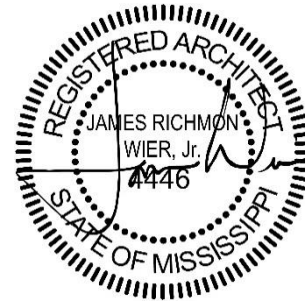




04 September 2019

Pearl High School Multipurpose Building



ADDENDUM NO. 05

NOTICE TO ALL DOCUMENT HOLDERS:

The following additions, deletions, changes and clarifications to the drawings and specifications are to be included as part of the Contract Documents.

SPECIFICATIONS

- ITEM NO. 01** **01.2100 ALLOWANCES**
PART 1, PARAGRAPH 1.5, SUBSECTION C
CLARIFICATION. Interior signage allowance to be \$3,000.00 and will include building plaque as described in Addendum #1, Item 32.
- ITEM NO. 02** **01.2000 PRICE AND PAYMENT PROCEDURES**
REPLACE all sections labeled "01.2000 Price and Payment Procedures" with attached section
Duplicate sections to be omitted
- ITEM NO. 03** **01.3000 ADMINISTRATIVE REQUIREMENTS**
REPLACE all sections labeled "01.3000 Administrative Requirements" with attached section
Duplicate sections to be omitted
- ITEM NO. 04** **01.3216 CONSTRUCTION PROGRESS SCHEDULE**
REPLACE all sections labeled "01.3216 Construction Progress Schedule" with attached section
Duplicate sections to be omitted
- ITEM NO. 05** **01.4000 QUALITY REQUIREMENTS**
REPLACE all sections labeled "01.4000 Quality Requirements" with attached section
Duplicate sections to be omitted
- ITEM NO. 06** **01.5000 TEMPORARY FACILITIES AND CONTROLS**
REPLACE all sections labeled "01.5000 Temporary Facilities and Controls" with attached section
Duplicate sections to be omitted
- ITEM NO. 07** **01.6000 PRODUCT REQUIREMENTS**
REPLACE all sections labeled "01.6000 Product Requirements" with attached section
Duplicate sections to be omitted

- ITEM NO. 08** **01.7000 EXECUTION AND CLOSEOUT REQUIREMENTS**
REPLACE all sections labeled “01.7000 Execution and Closeout Requirements” with attached section
Duplicate sections to be omitted
- ITEM NO. 09** **01.7800 CLOSEOUT SUBMITTALS**
REPLACE all sections labeled “01.7800 Closeout Submittals” with attached section
Duplicate sections to be omitted

Encl: Specification sections (34 pages – 8.5x11):
01.2000 PRICE AND PAYMENT PROCEDURES, 01.3000 ADMINISTRATIVE REQUIREMENTS, 01.3126 CONSTRUCTION PROGRESS SCHEDULE, 01.4000 QUALITY REQUIREMENTS, 01.5000 TEMPORARY FACILITIES AND CONTROLS, 01.6000 PRODUCT REQUIREMENTS, 01.7000 EXECUTION AND CLOSEOUT REQUIREMENTS, 01.7800 CLOSEOUT SUBMITTALS

cc: All Document Holders
File 0419



SECTION 01.2000

PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Procedures for preparation and submittal of applications for progress payments.
- B. Documentation of changes in Contract Sum and Contract Time.
- C. Change procedures.
- D. Correlation of Contractor submittals based on changes.
- E. Procedures for preparation and submittal of application for final payment.

1.2 RELATED REQUIREMENTS

- A. Section 00 5000 - Contracting Forms and Supplements: Forms to be used.
- B. Section 00 5200 - Agreement Form: Contract Sum, retainages, payment period, monetary values of unit prices.
- C. Section 01 2100 - Allowances: Payment procedures relating to allowances.
- D. Section 01 7800 - Closeout Submittals: Project record documents.

1.3 SCHEDULE OF VALUES

- A. Initial Payment Application: The following must be received by the Architect prior to submittal of the first payment application:
 - 1. Listing of subcontractor's and principal suppliers and fabricators as required by AIA Document A201 - 2017, Section 5.2.1.
 - 2. Schedule of Values as required by Section 01 2000.
 - 3. Construction Progress Schedule as required by Section 01 3216.
 - 4. Listing of Contractor's staff assignments for the Project Coordinator and Superintendent as required by Section 01 3216.
- B. Forms filled out by hand will not be accepted.
- C. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.
 - 1. Provide one electronic disk copy in Microsoft Excel format.
- D. Format: Utilize the Table of Contents of this Project Manual. Identify each line item with number and title of the specification section. Identify site mobilization.
- E. Include in each line item, the amount of Allowances specified in this section.
- F. Include separately from each line item, a direct proportional amount of Contractor's overhead and profit.
- G. Revise schedule to list approved Change Orders, with each Application For Payment.
- H. Preparing Schedule of Values.
 - 1. Itemize separate line item cost for each of the following general cost items: Performance and Payment Bonds, field supervision and layout, temporary facilities and controls.
 - 2. Itemize separate line item cost for work required by each Section of these Specifications. Break down installed cost with overhead and profit. Include separate material and labor cost line items.
 - 3. For each line item which has installed value of more than \$50,000.00, break down costs to list major items listed in Schedule equal to total Contract sum.
- I. Review and Resubmittal: After Architect's review, if requested, revise and resubmit Schedule of Values in same manner.

1.4 APPLICATIONS FOR PROGRESS PAYMENTS

- A. Payment Period: Submit at intervals stipulated in the Agreement.
- B. Forms filled out by hand will not be accepted.
- C. Execute certification by signature of authorized officer.

- D. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
 - 1. General Conditions, as included in Division 01, shall be billed based on the total percentage of Work completed of the total project cost for each Application for Payment as approved by the Architect and Owner.
- E. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of work.
- F. Submit 6 copies of each Application for Payment.
- G. Include the following with the application:
 - 1. Transmittal letter as specified for submittals in Section 01 3000.
 - 2. Construction progress schedule, revised and current as specified in Section 01 3216.
 - 3. Current construction photographs if specified in Section 01 3000.
- H. When Architect requires substantiating information, submit data justifying dollar amounts in question. Provide one copy of data with cover letter for each copy of submittal. Show application number and date, and line item by number and description.
- I. All pay applications must contain a letter, certified that the Contractor has paid all payments due for approved Work performed by subcontractors and/or material suppliers. Submit on a monthly basis beginning with payment Application #2.
- J. Any front-end payment requirements by Vendors: See Section 00 7200, AIA Document A201 - 2017, Section 9.6.9.

1.5 MODIFICATION PROCEDURES

- A. For minor changes not involving an adjustment to the Contract Sum or Contract Time, Architect will issue instructions directly to Contractor.
- B. For other required changes, Architect will issue a document signed by Owner instructing Contractor to proceed with the change, for subsequent inclusion in a Change Order.
 - 1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
 - 2. Promptly execute the change.
- C. For changes for which advance pricing is desired, the Architect will issue a document that includes a detailed description of a proposed change with supplementary or revised drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit a fixed price quotation within 7 days.
- D. Contractor may propose a change by submitting a request for change to Architect, describing the proposed change and its full effect on the work, with a statement describing the reason for the change, and the effect on the Contract Sum and Contract Time with full documentation. Document any requested substitutions in accordance with Section 01 6000.
- E. Claims for increase in Contract Time shall be as specified in AIA Document A201 - 2017, Article 8.3, Sections 8.3.1, 8.3.2, 8.3.3, 8.3.4, 8.3.5.
- F. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.
 - 1. For change requested by Architect for work falling under a fixed price contract, the amount will be based on Contractor's price quotation.
 - 2. For change requested by Contractor, the amount will be based on the Contractor's request for a Change Order as approved by Architect.
 - 3. For pre-determined unit prices and quantities, the amount will be based on the fixed unit prices.
 - 4. For change ordered by Architect without a quotation from Contractor, the amount will be determined by Architect based on the Contractor's substantiation of costs as specified for Time and Material work.

