

# DIVISION 01 – TABLE OF CONTENTS

## DIVISION 01 - GENERAL REQUIREMENTS

- 01 1100 Summary of the Work
- 01 1216 Phase of the Work
- 01 2100 Allowances
- 01 2513 Product Substitution Procedures
- 01 2613 Request for Information
- 01 2973 Schedule of Values
- 01 2976 Progress Payment Procedures
- 01 3113 Project Coordination
- 01 3216 Construction Schedule
- 01 3300 Submittal Procedures
- 01 4523 Testing and Inspection
- 01 4525 Testing, Adjusting, Balancing
- 01 6000 Product Requirements
- 01 7329 Cutting and Patching
- 01 7700 Contract Closeout
- 01 7836 Warranties

END OF DIVISION 01 TABLE OF CONTENTS

SECTION 01 1100  
SUMMARY OF WORK

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. The furnishing of all labor, materials, equipment, services, and incidentals necessary for Work of **Bid No. 2022-23(B7) Furnish and Install Thirteen HVAC Units at El Monte High School** located at **3048 Tyler Ave., El Monte, California, 91731**, as set forth in the Construction Documents which include, but are not limited to, the Drawings, Addenda and Specifications.

1.02 RELATED REQUIREMENTS:

1. Section 01 1216: Phasing of the Work.
2. Section 01 3113: Project Coordination.
3. Section 01 3216: Construction Schedule.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION

3.01 USE OF PREMISES

- A. CONTRACTOR shall coordinate Work of all trades, Subcontractors, utility service providers, with OWNER and/or Separate Work Contract. CONTRACTOR shall sequence, coordinate, and perform the Work to impose minimum hardship on the operation and use of the existing facilities and/or Project site. CONTRACTOR shall install all necessary protection for existing improvements, Project site, property, and new Work against dust, dirt, weather, damage, vandalism, and maintain and relocate all protection to accommodate progression of the Work.
- B. CONTRACTOR shall confine entrance to and exiting from the Project site and/or facilities to routes designated by the OWNER.
- C. Within existing facilities, OWNER will remove portable equipment, furniture, and supplies from Work areas prior to the start of Work.

- D. CONTRACTOR is advised school may be in session during performance of the Work. CONTRACTOR shall utilize all available means to prevent generation of unnecessary noise and maintain noise levels to a minimum. When required by the OWNER, CONTRACTOR shall immediately discontinue noise-generating activities and/or provide alternative methods to minimize noise generation. CONTRACTOR shall install and maintain air compressors, tractors, cranes, hoists, vehicles, and other internal combustion engine equipment with mufflers, including unloading cycle of compressors. CONTRACTOR shall discontinue operation of equipment producing objectionable noise as required by the OWNER.
  - E. CONTRACTOR shall furnish, install, and maintain adequate supports, shoring, and bracing to preserve structural integrity and prevent collapse of existing improvements and/or Work modified and/or altered as part of the Work.
  - F. CONTRACTOR shall secure building entrances, exits, and Work areas with locking devices as required by the OWNER.
  - G. CONTRACTOR shall not use or allow anyone other than OWNER employees to use facility telephones and/or other equipment, except in an emergency. CONTRACTOR shall reimburse OWNER for telephone toll charges originating from the facility except those arising from emergencies or use by OWNER employees.
  - H. CONTRACTOR shall protect all surfaces, coverings, materials, and finished Work from damage. Mobile equipment shall be provided with pneumatic tires.
  - J. CONTRACTOR is advised OWNER will award Separate Work Contracts at this Project site.
  - K. CONTRACTOR shall not permit the use of portable and/or fixed radio's or other types of sound producing devices including walkmans and similar devices.
- 3.02 FURNITURE, FIXTURES AND EQUIPMENT (MATERIALS) OWNER FURNISHED CONTRACTOR INSTALLED (OFCI)
- 3.04 FURNITURE, FIXTURES AND EQUIPMENT (Materials) - OWNER Furnished, OWNER Installed (OFOI)

END OF SECTION

SECTION 01 1216  
PHASING OF THE WORK

PART 1 - GENERAL

1.01 SECTION INCLUDES

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

1.02 RELATED REQUIREMENTS

- A. Section 01 1100: Summary of Work.
- B. Section 01 1219: Phasing of Work
- C. Section 01 3300: Submittal Procedures.
- D. Section 01 3113: Project Coordination.
- E. Section 01 3213: Construction Schedule.
- G. Section 01 7700: Contract Closeout.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION

3.01 SUBMITTALS

- A. CONTRACTOR shall submit a Project site logistics plans in accordance with and as required by this Section.

3.02 LOGISTICS

- A. Prior to commencement of Work, CONTRACTOR shall prepare and submit to the OWNER, a detailed Project site logistic plan, in same size and scale of Drawings, setting forth CONTRACTOR plan of Work relative to following, but not limited to, items:

- 1 Hauling route shall be in accordance with local ordinances a truck access route to and from Project site.

2. The identification of any overhead wire restrictions for power, street lighting, signal 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 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 or accessible fire protection.
  12. Trash removal and location of dumpsters.
  13. Crane locations.
  14. Location of portable sanitary facilities.
  15. Traffic control signage.
  16. Perimeter and site lighting.
  17. Stockpile or lay down areas.
  18. Security lighting
- B. Revised Project site logistic plan may be required by the District for separately identified phases of Work as set forth in this Section.
- C. CONTRACTOR is responsible for securing and/or obtaining all approvals and permits from authorities having jurisdiction relative to any activities set forth in Article 3.02.A.

### 3.03 PHASING OF THE WORK

- A. Project will be constructed in separate Milestone increments, as identified or as described in this Section or Contract Documents. Phasing will also delineate Work to be completed in each designated phase. Unless otherwise approved or directed by OWNER, each phase shall be completed according to approved

Baseline Schedule prior to commencement of next subsequent phase. CONTRACTOR shall incorporate and coordinate Work of Separate Work Contracts relative to this Project into the Phasing and Construction Schedule.

- B. CONTRACTOR shall install all necessary Work for, but not limited to, power, lighting, signal, HVAC, drainage, and plumbing systems in phased Work before completion of designated phase. All valves, pull boxes, stub outs, temporary 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 Contract Documents.

3.04 PHASING OF THE WORK – GENERAL

- A. CONTRACTOR shall prepare Construction Schedule in order to complete Work and related activities in accordance with phasing plan. CONTRACTOR shall include all costs to complete all Work within Milestones or Contract Time.
- B. OWNER will be seriously damaged by not having all Work completed within Milestones or Contract Time. It is mandatory Work be complete within Milestones or Contract Time.

3.05 PHASING OF THE WORK – SPECIFIC

- A. CONTRACTOR shall prepare Construction Schedule, and shall complete the following, but not limited to Milestones, as shown in Section 01 3216 and within designated phases in accordance with following:
  - 1. Phase 1 Mobilization – (# of days) calendar days: Milestones 1-4.
  - 2. Phase 2 Construction – (# of days) calendar days: Milestones 5-28.
  - 3. Phase 3 Administrative Closeout – (# of days) calendar days: Milestone 29.
- B. The Contract Time shall be a total of **One Hundred Sixty-Nine (169)** calendar days from date of commencement of Contract Time.

END OF SECTION

## SECTION 01 2513

### PRODUCT SUBSTITUTION PROCEDURES

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES

- A. This Section includes administrative and procedural requirements for handling requests for substitutions submitted 30 days after the Notice of Award and pursuant to Paragraphs 3.10.3 or 3.10.5 of the General Conditions.
- B. This Section *does not* include requirements for requests for substitutions submitted at the time of Bid and pursuant to Article 19 of the Instructions to Bidders.

##### 1.02 RELATED REQUIREMENTS

- A. Section 01 3300: Submittal Procedures.
- B. Section 01 7700: Contract Closeout.

#### PART 2 - PRODUCTS (Not used)

#### PART 3 - EXECUTION

##### 3.01 APPLICATION

- A. CONTRACTOR proposed changes in products or materials required by the Contract Documents 30 days or more after the Notice of Award are considered to be requests for substitutions. OWNER will consider requests for substitution if a product is no longer manufactured or the OWNER, after a diligent search has verified that product or material is not available to CONTRACTOR. The following are not considered to be valid requests for substitutions:
  - 1. Revisions to the Contract Documents requested by OWNER.
  - 2. Specified options of products included in the Contract Documents.

