

February 10, 2017

## ADDENDUM NO. 2

TO THE CONTRACT DOCUMENTS

**FOR**

MUSCOY ELEMENTARY SCHOOL – ADMINISTRATION OFFICE AND LIBRARY MODIFICATIONS

**FOR THE**

SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT  
777 North F Street  
San Bernardino, CA 92410

DSA No. 04-115436      File No. 36-55

### **NOTICE TO BIDDERS**

This Addendum forms a part of the Contract and modifies the original documents DSA Approved on October 4, 2016. It is intended that all work affected by the following modifications shall conform with related provisions and general conditions of the contract of the original drawings and specifications. Modify the following items wherever appearing in any drawing or sections of the specifications. Acknowledge receipt of Addendum No. 2 in the space provided on the Bid Form. Failure to do so may subject bidder to disqualification.

### **CHANGES TO THE SPECIFICATIONS**

Item No. 2.1	Reference Division 01 Sections:	
2.1.1	Delete all Division 01 Sections issued with Bid Set. Replace Division 01 per the following attached sections:	
	SECTION 01 11 00	SUMMARY OF WORK
	SECTION 01 11 14	WORK SEQUENCE AND PHASING
	SECTION 01 20 00	PRICE AND PAYMENT PROCEDURES
	SECTION 01 23 00	ALTERNATES
	SECTION 01 25 00	SUBSTITUTION PROCEDURES
	SECTION 01 31 00	PROJECT COORDINATION AND MEETINGS
	SECTION 01 31 14	LABOR COMPLIANCE PROGRAM (LCP) COORDINATION
	SECTION 01 32 16	CONSTRUCTION PROGRESS SCHEDULE
	SECTION 01 33 00	SUBMITTAL PROCEDURES
	SECTION 01 35 16	ALTERATION PROJECT PROCEDURES
	SECTION 01 45 00	QUALITY CONTROL
	SECTION 01 45 23	TESTING AND INSPECTION
	SECTION 01 52 00	CONSTRUCTION FACILITIES
	SECTION 01 57 00	TEMPORARY CONTROLS
	SECTION 01 60 00	MATERIALS AND EQUIPMENT
	SECTION 01 71 23	FIELD ENGINEERING
	SECTION 01 73 29	CUTTING AND PATCHING
	SECTION 01 77 00	CLOSEOUT PROCEDURES
	SECTION 01 78 36	WARRANTIES AND BONDS
	SECTION 01 78 39	PROJECT RECORD DOCUMENTS

**RUHNAURUHNAUCLARKE**  
ARCHITECTS PLANNERS

**ATTACHMENTS**

**Specifications** 01 11 00, 01 11 14, 01 20 00, 01 23 00, 01 25 00, 01 31 00, 01 31 14, 01 32 16, 01 33 00, 01 35 16,  
01 45 00, 01 45 23, 01 52 00, 01 57 00, 01 60 00, 01 71 23, 01 73 29, 01 77 00, 01 78 36, 01 78 39

**END OF ADDENDUM NO. 2**

\_\_\_\_\_  
Roger Clarke, Principal  
#C-21340



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## **SECTION 01 11 00**

### **SUMMARY OF WORK**

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

##### **1.01 SECTION INCLUDES**

- A. Summary of the Work of these Contract Documents for the construction of:  
Muscoy ES Administration/Library Building Modifications

##### **1.02 GENERAL**

- A. Work under this Contract includes furnishing all labor, materials, services and transportation which is required for completion of the Project in accordance with the Contract Documents.  
  
Administrative Office and Library modifications include but are not limited to new ceilings, casework, restroom remodel, lighting upgrades and HVAC modifications.
- B. The Contract Time for completion shall be that shown in the Construction Progress Schedule.

**PART 2 - PRODUCTS (Not Applicable)**

**PART 3 - EXECUTION (Not Applicable)**

**END OF SECTION**

## **SECTION 01 11 14**

### **WORK SEQUENCE and PHASING**

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

##### **1.01 SECTION INCLUDES**

- A. Requirements for phasing of the Work include logistics, phasing, and completion of designated phases prior to commencement of subsequent phases.

##### **1.02 RELATED SECTIONS**

- A. Summary of the Work
- B. Project Coordination and Meetings
- C. Submittals
- D. Construction Progress Schedule
- E. Construction Facilities
- F. Temporary Controls
- G. Contract Closeout

##### **1.03 SUBMITTALS**

- A. Prior to commencement of the Work, CONTRACTOR shall prepare and submit to the DISTRICT a Project Logistics Plan, including a Logistics Site Plan, showing in detail the Contractor's Work Sequence/Phasing plan, in the same size and scale as the architectural site plan, including, but not limited to, the following, items:
  - 1. Truck access route to and from the Project site, in accordance with local ordinances.
  - 2. Location of any overhead wire restrictions for power, street lighting, signal, and/or cable.
  - 3. Local sidewalk access and street closure requirements.
  - 4. Protection of sidewalk pedestrians and vehicular traffic.
  - 5. Project site fencing and access gate locations.
  - 6. Construction parking.
  - 7. Material staging and/or delivery areas.
  - 8. Material storage areas.
  - 9. Temporary trailer locations.
  - 10. Temporary service location and proposed routing of all temporary utilities.
  - 11. Location of temporary and/or accessible fire protection
  - 12. Trash removal and location of dumpsters.
  - 13. Concrete pumping locations.
  - 14. Crane locations.
  - 15. Location of portable sanitary facilities.
  - 16. Mixer truck wash out locations.
  - 17. Traffic control signage.

18. Perimeter and site lighting.
19. Provisions for Storm Water Pollution Prevention Plan – SWPPP
20. Stockpile and/or lay down areas.
21. Areas for separately identified phases of the work.
22. Barriers to separate construction activities from on-going school operations and circulation.

#### 1.04 PHASING OF THE WORK --GENERAL

- A. Project will be constructed in separate phases, or milestone increments, as identified or described in this Section and other parts of the Contract Documents. The Logistics Plan must define and delineate Work to be completed in each designated phase.
- B. Each phase will be required to be completed according to the Milestones included in the approved Construction Progress Schedule, prior to the commencement of the next subsequent phase, unless exception is granted by the District. CONTRACTOR shall incorporate in the plan and coordinate the Work of separate work contracts or of DISTRICT relative to each separate phase of this Project.
- C. CONTRACTOR shall prepare the Construction Progress Schedule in order to complete the Work and related activities in accordance with the phasing requirements, and to meet both the Milestone and Contract Time requirements.
- D. CONTRACTOR shall install all necessary Work for utilities and services, including, but not limited to, power, lighting, signal, HVAC, drainage, and plumbing systems in phased Work before completion of the designated phase. All valves, pull boxes, stub outs, temporary valves or capping, and other Work necessary for phased completion and operation of all necessary systems shall be provided whether or not such Work is specifically identified in the Contract Documents.

#### 1.05 PHASING OF THE WORK – SPECIFIC

- A. CONTRACTOR shall prepare the Construction Progress Schedule including phased Milestones, under the following general headings:

Phase 1 Mobilization – (# of days) calendar days:

Milestone Numbers

Phase 2 Construction – (# of days) calendar days:

Milestone Numbers

Phase 3 Contract Closeout – (# of days) calendar days:

Milestone Numbers

B. The Contract Time shall be that shown in the Construction Progress Schedule.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

**END OF SECTION**

## SECTION 01 20 00

### PRICE AND PAYMENT PROCEDURES

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES

- A. Payment Procedures
- B. Schedule of Values

##### 1.02 RELATED SECTIONS

- 1. Construction Progress Schedule
- 2. Contract Closeout
- 3. Allowances

##### 1.03 SCHEDULE OF VALUES

- A. Submit a Schedule of Values to the ARCHITECT for review and approval within 15 calendar days after the date of DISTRICT-CONTRACTOR Agreement. Submit a hard copy and an electronic disk in Excel spreadsheet format.
- B. In the Schedule of Values, the Contract Sum shall be broken down into specific elements of the Work, as follows, coded in accordance with the DISTRICT'S coding structure.
  - 1. General Contractor's Overhead and Profit
  - 2. Site Mobilization
  - 3. Bonds and Insurance
  - 4. Field Supervision
  - 5. Project Close-Out (Section of General Requirements)
  - 6. Other General Conditions and General Requirements
  - 7. Demolition
  - 8. Site Clearing and Preparation
  - 9. Site Earthwork
  - 10. Site Improvements (Paving, etc.)
  - 11. Site Utilities
  - 12. Landscape Irrigation
  - 13. Landscape Planting
  - 14. **Each CSI Format Division 3 through 14**



15. HVAC Work
  16. Plumbing
  17. Fire Protection Sprinklers
  18. Electrical Power and Lighting
  19. Electrical Site Lighting
  20. Fire Alarm and Smoke Detection Systems
  21. Electrical Communications and Security Systems
- C. On projects of more than one building, provide separate schedules for each building.
- D. The percent-complete values from the approved cost-loaded Construction Progress Schedule shall provide the basis for each Application for Payment. Before each Application, update the Progress Schedule with all approved Change Orders.

#### 1.04 APPLICATION FOR PAYMENT

- A. Payment Application Forms: Use OWNER provided forms for the Application for Payment.
- B. Submit Application for Payment to the ARCHITECT (four (4) signed and original copies of each certified application). All copies shall be complete, including the updated Schedule of Values or Construction Progress Schedule, releases and similar attachments. Transmit each copy with a transmittal form listing attachments and recording appropriate information related to the application, in a manner acceptable to ARCHITECT
- C. Each certified Application for Payment shall be consistent with previous applications and payments as reviewed by ARCHITECT and paid for by OWNER.
- D. Payment Application Times: The period of Work covered by each Application for Payment is based on the payment date for each progress payment as specified in the General Conditions. The period covered by each Application for Payment is the previous month.
- E. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with the first certified Application for Payment include, but are not limited to, the following:
1. Certified Schedule of Values or Cost-Loaded Schedule
  2. Performance and payment bonds
  3. List of principal suppliers and fabricators

4. Worker Compensation certificates
  5. Auto Insurance
  6. Hazardous Material Insurance Certificates
  7. Construction Progress Schedule
  8. Submittal Schedule
  9. Emergency Contact List
  10. Copies of authorizations and licenses from governing authorities for performance of the Work
- F. Application for Payment at Substantial Completion: Following OWNER issuance of the certificate of Substantial Completion, submit an Application for Payment together with the following:
1. Occupancy permits and similar approvals by authorities having legal jurisdiction over the Work
  2. Removal of temporary facilities and services
  3. Testing, adjusting and balance records
  4. Removal of surplus materials, rubbish, and similar elements
  5. Meter readings
  6. Start-up performance reports
  7. OWNER training and orientations
  8. Change-over information related to OWNER occupancy, use, operation, and maintenance
  9. Final cleaning
  10. Ensure that incomplete Work is not accepted and will be completed without undue delay
  11. Advice on shifting insurance coverage
  12. List of defective Work, recognized as exceptions to certificate of Substantial Completion
  13. Change of door locks to OWNER system
- G. Final Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include, but are not limited to, the following:
1. Completion of Contract Closeout requirements
  2. Project record and other closeout documents

3. Completion of final punch list items
4. Delivery of extra materials, products and or stock
5. Identification of unsettled claims
6. Proof that taxes, fees, and similar obligations are paid
7. Evidence of payment and release of liens
8. Operating and maintenance instruction manuals
9. Consent of surety to final payment
10. Waivers and releases
11. Warranties, guarantees and maintenance agreements

H. Retention

1. Retention will be released no sooner than 35 days and not later than 60 days after Notice of Completion has been recorded with the County Recorder's Office.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

## SECTION 01 23 00

### ALTERNATES

**NOTE TO SPECIFIER:** This section must incorporate detailed definitions of alternate bid items when alternate bids are desired by the Owner and are incorporated into the Bid Form.

This section is not for the purpose of allowing Contractor's proposal of alternative materials, systems or work methods, which are "Substitutions."

#### PART 1 GENERAL

##### 1.01 SECTION INCLUDES

- A. Definition of bids and procedures for alternate work items from that in the base Contract Documents.

##### 1.02 GENERAL REQUIREMENTS

- A. Alternates are defined as products, materials, equipment, systems, or other major elements of work which may be used instead of the corresponding items in the base Contract Documents, and which are bid as alternatives to the Base Bid as defined herein and in the Bid Form. Their purpose is to enable the District to compare alternative Agreement Sums for the use of alternates to the Base Bid.
- B. The Bid Price for each alternate shall constitute a change, either additive or deductive, in the Agreement Sum from the Base Bid, which is the sum for the Work described in the base Contract Documents. This change in the Agreement Sum shall include all elements of cost necessary to accomplish the Work described in each Alternate, including all required modifications to related work.
- C. Each Alternate is identified herein by number and name. This identification shall be used wherever referring to Work described in an Alternate and when submitting cost proposals and payment requests.
- D. Selection of the lowest responsible bidder shall be as stated in the "Information for Bidders." Alternates quoted in the Bid will be reviewed and accepted or rejected by the DISTRICT. Accepted Alternates will be identified in the Notice of Award, or by Change Order after award.
- E. Changes from the base Contract Documents that are described in Alternates shall be incorporated into Work only when such Alternate is made a part of the Work by specific provision in the OWNER-CONTRACTOR Agreement, if selected by the DISTRICT prior to execution of the Agreement, or by Change Order if selected subsequent to execution of the Agreement.
- F. Alternate Bids shall be valid for no less than 90 days, unless otherwise stated in

the Bid Form, from the date for receiving bids, and the DISTRICT may select any or all Alternates during that time, either by provision in the OWNER-CONTRACTOR Agreement or by Change Order.

- G. When Alternates are incorporated into the Work, the Contractor shall make all modifications to the Work necessary to provide products and systems complete, in place and fully functional, including all labor, equipment, services and incidental consumables, in accordance with all applicable requirements of the Drawings and Specifications.

#### 1.05 SCHEDULE OF ALTERNATES

NOTE TO SPECIFIER: Following is simply an example of format.
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- A. ALTERNATE 1. CONCRETE MOISTURE VAPOR EMISSION TESTING AND CONTROL
1. Base Bid: Concrete slab on grade and elevated concrete floors scheduled and prepared to receive flooring finish materials.
  2. Alternate 1. If areas of concrete floors are not within floor covering manufacturer's maximum allowable emission rate and an acceptable rate cannot be obtained, vapor emission compliance procedures will be necessitated to remedy the condition. Assume non-compliance if emission rate exceeds 9-lb.
    - a) Provide an Alternate bid price for achieving compliance based on cost per square foot of areas not in compliance.
    - b) If emission rate is in excess of 9 lbs, an upgrade change order will be initiated for remediation.
    - c) For areas where tests indicate compliance, the Alternate will not be utilized.

PART 2 PRODUCTS (Not applicable)

PART 3 EXECUTION (Not applicable)

**END OF SECTION**

## **SECTION 01 25 00**

### **SUBSTITUTION PROCEDURES**

#### **PART 1 GENERAL**

##### **1.01 SUMMARY**

- A. Procedural requirements for product or execution substitutions.

##### **1.02 RELATED REQUIREMENTS**

- A. Submittal Procedures

##### **1.03 SUBSTITUTIONS**

- A. Formal requests must be made for substitutions of products or work processes in place of those specified, in accordance with the General Conditions.
- B. It is the intent of the DISTRICT and ARCHITECT to have this Project constructed with materials, products and systems originally designed and specified for the Project. This opportunity to request substitutions is not for the convenience of bidders or Contractors to submit bids for materials, products and systems which may be more familiar to them or have a lesser cost. DISTRICT shall receive full benefit of any cost reductions as a result of any request for substitution.
- C. Requests for substitutions must be expeditiously forwarded for consideration in accordance with the General Conditions.
- D. Notification of decisions concerning acceptance or rejection will be in writing, and are final without need for clarification.
- E. Submit a separate request for each substitution, using the Substitution Request Form included in this Section (five (5) copies). Support each request with an explanation for the request, and include:
  - 1. Complete data substantiating compliance of proposed substitutions with requirements stated in Contract Documents:
    - a. Product identification, including manufacturer's name and address.
    - b. Manufacturer's literature, including product description, reference standards, performance and test data.
    - c. Samples, as applicable.