PRICE AND PAYMENT PROCEDURES

- G. For changes to the Contract Sum the allowance for overhead and profit combined, shall be as specified in AIA Document A201 - 2017, Sections 7.2.2 and 7.3.11.
- H. Substantiation of Costs: Provide full information required for evaluation.
 - 1. On request, provide the following data:
 - a. Quantities of products, labor, and equipment.
 - b. Taxes, insurance, and bonds.
 - c. Overhead and profit.
 - d. Justification for any change in Contract Time.
 - e. Credit for deletions from Contract, similarly documented.
 - 2. Support each claim for additional costs with additional information:
 - a. Origin and date of claim.
 - b. Dates and times work was performed, and by whom.
 - c. Time records and wage rates paid.
 - d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.
 - 3. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
- I. Execution of Change Orders: Architect will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.
 - 1. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.
 - 2. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
 - 3. Promptly enter changes in Project Record Documents.

1.6 APPLICATION FOR FINAL PAYMENT

- A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- B. Application for Final Payment will not be considered until the following have been accomplished:
 - 1. All closeout procedures specified in Sections 01 7000 and 01 7800.
 - 2. Contractor shall submit the final Application For Payment in accordance with procedures and requirements in the Conditions of the Contract. The final Application For Payment shall not be submitted prior to complete execution of the Final Change Order. If close out documents are not submitted by Contractor and approved by Architect within 60 calendar days of the date of substantial completion, 1% of the total construction cost will be withheld from the Final Application for Payment. Monies shall be released upon final approval of documents.
 - 3. All documentation indicated in Section 01 7800, paragraph 3.06.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01.3000
ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. General administrative requirements.
- B. Preconstruction meeting.
- C. Site mobilization meeting.
- D. Progress meetings.
- E. Progress photographs.
- F. Coordination drawings.
- G. Submittals for review, information, and project closeout.
- H. Number of copies of submittals.
- I. Requests for Information (RFI) procedures.
- J. Submittal procedures.

1.2 RELATED REQUIREMENTS

- A. Section 00 7200 - GENERAL CONDITIONS: Dates for applications for payment.
- B. Section 01 3216 - Construction Progress Schedule: Form, content, and administration of schedules.
- C. Section 01 6000 - Product Requirements: General product requirements.
- D. Section 01 7000 - Execution and Closeout Requirements: Additional coordination requirements.
- E. Section 01 7800 - Closeout Submittals: Project record documents; operation and maintenance data; warranties and bonds.

1.3 REFERENCE STANDARDS

- A. AIA G810 - Transmittal Letter; 2001.

1.4 GENERAL ADMINISTRATIVE REQUIREMENTS

- A. Conform to requirements of Section 01 7000 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.
- B. Make the following types of submittals to the Architect:
 - 1. Requests for Information (RFI).
 - 2. Requests for substitution.
 - 3. Shop drawings, product data, and samples.
 - 4. Test and inspection reports.
 - 5. Design data.
 - 6. Manufacturer's instructions and field reports.
 - 7. Applications for payment and change order requests.
 - 8. Progress schedules.
 - 9. Coordination drawings.
 - 10. Correction Punch List and Final Correction Punch List for Substantial Completion.
 - 11. Closeout submittals.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 PRECONSTRUCTION MEETING

- A. The Architect will schedule a meeting after Notice of Award.
- B. Attendance Required:
 - 1. Owner.
 - 2. Architect.
 - 3. Contractor.
- C. Agenda:
 - 1. Execution of Owner-Contractor Agreement.
 - 2. Submission of executed bonds and insurance certificates.
 - 3. Distribution of Contract Documents.
 - 4. Submission of list of subcontractors, list of products, schedule of values, and progress schedule.
 - 5. Designation of personnel representing the parties to Contract, Owner and Architect.
 - 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 - 7. Scheduling.
 - 8. Submittals: Submittals shall be referenced by specification sections.
- D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.
 - 1. The Architect will record and distribute Preconstruction Meeting Minutes.

3.2 SITE MOBILIZATION MEETING

- A. The Contractor shall schedule a meeting at the Project site prior to Contractor occupancy.
- B. Attendance Required:
 - 1. Contractor.
 - 2. Owner.
 - 3. Architect.
 - 4. Contractor's superintendent.
 - 5. Major subcontractors.
- C. Agenda:
 - 1. Use of premises by Owner and Contractor.
 - 2. Owner's requirements.
 - 3. Construction facilities and controls provided by Owner.
 - 4. Temporary utilities provided by Owner.
 - 5. Survey and building layout.
 - 6. Security and housekeeping procedures.
 - 7. Schedules.
 - 8. Application for payment procedures.
 - 9. Procedures for testing.
 - 10. Procedures for maintaining record documents.
 - 11. Requirements for start-up of equipment.
 - 12. Inspection and acceptance of equipment put into service during construction period.
- D. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.3 PROGRESS MEETINGS

- A. The following items are the responsibility of the Contractor.
- B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- C. Attendance Required:
 - 1. Contractor.
 - 2. Owner.
 - 3. Architect.
 - 4. Contractor's superintendent.
 - 5. Major subcontractors.
- D. Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review of work progress.
 - 3. Field observations, problems, and decisions.
 - 4. Identification of problems that impede, or will impede, planned progress.
 - 5. Review of submittals schedule and status of submittals.
 - 6. Review of off-site fabrication and delivery schedules.
 - 7. Maintenance of progress schedule.
 - 8. Corrective measures to regain projected schedules.
 - 9. Planned progress during succeeding work period.
 - 10. Coordination of projected progress.
 - 11. Maintenance of quality and work standards.
 - 12. Effect of proposed changes on progress schedule and coordination.
 - 13. Other business relating to work.
- E. Record minutes and distribute copies within five (5) days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.4 PROGRESS PHOTOGRAPHS

- A. Submit photographs with each application for payment, taken not more than 3 days prior to submission of application for payment.
- B. Maintain one set of all photographs at project site for reference; same copies as submitted, identified as such.
- C. Photography Type: Digital; electronic files.
- D. Provide photographs of site and construction throughout progress of work produced by an experienced photographer, acceptable to Architect.
- E. In addition to periodic, recurring views, take photographs of each of the following events:
 - 1. Completion of site clearing.
 - 2. Excavations in progress.
 - 3. Foundations in progress and upon completion.
 - 4. Structural framing in progress and upon completion.
 - 5. Enclosure of building, upon completion.
 - 6. Final completion, minimum of ten (10) photos.
 - 7. Existing roof conditions prior to Work.
- F. (Option) Prior to starting work: take photographs as evidence of existing project conditions as follows:
 - 1. Interior views: All areas within the building interior that are to receive work or possible work through a space.
 - 2. Exterior views: All areas around the existing building; including, but not limited to, existing pavements, sidewalks, grassing or lawns, plantings, and site appurtenances.
- G. Views:
 - 1. Consult with Architect for instructions on views required.

2. Provide factual presentation.
 3. Provide correct exposure and focus, high resolution and sharpness, maximum depth of field, and minimum distortion.
- H. Digital Photographs: 24 bit color, minimum resolution of 4200 x 2800, in JPG format; provide files unaltered by photo editing software.
1. Delivery Medium: Via digital means with project record photo USB flash drive.
 2. File Naming: Include project identification, date and time of view, and view identification.
 3. PDF File: Assemble all photos into printable pages in PDF format, with 2 to 3 photos per page, each photo labeled with file name; one PDF file per submittal.
 4. Photo USB Flash Drive: Provide 1 copy including all photos cumulative to date and PDF file(s), with files organized in separate folders by submittal date.
 5. Hard Copy: Printed hardcopy (color) of PDF file.