##### 3.02 SUBMITTALS

- A. Transmit submittals as described in related Sections for each request for substitution.
1. Identify the product to be replaced in each request. Include related Specification Section and Drawing number.
  2. Provide complete documentation denoting compliance with the requirements for substitutions, and the following information, as appropriate.
    - a. A detailed comparison of significant qualities of the proposed substitution with those specified in the Contract Documents. Significant qualities may include elements, such as performance, weight, size, durability, and visual effect.
    - b. Product Data, including Drawings, descriptions of products, fabrication, and installation procedures.
    - c. Samples, where applicable or requested.
    - d. CONTRACTOR certification the proposed substitution conforms to requirements of the Contract Documents in every respect and is appropriate for the applications indicated.
    - e. CONTRACTOR waiver of rights to an increase in the Contract Amount, Milestones and/or Contract Time that may subsequently become necessary because of the failure of the substitution to adequately perform.
  3. If required, OWNER will request additional information or documentation for evaluation. OWNER will notify CONTRACTOR of acceptance or rejection of the substitution.
  4. OWNER will review the request for substitution
  5. Where a proposed substitution involves and/or affects more than one Subcontractor, CONTRACTOR shall ensure each Subcontractor cooperates with the other Subcontractor involved to coordinate the Work, provide uniformity and consistency, and assure compatibility of all products.
  6. CONTRACTOR submittal and OWNER review of Shop Drawings, Product Data, material lists or Samples do not constitute an acceptable or valid request for substitution.

END OF SECTION



SECTION 01 2613

REQUEST FOR INFORMATION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Procedure for requesting clarification of the intent of the Contract Documents.

1.02 RELATED REQUIREMENTS

- A. Section 01 1100: Summary of Work.
- B. Section 01 3113: Project Coordination.
- C. Section 01 3216: Construction Schedule.
- D. Section 01 7700: Contract Closeout.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION

3.01 PROCEDURE

- A. CONTRACTOR shall utilize the DISTRICT physical documents: RFI's, Submittals, and Change Orders etc.
- B. OWNER response is a clarification of the intent of the Contract Documents and does not authorize changes in the Contract Amount, Milestones and/or Contract Time.
- C. A Request for information may be returned with a stamp or notation "Not Reviewed," if:
  - 1. The requested clarification is ambiguous or unclear.
  - 2. The requested clarification is equally available to the requesting party by researching and/or examining the Contract Documents.
  - 3. CONTRACTOR has not reviewed the Request for information prior to submittal.
- D. Allow a minimum of nine days for review and response time, after receipt by OWNER. CONTRACTOR shall verify and is responsible in verifying OWNER receipt of a Request for information.

- E. Changes or alterations to the approved drawings or specifications shall be made by means of addenda or change orders as per section 4-338 of the California Building Standards Commission's, California Administrative Code.

END OF SECTION

SECTION 01 2973  
SCHEDULE OF VALUES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Procedure for submission of a certified Schedule of Values for review and approval by the OWNER.

1.02 RELATED REQUIREMENTS

- A. Section 01 2976: Progress Payment Procedures.
- B. Section 01 3113: Project Coordination.
- C. Section 01 3216: Construction Schedule.
- D. Section 01 3300: Submittal Procedures.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION

3.01 PREPARATION

- A. Upon receipt of the Notice of Intent to Award, CONTRACTOR shall commence preparation of a Schedule of Values.
- B. CONTRACTOR shall coordinate the preparation of a Schedule of Values with preparation of the Construction Schedule as set forth in Section 01 3216. The corresponding values from the specification division totals on cost loaded schedule shall match with the approved Schedule of Values.
- C. Include the following Project identification on a certified Schedule of Values:
  - 1. Project name and location.
  - 2. Project Number.
  - 3. Contract #.
  - 4. CONTRACTOR name.

5. Date of Submittal.
- D. The Schedule of Values shall be in tabular form with separate columns and shall include the following items:
1. Related Specification Section and Division.
  2. Description of Work.
  3. Name of Subcontractor, manufacturer or supplier.
  4. Dollar value, quantity and unit of measure of each line item.
  5. Percentage of Contract amount to nearest one-hundredth percent, adjusted to total 100 percent.
- E. Round amounts to the nearest whole dollar; the total shall equal the Contract Amount.
- F. Provide a breakdown of the Contract Amount in enough detail acceptable to OWNER to facilitate continued evaluation of Application for Payment and progress reports.. Provide line items for subcontract amounts, where appropriate.
- G. Provide separate line items for items in the Schedule of Values for total installed value of that part of the Work.
- H. Provide separate line item for labor and material when required by the OWNER.
- I. Provide separate line items for CONTRACTOR's Management/Supervisory Staff, Liability Insurance, Bond Cost and Fee/Margin.
- J. Temporary facilities and other cost items that are not direct cost of actual work-in-place shall be shown as separate line items.
- K. An approved certified Schedule of Values shall serve as the basis for the monthly certified Application for Payment.
- L. If at any time, OWNER determines, in its reasonable discretion, that the schedule of Values does not approximate the actual cost being incurred by CONTRACTOR to perform the Work, CONTRACTOR shall prepare, for OWNER approval, a revised Schedule of Values, which then shall be used as the basis for future progress payments. Without changing the Contract Amount, OWNER reserves the right to require CONTRACTOR:
1. To increase or decrease amounts within the line items in the Schedule of Values; and,
  2. To conform the price breakdown to OWNER accounting practice.

3.02 SUBMITTAL

- A. CONTRACTOR shall submit five certified copies of a Schedule of Values for review and approval by the OWNER at least 14 days before the first Application for Payment.
- B. OWNER will review and if necessary, return the submitted Schedule of Values with summary comments noting items not in compliance with the requirements of the Contract Documents. CONTRACTOR shall revise the submitted Schedule of Values and return five copies within three days of receipt of summary comments.
- C. Signature by OWNER shall constitute acceptance of the submitted Schedule of Values.
- D. An approved copy of the Schedule of Values by OWNER will be transmitted to CONTRACTOR, and Inspector.

END OF SECTION

## SECTION 01 2976

### PROGRESS PAYMENT PROCEDURES

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES:

- A. This Section specifies administrative and procedural requirements for a certified Application for Payment.
  - 1. Coordinate the certified Schedule of Values and certified Application for Payment with, but not limited to, the Construction Schedule, submittal log, and list of Subcontractors.

##### 1.02 RELATED REQUIREMENTS:

- A. Section 01 2100: Allowances.
- B. Section 01 2973: Schedule of Values.
- C. Section 01 3216: Construction Schedule.
- D. Section 01 7700: Contract Closeout.

#### PART 2 - PRODUCTS (Not used)

#### PART 3 - EXECUTION

##### 3.01 APPLICATION FOR PAYMENT

- A. Each certified Application for Payment shall be consistent with previous applications and payments as reviewed and paid for by OWNER, and:
  - 1. The initial Application for Payment and Final Application for Payment at time of Substantial Completion involve additional requirements.
- B. Payment Application Times: The period of Work covered by each Application for Payment is payment date for each progress payment as specified in the General Conditions. The period covered by each Application for Payment is previous month.
- C. Payment Application Forms: Use OWNER provided forms for the Application for Payment.

