements for the work in those Sections.

**1.3 SUMMARY**

- A. This section specifies administrative and procedural requirements for Contract closeout.

**1.4 CONTRACT CLOSEOUT SUBMITTALS**

- A. Color prints of full size contractor Marked-up Contract Drawings
- B. Color prints of full size contractor marked-up Shop Drawings
- C. Professionally Drafted As-Built Record Drawings
- D. Dated marked-up copies of Conformed Specifications
- E. Marked-up Project Data submittals
- F. Record Samples

- G. Field records for variable and concealed conditions
- H. Project record documents. See Section 01780.
- I. Operating and maintenance manuals and data
- J. Warranties and bonds
- K. Warranty Management Plan
- L. Warranty Tags
- M. Spare Parts Data
- N. Service and maintenance contracts

**1.5 REMOVAL OF TEMPORARY CONSTRUCTION FACILITIES**

- A. Remove temporary materials, equipment, services, and construction prior to Initial Inspection.
- B. Comply with requirements of Section 01500, Temporary Facilities and Controls

**1.6 INITIAL PUNCH LIST AND INSPECTION**

- A. When Contractor considers Work, or Phase of the 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.
- B. In a separate section of the Initial Punch List, include all items which cannot be completed or verified prior to Functional Performance Testing of the entire Work in accordance with Specification Section 01810 General Commissioning and other technical Specifications.
  - 1. The Contractor shall provide the expertise, trades subcontractors, manufacturers’ representatives, or others as required to work collaboratively with the District and District Representatives to identify all remaining items of Work, including required testing and verification, which cannot be completed or verified prior to Functional Performance Testing of the entire Work in accordance with Specification Section 01810 General Commissioning.
  - 2. The Initial Punch List items identified to remain for subsequent completion shall not be significant enough to prevent beneficial occupancy and full use of the Work by the District.
- C. The Contractor shall not submit a notice requesting an Initial Inspection unless the Work or Phase of Work is Substantially Complete.
- D. Should District’s Representatives determine that Work is not Substantially Complete, the Architect or Project Manager will promptly notify Contractor in writing, listing Work that must be completed prior to Substantial Completion. Any inspection list that is submitted to the District that does not result in a District determination of Substantial Completion will not be considered an accepted Initial Punch List. If the Work or Phase of Work is determined to not be

Substantially Complete, Contractor shall complete all Work as directed prior to requesting an additional Initial Inspection by the District to determine Substantial Completion per this Specification Section.

- E. Upon receipt of the Contractor’s Initial Punch List, and not before, the Architect, Project Manager, and Inspector will make an Initial Inspection to determine whether the Work, or Phase of Work, is Substantially Complete.
  - 1. All fire and life safety items, manufactured units, equipment and systems that require startup must have been started, run, tested, and operational for periods prescribed by the Contract Documents before a request for Initial Inspection is accepted by the District.
  - 2. All items not completed in accordance with the requirements of the Contract Documents whether identified by the Contractor, the Architect, the Project Manager, the Project Inspector, and/or other District Representatives as a result of the Initial Inspection shall be incorporated by the Contractor into a draft Pre-final Punch List which shall be submitted for District review and revision in accordance with Specification Section 01330, Submittal Procedures, prior to a determination by the District of Substantial Completion.
  - 3. 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.
- F. District may enlist Consultants to assist with the above activities.

**1.7 SUBSTANTIAL COMPLETION**

- A. When District determines that the Work or Phase of the Work is Substantially Complete, District will issue a Certificate of Substantial Completion, accompanied by a Pre-final Punch List of items to be completed or corrected as verified and/or appended by Architect and District.
- B. When the Work, or Phase of Work, is Substantially Complete, the District will file a Notice of Completion.
  - 1. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work, or Phase of the Work, unless otherwise provided in the Notice of Completion.
  - 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.
  - 3. The District shall withhold from Contractor payment the value of remaining Work, Work to be corrected, incomplete Work, and an amount identified for Pre-final Punch List Work, and as otherwise identified in Public Contract Code.
- C. The Contractor shall complete the items listed in the Pre-Final Punch List within ten (10) working days of the Certificate of Substantial Completion, with the exception of the items that must remain incomplete pending final commissioning. 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.