3.5 COORDINATION INFORMATION AND REQUIREMENTS

- A. The General Contractor is responsible for the preparation, coordination and gathering of information to be used from all subcontractors, vendors, suppliers and others whom may provide equipment, services, supplies and materials for the project.
- B. Pre-Installation Meetings:
1. Contractor is to schedule pre-installation meetings as indicated in the specification sections and as indicated.
 2. 2. Agenda: Review preparation and installation procedures, coordination and scheduling for required work.
 3. Attendance.
 - a. General Contractor, Project Manager and Superintendent.
 - b. Architect/Engineer.
 - c. Subcontractors and Installers.
 - d. Manufacturer Representatives.
 4. Provide minimum two (2) weeks notice to Architect.
 5. Convene meeting one week prior to starting work.

3.6 REQUESTS FOR INFORMATION (RFI)

- A. Definition: A request seeking one of the following:
1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in the Contract Documents.
 2. A resolution to an issue which has arisen due to field conditions and affects design intent.
- B. Preparation: Prepare an RFI immediately upon discovery of a need for interpretation of the Contract Documents. Failure to submit a RFI in a timely manner is not a legitimate cause for claiming additional costs or delays in execution of the work.
1. Prepare a separate RFI for each specific item.
 - a. Review, coordinate, and comment on requests originating with subcontractors and/or materials suppliers.
 - b. Do not forward requests which solely require internal coordination between subcontractors.
- C. Reason for the RFI: Prior to initiation of an RFI, carefully study all Contract Documents to confirm that information sufficient for their interpretation is definitely not included.
1. Include in each request Contractor's signature attesting to good faith effort to determine from the Contract Documents information requiring interpretation.
 2. Unacceptable Uses for RFIs: Do not use RFIs to request the following::
 - a. Approval of submittals (use procedures specified elsewhere in this section).
 - b. Approval of substitutions (see Section - 01 6000 - Product Requirements)

ADMINISTRATIVE REQUIREMENTS

- c. Changes that entail change in Contract Time and Contract Sum (comply with provisions of the Conditions of the Contract).
- d. Different methods of performing work than those indicated in the Contract Drawings and Specifications (comply with provisions of the Conditions of the Contract).
3. Improper RFIs: Requests not prepared in conformance to requirements of this section, and/or missing key information required to render an actionable response. They will be returned without a response, with an explanatory notation.
4. Frivolous RFIs: Requests regarding information that is clearly indicated on, or reasonably inferable from, the Contract Documents, with no additional input required to clarify the question. They will be returned without a response, with an explanatory notation.
- D. Content: Include identifiers necessary for tracking the status of each RFI, and information necessary to provide an actionable response.
- E. Attachments: Include sketches, coordination drawings, descriptions, photos, submittals, and other information necessary to substantiate the reason for the request.
- F. RFI Log: Prepare and maintain a tabular log of RFIs for the duration of the project.
- G. Responses: Content of answered RFIs will not constitute in any manner a directive or authorization to perform extra work or delay the project. If in Contractor's belief it is likely to lead to a change to Contract Sum or Contract Time, promptly issue a notice to this effect, and follow up with an appropriate Change Order request to Owner.
 1. Response may include a request for additional information, in which case the original RFI will be deemed as having been answered, and an amended one is to be issued forthwith. Identify the amended RFI with an R suffix to the original number.
 2. Do not extend applicability of a response to specific item to encompass other similar conditions, unless specifically so noted in the response.
 3. Upon receipt of a response, promptly review and distribute it to all affected parties, and update the RFI Log.
 4. Notify Architect within seven calendar days if an additional or corrected response is required by submitting an amended version of the original RFI, identified as specified above.

3.7 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:
 1. Product data.
 2. Shop drawings.
 3. Samples for selection.
 4. Samples for verification.
- B. Submit to Architect for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
- C. Samples will be reviewed for aesthetic, color, or finish selection.
- D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 01 7800 - Closeout Submittals.

3.8 SUBMITTALS FOR INFORMATION

- A. When the following are specified in individual sections, submit them for information:
 1. Design data.
 2. Certificates.
 3. Test reports.
 4. Inspection reports.
 5. Manufacturer's instructions.
 6. Manufacturer's field reports.
 7. Other types indicated.

- B. Submit for Architect's knowledge as contract administrator or for Owner.

3.9 SUBMITTALS FOR PROJECT CLOSEOUT

- A. Submit Correction Punch List for Substantial Completion.
- B. Submit Final Correction Punch List for Substantial Completion.
- C. When the following are specified in individual sections, submit them at project closeout in conformance to requirements of Section 01 7800 - Closeout Submittals:
 - 1. Project record documents.
 - 2. Operation and maintenance data.
 - 3. Warranties.
 - 4. Bonds.
 - 5. See Section 01 7800 - Closeout Submittals.
 - 6. Other types as indicated.
- D. Submit for Owner's benefit during and after project completion.

3.10 NUMBER OF COPIES OF SUBMITTALS

- A. Documents for Review:
 - 1. Small Size Sheets, Not Larger Than 8-1/2 by 11 inches: Submit the number of copies that Contractor requires, plus two copies that will be retained by Architect.
 - 2. Larger Sheets, Not Larger Than 36 by 48 inches: Submit one reproducible transparency and one opaque reproduction.
- B. Documents for Information: Submit four copies.
- C. Documents for Project Closeout: Make two reproduction of submittal originally reviewed. Submit two extra of submittals for information.
- D. Samples: Submit the number specified in individual specification sections; one of which will be retained by Architect.
 - 1. After review, produce duplicates.
 - 2. Retained samples will not be returned to Contractor unless specifically so stated.

3.11 SUBMITTAL PROCEDURES

- A. General Requirements:
 - 1. Use a separate transmittal for each item.
 - 2. Submit separate packages of submittals for review and submittals for information, when included in the same specification section.
 - 3. Transmit using approved form.
 - a. Use Form AIA G810.
 - 4. Sequentially identify each item. For revised submittals use original number and a sequential numerical suffix.
 - 5. All submittals shall be arranged and identified in content under section numbers and sequence of the Table of Contents of this Project Manual.
 - a. Multiple submittals from the same Table of Contents section shall be numbered consecutively.
 - 6. Identify: Project; Contractor; subcontractor or supplier; pertinent drawing and detail number; and specification section number and article/paragraph, as appropriate on each copy.
 - 7. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and Contract Documents.
 - a. Submittals from sources other than the Contractor, or without Contractor's stamp will not be acknowledged, reviewed, or returned.
 - 8. Schedule submittals to expedite the Project, and coordinate submission of related items.
 - a. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.

ADMINISTRATIVE REQUIREMENTS

- b. For sequential reviews involving Architect's consultants, Owner, or another affected party, allow an additional 7 days.
 - c. The Contractor is responsible for additional time for submittal review if the submittal is rejected or to be re-submitted.
 - d. The Contractor is responsible for notifying the Architect in writing if any submittal has not been received by the Contractor beyond the review time and prior to any claim for additional time for the project.
9. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
 10. Provide space for Contractor and Architect review stamps.
 11. When revised for resubmission, identify all changes made since previous submission.
 12. Distribute reviewed submittals. Instruct parties to promptly report inability to comply with requirements.
 13. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use.
- B. Product Data Procedures:
1. Submit only information required by individual specification sections.
 2. Collect required information into a single submittal.
 3. Submit concurrently with related shop drawing submittal.
 4. Do not submit (Material) Safety Data Sheets for materials or products.
- C. Shop Drawing Procedures:
1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting the Contract Documents and coordinating related work.
 2. Do not reproduce the Contract Documents to create shop drawings.
 3. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings.
- D. Samples Procedures:
1. Transmit related items together as single package.
 2. Identify each item to allow review for applicability in relation to shop drawings showing installation locations.

