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# LEVEL 5

## Description:

Remodel and conversion of existing 4,881 SF residential structure into emergency shelter, along with a 2,697 SF Dayroom, restrooms and laundry addition.



## ATCOG EMERGENCY OPERATIONS Texarkana, Texas



10/15/2021



EST. 1969

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## **CONSULTANTS**

### **HP Engineering**

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**SECTION 001000**

**INVITATION TO BID**

***EMERGENCY SHELTER FOR CONWAY  
CONWAY, ARKANSAS 72032***

Competitive Sealed Proposals for phase 1 remodel of the Ark-Tex Council of the Governments located in the City of Texarkana, TX 75503, will be received at the Ark-Tex Council of the Governments Office: 4808 Elizabeth St; Texarkana, TX 75503 ATTN: Mary Beth Rudel until November 09, 2021 at 2:00 P.M. Bids will be open and read aloud via a Zoom Conference on November 09, 2021 at 3:00 P.M. The Architect's office will provide a link to the conference based off the bidders list on November 09, 2021 at 9:00 A.M. Please check you junk mail folder if you do not see it in your inbox.

The work to be executed as herein described and shown on the drawings entitled An Interior Remodel for ATCOG Emergency Operation Center in the city of Texarkana, TX 75503. New construction consists of the furnishing of all materials, labor, equipment, and services necessary or reasonably incidental to complete the construction of the aforementioned project on a site shown and described on the drawings.

The general construction consists new construction of a 3,357 sq. ft. remodel. Construction consists generally of interior demolition, rough carpentry, millwork, batt insulation, interior finishes, drywall, acoustical ceiling, doors & frames, hardware, painting, bath accessories, interior signage, mechanical, plumbing, electrical.

Plans, specifications, proposal forms, and other contract documents may be obtained from the Architect, via email request to [branson@level5arch.com](mailto:branson@level5arch.com).

This is a General Contractor project where all work will be performed under the General Contractor contract. All questions concerning the project details shall be directed to Branson Evans at [Branson@level5arch.com](mailto:Branson@level5arch.com) -or- 479.279.8400. The deadline for submitting questions is November 01, 2021 at 5 P.M. and none will be accepted after the date. No addendums will be issued in the final week of bidding.

No bidder may withdraw his/her bid for a period of thirty (30) days following the opening of bids. The Owner reserves the right to reject any and/or all bids or portions thereof and to waive all formalities therewith.

**END OF SECTION 001000**

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**SECTION 002000**

**INSTRUCTIONS TO BIDDERS**

**A. Definitions:**

1. Bidder's documents (the drawings and specifications) include the Invitation to Bid, Instructions to Bidders, Information Available to Bidders, Bid Form, Contract Documents as defined in the AIA Document A201 "General Conditions of the Contract" and any Addenda issued before the receipt of Bids.
2. All definitions included in the AIA Document A201 "General Conditions" or in other Contract Documents apply to all Bidding Documents.
3. Addenda are written, or graphic instruments issued by the Architect before the execution of the Contract, which modify or interpret the Bidding Documents by additions, deletions, clarifications, or corrections.
4. A Bid is a completed and properly signed Bid Form in which the Bidder proposes to perform the work or designed portion of the Work for the sum or sums stipulated therein and supported by information called for by the Bidding Documents.
5. A Base Bid is an amount stated on the Proposal Form for all work under a particular Bid item number and as shown or contained in the Contract Documents and not shown or described as an alternate Bid item.
6. An Alternate Bid is an amount stated on the Proposal Form under a particular Bid item to be added to or deducted from the amount of the Base Bid if the corresponding change in the Scope of Work is accepted by the Owner.
7. A Unit Price, when shown, is an amount per unit of Work stated on the Proposal Form which will be incorporated into the Contract Documents for the purpose of adjusting the Contract sum either as an add or deduct when the original Contract quantities are either increased or decreased.
8. A Bidder is one who submits a Bid Proposal to the Owner for the Work described in a particular Bid item number as described on the Proposal Form.

**B. General Requirements:**

1. Each Bidder in submitting his/her Bid Proposal represents that he/she has read and understands the Bidding Documents and that his/her Bid is made in accordance therewith.
2. Each Bidder represents that he/she has visited the Site, familiarized himself/herself with the local conditions under which the Work is to be performed, compared the site with the Drawings and Specifications, and satisfied himself/herself as to the conditions of delivery, handling and storage of materials and all other matters that may be incidental to the work.
3. Each Bidder represents that his/her Proposal is based upon materials and equipment described in the Bidding Documents without exception.
4. Submission of a Bid will be considered as evidence of the Bidder's representation and no allowance will subsequently be made by reason of any error or omission on his/her part

due to his/her neglect in complying with the requirements of the Bid. If a Bidder finds discrepancies in or omissions from the Bid documents or has doubt as to their meaning, he/she shall at once notify the Architect who will issue written interpretations and instructions to all Bidders. Neither Owner nor Architect will be responsible for any oral instructions.

**C. Preparation of Bid:**

1. All Bids must be submitted on forms prepared by the Architect and shall be subject to all requirements of the drawings, specifications and other documents issued. Bid item prices for the item(s) the Bidder is proposing must be filled in ink or typewritten in both words and figures. Bid items the Bidder is not proposing shall be left blank. Conditional or incomplete Bids will not be accepted.
2. Each Bid must be submitted in a sealed envelope bearing on the outside the name of the Bidder, his/her address and the name of the project.
3. All Addenda issued prior to the Bid date shall be included in the Bid proposal.
4. Bidders are required to provide unit price information if requested on the proposal form.

**D. Bidding Procedures:**

1. Proposals for furnishing all labor and materials on specific Bid items for this project will be received at the time, date and place indicated in the "Invitation to Bid".
2. The person whose duty it is to open the Proposals will decide when the Bid opening time is at hand and no Proposals received thereafter will be considered. The Owner or Architect will not be responsible for the premature opening or any Proposal which is not properly addressed and identified.
3. A Bid is invalid if it has not been deposited at the designated location prior to the time and date for receipt of Bids indicated in the Invitation to Bid or any revisions thereof issued to the Bidders.
4. In case of ambiguity or lack of clearness in stating prices in the proposal, the Owner reserves the right to adopt the most advantageous interpretation thereof or to reject the Proposal.
5. Any interlineations, alterations or erasure on the Bid Form must be initialed by the signer of the Bid.
6. Bidder shall not make additional stipulations on the Bid Form or qualify his Bid in any manner.
7. Oral, telephonic or telegraphic bids will be considered.
8. Each copy of the Proposal shall include the legal name of Bidder and a statement whether Bidder is a sole proprietor, a partnership, a corporation or other legal entity and each copy shall be signed by the person legally authorized to bind the Bidder to a Contract. A Proposal by a corporation shall further give the State of incorporation and have the corporate seal affixed. A Proposal submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Bidder.