**1.8 PRE-FINAL INSPECTION**

- A. When Contractor considers the items listed in the Pre-Final Punch List to be complete, with the exception of items which cannot be completed or verified prior to Functional Performance Testing of the entire Work in accordance with Specification Section 01810, General Commissioning, and other technical Specifications, the Contractor shall submit written notice to District's Representative requesting a Pre-final Inspection.
- B. Upon receipt of the Contractor's request for Pre-final Inspection, and not before, the Architect, Project Manager, Campus Representatives, and Inspector will inspect the Work to determine whether the Work identified on the Pre-Final Punch List is complete, with the exception of items which cannot be completed or verified prior to Functional Performance Testing of the entire Work in accordance with Specification Section 01810, General Commissioning and other technical Specifications.
- C. Prior to the Pre-Final Inspection, perform final cleaning of the Work, or Phase of Work, as specified in Section 01710.
  - 1. Inspection Requirements.
    - a. Before calling for Pre-final inspection, Contractor shall determine that the following Work has been performed:
      - i) The Work has been completed.
      - ii) All life safety items are completed and in working order.
      - iii) Mechanical and electrical Work complete, fixtures in place, connected and ready for tryout and test.
      - iv) Electrical circuits scheduled in panels and disconnect switches labeled.
      - v) Painting and special finishes are complete.
      - vi) Doors complete with hardware, cleaned of protective film, are relieved of sticking or binding and in working order.
      - vii) Tops and bottoms of doors sealed.
      - viii) Floors waxed and polished as specified.
      - ix) Broken glass replaced and glass cleaned.
      - x) Grounds cleared of Contractor's equipment, raked clean of debris, and trash removed from Site.
      - xi) Work cleaned, free of stains, scratches, and other foreign matter, and damaged and broken material has been replaced.
      - xii) Finishes and decorative work shall have marks, dirt and superfluous labels removed.
      - xiii) Other requirements per the Contract Documents.
    - b. 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 systems and equipment. See Specification Section 01820, Demonstration and Training.
  - 2. All items not completed in accordance with the requirements of the Contract Documents whether identified by the Contractor, the Architect, the Project Manager, the Project

Inspector, and/or other District Representatives as a result of the Pre-Final Inspection shall be incorporated by the Contractor into a draft Final Punch List which shall be submitted for District review and revision in accordance with Specification Section 01330, Submittal Procedures, prior to a determination by the District that the Contract is ready for Administrative Close-out.

3. If additional Pre-final Inspections are required to review the Pre-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.

### **1.9 FINAL INSPECTION**

- A. 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.
- B. Upon receipt of the Contractor's request for Final Inspection, and not before, the Contractor, Architect, and Project Manager, shall meet to go over the Contract Documents to identify the administrative requirements for contract close-out.
  1. The Project Manager will prepare a list of requirements remaining for administrative close-out and shall provide the list to the Contractor.
  2. The Contractor shall complete all items on the administrative close-out list within thirty (30) days
- C. Subsequent to the meeting to identify administrative close-out requirements, Architect, Project Manager, Campus Representatives, and Inspector will inspect the Work to determine whether the Work identified on the Final Punch List is complete.
- D. 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.
- E. 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.
- F. The Project Inspector (IOR), the Project Manager, and the Contractor shall, at all times, be together during all inspections. The Contractor shall give 24-hour notice to the District for such inspections.

### **1.10 FINAL COMPLETION**

- A. 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:
  1. Contractor has inspected Work for compliance with Contract Documents, and all requirements for Final Acceptance have been met.

2. Except for Contractor maintenance and Deferred or Seasonal Testing, after Final Acceptance, all Work has been completed in accordance with Contract Documents and deficiencies listed with any Certificate of Substantial Completion have been corrected. Equipment and systems have been tested in the presence of Architect, Project Inspector (IOR), Project Manager, Construction Manager, and District Representatives and are operative.
- B. Should District determine that the Work is incomplete or defective or that administrative requirements have not been completed:
1. District's Representative promptly will so notify Contractor, in writing, listing the incomplete or defective items.
  2. 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.
  3. When District determines that all Work and requirements are complete under the Contract Documents, District or Project Manager will request Contractor to make a request for Final Payment.

**1.11 FINAL ADJUSTMENTS OF ACCOUNTS**

- A. Submit a final statement of accounting to District, showing all adjustments to the Contract Sum. See also Section 01290 Payment Procedures, Final Payment, et al.
- B. If required, District shall prepare a final Change Order showing an adjustment to the Contract Sum that was not included in previous Change Orders.

**1.12 FINAL CLEANING**

Contractor shall comply with all applicable requirements in Section 01710 (Cleaning Requirements.)

**1.13 PROJECT RECORD DOCUMENTS**

Contractor shall comply with all applicable requirements in Section 01780 (Project Record Documents.)

**1.14 PROJECT WARRANTY**

- A. Requirements for Contractor's Warranty of completed Work are included in the General Conditions and Section 01740.
- B. Recording of Final Acceptance, final certificate for payment, or partial or entire occupancy of the Work by District shall not constitute acceptance of Work not done in accordance with Contract Documents, and do not relieve the Contractor of liability in respect to express warranties, latent defects, or responsibility for faulty materials or workmanship.
- C. District may make repairs to defective Work as set forth in Contract General Conditions.
- D. If, after installation, operation, or use of materials or equipment to be provided under Contract proves to be unsatisfactory to District, District shall have right to operate and use materials or equipment until said materials and equipment can, without damage to District, be taken out of

service for correction or replacement. Period of use of defective materials or equipment pending correction or replacement shall in no way decrease guarantee period required for acceptable corrected or replaced items of materials or equipment.