END OF SECTION

SECTION 01.3216

CONSTRUCTION PROGRESS SCHEDULE

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Preliminary schedule.
- B. Construction progress schedule, with network analysis diagrams and reports.

1.2 RELATED SECTIONS

- A. Section 01 1000 - Summary: Work sequence.

1.3 REFERENCE STANDARDS

- A. AGC (CPSM) - Construction Planning and Scheduling Manual; 2004.

1.4 SUBMITTALS

- A. Within 10 days after date established in Notice to Proceed, submit preliminary schedule defining planned operations for the first 60 days of Work, with a general outline for remainder of Work.
- B. Within 10 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
 - 1. Include written certification that major contractors have reviewed and accepted proposed schedule.
- C. Within 10 days after joint review, submit complete schedule.
- D. Submit updated schedule with each Application for Payment.
- E. Submit the number of opaque reproductions that Contractor requires, plus two copies that will be retained by Architect.
 - 1. One of the two copies retained by the Architect shall be an electronic disk in Microsoft Excel format.
- F. Submit under transmittal letter form specified in Section 01 3000 - Administrative Requirements.

1.5 QUALITY ASSURANCE

- A. Scheduler: Contractor's personnel or specialist Consultant specializing in CPM scheduling with one year minimum experience in scheduling construction work of a complexity comparable to this Project, and having use of computer facilities capable of delivering a detailed graphic printout within 48 hours of request.
- B. Contractor's Administrative Personnel: 3 years minimum experience in using and monitoring CPM schedules on comparable projects.

1.6 SCHEDULE FORMAT

- A. Listings: In chronological order according to the start date for each activity. Identify each activity with the applicable specification section number.
- B. Diagram Sheet Size: Maximum 22 x 17 inches.
- C. Sheet Size: Multiples of 8-1/2 x 11 inches.
- D. Scale and Spacing: To allow for notations and revisions.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 PRELIMINARY SCHEDULE

- A. Prepare preliminary schedule in the form of a preliminary network diagram.

3.2 CONTENT

- A. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction.
- B. Identify each item by specification section number.

- C. Identify work of separate stages and other logically grouped activities.
- D. Include conferences and meetings in schedule.
- E. Show accumulated percentage of completion of each item, and total percentage of Work completed, as of dates established for the monthly progress meetings.
- F. Coordinate content with schedule of values specified in Section 01 2000 - Price and Payment Procedures.
- G. Provide legend for symbols and abbreviations used.

3.3 NETWORK ANALYSIS

- A. Prepare network analysis diagrams and supporting mathematical analyses using the Critical Path Method.
- B. Illustrate order and interdependence of activities and sequence of work; how start of a given activity depends on completion of preceding activities, and how completion of the activity may restrain start of subsequent activities.
- C. Mathematical Analysis: Tabulate each activity of detailed network diagrams, using calendar dates, and identify for each activity:
 - 1. Preceding and following event numbers.
 - 2. Activity description.
 - 3. Estimated duration of activity, in maximum 15 day intervals.
 - 4. Earliest start date.
 - 5. Earliest finish date.
 - 6. Actual start date.
 - 7. Actual finish date.
 - 8. Latest start date.
 - 9. Latest finish date.
 - 10. Total and free float; float time shall accrue to Owner and to Owner's benefit.
 - 11. Monetary value of activity, keyed to Schedule of Values.
 - 12. Percentage of activity completed.
 - 13. Responsibility.
- D. Analysis Program: Capable of compiling monetary value of completed and partially completed activities, accepting revised completion dates, and re-computation of all dates and float.
- E. Required Reports: List activities in sorts or groups:
 - 1. By preceding work item or event number from lowest to highest.
 - 2. By amount of float, then in order of early start.

3.4 REVIEW AND EVALUATION OF SCHEDULE

- A. Participate in joint review and evaluation of schedule with Architect at each submittal.
- B. Evaluate project status to determine work behind schedule and work ahead of schedule.
- C. After review, revise as necessary as result of review, and resubmit within 10 days.

3.5 UPDATING SCHEDULE

- A. Maintain schedules to record actual start and finish dates of completed activities.
- B. Indicate progress of each activity to date of revision, with projected completion date of each activity.
- C. Annotate diagrams to graphically depict current status of Work.
- D. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
- E. Indicate changes required to maintain Date of Substantial Completion.
- F. Submit reports required to support recommended changes.
- G. Provide narrative report to define problem areas, anticipated delays, and impact on the schedule. Report corrective action taken or proposed and its effect.

CONSTRUCTION PROGRESS SCHEDULE

3.6 DISTRIBUTION OF SCHEDULE

- A. Distribute copies of updated schedules to Contractor's project site file, to subcontractors, suppliers, Architect, Owner, and other concerned parties.
- B. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.

END OF SECTION

SECTION 01.4000
QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Submittals.
- B. Testing and inspection agencies and services.
- C. Control of installation.
- D. Mock-ups.
- E. Tolerances.
- F. Manufacturers' field services.
- G. Defect Assessment.

1.2 RELATED REQUIREMENTS

- A. Document 00.7200 - General Conditions: Inspections and approvals required by public authorities.
- B. Section 01.3000 - Administrative Requirements: Submittal procedures.
- C. Section 01.4216 - Definitions.
- D. Section 01.4219 - Reference Standards.
- E. Section 01.6000 - Product Requirements: Requirements for material and product quality.

1.3 REFERENCE STANDARDS

- A. ASTM C1021 - Standard Practice for Laboratories Engaged in Testing of Building Sealants; 2008 (Reapproved 2014).
- B. ASTM C1077 - Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation; 2014.
- C. ASTM C1093 - Standard Practice for Accreditation of Testing Agencies for Masonry; 2013.
- D. ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction; 2012a.
- E. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection and/or Testing; 2014a.
- F. ASTM E543 - Standard Specification for Agencies Performing Nondestructive Testing; 2013.

1.4 TESTING AND INSPECTION AGENCIES AND SERVICES

- A. Contractor shall employ and pay for services of an independent testing agency to perform other specified testing. The selection of this testing agency is subject to the approval of the Architect.
- B. Employment of agency in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
- C. Contractor Employed Agency:
 - 1. Testing agency: Comply with requirements of ASTM E329, ASTM E543, ASTM C1021, ASTM C1077, ASTM C1093, ASTM D3740, and _____.
 - 2. Laboratory: Authorized to operate in the State in which the Project is located.
 - 3. Laboratory Staff: Maintain a full time registered Engineer on staff to review services.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Have Work performed by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.2 MOCK-UPS

- A. Mock-up Tests will be performed under provisions identified in this section and identified in the respective product specification sections.
- B. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes.
- C. Accepted mock-ups shall be a comparison standard for the remaining Work.
- D. Where mock-up has been accepted by Architect and is specified in product specification sections to be removed, protect mock-up throughout construction, remove mock-up and clear area when directed to do so by Architect.

