

**City of Yale  
SENIOR CENTER**

**111 N B Street, Yale, Oklahoma 74085**

**PROJECT MANUAL**

**September 11, 2024**

**SCHEMMER PROJECT NO. 09334.001**

**SCHEMMER**

*Design with Purpose. Build with Confidence.*

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NOT USED

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Note: See Drawings for additional information.

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Note: See Drawings for additional information.

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Note: See Drawings for additional information.

**SECTION 003143**

**PERMIT APPLICATION**

**1.1 PERMIT APPLICATION INFORMATION**

- A. This Document with its referenced attachments is part of the Procurement and Contracting Requirements for Project. They provide Owner's information for Bidders' convenience and are intended to supplement rather than serve in lieu of the Bidders' own investigations. This Document and its attachments are not part of the Contract Documents.
- B. Permit Application: The Owner will complete the building permit application, pay all fees, and file with authorities having jurisdiction. The Contractor is responsible for paying inspection fees for inspections by the authorities having jurisdiction.

**END OF SECTION**

**SECTION 004113**

**BID FORM - STIPULATED SUM (SINGLE-PRIME CONTRACT)**

**1.1 BID INFORMATION**

- A. Bidder: \_\_\_\_\_.
- B. Project Name: City of Yale, Senior Center
- C. Project Location: 111 N B Street, Yale, Oklahoma 74085
- D. Owner: City of Yale
- E. Architect: The Schemmer Associates Inc.
- F. Architect Project Number: 09334.001

**1.2 CERTIFICATIONS AND BASE BID**

- A. A. Base Bid plus a 2% Owner Contingency, for a Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Drawings, Specifications, and all subsequent Addenda, as prepared by The Schemmer Associates Inc. and Owner's consultants, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:

1. \_\_\_\_\_ Dollars

(\$\_\_\_\_\_).

**1.3 TIME OF COMPLETION**

- A. The undersigned Bidder proposes and agrees hereby to commence the Work of the Contract Documents on a date specified in a written Notice to Proceed to be issued by Architect and shall fully complete the Work within \_\_\_\_\_ calendar days.

**1.4 ACKNOWLEDGEMENT OF ADDENDA**

- A. The undersigned Bidder acknowledges receipt of and use of the following Addenda in the preparation of this Bid:
  - 1. Addendum No. 1, dated \_\_\_\_\_.
  - 2. Addendum No. 2, dated \_\_\_\_\_.
  - 3. Addendum No. 3, dated \_\_\_\_\_.
  - 4. Addendum No. 4, dated \_\_\_\_\_.

**1.5 BID SUPPLEMENTS**

- 1. Not Applicable

**1.6 CONTRACTOR'S LICENSE**

- A. The undersigned further states that it is a duly licensed contractor, for the type of work proposed, in Oklahoma, and that all fees, permits, etc., pursuant to submitting this proposal have been paid in full.

**1.7 LIST OF PROPOSED MAJOR SUB-CONTRACTORS (include General Conditions and Fee)**

- A. Grading: \_\_\_\_\_
- B. Utilities: \_\_\_\_\_
- C. Precast Material & Erection: \_\_\_\_\_
- D. Glazing: \_\_\_\_\_
- E. Steel Material & Erection: \_\_\_\_\_
- F. Roofing: \_\_\_\_\_
- G. HVAC: \_\_\_\_\_
- H. Plumbing: \_\_\_\_\_
- I. Electrical & Fire Alarm: \_\_\_\_\_

**1.8 CHANGE ORDER ALLOWABLE OVERHEAD AND PROFIT**

- A. In the case of a net increase in Contract Sum, the overhead and profit shall be determined as follows:
  - 1. Contractor performed work, overhead: \_\_\_\_\_% (Limit to 5%)
  - 2. Contractor performed work, profit: \_\_\_\_\_% (Limit to 5%)
  - 3. Contractor mark-up on subcontractor performed work: \_\_\_\_\_% (Limit to 5%)
  - 4. Subcontractor overhead: \_\_\_\_\_% (Limit to 10%)
  - 5. Subcontractor profit: \_\_\_\_\_% (Limit to 10%)
  
- B. In the case of a net decrease in Contract Sum, the overhead and profit shall be determined as follows:
  - 1. Contractor performed work, overhead: \_\_\_\_\_% (Limit to 5%)
  - 2. Contractor performed work, profit: \_\_\_\_\_% (Limit to 5%)
  - 3. Contractor mark-up on subcontractor performed work: \_\_\_\_\_% (Limit to 5%)
  - 4. Subcontractor overhead: \_\_\_\_\_% (Limit to 10%)
  - 5. Subcontractor profit: \_\_\_\_\_% (Limit to 10%)

**1.9 SUBMISSION OF BID**

Respectfully submitted this \_\_\_\_\_ day of \_\_\_\_\_, 202\_.

Submitted By: \_\_\_\_\_  
(Name of bidding firm or corporation)

Authorized Signature: \_\_\_\_\_  
(Handwritten signature)

Signed By: \_\_\_\_\_  
(Type or print name)

Title: \_\_\_\_\_  
(Owner/Partner/President/Vice President)

Witness By: \_\_\_\_\_  
(Handwritten signature)

Attest: \_\_\_\_\_  
(Handwritten signature)

By: \_\_\_\_\_  
(Type or print name)

Title: \_\_\_\_\_  
(Corporate Secretary or Assistant Secretary)

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

City, State, Zip \_\_\_\_\_

Phone: \_\_\_\_\_

License No.: \_\_\_\_\_

Federal ID No.: \_\_\_\_\_

(Affix Corporate Seal Here)

**END OF SECTION**

**SECTION 011000**

**SUMMARY**

**PART 1 - GENERAL**

1.1 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Work under separate contracts.
4. Access to site.
5. Coordination with occupants.
6. Work restrictions.
7. Specification and drawing conventions.

B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.2 PROJECT INFORMATION

A. Project Identification: City of Yale, Senior Center

B. Project Location: 111 N B Street, Yale, Oklahoma 74085

C. Owner: DMI, Attn: Deanna Couch, (918) 387-2405

D. Architect: The Schemmer Associates Inc., 100 South Broadway, Suite 200, Edmond OK 73034, Attn: Mark Gandy, (405) 312-7053.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and consists of the following:

1. Demolition of an existing structure and slab. Election of a new metal building with a metal roof of approximately 4,500 SF. A new kitchen, appliances, restrooms, two meeting rooms, Pantry and storage room. Acoustic grid and hard lid ceilings, New mechanical systems.

B. Type of Contract.

1. Project will be constructed under a single prime contract.

1.4 WORK UNDER SEPARATE CONTRACTS

A. General: Cooperate fully with separate contractors (if any) so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under separate contracts.



1.5 ACCESS TO SITE

- A. General: Contractor shall have full use of Project site for construction operations during construction period. Contractor's use of Project site is limited only by Owner's right to perform work or to retain other contractors on portions of Project.

1.6 COORDINATION WITH OCCUPANTS

- A. Owner Limited Occupancy of Completed Areas of Construction: Owner reserves the right to occupy and to place and install equipment in completed portions of the Work, prior to Substantial Completion of the Work, provided such occupancy does not interfere with completion of the Work. Such placement of equipment and limited occupancy shall not constitute acceptance of the total Work.
  - 1. Architect will prepare a Certificate of Substantial Completion for each specific portion of the Work to be occupied prior to Owner acceptance of the completed Work.
  - 2. Obtain a Certificate of Occupancy from authorities having jurisdiction before limited Owner occupancy.
  - 3. Before limited Owner occupancy, mechanical and electrical systems shall be fully operational, and required tests and inspections shall be successfully completed. On occupancy, Owner will operate and maintain mechanical and electrical systems serving occupied portions of Work.
  - 4. On occupancy, Owner will assume responsibility for maintenance and custodial service for occupied portions of Work.

1.7 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
  - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
  - 1. Notify Architect and Owner not less than two days in advance of proposed utility interruptions.
- C. Controlled Substances: Use of tobacco products and other controlled substances on Project site is not permitted.

1.8 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
  - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
  - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.

- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
  - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
  - 2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings.
  - 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

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

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

**END OF SECTION**

**SECTION 012900**  
**PAYMENT PROCEDURES**

**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to this Section.
- B. Section 017700 Closeout Procedures.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements governing the Contractor's Applications for Payment.
- B. Coordinate the Schedule of Values and Applications for Payment with the Contractor's Construction Schedule, List of Subcontracts, and Submittal Schedule.
- C. The Contractor's Construction Schedule and Submittal Schedule are included in Section "Submittals."

1.3 MARGINS OF COST

- A. Show line items for indirect costs, and margins on actual costs, only to the extent that such items will be listed individually in Applications for Payment. Each item in the Schedule of Values and Applications for Payment shall be complete including its total cost and proportionate share of general overhead and profit margin.
- B. At the Contractor's option, temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown as separate line items in the Schedule of Values or distributed as general overhead expense.

1.4 SCHEDULE UPDATING

- A. Update and resubmit the Schedule of Values when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect and paid for by the Owner.
- B. The initial Application for Payment, the Application for Payment at time of Substantial Completion, and the final Application for Payment involve additional requirements.
- C. Pay Application Times: Application for payment shall be submitted to the Owner on or before the 5th day of each month for work completed and material stored on site up to the last day of the previous month.