- E. Nothing in this Section shall be construed to limit, relieve, or release Contractor's, subcontractors', and equipment suppliers' liability to District for damages sustained as result of latent defects in equipment caused by negligence of suppliers' agents, employees, or subcontractors. Stated in another manner, warranty contained in the Contract Documents shall not amount to, nor shall it be deemed to be, waiver by District of any rights or remedies (or time limits in which to enforce such rights or remedies) it may have for defective workmanship or defective materials under laws of this state pertaining to acts of negligence.

**1.15 WARRANTIES**

- A. Execute Contractor's submittals and assemble warranty documents as described in Section 01330 Submittal Procedures and Section 01740 Warranties-Guaranties.

**1.16 RETURN OF DISTRICT KEYS, PARKING PERMITS AND IDENTIFICATION**

Contract Documents will not be closed out and final payment will not be made until all personnel identification media, vehicle permits, and keys issued to Contractor during prosecution of Work are returned to the District Project Manager.

**1.17 RELEASE OF CLAIMS**

- A. Contract Documents will not be closed out and final payment will not be made until Agreement and Release of Any and All Claims is completed and executed by Contractor and District.

**1.18 FIRE INSPECTION COORDINATION**

- A. Coordinate required fire inspection(s) with governing agencies and provide sufficient notice to District Project Manager to permit convenient scheduling (if applicable.)

**1.19 BUILDING INSPECTION COORDINATION**

- A. Coordinate with District, Architect, and Project Manager a final inspection for the purpose of obtaining any occupancy certificate (if applicable.)

**1.20 MAINTENANCE OF DOCUMENTS AND SAMPLES**

- A. Store Project Record Documents and samples in the field office apart from Contract Documents used for construction.
- B. Do not permit Project Record Documents to be used for construction purposes.
- C. Maintain Project Record Documents in good order, and in a clean, dry, legible condition.
- D. Make documents and samples available for weekly inspections by Architect, Construction Manager and Project Inspector.



**1.21 RECORD CONSTRUCTION SCHEDULE**

- A. Using the latest progress schedule required by Section 01330 submittal Procedures as a reference, submit a Record Construction Schedule showing the actual dates and duration of all construction activities.
- B. Sign and date the completed Record Construction Schedule and deliver to the Architect who will deliver to the District after final acceptance of the work.

**1.22 PROJECT RECORD DRAWINGS**

- A. Comply with requirements of Section 01780 Project Record Documents.

**1.23 PROJECT RECORD SPECIFICATIONS**

- A. Comply with requirements of Section 01780 Project Record Documents.

**1.24 PRODUCT DATA**

- A. Comply with requirements of Section 01780 Project Record Documents.

**1.25 OPERATION TESTS**

- A. Conduct operational tests as required to demonstrate that all systems have been completed and are in compliance with all requirements.
- B. Furnish a written record of test results using recording type instruments where applicable and as directed.

**1.26 OPERATION AND MAINTENANCE MANUALS**

- A. Comply with requirements of Section 01780 Project Record Documents.

**1.27 MATERIALS, EQUIPMENT AND FINISHES MANUAL**

- A. Comply with requirements of Section 01780 Project Record Documents.

**1.28 SERVICE AND MAINTENANCE CONTRACTS**

- A. Compile, review, and submit specified service and maintenance contracts as specified for warranties and bonds.

**1.29 MISCELLANEOUS PROJECT RECORD SUBMITTALS**

- A. Refer to other Specification Sections for miscellaneous record keeping requirements and submittals. Immediately prior to Final Completion complete miscellaneous records and place them in good order, properly identified and bound or filed, ready for District use and reference. Submit to the Architect for review and approval.
  - 1. Miscellaneous records include, but are not limited to the following:
    - a. Authorized measurements utilizing unit prices
    - b. Records of plant treatment
    - c. Certifications received in lieu of labels on bulk products
    - d. Batch mixing and bulk delivery records

- e. Testing and qualification of tradespersons
- f. Installation firms qualification documents
- g. Load and performance testing
- h. Inspections and certifications by governing authorities
- i. Leakage and water-penetration tests
- j. Fire resistance and flame spread test results
- k. Final inspection and correction procedures

**1.30 EXTRA MATERIALS**

- A. Where specified, provide extra materials in the quantities and manner specified.
- B. Delivery and certification of extra materials shall be prerequisite to Substantial Completion.

**PART 2 - PRODUCTS**

Not Used.

**PART 3 - EXECUTION**

Not Used.

**END OF SECTION 01770**