- d. Name and address of similar projects on which product has been used and date of each installation, as well as servicing agency and installer.
  - 2. Itemized comparison of the proposed substitution with products specified, listing significant variations.
  - 3. Data relating to changes in the construction schedule, if any.
  - 4. Effect of substitution on separate contracts, if any.
  - 5. Any effect of substitution on in-place construction or other materials and systems to be installed.
  - 6. Accurate cost data comparing proposed substitution with product specified.
  - 7. Designation of required license fees or royalties.
  - 8. Designation of availability of maintenance services and sources of replacement materials.
- F. Substitutions will not be considered for acceptance when:
- 1. Lesser material cost is the sole reason for request.
  - 2. They are indicated or implied on shop drawings or product data submittals without formal request.
  - 3. Acceptance may require revision of Contract Documents.
- G. Substitute products shall not be ordered or installed without written acceptance and authorization of DISTRICT, ARCHITECT and the Division of State Architect.

#### 1.04 REGULATORY REQUIREMENTS

- A. It shall be the responsibility of the entity requesting the substitution to obtain all regulatory approvals required for proposed substitutions, including any additional agency review fees.
- B. Substitutions of materials or work procedures which affect the health, safety disabled access and welfare of the public shall have prior approval of the Division of the State Architect (DSA field representative).
- C. All costs incurred by the DISTRICT in obtaining regulatory approvals for proposed substitutions, including the costs of the ARCHITECT and any authority having jurisdiction over the project, shall be reimbursed to the DISTRICT by the

Contractor. Costs of these services shall be reimbursed regardless of final acceptance or rejection of substitution.

#### 1.05 REPRESENTATIONS

- A. In making a legitimate, authorized formal request for substitution, represent that:
1. A thorough investigation has been made of the proposed product or process, and it has been determined that it is equal to or superior in all respects to that specified.
  2. The same warranties or bonds and guarantees will be provided as for the product specified.
  3. Installation of the accepted substitution will be coordinated with the Work; and changes to work in-place, ordered materials and products, or other work to be performed prior to installation of the requested substitutions, will be performed without any additional cost to DISTRICT.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

**END OF SECTION (Form Attached)**



## SUBSTITUTION REQUEST FORM

**To (ARCHITECT):**

**Date:**

Project Name:  
Architect's Project No.:  
DSA Application No.:  
DSA File No.:

The undersigned requests consideration of the following substitution:

**Specified Item:**

Section

Page

Paragraph

Description

**Proposed Substitution:**

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**Statement of Cause:**

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We have attached the following for your use (check box):

- ☐ Product description, specifications, drawings, photographs, performance and test data adequate for evaluation of the requests; applicable portions of the data are clearly identified.
- ☐ Complete documentation of all regulatory approvals required by the Contract Documents for the proposed substitution.
- ☐ Itemized comparison of proposed substitution with that of the specified product.
- ☐ Detailed cost summary of the change to the Contract Sum (if no change, state so).

- ☐ Evaluation of the effect of the proposed substitution on the construction schedule.
- ☐ Description of changes to the Contract Documents which proposed substitution will require for its proper installation.
- ☐ Manufacturer's Warranty comparison between the specified manufacturer and the proposed manufacturer.

The undersigned states that the following paragraphs, unless modified on the attachments, are correct:

1. The proposed substitution does not affect dimensions shown on the Drawings.
2. The undersigned will pay all costs for changes to the building design, including architectural or engineering design, detailing, and construction costs caused by the requested substitution.
3. The proposed substitution will have no adverse effect on other trades or specified warranty requirements.
4. Maintenance and service parts will be locally available for the proposed substitution.

The undersigned further states that the function, appearance and quality of the proposed substitution is equivalent or superior to the specified item.

Submitted By:

Signature: \_\_\_\_\_ Firm: \_\_\_\_\_

Address: \_\_\_\_\_

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

## **SECTION 01 31 00**

### **PROJECT COORDINATION AND MEETINGS**

#### **PART 1 GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Coordination and Coordination Drawings.
- B. Pre-construction meeting.
- C. Progress meetings.
- D. Pre-installation meetings.

##### **1.02 RELATED SECTIONS**

- A. Construction Progress Schedule.
- B. Work Sequence and Phasing.
- C. Labor Compliance Program (LCP Coordination).
- D. Submittal Procedures.
- E. Closeout Procedures.
- F. Field Engineering.

##### **1.02 COORDINATION**

- A. Coordinate scheduling, submittals and work of the various portions of the Contract Documents to assure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. When separate or multiple-prime contracts exist, work cooperatively with the DISTRICT and all other CONTRACTORS, subcontractors, suppliers and other entities working on any portion of the Project.
- C. Work closely with the DISTRICT to coordinate work and to maintain the Construction Progress Schedule.
- D. Verify that utility-requirements of equipment to be installed are compatible with building utilities. Coordinate work of various Sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment, as well as work of utility companies.
- E. Coordinate space requirements and installation of mechanical and electrical work which are indicated diagrammatically on drawings. Follow routing shown for pipes, ducts and conduit, as closely as practicable; place runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance and for repairs.

- F. In finished areas, except as otherwise indicated, conceal pipes, ducts and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- G. In locations where several elements of mechanical and electrical work must be sequenced and positioned with precision in order to fit into available space, prepare Coordination Drawings showing the actual conditions required for the installation prior to purchasing, fabricating or installing the elements required to be coordinated. Submit Coordination Drawings to DISTRICT.
- H. Closing up of walls, partitions or furred spaces, backfilling and other covering up operations shall not proceed until all enclosed or covered work and inspections have been completed. Verify before proceeding.
- I. Coordinate completion and clean up of work of separate sections in preparation for substantial completion, including portions of work designated for DISTRICT's full and/or partial occupancy).
- J. After DISTRICT occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, in a manner to minimize disruption of DISTRICT's activities.

#### 1.03 PRE-CONSTRUCTION MEETING

- A. The DISTRICT will schedule a pre-construction meeting immediately after receipt of the Notice of Award.
- B. Mandatory attendance includes DISTRICT Representative, INSPECTOR OF RECORD (IOR), Testing Laboratory Representative, ARCHITECT, CONTRACTOR and CONTRACTORS Job Superintendents, and major sub-contractors.
- C. Optional Attendance includes Architect's consultants, subcontractors and utility company representatives.
- D. The DISTRICT Representative will preside at the conference, and will record meeting minutes and distribute copies in a timely manner.
- E. Agenda:
  - 1. Execution of Agreement between DISTRICT and CONTRACTOR.
  - 2. Issue Notice to Proceed.
  - 3. Submission of executed bonds and insurance certificates.
  - 4. Distribution of Contract Documents, Notice of Award, Forms, sample Schedule of Values.
  - 5. Submission of list of subcontractors, list of products.
  - 6. Designation of responsible personnel representing the parties.
  - 7. Procedures for processing of field decisions, submittals, substitutions, applications for payments, proposal requests, change orders, construction directives, and contract closeout procedures.
  - 8. Preliminary Construction Progress Schedule.

9. Critical work sequencing.
10. Submittals, substitutions.
11. Procedures and forms for preparation and maintenance of project record/as-built documents
12. Use of the Project site and parking availability
13. Temporary facilities
14. Equipment deliveries and priorities
15. Safety procedures
16. Security
17. Housekeeping
18. Working hours
19. Labor Compliance Officer presentation
20. Insurance Services including OCIP
21. Environmental Health & Safety
22. Review of Logistics Plan
23. Progress payments
24. Communications procedures
25. Fingerprinting requirements
26. Construction permits
27. Inspections and tests
28. SWPPP
29. Project meetings

#### 1.04 PROGRESS MEETINGS

- A. CONTRACTOR shall schedule and administer progress meetings throughout progress of the work at regular intervals, typically weekly, or more frequently if needed.
- B. CONTRACTOR shall make arrangements for meetings, prepare agenda and preside at meetings, record minutes and distribute copies.
- C. Attendance required: DISTRICT, Architect, IOR, CONTRACTOR.
- D. Agenda:
  1. Review minutes of previous meetings.
  2. Review work progress.
  3. Field observations, problems and decisions.
  4. Identification of problems which impede planned progress.
  5. Review of submittals' status and schedule of submittals.
  6. Review of off-site fabrication progress and delivery schedules.
  7. Maintenance of Progress Schedule.
  8. Corrective measures to regain projected schedules.
  9. Planned progress during succeeding work period.
  10. Coordination of projected progress.
  11. Maintenance of quality and workmanship standards.
  12. Proposed changes and effect on progress schedule and coordination.
  13. Other business appropriate to the status of the Project.

## 1.05 PRE-INSTALLATION MEETING

- A. When required in individual Specification Sections, convene a pre-installation meeting prior to commencing work of the Section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section, including but not limited to the ARCHITECT, IOR, CONTRACTOR, and affected sub-contractors, manufacturers and fabricators.
- C. Notify DISTRICT and ARCHITECT at least five (5) days in advance of meeting date.
- D. Prepare agenda, preside at conference, record minutes and distribute copies within three (3) days after conference to participants
- E. Review and discuss pre-installation conditions, preparation, installation procedures, coordination with related work, and orientation of Maintenance and Operations personnel.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

**END OF SECTION**

## SECTION 01 31 14

### LABOR COMPLIANCE PROGRAM (LCP) COORDINATION

#### PART 1 GENERAL

##### 1.01 SECTION INCLUDES

- A. LCP Coordination Activities
- B. LCP Meeting

##### 1.02 RELATED SECTIONS

- A. Project Coordination and Meetings
- B. Price and Payment Procedures

##### 1.05 LABOR COMPLIANCE PROGRAM MEETING

After the DISTRICT awards the Contract, and prior to the commencement of the work, a mandatory pre-job LCP Meeting will be conducted by the LCP representative with the CONTRACTOR(s) and those subcontractors listed in the Bid Documents – as part of the Pre-Construction Meeting or as a separate meeting.

At that meeting, the LCP representative will discuss the federal and state labor law requirements applicable to the contract including prevailing wage requirements, respective record keeping responsibilities, the requirement for the submittal of certified payroll records to the DISTRICT, and the prohibition against discrimination in employment.

The LCP representative will provide the CONTRACTOR and each subcontractor with a checklist of labor law requirements and will discuss, in detail, the following checklist items:

##### **1. Payment of Prevailing Wage Rates**

The CONTRACTOR to whom the contract is awarded and its subcontractors hired for the public works project are required to pay no less than the specified general prevailing wage rates to all workers employed in the execution of the contract, including each subcontract.

The CONTRACTOR is responsible for ascertaining and complying with all current general prevailing wage rates for crafts and any rate changes that occur during the life of the contract. Information on all prevailing wage rates and all rate changes are to be posted at the job site for all workers to view.

##### **2. Apprentice**

It is the duty of the CONTRACTOR and subcontractor's to employ registered apprentices on the public works project under Labor Code Section 1777.5;

**3. Penalties**

There are penalties required for CONTRACTOR'S/ subcontractor's failure to pay prevailing wages and for failure to employ apprentices, including forfeitures and debarment under Labor Code Sections 1775; 1776; 1771.1; 1777.7 and 1813;

**4. Certified Payroll Reports**

Under Labor Code Section 1776, CONTRACTORS and subcontractors are required to keep accurate payroll records showing the name, address, social security number and work classification for each employee and owner performing work; also the straight time and overtime hours worked each day and each week, the fringe benefits and the actual per diem wage paid to each owner, journey person, apprentice worker or other employee hired in connection with the public works project.

Employee payroll records shall be certified and shall be made available for inspection at all reasonable hours at the principal office of the contractor/subcontractor, or shall be furnished to any employee, or his/her authorized representative on request, pursuant to Labor Code Section 1776;

Each CONTRACTOR and every lower-tier subcontractor and supplier is required to submit certified payrolls and labor compliance documentation electronically as specified by the DISTRICT.

Electronic submittal will be a web-based system, accessed on the World Wide Web by a web browser. Each contractor and subcontractor will be given a Log On identification and a password to access the DISTRICT's reporting system.

Use of the system may entail additional data entry of weekly payroll information including; employee identification, labor classification, total hours worked and hours worked on this project, wage and benefit rates paid, etc. The CONTRACTOR's payroll and accounting software may be capable of generating a 'comma delimited file' that will interface with the software.

This electronic reporting requirement will be 'flowed down' to every lower-tier subcontractor and vendor required to provide labor compliance documentation.

Under Labor Code Section 1776(g) there are penalties required for contractor's/ subcontractor's failure to maintain and submit copies of certified payroll records on request.

**5. Nondiscrimination in Employment**

There exist prohibition against employment discrimination under Labor Code Sections 1735 and 1776.6, the Government Code, the Public Contracts Code and Title VII of the Civil Rights Act of 1964;

**6. Kickbacks Prohibited**

CONTRACTORS and subcontractors are prohibited from recapturing wages illegally or extracting "kickbacks" from employee wages under Labor Code Section 1778;



**7. Itemized Wage Deduction Statement**

Under Labor Code Section 226, every employer shall at the time of each payment of wages, furnish each of his or her employees, an accurate itemized statement in writing showing the gross wages, total hours worked, all deductions, net wages earned, the inclusive dates of the period for which the employee is paid, name of the employee and his/her social security number, the name and address of the employer and all applicable hourly rates in effect during the pay period.

**8. Acceptance of fees prohibited**

There exists a prohibition against CONTRACTOR/subcontractor acceptance of fees for registering any person for public work under Labor Code Section 1779; or for filling work orders on public works contracts pursuant to Labor Code Section 1780;

**9. Listing of Subcontractors**

All prime CONTRACTORS are required to list properly all subcontractors hired to perform work on the public works projects covering more than one half of one percent, pursuant to Government Code Section 4100 et seq;

**10. Proper Licensing**

CONTRACTORS are required to be licensed properly and to require that all subcontractors be properly licensed. Penalties are required for employing workers while unlicensed under Labor Code Section 1021 and under the California Contractors License Law found at Business and Professions Code Section 7000 et seq.

**11. Unfair Competition Prohibited**

CONTRACTORS/ subcontractors are prohibited from engaging in unfair competition as specified under Business and Professions Code Sections 17200 to 17208;

**12. Workers Compensation Insurance**

Labor Code Section 1861 requires that CONTRACTORS and subcontractors be insured properly for Workers Compensation.

**13. OSHA**

Contractors and subcontractors are required to abide by the Occupational Safety and Health laws and regulations that apply to the particular construction project.

**14. Employment Diversity**

The requirement to demonstrate employment diversity in the hiring of women and ethnic groups as outlined in the Public Contracts Code Section 10115 and in the DISTRICT contract.

The CONTRACTOR's and subcontractors present at the meeting will be given the opportunity to ask questions of the LCP representative relative to the items contained in the Labor Law Requirements Checklist. The checklist will then be signed by the CONTRACTOR's representative and the DISTRICT's LCP representative, a representative of each subcontractor, and the DISTRICT's LCP representative.

At the meeting, the DISTRICT's LCP representative will provide the CONTRACTOR with a copy of the DISTRICT's LCP package.

It will be the CONTRACTOR's responsibility to provide copies of the LCP package to all of the CONTRACTOR's listed subcontractors and to any substituted subcontractors.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

**END OF SECTION**

## **SECTION 01 32 16**

### **CONSTRUCTION PROGRESS SCHEDULE**

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

##### **1.01 SUMMARY**

- A. Provide a Construction Progress Schedule ("schedule") for the entire Work, including all necessary and related sub-schedules.
- B. Provide updates of the Schedule and periodic reports as required.

##### **1.02 RELATED SECTIONS**

- A. Summary of the Work
- B. Work Sequence and Phasing
- C. Price and Payment Procedures
- D. Project Coordination and Meetings
- E. Submittals
- F. Testing and Inspection
- G. Contract Closeout

##### **1.03 FORM AND CONTENT OF SCHEDULES**

- A. Schedule shall be in the form of a computer-generated Critical Path Method (CPM) network in Precedence Diagram Mode (PDM) showing all construction activities required to complete the Work of the Project within the Contract Time and any DISTRICT-defined Milestones.
- B. Contractor shall utilize Primavera Project Planner™ for Windows® (P6) software (or latest version) by Primavera Systems, Inc. or equivalent scheduling software and employ the Critical Path Method (CPM) in development and maintenance of the contract Schedule network in Precedence Diagram Mode (PDM). The schedule software shall be capable of being resource loaded with manpower, cost and material. It shall be capable of generating time-scaled logic diagrams, resource histograms and profiles, bar- charts and layouts. It should also be capable of generating reports with any/all activity detail.
- C. Schedule shall include but not be limited to the following:
  - 1. Complete sequence, with start and completion dates, of each and every activity of construction or element of the construction process.
  - 2. Phases of construction, with start and completion Milestones, as well as any other Milestones defined by the DISTRICT.
  - 3. Critical submittals, including DISTRICT and ARCHITECT review and approval periods, including 10 workdays for the first submittal (5 days for

resubmittal), 14 days when the ARCHITECT's Consultants must review, and 21 days for review of submittals of Structural Steel, Door Hardware, and Steel Doors and Frames.