- D. The Owner will only pay for materials and equipment stored at the job site, unless a properly executed "**Supplementary Off-Site Storage Agreement**" has been approved in advance. Payments being made by the Owner in advance of, rather than following, delivery of such materials to the building site will be in accord with the following conditions:
1. Materials are plainly tagged or marked as property of the Owner.
  2. Materials are segregated in said place of storage.
  3. Materials are kept free from any liens or encumbrances by Contractor or Subcontractor and shall be kept adequately insured against loss to Owner by theft, fire or other casualty at the expense of the Contractor or Subcontractor. Proof of Insurance must be attached to the agreement.
  4. Material is moved to the building site as needed in construction work without expense to the Owner.
  5. Materials are available for Architect's and Owner's unscheduled review.
  6. Certificate of Insurance with Owner listed as additional insured.
  7. Photos of materials.
- E. Payment Application Forms: Use AIA Document G702 and Continuation Sheets G703 as the form for Application for Payment.
- F. Application Preparation: Complete every entry on the form, including notarization and execution by person authorized to sign legal documents on behalf of the Owner. Incomplete applications will be returned without action.
- G. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions have been made.
- H. Include amounts of Change Orders and Construction Change Directives issued prior to the last day of the construction period covered by the application.
- I. Transmittal: Submit one (1) executed copies of each Application for Payment to the Owner by email.
- J. One (1) copy shall be complete, including waivers of lien and similar attachments, when required.
- K. Transmit each copy with a transmittal form listing attachments, and recording appropriate information related to the application in a manner acceptable to the Architect.
- L. Waivers of Mechanics Lien: With each Application for Payment submit waivers of mechanics liens from Subcontractors or Sub-subcontractors and suppliers for the construction period covered by the previous application.
1. Submit partial waivers on each item for the amount requested, prior to deduction for retainage, on each item.
  2. When an application shows completion of an item, submit final or full waivers.
  3. The Owner reserves the right to designate which entities involved in the Work must submit waivers.
  4. Waiver Delays: Submit each Application for Payment with the Contractor's waiver of mechanics lien for the period of construction covered by the previous application.
  5. Submit final Application for Payment with or preceded by final waivers from every entity involved with performance of Work covered by the application who could lawfully be entitled to a lien.
  6. Waiver Forms: Submit waivers of lien on forms, and executed in a manner, acceptable to the Owner.

- M. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of the first Application for Payment include the following:
1. Certified list of Subcontractors.
  2. List of principal suppliers and fabricators.
  3. Schedule of values.
  4. Contractor's construction schedule (preliminary if not final).
  5. Schedule of principal products.
  6. Submittal schedule (preliminary, if not final).
  7. List of Contractor's staff assignments.
  8. List of Contractor's principal consultants.
  9. Copies of building permits.
  10. Copies of authorizations and licenses from governing authorities for performance of the work.
  11. Certificate of Insurance showing appropriate coverage and naming the Owner as additional insured.
  12. Initial progress report.
  13. Report of pre-construction meeting.
  14. Cash flow projection.
- N. Payment: Upon approval, the Owner shall on the 5<sup>th</sup> day of the following month, pay to the contractor, on account of the contractor, a value per provisions stipulated in the General Conditions for labor and materials incorporated in the work.
- O. Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment; this application shall reflect any Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- P. Administrative actions and submittals that shall proceed or coincide with this application include:
1. Occupancy permits and similar approvals.
  2. Warranties (guarantees) and maintenance agreements.
  3. Test/adjust/balance records.
  4. Maintenance instructions.
  5. Meter readings.
  6. Start-up performance reports.
  7. Change-over information related to Owner's occupancy, use, operation and maintenance.
  8. Final cleaning.
  9. Advice on shifting insurance coverages.
  10. List of incomplete Work recognized as exceptions to Architect's Certificate of Substantial Completion.
- Q. Final Payment Application: Administrative actions and submittals which must precede or coincide with submittal of the final payment Application for Payment include the following:
1. Completion of Project close-out requirements.
  2. Completion of items specified for completion after substantial completion.
  3. Assurance that unsettled claims will be settled.
  4. Assurance that Work not completed and accepted will be completed without undue delay.
  5. Transmittal of required Project construction records to Owner.
  6. Proof that taxes, fees and similar obligations have been paid.
  7. Removal of temporary facilities and services.
  8. Removal of surplus materials, rubbish and similar elements.
  9. Change of door locks to Owner's access.
  10. Reference section 017700 and section 017400.

- R. Final Payment: After Final Completion, and upon receipt of Applications for Payment submitted in triplicate on AIA Documents G702 and G703, May 1992 Edition, accompanied by Consent of Surety Company to Final Payment and Contractor's Affidavit of Payment of Debts and Claims executed in duplicate on AIA Documents G707 and G706, 1994 Editions respectively, and other items required in Section 017700, and upon certification of the Architect/Engineer, the Owner shall pay the Contractor the entire balance of the Contract Sum.

**END OF SECTION**

**SECTION 012910**

**SCHEDULE OF VALUES AND PROJECT SCHEDULE**

**PART 1 - GENERAL**

1.1 WORK INCLUDED

- A. Furnish all labor, materials and services to provide a schedule of values and estimated monthly cash flow report in accord with the Contract Documents.
- B. See General Conditions of the Contract for Construction for additional requirements.

1.2 SUBMITTALS

- A. Provide submittals according to the provisions of Section 013200.
- B. Submit typed or electronic printout of schedule of values and estimated monthly cash flow reports.
- C. Submit within 15 days of Notice To Proceed.

1.3 SCHEDULE OF VALUES

- A. Contractor shall submit a detailed Schedule of Values. A separate labor and material dollar amount shall be listed for each category. List all categories within each Specification Division that apply to the project.
- B. The Architect reserves the right to request specific items, other than listed below, to be further identified and added to the listed schedule of values.

1.4 ESTIMATED CASH FLOW REPORT

- A. Contractor shall provide an estimated monthly cash flow report for the entire length of the Project Schedule. It is agreed by both the Owner and the Contractor that this estimate is for rough budgeting and that actual monthly payment will be based on actual work in place and material stored on or off site.

1.5 PROJECT SCHEDULE

- A. Per the General Conditions, Contractor shall submit a detailed project schedule.
- B. Secure time commitments for performing critical elements of the Work from parties involved. Coordinate each element on the schedule with other construction activities; include minor elements involved in the sequence of the Work. Show each activity in proper sequence. Indicate graphically sequences necessary for completion of related portions of the Work.
- C. Phasing: Provide notations on the schedule to show how the sequence of the Work is affected by requirements for phased completion to permit Work by separate Contractors and partial occupancy by the Owner prior to Substantial Completion.
- D. Refer to Section "Payment Procedures" for cost reporting and payment procedure.

- E. Distribution: Following response to the initial submittal, print and distribute copies to the Architect, Owner, Subcontractors, and other parties required to comply with scheduled dates. Post copies in the Project meeting room and temporary field office.
- F. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
- G. Schedule Updating: Revise the schedule after each meeting or activity, where revisions have been recognized or made. Issue the updated schedule concurrently with report of each meeting.

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

NOT USED

**END OF SECTION**



**SECTION 013100**  
**PROJECT MEETINGS**

**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division - 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements for project meetings including but not limited to:
  - 1. Pre-Construction Conference.
  - 2. Progress Meetings.
  - 3. Pre-Installation Conferences.

1.3 PRECONSTRUCTION CONFERENCE

- A. The Architect will schedule a conference after Notice of Award.
- B. Attendance Required: Owner, Architect, Prime Contractors and all major Subcontractors.
- C. Agenda:
  - 1. Distribution of additional Contract Documents.
  - 2. Submission of list of Subcontractors, list of products, Schedule of Values, and progress schedule.
  - 3. Designation of personnel representing the parties in Contract.
  - 4. Procedures and processing of field decisions, submittals, substitutions, applications for payment, proposal request, Change Orders and Contract closeout procedures.
  - 5. Scheduling.

1.4 PROGRESS MEETINGS

- A. The Construction Manager will schedule and administer bi-weekly progress meetings throughout progress of the Work.
- B. Attendance Required: Prime Contractors and their job superintendents, major Subcontractors and suppliers, Owner, and Architect as appropriate to agenda topics for each meeting.
- C. Prior to scheduled progress meeting (at least two days before) each prime contractor shall prepare and submit to Construction Manager the following:
  - 1. List of outstanding issues.
  - 2. Update the percent (%) complete schedule.
  - 3. Work completed to date.
  - 4. Anticipated work to be commenced for the following week.
- D. Agenda:
  - 1. Review minutes of previous meeting and outstanding issues.
  - 2. Review of Work progress.
  - 3. Field observations, problems, and decisions.
  - 4. Identification of problems which 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.

1.5 PRE-INSTALLATION CONFERENCES (see Section 013200)

- A. The Contractor shall conduct a pre-installation conference at the site before each major construction activity that requires coordination with other construction. The Installer and representatives of manufacturers and fabricators involved in or affected by the installation, and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise the Architect and Owner of schedules meeting dates.
- B. Record significant discussions and agreements and disagreements of each conference, along with the approved schedule. Distribute the record of the meeting to everyone concerned, promptly, including the Owner and Architect.
- C. Do not proceed if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of Work and reconvene at the earliest feasible date.

**END OF SECTION**

**SECTION 013200**

**COORDINATION**

**PART 1 - GENERAL**

1.1 WORK INCLUDED

- A. Furnish all labor, equipment and services for project coordination as indicated, in accord with Contract Documents.
- B. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous services incidental to or necessary for completion of work under this section.
- C. See General Conditions of the Contract for Construction for additional requirements.

1.2 RELATED SECTIONS

- A. Section 013100 - Project Meetings.

1.3 COORDINATION

- A. All Contractors, whether combined or separate contracts are utilized, are required to coordinate work of the various Sections of Specifications to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items installed later.
- B. All Contractors, whether combined or separate contracts are utilized, are to verify characteristics of elements of interrelated equipment are compatible; coordinate work of various Sections having interdependent responsibilities for installing, connecting to, and placing in service such equipment.
- C. All Contractors, whether combined or separate contracts are utilized, are to coordinate space requirements and installation of mechanical and electrical work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduits as closely as practicable; make runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. Mechanical and Electrical Contractors, whether combined or separate contracts are utilized, are to in all finished areas, except as specifically noted that exposed items are allowed in an individual room, must conceal pipes, ducts, and wiring conduits in the construction. Coordinate locations of fixtures and outlets with finish elements of all other contractors.
- E. Where necessary, prepare memoranda for distribution to each party involved outlining special procedure required for coordination. Include such items as required notices, reports, and attendance at meetings.
- F. Prepare similar memoranda for the Owner and separate Contractors where coordination of their Work is required.
- G. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
  - 1. Preparation of schedules.
  - 2. Installation and removal of temporary facilities.
  - 3. Delivery and processing of submittals.
  - 4. Progress meetings.
  - 5. Project Close-out activities.

- H. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.