9. **Modification or Withdrawal of Bid:**

- a. No Bidder shall modify, withdraw, or cancel his/her Bid or any part thereof for thirty (30) days after the time designated for the receipt of Bids in the Invitation to Bid.
- b. Before the time and date designated for receipt of Bid Proposals, Bid Proposals submitted may be modified or withdrawn only by notice to the party receiving Bids at the place and before the time and date designated for receipt of Proposals.
- c. Such notice shall be in writing over the signature of the Bidder, email or by fax. If by fax, written confirmation over the signature of Bidder and must have been mailed and postmarked on or before the date and time set for receipt of Bids. It shall be so worded as not to reveal the amount of the original Proposal.
- d. Written Proposals may be resubmitted up to the time designated for the receipt of Proposals provided that they are fully in conformance with these Instructions to Bidders.
- e. Bid security shall be in an amount sufficient for the Bid as modified or resubmitted when required.

**E. Substitutions:**

1. Substitution requests will not be considered unless received ten (10) days prior to the Bidding deadline. If approved, the approval will be set forth in an Addendum.
2. Each Bidder represents that their Bid is based solely upon the materials and equipment described in the Bid documents, including Addenda.
3. Consideration of other substitutions may be requested as a part of the Bid package; however, they must be submitted on separate sheets. These requests will not be considered in the selection process.
4. All substitution requests shall be submitted in writing and be supported by adequate technical and cost data including a complete description of the proposed substitution; complete cost information; the name of the material or equipment for which it is to be substituted; drawings, catalog cuts, performance and test data and any other data or information necessary for proper evaluation.
5. Substitution requests may be made by the apparent successful Bidder for a period of ten (10) days after the Bid date.

**F. Bid Guarantee:**

1. When required each bid must be accompanied by a Bid Bond or Cashier's Check made payable to the Owner in an amount equal to five percent (5%) of the Bid including all additive Alternates. This security shall be submitted as a guarantee that the Bidder will enter into a Contract with the owner for the Work described in the Proposal Form and will furnish the specified one hundred percent (100%) Performance and Payment Bonds to the owner. Only a Bid Bond or a Cashier's Check will be accepted. Such Bid Bond shall be duly executed by the Bidder as principal and a surety company authorized to do business in the State of Arkansas. Such Cashier's Check must be drawn on a solvent State or National bank located within the State of Arkansas.

2. If the Bidder defaults in executing and delivering the Contract and the Performance and Payment Bonds within ten (10) days after written notification from the Architect of the award of the Contract to him/her, then the Cashier's Check or Bid Bond shall become the property of the Owner.
3. Bids shall remain in effect for a period of thirty (30) days after the time established for receipt thereof. If the Bid is not accepted within thirty (30) days after the time set for submission of Bids or if the successful Bidder executes and delivers said Contract and Performance and Payment Bonds, then all Cashier's Checks or Bid Bonds will be returned.

**G. Examination of Bidding Documents, Addenda:**

1. Each Bidder shall examine the Bidding Documents carefully and not later than ten (10) days before the date for receipt of Bids, shall make written request to the Architect for interpretation or correction of any ambiguity, inconsistency or error therein which he/she may discover upon examination of the Bidding Documents or the site and local conditions.
2. No interpretations of the meaning of the drawings, specifications or other pre-bid documents will be made orally to any Bidder. Any and all such interpretations and any supplemental instructions shall be in the form of written Addenda to the specifications. All Addenda shall become a part of the Contract documents.
3. Addenda will be forwarded to each person of firm or entity recorded by the Architect as having received the Bidding Documents and will be available for inspection wherever the Bidding Documents are on file for that purpose.
4. Addenda issued during the time of Bidding shall be acknowledged by the Bidder by being listed on the Bid Form in the space provided. Failure of a Bidder to receive any Addendum shall not release the Bidder from any obligations under his Bid, provided said Addendum was sent by telegram, U.S. Mail or facsimile to the address or number furnished by the Bidder for transmittal of mail. Telegraphic Addenda will be confirmed by U.S. Mail.
5. No Addenda will be issued during the seven (7) days immediately preceding the Bid Date, except such Addenda which may revise the Bid Date to a later date.

**H. Rejection Proposals:**

1. The Bidder acknowledges the right of the Owner to reject any or all Proposals. In addition, the Bidder recognizes the right of the Owner to reject a Bid if the Bidder fails to submit any required Bid security or fails to submit the data required by the Bidding Documents or if the Bid is in any way incomplete or irregular.

**I. Qualification of Bidders:**

1. The Owner may make such investigations as he deems necessary to determine the ability of the Bidder to perform the work and the Bidder shall furnish to the Owner all such information and data for this purpose. The Owner reserves the right to reject any Bid if in his opinion, the Contractor is not qualified to satisfactorily complete the Work.

**J. Performance and Payment Bonds:**

1. Prior to the time of execution of the Agreement, the general contractor shall furnish to the Owner Performance and Payment Bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder with such sureties licensed in the State of Arkansas and secured through sources agreeable to the Owner. The Performance Bond and Payment Bond shall be made out in one hundred percent (100%) of the Contract amount.
2. In order to comply with the Owner's requirement, the Performance Bond and Payment Bonds must be issued by a bonding company that has a current rating of "B" or higher according to the BEST Rating System for Property and Casualty Insurance Companies. Further, the bonding company must have a surplus, which is at least ten (10) times larger than the Contract amount.
3. The Performance and Payment Bonds shall be executed on approved forms. The Bond shall be signed by an official of the bonding company and shall be accompanied by a certified and current copy of the bonding agent's power of attorney indicating the monetary limit of such power.
4. Each Bidder shall include in his/her Bid Proposal amount the total cost of premiums for the Performance and Payment Bonds.
5. Written authenticity of bonds will be required.

**K. Laws and Regulations:**

1. All applicable State laws, Municipal Ordinances and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to this Contract throughout and will have deemed to be included in the Contract the same as though herein written out in full.

**L. Davis Bacon Act:**

1. Bidders are hereby notified that United States Department of Labor prevailing wage rates (attached) will apply. All laborers and mechanics employed by contractors or subcontractors in the performance of construction work on this project shall be paid wages at rates not less than those determined by the Secretary of Labor in accordance with the Davis-Bacon act, as amended (40 U.S.C 276a-276a-5), which wage reporting to the City will be required as part of the project.

**END OF SECTION 002000**

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**SECTION 002413**

**SCOPE OF BID**

1. The scope of the proposed bid to owner shall include, but not be limited to including all material and installation of all materials included in the construction documents titled "An Interior Remodel for ATCOG Emergency Operation Center". The general construction consists new construction of a 3,357 sq. ft. remodel. Construction consists generally of interior demolition, rough carpentry, millwork, batt insulation, interior finishes, drywall, acoustical ceiling, doors & frames, hardware, painting, bath accessories, interior signage, mechanical, plumbing, electrical.

**END OF SECTION 002413**

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SECTION 004100

BID FORM

Having carefully examined the specifications, drawings and related documents entitled:

**An Interior Remodel For  
ATCOG Emergency Operation Center  
Texarkana, TX 75503**

as issued by Level 5 Architecture, 104 S. Main St, Mansfield, TX 76063, dated October 19, 2021 as well as the site conditions affecting the work, the undersigned proposes to furnish all materials and labor called for in them in accordance with said documents.