- D. Application Preparation: Complete every entry on the form. Include execution by a person authorized to sign legal documents on behalf of CONTRACTOR. OWNER will return incomplete applications without action.
- E. Transmittal: Submit a minimum of four signed and original copies of each certified Application for Payment to OWNER. All copies shall be complete, including releases and similar attachments.
  - 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information related to the application, in a manner acceptable to OWNER.
- F. Initial Application for Payment within 60 days of issuance of Notice to Proceed: Administrative actions and submittals, that must precede or coincide with submittal for first certified Application for Payment include, but are not limited to, the following:
  - 1. Certified Schedule of Values.
  - 2. Performance and payment bonds.
  - 3. List of principal suppliers and fabricators.
  - 4. Worker Compensation certificates, if applicable.
  - 5. Auto Insurance, if applicable.
  - 6. Hazardous Material Insurance Certificates, if applicable.
  - 7. Construction Schedule.
  - 8. Submittal Schedule.
  - 9. Emergency Contact List.
  - 10. Copies of authorizations and licenses from governing authorities for performance of Work.
  - 11. Certified Payroll (Submitted directly to Labor Compliance in electronic format as specified by OWNER including hard copy).
  - 12. Storm Water Pollution Prevention Plan (SWPPP).
  - 13. CEQA Mitigations.
- G. Applications for Payment: Administrative actions and submittals that must precede or coincide with submittal of Progress Applications for Payment include, but are not limited to, the following:

1. Certified Payroll (submitted directly to Labor Compliance in electronic format as specified by OWNER including hard copy).
  2. Updated and current Project Record Drawings (as-built).
  3. Monthly Construction Schedule (updated, submitted and approved).
  4. Approved Schedule of Values.
  5. List of Subcontractors (Payments Summary).
  6. Storm Water Pollution Prevention (SWPP) – Site Monitoring Report.
  7. Certification of Compliance with CEQA Mitigations.
- H. Final Application for Payment at Substantial Completion: Following OWNER issuance of certificate of Substantial Completion, submit an Application for Payment:
1. Administrative actions, submittals and/or Work that shall precede or coincide with this application include:
    - a. Occupancy permits and similar approvals by authorities having legal jurisdiction over Work.
    - b. Removal of temporary facilities and services.
    - c. Testing, adjusting and balance records.
    - d. Removal of surplus materials, rubbish, and similar elements.
    - e. Meter readings.
    - f. Start-up performance reports.
    - g. OWNER training and orientations.
    - h. Operating and maintenance instruction manuals.
    - i. Preliminary Warranties, guarantees and maintenance agreements.
    - j. Delivery of extra materials, products and or stock.
    - k. Change over information related to OWNER occupancy, use, operation, and maintenance.
    - l. Final cleaning.



- m. Ensure that Work is completed.
- n. Advise on shifting insurance coverage.
- o. List of defective Work, recognized as exceptions to certificate of Substantial Completion.
- p. Change of door locks, including keys, to OWNER system.
- q. Certified Payroll (submitted directly to Labor Compliance in electronic format as specified by the OWNER including hard copy).
- r. Storm Water Pollution Prevention – Site Monitoring Reports, SWPP revisions, compliance certifications, and Notice of Termination (NOT) (see Section 01 7416, if applicable).
- s. CEQA Mitigations.
- t. Waivers and releases for CONTRACTOR.

END OF SECTION

## SECTION 01 3113

### PROJECT COORDINATION

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES

- A. This Section specifies administrative and procedural requirements necessary for coordinating Work operations including, but not limited to, the following:
  - 1. General coordination procedures.
  - 2. Coordination drawings.

##### 1.02. RELATED REQUIREMENTS

- A. Section 01 3216: Construction Schedule.
- B. Section 01 3300: Submittal Procedures.
- C. Section 01 7700: Contract Closeout.

#### PART 2 - PRODUCTS (Not used)

#### PART 3 - EXECUTION

##### 3.01 COORDINATION

- A. CONTRACTOR shall coordinate operations included in various sections of Contract Documents to assure efficient and orderly installation of each part of Work. Coordinate Work operations included under related sections of Contract Documents that depend on each other for proper installation, connection, and operation of Work, including but not limited to:
  - 1. Schedule construction operations in sequence required where installation of one part of Work depends on installation of other components, before or after its own installation.
  - 2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
  - 3. Provide provisions to accommodate items scheduled for later installation.

4. Prepare and administer provisions for coordination drawings.
- B. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required in notices, reports, attendance at meetings, and:
1. Prepare similar memoranda for OWNER and Separate Work Contract where coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of Work. Such administrative activities include, but are not limited to, following:
1. Preparation of schedules.
  2. Installation, relocation, and removal of temporary facilities.
  3. Delivery and processing of submittals.
  4. Progress meetings.
  5. Project closeout activities.
- D. Conservation: Coordinate Work operations to assure operations are carried out with consideration given to conservation of energy, water, materials, and:
1. Salvage materials and equipment involved in performance of, but not actually incorporated into Work.

### 3.02 SUBMITTALS

- A. Coordination Drawings: CONTRACTOR shall prepare coordination drawings to coordinate the installation of products and materials fabricated, furnished and installed by separate entities, under different parts of the Contract. CONTRACTOR shall notify OWNER of all major conflicts in writing in a timely manner so that the design team can respond without construction delays. Coordination drawings shall address the following at a minimum:
1. Limitations in available space for installation or service. CONTRACTOR shall overlay plans of each trade and verify space requirements and conflicts between trades. Minor changes and adjustments that do not affect design intent shall be made by CONTRACTOR and shall be highlighted for OWNER'S review.
  2. Incompatibility between items provided under different trades

3. Inconsistencies between drawings, specifications and codes (between trades and within each trade).
4. Additional items required for existing facilities construction projects shall be designed and prepared from available as-built drawings that are verified through non-invasive and non-destructive, visual observation only. CONTRACTOR shall field verify actual existing conditions during and upon completion of demolition work and incorporate findings into preparation of co-ordination drawings. Minor changes and adjustments that do not affect design intent shall be made by Sub-Contractor and shall be highlighted for OWNER'S reviews.
5. CONTRACTOR will be responsible for the overall coordination review. As each coordination drawing is completed, CONTRACTOR will meet with OWNER to review and resolve all conflicts on coordination drawings.
6. Coordination meetings will be held in Project field office of CONTRACTOR. CONTRACTOR is required to distribute Shop Drawings, cut sheets and submittals to Subcontractors where appropriate. Reviewed coordination drawings will be maintained in Project field office of CONTRACTOR. Meeting minutes shall be developed by CONTRACTOR and submitted to OWNER within 5 days.

END OF SECTION

SECTION 01 3216

CONSTRUCTION SCHEDULE  
(SMALL PROJECT/SHORT DURATION)

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Required procedures for the development of the Baseline Construction Schedule, Monthly Schedule Update, Four-Week Rolling Schedule, Recovery Schedules, Fragnets and Time Extension requests.

1.02 RELATED REQUIREMENTS

- A. Section 01 1100: Summary of Work.
- B. Section 01 2973: Schedule of Values.
- C. Section 01 3300: Submittal Procedures.
- D. Section 01 7700: Contract Closeout.

1.03 SCHEDULER QUALIFICATIONS

- A. CONTRACTOR shall have a scheduler with a minimum of 5 years direct experience in the development and maintenance of schedules.
- B. CONTRACTOR shall submit the resume of the construction scheduler to OWNER for review and approval.

1.04 SCHEDULING SOFTWARE

- A. CONTRACTOR shall utilize a computer generated schedule software program that will employ the Critical Path Method (CPM) in the development and maintenance of the construction schedule.
- B. All schedule calculation rules, auto cost rules and resource calculation rules shall be in a format acceptable to OWNER. When schedule calculations are performed, the "Retained Logic" setting shall be used. CONTRACTOR shall use the zero "Decimal Places" setting. Finish Milestones shall be constrained with either a "finish on or before" date or a "late finish" type constraint. No "Mandatory Finish" type constraints, no "Zero Free Float" constraints, no special hidden lag time between activities or other "float Suppression" techniques will be permitted. A schedule extending beyond Contract time or less than Contract time will not be

acceptable. Rather, CONTRACTOR shall show any unused contract time as float (slack time) available to the project.

#### 1.05 PRE-CONSTRUCTION SCHEDULING CONFERENCE

- A. CONTRACTOR and CONTRACTOR Scheduler shall attend a pre-construction scheduling conference with OWNER within 5 days after Notice of Award. CONTRACTOR Scheduler shall develop a construction schedule in accordance with this Specification Section. Scheduler shall cooperate with OWNER and shall be available on site for monitoring, maintaining and updating schedules in a timely manner.

#### 1.06 SUBMITTALS

- A. Within ten calendar days after the effective date of the Notice to Proceed, CONTRACTOR shall submit to OWNER for review, a detailed Baseline Construction Schedule setting forth all requirements for complete execution of the Work. Include individual activities for the preparation of specific submittals, activities for OWNER review periods, activities for the procurement / fabrication period, installation activities, any applicable start-up & testing activities, and all contract milestones. With the exception of submittals and fabrication /procurement activities, each work activity shall range in duration from 1 workday minimum to a 10 workday maximum. The Scheduling system shall indicate all inter-relationships (logic ties) between the activities and shall be logically tied to all relevant milestones, per CONTRACTOR's baseline schedule and approved by the OWNER. CONTRACTOR shall cost load the activities with a "budgeted cost" that totals up to the Contract award value. The format shall be coordinated with Specification Section 01 2973 (Schedule of Values) and Specification Section 01 2976 (Progress Payment Procedures).
- B. CONTRACTOR shall submit a color bar chart of all activities organized by Area (Location) and sorted by early start date in a graphically "left to right" manner. In addition, submit a Critical Path (Longest Path) color bar chart filter. Include the following column headings on the left hand side of both bar chart reports: activity ID, activity description, original duration, remaining duration, percent complete, start date, finish date, total float (slack time), and budgeted cost. CONTRACTOR shall also include an electronic copy of the Schedule in Procure, on a flash drive and/or drop box link in an acceptable format to the OWNER.
- C. Include a written schedule narrative sufficiently comprehensive to explain the basis of the CONTRACTOR'S approach to work. The written schedule narrative should include a paragraph of the project's Critical Path, the anticipated crew sizes (by trade), any planned equipment needed, a discussion on any long lead procurement/fabrication items, and any site logistic challenges.