#### 1.4 GENERAL INSTALLATION PROVISIONS

- A. Inspection of Conditions: Contractor shall inspect and approve both the substrate and conditions under which Work is to be performed prior to requiring installers of each major component to inspect for acceptance. Contractor shall not allow installers to proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. Manufacturer's Instructions: Comply with manufacturer's installation instructions and recommendations, to the extent that those instructions and recommendations are more explicit or stringent than requirements contained in Contract Documents.
- C. Inspect materials or equipment immediately upon delivery and again prior to installation. Verify that products which have been fabricated to Contract Document specifications are in compliance. Reject damaged, defective, and noncompliance items.
- D. Provide attachment and connection devices and methods necessary for securing Work. Secure Work true to line and level. Allow for expansion and building movement.
- E. Visual Effects: Provide uniform joint widths in exposed Work. Arrange joints in exposed Work to obtain the best visual effect. Refer questionable choices to the Architect for final decision.
- F. Recheck measurements and dimensions, before starting each installation.
- G. Install each component during weather conditions and Project status that will ensure the best possible results. Isolate each part of the completed construction from incompatible material as necessary to prevent deterioration.
- H. Coordinate temporary enclosures with required inspections and tests, to minimize the necessity of uncovering completed construction for that purpose.
- I. Mounting Heights: Where mounting heights are not indicated, install individual components at standard mounting heights recognized within the industry for the particular application indicated. Refer questionable mounting heights decision to the Architect for final decision.

#### 1.5 CLEANING AND PROTECTION (reference Section 015600)

#### 1.6 REQUIRED CONFERENCES

- A. The following pre-installation conferences are specifically required in addition to those noted in Section 013100.
  - 1. Requirements for Special Inspection services by third party.
  - 2. Concrete pavement.
  - 3. Site utilities.
  - 4. Fine grading (pre-sod, landscaping, irrigation system, etc.)
  - 5. Special foundations.
  - 6. Masonry.
  - 7. Waterproofing.
  - 8. Roofing.
  - 9. Flashings.
  - 10. Sealants.
  - 11. Doors and Hardware.
  - 12. Owner keying requirements.

13. Windows.
14. Paint.
15. Placement of accessories (marker boards, etc.)
16. Drywall blocking requirements.
17. Carpet.
18. Special finishes.
19. Casework.
20. Plumbing fixtures.
21. HVAC system components (including filter replacements)
22. Ductwork.
23. HVAC control drawings.
24. Fire sprinkler system and placement of heads.
25. Special electrical systems (Fire Alarm, Clocks, Security, etc.)
26. Voice/Data/Video systems (to include technology interface)
27. Mechanical Systems Balancing.
28. Commissioning.

1.7 SUBMITTALS

- A. Coordination Drawings: Prepare and submit coordination Drawings where close and careful coordination is required for installation of products and materials fabricated off-site by separate entities, and where limited space availability necessitates maximum utilization of space for efficient installation of different components.
- B. Show the interrelationship of components shown on separate Shop Drawings.
- C. Indicate required installation sequences.
- D. Comply with requirements contained in Section "Submittals."
- E. Refer to Mechanical and Electrical design-build drawings for specific coordination Drawing requirements.
- F. Staff Names: Within 10 days of Notice to Proceed, submit a list of the Contractor's principal staff assignments, including the Superintendent and other personnel in attendance at the site; identify individuals, their duties and responsibilities; list their addresses and telephone numbers.
- G. Post copies of the list in the Project meeting room, the temporary field office, and by each temporary telephone.
- H. All Prime Contractors to coordinate completion and clean up of Work of separate Sections in preparation for Substantial Completion.
- I. After Owner occupancy of premises, all Prime Contractors to coordinate access to site with the Owner for correction of defective Work and Work not in accordance with Contract Documents, in order to minimize disruption of Owner's activities.

1.8 PRE-CONSTRUCTION CONFERENCE (Reference Section 013100, Project Meetings)

1.9 PROGRESS MEETINGS (Reference Section 013100, Project Meetings)

1.10 PRE-INSTALLATION CONFERENCES (Reference Section 013100, Project Meetings)

**END OF SECTION**

**SECTION 013233**  
**PHOTOGRAPHIC DOCUMENTATION**

**PART 1 - GENERAL**

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
  - 1. Periodic construction photographs.
- B. Related Requirements:
  - 1. Section 017700 "Closeout Procedures" for submitting photographic documentation as Project Record Documents at Project closeout.

1.2 INFORMATIONAL SUBMITTALS

- A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include same information as corresponding photographic documentation.
- B. Digital Photographs: Submit unaltered, original, full-size image files within three days of taking photographs.
  - 1. Digital Camera: Minimum sensor resolution of 2 megapixels.
  - 2. Identification: Provide the following information with each image description in file metadata tag:
    - a. Name of Project.
    - b. Name and contact information for photographer.
    - c. Date photograph was taken.
    - d. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.

1.3 QUALITY ASSURANCE

- A. Photographer Qualifications: An individual who has been regularly engaged taking photographs of construction projects for not less than three years. Quality of photographs must be acceptable to Owner and Architect.

**PART 2 - PRODUCTS**

2.1 PHOTOGRAPHIC MEDIA

- A. Digital Images: Provide images in JPG format, with minimum size of 2 megapixels.

**PART 3 - EXECUTION**

3.1 CONSTRUCTION PHOTOGRAPHS

- A. Photographer: Engage a qualified photographer to take construction photographs.
- B. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.
  - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- C. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
  - 1. Date and Time: Include date and time in file name for each image.
  - 2. Field Office Images: Maintain one set of images accessible in the field office at Project site, available at all times for reference. Identify images in the same manner as those submitted to Architect and Construction Manager.
- D. Periodic Construction Photographs: Take 20 photographs monthly, coinciding with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.
- E. Final Completion Construction Photographs: Take 20 color photographs after date of Substantial Completion for submission as Project Record Documents. Construction Manager will inform photographer of desired vantage points.

**END OF SECTION**

**SECTION 013300**  
**SUBMITTAL PROCEDURES**

**PART 1 - GENERAL**

1.1 WORK INCLUDED

- A. Furnish all labor, materials, tools, equipment, and services for furnishing, processing, delivery, reproduction, and other functions for scheduling and handling of shop drawings, samples and project data as indicated, in accord with Contract Documents.
- B. Completely coordinate with work of all other trades.
- C. Although such work is not specifically indicated, furnish, and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for completion of work under this section.
- D. See General Conditions of the Contract for Construction for additional requirements.
- E. See specific individual technical sections of the Project Manual for data required.

1.2 DEFINITIONS

- A. "Base" manufacturer: Manufacturer listed as "base" manufacturer in Part 2 of specification section. More than one manufacturer can be listed as "base". Manufacturer(s) listed as "base" are either: The particular manufacturer the project was designed around or a manufacturer of an identical product. It does not include manufacturers listed as "optional manufacturers" in Part 2 of specification section.

1.3 SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND PROJECT DATA GENERAL

- A. Contractor is responsible for making all submissions.
  - 1. Schemmer will require the use of Newforma project management software for all submittals, RFI's, ASI's, Change Proposal Requests, etc. Schemmer's designated Construction Administration person will initiate the project setup with the Contractor and Owner.
  - 2. Submit physical samples to Architect's address indicated on Title Sheet.
  - 3. Transmittals are to include items from one section only.
  - 4. Transmit all items with Architect's transmittal form (form attached).
  - 5. Identify each transmittal using applicable 6-digit specification section number with a dash and an added number, i.e., metal handrails might be numbered 055000-1. If returned for resubmission, second submission would be 055000-1A.
- B. Provide all information required for complete review of each item in one submittal.
- C. Make submittals sufficiently in advance of date required to allow Architect reasonable time for review, and re-submission if necessary.
  - 1. Items not submitted in accord with provisions of this section will be returned, without action, for re-submission.
  - 2. Submissions on items not approved for use by specifications, addenda, or change order will be marked "Rejected".



#### 1.4 SHOP DRAWINGS AND PRODUCT DATA SUBMITTALS

- A. Shop drawing and product data submittals are required as called for by submittal paragraph in each specification section.
  - 1. Submit certification of origin for all products in accordance with Section 011000.
- B. Identify drawings with manufacturer, item, use, type, project designation, specification section or drawing detail reference.
- C. Submit electronic copies of standard items such as equipment brochures, cuts of fixtures, or standard catalog items.
  - 1. Indicate exact item or model and all proposed options.
  - 2. Include scale details, sizes, dimensions, performance characteristics, capacities, wiring diagrams, controls, and other pertinent data.
  - 3. Contractor will receive electronic copies back and will be responsible for transmitting copies to suppliers, field subcontractors, etc.

#### 1.5 SAMPLE SUBMITTALS

- A. Identify samples with manufacturer's name, item, use, type, project designation, specification section or drawing detail reference, color, range, texture, finish and other pertinent data.
- B. Submit a minimum of (3) samples to address indicated, or construction site if required.
  - 1. Include brochures, shop drawings, and installation instructions, if required, with transmittal.
  - 2. Submit transmittal for site-built samples to address indicated.
  - 3. Submit samples, as specified, to each address listed above.
- C. Architect may, at his option, retain samples for comparison purposes until completion of work.
  - 1. Samples will be returned or may be used in the work unless technical section specifically indicates otherwise.
  - 2. Remove samples when directed.
  - 3. Pay all costs of furnishing, constructing, and removing samples.

#### 1.6 PROJECT DATA SUBMITTALS

- A. Submit project data as indicated in each individual specification section of the Project Manual.
- B. Project data is information to be retained for project file and will receive no Architect/Engineer action.
- C. Use of transmittal form not required.

#### 1.7 CONTRACTOR ACTION: SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

- A. Review, approve and stamp all items (including all drawing sheets) prior to submission to Architect.
- B. Contractor's stamp must indicate that:
  - 1. All field dimensions and quantities have been verified.
  - 2. All field construction criteria, materials, catalog numbers and similar data have been verified.
  - 3. All submittal data have been reviewed and coordinated with requirements of the Work and Contract Documents.
  - 4. Submittal is certified to comply with Contract Documents.

- C. Reproduce and distribute submittals receiving "Furnish as Submitted" or "Furnish as Noted" stamp.
- D. Re-submit items stamped "Revise and Re-submit" or "Rejected".
  - 1. Provide print of previous drawing with re-submission for comparison.
  - 2. Add letter suffix to previous transmittal number, to indicate re-submission.
- E. Contractor shall not be relieved of responsibility for deviation from requirements of Contract Documents by Architect's review of Shop Drawings, Product Data and Samples unless Contractor has specifically informed Architect in writing of such deviation at time of submission and Architect has given written review to specific deviation. Contractor shall not be relieved from responsibility for errors or omissions in Shop Drawings, Product Data or Samples by Architect's review thereof.