3.3 PRE-INSTALLATION MEETINGS

- A. Schedule and conduct pre-installation meetings under provisions identified in this section and identified in the respective product specification sections.
- B. Schedule meetings a minimum of one (1) week prior to commencing the work of the trade, subcontractor or product.
- C. Require attendance or parties directly affect by the applicable work, including but not limited to the manufacturer's observer, project superintendent, subcontractor's foreman and skilled laborers who will be directly involved in the installation of the work.
- D. Review specifications requirements, workmanship and quality standards, tolerances, site conditions involving preparation and installation procedures, scheduling, coordination with related work and regulatory inspections/approvals.

3.4 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

3.5 TESTING AND INSPECTION

- A. See individual specification sections for testing and inspection required.

QUALITY REQUIREMENTS

- B. Testing Agency Duties:
 - 1. Provide qualified personnel at site. Cooperate with Architect and Contractor in performance of services.
 - 2. Perform specified sampling and testing of products in accordance with specified standards.
 - 3. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 4. Promptly notify Architect and Contractor of observed irregularities or non-conformance of Work or products.
 - 5. Perform additional tests and inspections required by Architect.
 - 6. Submit reports of all tests/inspections specified.
- C. Limits on Testing/Inspection Agency Authority:
 - 1. Agency may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Agency may not approve or accept any portion of the Work.
 - 3. Agency may not assume any duties of Contractor.
 - 4. Agency has no authority to stop the Work.
- D. Contractor Responsibilities:
 - 1. Deliver to agency at designated location, adequate samples of materials proposed to be used that require testing, along with proposed mix designs.
 - 2. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers' facilities.
 - 3. Provide incidental labor and facilities:
 - a. To provide access to Work to be tested/inspected.
 - b. To obtain and handle samples at the site or at source of Products to be tested/inspected.
 - c. To facilitate tests/inspections.
 - d. To provide storage and curing of test samples.
 - 4. Notify Architect and laboratory 24 hours prior to expected time for operations requiring testing/inspection services.
 - 5. Employ services of an independent qualified testing laboratory and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
 - 6. Arrange with Owner's agency and pay for additional samples, tests, and inspections required by Contractor beyond specified requirements.
- E. Re-testing required because of non-conformance to specified requirements shall be performed by the same agency on instructions by Architect.
- F. Re-testing required because of non-conformance to specified requirements shall be paid for by Contractor.

3.6 MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance equipment, and _____ as applicable, and to initiate instructions when necessary.
- B. Qualifications of observer:
 - 1. Full-time employee of Manufacturer
 - 2. Fully-knowledgeable of applicable codes, manufacturer's specified products and installation requirements for each
 - 3. Authorized to represent Manufacturer in all field discussions necessary to validate warranty
- C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

3.7 DEFECT ASSESSMENT

- A. Replace Work or portions of the Work not conforming to specified requirements.

- B. If, in the opinion of Architect, it is not practical to remove and replace the Work, Architect will direct an appropriate remedy or adjust payment.

END OF SECTION

SECTION 01.5000

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary utilities.
- B. Temporary telecommunications services.
- C. Temporary sanitary facilities.
- D. Temporary Controls: Barriers, enclosures, and fencing.
- E. Security requirements.
- F. Vehicular access and parking.
- G. Waste removal facilities and services.
- H. Project identification sign.
- I. Field offices.

1.2 TEMPORARY UTILITIES

- A. Provide and pay for all electrical power, lighting, water, heating and cooling, and ventilation required for construction purposes.

1.3 TELECOMMUNICATIONS SERVICES

- A. Provide, maintain, and pay for telecommunications services to field office at time of project mobilization.
- B. Telecommunications services shall include:
 - 1. Windows-based personal computer dedicated to project telecommunications, with necessary software and laser printer.
 - 2. Internet Connections: Minimum of one; DSL modem or faster.
 - 3. Email: Account/address reserved for project use.

1.4 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Maintain daily in clean and sanitary condition.

1.5 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- C. Provide protection for plants designated to remain. Replace damaged plants.
- D. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.6 FENCING

- A. Provide 6 foot (1.8 m) high fence around construction site; equip with vehicular and pedestrian gates with locks.

1.7 VEHICULAR ACCESS AND PARKING

- A. Coordinate access and haul routes with governing authorities and Owner.
- B. Provide and maintain access to fire hydrants, free of obstructions.
- C. Coordinate parking for construction personnel with Owner's requirements.

1.8 WASTE REMOVAL

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.

- B. Provide containers with lids. Remove trash from site periodically.
- C. If materials to be recycled or re-used on the project must be stored on-site, provide suitable non-combustible containers; locate containers holding flammable material outside the structure unless otherwise approved by the authorities having jurisdiction.
- D. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

1.9 PROJECT IDENTIFICATION

- A. The Contractor shall provide, install and maintain a project sign consisting of one sheet of 4'x8'x3/4" exterior grade plywood and all necessary supports and bracing. All exposed surfaces shall be painted per the Architect's instructions. Sign graphic shall be a full-sized self-adhered vinyl overlay. All content shall be approved by the Architect and Owner. The Architect shall furnish the Contractor with an electronic digital file of the sign content upon request.
- B. No other signs are allowed without Owner permission except those required by law.

1.10 FIELD OFFICES

- A. Office: Weathertight, with lighting, electrical outlets, heating, cooling equipment, and equipped with sturdy furniture, drawing rack, and drawing display table.
- B. Provide space for Project meetings, with table and chairs to accommodate 6 persons.
- C. Location of office to be approved by the Owner and Contractor.

1.11 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Date of Substantial Completion inspection.
- B. Remove underground installations to a minimum depth of 2 feet (600 mm). Grade site as indicated.
- C. Clean and repair damage caused by installation or use of temporary work.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01.6000
PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. General product, material and equipment (collectively referred to as "products") requirements.
- B. Re-use of existing products.
- C. Transportation, handling, storage and protection.
- D. Product option requirements.
- E. Or-Equal and Substitution limitations and procedures.
- F. Maintenance materials, including extra materials, spare parts, tools, and software.

1.2 RELATED REQUIREMENTS

- A. Document 00 2113 - Instructions to Bidders: There are no required or-equal or substitution procedures prior to bid date.
- B. Section 01 1000 - Summary: Lists of products to be removed from existing building.
- C. Section 01 4000 - Quality Requirements: Product quality monitoring.

1.3 REFERENCE STANDARDS

- A. 16 CFR 260.13 - Guides for the Use of Environmental Marketing Claims; Federal Trade Commission; Recycled Content; Current Edition.
- B. CAN/CSA Z809 - National Standard for Sustainable Forest Management; CSA International Inc; 2008.
- C. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.

1.4 SUBMITTALS

- A. Proposed Products List: Submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
 - 1. Submit within 15 days after date of Agreement.
 - 2. For products specified only by reference standards, list applicable reference standards.
- B. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- C. Shop Drawing Submittals: Prepared specifically for this Project; indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- D. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
 - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.

PART 2 PRODUCTS

2.1 EXISTING PRODUCTS

- A. Do not use materials and equipment removed from existing premises unless specifically required or permitted by the Contract Documents.
- B. Reused Products: Reused products include materials and equipment previously used in this or other construction, salvaged and refurbished as specified.

2.2 NEW PRODUCTS

- A. Provide new products unless specifically required or permitted by the Contract Documents.

2.3 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers with No Limitation as to Use of Other Manufacturer's Products: Use a product of one of the manufacturers named and meeting specifications or an approved or-equal or substitution per Paragraph 3.01 below.
- C. Products Specified by Naming One Manufacturer as a Sole Source: Use that product; no or-equal or substitution will be allowed.

2.4 MAINTENANCE MATERIALS

- A. Furnish extra materials, spare parts, tools, and software of types and in quantities specified in individual specification sections.
- B. Deliver to Project site; obtain receipt prior to final payment.