- D. Seven calendar days after receipt of the OWNER'S review comments, CONTRACTOR shall revise & re-submit the Construction Schedule acceptable to OWNER. Once the Baseline Construction Schedule is approved, no changes will be allowed unless authorized by the OWNER.
- E. Failure of CONTRACTOR to submit a Construction Schedule in full compliance with the Contract Documents will result in a delay in progress payment processing. The Construction Schedule is to be used in evaluating progress and for monthly payment approval.
- F. Subsequently with each Monthly Progress Payment Request, CONTRACTOR shall deliver to OWNER a Monthly Schedule Update reflecting Work progressed to the end of the Progress Payment Request period (set as the last day of the month). Each such Monthly Schedule Update shall indicate actual progress to date in execution of the Work, together with a projected schedule for completion of all the remaining Work. CONTRACTOR shall copy & re-name the schedule file each month, status the activities with actual start and/or finish dates, adjust remaining durations, add re-submittals (if applicable), calculate the schedule with a "data date" to the end of the pay period, and submit the required reports outlined in Article 1.06 to OWNER. Each Monthly Schedule Update shall be submitted con-currently with the Monthly Pay Application no later than the fifth day of the succeeding month in accordance with the General Conditions. In updating the Schedule, CONTRACTOR shall not modify Activity ID numbers, activity descriptions, original durations, logic, schedule calculation rules/criteria, or the Activity Coding unless authorized by the OWNER.
- G. All Schedule submittals are subject to review and acceptance by OWNER. OWNER retains the right to withhold progress payments in whole (or in part) until CONTRACTOR submits a Construction Schedule acceptable to OWNER.

#### 1.07 FOUR-WEEK ROLLING SCHEDULE

- A. At each Weekly Progress Meeting, CONTRACTOR shall present a Four-Week Rolling Schedule in Bar Chart format. It shall show one (1) week of actual and three (3) weeks of forecasted progress. The Four-Week Rolling Schedule shall be used as a basis for discussing progress and work planned during the three (3) weeks.
  - 1. The Four-Week Rolling Schedule shall be based on the most recent OWNER Accepted Monthly Schedule Update. It shall include weekly updates to all construction, submittal, fabrication and procurement, and separate work contract activities. CONTRACTOR shall ensure that it accurately reflects the current progress of the Work.
  - 2. CONTRACTOR shall discuss at the Weekly Progress meeting the actual dates and any variances to critical or near critical activities.

3. Upon request by OWNER, CONTRACTOR shall provide the Four-Week Rolling Schedule in electronic format.
4. If the Four-Week Rolling Schedule indicates activities are behind schedule, CONTRACTOR shall provide a Recovery Schedule in accordance with Article 1.08 below.
5. If the CONTRACTOR chooses to provide a Four-Week Rolling Schedule in a greater level of detail (by trade/subcontractor) outside of the monthly schedule database, then upon CONTRACTOR REQUEST and OWNER written approval, the CONTRACTOR may proceed as long as the detailed activities roll-up to the contractual monthly schedule updates. These detailed activities will need to be linked to the overall Substantial Completion date as to properly forecast whether the project is ahead or behind schedule during the weekly Progress Meetings. The Four-Week Rolling Schedule must accurately reflect the work that is going on during the current week and must accurately reflect what will happen in the next three weeks.

#### 1.08 RECOVERY SCHEDULES

- A. If a Monthly Schedule Update indicates negative float greater than ten (10) days on a critical path as result of events within CONTRACTOR'S control, CONTRACTOR shall prepare a Proposed Recovery Schedule demonstrating CONTRACTOR'S plan to regain the time lost. The Recovery Schedule shall be submitted either in advance of or concurrent with the Monthly Schedule Update and CONTRACTOR progress request. Both the Monthly Schedule Update and the Proposed Recovery Schedule shall be based on the same percentages of completion and actual dates accepted by OWNER under Article 1.06.
- B. The Proposed Recovery Schedule shall be based on a copy of the Monthly Schedule Update for the calendar month during which the negative float first appears.
- C. The Proposed Recovery Schedule shall include a written narrative that identifies the causes of the negative float on the critical path and provides CONTRACTOR'S proposed corrective action to ensure timely completion of all Milestones and the Substantial Completion Date. CONTRACTOR'S corrective actions shall include but are not limited to increasing concurrent operations, increasing labor, adding multiple shifts in a 24-hour period, and adding overtime.
- D. During any period of time when CONTRACTOR is found to be behind schedule by OWNER, the Monthly Schedule Update described above shall become a weekly requirement (at no additional cost to OWNER) to provide a greater degree of focus on the timely completion of the Work. These Updates shall be submitted to OWNER every Monday morning. When CONTRACTOR is deemed by



OWNER to be back on schedule, CONTRACTOR may revert to submitting the schedule monthly.

- E. CONTRACTOR'S progress payment may not be processed until OWNER accepts the Proposed Recovery Schedule. Following such an acceptance, the Proposed Recovery Schedule will be known as the Recovery Schedule and future Work will be performed by CONTRACTOR in accordance with it.

#### 1.09 FRAGNETS AND TIME EXTENSION REQUESTS

- A. Float is not for exclusive use or benefit of either OWNER or CONTRACTOR but is an expiring resource available to both parties on a non-discriminatory basis. If required to meet specified Milestones, either party may utilize float. Adjustments to Milestones or Contract Time will only be authorized by Change Order and only to the extent the claimed adjustments exceed total float along the most critical path of the current Monthly Schedule Update in effect at the time of the claimed adjustments. The claimed adjustments to the Milestones and/or Contract Time must also cause the Substantial Completion Date to exceed that currently indicated in the Monthly Schedule Update. No time extensions will be granted nor delay damages paid under contract until all available float is used and the CONTRACTOR obtains a Time Extension Request approval from the OWNER in accordance with Article 1.12 in its entirety. CONTRACTOR claimed adjustments to an existing negative float path will not receive consideration until the activity with the highest negative float is driven even further negative.
  - 1. Claimed adjustments to the Milestones or Contract Time will be administered in conjunction with those set forth in the General Conditions.
- B. Pursuant to the float sharing requirements of this Section, the use of float suppression techniques such as preferential sequencing or logic, special lead or lag logic restraints, and extended activity times or durations are prohibited. The use of float time disclosed or implied by the use of alternate float suppression techniques shall be proportionally shared to benefit OWNER and CONTRACTOR. The use of any technique solely for the purpose of suppressing float will result in OWNER rejection of the submitted Monthly Schedule Update.
- C. In the event CONTRACTOR believes the Project has suffered an adverse impact arising from events outside the CONTRACTOR'S control, CONTRACTOR may prepare a Time Extension Request by submitting a Schedule Fragnet and a written narrative outlining the detail of the impact. A Schedule Fragnet must demonstrate a critical path delay. Such a delay must adversely impact the Substantial Completion Date for CONTRACTOR to receive a time extension. To demonstrate such an impact successfully, CONTRACTOR shall prepare a Schedule Fragnet based on a copy of OWNER accepted Monthly Schedule Update for the calendar month during which the adverse impact occurred. This "copy" of the OWNER accepted Monthly Schedule Update shall however first be updated

(by OWNER and CONTRACTOR jointly) with both Percentages of Completion and Actual Dates up to the day the delay commenced. This process will provide the “pre-delay” project status. Once OWNER and CONTRACTOR have agreed to the “pre-delay” project status, CONTRACTOR should make a copy of this “pre-delay” schedule and this copy is to be the starting point for CONTRACTOR’S Schedule Fragnet development. OWNER will evaluate the activities, logic, durations, etcetera, in the Schedule Fragnet and will evaluate if the adverse impact arose from events outside the CONTRACTOR’S control. The Fragnet shall also include CONTRACTOR-caused delays that affect the critical or near critical path in the network and should be accounted for in the Time Impact Analysis if overlapped at any point in time with OWNER-caused delay. If rain impact days were granted between the Start and Finish of OWNER-caused delay period, they should be accounted for in the Time Impact Analysis as well. Provided OWNER determines such an impact occurred, CONTRACTOR may be due a time extension equal to the number of proportioned days of variance/delay that resulted to the Substantial Completion Date.