#### 1.8 PRODUCT LIST

- A. Complete list of products and subcontractors proposed for use.
- B. Only products and manufacturers which have been specified or approved by addendum may be used.
- C. Format for product list:
  - 1. Specification section.
  - 2. Product.
  - 3. Manufacturer.
  - 4. Subcontractor.

#### 1.9 SCHEDULE OF SUBMITTALS

- A. Complete schedule of all required submittals indicating proposed submittal dates for all items.
  - 1. Include all shop drawings, product data, samples, and project data.
- B. Schedule all submittals requiring Architect review during first quarter of construction period.

#### 1.10 ARCHITECT REVIEW: SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

- A. Review is only for conformance with the design concept of the project and compliance with the intent of the information given in the Contract Documents.
- B. No action is taken on dimensions to be confirmed and correlated at the job site; on information that pertains solely to the fabrication processes or to techniques of construction; or on coordinating of the work.
- C. Reviewed samples, submitted, or constructed, constitute criterion for judging completed work. Work or items not equal to samples will be rejected.
- D. Start of work which requires submittals, prior to return of submittals with Architect's stamp indicating review is at Contractor's risk.

#### 1.11 TEST REPORTS

- A. Submit all test reports as required by Section 014000 or other sections of the project manual as early as possible after testing has been completed to the Architect/Engineer and Owner for review.

1.12 CASH FLOW PROJECTIONS

- A. Submit cash flow projections as required by Section 012910.

1.13 SCHEDULE OF VALUES

- A. Submit Schedule of Values as required by Section 012910.

1.14 PROJECT SCHEDULE

- A. Submit Project Schedule as required by Section 012910.

1.15 DAILY CONSTRUCTION REPORTS

- A. Prepare a daily construction report, recording the following information concerning events at the site; and submit duplicate copies to the Architect at weekly intervals:

1. List of Subcontractors at the site.
2. Approximate count of personnel at the site.
3. High and low temperatures, general weather conditions.
4. Accidents and unusual events.
5. Meetings and significant decisions.
6. Stoppages, delays, shortages, losses.
7. Meter readings and similar recordings.
8. Emergency procedures.
9. Orders and requests of governing authority.
10. Change Orders received, implemented.
11. Services connected, disconnected.
12. Equipment or system tests and start-ups.
13. Partial completions, occupancies.
14. Substantial Completions authorized.

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

NOT USED

**END OF SECTION**

SHOP DRAWING SUBMITTAL

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

To: The Schemmer Associates Inc.  
1044 North 115th Street, Suite 300  
Omaha, Nebraska 68154

PROJECT:

LOCATION:

Submittal No. \_\_\_\_\_ 1st Submittal (     ) )  
Resubmittal (     ) )

Specification Section No. \_\_\_\_\_

<u>Par. No.</u>	<u>Description</u>	<u>Manufacturer</u>	<u>Drwg. No.</u>	<u>Date</u>	<u>Action</u>

CONTRACTOR'S APPROVAL

The undersigned has, or will, determine and verify all quantities, dimensions, field construction criteria, materials, catalog numbers and similar data and assumes full responsibility for doing so, and has reviewed or coordinated each submittal with the requirements of the Work and the Contract Documents.

\_\_\_\_\_  
CONTRACTOR

BY: \_\_\_\_\_

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

**SECTION 014000**  
**QUALITY REQUIREMENTS**

**PART 1 - GENERAL**

1.1 WORK INCLUDED

- A. Furnish all labor, materials, tools, equipment and services for quality control as indicated, in accord with provisions of Contract Documents.
- B. Completely coordinate with work of all other trades.
- C. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.
- D. See Division 1 for General Requirements.
- E. See technical sections for specific items to be performed.

1.2 TESTING AND INSPECTIONS

- A. See General Conditions of the Contract for Construction for inspection and testing required by public authorities having jurisdiction.
- B. Soils Testing: The Owner will arrange and pay for the following soils testing and inspections as required by each individual specification section:
  - 1. Soil compaction testing of fill placed for rough grading.
  - 2. Soil compaction testing of bottom of footing excavation.
  - 3. Inspection of excavations.
  - 4. The General Contractor shall coordinate the testing and special inspections as required by Paragraph 3.4 of this section.
- C. Special Inspections: The Owner will arrange and pay for the following "special inspections" as required by each individual specification section:
  - 1. "Special Inspection" for Concrete Masonry.
  - 2. "Special Inspection" for Cast-in-Place Concrete.
  - 3. "Special Inspection" for Structural Steel.
  - 4. "Special Inspection" for Steel Roof Deck.

The General Contractor shall coordinate the testing and special inspections as required by Paragraph 3.4 of this section.

- D. Normal Testing: Owner shall pay for testing as indicated below. The General Contractor shall coordinate the testing and special inspections as required by paragraph 3.4 of this section.
  - 1. Concrete Testing (paid by Owner).
  - 2. Grout Testing (paid by Owner).
  - 3. Qualification of fill and backfill materials (including classification, sieve analysis and laboratory density curves) (by Contractor).
  - 4. Retesting and re-inspection of soils tests/inspections, and special inspections due to failure (paid by Contractor).

5. Contractor's duties for Owner provided test and inspections, as specified (paid by Contractor).
  6. All other testing and inspections required (paid by Contractor).
- E. Retesting and re-inspection of any testing or special inspections due to failure will be paid for by the contractor.

### 1.3 QUALITY ASSURANCE

- A. Test and inspection method standards: See technical sections.
- B. Qualifications of independent testing agencies:
1. Meet American Council of Independent Laboratories, "Recommended Requirements of Independent Laboratory Qualification", latest edition.
  2. Meet requirements of ASTM E329, "Standards of Recommended Practice for inspection and Testing Agencies for Concrete and Steel as used in Construction", latest edition.
  3. Satisfy inspection criteria of Materials Reference Laboratory of National Bureau of Standards.
  4. See technical sections for additional requirements.
- C. Testing equipment calibration: By accredited calibration agency, at 12-month intervals, maximum, by devices of accuracy traceable to either:
1. National Bureau of Standards.
  2. Accepted values of natural physical constants.

### 1.4 JOB CONDITIONS

- A. Employment of independent testing agency by the Contractor does not relieve obligation of the Contractor to comply with Contract Documents.

## **PART 2 - PRODUCTS**

NOT USED

## **PART 3 - EXECUTION**

### 3.1 PERFORMANCE

- A. Perform indicated inspections, sampling and testing of materials and methods of construction.
- B. Use test/inspection/sampling methods conforming with methods indicated.
- C. Report each test/inspection/sampling as indicated.
1. Report results called for by test method, in form specified.
- D. Retest failed products and systems.

### 3.2 REPORTS

- A. Submit reports promptly.
- B. Test/inspection reports: Include:
  - 1. Project name and number.
  - 2. Project location.
  - 3. Product and specification section applicable.
  - 4. Type of test/inspection.
  - 5. Name of testing agency (if used).
  - 6. Name of testing/inspection personnel.
  - 7. Date of test/inspection.
  - 8. Record of field conditions encountered (temperature, weather).
  - 9. Observations regarding compliance.
  - 10. Test method used.
  - 11. Results of test.
  - 12. Date of report.
  - 13. Signature of testing/inspecting personnel.

### 3.3 OWNER'S INDEPENDENT TESTING AGENCY DUTIES AND LIMITATIONS OF AUTHORITY

- A. Cooperate with Architect and Contractor. Provide qualified personnel promptly on notice.
- B. Promptly notify Architect of irregularities, or deficiencies of work which are observed during performance of services.
- C. Testing agency is not authorized to:
  - 1. Release, revoke, alter, or enlarge on requirements of Contract Documents.
  - 2. Approve or accept any portion of the work.
  - 3. Perform any duties of the Contractor.

### 3.4 CONTRACTOR'S DUTIES WHEN OWNER'S INDEPENDENT TESTING AGENCIES ARE USED.

- A. As the Contractor is in control of the schedule of the work, it shall be the Contractor's responsibility to coordinate the timing of all testing and inspections required to be performed by the Owner's independent testing agency. The Contractor shall meet with the Owner's independent testing agency personnel on site before any construction work is performed to become generally familiar with the work to be performed by the Owner's independent testing agency and to agree on a notification process by which the Contractor shall notify the testing agency in advance of when the work has progressed or is ready for the Owner's testing agency to perform their tests or inspections. The Contractor shall provide to the Architect a written summary of this meeting, detailing the agreed upon procedures for the timely notification of the testing agency by the contractor for the difference required tests and inspections.
- B. Cooperate with testing agency personnel; provide access to the work and to manufacturer's operations.
- C. Provide preliminary representative samples of materials to be tested, in required quantities.
- D. Furnish labor and facilities:
  - 1. To provide access to work to be tested.
  - 2. To obtain, handle and protect samples at site.
  - 3. To facilitate inspections and tests.
  - 4. Protected storage and curing facilities for testing agency's exclusive use.

### 3.5 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind, from a single source.
- B. When specified products are available only from sources that do not or cannot produce a quantity adequate to complete project requirements in a timely manner, consult with the Architect for a determination of the most important product qualities before proceeding. Qualities may include attributes relating to visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources that produce products that possess these qualities, to the fullest extent possible.
- C. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view in occupied spaces or on the exterior.
- D. Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface that is not conspicuous.
- E. Equipment Nameplates: Provide a permanent nameplate on each item or service-connected or power-operated equipment. Locate on an easily accessible surface which is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
  - 1. Name of product and manufacturer.
  - 2. Model and serial number.
  - 3. Capacity.
  - 4. Speed.
  - 5. Ratings.

**END OF SECTION**



**SECTION 015000**

**TEMPORARY FACILITIES AND CONTROLS**

**PART 1 GENERAL**

1.1 WORK INCLUDED

- A. Furnish all labor, materials, tools, equipment, and services for all temporary facilities and their subsequent removal as indicated, in accordance with provisions of Contract Documents.
- B. Completely coordinate with work of all other trades.
- C. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.
- D. See Division 1 for General Requirements.

1.2 RELATED SECTIONS

- A. Section 015600 - Construction Cleaning
- B. Section 017700 - Closeout Procedures

1.3 COLD WEATHER PROTECTION

- A. The General Construction Contractor shall provide all cold weather protection including temporary enclosures and heating during construction period, prior to enclosure of building, as required to perform the work of all prime contractors.