4. Procurement, manufacture and/or fabrication; testing and delivery to the Project site of special long-lead-time material and equipment.
  5. Operational start-up, test and balance, performance testing, and training of operators for systems and equipment; for Substantial Completion and for Final Completion.
  6. Temporary facilities; construction of mock-ups, prototypes and/or samples; punch list; interfaces with Separate Work Contracts; and regulatory agency approvals and permits required for performance of the Work.
  7. Deferred Approvals by the Department of the State Architect (DSA), allowing a minimum of ninety (90) days for all Deferred Approval items.
  8. DISTRICT interfaces and owner-furnished equipment, either installed by CONTRACTOR (OFCl) or by OWNER (OFOI).
  9. Decision dates for products specified by allowances, selection of finishes, and other ARCHITECT- or DISTRICT-furnished schedules or decisions.
- D. Schedule shall be updated periodically as specified to show progress of each activity and all changes since the previous submission, including:
1. Major changes in scope.
  2. Activities modified since previous updating.
  3. Revised projections due to changes.
  4. Other identifiable changes.

#### 1.04 QUALITY ASSURANCE

- A. Scheduler: Contractor's personnel or consultant specializing in CPM scheduling shall have five (5) years minimum experience in scheduling construction work of the size and complexity comparable to this Project, including at least 24 months use of Primavera Project Planner, and shall have use of computer facilities with high-speed Internet access. DISTRICT must approve the Scheduler's resume, experience, and demonstrated skills.
- B. Contractor's Administrative Personnel: Two years minimum experience in using and monitoring CPM schedules on comparable projects.

#### 1.05 SCHEDULE SUBMITTALS

- A. CONTRACTOR shall submit Construction Progress Schedules as follows:
  1. Preliminary Schedule: Submit a preliminary Baseline Schedule within fourteen days after Notice of Award. DISTRICT will review the Preliminary Schedule and return comments within ten workdays.

2. Initial Schedule: Revise the preliminary Schedule and resubmit within ten days, to provide the Project's Baseline Schedule.
  3. Monthly Schedule Update: While retaining the Baseline Schedule, revise copies to show actual construction progress to date, and submit at scheduled monthly dates, or as otherwise required by the DISTRICT. ~~Submittals shall consist of updates through the DISTRICT's Internet-based scheduling program.~~
  4. In the event that the progress of the Work or the sequencing of the activities of the Work differs significantly from that indicated in the Baseline Schedule, the Contractor shall submit a Recovery Schedule to the DISTRICT, demonstrating the Contractor's plan to recover lost time, achieve all contractual milestones, and complete the work within the Contract Time. Appropriate recovery actions include, but are not limited to, assignments of additional labor or equipment, shift or overtime work, expediting of submittals or deliveries, overlapping of activities, or sequencing changes to increase activity concurrence. An accompanying narrative shall describe the cause of the problems and the actions planned by the Contractor to recover the schedule. The DISTRICT will review the Recovery Schedule and provide comments, leading to approval of the schedule.
- B. CONTRACTOR shall include with schedule submittals (baseline and updates) a written narrative report sufficiently comprehensive to explain the basis and determination of CONTRACTOR's approach to the Work, including but not limited to: activity durations; manpower flow; average crew sizes; equipment requirements; production rates; potential problem areas; permits; all necessary coordination with authorities, utilities suppliers, Separate Work Contracts, and other parties; and long lead delivery items requiring more than thirty (30) days from the date of order to delivery on the Project site. Report shall define problem areas, anticipated delays, or other factors having an impact on the Schedule.
- C. CONTRACTOR shall include with schedule submittals (baseline and updates) a P6 Data File (.xer) of the current submittal for District use. CONTRACTOR shall include PDF exhibits with full detail and critical path with all schedule submittals (baseline and updates).

#### 1.06 SCHEDULE REQUIREMENTS

- A. Schedule shall represent CONTRACTOR's plan to complete the Work within the Milestones and/or Contract Time. However:
1. A schedule extending beyond the Milestones and/or Contract Time will not be acceptable.
  2. A schedule indicating Work completed in less than the Milestones and/or Contract Time will not be acceptable. CONTRACTOR shall indicate any available float.

3. A schedule found unacceptable by the DISTRICT shall be revised by CONTRACTOR and resubmitted within five (5) days.
- B. Schedule shall be in sufficient detail to assure adequate planning and execution of Work, including but not limited to:
1. Start and completion of all items of Work and their major components, and all designated dates identified as Milestones by DISTRICT.
  2. Construction activity durations shall be limited to no more than two reporting periods, with exception of fabrication and procurement activities, unless approved otherwise by DISTRICT. Activity durations shall be total of actual workdays to perform and complete that activity and shall not include consideration of weather impact on the activity.
  3. Activities for procurement, delivery, and installation of equipment, materials and other supplies, including time for submittals, reviews and re-submittals. Include decision dates for selection of finishes.
  4. Time for fabrication and delivery of manufactured products for the Work, showing interdependence of procurement and construction activities..
  5. Identify each activity with applicable CSI Specification Division number, and coordinate with the CONTRACTOR's approved "Schedule of Values." Include adequate breakdown of activities for the Mechanical and Electrical elements of the work, to enable accurate monitoring and to assure full coordination with DISTRICT operating personnel.
  6. Each activity shall be capable of being cost and resource-loaded with the resulting cost total equal to the Contract Amount
  7. Activities shall include all associated interface activities contained within the Contract Documents including, but not limited to, DISTRICT maintenance-and-operations activities
  8. Each activity shall be defined to permit reasonable monitoring and evaluation of progress in performance of the Work.
  9. Activities shall include:
    - a. A description of what is to be accomplished and where.
    - b. Workday duration.
    - c. Responsibility code identifying the performing party for each individual activity.
    - d. Area of Work coded on each Work activity.
    - e. Phase of Work coded on each Work activity.

10. Network shall show continuous flow from left to right.
  11. Network shall be capable of multiple sorts as required for DISTRICT review.
  12. Program shall be capable of compiling monetary value of completed and partially completed activities, of accepting revised completion dates and re-computation of all dates and float.
  13. Contractor shall not sequester float through strategies such as extending activity durations estimates to consume available float, using preferential logic, using extensive or insufficient crew or resource loading, or by using float-suppression techniques, special lead or lag logic restraints, or imposed dates.
  14. Identify days per week and shifts per day worked; also, non-work days and holidays.
  15. Identify activities that constitute controlling operations, i.e., Milestones or Critical Path.
  16. DISTRICT may require additional coding of activities.
- C. Notwithstanding acceptance of the Schedule, failure to identify and/or include any element of the Contract into the Schedule shall not release CONTRACTOR from obligation of completing all required Work in accordance with the Contract Completion Date or any Milestones.
- D. Submittal of the Schedule shall constitute CONTRACTOR's confirmation that the Schedule meets the requirements of the Contract Documents, and the Work will be executed in the sequence indicated in the Schedule.
- E. The Contract Schedule shall take into account all foreseeable factors or risks affecting, or which may affect, the performance of the Work, including historical and predicted weather conditions, applicable laws, regulations or collective bargaining agreements pertaining to labor, transportation, traffic, air quality, noise and any other applicable regulatory requirements.

#### 1.07 COST LOADING OF SCHEDULE

- A. The Contract Schedule shall contain sufficient detail and information so that the CONTRACTOR can cost load the schedule in accordance with the District's coding structure.
- B. Power, security, telephone, PA/intercom, data, clock, video, fire alarm, and HVAC controls cabling shall not be scheduled together in an activity.---
- C. The CONTRACTOR shall assign a cost value to each activity consisting of the sum of labor, material, equipment, overhead, profit, and general conditions costs

allocable to that activity. The sum of all such values assigned shall equal the Contract total.

- D. Unless authorized by the DISTRICT, no site-related activity shall have a value exceeding \$100,000. The CONTRACTOR shall not cost load procurement and submittal related activities, unless authorized by the DISTRICT.
- E. For site-stored materials that are eligible for payment as provided by the Contract Documents, the Contractor may load the value of the materials on a one-day delivery activity. Payment for uninstalled materials is limited to major pieces of equipment with a cost value in excess of \$10,000. If the Work includes items covered by allowances, the Contractor shall include one activity in the schedule for each allowance that is loaded with the cost of that allowance. The scheduling of the allowance activities shall reflect the Contractor's best estimate of the duration and sequence of the Work.
- F. Upon District approval of a Change Order, the Contractor shall add separate cost-loaded activities to the Contract Schedule for each Change Order individually. If the DISTRICT so determines, the Contractor must further divide each Change Order as necessary to comply with the District's cost coding system.

#### 1.08 REQUIREMENTS FOR UPDATING AND REVIEW

- A. Prepare updated Schedule by one of following methods:
  - 1. When updating current Schedule with actual Work progress only (non logic changes), status current Schedule with actual start and finish dates, remaining durations, and percent completion of cost and resource loaded activities and submit to DISTRICT and ARCHITECT for review..
  - 2. When updating current Schedule with logic changes, Construction Directives, Change Orders, delay / disruption activities, or recovery plans, prepare an explanatory description or computer-generated fragnet for DISTRICT and ARCHITECT review.
  - 3. When Work is associated with a Change Order, the adjustments shall be resource-loaded with material unit quantities, corresponding cost account, resources account codes, activity description, accepted costs and time adjustments. The activity ID number shall identify the number of the Change Order.
- B. CONTRACTOR shall attend weekly and monthly Schedule review meetings in order to accomplish the following:
  - 1. Discuss actual activity start and/or completion dates and any applicable variances, forecast activity start and/or completion dates and any applicable variances, progress of all activities underway at the time of the review, and to plan remedial action to mitigate schedule variances.
  - 2. Identify activities modified by CONTRACTOR since last update.



3. Indicate changes that may be required to maintain the Milestones and Date of Completion.
- C. Submit updated schedules:
1. With each Application for Payment.
  2. After Milestones, changes in scope, major delays, or other significant points in the construction process.

#### 1.09 FAILURE TO COMPLY WITH REQUIREMENTS

- A. If CONTRACTOR fails to comply with the specified requirements, DISTRICT reserves the right to engage an independent scheduling consultant and/or provide its own expertise to fulfill these requirements, and shall be entitled to recover by assessment all incurred costs for the services from the CONTRACTOR..
- B. Submittal of any Schedule is subject to review and acceptance by ARCHITECT and/or DISTRICT. DISTRICT retains the right to withhold progress payments in whole or part until CONTRACTOR submits a Schedule acceptable to DISTRICT.

#### 1.10 RECORD DOCUMENTS

- A. Prior to Final Completion of the Work, CONTRACTOR shall submit as-built report and time-scaled network diagram reflecting as-built Project critical paths.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

### **END OF SECTION**

**NOTE TO SPECIFIER:** Note the need to specify items for DSA Deferred Approval in Paragraph 1.10.

## **SECTION 01 33 00**

### **SUBMITTAL PROCEDURES**

#### **PART 1 GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Submittal Procedures
- B. Shop Drawing Submittals
- C. Product Data Submittals
- D. Samples Submittals
- E. Manufacturers' Instruction Submittals
- F. Manufacturers' Certificate Submittals
- G. Coordination Drawing Submittals
- H. DSA Deferred Approvals

##### **1.02 SUBMITTAL PROCEDURES**

- A. Provide submittals wherever required by other sections of this Specification. Transmit SIX (6) copies of each submittal directly to the ARCHITECT on forms prescribed by the ARCHITECT, with a copy of the transmittal form to the DISTRICT. Clearly identify each item submitted. Sequentially number the transmittal forms. For re-submittals use original submittal number with an alphabetic suffix.
  - 1. Include ARCHITECT's job number as it appears on Contract Documents, and all information required by the prescribed form.
  - 2. Include state agency application or approval number.
  - 3. Bind drawing and data submittals sturdily, clearly label covers.
- B. Identify Project, CONTRACTOR, subcontractor or supplier; pertinent Drawing sheet and detail number(s) and specification Section number, as well as name and telephone number of individual who may be contacted for further information.
- C. Determine and verify all field dimensions and conditions, materials, catalog numbers and similar data.
- D. Provide space for CONTRACTOR and ARCHITECT review stamps.
- E. Apply CONTRACTOR's dated stamp with CONTRACTOR's original signature or initials, certifying that review, verification of Products, field dimensions, adjacent construction Work and coordination of information is in accordance with the

requirements of the Work and Contract Documents. Stamped signatures or initials are not acceptable.

- F. Identify clearly, on the submittal and the transmittal form, any changes or variations from the Contract Documents. State effect of changes on Construction Progress Schedule and changes required in other Work or products (including “no effect”). Any change not so noted, even though stamped reviewed, will not be considered approved. Specific written approval by the ARCHITECT must be provided for any deviation from the Contract Documents.
- G. Revise and resubmit submittals as required; identify all changes made since previous submittal.
- H. Coordinate as required with all trades and all public agencies involved.
- I. Unless otherwise specifically authorized by ARCHITECT, make all submittals in groups containing all associated items. ARCHITECT may reject partial submittals as not complying with the provisions of this section.

#### 1.03 SCHEDULES FOR SUBMITTALS

- A. Schedule submittals in accordance with the Construction Progress Schedule, far enough in advance of scheduled dates of installation to provide required time for the review and approval process, including possible revision and resubmittal and for placing orders and securing delivery.
- B. Within thirty (30) days from the Notice of Award, or in accordance with the Project Schedule, whichever is sooner, submit to the ARCHITECT and the DISTRICT for review and acceptance a “Schedule for Submission of Shop Drawings, Product Data, and Samples” (“Submittal Schedule”) listing all submittals with planned dates of submission and return approved.
- C. Submittal Schedule will be incorporated into the Construction Progress Schedule. Update and submit revised schedule not less often than monthly.
- D. Allow in the Submittal Schedule sixteen (16) days after receipt for the ARCHITECT’s review, both for initial submittals and for resubmittals; more for complex changes..

#### 1.04 SHOP DRAWINGS

- A. Shop Drawings shall include fabrications and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information:
  - 1. Dimensions.
  - 2. Identification of products and materials included.
  - 3. Compliance with specified standards.
  - 4. Notation of coordination requirements.
  - 5. Notation of dimensions established by field measurement.

- B. Sheet Size: Except for templates, patterns and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 inch x 11 inch, but not larger than 30 inch x 42 inch.
- C. Stamp: Each page of shop drawings shall bear the CONTRACTOR's stamp, which shall signify the CONTRACTOR's representation that he has determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained in the shop drawings. Each stamp shall be accompanied by a wet signature or initial of an employee of the CONTRACTOR who may be contacted for information. Stamped signatures or initials are not acceptable.
- D. Review Process: Make initial submittal of five (5) copies and one reproducible of each shop drawing. Comments or corrections will be noted on the reproducible and returned to the CONTRACTOR. If resubmittal is required, CONTRACTOR shall identify all changes made since the previous submittal and resubmit in the same manner. ARCHITECT will stamp or note drawings as follows:
  - 1. "NO EXCEPTION TAKEN" indicating that construction or fabrication may proceed.
  - 2. "MAKE CORRECTIONS NOTED" indicating that no resubmittal is required contingent upon corrections being made.
  - 3. "REJECTED" or "REVISE & RESUBMIT" indicating that corrections shall be made and drawings resubmitted for review.

After the final review, the CONTRACTOR shall copy and distribute the stamped drawings to the ARCHITECT,.

- E. The ARCHITECT will review shop drawings for conformance with the requirements of the Contract Documents. The ARCHITECT's favorable review of a separate item shall not indicate acceptance of an assembly in which the item functions.
- F. The ARCHITECT's review of shop drawings shall not relieve the CONTRACTOR of responsibility for any deviation from the requirements of the Contract Documents unless the CONTRACTOR has informed the ARCHITECT in writing of such deviation at the time of submission and the ARCHITECT has given written acceptance to the specific deviation. The ARCHITECT's favorable review shall not relieve the CONTRACTOR from responsibility for errors or omissions in the shop drawings.
- G. No portion of work requiring shop drawings shall be commenced until the shop drawings have been returned with a favorable review by the ARCHITECT.
- H. ARCHITECT's CAD Drawings: The CONTRACTOR may request the use of the ARCHITECT's computer-generated drawings for use in preparing shop drawings. If the ARCHITECT approves this request, any costs incurred must be paid by the CONTRACTOR to the ARCHITECT. The CONTRACTOR must assume all liability for the accuracy and completeness of the shop drawings so

prepared, and must hold the ARCHITECT harmless. The request must be in writing to the ARCHITECT, specifying the format and media requested.