- D. Activities added into a Schedule Fragnet to demonstrate the impact of adverse event shall be assigned a unique activity code. The Schedule shall be organized by this unique activity code.
- E. The Schedule Fragnet shall incorporate logic ties that are accurately reflective of the adverse event to pre-event predecessor activities and post event successor activities.
- F. The format and components of a Schedule Fragnet submittal shall be in accordance with this Section and the General Conditions. It is crucial for the Fragnet to be submitted within the same month of discovery so it can be resolved during the monthly schedule update review. The notice shall be transmitted to OWNER within the stipulations outlined in the General Conditions.
- G. If OWNER accepts CONTRACTOR’S Schedule Fragnet and an extension is granted, a Change Order will be prepared. OWNER will advise what change order number the time extension will become. When CONTRACTOR receives this Change Order number, all the activities added to the Schedule Fragnet shall be given Activity Identification Numbers that corresponds with the Change Order number. CONTRACTOR shall cost load the activities if required by OWNER. If resource loading is required, the resource loading shall include a breakdown of labor, material, and equipment quantities.
- H. If OWNER rejects CONTRACTOR’S Schedule Fragnet in part based on improper forecast logic or activity tasks then it shall be revised accordingly to conform to OWNER’S review comments and be re-submitted. If the forecast logic and activity tasks cannot be agreed to then the pre-delay schedule outlined in Article 1.09, C shall be compared to the actual as-built data in the succeeding month of the encountering issue, event, condition, circumstance, and/or cause. The variance to the project between the pre-delay and post delay schedules shall

be discussed in CONTRACTOR'S written narrative and proportioned between the different parties involved in the delay.

- I. If OWNER rejects CONTRACTOR'S Schedule Fragnet in whole then CONTRACTOR may follow the procedures set forth in the General Conditions.

#### 1.10 PAYMENT FOR SCHEDULING

- A. The Work of this Section will be included as part of the bid price.
- B. Preparation, revising, maintenance, and compliance with this Section and Section 01 2973 is an integral part of the Contract Documents and is specified to have a minimum value equal to 2 percent of the original Contract Amount. This amount shall be proportionally cost loaded into two activities in both the Proposed Baseline Schedule and the Schedule of Values described in Section 01 2973. One activity for the "Baseline Schedule" and the other activity for the "Monthly Schedule Update Process" as follows:
  - 1. CONTRACTOR may allocate thirty percent (30 percent) of the total scheduling cost and place in the "Baseline Schedule" activity. It can then be billed against when the OWNER accepts the Proposed Baseline Schedule as the Baseline Schedule.
  - 2. The remaining seventy percent (70 percent) may be cost loaded into the "Monthly Schedule Update Process" activity. This amount may be billed in equal monthly increments. The amount of those increments is determined by dividing the remaining cost by the total number of months in the Contract Time. Payment of these incremental amounts is contingent upon OWNER acceptance of CONTRACTOR Monthly Schedule Updates, Recovery Schedules, Four-Week Rolling Schedules, Fragnets, Time Impact Analysis, and the updated Log of Required Submittals.
  - 3. The CONTRACTOR shall anticipate in their base contract scope that numerous Fragnets and written time impact analyses will be required during the duration of the project with the Monthly Schedule Updates. Requests for extra scheduling services will not be considered until the CONTRACTOR demonstrates that all of the costs stipulated in Article 1.10, B has been expended.

#### 1.11 FAILURE TO COMPLY WITH REQUIREMENTS

- A. At any time during the project if CONTRACTOR fails to comply with the specified requirements, OWNER reserves the right to engage independent estimating and scheduling consultants to fulfill these requirements. Upon notice to CONTRACTOR, OWNER shall assess against CONTRACTOR, incurred costs for these additional services.

- B. In such an event, OWNER will require, and CONTRACTOR shall participate and provide requested information to ensure the resulting Milestones Schedule accurately reflects CONTRACTOR's plan to execute the Work in compliance with the Contract Documents. If it becomes necessary for OWNER to recommend logic or duration revisions as a result of CONTRACTOR failure to furnish acceptable data, and if CONTRACTOR has objections to the recommendations, CONTRACTOR shall provide notice to OWNER within three days and CONTRACTOR shall provide an acceptable alternate plan. If CONTRACTOR fails to so note any objections and provide an acceptable alternate plan, or if CONTRACTOR implements the recommendations of OWNER without so noting any objections, CONTRACTOR will be deemed to have waived all objections and concurred with the recommended logic/duration revisions provided by ARCHITECT and/or OWNER.
- C. Submittal of any Monthly Schedule Updates are subject to review and acceptance by OWNER. OWNER retains the right, subject to provisions of the General Conditions, to withhold progress payments in whole or part until CONTRACTOR submits a Monthly Schedule Update acceptable to OWNER. If a Monthly Schedule Update is "Rejected" due to the OWNER not receiving a satisfactory schedule that accurately reflects the on-going work activities, the OWNER will mandate a separate meeting with the CONTRACTOR and approved Scheduler to remedy the non-conformance. If after the 2nd consecutive month the OWNER still has to "Reject" the monthly Schedule update due to non-conformance, then the CONTRACTOR'S Scheduler will need to be replaced at no additional cost to the OWNER. CONTRACTOR shall within one week of disapproval, propose another Scheduler who meets the required experience.

#### 1.12 CONTRACTOR RESPONSIBILITY

- A. Nothing in this Section shall be construed to be a usurpation of CONTRACTOR authority, responsibility, and obligation to plan and schedule Work as CONTRACTOR deems necessary, subject to all other requirements of the Contract Documents.
- B. CONTRACTOR shall provide at all times sufficient competent labor, materials, and equipment to properly carry on Work and to insure completion of each part in accordance with Construction Schedule and within time agreed. CONTRACTOR shall involve the subcontractors, manufacturers, and suppliers in the development and periodic updating of the schedule.

#### 1.13 RECORD DOCUMENTS / FINAL AS-BUILT SCHEDULE

- A. Prior to Contract Completion of the Work, CONTRACTOR shall submit a final as-built schedule, and a time-scaled network diagram (bar chart) reflecting the actual dates of all activities. This shall be submitted prior to the final application of payment and prior to the request to release retention.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION – NOT USED

END OF SECTION

## SECTION 01 3300

### SUBMITTAL PROCEDURES

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES

- A. Administrative and procedural requirements for submittals required for the Work, including but not limited to; Shop Drawings, Product Data, Samples, material lists, and quality control items.
- B. Throughout the Contract Documents, the minimum acceptable quality of materials, fabrication, and execution have been defined by the name and catalog number of a manufacturer and by reference of recognized industry standards.
- C. To ensure that specified products are furnished and installed in accordance with the design intent, procedures have been established for submittal of design data and for its review by OWNER and others.

##### 1.02 RELATED REQUIREMENTS

- A. Section 01 2973: Schedule of Values.
- B. Section 01 2976: Progress Payment Procedures.
- C. Section 01 3113: Project Coordination.
- D. Section 01 3211: Construction Schedule.
- E. Section 01 7700: Contract Closeout.
- F. Section 01 7836: Warranties.