1.4 TEMPORARY HEAT AND HUMIDITY CONTROL

- A. During the construction of the building prior to is being enclosed, it shall be the General Construction Contractor's sole and exclusive responsibility to provide all construction heat, including appropriate heating devices, enclosures, fuel and services to adequately protect the work against damage from dampness or cold.
- B. For temporary heating and humidity control purposes the building will be considered enclosed when all enclosing walls are erected, rough floor slabs are in place, roof is installed and all doors, windows or other openings are covered to provide reasonable heat retention.
- C. After enclosure of the building, it shall be the General Construction Contractor's responsibility to provide, operate and maintain a complete and adequate temporary system for heating and if required a temporary system including ventilation and/or dehumidifying systems for humidity control in the building. The heating systems shall utilize a temporary heat source as required to maintain the specified temperatures in all rooms or spaces and shall not emit smoke or fumes inside the building.
- D. The General Construction Contractor shall assure that all gas burning heaters and other temporary heating devices are, at all times during their use, in conformance with the requirements of "The Occupational Safety and Health Act, Latest Edition".
- E. The General Construction Contractor shall be responsible for the care and maintenance of the temporary heating system and shall furnish all watchmen or attendants to assure safe operation.

- F. The General Construction Contractor shall furnish all electrical services required and all fuel and electricity used for temporary heat after the building is enclosed as defined above.
- G. After enclosure of the building, a minimum temperature of 50 degrees F and a maximum relative humidity of 80% shall be maintained at all times except that during the placing, setting and curing of interior masonry, concrete, plaster, ceramic tile, etc., the minimum temperatures shall be 60 degrees F, and a maximum relative humidity of 50%. During the placing of all interior woodworking, wood flooring, composition floor coverings, painting and decorating work, etc., and continuing until the final completion of the Contract, the minimum temperature shall be 70 degrees F. and a minimum of 25% to a maximum of 55% relative humidity shall be maintained. Refer to technical sections of the specifications for specific minimum heating and relative humidity requirements for the different operations.
- H. The General Construction Contractor shall be responsible to prevent "building sweating" of the enclosed building in the late winter and spring months. "Building sweating" is defined by the formation of condensed water on the interior building surfaces that can cause damage particularly to metal and finished surfaces and parts. Sweating is caused by low temperatures of the interior building surfaces and high relative humidity that cause the dew point temperature inside the building to rise above the surface temperature in the interior of the building. The General Construction Contractor upon the first signs of "building sweating" shall immediately notify the Architect and make arrangements and pay for all equipment and utility costs to provide substantially more temporary heating and mechanical ventilation equipment. The mechanical ventilation equipment (i.e. fans) to provide air changes of interior and exterior air only if the relative humidity outside is more than 5% less than the relative humidity of the inside air. If the humidity of the outside air is higher than the inside air, then the General Construction Contractor shall not ventilate with outside air but provide dehumidifying equipment (i.e. dehumidifiers and/or air conditioning units) to remove the moisture of the inside air while continuing to significantly heat the interior of the building to warm the interior building surfaces. The General Construction Contractor shall continue to provide these systems to prevent "building sweating" until the building interior can be maintained without "building sweating".
- I. The permanent heating/cooling system shall not be used for temporary heating or dehumidifying. After areas of the building are completely finished and the permanent heating/cooling has been tested and is operational, the General Construction Contractor, at his option, may submit to the Owner through the Architect in a written request including a credit amount to the Contract to use the permanent heating/cooling system for heating and/or dehumidifying prior to substantial completion, the General Construction Contractor shall continuously protect portions of permanent ductwork and air handling systems with adequate and properly maintained filters and servicing and pay for all utility costs (fuel and electricity) required by the permanent system until substantial completion. The Owner will also acknowledge for the purposes of the Mechanical Contractor's guarantee and warranty period on part or all the permanent heating/cooling systems shall commence on the date of acceptance of the General Construction Contractor's request for using the permanent heating/cooling system.
- J. Owner will assume responsibility for heating/cooling/dehumidifying the building on the date of substantial completion.

1.5 TEMPORARY ELECTRICITY

- A. The General Construction Contractor shall make arrangement for and install all equipment, poles, wiring, switches, outlets, etc., to provide power for all lighting and power requirements for construction purposes by all contractors.
1. Permanent building power distribution system may be used once it is installed.
  2. All temporary lighting shall be installed and maintained to conformance with the requirements of "The Occupational Safety and Health Act Latest Edition".
  3. Remove all temporary electrical equipment, poles, meter, wiring, switches, outlets, etc., when no longer needed.
  4. At completion of work, remove and replace all parts of the permanent system damaged.
  5. General Construction Contractor shall pay for all electrical power used by all prime contractors until the date established for substantial completion.
  6. The General Contractor agrees that the extended warranty or guarantee period on permanent systems used during construction period shall commence on date of substantial completion.
  7. Owner will assume responsibility for electrical power used starting on the date of substantial completion.

1.6 TEMPORARY WATER

- A. The General Construction Contractor shall make all arrangements, install equipment, piping, and outlets for an adequate supply of clean water for construction purposes.
1. General Construction Contractor shall pay for all water used.
  2. General Contractor agrees that the extended warranty or guarantee period on permanent systems used during construction shall commence on date of substantial completion.
  3. Permanent building plumbing fixtures (i.e.: sinks, water closets, faucets, etc.) shall not be used by any trade.

1.7 TEMPORARY TOILETS

- A. The General Construction Contractor shall provide adequate temporary toilet facilities for use of all workmen of all trades.
1. Maintain in clean, sanitary condition.
  2. Provide adequate supplies of toilet paper.
  3. Provide facilities complying with local, State and Federal sanitary laws and regulations.
  4. Permanent toilet facilities will not be used by any workmen of any trade.

1.8 FIELD OFFICES

- A. The General Construction Contractor shall provide a heated field office. The General Construction Contractor shall also provide in the field office telephone service with an answer/message device and FAX machine for his, the Architect's.
1. Pay for all local telephone service.
  2. Long distance calls paid for by person placing call.
  3. Telephone with answer/message device and FAX machine to be active during working hours if the field office is not manned at all times.
  4. Pay for minimum CAT-5 data cable.

1.9 TEMPORARY ENCLOSURE AND PROTECTION

- A. The General Construction Contractor shall furnish and install temporary enclosures, doors and transparent plastic windows required to protect building from damage due to vandalism, or the elements, or to maintain suitable temperature during installation or finishing work.
- B. Provide all items required in connection with safety program.
- C. The General Construction Contractor shall provide, as required, all dewatering systems (including but not limited to pumps, hoses, canvas tarps, temporary drain tile, etc.) to keep all parts of the site including excavation free from the accumulation of standing water no matter what the source.

1.10 TEMPORARY STORAGE AND WORKING AREAS

- A. Prior to start of work, Owner Representative or Architect will meet with all Contractors to arrange and prepare a plot plan defining working, storing and traffic areas on the site.
  - 1. Except as specifically provided, working and storing materials outside these areas will not be permitted.
  - 2. Arrange and locate temporary structures and sheds to avoid interfering with construction of other trades.
- B. Within area designated for his use, each Contractor shall provide suitable and sufficient enclosed and covered spaces, with raised flooring, to protect materials and equipment from damage by weather or construction work.
  - 1. Maintain storage and working areas in clean and orderly condition.
  - 2. Upon completion of work, or sooner if directed by Owner Representative or Architect, remove temporary structures, and leave area in clean and orderly condition. Repair any damage to these areas and leave in condition that existed prior to construction.
- C. Storage of materials within the enclosed building will be allowed as long as the Prime Contractor has coordinated with other Prime Contractors such that storage of the material will not interfere with other work. If required later to move such stored materials so that others may perform their work, then the Prime Contractor of the stored material shall move the materials to a new area mutually agreed upon by all Prime Contractors.

1.11 TEMPORARY ACCESS ROAD(S) AND PARKING

- A. The General Construction Contractor shall:
  - 1. Construct a temporary all-weather access road(s) from public thoroughfares to serve the construction area(s) of either crush stone or asphaltic concrete paving (Contractor's option) on a width and load bearing capacity to provide unimpeded traffic for construction purposes.
  - 2. Construct temporary culverts (if required) to span low areas and allow unimpeded drainage.
  - 3. Extend and/or relocate access road(s) as construction work progress required to provide continual access to the construction area(s).
  - 4. The General Construction Contractor to provide adequate temporary parking area to accommodate use of construction personnel of all contractors and trades.
  - 5. Review proposed location of access road(s) and parking area with Owner Representative prior to installation.
  - 6. Maintain temporary access roads(s) and parking area as required for duration of project or until removal is required for completion of sitework.
  - 7. Remove all temporary road(s), parking and drainage materials and construction when permanent paving is usable. Repair permanent paving damaged by use to specified (like new) condition.

1.12 TEMPORARY FENCES AND BARRICADES

A. General Construction Contractor shall:

1. Comply with requirements of Federal (OSHA), State and City agencies.
2. Furnish, install and maintain sound temporary fences, barricades, trench and hole covers, warning lights, rebar and caps, and all other safety devices necessary to prevent injury to persons and damage to property.
3. Provide and maintain secure temporary control fences of height and in locations as required for occupant safety. Acceptable safety measures shall be reviewed and approved by Owner and Architect.
4. Furnish install and maintain sound temporary control fences (if any) of height and in locations as required on the site drawings, with adequate gates.

1.13 TEMPORARY PROTECTION OF FINISHED FLOORING

- A. The General Construction Contractor shall protect installed flooring materials by covering with heavy kraft paper during installation of items which may damage those flooring materials. Wall and ceiling finishes shall also be protected as required to prevent damage from occurring as later construction activities are taking place.

1.14 DUSTPROOF ENCLOSURES

- A. When dust producing construction activities are being accomplished next to nearly completed areas, the General Construction Contractor shall provide temporary dustproof partitions at all openings where dust producing work will be accomplished in order to protect the nearly completed portions of the building from dust and dirt.

1.15 SECURITY

- A. Provide security and facilities to protect Work from unauthorized entry, vandalism or theft.

1.16 TRASH REMOVAL

- A. Each Prime Contractor shall be responsible for collection and removal of their own trash. See Section 015600.
1. Contractor shall provide and maintain trash disposal containers on site adequate to handle amount of trash generated; remove debris from site regularly.
  2. Prevent trash from blowing on and off site. Collect all loose trash on site daily.
  3. Burning trash on site will not be allowed.