#### 1.05 PRODUCT DATA

- A. Product Data includes manufacturers' standard drawings, catalogs, certificates of conformance, substantiating calculations, and similar relevant data as specified in individual Specification sections.
- B. Submit six (6) copies loose-leaf in binders, to facilitate copying of individual sheets. Provide the CONTRACTOR's stamp on the cover sheet of each submittal.
- C. Mark each copy to identify applicable products, models, options and other data. Supplement manufacturers' standard data to provide information unique to this Project.
- D. Review process, corrections, final distribution, and other conditions shall be similar to that for Shop Drawings.

#### 1.06 SAMPLES

- A. Submit samples to illustrate functional and aesthetic characteristics of the material or other product with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- B. Submit samples from the full range of manufacturers' standard or custom colors, textures and patterns, as specified in individual specification sections. ARCHITECT may select from any range submitted at no additional cost to DISTRICT.
- C. Include identification on each sample with full Project information.
- D. Submit a minimum of five (5) samples or as specified in individual sections of the specifications.
- E. Review process, corrections, final distribution, and other conditions shall be similar to that for Shop Drawings.

#### 1.07 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit manufacturers' printed instructions for delivery, storage, assembly, installation, start-up, adjusting and finishing in quantities specified for Product Data. (This is in addition to instructions for training, operation and maintenance required as part of the Contract Close-out Procedures.)
- B. Review process, corrections, copies, final distribution, and other conditions shall be similar to that for Shop Drawings

## 1.08 MANUFACTURER'S CERTIFICATES

- A. When specified in individual specification sections, submit manufacturers' certificates to ARCHITECT for review in quantities specified for Product Data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or product, but must be acceptable to ARCHITECT.
- D. Review process, corrections, final distribution, and other conditions shall be similar to that for Shop Drawings.

## 1.09 COORDINATION DRAWINGS

- A. The CONTRACTOR shall prepare and submit for review Coordination Drawings of all major spaces. Coordination Drawings indicate routing, locations, sizes, types and numbers of components for each class of work in concealed spaces where potential conflict may occur between structures, mechanical, electrical, fire sprinklers, communications and ceiling suspension systems. They include both plans and section drawings. (See also the General Requirements Section "PROJECT COORDINATION & MEETINGS.")
- B. Show all systems components, including plan locations of all ceiling penetrations and surface-mounted items. Provide cross sections wherever necessary to indicate proper support of ceilings and non-interference with work of other sections of the specifications. Cross sections shall indicate coordination required and proposed solutions for routing of elements where potential conflict exists.
- C. Drawings shall be based on field measurements, shop drawings and product data. They shall be prepared early enough to allow time to identify and resolve conflicts without delaying the progress of the Work. Conflicts shall be brought to ARCHITECT's attention immediately, together with CONTRACTOR's recommendations for resolution.
- D. Submit the Coordination Drawings in a scale of not less than  $1/8" = 1' - 0"$  with necessary sections and profiles at an appropriate, clearly readable enlarged scale. Submit the coordinated drawings as one reproducible and two prints.
- E. The ARCHITECT will review the submittals, make appropriate notations and comments to ensure the solutions meet the intent of the Contract Documents, and then return to CONTRACTOR for implementation.
- F. It shall be the responsibility of the CONTRACTOR to assure that all fabricators and installers of work involved in the Coordination Drawings be informed, consulted and advised in sufficient advance time to arrive at solutions where no extension of contract time or extra cost to the DISTRICT will be involved.

## 1.10 DSA DEFERRED APPROVALS

- A. Installation of deferred approval items shall not be started until detailed plans, specifications and engineering calculations have been accepted and signed by the ARCHITECT or Engineer in responsible charge of design and signed by a California registered ARCHITECT or Professional Engineer who has been delegated responsibility covering the work shown on a particular plan or specification, and the design has been approved by the Division of the State Architect (DSA). Deferred approval items for this project are the following:
  - 1. {DSADefer}
- B. Deferred approval drawings and specifications become part of the approved documents for the project when they have been approved by the Division of the State ARCHITECT.
- C. Submit one (1) reproducible transparency and five (5) prints of each drawing.
- D. Submit five (5) copies of calculations, product data and test reports.
- E. Identify and specify all supports, fasteners, spacing, penetrations, etc. for each of the deferred approval items, including calculations for each and all fasteners.
- F. Submit documents to the ARCHITECT for review prior to submitting to the Division of the State Architect. Submission shall be made within 35 days of the award of contract.
- G. Documents shall bear the stamp and signature of the Structural, Mechanical, or Electrical Engineer licensed in the State of California who is responsible for the Work shown on the documents.
- H. ARCHITECT will submit the documents as appropriate to the Project Structural, Mechanical and Electrical Engineers for review. Their review shall only be for conformance with the design intent shown in the Contract Documents.
- J. After review by ARCHITECT, forward submittal to the Division of the State Architect for approval, with copy of the transmittal to the DISTRICT.
- K. Respond to review comments made by the Division of the State Architect and revise and resubmit submittal to DSA for final approval. Provide copies of the DSA-approved documents to the ARCHITECT and the DISTRICT.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

**END OF SECTION**

## **SECTION 01 35 16**

### **ALTERATION PROJECT PROCEDURES**

#### **PART 1 GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Products and installation for patching and extending Work.
- B. Transitions and adjustments.
- C. Repair of damaged surfaces, finishes and cleaning.

#### **PART 2 PRODUCTS**

##### **2.01 PRODUCTS FOR PATCHING AND EXTENDING WORK**

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

#### **PART 3 EXECUTION**

##### **3.01 EXAMINATION**

- A. Verify that demolition is complete and areas are ready for installation of new Work.
- B. Beginning of renovation work means acceptance of existing conditions.

##### **3.02 PREPARATION**

- A. Move, cut, or remove items as necessary for access to alterations and renovation work. Replace and restore at completion.
- B. Remove unsuitable material not marked for salvage, such as rotted wood, corroded metals and deteriorated masonry and concrete. Replace materials as specified for finished work.
- C. Remove debris and abandoned items from area and from concealed spaces.
- D. Prepare surface and remove surface finishes to provide for proper installation of new work and finishes.
- E. Close openings in exterior surfaces to protect existing work and salvage items from weather and extremes of temperature and humidity. Insulate ductwork and piping to prevent condensation in exposed areas.



### 3.03 INSTALLATION

- A. Coordinate work of alterations and renovations to expedite completion sequentially and to accommodate District occupancy.
- B. Remove, cut and patch work in a manner to minimize damage and to provide a means of restoring products and finishes to original or specified condition.
- C. Refinish visible existing surfaces to remain in renovated rooms and spaces, to specified condition for each material with a neat transition to adjacent finishes.
- D. Restore existing and remaining plumbing, heating, ventilating and air conditioning, electrical and fire alarm systems to full operating condition and advise ARCHITECT of any deficiencies discovered during the course of the work.
- E. Install products as specified in individual Sections.

### 3.04 TRANSITIONS

- A. Where new work abuts or aligns with existing, perform a smooth and even transition. Patched work shall match existing adjacent work in texture and appearance.
- B. When finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to ARCHITECT for a satisfactory resolution.

### 3.05 ADJUSTMENTS

- A. Where removal of partitions or walls results in adjacent spaces becoming one, rework floors, walls and ceilings to a smooth plane without breaks, steps or bulkheads.
- B. Where a change of plane of 1/4 inch or more occurs, request instructions from ARCHITECT.
- C. Trim existing doors as necessary to clear new floor finish. Refinish trim as required.
- D. Fit work at penetrations in fire-rated assemblies as specified in "Cutting and Patching" section.

### 3.06 REPAIR OF DAMAGED SURFACES

- A. Patch or replace portions of existing surfaces which are damaged, lifted, discolored or showing other imperfections.
- B. Repair substrate prior to patching finish.

### 3.07 FINISHES

- A. Finish surfaces as specified in individual product Sections.
- B. Finish patches to produce uniform finish and texture over entire area. When finish cannot be matched, refinish entire surface to nearest intersections.

### 3.08 CLEANING

- A. Conform to "Contract Closeout" requirements.

**END OF SECTION**

## **SECTION 01 45 00**

### **QUALITY CONTROL**

#### **PART 1 GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Quality assurance and control of installation
- B. Reference Standards
- C. Field Samples
- D. Mock-up
- E. Project Inspector
- F. Permits and Fees
- G. Verified Reports
- H. Manufacturers' field services and reports

##### **1.02 QUALITY ASSURANCE/CONTROL OF INSTALLATION**

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions and workmanship to produce work of specified quality.
- B. Comply fully with manufacturers' instructions including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect 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. Perform work by persons qualified to produce workmanship of specified quality.
- F. Where experience minimums for workmen, applicators, companies or manufacturers are required in individual sections, written certification and documentation substantiating such minimums shall be submitted and approved by the Architect, when requested.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

##### **1.03 REFERENCE STANDARDS**

- A. Conform to reference standard by date of issue current on date of Contract Documents.
- B. Obtain copies of standards when required by Contract Documents.
- C. Should specified reference standards conflict with Contract Documents, request clarification from the Architect before proceeding.

- D. 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.

#### 1.04 FIELD SAMPLES

- A. Install field samples at the site as required by individual specifications Sections for review by Architect.
- B. Accepted samples represent a quality level for the Work.
- C. Where field sample is specified in individual Sections to be removed, clear area after field sample has been accepted by Architect and is no longer required for reference.

#### 1.05 MOCK-UP

- A. Tests will be performed under provisions identified in this section.
- B. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals and finishes.
- C. Where mock-up is specified in individual Sections to be removed, clear area after mock-up has been accepted by Architect and is no longer required for reference.

#### 1.06 PROJECT INSPECTOR

- A. An Inspector, herein referred to as the "Project Inspector" or "Inspector of Record", will be employed by the District and approved by Office of Regulation Services, Division of State Architect (ORS/DSA) in accordance with Part 1, Title 24, Section 4-333, California Code of Regulations. His duties are described in Part 1, Title 24, Section 4-342, CCR. His duties are also required and defined in Sections 17309, 17311, 81141 and 81143 of the California Education Code as they relate to schools.
- B. The work of construction in all stages of progress shall be subject to the personal continuous observation of the Inspector of Record (IOR). He shall have free access to any or all part of the work at any time. The Contractor shall furnish the Inspector reasonable facilities for obtaining such information as may be necessary to keep him fully informed respecting the progress and manner of the work and the character of the materials. Inspection of the work shall not relieve the Contractor from any obligation to fulfill the requirements of this Contract.

#### 1.07 VERIFIED REPORTS

- A. Contractor shall comply with Part 1, Title 24, Sections 4-336 and 4-343, California Code of Regulations and issue verified reports through the Architect as required.

## 1.08 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. When specified in individual specification Sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment and as applicable and to initiate instructions when necessary.
- B. Manufacturers Representatives shall report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- C. Submit report of observation to Architect for review.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

**END OF SECTION**

## **SECTION 01 45 23**

### **TESTING AND INSPECTION**

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

##### **1.01 SECTION INCLUDES**

This Section includes CONTRACTOR's responsibilities with regard to mandatory testing and inspection services:

- A. Testing and inspection services to meet requirements of the California Code of Regulations (CCR), Title 24, California Building Code (CBC).
- B. Tests of materials required by the DISTRICT's DSA certified testing agency as set forth in Section 4-335 of the California Building Standards Administrative Code.
- C. Inspection by DSA certified inspectors, employed by the DISTRICT in accordance with the requirements of California Building Standards Administrative Code, assigned to the Work with duties specifically defined in Section 4-333(b).

##### **1.02 TESTING AGENCY**

- A. DISTRICT will select an independent testing agency approved by the California Division of the State Architect to conduct tests, sampling, and testing of materials.
- B. Selection of material to be tested shall be by the agency or the INSPECTOR OF RECORD (IOR) and not by CONTRACTOR.
- C. Any material shipped from the source of supply prior to having satisfactorily passed such testing and inspection or prior to the receipt of notice from IOR that such testing and inspection is not required shall not be incorporated into the Work.
- D. DISTRICT will select and directly reimburse testing agency the costs for all DSA and/or DSA required tests and inspections, but may be reimbursed by CONTRACTOR for such costs as noted in related portions of the Contract Documents.
- E. The independent testing agency is not authorized to release, revoke, alter, or enlarge requirements of the Contract Documents or approve or accept any portion of the Work. The testing agency shall not perform any duties of CONTRACTOR. The agency does not have authority to stop the Work.

## 1.02 TEST REPORTING

- A. Test reports shall include all tests performed, regardless of whether such tests indicate the material is satisfactory or unsatisfactory. Samples taken but not tested shall also be reported. Records of special sampling operations as required shall also be reported. Reports shall indicate the material or materials were sampled and tested in accordance with requirements of CBC, Title 24, Parts 1 and 2. Test reports shall indicate specified design strength. They shall also definitely state whether or not material or materials tested comply with the specified requirements. When requested by DISTRICT or Architect, provide interpretation of test results.
- B. After each inspection and test, testing agency will promptly submit one (1) copy of laboratory report to the following distribution list:
  - 1. Division of State Architect
  - 2. District.
  - 3. Project Inspector.
  - 4. Architect.
  - 5. Structural Engineer.
  - 6. Mechanical and Electrical Engineers (Related Tests and Inspections).
  - 7. Contractor
- C. Each test report will include:
  - 1. Date issued.
  - 2. Project title, Architect's number, DSA application and file number.
  - 3. Name of agency's inspector.
  - 4. Date and time of sampling or inspection.
  - 5. Identification of product and Specifications Section.
  - 6. Location in the Project.
  - 7. Type of inspection or test.
  - 8. Date of test and ambient conditions at time of test.
  - 9. Results of tests.
  - 10. Statement of Conformance with Contract Documents.
  - 11. Signature by Registered Professional Engineer licensed in California.
  - 12. Statement that tests were conducted in accordance with Parts 1 and 2, Title 24, California Code of Regulations.
- D. Immediately upon testing agency determination of a test failure, the agency will telephone the results of the test to the ARCHITECT. On the same day, the agency will send written test results to those on the distribution list.

## 1.03 TEST AND INSPECTION VERIFICATION REPORT

- A. Testing agency shall submit to the Division of the State Architect a verified report in duplicate, with copy to the DISTRICT, covering each test which is required to be performed by that agency during progress of the Work. Such report shall be

furnished each time construction on the Work is suspended, covering tests up to that time, and also prior to Final Completion of the Work, covering all tests.

#### 1.04 INSPECTION BY DISTRICT

- A. DISTRICT and its representatives shall at all times have access, for purpose of inspection, to all parts of the Work and to shops wherein the Work is in preparation, and CONTRACTOR shall at all times maintain proper facilities and provide safe access for such inspection.
- B. DISTRICT shall have the right to reject materials and/or workmanship deemed defective Work, and to require correction. Defective workmanship shall be corrected in a satisfactory manner and defective materials shall be removed from the premises and legally disposed of, all without charge to DISTRICT. If CONTRACTOR does not correct such defective Work within a reasonable time, fixed by written notice and in accordance with the terms and conditions of the Contract Documents, DISTRICT may correct such defective Work and proceed to recover costs in accordance with related Articles of the Contract Documents.

#### 1.05 INSPECTOR OF RECORD

- A. INSPECTOR OF RECORD (IOR) is employed by DISTRICT in accordance with requirements of Title 24 of the California Code of Regulations with their duties specifically defined therein.
- B. Inspection of Work shall not relieve CONTRACTOR from any obligation to fulfill all of the terms and conditions of the Contract Documents.
- C. CONTRACTOR shall be responsible for scheduling times of inspection, tests, sample taking, and similar activities of the Work.

#### 1.06 CONTRACTOR RESPONSIBILITIES

- A. Deliver to testing agency, at designated location, adequate samples of materials proposed to be used which require testing.
- B. Cooperate with testing agency personnel, DISTRICT's Representative, INSPECTOR OF RECORD (IOR), CONSTRUCTION MANAGER and the ARCHITECT, to provide access to the Work including weekends and after work hours and to manufacturer's facilities.
- C. Provide incidental labor, materials and facilities to provide, at all times, safe access to Work to be tested, to obtain and handle samples at the site or at source of products to be tested, to facilitate tests and inspections, storage and curing of test samples.
- D. Notify CONSTRUCTION MANAGER, IOR and testing agency 24 hours in advance of required inspections or sampling, and 48 hours in advance of special testing or inspections. Notify DISTRICT in advance of the manufacturer or fabrication of materials in time to plan and schedule required testing at the source of supply. Extra expenses resulting from a failure to notify the agency shall be borne by the CONTRACTOR. Whenever extra expenses are indicated



to be borne by the CONTRACTOR, they will be charged to the CONTRACTOR by Change Order.