Base Bid to perform all work as described in the Construction Documents, Project Manual and an anticipated construction schedule of Two (2) month

I propose to supply and install material and labor necessary as listed and shown on this project and in compliance with the drawings and in the specifications.

FOR THE LUMP SUM OF:

**BASE BID:** \_\_\_\_\_ (\$ \_\_\_\_\_)

**ADDENDA:**

The undersigned agrees that the following addenda, which have been issued during the bidding period, have been received and have been considered both before and in the preparation of this Proposal.

<u>Addenda Number</u>	<u>Date</u>
_____	_____
_____	_____
_____	_____

The undersigned hereby declares that he/she has carefully examined the Drawings, Specifications and Contract Documents relating to the Work covered by his/her Bid or Bids; that he/she agrees to do the Work, and that upon receipt of notice of the acceptance of the Bid or Bids he/she will execute a Contract within ten (10) calendar days.

\_\_\_\_\_  
Signature

**END OF SECTION 004100**

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**SECTION 005200**

**AGREEMENT FORM**

1. Owner-Contractor Agreement Form: AIA 101-2017, Standard form of agreement between owner & contractor where the basis of payment is a stipulated sum.

**END OF SECTION 005200**

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**SECTION 007200**

**GENERAL CONDITIONS**

**FORM OF GENERAL CONDITIONS**

- 1.01 AIA DOCUMENT A201-2007, GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION. THE GENERAL CONDITIONS BETWEEN THE OWNER AND CONTRACTOR.

**END OF SECTION 007200**

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**SECTION 007300**

**SUPPLEMENTARY CONDITIONS**

1. Supplementary Conditions: Supplementary Conditions will be prepared and approved for use on the project by the Owner in consultation with an attorney.

**END OF SECTION 007300**

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# Request for Interpretation

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Project Name: \_\_\_\_\_

RFI #: \_\_\_\_\_

**Information Requested by Contractor:**

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**Answer by Architect/ Engineer:**

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Answered by: \_\_\_\_\_

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**SECTION 011000**

**SUMMARY**

**PART 1 GENERAL**

**1.01 PROJECT**

- A. Project Name: Interior Remodel For ATCOG Emergency Operation Center
- B. Owner's Name: Ark-Tex Council of Governemtns
- C. Architect 's Name: Justin S. Gilmore, AIA, NCARB
- D. The Project consists of the remodel for the existing ATCOG Emergency Operation Center.

**1.02 CONTRACT DESCRIPTION**

- A. Contract Type: Lump Sum; Fixed Fee (Sealed Competitive Proposals)

**1.03 OWNER OCCUPANCY**

- A. The Owner intends to occupy the Project during and upon completion of punch list and Substantial Completion.
- B. Cooperate with the Owner to minimize conflict and to facilitate Owners operations at all times.

**END OF SECTION 011000**

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**SECTION 011400**

**WORK RESTRICTIONS**

**PART 1 GENERAL**

**1.01 PROJECT WORK RESTRICTIONS**

- A. Project Location: Texarkana Bowie County, Texas
- B. Work Commencement: Work may commence once contract between contractor and owner has been executed and Notice to Proceed has been released to Contractor.
- C. Work Days Allowed: Work may proceed 5 days per week maximum. No work shall proceed on any Saturday or Sunday at any time.
- D. Wok Hours Allowed: Work may proceed 24 hours a day/7days a week with permission of the owner.

**END OF SECTION 011400**

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**SECTION 012100**

**ALLOWANCES**

**PART 1 GENERAL**

**1.01. ALLOWANCES**

- A. Allowances: Lump sum allowances and unit cost allowances are listed below and as indicated on the Drawings. Amounts shall include all costs including overhead and profit except as specifically noted. Coordinate allowances with requirements for related and adjacent work.
- B. Notification of Owner: Notify Owner of date when final decision on allowance items is required to avoid delays in the work.
- C. Certification of Quantities: Furnish certification that quantities of products purchased are the actual quantities needed with reasonable allowance for cutting or installation losses, tolerances, mixing, waste, and similar margins.
- D. Invoices and Delivery Slips: Submit invoices or delivery slips to indicate actual quantities of materials delivered and costs. Indicate amounts of applicable trade discounts.
- E. Lump Sum Allowances: Include the following amounts in the base bid for materials, installation, overhead, profit and all costs for the following items.

**1.02. ALTERNATES**

- A. Total Price: Provide total price for each alternate in Bid Form. Include cost of modifications to other work to accommodate alternate. Include related costs such as overhead and profit.
- B. Acceptance of Alternates: Owner will determine which alternates are selected for inclusion in the Contract.
- C. Coordination of Alternates: Modify or adjust affected adjacent work as necessary to integrate work of the alternate into Project. Coordinate alternates with related work to ensure that work affected by each selected alternate is properly accomplished.

**PART 2 PRODUCTS**

- A. LVT: \$3.00/sq. ft. material only
- B. Ceramic Tile: \$2.50/sq. ft. material only
- C. Carpet: \$22.00/yd material only

**PART 3 EXECUTION - Not Applicable to This Section**

**END OF SECTION 012100**

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**SECTION 013000**

**ADMINISTRATIVE REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Progress meetings.
- B. Construction progress schedule.
- C. Coordination drawings.
- D. Submittals for review, information, and project closeout.
- E. Number of copies of submittals.
- F. Submittal procedures.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 PROGRESS MEETINGS**

- A. Construction Manager shall schedule and administer meetings throughout progress of the Work at maximum monthly intervals.
- B. Construction Manager shall make arrangements for meetings, prepare agenda with copies for participants and preside at meetings.
- C. Attendance Required: contractors and suppliers, Owner, Architect, as appropriate to agenda topics for each meeting.
- D. Agenda:
  - 1. Review minutes of previous meetings.
  - 2. Review of Work progress.
  - 3. Field observations, problems, and decisions.
  - 4. Identification of problems that impede planned progress.
  - 5. Review of submittals schedule and status of submittals.
  - 6. Maintenance of progress schedule.
  - 7. Corrective measures to regain projected schedules.
  - 8. Planned progress during succeeding work period.
  - 9. Maintenance of quality and work standards.
  - 10. Effect of proposed changes on progress schedule and coordination.
  - 11. Other business relating to Work.
- E. Record minutes and distribute copies within two days after meeting to participants, with digital copies to Architect, Owner, participants, and those affected by decisions made.

**3.02 CONSTRUCTION PROGRESS SCHEDULE**

- A. Within 10 days after date of the Agreement, submit preliminary schedule defining planned operations for the first 60 days of Work, with a general outline for remainder of Work.
- B. If preliminary schedule requires revision after review, submit revised schedule within 10 days.
- C. Within 20 days after review of preliminary schedule, submit draft of proposed complete schedule for review.
  - 1. Include written certification that major contractors have reviewed and accepted proposed schedule.
- D. Within 10 days after joint review, submit complete schedule.
- E. Submit updated schedule with each Application for Payment.