1.17 PROJECT SIGN

- A. Project Identification and Temporary Signs: Prepare Project identification and other signs in sizes indicated. Install signs where indicated to inform public and persons seeking entrance to Project. Do not permit installation of unauthorized signs.
1. Engage an experienced sign painter to apply graphics for Project identification sign. Comply with details indicated.
    - a. One Project Identification Sign of construction, design, and content specified and at location designated.
    - b. Content: As provided by Architect after award of Contract.
    - c. Style of Lettering: Helvetica Medium, Upper Case, and Upper and Lower Case as indicated on attached diagram. Verify logo color and text with Architect and Owner.

2. Prepare temporary signs to provide directional information to construction personnel and visitors.
3. Construct signs of exterior-type Grade B-B high-density concrete form overlay plywood in sizes and thickness indicated. Support on posts or framing of preservative-treated wood or steel. Wood posts shall be 6 x 6 to a depth of 4' below grade. Plywood sign panel shall be 4' x 8', bottom 3' above grade, and applied to both sides of posts.
4. Paint sign panel and applied graphics with exterior-grade alkyd gloss enamel over exterior primer.
5. Install product identification sign within thirty (30) days after signing of Notice to Proceed.
6. Allow no other signs to be posted.
7. Remove signs, framing and supports at completion of project and restore the area.

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

NOT USED

**END OF SECTION**

**SECTION 015600**  
**CONSTRUCTION CLEANING**

**PART 1 - GENERAL**

1.1 WORK INCLUDED

- A. Furnish all labor, materials, tools, equipment, and services for cleaning up required in connection with work performed, as indicated or required, in accord with provisions of Contract Documents.
- B. Completely coordinate with work of all other trades.
- C. Although such work is not specifically indicted, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.
- D. See Division 1 for General Requirements.

1.2 CONSTRUCTION CLEANING

- A. Each Contractor shall perform specified daily construction cleaning as required as a result of their work.
- B. Each Contractor or a mutually acceptable group of Contractors shall provide and maintain trash disposal containers on site adequate to handle the trash generated; remove trash from site on a regular schedule as required to meet demand.
- C. Perform final cleaning just prior to occupancy or acceptance.

1.3 RELATED SECTIONS

- A. Section 015000 - Temporary Facilities and Controls.
- B. Section 017700 - Closeout Procedures.

1.4 FIRE PROTECTION

- A. Store volatile waste in covered metal containers.
- B. Remove from premises daily.

1.5 POLLUTION CONTROL

- A. Conduct clean-up and disposal operations to comply with local ordinances and anti-pollution laws.
- B. Do not burn or bury rubbish and waste on site.

**PART 2 - PRODUCTS**

2.1 CLEANING MATERIALS

- A. Use materials recommended by manufacturers of surfaces to be cleaned.
- B. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

**PART 3 - EXECUTION**

3.1 GENERAL

- A. Each Contractor shall clean all items installed under their Contract.
  - 1. Leave free of stains, damage, or other defects prior to final acceptance.
  - 2. Include washing, sweeping, polishing of all finished wall surfaces, floors, windows, hardware, mirrors, lighting fixtures and items of equipment.
  - 3. Replace damaged or defaced items not acceptable to Architect, to his satisfaction at no additional expense to Owner.
- B. See technical sections for additional cleaning requirements.

3.2 DURING CONSTRUCTION

- A. Clean up all waste materials, rubbish, trash and debris resulting from work at the end of each work day.
- B. Ensure that building and grounds are maintained free from accumulations of debris.
- C. Sprinkle dusty debris with water.
- D. At reasonable intervals, minimum once a week, clean up site and site access and dispose of debris off site.
- E. Vacuum interior areas when ready for painting.
- F. Comply with additional requirements defined in specifications.
- G. Schedule cleaning operations so that contaminants resulting from cleaning do not fall on wet painted surfaces.
- H. Each Contractor shall take extreme care not to damage or mess areas, materials, finishes, products, etc. of other contractor's work that has been completed and cleaned. If Prime Contractor must perform work in areas already finished and cleaned, then that contractor must leave the area as clean as it was before starting his work.
- I. During handling and installation, clean and protect construction in progress and adjoining materials in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- J. Clean and maintain completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.



K. Limiting Exposures: Supervise construction activities to ensure that no part of the construction, completed or in progress is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to the following:

1. Excessive static or dynamic loading.
2. Excessive internal or external pressures.
3. Excessively high or low temperatures.
4. Thermal shock.
5. Excessively high or low humidity.
6. Air contamination or pollution.
7. Water or ice.
8. Solvents.
9. Chemicals.
10. Light.
11. Radiation.
12. Puncture.
13. Abrasion.
14. Heavy traffic.
15. Soiling, staining, and corrosion.
16. Bacteria.
17. Rodent and insect infestation.
18. Combustion.
19. Electrical current.
20. High speed operation.
21. Improper lubrication.
22. Unusual wear or other misuse.
23. Contact between incompatible materials.
24. Destructive testing.
25. Misalignment.
26. Excessive weathering.
27. Unprotected storage.
28. Improper shipping or handling.
29. Theft.
30. Vandalism.

### 3.3 FINAL CLEANING

- A. Execute final cleaning just prior to acceptance or occupancy of all or a portion of the project.
- B. Use experienced workmen or professional cleaners for final cleaning.
- C. Comply with all special cleaning instructions in the specifications.
- D. All Contractors shall remove grease, dust, dirt, stains, labels, fingerprints, and other foreign materials from interior and exterior surfaces of fixtures, hardware, and equipment of their work.
- E. Each Prime Contractor shall repair, patch, and touch-up marred surfaces to match adjacent finishes damaged by his own operations.
- F. General Construction Contractor shall clean all glass, mirrors and aluminum surfaces.
- G. General Construction Contractor shall broom clean paved surfaces; rake clean other surfaces of grounds.
- H. General Construction Contractor shall vacuum, hand dust, clean, polish and mop floors.

- I. Mechanical Construction Contractor shall replace air conditioning filters if units were operated during construction.
- J. General Construction Contractor shall vacuum clean ducts, blowers, and coils.
- K. General Construction Contractor shall leave the Work and the site "broom clean" and ready for occupancy.
- L. General Construction Contractor shall be responsible to control access by other trade contractors to completed and finished areas and partial building areas accepted by the Owner as substantially complete. It shall be the General Construction Contractor's responsibility to provide additional cleaning, repair damage and touch-up to these areas if the source of the trash, dust, etc., or damage cannot be identified to as the responsibility of another prime contractor.

**END OF SECTION**

**SECTION 016000**  
**MATERIALS AND EQUIPMENT**

**PART 1 - GENERAL**

1.1 WORK INCLUDED

- A. Furnish all labor, materials, tools, equipment and services for transportation, handling, storage and protection as required in accord with provisions of Contract Documents.
- B. Completely coordinate with work of all other trades.
- C. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.
- D. See individual technical sections for specific items to be performed.

1.2 RELATED REQUIREMENTS

- A. Section 015000 - Temporary Facilities and Controls: Temporary storage and working areas.
- B. Individual Sections: Specific requirements for packaging, shipping, and handling.

1.3 DEFINITIONS

- A. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract documents, such as "specialties," "systems," "structure," "finished," "accessories," and similar terms. Such terms such are self-explanatory and have well recognized meanings in the construction industry.
- B. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
- C. "Named Products" are items identified by manufacturer's product name, including make or model designation, indicated in the manufacturer's published product literature that is current as of the date of the Contract Documents.
- D. "Materials" are products that are substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
- E. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections such as wiring or piping.

1.4 SUBMITTALS

- A. Product List Schedule: Prepare a schedule showing products specified in a tabular form acceptable to the Architect. Include generic names of products required. Include the manufacturer's name and proprietary product names for each item listed.
- B. Coordinate the product list schedule with the Contractor's Construction Schedule and the Schedule of Submittals.

- C. Submittal: Within 15 days after date of commencement of the Work, submit 3 copies of product list schedule. Provide a written explanation for omissions of data, and for known variations from Contract requirements.
- D. Architect's Action: The Architect will respond in writing to the Contractor within 2 weeks of receipt of the completed product list schedule. No response within this time period constitutes no objection to listed manufacturers of products, but does not constitute a waiver of the requirement that products comply with Contract Documents. The Architect's response will include the following.
  - 1. A list of unacceptable product selections, containing a brief explanation of reasons for this action.

#### 1.5 PACKAGING, TRANSPORTATION

- A. Require supplier to package products in boxes or crates for protection during shipment, handling, and storage. Protect sensitive products against exposure to elements and moisture.
- B. Protect sensitive equipment and finishes against impact, abrasion, and other damage.

#### 1.6 DELIVERY AND RECEIVING

- A. Arrange deliveries of products in accordance with construction progress schedules. Allow time for inspection prior to installation.
- B. Coordinate deliveries to avoid conflict with Work and conditions at site; work of other contractors; or Owner; limitations on storage space; availability of personnel and handling equipment and Owner's use of premises.
- C. Deliver products in undamaged, dry condition, in original unopened containers or packaging with identifying labels intact and legible.
- D. Clearly mark partial deliveries of component parts of equipment to identify equipment and contents to permit easy accumulation of parts and to facilitate assembly.
- E. Immediately on delivery, inspect shipment to assure:
  - 1. Product complies with requirements of Contract Documents and reviewed submittals.
  - 2. Quantities are correct.
  - 3. Accessories, and installation hardware are correct.
  - 4. Containers and packages are intact and labels legible.
  - 5. Products are protected and undamaged.

#### 1.7 PRODUCT HANDLING

- A. Provide equipment and personnel to handle products, by methods to prevent soiling and damage.
- B. Provide additional protection during handling to prevent marring and otherwise damaging products, packaging, and surrounding surfaces.
- C. Handle product by methods to avoid bending or overstressing. Lift large and heavy components only at designated lift points.

1.8 STORAGE, GENERAL

- A. Store products, immediately on delivery, in accordance with manufacturer's instructions, with seals and labels intact. Protect until installed.
- B. Arrange storage in a manner to provide access for maintenance or store items and for inspection.
- C. Provide humidity control and ventilation for sensitive products as required by manufacturer's instructions.
- D. Store unpacked and loose products on shelves, in bins, or in neat groups of like items.

1.9 EXTERIOR STORAGE

- A. Provide substantial platforms, blocking, or skids, to support fabricated products above ground; slope to provide drainage. Protect products from soiling and staining.
- B. For products subject to discoloration or deterioration from exposure to the elements, cover with impervious sheet material. Provide ventilation to avoid condensation.
- C. Store loose granular materials on clean, solid surfaces such as pavement, or on rigid sheet materials, to prevent mixing with foreign matter.
- D. Provide surface drainage to prevent erosion and ponding of water.
- E. Prevent mixing of refuse or chemically injurious materials or liquids.