#### PART 2 – PRODUCTS (Not used)

#### PART 3 - EXECUTION

##### 3.01 PROCEDURES

- A. CONTRACTOR is required to review and approve every submittal and shop drawing prior to transmittal and delivery to OWNER. Should CONTRACTOR determine a submittal contains errors, or does not meet the requirements of the contract, CONTRACTOR shall immediately return the submittals and shop

drawings to the producer and expedite the corrections prior to transmitting the submittal to OWNER. Submittals shall not be used by CONTRACTOR to request clarifications or submit questions. CONTRACTOR will affix stamp to each submittal certifying CONTRACTOR has performed, at minimum, the following:

1. Verified the submittal is complete in all respects and follows the requirements of the Contract Documents without variance.
  2. Confirmed that no substitutions have been included. If substitutions are included, CONTRACTOR shall eliminate them from the submittal and process them in accordance with the General Conditions.
  3. Identified any variances from the requirements of the Contract Documents and confirmed that the identified variance meets, but does not exceed the allowable limitations or tolerances as defined in these specifications.
  4. Verified that all submitted materials, dimensions and tolerances are compatible with existing or planned conditions of the Work in order to erect, fabricate, or install the submitted assembly in conformance with the requirements of the Contract Documents.
  5. Coordinated and verified that the dimensions match CONTRACTOR measured field or installation conditions.
  6. Coordinated and verified that the products of separate manufacturers required within any field produced assembly are compatible in all respects for such assembly.
  7. Packaged together all related submittals or shop drawings where such is necessary for a comprehensive ARCHITECT review.
- B. CONTRACTOR shall utilize DISTRICT'S forms: RFI's, Submittals, and Change Orders etc.
- C. CONTRACTOR shall package each submittal appropriately for transmittal and handling. Transmittal format shall be as required by OWNER. CONTRACTOR shall transmit and deliver three sets of each submittal or re-submittal to OWNER, one of which shall be returned to CONTRACTOR. Some specifications may require additional copies be provided. CONTRACTOR shall provide the OWNER additional copies as specified or as requested by OWNER. OWNER will not accept submittals received from sources other than from CONTRACTOR.
- D. After OWNER'S review, OWNER shall further distribute to CONTRACTOR, INSPECTOR and others as required. Work shall not commence, unless otherwise approved by OWNER, until approved submittals are transmitted to CONTRACTOR.

- E. CONTRACTOR shall clearly identify any deviations from the Contract Documents on each submittal. Any deviation not so noted even though stamped reviewed is not acceptable.
- F. CONTRACTOR shall coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities requiring sequential activity.
- G. Timing of Submittals:
  - 1. In accordance with General Conditions, CONTRACTOR shall submit to the OWNER, those Shop Drawings, Product Data, diagrams, materials lists, Samples and other submittals required by the Contract Documents.
  - 2. The scheduling of submittals shall be sequenced to support the progress of the Work, and shall be:
    - a. Submitted sufficiently in advance of construction, fabrication or installation in order to allow time for transmittal, review, modification, correction, (and resubmission and re-review when required.)
    - b. Phased with adequate time between submittals in order to allow for proper review by the OWNER without negative impact to the Milestones Schedule.
  - 3. CONTRACTOR shall coordinate submittal of related items and reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received by OWNER.
  - 4. CONTRACTOR shall revise, update and submit submittal schedule to OWNER on the first of each month, or as required by OWNER.
  - 5. CONTRACTOR shall allow in the Construction Schedule, at least sixteen days for OWNER receipt of submittal. For mechanical, plumbing, electrical, low voltage, fire sprinklers, door and hardware, and other submittals requiring joint review with OWNER, CONTRACTOR shall allow a minimum of eighteen days following OWNER receipt of submittal. Deferred approval items shall be allowed additional time for DSA review, if applicable.
  - 6. No adjustments to the Contract Time or Milestones will be authorized because of a failure to transmit submittals to OWNER sufficiently in advance of the Work to permit review and processing or where CONTRACTOR fails to provide OWNER submittals on related items.



7. In case of product substitution, Shop Drawing preparation shall not commence until such time as OWNER accepts or rejects the proposed substitution in accordance with the procedures described in the General Conditions.
- H. If required, resubmit submittals in a timely manner. Resubmit as specified for initial submittal but identify as such. Review times for re-submitted items shall be as per the time frames for initial submittal review.
- I. Shop Drawing preparation shall not commence until such time as CONTRACTOR receives Product Data acceptance.

### 3.02 SHOP DRAWINGS

- A. Shop Drawings are original drawings prepared by CONTRACTOR, Sub-contractor, supplier, or distributor illustrating some portion of Work by showing fabrication, layout, setting, or erection and shall not be based on reproduced Contract Documents or copied standard information.
- B. Produce Shop Drawings to an accurate scale that is large enough to indicate all pertinent features and methods. Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 24 by 36 inches.
- C. Shop Drawings shall include fabrication and installation drawings, setting diagrams, schedules, patterns, templates, and similar drawings. Include the following information:
  1. Dimensions.
  2. Identification of products and materials included by sheet and detail number.
  3. Compliance with specified standards.
  4. Notation of coordination requirements.
  5. Notation of dimensions established by field measurement.
- D. Provide a space of approximately 4 by 5 inches on the label or beside the title block on Shop Drawings to record CONTRACTOR and OWNER review, and the action taken. Include the following information on the label for processing and recording action taken:

1. Project name.
  2. Date.
  3. Name and address of CONTRACTOR.
  4. Name and address of Subcontractor.
  5. Name and address of supplier.
  6. Name and address of manufacturer.
  7. Name and title of appropriate Specification section.
  8. Drawing number and detail references, as appropriate.
- E. Unless otherwise agreed to or indicated in individual Specification sections, submit a sufficient number of sets to allow for adequate distribution to CONTRACTOR, Sub-Contractor, supplier, manufacturer and fabricators plus one (1) set for the OWNER.

3.03 PRODUCT DATA

- A. Collect Product Data into a single submittal for each element of Work or system. Product Data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, wiring diagrams, schedules, illustrations, or performance curves.
1. Mark each copy to show or delineate pertinent materials, products, models, applicable choices, or options. Where Product Data includes information on several products that are not required, clearly mark copies to indicate the applicable information. Include the following information:
    - a. Manufacturer's printed recommendations.
    - b. Compliance with trade association standards.
    - c. Compliance with recognized testing agency standards.
    - d. Application of testing agency labels and seals.

- e. Notation of dimensions verified by field measurement.
- f. Notation of coordination requirements.
- g. Notation of dimensions and required clearances.
- h. Indicate performance characteristics and capacities.
- i. Indicate wiring diagrams and controls.

2. CONTRACTOR shall not submit Product Data until compliance with requirements of the Contract Documents has been confirmed by CONTRACTOR.

C. Required Copies and Distribution: Same as denoted in Article 3.02.E.

### 3.04 SAMPLES

A. Procedure:

- 1. Submit Samples of sufficient size, quantity, cured and finished and physically identical to the proposed product or material. Samples include partial or full sections or range of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches denoting color, texture, and/or pattern.
  - a. Mount or display Samples in the manner to facilitate review of qualities indicated. Include the following:
    - 1) Specification section number and reference.
    - 2) Generic description of the Sample.
    - 3) Sampling source.
    - 4) Product name or name of manufacturer.
    - 5) Compliance with recognized standards.
    - 6) Availability and delivery time.
- 2. Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the final submittal and the actual component as delivered and installed.

- a. Where variations in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least three (3) multiple units that show the approximate limits of the variations.
  - b. Refer to other Specification sections for requirements for Samples that illustrate materials, fabrication techniques, assembly details, connections, operation, and similar construction characteristics.
  - c. Refer to other sections for Samples to be returned to CONTRACTOR for incorporation into the Work. Such Samples must be undamaged at time of installation. On the transmittal indicate special requests regarding disposition of Sample submittals.
  - d. Samples not incorporated into the Work, or otherwise not designated as OWNER property, remain the property of CONTRACTOR and shall be removed from the Project site prior to Substantial Completion.
3. Color and Pattern: Whenever a choice of color or pattern is available in a specified product, submit accurate color chips and pattern charts to OWNER for review and selection.
  4. Number Required: Submit six, minimum, of each. Two will be returned to CONTRACTOR.
- B. When specified, erect field Samples and mock-ups at the Project site to illustrate products, materials, fabrications, or execution and to establish standards by which completed Work shall be judged.
  - C. Maintain sets of Samples, as returned, at the Project site, for quality comparisons throughout the course of the Work. Sample sets may be used to obtain final acceptance of the Work associated with each set.

### 3.05 QUALITY CONTROL SUBMITTALS

- A. Submit quality control submittals, including design data, certifications, manufacturer's field reports, and other quality control submittals as required under other sections of the Contract Documents.
- B. When other sections of the Contract Documents require manufacturer's certification of a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.

- C. Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the represented company.
- D. Requirements for submittal of inspection and test reports are specified in other sections of the Contract Documents.

END OF SECTION

SECTION 01 6000  
PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. This Section includes administrative and procedural requirements governing selection of products for incorporation into the Work.