**3.03 COORDINATION DRAWINGS**

- A. Provide information required by Project Coordinator for preparation of coordination drawings.
- B. Review drawings prior to submission to Architect.

**3.04 SUBMITTALS FOR REVIEW**

- A. When the following are specified in individual sections, submit them for review:
  - 1. Product data.
  - 2. Shop drawings.
  - 3. Samples for selection.
  - 4. Samples for verification.
- B. Submit to Architect for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
- C. Samples will be reviewed only for aesthetic, color, or finish selection.
- D. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below and for record documents purposes described in Section 017000 - CLOSEOUT SUBMITTALS.

**3.05 SUBMITTALS FOR INFORMATION**

- A. When the following are specified in individual sections, submit information digitally to Architect & Owner for records:
  - 1. Design data.
  - 2. Certificates.
  - 3. Test reports.
  - 4. Inspection reports.
  - 5. Manufacturer's instructions.
  - 6. Manufacturer's field reports.
  - 7. Other types indicated.
- B. Submit for Architect's knowledge as contract administrator or for Owner. No action will be taken.

**3.06 SUBMITTALS FOR PROJECT CLOSEOUT**

- A. When the following are specified in individual sections, submit them at project closeout:
  - 1. Project record documents.
  - 2. Operation and maintenance data.
  - 3. Warranties.
  - 4. Bonds.
  - 5. Other types as indicated.
- B. Submit for Owner's benefit during and after project completion.

**3.07 NUMBER OF COPIES OF SUBMITTALS**

- A. Documents for Review:
  - 1. Small Size Sheets, not larger than 8-1/2 x 11 inches: Submit the number of copies that the Contractor requires, plus two copies which will be retained by the Architect. Provide digital copies when available.
- B. Documents for Information: Submit two copies. Provide digital copies when available.
- C. Documents for Project Closeout: Make one reproduction of submittal originally reviewed. Submit one extra of submittals for information.
- D. Samples: Submit the number specified in individual specification sections, one of which will be retained by Architect.
  - 1. After review, produce duplicates.
  - 2. Retained samples will not be returned to Contractor unless specifically so stated.

**3.08 SUBMITTAL PROCEDURES**

- A. Transmit each submittal with AIA Form G810-2001.
- B. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
- C. Identify Project, Contractor, Subcontractor or supplier, pertinent drawing and detail number, and specification section number, as appropriate on each copy.
- D. Apply Contractor's stamp signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.
- E. Schedule submittals to expedite the Project, and coordinate submission of related items.
- F. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.
- G. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
- H. Provide space for Contractor and Architect review stamps.
- I. When revised for resubmission, identify all changes made since previous submission.
- J. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
- K. Submittals not requested will not be recognized or processed.

**END OF SECTION 013000**

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

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Quality assurance submittals.
- B. Mock-ups.
- C. Control of installation.
- D. Tolerances.
- E. Testing and inspection services.
- F. Manufacturers' field services.

**1.02 RELATED SECTIONS**

- A. Section 013000 - Administrative Requirements: Submittal procedures.

**1.03 TESTING AND INSPECTION AGENCIES**

**PART 3 EXECUTION**

**3.01 CONTROL OF INSTALLATION**

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

**3.02      MOCK-UPS**

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

**3.03      TOLERANCES**

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

**3.04 TESTING AND INSPECTION**

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

**3.05 MANUFACTURERS' FIELD SERVICES**

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment, and to initiate instructions when necessary.
- B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

**3.06 DEFECT ASSESSMENT**

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

**END OF SECTION 014000**



**SECTION 014250**

**REFERENCE STANDARDS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Requirements relating to referenced standards.
- B. Reference standards full title and edition date.

**1.02 QUALITY ASSURANCE**

- A. For products or workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard of date of issue specified in this section, except where a specific date is established by applicable code.
- C. Obtain copies of standards when required by the Contract Documents.
- D. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.
- E. Should specified reference standards conflict with Contract Documents, request clarification from the Architect before proceeding.
- F. Neither the contractual relationships, duties, nor responsibilities of the parties in Contract nor those of the Architect shall be altered by the Contract Documents by mention or inference otherwise in any reference document.

**PART 2 CONSTRUCTION INDUSTRY ORGANIZATION DOCUMENTS**

**2.01 AA -- ALUMINUM ASSOCIATION, INC.**

- A. AA SAAA-46 - Standards for Anodized Architectural Aluminum; 1978.

**2.02 AAMA -- AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION**

- A. AAMA 603.8 - Voluntary Performance Requirements and Test Procedures for Pigmented Organic Coatings on Extruded Aluminum; 1998.
- B. AAMA 605.2 - Voluntary Specification for High Performance Organic Coatings on Architectural Aluminum Extrusions and Panels; 1998.
- C. AAMA 606.1 - Voluntary Guide Specifications and Inspection Methods for Integral Color Anodic Finishes for Architectural Aluminum; 1976.
- D. AAMA 607.1 - Voluntary Guide Specification and Inspection Methods for Clear Anodic Finishes For Architectural Aluminum; 1977.
- E. AAMA 608.1 - Voluntary Guide Specification and Inspection Methods for Electrolytically Deposited Color Anodic Finishes for Architectural Aluminum; 1977.
- F. AAMA CW 1-9 - Aluminum Curtain Wall Design Guide Manual; 1979.

**2.03 AASHTO -- AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS**

- A. AASHTO HB-15 - Standard Specifications for Highway Bridges, Section 5.8; 1992, and 1993 Interim.

**2.04 AATCC -- AMERICAN ASSOCIATION OF TEXTILE CHEMISTS & COLORISTS**

- A. AATCC Test Method 16E - Test Method for Textiles -- Colorfastness to Light: Water-cooled Xenon-Arc Lamp, Continuous Light; 1987.

**2.05 ACI -- AMERICAN CONCRETE INSTITUTE INTERNATIONAL**

- A. ACI 304 - Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete;.
- B. ACI 347 - Recommended Practice For Concrete Formwork;.
- C. ACI 531.1 - Specification for Concrete Masonry Construction; 1976 (Reapproved 1983).

**2.06 AGA -- AMERICAN GALVANIZERS ASSOCIATION, INC.**

- A. AGA-89 - Hot Dip Galvanizing for Corrosion Protection of Steel Products; 1989.

**2.07 AGC -- ASSOCIATED GENERAL CONTRACTORS OF AMERICA**

- A. AGC (CPM) - The Use of CPM in Construction - A Manual for General Contractors and the Construction Industry; 1976.

**2.08 AI -- THE ASPHALT INSTITUTE**

- A. AI SS-2 - Specifications for Paving and Industrial Asphalts; 1995.
- B. AI CL-2 - Model Specifications for Small Paving Jobs; 1989.
- C. AI ES-1 - Asphalt Technology and Construction Practices: Instructors Guide; 1983.
- D. AI MS-3 - Asphalt Plant Manual;.
- E. AI MS-8 - Asphalt Paving Manual; 1987.