- E. The DISTRICT, IOR, CONSTRUCTION MANAGER or the ARCHITECT shall have the right to reject materials and workmanship which are defective or to require their correction. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be removed from the premises without cost to the DISTRICT. Extra expenses for retesting and re-inspection shall be borne by the CONTRACTOR. If the CONTRACTOR fails to correct such rejected work within a reasonable time, fixed by written notice, the DISTRICT will correct same and charge the expense to the CONTRACTOR by Change Order.
- F. Should it be considered necessary or advisable by the DISTRICT at any time before date of substantial completion of the entire work to make an examination of work already completed by removing or tearing out the same, the CONTRACTOR shall on request promptly furnish all necessary facilities, labor and materials. If such work is found to be defective in any respect due to fault of the CONTRACTOR or his subcontractor, all extra expenses shall be borne by the CONTRACTOR. If, however, such work is found to meet the requirements of the Contract, the additional cost of labor and material necessarily involved in the examination and replacement costs shall be allowed the CONTRACTOR by Change Order.
- G. When changes of construction progress schedule are necessary during construction, coordinate such changes with the testing agency as required.
- H. When the testing agency is ready to test according to the established schedule, but is prevented from testing or taking specimens due to incompleteness of the Work, extra charges for testing attributable to the delay shall be borne by the CONTRACTOR.
- I. CONTRACTOR shall provide an insulated curing box with the capacity for twenty (20) concrete cylinders and will relocate said box and cylinders as rapidly as required in order to provide for progress of the Work.
- J. CONTRACTOR is responsible for compliance to all applicable local, state, and federal regulations regarding codes, regulations, ordinances, restrictions, and requirements, regardless of the provisions of this Section.
- K. Inspecting and testing performed exclusively for the CONTRACTOR's convenience shall be the sole responsibility and expense of the CONTRACTOR.

## PART 2 – PRODUCTS (Not Applicable)

## PART 3 – EXECUTION

### 3.01 TESTS AND INSPECTIONS

- A. The following tests and inspections do not limit inspection of the Work but are required by DSA, other agencies, or are required in related Sections of the Contract Documents. The list may not be all inclusive.
- B. Excavations, Foundations and Retaining Walls - CBC, Chapter 18A and 33A
  - 1. Inspection:
    - a. Earth Fill Compaction 1801A.2
    - b. Inspection of Driven Pile Installation 1809A.6
    - c. Inspection of Caissons 1809A.7
- C. Concrete - CBC, Chapter 19A:
  - 1. Materials:
    - a. Test of Materials 1903A.1
    - b. Portland Cement Tests 1903A.2
    - c. Concrete Aggregate 1903A.3
    - d. Shotcrete Aggregate 1903A.3; 1924A.3
    - e. Reinforcing Bars 1903A.5.1; 1903A.5.2; 1903A.5.3; 1903A.5.4;
    - f. Prestressing Steel & Anchorage 1903A.5.5;
    - g. Structural Steel, Steel Pipe or tubing 1903A.5.6
    - h. Admixtures 1903A.6
    - d. Batch Plant Inspection 1929A.4
    - e. Waiver of Batch Plant Inspection & Tests 1929A.5, 1929A.6
  - 2. Quality:
    - a. Proportions of Concrete 1905A.1; 1905A.2; 1905A.3; 1905A.4; 1905A.5; 1905A.6,
    - b. Mixing and Placing 1905A.1.1; 1905A.1.2; 1905A.1.3
    - c. Concrete Testing 1905A.6;
    - d. Test Of Shotcrete 1905A.6; 1924A.10
    - e. Composite Construction Cores 1929A.8
    - f. Gypsum Concrete Strength Tests 1925A.1; 1929A.13
    - g. Insulating Concrete Tests DSA IR 27-1
  - 3. Inspection:
    - a. Project Site Inspection 1905A.7.1
    - b. Batch Plant or Weigh-master Inspection: 1929A.4, 1929A.5; 1929A.6
    - c. Pre-stressed Concrete Inspection 1929A.9
    - d. Shotcrete Inspection 1929A.10
    - e. Reinforcing Bar Welding Inspection 1929A.12, 1903A.10

- D. Lightweight Metal - CBC, Chapter 20A:
  - 1. Materials:
    - a. Alloys 2001A.2
    - b. Identification 2001A.4
  - 2. Inspection:
    - a. Welding 2004A.8
- E. Masonry - CBC, Chapter 21A:
  - 1. Materials:
    - a. Masonry Units 2102A.2,.4,.5,.6
    - b. Portland Cement, Lime 2102A.2.2, .3; 2103A.2
    - c. Mortar & Grout Aggregates 2102A.2.1; 2103A.4.3
    - d. Reinforcing Bars 2102A.2.10; 1903A5, 2102A.2.10
  - 2. Quality:
    - a. Portland Cement Tests 1903A.2, 1929(A.1)
    - b. Mortar & Grout Tests 2105A.3.4.2
    - c. Masonry Prism Tests 2105A.3.2, 2105A3.5
    - d. Masonry Core Tests 2105A 3.1
    - e. Reinforcing Bars 2102A.2.10
  - 3. Inspection:
    - a. Reinforced Masonry 2105A
    - b. Reinforcing Bar Welding Inspection 1903A.10, 1929A.12
- F. Steel - CBC, Chapters 17A & 22A:
  - 1. Materials:
    - a. Structural Steel, Cold Formed Steel 2202A.1, 2231A.1
    - b. Material Identification 2203.A4
  - 2. Inspection and Tests:
    - a. Test of Structural Steel 2231.A
    - b. Tests of High Strength Bolts, 2231.A.2 Nuts, and Washers
    - c. Tests of End Welded Studs 2231.A.3
    - d. Shop Fabrication Inspection 2231.A.4
    - e. Welding Inspection 2231.A.5
    - f. Non-destructive Weld Testing 1703A
    - g. High Strength Bolt Inspection 2231A.6
    - h. Steel Joist Load Tests 2231A.7
    - i. Spray applied fire resistance materials 1701
- G. Wood - CBC, Chapter 23A:
  - 1. Materials:
    - a. Lumber and Plywood Grading 2303A.1, 2304A
    - b. Glue-Laminated Members 2303A.2, 2304A

2. Inspection:
  - a. Glue-Laminated Fabrication 2337A.1
  - b. Timber Connectors 2337A.2
  - c. Manufactured Trusses 2337A.3
- H. Exterior Wall Coverings - CBC, Chapter 14A, 25A:
  1. Materials:
    - a. Portland Cement Plaster 2508A, 2509A, 2510A
  2. Inspection:
    - a. Veneer Inspection 1405A
- I. Clay or Concrete Roof Tile – CBC Chapter 15A:
  1. Materials:
    - a. Clay or concrete tile 1507.7
  2. Inspection: District Requirement

### 3.02 EARTHWORK

- A. The DISTRICT's testing agency, under the direction of the Geotechnical Engineer of Record, will provide continuous inspection of fill and will field test fill and earth backfill as placed and compacted, and inspect excavations and subgrade before concrete is placed and provide periodic inspection of open excavations, embankments, and other cuts or vertical surfaces of earth. Geotechnical Engineer will sign all reports of observation and testing.
- B. Unsatisfactory materials shall be removed from the site. Materials installed improperly shall be removed, replaced, moisture adjusted, re-compacted and otherwise re-worked to achieve a satisfactory installation.
- C. Imported fill materials from offsite or onsite shall be inspected and tested at the source before importing and placing, and a report issue attesting to the satisfactory nature of the material.
- D. The agency will perform all sampling and testing of materials and testing of work in place as required by the DSA Testing and Inspection Listing, or otherwise required. Testing will be performed in accordance with ASTM or California-required test methods.

### 3.03 CONCRETE

- A. The DISTRICT's testing agency will conduct one-time sampling of aggregate and preparation and testing of concrete mix design for each strength and/or aggregate size specified. Testing costs for additional mix designs shall be borne by the CONTRACTOR.
- B. Continuous plant inspection and other concrete installation tests will be conducted by the DISTRICT's testing agency. However, costs for retesting of materials that do not meet specification requirements shall be borne by the CONTRACTOR.

### 3.04 ROOFING

- A. Testing agency will conduct inspection and testing of built-up bituminous roofing in accordance with manufacturer's instructions, including:
1. Attend pre-roofing conference.
  2. Check deck surfaces prior to roofing application to verify that substrate is in satisfactory condition to receive roofing.
  3. Check kettle temperature control system and monitor kettle control temperatures.
  4. Inspect and test materials including softening point of asphalt to ensure conformance with specifications.
  5. Check for excessive moisture.
  6. Observe roofing application to ensure conformance with specifications.
  7. Supervise cutting and repair of cut-out tests and test and inspect cut-out samples for conformance with specifications.

**END OF SECTION**

## **SECTION 01 52 00**

### **CONSTRUCTION FACILITIES**

#### **PART 1 GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Furnishing and installing temporary facilities as indicated, specified or required for proper performance of the Work.

##### **1.02 RELATED SECTIONS**

- A. Temporary. Storm Water Pollution Control
- B. Temporary Controls
- C. Construction Waste Management and Disposal

##### **1.03 GENERAL**

- A. CONTRACTOR shall provide, maintain, relocate, and remove temporary facilities, including buildings, field office, toilets, utilities, storage units, fencing, barricades, chutes, elevators, hoists, scaffolds, railings and other facilities or services as required. CONTRACTOR shall be responsible for all use charges for the items provided as specified herein.
- B. CONTRACTOR shall furnish, install, maintain and pay for all necessary permits, inspections, temporary lines and connections and metering devices, use charges, move-ins/outs, connection fees, service, extension and distribution, deliveries/pickups, rentals, storage, transportation, taxes, labor, insurance, bonds, materials, equipment and all other required miscellaneous items for the temporary utilities systems required for completion of the work, and, upon substantial completion of the Work, remove all such temporary utilities systems and appurtenances.

##### **1.04 REGULATORY REQUIREMENTS**

- A. Comply with governing ordinances, regulations and utility company requirements and recommendations.
- B. Comply with pollution and environmental protection codes and regulations for use of water and energy, for discharge of waste and storm drainage from the project site, and for control of dust, air pollution and noise.
- C. Temporary construction shall conform to requirements of State, County and local authorities and insurance requirements which pertain to operation, health, safety and fire hazard. Provide items necessary to comply with such requirements, whether or not specifically indicated or specified in the Contract Documents.

#### 1.05 TEMPORARY WATER

- A. CONTRACTOR shall provide and maintain temporary potable water service, including water distribution piping and outlet devices of the size and required flow rates in order to provide service to all areas of the Project site at all times.

#### 1.06 TEMPORARY SANITARY FACILITIES

- A. CONTRACTOR shall provide portable chemical toilet facilities, in quantities based on total number of workers and shall be in accordance with CAL/OSHA standards.
- B. Portable chemical toilet facilities shall be maintained with adequate supplies and in a clean and sanitary condition and shall be removed from the Project site upon Substantial Completion of the Work.
- C. CONTRACTOR employees shall not use school toilet facilities.
- D. CONTRACTOR will define appropriate areas for break and lunch periods and will provide suitable containers for placement of trash in those areas. Areas shall be maintained clean and orderly.

#### 1.07 TEMPORARY TELEPHONE SERVICE

- A. CONTRACTOR shall provide temporary telephone and data service for temporary facilities.

#### 1.08 TEMPORARY ELECTRICAL POWER

- A. CONTRACTOR shall provide temporary electrical service for construction, temporary facilities, and connections for construction equipment requiring power or lighting, at all points required for the Work, for inspection and safety.
- B. CONTRACTOR shall ensure that welding equipment is supplied by electrical generators, not by the utility-furnished electrical power.

#### 1.09 TEMPORARY LIGHTING

- A. CONTRACTOR shall provide and maintain all temporary lighting as necessary to provide safe access, performance and inspection of the work.
- B. Light levels provided shall be a minimum of 20 foot candles inside buildings and 5 foot candles outside for inspection, safety and security.

#### 1.10 TEMPORARY HEATING, VENTILATION AND AIR CONDITIONING (HVAC)

- A. CONTRACTOR shall provide temporary heating, ventilating, cooling and filtration required for satisfactory completion of the Work.

- B. CONTRACTOR shall ventilate enclosed areas to assist cure of materials, dissipate humidity, and to prevent accumulation of dust, fumes, vapors, gases, or other irritants.
- C. CONTRACTOR shall maintain manufacturer-required levels of room and/or space temperature, humidity and ventilation necessary to install products, materials and/or systems of the Work.
- D. Utilization of the HVAC system for temporary construction use does not constitute DISTRICT acceptance of the system.

#### 1.11 TEMPORARY GAS

- A. CONTRACTOR shall provide temporary gas service for construction and temporary facilities, at all points required for the Work.

#### 1.12 CONSTRUCTION EQUIPMENT AND FACILITIES

- A. CONTRACTOR shall erect, equip, and maintain construction equipment in strict accordance with applicable statutes, laws, ordinances and regulations of authority having jurisdiction.
- B. CONTRACTOR shall provide, maintain and remove upon completion of the Work all temporary rigging, scaffolding, hoisting equipment, rubbish chutes, ramps, stairs, runways, platforms, ladders, railings and other temporary construction as required for all work hereunder.

#### 1.13 FIELD OFFICES

- A. CONTRACTOR shall provide a temporary field office for his own use. It shall be weather-tight with lighting, electrical outlets, electronic communications capabilities, HVAC, and otherwise equipped to adequately conduct construction operations. Provide a conference room adequate for project meetings.
- B. In addition to the CONTRACTOR's field office, CONTRACTOR shall provide and maintain a minimum of one similarly equipped 800 sf temporary field office building on the Project site for use by the DISTRICT for the duration of the Work. The office shall be accessible by the DISTRICT, ARCHITECT and/or the IOR on a 7 day a week 24-hour basis. Office shall be provided with code-required ADA accessibility:
  - 1. Office building shall include a conference room with a conference table and adequate seating for twelve.
  - 2. Office building shall have two separate private offices; together with an open office space.
  - 3. Office shall be furnished with two (2) exterior entrance doors with one located in a separate office. Each door shall be furnished with both a dead bolt and cylinder lock with 6 keys.



4. Exterior doors and windows shall be provided with exterior mounted burglar bars. Windows shall be provided with operable window shades. Security of office and contents is a continuous obligation of CONTRACTOR.
5. Office shall have ample headroom and shall be properly lighted, heated, ventilated, and air-conditioned, and shall have an electric drinking fountain or potable refrigerated bottled water service.
6. The separate private offices shall each be approximately 120 sq. ft. in size and shall be provided with a minimum of four 120 volt single phase convenience outlets. Each separate office shall be furnished with one five-drawer desk, one rolling office chair, two visitors' chairs, and one five-shelf bookcase of approximately 67" H x 32" W x 14" D.
7. The conference room shall be approximately 300 sq. ft. in size and shall be furnished with a minimum of four single phase convenience outlets. It shall be furnished with a conference table capable of seating twelve, and twelve comfortable conference chairs, and shall have a 4' x 8' whiteboard on one of the long walls.
8. The open office shall be furnished with
  - a. One three-foot deep by eight-foot wide plan counter,
  - b. Two five-drawer desks, three-rolling office chairs,
  - c. Six folding chairs,
  - d. Three four -drawer legal size file cabinets,
  - e. Three four-drawer letter size filing cabinets,
  - f. One five-shelf storage cabinet of approximately 78" H x 36" W x 24" D furnished with locking doors,
  - g. Three five-shelf bookcases of approximately 67" H x 32" W x 14" D,
  - h. Four utility tables of approximately 26" H x 30" W x 18"D.
  - i. Two wall-mounted 42" wide plan racks with 36 individual plan holders.
9. Provide phone, data transmission lines, related appurtenances, services, and equipment for use by DISTRICT as specified below:
  - a. Provide LAN and phone connectivity to each desk and to conference room, from the point of connection (POC) to appropriately located wall outlets.
  - b. Three separate phone lines, one dedicated fax line, and five phone instruments, each with speakerphone, conference call, and voice mail.