1.02 RELATED REQUIREMENTS

- A. Section 01 3113 - Project Coordination.
- B. Section 01 3300 - Submittal Procedures.
- C. Section 01 3216 - Construction Schedule.
- D. Section 01 2513 - Product Substitution Procedures.
- E. Section 01 7836 - Warranties.

1.03 DEFINITIONS

- A. 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.
  - 1. “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.
    - a. “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.
    - b. “Foreign Products,” as distinguished from “domestic products,” are items substantially manufactured (50 percent or more of value) outside the United States and its possessions. Products produced or supplied by entities substantially owned (more than 50 percent) by persons who are not citizens of, nor living within, the United

States and its possessions are also considered to be foreign products.

2. "Materials," are products substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
3. "Equipment," is a product with operational parts, whether motorized or manually operated, that requires service connections, such as wiring or piping.

#### 1.04 SUBMITTALS

- A. Material list: Prepare a list in tabular form acceptable to OWNER showing proposed products. Include generic names. Include the manufacturer's name and proprietary names for each item listed.
  1. Coordinate material list with the Construction Schedule and the submittal schedule.
  2. Form: Prepare material list with information on each item tabulated under the following column headings.
    - a. Related Specification Section number.
    - b. Generic name used in Contract Documents.
    - c. Proprietary name, model number, and similar designations.
    - d. Manufacturer's name and address.
    - e. Supplier's name and address.
    - f. Installer's name and address.
    - g. Projected delivery date or time span of delivery period.
  3. Initial Submittal: Within ten days after execution of each subcontract agreement, as set forth in General Conditions, submit three copies of an initial material list to the OWNER. Provide a written explanation for omissions of data and for known variations from the Contract Documents.

#### 1.05 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind from a single source.

1. CONTRACTOR is to verify necessary lead times for all materials; however, when specified products are available only from sources that do not, or cannot, produce a quality adequate to complete Work in a timely manner, consult with the OWNER to determine the most important product qualities before proceeding. Qualities may include attributes, such as visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources producing these qualities, to the fullest extent possible.
  
- 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. Foreign Product Limitations: Except under one or more of the following conditions, provide domestic products, not foreign products, for inclusion into the Work:
  1. No available domestic product complies with the Contract Documents.
  2. Domestic products that comply with the Contract Documents are available only at prices or terms substantially higher than foreign products that comply with the Contract Documents.
  
- D. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturers 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.

1.06 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 items 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. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
  5. Store products at the Project site in a manner that will facilitate inspection and measurement of quantity or counting of units.
  6. Store heavy materials away from structures in a manner that will not endanger the structure's supporting construction.
  7. 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.

PART 2 - PRODUCTS

2.01 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. No substitutions will be permitted.
    - a. Where Specifications specify products or manufacturers by name, accompanied by the term “or equal” comply with General Conditions to obtain approval for use of an unnamed product.
  3. Descriptive Specification Requirements: Where Specifications describe a product or assembly, list exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides 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 OWNER will select the color, pattern, and texture from the product line selected.

### PART 3 - EXECUTION

#### 3.01 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.

END OF SECTION

SECTION 01 7329  
CUTTING AND PATCHING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. This Section specifies procedural requirements for cutting and patching.

1.02 RELATED REQUIREMENTS

- A. Section 01 2973 - Schedule of Values.
- B. Section 01 3216 - Construction Schedule.
- C. Section 01 3300 - Submittal Procedures.
- D. Section 01 7836 - Warranties.

1.03 SUBMITTALS

- A. 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.
- B. Cutting and Patching Proposal: CONTRACTOR shall submit a proposal describing procedures well in advance of the time cutting and patching will be performed if the Contract Documents requires approval of these procedures before proceeding. Include the following information, as applicable, in the proposal:
  - 1. Describe the extent of cutting and patching required. Denote how it will be performed and indicate why it cannot be avoided.
  - 2. Describe anticipated results in terms of changes to existing construction. Include changes to structural elements and operating components as well as changes in the building’s appearance or other significant visual elements.
  - 3. List products to be used and firms or entities that will perform this Work.
  - 4. Indicate dates when cutting and patching will be performed.

5. Utilities: List utilities that cutting and patching operations will disturb or affect. List utilities to be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.
6. Where cutting and patching involves adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with the original structure.

#### 1.04 QUALITY ASSURANCE

- A. Requirements for structural Work: Do not cut and patch structural elements in a manner that would change their load-carrying capacity or load-deflection ratio.
  1. Obtain approval from OWNER of the cutting and patching proposal before cutting and patching the following structural elements:
    - a. Foundation construction.
    - b. Bearing and retaining walls.
    - c. Structural concrete.
    - d. Structural steel.
    - e. Lintels.
    - f. Timber and primary wood framing.
    - g. Structural decking.
    - h. Stair systems.
    - i. Miscellaneous structural metals.
    - j. Exterior curtain-wall construction.
    - k. Equipment supports.
    - l. Piping, ductwork, vessels, and equipment.
    - m. Structural systems of special construction in Division 13 Sections.
- B. Operational Limitations: Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decreased operational life or safety.

1. Obtain review of the cutting and patching proposal before cutting and patching the following operating elements or safety related systems:
    - a. Primary operational systems and equipment.
    - b. Air or smoke barriers.
    - c. Water, moisture, or vapor barriers.
    - d. Membranes and flashings.
    - e. Fire protection systems.
    - f. Noise and vibration control elements and systems.
    - g. Control systems.
    - h. Communication and/or data systems.
    - i. Conveying systems.
    - j. Electrical wiring systems.
    - k. Operating systems of special construction in Division 13 Sections.
- C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the opinion of ARCHITECT, reduce the building's aesthetic qualities. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching. Remove and replace Work cut and patched in a visually satisfactory manner.
1. If possible, retain the original installer or fabricator to cut and patch the exposed Work listed below. If it is impossible to engage the original installer or fabricator, engage another recognized experienced and specialized firm.
    - a. Firestopping.
    - b. Acoustical ceilings.
    - c. Acoustical panels.
    - d. Finished wood flooring.
    - e. Synthetic sports flooring.
    - f. Carpeting.

- g. HVAC enclosures, cabinets, or covers.
- h. Ceramic and quarry tile.
- i. Gypsum board.
- j. Masonry (exterior and interior where exposed).
- k. Tack boards.
- l. Casework.
- m. Finish carpentry.

1.05 WARRANTY

- A. Existing Warranties: Replace, patch, and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to void any warranties required or existing.

PART 2 - PRODUCTS (Not applicable)

PART 3 - EXECUTION

3.01 INSPECTION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed before cutting. If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding.
  - 1. Before proceeding, meet at the Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

3.02 PREPARATION

- A. Temporary support: Provide adequate temporary support of existing improvements or Work to be cut.
- B. Protection: Protect existing improvements and Work during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of existing improvements or Work that might be exposed during cutting and patching operations.

- C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. 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 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. General: 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 into the Work. Verify compatibility and suitability of existing substrates before starting the Work.
- B. 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 Sections of trade work where cutting and patching requires excavating, backfill, and 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 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 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 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-inch centers. Provide a 6-inch 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-inch 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. Painting: Prepare areas to be patched, patch and paint as specified under related sections of the Contract Documents.

3.04 CLEANING

- A. Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar items. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged coverings to their original condition.

END OF SECTION

SECTION 01 7700

CONTRACT CLOSEOUT

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. Inspection procedures.
  2. Project record documents submittal.
  3. Operation and maintenance manual submittal.
  4. OWNER orientation and instruction.
  5. Final cleaning.

1.02 RELATED REQUIREMENTS:

1. Section 01 2976 - Progress Payment Procedures.
2. Section 01 3216 - Construction Schedule.
3. Section 01 3300 - Submittal Procedures.
4. Section 01 7836 - Warranties.

PART 2 – PRODUCTS (Not used)

PART 3 - EXECUTION

3.01 SUBSTANTIAL COMPLETION

- A. Inspection Procedures: On receipt of the Request For Certificate of Substantial Completion, OWNER will authorize commencement of inspection. OWNER, and CONTRACTOR will inspect the Work.
1. If after inspection of the Work, OWNER does not consider the Work substantially complete, OWNER will notify CONTRACTOR.