**2.09 AISC -- AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC.**

- A. AISC S323 - Quality Criteria and Inspection Standards; 1988, Third Edition.

**2.10 AISI -- AMERICAN IRON AND STEEL INSTITUTE**

- A. AISI SG-971 - Specification for the Design of Cold-Formed Steel Structural Members; 1996.
- B. AISI SG-973 - Cold-Formed Steel Design Manual; 1996.

**2.11 ANSI -- AMERICAN NATIONAL STANDARDS INSTITUTE**

- A. ANSI A13.1 - Scheme for the Identification of Piping Systems; 1981 (R1993).
- B. ANSI A108.3 - Quarry Tile and Paver Tile Installed With Portland Cement Mortar;.
- C. ANSI A112.21.1M - Floor Drains; 1991.
- D. ANSI A224.1 - American National Standard Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames; 1990.
- E. ANSI A250.8 - SDI-100 Recommended Specifications for Standard Steel Doors and Frames; 1998.
- F. ANSI A250.10 - Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames; 1998.

**2.12 APA -- APA - THE ENGINEERED WOOD ASSOCIATION**

- A. APA A400 - Permanent Wood Foundation Guide to Design and Construction; 1990.
- B. APA AFG-01 - Adhesives for Field-Gluing Plywood to Wood Framing; 1984.

**2.13 ARI -- AIR-CONDITIONING AND REFRIGERATION INSTITUTE**

- A. ARI 1010 - Self-Contained, Mechanically Refrigerated Drinking-Water Coolers; 1994.
- B. ARI 650 - Air Outlets and Inlets;.

**2.14 ASME -- THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS**

- A. ASME A112.18.1 - Finished and Rough Brass Plumbing Fixture Fittings;.
- B. ASME A112.26.1M - Water Hammer Arrestors; 1984.

**2.15     ASTM -- AMERICAN SOCIETY FOR TESTING AND MATERIALS**

- A. ASTM A 361/A 361M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process for Roofing and Siding; 1994.
- B. ASTM A 446/A 446M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Structural (Physical) Quality; 1993.
- C. ASTM A 525 - Standard Specification for General Requirements for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process; 1993.
- D. ASTM A 526/A 526M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Commercial Quality; 1990.
- E. ASTM A 527/A 527M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Lock-Forming Quality; 1993.
- F. ASTM A 929/A 929M - Standard Specification for Steel Sheet, Metallic-Coated by the Hot-Dip Process for Corrugated Steel Pipe; 1997.
- G. ASTM C 1388 - Standard Test Method for Compressive Strength of Laboratory Constructed Masonry Prisms; 1997.
- H. ASTM D 790 - Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials; 1997.
- I. ASTM D 1559 - Standard Test Method for Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus; 1989.
- J. ASTM D 1565 - Standard Specification for Flexible Cellular Materials--Vinyl Chloride Polymers and Copolymers (Open-Cell Foam); 1981 (Reapproved 1990).
- K. ASTM E 699 - Standard Criteria for Evaluation of Agencies Involved in Testing, Quality Assurance, and Evaluating Building Components in Accordance with Test Methods Promulgated by ASTM Committee E-6; 1979 (Reapproved 1991).
- L. ASTM F 669 - Standard Specification for Strength Requirements of Metal Posts and Rails for Industrial Chain Link Fence; 1992.
- M. ASTM F 1043 - Standard Specification for Strength and Protective Coatings on Metal Industrial Chain Link Fence Framework; 1998a.
- N. ASTM F 1234 - Standard Specification for Protective Coatings on Steel Framework for Fences; 1993.

**2.16     AWI -- ARCHITECTURAL WOODWORK INSTITUTE**

- A. AWI P-201 - Architectural Casework; 1989.

**2.17     AWPB -- AMERICAN WOOD PRESERVERS BUREAU**

- A. AWPB LP-2 - American Wood Preservers Bureau Quality Control and Inspection Procedures for Softwood Lumber, Timber and Plywood Pressure Treated with Waterborne Preservatives for Above Ground Use; 1988.

**2.18 AWS -- AMERICAN WELDING SOCIETY**

- A. AWS D10.9 - Specification for Qualification of Welding Procedures and Welders for Piping and Tubing; 1980.

**2.19 AWWA -- AMERICAN WATER WORKS ASSOCIATION**

- A. AWWA C506 - Backflow Prevention Devices - Reduced Pressure Principle and Double Check Valve Types;.

**2.20 CDA -- COPPER DEVELOPMENT ASSOCIATION, INC.**

- A. CDA 404/0-R - Copper Brass Bronze Product Handbook - Copper Tube for Plumbing, Heating, Air Conditioning and Refrigeration; 1980.

**2.21 FM -- FACTORY MUTUAL RESEARCH CORPORATION**

- 0A. FM 4470 - Class I Roof Covers; 1986.

**2.22 GA -- GYPSUM ASSOCIATION**

- A. GA 150 - Application of Gypsum Base for Gypsum Veneer Plasters and Application of Gypsum Veneer Plaster;.
- B. GA-201 - Using Gypsum Board for Walls & Ceilings; 1990.
- C. GA 203 - Installation of Screw-Type Steel Framing Members to Receive Gypsum Board;.
- D. GA 252 - Fire Resistant Gypsum Sheathing; 1986.

**2.23 ICC - INTERNATIONAL CODE COUNCIL, INC.**

- A. ICC (IPC) - International Plumbing Code; 1997.

**2.24 MBMA -- METAL BUILDING MANUFACTURERS ASSOCIATION**

- A. MBMA (LR) - Low Rise Building Systems Manual; 1996, with Rev 1 (4/97).

**2.25 NAAMM -- THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS**

- A. NAAMM ML/SFA 540 - Lightweight Steel Framing Systems Manual; 1987, Third Edition.

**2.26 NEMA -- NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION**

- A. NEMA DC 15 - Line Voltage Room Thermostats;.
- B. NEMA LE 1 - Fluorescent Luminaires;.
- C. NEMA TC 6 - PVC and ABS Plastic Utilities Duct for Underground Installation; 1990.

**2.27 NFPA -- NATIONAL FIRE PROTECTION ASSOCIATION**

- A. NFPA 13 - Standard for the Installation of Sprinkler Systems; 1999.
- B. NFPA 14 - Standard for the Installation of Standpipe and Hose Systems; 1996.
- C. NFPA 24 - Standard for the Installation of Private Fire Service Mains and Their Appurtenances; 1995.
- D. NFPA 72A - Local Protective Signaling Systems;.
- E. NFPA 72E - Automatic Fire Detectors;.
- F. NFPA 72G - Notification Appliances for Protective Signaling Systems;.
- G. NFPA 72H - Guide for Test Procedures for Protective Signaling Systems;.
- H. NFPA 110A - Stored Electrical Energy Emergency and Standby Power Systems;.