- c. Provide high-speed internet access via business class DSL with minimum 192 kbps, or, if DSL is not available, provide a comparable internet connection such as point-to-point T1.
- d. Provide, install, & maintain any related equipment necessary to provide continuous internet access from each location.
- e. Provide, install, configure and maintain one new desktop computer workstation with the following features:
  - 1. Minimum 2.0 GHz CPU;
  - 2. 256 MHz RAM;
  - 3. 40 Gig hard disk;
  - 4. Mouse;
  - 5. 104 keyboard;
  - 6. 17" monitor;
  - 7. CDRW Drive;
  - 10. Microsoft Windows 2000;
  - 11. Microsoft Office Professional.
- f. Provide, install, configure & maintain for network connectivity one network laser printer with the following features and accessories:
  - 1. Network capable
  - 2. 3 paper trays
- g. Provide one Fax machine with the following features and accessories:
  - 1. 250 sheet paper tray.
  - 2. 132 number auto-dial.
- h. Provide **one** copier with the following features and accessories:
  - 1. Three paper trays integral with the equipment including 8-½ x 11, 8-1/2 x 14 and 11x17.
  - 2. Sorting and collating functions.
  - 3. Zoom.
- C. CONTRACTOR shall be responsible for maintaining all electrical distribution lines, equipment and related devices. If equipment and/or transmission equipment becomes inoperable and downtime exceeds two (2) days, CONTRACTOR shall replace and/or provide equivalent interim equipment.
- D. Office, furniture, equipment, and related ancillary devices shall remain property of CONTRACTOR. CONTRACTOR shall remove such property upon Final Completion of Work or as otherwise determined by the DISTRICT.
- E. At CONTRACTOR expense and without limitation, remove and/or relocate temporary office(s) and related facilities as rapidly as required in order to provide for progress of the Work.

F. FIELD OFFICE SUPPLIES

1. CONTRACTOR shall provide the initial supply of field office supplies to the DISTRICT in the quantities listed as set forth below in Table A. If specified in the Section – Allowances, CONTRACTOR shall provide additional supplies as specified.
2. CONTRACTOR may utilize different suppliers as the specified information is only to establish the required quantities and levels of quality.

1.14 STORAGE AND STAGING

- A. Operations of the CONTRACTOR, including storage of materials, shall be confined to areas approved by DISTRICT. CONTRACTOR shall be liable for damage caused by him during such use of property of the DISTRICT or other parties.
- B. Storage facilities shall provide protection of products from excessive cold, heat, moisture, humidity or physical abuse as specified in the respective sections for the products stored.
- C. CONTRACTOR shall save the DISTRICT, along with its respective officers, employees and agents, and the ARCHITECT and his employees, free and harmless from liability of any nature or kind arising from any use, trespass or damage occasioned by his operations on assigned premises of third parties.

1.15 FENCES AND BARRICADES

- A. CONTRACTOR shall install temporary Project site security fence(s) and/or barricade(s), as as specified herein or indicated on Drawings, or as required for safety and security. New or used material may be furnished. Security of Project site and contents is a continuous obligation of CONTRACTOR.
- B. Unless otherwise indicated or specified, a site security fence shall be constructed of 8'-0" high chain link fencing with a 8'-0" high windscreen. Space posts not to exceed 10'-0" on centers. Posts shall be of following nominal pipe dimensions: terminal, corner, and gatepost 2-1/2", line posts 2". Chain link fence shall be not less than #13 gage, 2" mesh, and in one width. Posts, fence and accessories shall be galvanized and as follows:
  1. Posts shall be set in the earth a depth of 30" with soil firmly compacted around post, unless required otherwise in writing by DISTRICT.
  2. Fence fabric shall be attached to posts with #14 gage tie wire at 16" on centers. A #6 gage steel tension wire with turnbuckles shall be installed at top and bottom of barricade fencing. Wire tie fabric to tension wires at 18" centers.

3. Windscreen shall be attached to fence fabric and steel tension wires at 18" centers with a minimum of #14 gage tie wire. Windscreen shall be maintained and all rips, tears, missing sections shall be corrected as soon as detected.
4. Chain link fencing shall be free from barbs, icicles or other projections resulting from galvanizing process. Fence having such defects will be replaced even if it has been installed.
5. Gates shall be fabricated of steel pipe with welded corners, and bracing as required. Fence and fabric to be attached to frame at 12" centers. Provide all gate hardware of a strength and quality to perform satisfactorily until barricade is removed upon Substantial Completion of the Work. Each gate shall have a chain and padlock. Provide two (2) gate keys to DISTRICT. At Substantial Completion of the Work, remove barricade from Project site, backfill and compact fence footing holes. Existing surface paving that is cut into or removed shall be patched and sealed to match surrounding areas.
6. At CONTRACTOR expense and without limitation, remove and/or relocate fencing, fabric and barricades or other security and protection facilities as rapidly as required in order to provide for progress of the Work.

#### C. Other Temporary Enclosures & Barricades

1. Provide fences and barricades to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.
2. Provide lockable, temporary weather-tight enclosures at openings in exterior walls to create acceptable working conditions, to allow for temporary heating and for security.
3. Provide protective barriers around trees, plants and other improvements designated to remain. Replace any damaged materials as directed by the ARCHITECT
4. Temporary partitions shall be installed at all openings where additions connect to existing buildings, and where necessary to protect areas, spaces, property, personnel, students and faculty and to separate and control dust, debris, noise, access, sight, fire areas, safety and security. Temporary partitions shall be as designated on the Drawings or as specified by ARCHITECT. At CONTRACTOR expense and without limitation, remove and/or relocate enclosures, barriers and temporary partitions as rapidly as required in order to provide for progress of the Work.
5. Since the Work of this Project may be immediately adjacent to existing occupied structures and vehicular and pedestrian right of ways, CONTRACTOR shall, in his sole judgment and in accordance with applicable safety standards, provide all temporary facilities, additional

barricades, protection and care to protect existing structures, occupants, property, pedestrians and vehicular traffic. CONTRACTOR is responsible for any damage, which may occur to the property and occupants of the property of DISTRICT or adjacent private or public properties which in any way results from the acts or neglect of CONTRACTOR.

6. Fences and barricades must completely separate construction activities and personnel from school operations, staff, students and the public. Construction workers shall not interact or communicate with students or staff except in emergency or safety related situations.
7. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing buildings.
8. Protect vehicles, stored materials, site and structures from damage.

#### 1.16 TEMPORARY DE-WATERING FACILITIES & DRAINAGE:

- A. For temporary drainage and de-watering facilities and operations not directly associated with construction activities included under individual sections, comply with de-watering requirements of applicable Division 01 sections or of sound practice. CONTRACTOR shall maintain the Work, Project site and related areas free of water.
- B. For temporary drainage and de-watering facilities and operations directly associated with new buildings, additions or other construction activities, comply with Division 01 & 02 Sections. CONTRACTOR shall be responsible for de-watering of excavations, trenches & below grade areas of buildings, structures, the Project site and related areas.

#### 1.17 TEMPORARY PROTECTION FACILITIES:

- A. CONTRACTOR shall not change over from using temporary facilities and controls to permanent facilities until Substantial Completion, except as permitted by DISTRICT.
- B. CONTRACTOR shall provide fire protection during construction in accordance with CFC, Article 87
- C. Until permanent fire protection needs are supplied and approved by authorities having jurisdiction, CONTRACTOR shall provide, install and maintain temporary fire protection facilities of the types needed in order to adequately protect against fire loss. CONTRACTOR shall adequately supervise welding operations, combustion type temporary heating and similar sources of fire ignition.
- D. CONTRACTOR shall provide, install and maintain substantial temporary enclosures of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft and similar violations of security. Where materials, tools and equipment are stored within

the Work area, CONTRACTOR shall provide secure lock up to protect against vandalism, theft and similar violations of security. DISTRICT accepts no financial responsibility for loss, damage, vandalism or theft.

- E. CONTRACTOR operations shall not block, hinder, impede or otherwise inhibit the use of required exits and/or emergency exits to the public way, except as approved by the DISTRICT. CONTRACTOR shall maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways and other access routes for fire fighting equipment and/or personnel.
- F. With approval of DISTRICT and at the earliest feasible date in each area of the Work, complete installation of the permanent fire protection facilities including connected services and place into operation and use. Instruct DISTRICT personnel in use of permanent fire protection facilities.
- G. In the event of an emergency drill or an actual emergency, designated by the sounding of the fire alarm and/or other sounding device, all construction activities must cease. CONTRACTOR shall evacuate the Work area and remain outside the Work area until permitted to return. No Work shall be conducted during the evacuation of a building or during an emergency.

#### 1.18 TEMPORARY SECURITY AND SAFETY MEASURES:

- A. During performance of the Work in existing facilities CONTRACTOR shall provide, install and maintain substantial temporary barriers and/or partitions separating all Work areas from areas occupied by students, faculty and/or administrative staff.
- B. During performance of the Work in existing facilities and/or on a Project site occupied by students and where temporary barriers and/or partitions are not physically feasible, CONTRACTOR shall provide an employee meeting the requirements of Education Code Section 45125.2.(2) to continually supervise and monitor all employees of the CONTRACTOR and Subcontractor. For the purposes of this Section, CONTRACTOR employee shall be someone whom the Department of Justice has ascertained has not been convicted of a violent or serious felony as listed in Penal Code Section 667.5(c) and/or Penal Code Section 1192.7(c). To comply with this Section, CONTRACTOR shall have his employee submit his or her fingerprints to the Department of Justice pursuant to Education Code Section 45125.1(a).
- C. Penal Code Sections 290 and 290.4, commonly known as "Megan's Law," require, among other things, individuals convicted of sexually oriented crimes, to register with the chief of police where the convicted individual resides or with a county sheriff or other law enforcement officials. The CONTRACTOR shall check its own employees and require each Subcontractor to check its employees and report to the CONTRACTOR if any such employees are registered sex offenders. The CONTRACTOR shall check monthly during the life of the Contract to ascertain this information and report same to DISTRICT. Before starting the Work, and monthly thereafter during the life of Contract, CONTRACTOR shall notify the DISTRICT in writing if any of its employees

and/or if any Subcontractor's employees is a registered sex offender. If so, CONTRACTOR shall proceed in accordance with the previous paragraph.

#### 1.19 TEMPORARY ACCESS ROADS AND PARKING:

- A. Due to the limited amount of on and off Project site space for the parking of staff, students and school visitors' vehicles, there will be no parking of CONTRACTOR vehicles in areas designated for school use only. CONTRACTOR shall provide legal access to and maintain CONTRACTOR designated areas for the legal parking, loading, off-loading & delivery of all vehicles associated with the Work. CONTRACTOR shall be solely responsible for providing and maintaining these requirements whether on or off the Project site.
- B. Contractor's onsite parking shall be in areas shown on the Logistics Site Plan or as otherwise designated by the DISTRICT.
- C. Temporary access roads are to be installed and maintained by CONTRACTOR to all areas of the Project site.
- D. CONTRACTOR will be permitted to utilize existing on-site roads as designated by DISTRICT. CONTRACTOR shall only utilize those entrances and exits as designated by DISTRICT, and CONTRACTOR shall observe all traffic regulations of DISTRICT.
- E. Provide and maintain access to fire hydrants, free of obstructions.
- F. Do not park or drive on concrete walks or in the new buildings at any time.
- G. CONTRACTOR shall maintain roads and walkways in a clean condition including removal of debris and/or other deleterious material on a daily basis.

#### 1.20 TRENCHES

- A. CONTRACTOR shall comply with all applicable statutes, codes & regulations regarding trenching and trenching operations. Open trenches for installation of utility lines (water, gas, electrical and similar utilities) and open pits outside barricaded working areas shall be barricaded at all times in a legal manner determined by CONTRACTOR.
- B. Open trenches deeper than 3'-6", and not located within a public street access, shall be enclosed within an 8'-0" high chain-link fence.
- C. Trenches shall be backfilled and patch-paved within twenty-four (24) hours after approval of installation by authorities having jurisdiction or shall have "trench plates" installed.
- D. Required access to buildings shall be provided and maintained.

## 1.21 PROJECT SIGNAGE

- A. CONTRACTOR shall furnish and install a Project sign on the Project site at a location established by ARCHITECT. A graphical layout of the proposed sign shall be submitted to ARCHITECT and DISTRICT for review before fabrication.
- B. Sign construction shall be 10'-0" wide by 6'-0" high with 6" x 6" posts and 1" exterior grade plywood, bolted to posts.
- C. Sign lettering shall be painted white with exhibit lettering by a professional sign painter, in accordance with details reviewed by ARCHITECT. The following shall be listed on sign:
  - 1. DISTRICT – San Bernardino City Unified School District.
  - 2. Name of School.
  - 3. Names of the Architect/Engineer and Consultants.
  - 4. Name of Prime Contractor.
  - 5. Other principal Contractors.
  - 6. Name of School Board member from District in which project is located.
- D. Except as otherwise specified herein, no other signs shall be displayed without approval of DISTRICT. At CONTRACTOR expense and without limitation remove and/or relocate Project signage and related facilities as rapidly as required in order to provide for progress of the Work.
- E. CONTRACTOR shall remove Project signage at Substantial Completion of the Work.
- F. CONTRACTOR shall provide and install signage to provide directional, identification, and contact information to construction personnel and visitors as follows and as approved by DISTRICT.
  - 1. For construction traffic control/flow at entrances/exits, and as designated by DISTRICT.
  - 2. To direct visitors.
  - 3. For construction parking.
  - 4. To direct deliveries.
  - 5. For Warning Signs as required.
  - 6. Per CAL/OSHA standards as necessary.
  - 7. For office identification and Project site address.
  - 8. For "No Smoking" safe work site at designated locations.
  - 9. Emergency contact information and phone number of CONTRACTOR.
  - 10. Emergency contact information and phone number of local police, fire, and emergency personnel.



## 1.22. CLOSE OUT

- A. Remove all temporary facilities at the completion of construction, and restore the site and facilities to conditions acceptable to the ARCHITECT and to local authorities.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

**END OF SECTION**

## **SECTION 01 57 00**

### **TEMPORARY CONTROLS**

#### **PART 1 GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Water Control.
- B. Dust Control.
- C. Erosion and Sediment Control.
- D. Noise Control.
- E. Pollution Control.

##### **1.02 RELATED SECTIONS**

- A. Work Sequence and Phasing.
- B. Temporary .Storm Water Pollution Control
- C. Construction Facilities

##### **1.04 GENERAL**

- A. Include planned temporary control measures in the Project Logistics Plan of Section 01 32 16, Work Sequence and Phasing. Include hours of operation permitted by the Contract Documents or by local authorities.
- B. Update this Plan and provide status reports to the DISTRICT on temporary controls on a monthly basis

##### **1.04 WATER CONTROL**

- A. Do not permit surface or subsurface water or other liquids to accumulate on the site or in the immediate vicinity.
- B. Should such conditions be encountered or develop, control the accumulation of water or other liquid and suitably dispose of it by means of temporary pumps, piping, drainage lines, troughs, ditches, dams or other methods as approved by the ARCHITECT and/or the authority having jurisdiction.

##### **1.05 DUST CONTROL**

- A. Conduct earthwork operations in a manner to prevent windblown dust and dirt from interfering with the progress of the Work, the District's activities, the existing occupied structures in the areas of the site immediately adjacent, and offsite adjacent properties.
- B. Water construction areas as necessary to minimize windblown dust and on-site accumulation of dust and dirt.

- C. Water spray or cover with tarpaulins truck loads of soil to minimize generation of dust and dirt from construction transportation operations.
- D. Prevent dust and dirt from accumulating on walks, roadways, parking areas and from washing into sewer and storm drain lines.

#### 1.06 EROSION AND SEDIMENT CONTROL

- A. Plan and execute construction by methods that will control surface drainage from cuts and fills and from borrow and waste disposal areas, and to prevent erosion and sedimentation.
- B. Minimize amount of bare soil exposed at one time.
- C. Provide temporary measures such as berms, dikes and drains to prevent water flow over adjacent properties or City rights-of-way.
- D. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays. Avoid any eroded materials flowing off the property.
- E. Periodically inspect earthwork to detect evidence of erosion and sedimentation; and promptly apply corrective measures.

#### 1.07 NOISE CONTROL

- A. Avoid excessive noise that would affect detrimentally adjacent activities and adjoining property.
- B. Confine operations to permissible hours of day, to eliminate neighborhood noise pollution.

#### 1.08 POLLUTION CONTROL

- A. Provide methods, means and facilities to prevent contamination of soil, water and atmosphere from discharge of noxious, toxic substances and pollutants produced by construction operations.
- B. Do not burn refuse, debris or other materials on the site.
- C. Comply with all State and local ordinances and regulatory requirements controlling environmental pollution during the course of construction and disposal operations.

#### 1.09 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris and rubbish. Maintain site in a clean and orderly condition.
- B. CONTRACTOR shall assure the removal of debris and rubbish from pipe chases, plenums, attics, crawl spaces and other closed or remote spaces prior to the space being enclosed.

- C. CONTRACTOR shall assure the brooming and vacuum cleaning of interior areas prior to start of surface finishing, as well as continuing cleaning to eliminate dust.
- D. Until Substantial Completion of the Work, CONTRACTOR shall remove, as required, all graffiti from buildings, equipment, fences and other improvements on the Project site.
- E. CONTRACTOR shall remove waste materials, debris and rubbish from site periodically and dispose off-site.