1.10 MAINTENANCE OF STORAGE

- A. Periodically inspect stored products on a scheduled basis. Maintain a log of inspections, make available to Architect/Engineer on request.
- B. Verify that storage facilities comply with manufacturer's product storage requirements.
- C. Verify that manufacturer required environmental conditions are maintained continually.
- D. Verify that surfaces of products exposed to the elements are not adversely affected; that any weathering of finishes is acceptable under requirements of Contract Documents.

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

3.1 INSTALLATION OF PRODUCTS

- A. Comply with manufacturer's instructions and recommendations for installation of products in the application 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 at time of Substantial Completion.

- C. Repeated features or materials must be constructed alike, although detailed or indicated only once. Detail and ornament must continue throughout all moldings, bands, etc. Where items, devices, or equipment are specified singular in number, the Specification shall apply to as many items, devices or pieces of equipment as are shown on the Drawings or required to complete the installation. Repeated items of equipment or materials shall be of the same manufacturer, model number and type.
- D. When bulky material and equipment are furnished by others, the Contractor shall, upon receipt of notice in ample time, leave proper openings to permit the installation and properly close such openings afterwards.
- E. When equipment is furnished by others, the Contractor shall use the manufacturer's detail drawings to establish roughing-in dimensions and location of services. In case of conflict, the equipment detail drawings and dimensions shall be used, except where aesthetic or structural considerations make an adjustment necessary.
- F. Discrepancies: In the event of discrepancies within the Drawings, within the Project Manual, or between the Drawings and Project Manual, the greater quality and quantity of the two or more methods of construction or items shown shall be considered to be shown or specified at all locations where discrepancies occur.

**END OF SECTION**

**SECTION 016400**

**SUBSTITUTIONS, PRODUCT OPTIONS AND  
VOLUNTARY ALTERNATES AFTER EXECUTION OF CONTRACT**

**PART 1 - GENERAL**

**1.1 WORK INCLUDED**

- A. Furnish all work and services for furnishings, submitting, processing, and handling or requests for substitutions and data for product options after execution of Contract. Any substitutions or product option must be in accord with provisions of Contract Documents.
- B. Completely coordinate with work of other trades.
- C. See appropriate sections for specific items.
- D. See General Conditions of the Contract for Construction for additional information.

**1.2 PRODUCT SELECTION - GENERAL**

- A. General product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, unused at the time of installation.
- B. Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
- C. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- D. Product Selection Procedures: Product selection is governed by the Contract Documents and governing regulations, not by previous Project experience. Procedures governing product selection include the following:
  - 1. Non-Proprietary Specifications: When the Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with Contract requirements. Comply with Contract Document provisions concerning "Voluntary Alternate" to obtain approval for use of an unnamed product.
  - 2. Descriptive Specification Requirements: Where Specifications describe a product or assembly, listing 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 Contract requirements.
  - 3. 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. General overall performance of a product is implied where the product is specified for a specific application.

- E. Visual Matching: Where Specifications require matching an established Sample, the Architect's decision will be final on whether a Proposal product matches satisfactorily.

Where no product available within the specified category matches satisfactorily and also complies with other specified requirements, comply with provisions of the Contract Documents concerning "Voluntary Alternate" for selection of a matching product in another product category, or for noncompliance with specified requirements.

- F. Visual Selection: Where specified product requirements include the phrase "...as selected from manufacturer's standard colors, patterns, textures..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Architect will select the color, pattern, and texture from the product line selection.

### 1.3 CONTRACTOR'S OPTION

- A. For products specified only by reference standards Codes and Regulations, use any product meeting these requirements.
- B. For products specified by naming several products or manufacturers, use any product or manufacturer named.
- C. For products specified by naming one manufacturer and product and several optional manufacturers or products, select any named product and manufacturer, which meets all specification criteria.
  - 1. Contract Documents are based on use of base specified manufacturer.
  - 2. By using an optional manufacturer or product, Contractor represents that he will be responsible for all adjustments to fit product to the work and for providing all additional work, equipment, and services required by use of product, at no additional cost.

### 1.4 PRODUCT SUBSTITUTIONS

- A. No substitution permitted after execution of Contract, except as allowed by this section and approved by Owner via change order.

### 1.5 SUBSTITUTION AFTER EXECUTION OF CONTRACT

- A. No substitution will be considered after execution of Contract except for non-availability of specified item due to:
  - 1. Strikes, Lockouts and/or Bankruptcy
  - 2. Discontinuance of production or proven shortage
  - 3. Similar occurrences or Owner's desire
- B. Notify Architect, in writing, with substantiating data as soon as non-availability becomes apparent. Notify in time to avoid delay in construction.
- C. Forward Submittal data as required for substitutions.

### 1.6 REQUESTS FOR SUBSTITUTION

- A. Only written requests with complete submittal data will be considered. Submit request in three copies.



- B. In making request for substitutions, or in using an approved substitute item, Contractor represents:
  - 1. He has investigated proposed product or method and has determined that it is equal or superior in all respects to that specified, and that it will perform intended function.
  - 2. He will provide same guarantee for substitute item as for product or method specified.
  - 3. He will coordinate installation of accepted substitution into Work, to include building modifications if necessary, making such changes as may be required for Work to be complete in all respects.
  - 4. He waives all claims for additional costs or additional time related to substitution which subsequently becomes apparent.
  - 5. Acknowledge acceptance of these provisions in request.
- C. No verbal or written approvals other than by Change Order will be valid.

#### 1.7 SUBSTITUTION SUBMITTAL DATA

- A. Complete data substantiating compliance of proposed substitution with Contract Documents.
- B. For products:
  - 1. Product identification, including manufacturer's name.
  - 2. Manufacturer's literature, marked to indicate specific model, type, size, and options to be considered.
    - a. Product description.
    - b. Performance and test data.
    - c. Reference standards.
    - d. Difference in power demand, air quantities, etc.
    - e. Dimensional differences from specified unit.
  - 3. Full size samples if requested. Architect reserves right to impound sample until physical units are installed on project for comparison purposes. Requester(s) to pay all costs of furnishing and return of samples. Architect is not responsible for loss of, or damage to, samples.
  - 4. Name and address of similar projects and name of Owner's representative who can be contacted, to discuss product, installation, and field performance data.
- C. For construction methods:
  - 1. Detailed description of proposed method.
  - 2. Illustrate on drawings.
  - 3. Itemized comparison of proposed substitute to specified item.
- D. Data relating to changes in construction schedule.
- E. Cost of proposed substitution in comparison with product or method specified.

#### 1.8 REJECTION OF SUBSTITUTION

- A. Substitution will not be considered if:
- B. They are indicated or implied on shop drawings, or project data submittals, without formal request submitted in accord with this section.
- C. Acceptance will require substantial revision of Contract Documents or building spaces.
- D. Request for substitution does not indicate specific item for which request is submitted.

1.9 VOLUNTARY ALTERNATE

- A. The Voluntary Alternate is "Contractor Proposed" by the successful bidder where provided in the Contract Documents. The Voluntary Alternate provides the successful Contractor with the opportunity to submit a "better idea". Within 10 days after the award of contract, the Contractor can submit criteria and a signed statement showing how much the Owner may add or deduct if the Voluntary Alternate is accepted.
- B. Voluntary Alternate Submittal: Requests for voluntary alternates will be considered if received within 10 days after award of contract and the submittals are in accord with requirements stated in specified sections.
- C. Architect's Action: Within 10 days of receipt of the request, the Architect will notify the Contractor of acceptance or rejection of the proposed voluntary alternate. If a decision on use of a proposed voluntary alternate cannot be made or obtained within the time allocated, use the product specified by name. Acceptance will be in the form of a Change Order.

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

NOT USED

**END OF SECTION**

**SECTION 016500**

**STARTING OF SYSTEMS**

**PART 1 - GENERAL**

1.1 WORK INCLUDED

- A. Furnish all labor, materials, tools, equipment and services for starting of systems as indicated, in accord with provisions of Contract Documents.
- B. Completely coordinate with work of all other trades.
- C. Although such work is not specifically indicated, furnish, and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.
- D. See General Conditions of the Contract for Construction for additional general requirements.
- E. See specific technical specification sections for specific start up procedures.
- F. Provide demonstration and instruction to the Owner or Owner's representative as indicated, in accord with provisions of the Contract Documents.
- G. Provide testing, adjusting, and balancing as required by specific technical specification sections and this section.

1.2 RELATED SECTIONS

- A. Section 014000 - Quality Requirements: Manufacturers field reports.
- B. Section 017700 - Closeout Procedures: System operation and maintenance data and extra materials.

1.3 STARTING SYSTEMS

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify Architect and Owner seven calendar days prior to start-up of each item.
- C. Verify that each piece of equipment of system has been checked for proper lubrication, drive rotation, belt tension, control sequence, or other conditions which may cause damage.
- D. Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of responsible manufacturer's representative and/or contractor's personnel in accordance with manufacturer's instructions.
- G. When specified in individual specification sections, require manufacturer to provide authorized representative to be present at site to inspect, check and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
- H. Submit a written report in accordance with Section 014000 that equipment or system has been properly installed and is functioning correctly.

1.4 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of Products to Owner's personnel two weeks prior to date of final inspection.
- B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- C. 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.
- D. Demonstrate start-up, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times, at designated location.
- E. Prepare and insert additional data in operations and maintenance manuals when needed for additional data becomes apparent during instruction.

1.5 ADJUSTING AND BALANCING

- A. General Contractor shall pay for services of an independent firm to perform testing, adjusting, and balancing as required by specific technical specification sections.
- B. The independent firm will perform services specified in Mechanical specifications.
- C. Reports will be submitted by the independent firm to the Architect/ Engineer indicating observations and results of tests and indicating compliance or non-compliance with specified requirements and with the requirements of the Contract Documents.

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

NOT USED

**END OF SECTION**

**SECTION 017400**

**WARRANTIES**

**PART 1 - GENERAL**

1.1 DESCRIPTION

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

1.2 RELATED SECTIONS

- A. Section 017700 - Closeout Procedures: Contract closeout procedures.
- B. Individual Specifications Sections: Warranties required for specific products or Work.