PART 3 EXECUTION

3.1 SUBSTITUTION LIMITATIONS AND PROCEDURES

- A. Reference AIA A201 - 2017: Section 3.4.4.
- B. Definitions:
 - 1. An "or-equal" is a material, product or equipment (collectively referred to as "product") of domestic manufacturer which is comparable (equal) to that described in the Bidding Documents in type, function, performance and quality.
 - 2. A "substitution" is a material, product or equipment (collectively referred to as "product") of domestic manufacturer which is comparable (equal) to that described in the Bidding Documents in type, function, performance and quality.
 - 3. Or-equals or substitutions will be considered subject to the terms below and to the provisions of Section 00 7200, AIA A201 - 2017, Paragraph 3.4.2, unless a specific technical specification section limits supply to a specific manufacturer's product.
- C. The Architect will only consider separate requests by product for proposed or-equals of substitutions where allowed and only if submitted within thirty (30) days after date established in Notice to Proceed, and provided that within that time:
 - 1. Contractor shall document each separate request with complete data substantiating compliance of proposed or-equal or substitution with Contract Documents to include providing printed manufacturer's line by line cross reference data for any proposed or-equal or substitution in sufficient detail to show the function, performance, quality, dimension and appearance of the proposed product in comparison to the specified product. Insufficient or incomplete data shall cause the proposed or-equal or substitution to be rejected.
 - 2. Any proposed or or-equal or substitution request shall provide all requirements as specified and shown on the drawings. The Contractor is advised that or-equals or substitutions may have different requirements for components than the specified product requirements. The Contractor shall coordinate any or-equal or substituted manufacturer's requirements with these specifications and the drawings and provide all necessary required modifications at no additional costs to the Owner.
- D. Or-equals or substitutions may be considered when a product, through no fault of the Contractor, becomes unavailable or unsuitable due to regulatory change.
- E. A request for approval of or-equal or for substitution constitutes a representation that the submitter:
 - 1. Has investigated proposed product and determined that (a) it is comparable (equal) or better than that described in the Bidding Documents in type, function, performance, and quality, and (b) for a

PRODUCT REQUIREMENTS

substitution it performs the same function as that described in the Bidding Documents but may differ in performance or quality.

2. Will provide the same warranty for the or-equal or substitution as for the specified product.
 3. Will coordinate installation and make changes to other Work to be complete with no additional cost to Owner.
 4. Waives claims for additional costs or time extension that may subsequently become apparent.
 5. Will reimburse Owner and Architect any required revisions to the Contract Documents.
 6. Will reimburse Owner and Architect for review or redesign services associated with re-approval by authorities.
- F. Proposed or-equals or substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request; when acceptance will require revision; or when:
1. In the Architect's judgement, the product, or material is not equal or a satisfactory substitution.
 2. The or-equal or substitution will impede the schedule; or
 3. The request is not made within the 30 days after date established in Notice to Proceed.
- G. The burden of proof that a proposed manufacturer or product is of equal or better than the specified or an acceptable substitution product shall remain with the Contractor. If deemed necessary by the Architect, the Contractor shall provide additional information, test reports, or manufacturer's Certificate of Conformance for review and approval.
- H. If the or-equal or substitution is rejected then the submitting Contractor has 5 working days to revise and resubmit the specified product material.
- I. If the or-equal or substitution is rejected for the second time, then it cannot be revised and resubmitted for a third time. The Contractor must submit the specified product.
- J. No or-equal or substitute product shall be ordered or installed without the written approval of the Architect who shall be the sole judge of equality or appropriateness for substitution.
- K. Delay caused by obtaining approvals for or-equals or substitutions will not be considered justifiable grounds for an extension of Contract Time.

3.2 TRANSPORTATION AND HANDLING

- A. Package products for shipment in manner to prevent damage; for equipment, package to avoid loss of factory calibration.
- B. If special precautions are required, attach instructions prominently and legibly on outside of packaging.
- C. Coordinate schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials.
- D. Transport and handle products in accordance with manufacturer's instructions.
- E. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.
- F. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- G. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage, and to minimize handling.
- H. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.3 STORAGE AND PROTECTION

- A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication.
- B. Store and protect products in accordance with manufacturers' instructions.
- C. Store with seals and labels intact and legible.

- D. Arrange storage of materials and products to allow for visual inspection for the purpose of determination of quantities, amounts, and unit counts.
- E. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- F. For exterior storage of fabricated products, place on sloped supports above ground.
- G. Protect products from damage or deterioration due to construction operations, weather, precipitation, humidity, temperature, sunlight and ultraviolet light, dirt, dust, and other contaminants.
- H. Comply with manufacturer's warranty conditions, if any.
- I. Do not store products directly on the ground.
- J. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- K. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- L. Prevent contact with material that may cause corrosion, discoloration, or staining.
- M. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- N. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION

EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Examination, preparation, and general installation procedures.
- B. Pre-installation meetings.
- C. Cutting and patching.
- D. Surveying for laying out the work.
- E. Cleaning and protection.
- F. Starting of systems and equipment.
- G. Demonstration and instruction of Owner personnel.
- H. Closeout procedures, including Contractor's Correction Punch List, except payment procedures.
- I. Fiscal provisions, legal submittals and additional administrative requirements: Conditions of the Contract.

1.2 RELATED REQUIREMENTS

- A. Section 01 1000 - Summary: Limitations on working in existing building; continued occupancy; work sequence; identification of salvaged and relocated materials.
- B. Section 01 3000 - Administrative Requirements: Submittals procedures, Electronic document submittal service.
- C. Section 01 4000 - Quality Requirements: Testing and inspection procedures.
- D. Section 01 7800 - Closeout Submittals: Project record documents, operation and maintenance data, warranties, and bonds.
- E. Individual Product Specification Sections:
 - 1. Advance notification to other sections of openings required in work of those sections.

1.3 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
 - 1. Structural integrity of any element of Project.
 - 2. Integrity of weather exposed or moisture resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed elements.
 - 5. Work of Owner or separate Contractor.
 - 6. Include in request:
 - a. Identification of Project.
 - b. Location and description of affected work.
 - c. Necessity for cutting or alteration.
 - d. Description of proposed work and products to be used.
 - e. Alternatives to cutting and patching.
 - f. Effect on work of Owner or separate Contractor.
 - g. Written permission of affected separate Contractor.
 - h. Date and time work will be executed.
- C. Project Record Documents: Accurately record actual locations of capped and active utilities.

1.4 PROJECT CONDITIONS

- A. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere and over adjacent property.

- B. Pollution Control: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with federal, state, and local regulations.

1.5 COORDINATION

- A. See Section 01 1000 for occupancy-related requirements.
- B. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- C. Coordinate completion and clean-up of work of separate sections.
- D. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

PART 2 PRODUCTS

2.1 PATCHING MATERIALS

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 01 6000 - Product Requirements.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or mis-fabrication.
- E. Verify that utility services are available, of the correct characteristics, and in the correct locations.
- F. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.3 PREINSTALLATION MEETINGS

- A. When required in individual specification sections, and as otherwise noted, convene a preinstallation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Architect seven days in advance of meeting date.

EXECUTION AND CLOSEOUT REQUIREMENTS

- D. Prepare agenda and preside at meeting:
 - 1. Review conditions of examination, preparation and installation procedures.
 - 2. Review coordination with related work.
- E. Record minutes and distribute copies within two days after meeting to participants, with two copies to Architect, Owner, participants, and those affected by decisions made.

3.4 GENERAL INSTALLATION REQUIREMENTS

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.

3.5 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

3.6 PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- D. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- E. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- F. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- G. Prohibit traffic from landscaped areas.
- H. Remove protective coverings when no longer needed; reuse or recycle coverings if possible.