#### 1.10 CLOSE OUT

- A. Remove all temporary control measures at the completion of construction, and restore the site and facilities to conditions acceptable to the ARCHITECT and local authorities.

PART 2 - PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

**END OF SECTION**

## **SECTION 01 60 00**

### **MATERIALS AND EQUIPMENT**

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

##### **1.01 SECTION INCLUDES**

This Section includes administrative and procedural requirements governing products for incorporation into the Work.

##### **1.02 RELATED SECTIONS**

- A. Section 01300: Submittals
- B. Section 01420: Testing and Inspection
- C. Section 01640: Substitutions
- D. Section 01740: Warranties

##### **1.03 DEFINITIONS**

Definitions used in this Section are not intended to change the meaning of other terms used in the Contract Documents, such as “specialties,” “systems,” “structure,” “finishes,” “accessories,” and other similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.

- A. “Products” are items purchased for incorporation into the Work, whether purchased for the Work or taken from previously purchased stock. The term “product” includes the terms “material” and “equipment” and terms of similar intent.
  - 1. “Named Products,” are items identified by the manufacturer’s product name, including make, model number or other designation, shown or listed in the manufacturer’s published product literature, current as of the date of the Contract.
  - 2. “Foreign Products,” as distinguished from “domestic products,” are items substantially manufactured (50 percent or more of value) outside the United States and its possessions.
- B. “Materials” are products substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
- C. “Equipment” is a product with operational parts, whether motorized or manually operated, that may require service connections, such as wiring or piping. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work.

#### 1.04 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind from a single source.
- B. Compatibility of Options: When the CONTRACTOR is given the option of selecting between two or more products for use in the Work, the product selected shall be compatible with products previously selected, even if previously selected products were also options.
- C. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products that will be exposed in view in occupied spaces or on the exterior.
  - 1. Labels: Locate required product labels and stamps on concealed surfaces or, where required for observation after installation, on accessible surfaces that are not conspicuous.
  - 2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
    - a. Name of product and manufacturer
    - b. Model and serial number
    - c. Capacity
    - d. Speed
    - e. Ratings

#### 1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products according to the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss, including theft.
  - 1. Schedule delivery to minimize long-term storage at the Project site and to prevent overcrowding of Work spaces.
  - 2. Coordinate delivery with installation time to assure minimum holding time for all items, but especially those that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
  - 3. Deliver products to the Project site in an undamaged condition in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.

4. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement or damage.
5. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
6. Store products at the Project site in a manner that will facilitate inspection and measurement of quantity or counting of units.
7. Store heavy materials away from structures in a manner that will not endanger the structure's supporting construction.
8. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter. Cover products subject to deterioration with impervious sheet covering.
9. When approved by the District, provide off-site storage and protection in a bonded warehouse approved by District when site does not permit on-site storage or protection at no cost to the District.
10. Store products subject to damage by the elements above ground, under cover in a weather-tight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

#### 1.06 MATERIAL SELECTION

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, new at the time of installation.
  1. Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.
  2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other Projects.
- B. Product Selection Procedures: The Contract Documents and governing regulations govern product selection. Procedures governing product selection include the following:
  1. Proprietary Specification Requirements: Where Specifications name only a single material or manufacturer, provide the product indicated. No substitutions will be permitted.
  2. Semi-proprietary Specification Requirements: Where Specifications name two or more products or manufacturers, provide one of the

products indicated throughout the Project. No substitutions will be permitted.

- a. Where Specifications specify products or manufacturers by name, accompanied by the term “or equal,” comply with General Conditions article on Substitutions to obtain approval for use of an unnamed product.
3. Descriptive Specification Requirements: Where Specifications describe a product or assembly and list exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that has the characteristics and otherwise complies with the Contract Documents.
4. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements and are recommended by the manufacturer for the application indicated.
  - a. Manufacturer’s recommendations may be contained in published material literature or by the manufacturer’s certification of performance.
5. Compliance with Standards, Codes, and Regulations: Where Specifications only require compliance with an imposed code, standard or regulation, select a product that complies with the standards, codes, or regulations specified.
6. Visual Matching: Where Specifications require matching an established Sample, decision of the ARCHITECT will be final on whether a proposed product matches satisfactorily.
7. Visual Selection: Where specified product requirements include the phrase “... as selected from manufacturer’s standard or premium colors, patterns, textures...” or a similar phrase, select a product and manufacturer that complies with other specified requirements. The ARCHITECT will select the color, pattern, and texture from the product line selected.

#### 1.07 INSTALLATION OF PRODUCTS

- A. Comply with manufacturer’s instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located, and aligned with other Work.
- B. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration until Substantial Completion.



PART 2 – PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

**END OF SECTION**

## **SECTION 01 71 23**

### **FIELD ENGINEERING**

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

##### **1.01 SECTION INCLUDES**

- A. Construction surveying requirements for the Work

##### **1.02 RELATED SECTIONS**

- A. Summary of the Work
- B. Project Coordination and Meetings
- C. Submittals
- D. Contract Closeout

##### **1.03 GENERAL**

{Surveyor}

##### **1.04 SUBMITTALS**

- A. CONTRACTOR shall submit the name and address of the State of California licensed surveyor to ARCHITECT and DISTRICT, including any changes as they may occur.
- B. At request of ARCHITECT and/or DISTRICT, CONTRACTOR shall submit copies of cut sheets, coordinate plots, data collector printouts, and other documentation as available to verify completeness and/or accuracy of field surveying Work

#### **PART 2 - PRODUCTS (Not applicable)**

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

##### **3.01 LAYOUT OF THE WORK**

{SurvLayout}

##### **3.02 SURVEY REQUIREMENTS**

- A. Establish a minimum of two permanent horizontal and vertical control points on the Project site, remote from the building area, referenced to data established by the survey control points.
- B. Indicate the reference points on the project record drawings with the basis of elevation being the established benchmarks.

- C. Establish lines, grades, locations and dimensions by instrumentation. Periodically, verify the layout of all Work by the same methods.
- D. Provide grade stakes and elevations for over-excavation and re-compaction, rough and final grades, paved areas, curbs, gutters, sidewalks, building pads, landscaped areas, and other areas as required.
- E. Calculate and layout proposed finished elevations and intermediate control as required to provide smooth transitions between the spot elevations indicated in the Contract Documents.
- F. Provide stakes and elevations for grading, fill, and topsoil placement.
- G. Provide adequate horizontal and vertical control to locate utility lines, including but not limited to, storm drains, sewers, water mains, gas, electric and signal, and provide vertical control in proportion to the slope of the line as required for accurate construction.
  - 1. Prior to trench closure, survey and record locations and invert and flow line elevations at manholes, POCs, and 50-foot intervals.
  - 2. Survey and record top of curb and flow line elevations on finished concrete or AC surfaces at key locations such as BC's, EC's, grade breaks, corners or angle points in sufficient number to demonstrate the Work complies with the intent of the Contract Documents.
- H. Provide horizontal and vertical control for batter boards for drainage, utility, and other on-site structures as required.
- I. Furnish building corner offsets as required to adequately locate building pads. Provide cut and fill stakes within the building pad perimeter adequate to control both over excavation and re-compaction and the final sub-grade elevation of the building pad.
- J. Submit a certification signed by the surveyor confirming that the elevations and locations of improvements are in conformance with the Contract Documents. The statement shall include survey notes for the finish floor and building pad, showing the actual measured elevations on the completed sub-grade, recorded to the nearest 0.01'. Building pad tolerance will be +/- 0.10'.

### 3.04 RECORD DRAWINGS

- A. The surveyor shall record all horizontal and vertical control information on "as-built" Record Drawings, as coordinates and elevations. Record drawings shall indicate locations of all utilities information, as described above.
- B. Upon Substantial Completion, CONTRACTOR shall deliver to the ARCHITECT reproducible transparencies of the final Record Drawings.

- C. Completed record drawing transparencies shall be signed by the licensed surveyor, certifying that the information shown is correct and is in conformance with the Contract Documents within specified tolerances.
- D. Where other sections of the Contract Documents require verification or measurements of installed Work by survey, the surveyor shall perform and certify that all such surveys or verifications are completed in accordance with the Contract Documents.

**END OF SECTION**

## **SECTION 01 73 29**

### **CUTTING AND PATCHING**

#### **PART 1 GENERAL**

##### **1.01 SECTION INCLUDES**

Requirements and limitations for cutting and patching of work.

##### **1.02 SCOPE**

- A. Where the work requires that a particular existing building element, such as a partition, wall, paving, window or similar element of existing building construction, be removed, it is the intention of this specification that such work be a part of the demolition section and not a part of cutting and patching. Refer to individual category scope of work sheets to determine the limits of demolition work for each CONTRACTOR.
- B. New work required to replace such removals is considered as a part of the separate sections of the specifications covering similar new construction.
- C. Where incidental cutting and patching is required for the installation of a specific item or piece of equipment (including piping, ductwork, conduit, etc.), all such cutting and patching is considered to be specified as a part of the section requiring the cutting and patching, but shall also comply with the requirements of this Section.
- D. CONTRACTOR shall verify and check all areas to be cut and patched and shall coordinate the work of the various trades involved.
- G. Unless specifically designated otherwise, existing work cut, altered or revised to accommodate new work shall be patched to duplicate undisturbed adjacent finishes, colors, textures and profiles. New work in existing portions shall also be finished to match adjacent existing work unless noted otherwise.

##### **1.03 SUBMITTALS**

- A. Submit written request in advance of cutting or alteration which affects:
  - 1. Structural integrity of any element of Project.
  - 2. Integrity of weather-exposed or moisture-resistant element.
  - 3. Efficiency, maintenance or safety of any operational element.
  - 4. Visual qualities of sight exposed elements.
  - 5. Work of DISTRICT or separate CONTRACTOR.

- B. Include in request:
  - 1. Identification of Project.
  - 2. Location and description of affected work.
  - 3. Necessity for cutting or alteration.
  - 4. Alternatives to cutting and patching.
  - 5. Description of proposed work and products to be used.
  - 6. Effect on work of District or separate CONTRACTOR.
  - 7. Written permission of affected separate CONTRACTOR.
  - 8. Date and time work will be executed.
- C. Obtain approval of ARCHITECT before proceeding with any cutting and patching:

## PART 2 PRODUCTS

### 2.01 MATERIALS

- A. Primary Products: Those required for original installation, unless specifically approved otherwise

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Inspect existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. Confirm status and current warranties and guarantees.
- B. After uncovering existing work, inspect conditions affecting performance of work.
  - 1. Prior to cutting, boring or drilling through new or existing structural members or elements including reinforcing bars, CONTRACTOR shall prepare detailed drawings for review by the ARCHITECT and approval by the Division of the State Architect (DSA). Agency approvals shall be obtained by the ARCHITECT, not CONTRACTOR.
- C. Beginning of cutting or patching means acceptance of existing conditions.

### 3.02 PREPARATION

- A. Provide temporary support to ensure structural integrity of the work. Provide devices and methods to protect other portions of Project from damage.
- B. Provide protection from elements for areas which may be exposed by uncovering work.
- C. Maintain excavations free of water.

- D. Where the Work requires sandblasting of existing surfaces in order to receive new materials secured by cementitious, adhesive or chemical bond, completely remove existing finishes, stains, oil, grease, bitumen, mastic and adhesives or other substances deleterious to the new bonding and/or fastening of new Work. Utilize wet sand blasting for interior surfaces and for exterior surfaces where necessary to prevent objectionable production of dust.

### 3.03 PERFORMANCE

- A. Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay. Carefully remove existing Work to be salvaged and/or reinstalled. Protect and store for reuse in the Work. Verify compatibility and suitability of existing substrates before starting the Work.
- B. The word “cutting” as used in the Contract Documents includes, but is not limited to, cutting, drilling, chopping, and other similar operations and the word “patching” includes, but is not limited to, patching, rebuilding, reinforcing, repairing, refurbishing, restoring, replacing, or other similar operations.
- C. **Cutting:** Cut existing construction using methods least likely to damage elements retained or adjoining Work. Where possible, review proposed procedures with the original installer; comply with the original installer’s recommendations.
1. In general, where cutting, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  2. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
  3. Cut through concrete and masonry using a cutting machine, such as a carborundum saw or a diamond-core drill. Saw cut reinforcing bars and paint ends with bituminous paint except where bonded into new concrete or masonry.
  4. Comply with requirements of applicable Division 2 Sections where cutting and patching requires excavating, backfill, and/or recompaction.
  5. Woodwork: Cut and or remove to a panel or joint line.
  6. Sheet Metal: Remove back to joint, lap, or connection. Secure loose or unfastened ends or edges and seal watertight.
  7. Glass: Remove cracked, broken, or damaged glass and clean rebates and stops of setting materials.

8. Plaster: Cut back to sound plaster on straight lines, and back bevel edges of remaining plaster. Trim existing lath and prepare for new lath.
9. Gypsum Wallboard: Cut back on straight lines to undamaged surfaces with at least two opposite cut edges centered on supports.
10. Acoustical ceilings: Remove hanger wires and related appurtenances where ceilings are not scheduled to be installed.
11. Tile: Cut back to sound tile and backing on joint lines.
12. Flooring: Completely remove flooring and clean backing of prior adhesive. Carefully remove wood flooring for patching and repairing of existing wood flooring scheduled to remain.

C. **Patching:** Patch with durable seams that are as invisible as possible. Comply with required tolerances.

1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation. Verify conditions of existing substrates prior to executing Work.
2. Restore exposed finishes of patched areas and extend finish restoration into retaining adjoining construction in a manner that will eliminate all evidence of patching and refinishing.
3. Concrete: Maintain cut edges in a moist condition for twenty four (24) hours prior to the placement of new concrete. In lieu of this an epoxy adhesive may be provided. Finish placed concrete to match existing unless noted otherwise. Concrete shall have a compressive strength of 3,000 psi where installed to repair and/or match existing improvements, unless noted otherwise.
4. Metal Fabrications: Items to remain exposed shall have their edges cut and ground smooth and rounded.
5. Sheet Metal: Replace removed or damaged sheet metal items as required for new Work.
6. Glass: Install matching glass and re-seal exterior window assemblies.
7. Lath and Plaster: Install new lath materials to match existing and fasten to supports at 6" centers. Provide a 6" lap where new lath to adjoins existing lath. Fasten new lath as required for new Work. Restore paper backings as required. Apply a bonding agent on cut edges of existing plaster. Apply three coat plaster of the type, thickness, finish, texture, and color to match existing.
8. Gypsum Wallboard: Fasten cut edges of wallboard. Install patches with at least two opposite edges centered on supports and secure at 6" centers. Tape and finish joints and fastener heads. Patching shall be non-apparent when painted or finished.



9. Acoustical Ceilings: Comply with the requirements for new Work specified in related sections of the Contract Documents.
  10. Resilient Flooring: Completely remove flooring and prepare substrate for new material.
  11. Paint: Prepare areas to be painted as specified for painting specific surfaces in the painting and coatings Sections of the Specifications.
- D. Fit work air tight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.
  - E. At penetrations of fire-rated walls, partitions, ceiling or floor construction, completely seal voids with fire-rated devices or material in accordance with Section 07270, to full thickness of the penetrated element.
  - F. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.

### 3.05 SLEEVES AND HANGERS

- A. Provide conduit, outlets, piping sleeves, boxes, inserts or other materials or equipment necessary to be built into work.
- B. In the event delays occur in delivery of sleeves or other materials, arrange to have boxes or other forms set at locations where piping or other material is to pass through or into slabs or other work.
- C. Upon subsequent installation of sleeves or other material, install fill materials to completely seal voids with fire-rated devices or moisture-resistant material, to full thickness of the penetrated element. Necessary expenditures incurred for boxing out or filling shall be without extra cost to the DISTRICT.

### END OF SECTION

## **SECTION 01 77 00**

### **CLOSEOUT PROCEDURES**

#### **PART 1 GENERAL**

##### **1.01 SECTION INCLUDES**

- A. This Section includes administrative and procedural requirements for Contract Closeout, including but not limited to, the following:
  - 1. Completion Procedures
  - 2. Project Record Documents
  - 3. Operation and Maintenance Manuals
  - 4. Orientation and Instruction of DISTRICT'S Personnel
  - 5. Warranties And Guarantees
  - 6. Spare Parts And Materials
  - 7. Final Cleaning
- B. Additional closeout requirements for specific Work activities are included in the appropriate Sections in Divisions 02 through 16.