**2.28 NWWDA -- NATIONAL WOOD WINDOW AND DOOR ASSOCIATION (NAME CHANGED TO WDMA)**

**2.29 SDI -- STEEL DOOR INSTITUTE**

- A. SDI 100 - Recommended Specifications Standard Steel Doors and Frames; 1991 (ANSI/SDI 100).
- B. SDI 107 - Hardware on Steel Doors (Reinforcement--Application); 1984.
- C. SDI 114 - Test Procedure and Acceptance Criteria for Acoustical Performance for Steel Door and Frame Assemblies; 1979.

**2.30 SIGMA - SEALED INSULATING GLASS MANUFACTURERS ASSOCIATION**

- A. SIGMA TM-3000 and TB-3001- Recommended Practices for Vertical and Basic Field Glazing of Organically Sealed Insulating Units; 1990.

**2.31 SSPC -- THE SOCIETY FOR PROTECTIVE COATINGS**

- A. SSPC-Paint 13 - Red or Brown One-Coat Shop Paint; .
- B. SSPC-Paint 25 - Red Iron Oxide, Zinc Oxide, Raw Linseed Oil and Alkyd Primer; 1991 (Part of Steel Structures Painting Manual, Vol. Two).

**2.32 UL -- UNDERWRITERS LABORATORIES INC.**

- A. UL (BMD) - Building Materials Directory; current edition.
- B. UL (ECMD) - Electrical Construction Materials Directory; current edition.
- C. UL (EAUED) - Electrical Appliance and Utilization Equipment Directory; current edition.
- D. UL (FPED) - Fire Protection Equipment Directory; current edition.
- E. UL (FRD) - Fire Resistance Directory; current edition.
- F. UL 465 - Central Cooling Air Conditioners; 1982.
- G. UL 1096 - Electric Central Air Heating Equipment; 1986.

**2.33 WDMA - WINDOW AND DOOR MANUFACTURERS ASSOCIATION (FORMERLY NWWDA)**

- A. NWWDA I.S.1.6 - Testing and Inspection Requirements for Wood Flush Doors; 1987.

**PART 3 UNITED STATES GOVERNMENT AND RELATED AGENCIES DOCUMENTS**

**3.01 FS -- FEDERAL SPECIFICATIONS AND STANDARDS (GENERAL SERVICES ADMINISTRATION)**

- A. FS HH-I-558 - Insulation, Blankets, Thermal (Mineral Fiber, Industrial Type); Revision C, 1992.
- B. FS L-F-475 - Floor Covering Vinyl, Surface (Tile and Roll), with Backing; Revision A, 1965, Amendment 1, 1965, and Amendment 3, 1982.
- C. FS MMM-A-130 - Adhesive, Contact; Revision B, 1974, and Amendment 3, 1976.
- D. FS RR-P-1352 - Partitions, Toilet, Complete; Revision C, 1989.
- E. FS SS-T-312 - Tile, Floor: Asphalt, Rubber, Vinyl, and Vinyl Composition; Revision B, 1974, and Amendment 1, 1979.
- F. FS SS-W-40 - Wall Base: Rubber, and Vinyl Plastic; 1966, Rev. A, Amd. 1, Notice 1.
- G. FS TT-P-115 - Paint, Traffic (Highway, White and Yellow); Revision F, 1984.

**END OF SECTION 014250**

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**SECTION 015000**

**TEMPORARY FACILITIES AND CONTROLS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Temporary Utilities.
- B. Temporary telephone and facsimile service.
- C. Temporary Controls: Barriers, enclosures, and fencing.
- D. Security requirements.
- E. Vehicular access and parking.
- F. Waste removal facilities and services.
- G. Field offices.

**1.02 TEMPORARY UTILITIES**

- A. The General Contractor shall pay for all electrical power, lighting, water, heating and cooling, and ventilation required for construction purposes.
- B. Water Supply: The Plumbing Contractor shall make necessary connections to the water supply for the requirements of the work; provide fittings and taps.
- C. Electrical: The electrical contractor shall obtain electrical power required for construction operations, including necessary wiring and setting a temporary power pole and temporary lighting in every room.
- D. Temporary Heat: Each Contractor that requires heat shall provide heat, including equipment, fuel, utilities and attendance required during the course of construction.

**1.03 TELEPHONE SERVICE**

- A. The General Contractor shall provide, maintain, and pay for telephone service to field office at time of project mobilization. All long-distance calls will be at the expense of the caller.

**1.04 TEMPORARY SANITARY FACILITIES**

- A. The General Contractor shall provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. New permanent facilities may not be used during construction operations.
- C. No contractors are to use existing facilities at any time during construction.

**1.05 BARRIERS**

- A. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

**1.06 FENCING**

- A. Construction: Commercial grade chain link fence.

**1.07 SECURITY**

- A. Provide security and facilities to protect the Work.

**1.08 VEHICULAR ACCESS AND PARKING**

- A. Coordinate access and haul routes with governing authorities and Owner.
- B. Provide and maintain access to fire hydrants, free of obstructions.
- C. Provide means of removing mud from vehicle wheels before entering streets.
- D. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

**1.09 WASTE REMOVAL**

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. The owner will provide containers with lids. Dispose of waste off-site regularly.

**1.10 FIELD OFFICES**

- A. The Construction Manager shall provide a field office: Weather tight, with lighting, electrical outlets, heating, cooling equipment, and equipped with sturdy furniture, drawing rack and drawing display table.
- B. Provide space for Project meetings, with table and chairs to accommodate 6 persons.

**1.11 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS**

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

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION - NOT USED**

**END OF SECTION 015000**

**SECTION 016000**  
**PRODUCT REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. General product requirements.
- B. Transportation, handling, storage and protection.
- C. Product option requirements.
- D. Substitution limitations and procedures.
- E. Spare parts and maintenance materials.

**1.02 RELATED SECTIONS**

- A. Section 014100 - Quality Requirements: Product quality monitoring.

**1.03 REFERENCES**

- A. NFPA 70 - National Electrical Code; National Fire Protection Association; 2003.

**1.04 SUBMITTALS**

- A. Product Data Submittals: Submit manufacturer's standard published data. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- B. Shop Drawing Submittals: Prepared specifically for this Project.
- C. Sample Submittals: Illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
  - 1. For selection from standard finishes, submit samples of the full range of the manufacturer's standard colors, textures, and patterns.
- D. Indicate utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

**PART 2 PRODUCTS**

**2.01 PRODUCTS**

- A. Provide interchangeable components of the same manufacturer for components being replaced.

**2.02 PRODUCT OPTIONS**

- A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named within five (5) days of bid ending period.

**2.03 SPARE PARTS AND MAINTENANCE PRODUCTS**

- A. Provide spare parts, maintenance, and extra products of types and in quantities specified in individual specification sections.
- B. Deliver to Project site; obtain receipt prior to final payment.