3.7 SYSTEM STARTUP

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify Architect and Owner seven days prior to start-up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.
- D. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify that wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of applicable Contractor personnel in accordance with manufacturers' instructions.
- G. Submit a written report that equipment or system has been properly installed and is functioning correctly.

3.8 DEMONSTRATION AND INSTRUCTION

- A. Demonstrate operation and maintenance of products to Owner's personnel two weeks prior to date of Substantial Completion.
- B. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time, at equipment location.
- C. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.

- D. Provide a qualified person who is knowledgeable about the Project to perform demonstration and instruction of Owner's personnel.
- E. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- F. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- G. The amount of time required for instruction on each item of equipment and system is that specified in individual sections.

3.9 ADJUSTING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

3.10 FINAL CLEANING

- A. See Section 01 7100.
- B. Execute final cleaning prior to Substantial Completion.
 - 1. Clean areas to be occupied by Owner prior to final completion before Owner occupancy.

3.11 CLOSEOUT PROCEDURES

- A. Make submittals that are required by governing or other authorities.
 - 1. Provide copies to Architect and Owner.
- B. Accompany Project Coordinator on preliminary observation to determine items to be listed for completion or correction in the Contractor's Correction Punch List for Contractor's Notice of Substantial Completion.
- C. Notify Architect when work is considered ready for Architect's Substantial Completion observation.
 - 1. Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.
 - 2. Submit written certification containing Contractor's Correction Punch List, that Contract Documents have been reviewed, work has been inspected by the Contractor, and that work is complete in accordance with Contract Documents and ready for Architect's Substantial Completion observation.
 - a. The Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment.
 - 3. Within 10 days after receipt of such notice, Architect will make an observation site visit to determine the status of completion.
 - 4. Should Architect determine that the Work is not substantially complete:
 - a. Architect will promptly notify the Contractor in writing, giving the reasons therefor.
 - b. Failure to include or list an item of incomplete Work or deficiency does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.
 - c. Contractor shall remedy the deficiencies in the Work, and send a second written notice of substantial completion to the Architect.
 - d. Architect will re-inspect the Work.
 - e. Should Architect again determine that the work is not substantially complete, steps 1, 2 and 3 above shall be repeated and the Contractor shall pay to the Owner the costs of the Architect for this observation in accordance with Section 00 7200, Section 9.8.2.1.
 - 5. Non-Asbestos Containing Materials: The Contractor shall furnish a letter of Certification of non-use of asbestos containing materials prior to Substantial Completion.
 - 6. When Architect concurs that the Work is substantially complete he will:
 - a. Prepare a Certificate of Substantial Completion on AIA Document G704, accompanied by Contractor's list of items to be completed or corrected, as verified and amended by the Architect.
 - b. Submit the Certificate of Substantial Completion to the Owner and Contractor for their written acceptance of the responsibilities assigned to them in the Certificate.

EXECUTION AND CLOSEOUT REQUIREMENTS

- D. Conduct Substantial Completion observation and create Final Correction Punch List containing Architect's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Architect.
- E. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Owner-occupied areas.
- F. Notify Architect when work is considered finally complete and ready for Architect's Substantial Completion final observation.
 - 1. Submit written certification that:
 - a. Contract Documents have been reviewed.
 - b. Work has been inspected by the contractor for compliance with Contract Documents.
 - c. Work has been completed in accordance with Contract Documents.
 - d. Equipment and systems have been tested in the presence of the Owner's representative and are operational.
 - e. Work is completed and ready for final inspection.
- G. Architect will make a site visit to verify the status of completion with reasonable promptness after receipt of such verification. Monies will be held from the application for payment equal to double the value of incomplete work until all items are completed. If the items of incomplete or corrected work listed in the Certificate of Substantial Completion, as verified and amended by the Architect, are not complete; no later than the time following the date of Substantial Completion as specified in Section 00 7200, Section 9.11.1, the Contractor and his Surety shall be liable and pay the owner Liquidated Damages in the amount specified in Section 00 7200, par. 9.11.1 per calendar day until the work is acceptable and complete.
- H. Complete items of work determined by Architect listed in executed Certificate of Substantial Completion.
 - 1. Should the Architect consider that the Work is incomplete or defective, Architect will promptly notify the Contractor in writing, listing the incomplete or defective work.
 - 2. Contractor shall take immediate steps to remedy the stated deficiencies, and send a second written certification to the Architect that the work is complete.
 - 3. Architect finds that the work is acceptable under the Contract Documents, he shall request the Contractor to make closeout submittals and a Final Adjustment of Accounts.

3.12 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit a final statement of accounting to Architect:
 - 1. Statement shall reflect all adjustments to the Contract Sum:
 - 2. The original Contract Sum.
 - 3. Additions and deductions resulting from:
 - a. Previous Change Orders.
 - b. Allowances.
 - c. Unit Prices.
 - d. Deductions for un-corrected Work.
 - e. Deductions for liquidated damages.
 - f. Other adjustments.
 - 4. Total Contract Sum, as adjusted.
 - 5. Previous Payments.
 - 6. Sum Remaining Due.
- B. Include final Change Order reflecting approval of changed contract sum.
- C. Architect will prepare a final Change Order, reflecting approved adjustments to the Contract Sum which were not previously made by Change Orders.

3.13 FINAL APPLICATION FOR PAYMENT

- A. Contractor shall submit the final Application For Payment in accordance with procedures and requirements in the Conditions of the Contract. The final Application For Payment shall not be submitted prior to complete execution of the Final Change Order. If close out documents are not submitted by Contractor and approved by

Architect within 60 calendar days of the date of substantial completion, 1% of the total construction cost will be withheld from the Final Application for Payment.

- B. See the General Conditions and Supplementary Conditions for requirements for final payment and any retained percentage.
- C. When the Architect finds the Work acceptable under the Contract Documents, all closeout documents have been received, and the Contract fully performed, the Architect will issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information, and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with the terms and conditions of the Contract Documents and recommend that the conditions as a precedent to the Contractor's being entitled to final payment have been fulfilled.

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Project Record Documents.
- B. Maintenance Data.
- C. Warranties and bonds.
- D. Fiscal provisions, legal submittals and additional administrative requirements: Conditions of the Contract.

1.2 RELATED REQUIREMENTS

- A. Section 00 7200 - GENERAL CONDITIONS: Performance bond and labor and material payment bonds, warranty, and correction of work.
- B. Section 01 3000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- C. Section 01 7000 - Execution and Closeout Requirements: Contract closeout procedures.
- D. Individual Product Sections: Specific requirements for maintenance data.
- E. Individual Product Sections: Warranties required for specific products or Work.