2. If after inspection, OWNER considers the Work substantially complete, OWNER shall prepare a comprehensive Punch List of items to be corrected.
  - a. OWNER may repeat inspection to assure the Work is corrected.
  - b. Results of the completed inspection will form a partial basis of the requirements for Release of Retention.

### 3.02 ADMINISTRATIVE CLOSEOUT

- A. Re-inspection Procedures: OWNER and CONTRACTOR may inspect the Work upon notice, including final inspection of Punch List items from earlier inspections, has been corrected, except for items whose completion is delayed under circumstances acceptable to OWNER.
  1. OWNER has the right to preclude CONTRACTOR from Punch List correction and documents submittals after the Contract Completion date; unless OWNER elects to authorize CONTRACTOR to extend Administrative Contract duration. CONTRACTOR will be assessed actual cost for the unsettled items. Withholds amounts exceeding actual costs to correct or to obtain deliverable will be released.
  2. If allowed by the OWNER, re-inspection will be repeated, but may be assessed against CONTRACTOR if OWNER is subject to additional professional service and or additional costs of inspection.

### 3.03 PROJECT RECORD DOCUMENT SUBMITTAL

- A. General: Do not use project record documents for construction purposes. Protect record documents from deterioration and loss. Provide access to record documents for OWNER reference during normal working hours. Project record document shall be updated on a weekly basis. Prior to submitting each application for payment, secure OWNER approval of project record documents.
- B. Record Drawings: Maintain a clean, undamaged set of prints of Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark the Drawing that 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 record sets with red erasable pencil. Use other colors to distinguish between variations in separate categories of the Work. Date and number entries in the same format as submitted. Call attention to entry by a “cloud” around the affected areas.

2. Mark new information important to OWNER but was not shown on Drawings or Shop Drawings.
  3. Utility location and depth below finished grade and above ceilings and attic spaces shall be fully dimensioned and indicated on record drawings. Dimensions shall be measured from building lines or permanent landmarks and shall be triangulated to those features.
  4. Note related Change Order or Construction Directive numbers where applicable. RFC submissions shall be referenced on each affected sheet, Drawing and Shop Drawing.
  5. 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.
- C. Record Specifications: Maintain two complete copies of the Specifications, including Addenda. Include with the Specifications two copies of other written Contract Documents, such as Change Orders or Construction Directives issued during construction.
1. Mark these record documents to show substantial variations in actual Work performed in comparison with the text of the Specifications and modifications.
  2. Give particular attention to substitutions and selection of options and information on concealed Work that cannot otherwise be readily discerned later by direct observation.
  3. Note related record document information with Product Data.
  4. Prior to Contract Completion of the Work, submit record Specifications to OWNER for OWNER records.
- D. Record Product Data: Maintain two copies 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.

3. Prior to Contract Completion, submit complete set of record Product Data to OWNER for OWNER records.
- E. Record Samples: Immediately prior to Substantial Completion, CONTRACTOR shall meet with the OWNER at the Project site to determine which Samples are to be transmitted to OWNER for record purposes. Comply with OWNER instructions regarding delivery to OWNER storage area.
- F. Miscellaneous Records: Refer to other Specification sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the Work. Prior to the date of Contract 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 OWNER records.
- G. Maintenance Manuals: Prior to Substantial Completion, organize operation and maintenance data into suitable two sets of manageable size. Bind properly indexed data in individual, heavy-duty, two to three-inch 3-ring, vinyl-covered binders, with pocket folders for folded sheet information. Mark appropriate identification on front and spine of each binder. Submit to OWNER for OWNER records. Include the following types of information.
  1. Emergency instructions.
  2. Spare parts list.
  3. Copies of warranties.
  4. Wiring diagrams.
  5. Recommended "turn-around" cycles.
  6. Inspection procedures.
  7. Shop Drawings and Product Data.
  8. Fixture lamping schedule.

3.04 OPERATION AND MAINTENANCE:

- A. Operation and Maintenance Instructions: Prior to Substantial Completion, arrange for each installer of equipment that requires regular operation and maintenance to meet with designated OWNER personnel to provide instruction in proper operation and maintenance. Provide instruction by manufacturer's representatives if installers are not experienced in operation and maintenance procedures. Include a detailed review of the following items:
  1. Maintenance manuals.

2. Spare parts and materials.
  3. Tools.
  4. Lubricants.
  5. Fuels.
  6. Identification systems.
  7. Control sequences.
  8. Hazards.
  9. Cleaning.
  10. Warranties and bonds.
  11. Maintenance agreements and similar continuing commitments.
- B. 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. Economy and efficiency adjustments.
  7. Effective energy utilization.
- C. Notice Of Termination: CONTRACTOR shall submit a Notice of Termination (NOT) to the local Regional Water Quality Control Board, RWQCB. Provide a copy of NOT to OWNER.

### 3.05 FINAL CLEANING

- A. General: Related sections of the Contract Documents specify general cleaning during performance of the Work. General cleaning is included in Division 01 Section "Construction Facilities and Temporary Controls".
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal,

commercial building cleaning and maintenance program. Comply with manufacturer's instructions.

1. Complete the following cleaning operations before requesting inspection for a certificate of Substantial Completion.
  - a. Remove labels that are not permanent labels.
  - b. 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.
  - c. Clean exposed exterior and interior hard-surfaced finished 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.
  - d. 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.
  - e. Clean the Project site, including landscape development areas, of rubbish, litter, and other foreign substances. Sweep paved areas broom clean; remove stains, spills, and other foreign deposits. Rake grounds that are neither paved nor planted to a smooth, even-textured surface.

END OF SECTION



## SECTION 01 7836

### WARRANTIES

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES

- A. This Section includes administrative and procedural requirements for warranties, including manufacturers and installer's standard warranties on products and special product warranties.
  - 1. Refer to the General Conditions for terms of the guarantee period for the Work.

##### 1.02 RELATED REQUIREMENTS

- A. Section 01 6000 - Product Requirements.
- B. Section 01 7329 - Cutting and Patching.
- C. Section 01 7700 - Contract Closeout.

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

#### PART 3 - EXECUTION

##### 3.01 WARRANTY REQUIREMENTS

- A. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties shall not relieve CONTRACTOR of the warranty of the Work incorporating such materials, products, and equipment. Manufacturer's disclaimers and limitations on warranties do not relieve suppliers, manufacturers, installers, and Subcontractors of the requirement to countersign special warranties with CONTRACTOR.
- B. Standard warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to OWNER.
- C. Special warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for OWNER.
- D. Related Damages and Losses: When correcting failed or defective warranted Work, remove and replace Work that has been damaged as a result of such failure

or which must be removed and replaced to provide access for correction of warranted Work.

- E. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement with the reinstated warranty equal to the original warranty.
- F. Replacement Cost: Upon determination the Work covered by a warranty has failed and/or is defective, replace or rebuild the Work to an acceptable condition complying with requirements of the Contract Documents. CONTRACTOR is responsible for the cost of replacing or rebuilding defective Work regardless of whether OWNER has benefited from use of the Work through a portion of its anticipated useful service life.
- G. OWNER Recourse: Expressed warranties made to OWNER 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 OWNER can enforce such other duties, obligations, rights, or remedies.
- H. Rejection of Warranties: OWNER reserves the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
- I. Where the Contract Documents require a special warranty, or similar commitment on the Work or part of the Work, OWNER reserves the right to refuse to accept the Work until CONTRACTOR presents evidence the entities required to countersign such commitments have done so.

### 3.02 SUBMITTALS

- A. Submit written preliminary warranties prior to Substantial Completion and final warranties prior to Contract Completion. If the certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, submit written warranties as set forth in the certificate of Substantial Completion.
- B. When the Contract Documents require CONTRACTOR, or CONTRACTOR and a Subcontractor, installer, supplier or manufacturer to execute a special warranty, prepare a written document containing appropriate terms and identification, ready for execution by the required parties. Submit a draft to OWNER, for approval prior to final execution.
- C. Form of Submittal: Prior to Contract Completion, compile two copies of each required final warranty properly executed by CONTRACTOR, or by CONTRACTOR and Subcontractor, installer, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the Specifications.

- D. Bind warranties and bonds in heavy-duty, commercial-quality, durable three ring, vinyl-covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8½ by 11 paper.
1. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the item or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address, and telephone number of the installer.
  2. Identify each binder on the front and spine with the typed or printed title “WARRANTIES,” Project title and/or name, and name of CONTRACTOR.
  3. When warranted Work requires operation and maintenance manuals, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

END OF SECTION