**PART 3 EXECUTION**

**3.01 SUBSTITUTION PROCEDURES**

- A. Architect will consider requests for substitutions only within 15 days after date of Agreement.
- B. Substitutions may be considered when a product becomes unavailable through no fault of the Contractor.
- C. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- D. A request for substitution constitutes a representation that the submitter:
  - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
  - 2. Will provide the same warranty for the substitution as for the specified product.
  - 3. Will coordinate installation and make changes to other Work, which may be required for the Work to be complete with no additional cost to Owner.
  - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
- E. Substitution Submittal Procedure:
  - 1. Submit three copies of request for substitution for consideration. Limit each request to one proposed substitution.
  - 2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on Proposer.
  - 3. The Architect will notify Contractor in writing of decision to accept or reject request.

**3.02 TRANSPORTATION AND HANDLING**

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

**3.03 STORAGE AND PROTECTION**

- A. Store and protect products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.
- C. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- D. For exterior storage of fabricated products, place on sloped supports above ground.
- E. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- F. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- G. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

**END OF SECTION 016000**

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**SECTION 017000**

**EXECUTION REQUIREMENTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Examination, preparation, and general installation procedures.
- B. Pre-installation meetings.
- C. Cutting and patching.
- D. Surveying for laying out the work.
- E. Cleaning and protection.
- F. Starting of systems and equipment.
- G. Demonstration and instruction of Owner personnel.
- H. Closeout procedures, except payment procedures.

**1.02 RELATED SECTIONS**

- A. Section 013000 - Administrative Requirements: Submittals procedures.
- B. Section 014000 - Quality Requirements: Testing and inspection procedures.

**1.03 SUBMITTALS**

- A. Survey work: Provided by owner
  - 1. Submit name, address, and telephone number of Surveyor before starting survey work.
  - 2. Submit surveys and survey logs for the project record.
- B. Cutting and Patching: Submit written request in advance of cutting or alteration that affects:
  - 1. Structural integrity of any element of Project.
  - 2. Integrity of weather exposed or moisture resistant element.
  - 3. Efficiency, maintenance, or safety of any operational element.
  - 4. Visual qualities of sight exposed elements.
  - 5. Include in request:
    - a. Identification of Project.
    - b. Location and description of affected work.
    - c. Necessity for cutting or alteration.
    - d. Description of proposed work and Products to be used.
    - e. Alternatives to cutting and patching.
    - f. Effect on work of Owner or separate Contractor.
    - g. Written permission of affected separate Contractor.
    - h. Date and time work will be executed.

**1.04 QUALIFICATIONS**

- A. For survey work employ a land surveyor registered in Arkansas and will be provided by owner

**1.05 PROJECT CONDITIONS**

- A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- B. Protect site from standing or running water. Provide water barriers as required to protect site from soil erosion.
- C. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- D. Dust Control: Execute work by methods to minimize raising dust from construction operations. Provide positive means to prevent air-borne dust from dispersing into atmosphere.



**1.06 COORDINATION**

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- C. Coordinate space requirements, supports, and installation of mechanical and electrical work that are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- E. Coordinate completion and clean-up of work of separate sections.
- F. After Owner occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

**PART 2 PRODUCTS**

**2.01 PATCHING MATERIALS**

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution described in Section 016000.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

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

**3.02 PRE-INSTALLATION MEETINGS**

- A. When required in individual specification sections, Construction Manager shall convene a pre-installation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Architect four (4) business days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
  - 1. Review conditions of installation, preparation, and installation procedures.
  - 2. Review coordination with related work.
- E. Record minutes and distribute copies within two (2) business days after meeting to participants, with digital copies to Architect, Owner, participants, and those affected by decisions made.

**3.03 LAYING OUT THE WORK**

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Architect of any discrepancies discovered.
- C. Contractor shall locate and protect survey control and reference points.
- D. Control datum for survey is that established by Owner provided survey.
- E. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
- F. Promptly report to Construction Manager the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- G. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Construction Manager.
- H. Utilize recognized engineering survey practices.
- I. Establish elevations, lines, and levels. Locate and lay out by instrumentation and similar appropriate means:
  - 1. Site improvements including pavements; stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.
  - 2. Grid or axis for structures.
  - 3. Building foundation, column locations, and ground floor elevations.
- J. Periodically verify layouts by same means.
- K. Maintain a complete and accurate log of control and survey work as it progresses.

**3.04 GENERAL INSTALLATION REQUIREMENTS**

- A. Install Products as specified in individual sections.
- B. Make neat transitions. Patch work to match adjacent work in texture and appearance. Where new Work abuts or aligns with existing, perform a smooth and even transition.
- C. When existing finished surfaces are cut so that a smooth transition with new work is not possible, terminate existing surface along a straight line at a natural line of division and make recommendation to Architect.

**3.05 CUTTING AND PATCHING**

- A. Execute cutting and patching including excavation and fill to complete the work, to uncover work to install improperly sequenced work, to remove and replace defective or non-conforming work, to remove samples of installed work for testing when requested, to provide openings in the work for penetration of mechanical and electrical work, to execute patching to complement adjacent work, and to fit Products together to integrate with other work.
- B. Execute work by methods to avoid damage to other work, and which will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- C. Employ original installer to perform cutting for weather exposed and moisture resistant elements, and sight exposed surfaces.
- D. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.
- E. Restore work with new Products in accordance with requirements of Contract Documents.
- F. Fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- G. At penetrations of fire rated walls, partitions, ceiling, or floor construction, completely seal voids with fire rated material in accordance with Section 07840, to full thickness of the penetrated element.
- H. Refinish surfaces to match adjacent finish. For continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.

**3.06 PROGRESS CLEANING**

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris, and rubbish from site periodically and dispose off-site.

**3.07 PROTECTION OF INSTALLED WORK**

- A. Protect installed work and provide protection where specified in individual specification sections.
- B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to prevent damage.
- C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic from landscaped areas.

**3.08 STARTING SYSTEMS**

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify Architect seven (7) business days prior to start-up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions that may cause damage.
- D. Verify tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify that wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of applicable Contractor personnel and manufacturer's representative in accordance with manufacturers' 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 that equipment or system has been properly installed and is functioning correctly.

**3.09 DEMONSTRATION AND INSTRUCTION**

- A. Demonstrate start-up, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown of each item of equipment at scheduled time, at equipment location.
- B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- C. Provide a qualified person who is knowledgeable about the Project to perform demonstration and instruction of owner personnel.

**3.10 ADJUSTING**

- A. Adjust operating Products and equipment to ensure smooth and unhindered operation.
- B. Testing, adjusting, and balancing HVAC systems.

**3.11 FINAL CLEANING**

- A. Execute final cleaning prior to final project assessment.
  - 1. Clean areas to be occupied by Owner prior to final completion and before Owner occupancy.
- B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- C. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- D. Clean filters of operating equipment.
- E. Clean debris from roofs, gutters, downspouts, and drainage systems.
- F. Clean site; sweep paved areas, rake clean landscaped surfaces.
- G. Remove waste and surplus materials, rubbish, and construction facilities from the site.