1.3 SUBMITTALS

- A. Project Closeout Documents: Submit documents to Architect with claim for final Application for Payment.
 - 1. Closeout Documents shall include but not be limited to: Project Record Documents, Operation and Maintenance Data, Warranties and Bonds.
 - 2. Provide one (1) hard copies minimum, bound in 8 -1/2 x 11 inch three D side ring binders with durable plastic covers; 3 inch, maximum ring size, of all Closeout Documents.
 - a. Provide a Table of Contents for each binder.
 - b. Separate binders for each major Closeout item; ex. Record Documents, Operation and Maintenance Data (including Plumbing, Mechanical, and Electrical), Warranties and Bonds, etc.
 - c. Coordinate with Architect the minimum number of copies for Plumbing, Mechanical and Electrical as indicated in individual specification sections, to agree with this section and the requirements of the Owner.
 - d. See 3.06 for Assembly of Binders.
 - e. Drawings shall be full size with annotated changes in RED.
 - f. Any Closeout Documents larger than 11 x 17 inches and items that cannot be folded and included in the 3 ring binders, shall be folded or rolled in a fashion to allow storage.
 - 3. Provide three (3) Electronic disks of all Closeout Documents.
 - a. The Closeout Documents shall be electronically scanned in color to PDF format by the Contractor at the completion of the project onto DVD disks as part of the Project Record Documents Closeout Submittals. Each DVD disk shall have three disk copies, properly labeled with an adhesive label to the top side of the disk and protective sleeve with ring holes for placement in a ring binder. Each DVD disk shall have a Table of Contents listing the contents of each disk. The Table of Contents must be of a font size to be readable with the naked eye and can be part of the adhesive label or a separate sheet of paper marked and identified to the appropriate DVD.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work in RED:

1. Drawings.
 2. Specifications.
 3. Addenda.
 4. Change Orders and other modifications to the Contract.
 5. Submittals: Reviewed shop drawings, product data, and samples.
 - a. Arrange content by section numbers and sequence of Table of Contents of this Project Manual.
 - b. Multiple submittals from the same Table of Contents section shall be numbered consecutively.
 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
1. Manufacturer's name and product model and number.
 2. Product substitutions or alternates utilized.
 3. Changes made by Addenda and modifications.
 4. All markups shall be noted in RED.
- F. Non-Asbestos Containing Materials: The Contractor shall furnish a letter of Certification of non-use of asbestos containing materials.
- G. Record Drawings: Legibly mark each item to record actual construction including:
1. Measured depths of foundations in relation to finish first floor datum.
 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 4. Field changes of dimension and detail.
 5. Details not on original Contract drawings.
 6. Latent conditions not indicated or known prior to commencement of the Work , but discovered during construction activities.
 7. Other conditions discovered by the Owner, which directly or indirectly affect the project.
- H. Submittals/Shop Drawings: All submittals as required herein these specifications; see Section 01 3000.
1. All submittals shall be arranged and identified in content under section numbers and sequence of Table of Contents of this Project Manual.
- I. Binders: All Record Documents shall be assembled in accordance with 3.06 of this specifications section.
1. Any Record Documents larger than 11 x 17 inches and items that cannot be folded and included in the 3 ring binders, shall be folded or rolled in a fashion to allow storage.

3.2 MAINTENANCE DATA

- A. Source Data: For each product or system, list names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.
- E. Binders: All Maintenance Data shall be assembled in accordance with 3.06 of this specifications section.
1. Any Maintenance Data larger than 11 x 17 inches and items that cannot be folded and included in the 3 ring binders, shall be folded or rolled in a fashion to allow storage.

3.3 MAINTENANCE DATA FOR MATERIALS

- A. For Each Product, Applied Material:
 - 1. Product data, with catalog number, size, composition, and color and texture designations.
 - 2. Information for re-ordering custom manufactured products.
- B. Instructions for Care and Maintenance: Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental cleaning agents and methods, and recommended schedule for cleaning and maintenance.
- C. Additional information as specified in individual product specification sections.
- D. Where additional instructions are required, beyond the manufacturer's standard printed instructions, have instructions prepared by personnel experienced in the operation and maintenance of the specific products.
- E. Provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.
- F. Binders: All Maintenance Data for Materials shall be assembled in accordance with 3.06 of this specifications section.
 - 1. Any Maintenance Data for Materials larger than 11 x 17 inches and items that cannot be folded and included in the 3 ring binders, shall be folded or rolled in a fashion to allow storage.

3.4 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS

- A. See sections related to Plumbing, Mechanical and Electrical Work for individual requirements.
- B. Binders: All Operation and Maintenance Data for Equipment and Systems shall be coordinated with individual section requirements and assembled in accordance with 3.06 of this specifications section.
 - 1. Any Record Documents larger than 11 x 17 inches and items that cannot be folded and included in the binders, shall be folded or rolled in a fashion to allow storage.

3.5 WARRANTIES AND BONDS

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 10 days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
- F. Binders: All Warranties and Bonds shall be assembled in accordance with 3.06 of this specifications section.
 - 1. Any Warranties and Bonds larger than 11 x 17 inches and items that cannot be folded and included in the 3 ring binders, shall be folded or rolled in a fashion to allow storage.
- G. Contractor "Release of Liens".

3.6 REQUIRED DOCUMENTATION

- A. Contractor and Major Sub-Contractors Guarantee: The letter shall include a guarantee of all workmanship and material to be free of defects for a period of one year, unless required longer by any division of the specifications, and should any defects arise; then such defects shall be restored to the original condition at no expense to the Owner. This shall include any cutting and patching as may be required to correct the defective work.
- B. Contractor's Affidavit of Release of Liens, AIA Document G706A. Provide for this project, notarized and signed by the Contractor. Provide sworn statement and affidavit to Owner stating that all bills have been paid in full and that the Owner is released from any and all claims.

- C. Contractor's Affidavit of Payment of Debts and Claims, AIA Document G706. Provide, notarized and signed by Contractor.
- D. All Applications for Payment.
- E. Consent of Surety Company to Final Payment, AIA Document G707. Also include Surety's "General Power of Attorney" documentation.
- F. Certificate attesting that all materials used in the construction of the project are free of any asbestos containing fibers.
- G. Evidence of Compliance with Governing Authorities. (Such as Certificate of Occupancy from the City).
- H. Request for Final Payment, AIA Document G702, current edition, completed in full of a computer generated form having similar data.
- I. Power of Attorney: Closeout documents should be accompanied by an appropriate Power of Attorney.
- J. Other documents required by Architect or Engineer, and/or contained in the Contract Documents.

3.7 ASSEMBLY OF BINDERS

- A. Assemble operation and maintenance data into durable manuals for Owner's personnel use, with data arranged in the same sequence as, and identified by, the specification sections.
- B. Where systems involve more than one specification section, provide separate tabbed divider for each system.
- C. Binders: Commercial quality, 8-1/2 by 11 inch three D side ring binders with durable plastic covers; 3 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
 - 1. Any Closeout Documents larger than 11 x 17 inches and items that cannot be folded and included in the 3 ring binders, shall be folded or rolled in a fashion to allow storage.
- D. Cover: Identify each binder with typed or printed title, identify title of Project; identify subject matter of contents.
- E. Project Directory: Title and address of Project; names, addresses, and telephone numbers of Architect, Consultants, Contractor and subcontractors, with names of responsible parties.
- F. Tables of Contents: List every item separated by a divider, using the same identification as on the divider tab; where multiple volumes are required, include all volumes Tables of Contents in each volume, with the current volume clearly identified.
- G. Dividers: Provide tabbed dividers for each separate product and system; identify the contents on the divider tab; immediately following the divider tab include a description of product and major component parts of equipment.
- H. Text: Manufacturer's printed data, or typewritten data on 24 pound paper.
- I. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- J. Arrange content by systems under section numbers and sequence of Table of Contents of this Project Manual.
- K. Contents: Prepare a Table of Contents for each volume, with each product or system description identified:
 - 1. Directory, listing names, addresses, and telephone numbers of Architect, Contractor, Subcontractors, and major equipment suppliers.
 - a. Maintenance instructions for finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
 - b. Certificates.
 - c. Photocopies of warranties and bonds.
 - d. Letter signed by Owner's representative stating who received extra materials required by specifications and where they are stored. Examples: VCT, LAT, QT, CT, paint, etc.
- L. Provide a listing in Table of Contents for design data, with tabbed dividers and space for insertion of data.

CLOSEOUT SUBMITTALS

- M. Table of Contents: Provide title of Project; names, addresses, and telephone numbers of Architect, Consultants, and Contractor with name of responsible parties; schedule of products and systems, indexed to content.

END OF SECTION