##### **1.02 RELATED SECTIONS**

- A. Price and Payment Procedures
- B. Submittals
- C. Construction Progress Schedule
- D. Construction Facilities
- E. Temporary Controls
- F. Warranties
- G. Project Record Documents

##### **1.03 COMPLETION PROCEDURES**

- A. Substantial Completion and Partial Occupancy:
  - 1. Conform to Title 24, Part 1, Section 4-336 CCR, Requirements for Verified Reports and Closeout Procedures.
  - 2. In conjunction with the IOR, prepare a list of items to be completed or corrected. List may be developed by areas, when approved by the ARCHITECT.

3. Within a reasonable time after receipt of the list, the ARCHITECT will inspect to determine status of completion.
4. Should the ARCHITECT determine that Work is not substantially complete:
  - a. The ARCHITECT will promptly notify the CONTRACTOR in writing, giving the reasons for his determination.
  - b. CONTRACTOR shall remedy the deficiencies and notify the ARCHITECT when Work is ready for re-inspection.
  - c. The ARCHITECT will re-inspect the Work.
5. When the ARCHITECT concurs that work is substantially complete:
  - a. The ARCHITECT will prepare a "Certificate of Substantial Completion" on AIA Form G704, accompanied by the CONTRACTOR's list of items to be completed or corrected as verified by the ARCHITECT.
  - b. The ARCHITECT will submit the Certificate to the DISTRICT and to the CONTRACTOR for their written acceptance of the responsibilities assigned to them in the Certificate.

B. Final Completion:

1. Verify the Work is complete.
2. Prepare and submit a notice that Work is ready for final inspection and acceptance.
3. Certify that:
  - a. Work has been inspected by all governing agencies and is in compliance with all governing regulations.
  - b. Work has been inspected for compliance with the Contract Documents.
  - c. Work has been completed in accordance with the Contract Documents.
  - d. Equipment and systems have been tested as required and are operational.
  - e. Work is completed and ready for final inspection.
4. The ARCHITECT will make an inspection to verify status of completion.

5. Should the ARCHITECT determine the Work is incomplete or defective:
    - a. The ARCHITECT will promptly notify the CONTRACTOR in writing, listing incomplete or defective work.
    - b. CONTRACTOR shall remedy the deficiencies promptly and notify the ARCHITECT when ready for re-inspection.
  6. When the ARCHITECT determines the Work is acceptable under the Contract Documents, he will request the CONTRACTOR to make closeout submittals.
- C. Submit all closeout documents, including but are not limited to:
1. Project Record Documents.
  2. Operation and Maintenance Manuals (for all items requiring special knowledge for operation or for maintenance, listed in pertinent Sections of these Specifications), and for other items when so approved by the ARCHITECT.
  3. Warranties and Guarantees.
  4. Keys and Keying Schedule.
  5. Spare parts, materials, extra stock to be turned over to the DISTRICT.
  6. Evidence of payment and release of liens, when requested by DISTRICT.
  7. List of subcontractors, service organizations and principal vendors, including names, addresses and telephone numbers, where they may be contacted for emergency service at all times, including nights, weekends and holidays.
- D. Final Payment:

Submit a Final Payment Request, showing all adjustments to the Contract Sum.

#### 1.04 VERIFIED REPORTS

- A. Construction progress of the Work shall be reported to DSA via a duly verified report in accordance with Sections 4-336 and 4-343 of the California Building Standards Administrative Code.

#### 1.05 OPERATION AND MAINTENANCE MANUALS

- A. Prior to Substantial Completion, submit three (3) sets of Operation and Maintenance (O&M) Manuals to the ARCHITECT for DISTRICT's records. Organize O&M data into sets of manageable size. Bind properly indexed data in individual, heavy-duty, 2"-3", 3-ring, durably covered binders, with pocket folders

for folded sheet information. Mark appropriate identification on front and spine of each binder.

1. Emergency instructions
2. Manufacturer's operating and maintenance instructions, including any seasonal adjustments
3. Spare parts list
4. Copies of warranties
5. Wiring diagrams
6. Recommended "turn-around" cycles
7. Inspection procedures
8. Shop Drawings and Product Data
9. Fixture lamping schedule

#### 1.06 ORIENTATION AND INSTRUCTION OF DISTRICT'S PERSONNEL:

- A. Instruct the DISTRICT's personnel in proper operation and maintenance of all systems, equipment and similar items, which were provided as part of the work. Provide maintenance and inspection schedules that conform to manufacturer's recommendations. Provide instruction by manufacturers' representatives if installers are not experienced in operation and maintenance procedures. Include a detailed review of the following items:
  1. Maintenance manuals
  2. Record documents
  3. Spare parts and materials
  4. Tools
  5. Lubricants
  6. Fuels
  7. Identification systems
  8. Control sequences
  9. Hazards
  10. Cleaning
  11. Warranties and bonds
  12. Maintenance agreements and similar continuing commitments
- B. CONTRACTOR shall provide a schedule to the DISTRICT for approval for each of the instruction periods required.
  1. Organize the instruction sessions into group sizes and schedule the elapsed time for instruction in a manner to provide complete coverage of the subject matter. Video tape each session and provide DISTRICT with two (2) copies.

- C. Instruction sessions will be held in a DISTRICT designated area on the project site and at DISTRICT's convenience. Amount of time required for each session shall be as specified in individual sections, but in no case less than the time needed to fully convey the information needed by DISTRICT personnel for operating and maintaining the products.
- D. Instructors shall be qualified by the product manufacturer in the subject matter presented at each session.
  - 1. Submit names of instructors and qualifications to the Architect and DISTRICT for approval, 30 days prior to each scheduled session.
  - 2. Substitution of instructors will not be permitted without prior approval of Architect or DISTRICT.
- E. As part of instruction for operating equipment, demonstrate the following procedures:
  - 1. Start-up
  - 2. Shutdown
  - 3. Emergency operations
  - 4. Noise and vibration adjustments
  - 5. Safety procedures
  - 6. Seasonal adjustments
  - 7. Economy and efficiency adjustments
  - 8. Effective energy utilization measures
- F. Schedule and provide seasonal or periodic training sessions when specified in technical sections of the Specifications.

#### 1.07 WARRANTIES AND GUARANTEES

- A. Manufacturer's warranties and guarantees notwithstanding, warrant entire Work against defects in materials and workmanship for twelve (12) months from date of Substantial Completion. Warranties and guarantees between CONTRACTOR and manufacturers and CONTRACTOR and suppliers shall not affect warranties or guarantees between CONTRACTOR and DISTRICT.
- B. Execute and assemble documents from subcontractors, suppliers and manufacturers.
- C. Submit prior to final Application for Payment.
- D. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within ten (10) days after acceptance, listing date of acceptance as start of warranty period.

#### 1.08 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide products, spare parts, maintenance and extra materials in quantities specified in individual specification Sections.
- B. Deliver to project site location as directed by DISTRICT.

#### 1.09 FINAL CLEANING

- A. Final cleaning is provided by {Cleaning}.
- B. Each CONTRACTOR shall leave his finished work in clean condition, including following as applicable:
  - 1. Remove labels that are not permanent labels.
  - 2. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.
  - 3. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.
  - 4. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.

PART 2 PRODUCTS (Not applicable)

PART 3 EXECUTION (Not Applicable)

**END OF SECTION**

## **SECTION 01 78 36**

### **WARRANTIES AND BONDS**

#### **PART 1 GENERAL**

##### **1.01 SECTION INCLUDES**

- A. Preparation and submittal of warranties and bonds.
- B. Time and schedule of submittals.

##### **1.02 RELATED SECTIONS**

- A. Contract Closeout Procedures.
- B. Product Requirements
- C. Materials and Equipment
- D. Technical Specifications Sections: Warranties required for specific products or Work.

##### **1.03 WARRANTY REQUIREMENTS**

- A. Warranties or bonds shall provide for replacement or reconstruction of failed or defective Work to an acceptable condition complying with the requirements of the Contract Documents. Work shall be restored at no cost to the District regardless of whether the District has benefited from use of the Work for a portion of its anticipated useful service life.
- B. Provide warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item or work.
- C. When a designated portion of the Work is partially used and/or occupied by the DISTRICT, submit properly executed warranties within ten (10) days of the Partial Use or Occupancy of the designated portion of the Work
- D. Verify that documents are in proper form, contain full information and are notarized.
- E. DISTRICT Recourse: Expressed warranties made to DISTRICT are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which DISTRICT can enforce such other duties, obligations, rights, or remedies.



#### 1.04 FORM OF SUBMITTALS

- A. Prepare duplicate binders, commercial quality, 8-1/2 x 11 inch, three-ring side binders with hardback, cleanable, plastic covers.
- B. Label cover and spine of each binder with typed or printed title WARRANTIES AND BONDS, with title of Project. Number separate volumes in order.
- C. Table of Contents: Typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification Section in which specified and the name of the product or work item.
- D. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. Use paper of durable, long-lasting quality. List Subcontractor, supplier, and manufacturer, with name, address and telephone number of responsible principal.

#### 1.05 TIME OF SUBMITTALS

- A. Except for specifically authorized exceptions, the date for beginning the period of warranty shall be the Date of Substantial Completion.
- B. For equipment or component parts of equipment put into service during construction with District's permission, submit documents within ten (10) days after acceptance.
- C. Make other submittals within ten (10) days after Date of Substantial Completion prior to final Application for Payment.
- D. For items of Work when acceptance is delayed beyond Date of Substantial Completion, submit within ten (10) days after acceptance, listing the date of acceptance as the beginning of the warranty period.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

## GUARANTEE

We hereby guarantee that the **Category No.** \_\_\_\_\_, which we have installed for **SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT** at **PROJECT NAME** has been performed in accordance with the requirements of the Contract Documents and that the work as installed will fulfill the requirements of the Contract Documents.

The undersigned agrees to repair or replace any or all of such work that may prove to be defective in workmanship or material together with any other adjacent work which may be displaced in connection with such replacement within a minimum period of **ONE (1) YEAR** (see individual trade specifications for more stringent requirements) from the date of acceptance of the above-mentioned project by **SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT**, ordinary wear and tear and unusual abuse or neglect excepted.

In the event of the undersigned's failure to comply with the above mentioned conditions within a reasonable period of time, as determined by the District, but not later than ten (10) working days after being notified in writing by the District, the undersigned authorizes the District to proceed to have said defects repaired and made good at the expense of the undersigned, who will pay the costs and charges therefore upon demand.

\_\_\_\_\_  
PRIME CONTRACTOR

SIGNED: \_\_\_\_\_

\_\_\_\_\_  
NAME

Representatives to be contacted for service subject to terms of contract:

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE #: \_\_\_\_\_

**CONTRACTOR'S CERTIFICATE  
REGARDING ASBESTOS MATERIAL**

This form is to be submitted at the time final billing is provided.

"I certify that all the materials and supplies installed under this

\_\_\_\_\_  
(Name of Contract)

contract are free of asbestos-containing materials."

\_\_\_\_\_  
Date

\_\_\_\_\_  
Official Name of Contractor

\_\_\_\_\_  
By

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature

**END OF SECTION**

## SECTION 01 78 39

### PROJECT RECORD DOCUMENTS

#### PART 1 GENERAL

##### 1.07 SECTION INCLUDES

- A. This Section includes administrative and procedural requirements for preparing, maintaining, and submitting Project Record Documents.

##### 1.08 RELATED SECTIONS

- A. Price and Payment Procedures
- B. Submittals
- C. Closeout Procedures
- D. Field Engineering

##### 1.09 PROJECT RECORD DOCUMENTS

- A. CONTRACTOR shall prepare and maintain record documents throughout the course of construction, as specified herein.
- B. Provide access to record documents for ARCHITECT, IOR and CM reference during normal working hours.
- C. Do not use project record documents for construction purposes. Protect record documents from deterioration and loss.
- D. Record in concise and neat manner, concurrent with construction progress, and at least on a weekly basis, all actual revisions to the work:
  - 1. Changes made on the Drawings, including Clarification Drawings.
  - 2. Changes made to the Specifications.
  - 3. Changes made by Addenda.
  - 4. Changes made by Instruction Bulletins.
  - 5. Change Orders or other authorized Modifications to the Contract.
  - 6. Revisions made to shop drawings, product data and samples.
- E. Record Drawings shall be a clean, undamaged set of black-line white prints of Drawings and Shop Drawings. Mark the set with red erasable pencil to show the actual installation where the installation varies substantially from the Work as originally shown. Indicate which Drawing is most capable of showing conditions fully and accurately. Where Shop Drawings are used, record a cross-reference at the corresponding location on the Drawings. Provide detailed and accurate

field dimensions for concealed elements that would be difficult to measure and record at a later date.

1. Mark new information, including details, that is important to DISTRICT but was not shown on Drawings or Shop Drawings.
  2. Show measured depths of foundations in relation to finish first floor datum.
  3. Show measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements. Identify drains and sewers by invert elevation.
  4. Verify surveyor's Record Drawings with CONTRACTOR'S utilities locations and depths markups.
  5. Show measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work. Identify ducts, dampers, valves, access doors and control equipment wiring.
  6. Show field changes of dimension and detail.
  7. Note related Change Order or Construction Directive numbers on each affected sheet.
  8. Organize Record Drawing sheets into manageable sets. Bind sets with durable-paper cover sheets; print suitable titles, dates, and other identification on the cover of each set.
- F. Record Specifications: Maintain a complete copy of the Specifications, including Addenda, Change Orders and Construction Directives issued during construction. Legibly mark at each Section description of actual products installed if different from that specified, including:
1. Manufacturer's name, trade name, product model and number and supplier.
  2. Authorized product substitutions or alternates utilized.
  3. Changes made by Addenda and Modifications.
- G. Record Product Data: Maintain a copy of each Product Data submittal. Note related Change Orders and Construction Directives and mark-up of record drawings and Specifications.
1. Mark these documents to illustrate significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the Project site and from the manufacturer's installation instructions and recommendations.

2. Provide detailed and accurate information regarding concealed products and portions of Work that cannot otherwise be readily discerned later by direct observation.
- 
- H. Record Samples: Immediately prior to Substantial Completion, CONTRACTOR shall meet with ARCHITECT and DISTRICT at the Project site to determine which Samples are to be transmitted to DISTRICT for record purposes. Comply with DISTRICT instructions regarding delivery to DISTRICT storage area.
  - I. Miscellaneous Records: Refer to other Specification sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the Work. Immediately prior to the date of Final Completion, complete and compile miscellaneous records and place in good order. Identify miscellaneous records properly and bind or file, ready for continued use and reference. Submit to ARCHITECT for DISTRICT records.

PART 2 PRODUCTS (Not applicable)

PART 3 EXECUTION (Not Applicable)

## **END OF SECTION**

Label	Question	Answer
ProjName	Project Name	F17-06 Athletic Complex Upgrades at Cajon HS
Date	Date	February 7, 2017
Scope	Scope of Work	<p>A. Work under this Contract includes furnishing all labor, materials, services and transportation which is required for completion of the Project in accordance with the Contract Documents.</p> <p>The new shall house 200 to 250 students, from 2<sup>nd</sup> grade through 12<sup>th</sup> grade. Classrooms for the ? shall be designed to accommodate and separate these different grade levels, accordingly. The ? shall include one (1) secondary science lab, an appropriate path of travel, adequate parking, etc. Primary students will need to be isolated from Secondary student by physical barriers, as necessary. The school administration area shall be also housed within modular building complex and include some private offices, separate restrooms for staff and/or students, as possible. Food service will utilize the existing commercial kitchen in the North Norton Park building and optional lunch shelter should be proposed. Play fields and existing structures may need to be upgraded for each age group and shall be limited to the area between the North Norton Park and CID building.</p> <p>District has an inventory of DSA-approved, pre-checked (PC) modular buildings located throughout many campuses. An informal site study shows that 16 of these District-owned modular buildings may accommodate the intended program.</p> <p>The portion of work that includes 16 modular buildings may require DSA plan review and approval; however, other regulations may apply for this or other portions of the site; such as campus accessibility (path of travel), fire alarm, fire truck access, etc.</p>
DSADefer	SECTION 01 33 00 - DSA Deferred Approvals	
Surveyor	SECTION 01 71 23 - Field Engineering – Surveyor Requirement	CONTRACTOR shall employ a State of California licensed surveyor to lay out the entire Work, set grades, lines, levels, control points, vertical and horizontal control, elevations, grids and positions.
SurvLayout	SECTION 01 71 23 - Field Engineering – Surveyor - Layout of the Work	Before the commencement of Work, surveyor shall, in conjunction with the DISTRICT-provided engineering survey of the Project site, locate all reference points and benchmarks, then lay out all lines, elevations, and measurements for the entire Work, including but not limited to, buildings, grading, paving and utilities.
Cleaning	SECTION 01 77 00 – Closeout Procedures - Final cleaning is provided by:	CM