**3.12 CLOSEOUT PROCEDURES**

- A. Make submittals that are required by governing or other authorities.
  - 1. Provide copies to Architect.
- B. Notify Architect and Owner when work is considered ready for Substantial Completion.
- C. Submit written certification that Contract Documents have been reviewed, work has been inspected, and that work is complete in accordance with Contract Documents and ready for Architect's review.
- D. Owner will occupy all of the building as specified.
- E. Correct items of work listed in executed Certificates of Substantial Completion and comply with requirements for access to Owner-occupied areas.
- F. Notify Architect when work is considered finally complete.
- G. Complete items of work determined by Architect's final inspection.

**END OF SECTION 017000**

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**SECTION 017800**

**CLOSEOUT SUBMITTALS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Project Record Documents.
- B. Operation and Maintenance Data.
- C. Warranties and bonds.

**1.02 RELATED SECTIONS**

- A. Section 013000 - Administrative Requirements: Submittals procedures, shop drawings, product data, and samples.
- B. Section 017000 - Execution Requirements: Contract closeout procedures.
- C. Individual Product Sections: Specific requirements for operation and maintenance data.
- D. Individual Product Sections: Warranties required for specific products or Work.

**1.03 SUBMITTALS**

- A. Project Record Documents: Submit documents to Construction Manager with claim for final Application for Payment.
- B. Operation and Maintenance Data:
  - 1. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Architect will review draft and return one copy with comments.
  - 2. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit completed documents within ten days after acceptance.
  - 3. Submit 1 copy of completed documents 15 days prior to final inspection. This copy will be reviewed and returned after final inspection, with Architect comments. Revise content of all document sets as required prior to final submission.
  - 4. Submit two sets of revised final documents in final form within 10 days after final inspection.
- C. Warranties and Bonds:
  - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
  - 2. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
  - 3. For items of Work for which 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**

**3.01 PROJECT RECORD DOCUMENTS**

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
  - 1. Drawings.
  - 2. Specifications.
  - 3. Addenda.
  - 4. Change Orders and other modifications to the Contract.
  - 5. Reviewed shop drawings, product data, and samples.
  - 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
  - 1. Manufacturer's name and product model and number.
  - 2. Product substitutions or alternates utilized.
  - 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
  - 1. Measured depths of foundations in relation to finish first floor datum.
  - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
  - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
  - 4. Field changes of dimension and detail.
  - 5. Details not on original Contract drawings.

**3.02 OPERATION AND MAINTENANCE DATA**

- A. For Each Product or System: List names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- B. Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information.
- C. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings.
- D. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.



**3.03 OPERATION AND MAINTENANCE DATA FOR EQUIPMENT AND SYSTEMS**

- A. For Each Item of Equipment and Each System:
  - 1. Description of unit or system, and component parts.
  - 2. Identify function, normal operating characteristics, and limiting conditions.
  - 3. Include performance curves, with engineering data and tests.
  - 4. Complete nomenclature and model number of replaceable parts.
- B. Panel board Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
- C. Include color-coded wiring diagrams as installed.
- D. *Operating Procedures*: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shutdown, and emergency instructions. Include summer, winter, and any special operating instructions.
- E. *Maintenance Requirements*: Include routine procedures and guide for preventative maintenance and troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- F. Provide servicing and lubrication schedule, and list of lubricants required.
- G. Include manufacturer's printed operation and maintenance instructions.
- H. Include sequence of operation by controls manufacturer.
- I. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- J. Provide control diagrams by controls manufacturer as installed.
- K. Provide Contractor's coordination drawings, with color-coded piping diagrams as installed.
- L. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- M. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- N. Include test and balancing reports.
- O. Additional Requirements: As specified in individual product specification sections.

**3.04 OPERATION AND MAINTENANCE MANUALS**

- A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.
- B. Prepare data in the form of an instructional manual.
- C. *Binders*: Commercial quality, 8-1/2 x 11 inch three D side ring binders with durable plastic covers; 2 inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- D. *Cover*: Identify each binder with typed or printed title OPERATION AND MAINTENANCE INSTRUCTIONS; identify title of Project; identify subject matter of contents.
- E. Provide tabbed dividers for each separate product and system, with typed description of product and major component parts of equipment.
- F. *Text*: Manufacturer's printed data, or typewritten data on 24-pound paper.
- G. *Drawings*: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- H. Arrange content by systems under section numbers and sequence of Table of Contents of this Project Manual.
- I. *Contents*: Prepare a Table of Contents for each volume, with each product or system description identified, in three parts as follows:
  - 1. *Part 1*: Directory, listing names, addresses, and telephone numbers of Architect, Contractor, Subcontractors, and major equipment suppliers.
  - 2. *Part 2*: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
    - a. Significant design criteria.
    - b. List of equipment.
    - c. Parts list for each component.
    - d. Operating instructions.
    - e. Maintenance instructions for equipment and systems.
  - 3. *Part 3*: Project documents and certificates, including the following:
    - a. Shop drawings and product data.
    - b. Air and water balance reports.
    - c. Certificates.
    - d. Photocopies of warranties and bonds.
- J. Provide a listing in Table of Contents for design data, with tabbed dividers and space for insertion of data.
- K. *Table of Contents*: Provide title of Project; names, addresses, and telephone numbers of Architect, Consultants, and Contractor with name of responsible parties; schedule of products and systems, indexed to content of the volume.

**3.05 WARRANTIES AND BONDS**

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.
- B. Verify that documents are in proper form, contain full information, and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.
- E. Include originals of each in operation and maintenance manuals, indexed separately on Table of Contents.

**END OF SECTION 017800**

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**SUBMITTAL TRANSMITTAL****SUBMITTAL NUMBER****PROJECT NAME:****PROJECT NUMBER:****SPECIFICATION TITLE:**

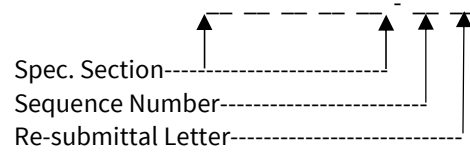
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**DESCRIPTION OF ITEM SUBMITTED:**

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**NOTES:**

1. Submittal Transmittal to Architect indicates Construction Manager, Contractor, and Sub-Contractor Approval of Submittal.
2. This Transmittal Form shall stay with submittal throughout routing. Copy for your file.

ROUTING SEQUENCE	CHECKED BY	DATE REC'D	DATE SENT	NO. OF COPIES	ACTION TAKEN
SUB-CONTRACTOR/VENDOR		N/A			A / Note 1
CONTRACTOR					Note 1
ARCHITECT					
CONSULTANT					
ARCHITECT					
CONTRACTOR					
SUB-CONTRACTOR/VENDOR			N/A		
OWNER	N/A		N/A		N/A

**ACTION LEGEND:** (Indicate in ACTION TAKEN column above.)

A – APPROVED

B – APPROVED AS NOTED

C – REVISE AND RESUBMIT

D – NOT APPROVED

E – NO ACTION REQUIRED BY ARCHITECT

1 – SUBMITTAL NOT REQUIRED

2 – PROJECT OR CLOSEOUT INFORMATION

**REMARKS:**

[ ] SEE ATTACHED COMMENTS

[ ] SEE ENCLOSED SUBMITTAL FOR COMMENTS

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