1.3 FORM OF SUBMITTALS

- A. Bind in new, white 3 ring binder with clear cover jacket on cover for insertion of full sheet label.
- B. Insert label in cover of binder with typed or printed title WARRANTIES, with title of Project; name, address and telephone number of Contractor, equipment supplier, and name of responsible principal.
- C. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the Specification Section in which specified, and the name of the product or work item.
- D. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

1.4 PREPARATION OF SUBMITTALS

- A. Obtain warranties, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item or 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.

1.5 TIME OF SUBMITTALS

- A. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
- B. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.

- C. For items of Work when acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing the date of acceptance as the beginning of the warranty period.

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

NOT USED

**END OF SECTION**

**SECTION 017700**  
**CLOSEOUT PROCEDURES**

**PART 1 - GENERAL**

1.1 WORK INCLUDED

- A. Furnish all labor, materials, tools, equipment and services for contract closeout as indicated, in accord with provisions of Contract Documents.
- B. Complete coordinate with work of all other trades.
- C. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.
- D. See General Conditions of the Contract for construction for additional general requirements.
- E. See technical sections for specific submittal items.

1.2 RELATED SECTIONS

- A. Section 017400 - Warranties.

1.3 SUBMITTALS

- A. Provide project information documents in accordance with the provisions of Section 013300.
- B. Project information:
  - 1. Substantial Completion
    - a. Contractor's Written Notice of Substantial Completion.
    - b. Contractor's list of items to be completed or corrected (Punch List).
    - c. Certificates of governing authorities over each Contractor's work.
  - 2. Final Completion:
    - a. Project closeout manual: certification, initialized punch list, warranties and guarantees and O & M data, site survey.
    - b. Evidence of Payments and Release or Waiver of Liens.
      - (1) AIA G706
      - (2) AIA G707
      - (3) Contractor Release of Waiver or Lien
      - (4) Separate Subcontractor Release of Waiver or Lien
      - (5) AIA G706A
    - c. Record Drawings
    - d. Mechanical Balance Reports (by Mechanical Contractor only)
    - e. Contractor's statement that project was completed without use of any asbestos materials or that any equipment, devices, etc., contain any asbestos and that the work is free from asbestos.
    - f. List and receipts of all sales and services taxes if required.
    - g. Photographic documentation per Section 013233.

#### 1.4 SUBSTANTIAL COMPLETION PROCEDURES

- A. Written notice of Substantial Completion.
  - 1. Contractor's cover letter which identifies project is substantially complete and presents evidence of such claim.
  - 2. Contractor's list of items to be completed or corrected, hereafter to be referred to as Contractor's Punch List. The list shall be a room-by-room list of specific work required to meet the requirements of the Contract Documents. The list shall be a neat and legible compilation of all subcontract work within the scope of the Prime Contractor. Incomplete lists of general work will not be accepted or reviewed by the Architect. Preparation of the Punch list within time constraints of the Contract to meet deadlines and schedules shall be the responsibility of the Contractor.
  - 3. Written evidence of compliance with governing authorities. Contractor(s) shall be responsible for Certificates of Inspection of General Construction, Plumbing, Mechanical Systems, Electrical, Fire Protection Systems, ADA Compliance and any other agency required inspection's. In event governmental authorities elect not to perform inspections, identify the agency, authority contact, address, and phone number. General Contractor shall obtain Certificate of Occupancy (if applicable).
- B. Architect will, within a reasonable time, accept the Contractor's written notice of Substantial Completion and schedule Project/inspection or reject the notice with a written explanation of deficiencies of the notice.
- C. Substantial Completion. Project inspection by the Architect shall be scheduled to include all work of Contractor(s) together.
  - 1. If commencement of inspection reveals a great disparity between Contractor's Punch List and job conditions, inspection will be rescheduled at a cost to the Prime Contractor(s) as specified below.
  - 2. Multiple inspections not designated in the Contract Documents, not specifically requested by the Owner, not coordinated with other scheduled project site visits, and not a result of extensions in the Contract Time to the Contractor, shall be scheduled and reimbursed by the Contractor to the Architect for expenses incurred and an hourly professional fee not to exceed 8 hours per day per person.
- D. Architect certification of Substantial Completion shall be provided as follows:
  - 1. Forward to Contractor Certificate of Substantial Completion AIA G-704, accompanied by the Architect's inspection report and a revised Punch List.
  - 2. Notification to the Owner that the project or designated portions thereof may be occupied under the provisions of AIA Document G-704.
- E. Contractor(s) shall correct or complete work on the punch list within the designated time established on the Certificate of Substantial Completion. A Contractor initialized and dated Punch List from the Certificate of Substantial Completion G-704 shall be presented with the Project Closeout Manuals for Final Completion.
- F. Make final change-over of permanent locks and transmit keys to the Owner. Advise the Owner's personnel of change-over in security provisions.



## 1.5 FINAL COMPLETION PROCEDURES

- A. Furnish to the Architect three (3) Project Closeout Manuals. Each manual shall be assembled in new, white, identical matching 3 ring binders with clear cover jacket on cover for insertion of manual description sheet; use multiple matching binders if 3" rings must be exceeded for volume of material. Any oversize material shall be folded and placed in pocket sheets in manual. Include the following information in manual:
1. Contractor's written certification letter:
    - a. Project has been fully reviewed and inspected for conformance with the Contract Documents.
    - b. All work has been completed in accordance with the Contract Documents.
    - c. Equipment and systems have been tested and are operational.
    - d. Written statement from the Prime Contractors that the project was completed without use of any asbestos materials or that any equipment, devices, etc., contain any asbestos and that the work is free from asbestos.
  2. Initialized Punch List from G-704.
  3. Warranties: See Section 017400.
  4. Operations and maintenance data for all products identified in Project Manual. Index data by section number and furnish directory of local service representatives (one per product), address and phone number.
  5. Maintenance manuals shall include the following types of information:
    - a. Emergency instructions.
    - b. Spare parts list
    - c. Copies of warranties.
    - d. Wiring diagrams.
    - e. Recommended "turn around" cycles.
    - f. Inspection procedures.
    - g. Shop Drawings and Product Data.
    - h. Fixture lamping schedule.

## 1.6 CLOSEOUT PROCEDURES

- A. Operating and Maintenance Instructions: Arrange for each installer of equipment that requires regular maintenance to meet with the Owner's personnel to provide instruction in proper operation and maintenance. If installers are not experienced in procedures, provide instruction by manufacturer's representatives. Include a detailed review of the following items:
1. Maintenance manuals.
  2. Record documents.
  3. Spare parts and materials.
  4. Tools.
  5. Lubricants.
  6. Fuels.
  7. Identification systems.
  8. Control sequences.
  9. Hazards.
  10. Cleaning.
  11. Warranties and bonds.
  12. Maintenance agreements and similar continuing commitments.

- B. 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. Evidence of Payments and Release of Waiver of Liens.
  - 1. Contractor's Affidavit of Payments of Debts and Claims, AIA Document G706.
    - a. Consent of Surety Company to Final Payment AIA Document G707.
    - b. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
    - c. Separate Releases or Waiver of Liens from Subcontractors and material and equipment suppliers accompanied by a list thereof.
    - d. Contractor's Affidavit of Release of Liens, AIA Document AIA 706A.
  
- D. Record Drawings with all revisions and changes compiled into a neat bound set for the Owner's permanent record of completed conditions. Drawings shall be presented to the Architect in a new protective rigid storage container(s) such as box, tube or folio with the Contractor's label identifying project, date, and contents. Transmit in a manner to protect drawings from markings or damage.
  
- E. Each Contractor to furnish the Owner, in number of copies required by the Owner, certified list of all sales and services taxes paid by the Contractor and all his/her subcontractors in execution of the contract.
  
- F. Architect will schedule a final inspection upon receipt of the Contractor's final completion documents and application for final payment. Applications for final payment will not be accepted prior to receipt of final completion document services except as in accordance with the General Conditions for delays through no fault of the Prime Contractor and his Subcontractors. Certificate of Payment for final payment will be issued upon Architect's acceptance of the Contractor's completions and corrections of the Punch List.

#### 1.7 EXTRA MATERIALS, SPARE PARTS, AND MAINTENANCE MATERIAL

- A. Deliver to the Owner to an area designated by the Owner all extra finish material and/or products, in quantities specified, spare parts and maintenance materials as required by specific technical specification sections.
- B. Provide spare Mechanical, Electrical, and Plumbing parts as coordinated with Owner and the design-build subcontractor.

#### 1.8 FINAL CLEANING

- A. Execute final cleaning prior to final acceptance or occupancy per the provisions of Section 015600.

#### 1.9 FINAL ADJUSTING

- A. Adjust all operating products and materials to ensure smooth, proper and unhindered operation.

**PART 2 - PRODUCTS**

NOT USED

**PART 3 - EXECUTION**

NOT USED

**END OF SECTION**

**SECTION 017839**

**PROJECT RECORD DOCUMENTS**

**PART 1 - GENERAL**

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
  - 1. Record Drawings.
  - 2. Record Specifications.
  - 3. Record Product Data.
  - 4. Photographic Documentation.
- B. Related Requirements:
  - 1. Section 017700 "Closeout Procedures."
  - 2. Section 013233 "Photographic Documentation."

1.2 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
  - 1. Number of Copies: Submit one set(s) of marked-up record prints.
  - 2. Number of Copies: Submit copies of record Drawings as follows:
    - a. Final Submittal:
      - 1) Submit PDF electronic files of record prints.
      - 2) Include each drawing, whether or not changes and additional information were recorded.
- B. Record Specifications: Submit annotated PDF electronic files of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit annotated PDF electronic files and directories of each submittal.

**PART 2 - PRODUCTS**

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies and one electronic copy of the Contract Drawings and Shop Drawings, incorporating new and revised Drawings as modifications are issued.
  - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
    - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
    - b. Record data as soon as possible after obtaining it.
    - c. Record and check the markup before enclosing concealed installations.

2. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
3. Use different colored annotations to distinguish between changes for different categories of the Work at same location.
4. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

## 2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
  1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
  3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
  4. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Submit record Specifications as annotated PDF electronic file.

## 2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
  1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
  3. Note related Change Orders, record Specifications, and record Drawings where applicable.
- B. Format: Submit record Product Data as annotated PDF electronic file.

## 2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals as PDF electronic file of marked-up miscellaneous record submittals.

## **PART 3 - EXECUTION**

### 3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.

- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's reference during normal working hours.

**END OF SECTION**