

Project Manual For

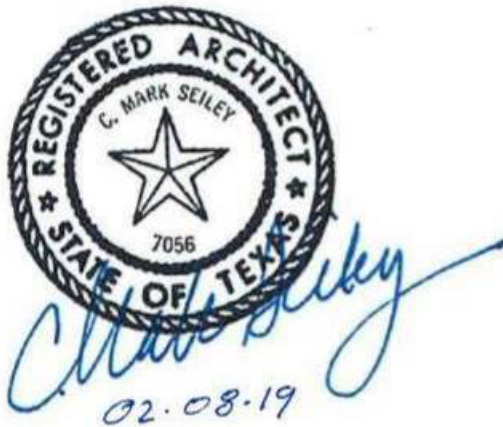
# Haltom High School Window Waterproofing Repair

BIRDVILLE INDEPENDENT SCHOOL DISTRICT

February 8, 2019

PBK Project No.: 1960

BISD Project No.: RFCSP #093-19



*Architecture  
Engineering  
Planning  
Technology  
Facility Consulting*

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**BIRDVILLE INDEPENDENT SCHOOL DISTRICT**

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**PROJECT MANUAL**

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## SECTION AA

### REQUEST FOR COMPETITIVE SEALED PROPOSALS

Competitive Sealed Proposals for the work described below in accordance with Proposal Documents and addenda as may be issued prior to date of proposal opening will be received by the Board of Trustees, Birdville Independent School District, until proposal closing date and time, as identified below. Proposals from Offerors will then be opened in public and read aloud.

**Owner:** Birdville Independent School District  
6125 East Belknap Street  
Haltom City, TX 76117

**Architect:** PBK  
100 Throckmorton Street  
Suite 1550  
Fort Worth, TX 76102  
Harold Stephens, Project Manager

**Project:** **Haltom High School Window Waterproofing Repair  
Birdville Independent School District**

**Construction Budget:** \$85,000.00

**Plan Available:** February 08, 2019  
Contact Shelley Freeman with BISD  
[shelley.freeman@birdvilleschools.net](mailto:shelley.freeman@birdvilleschools.net)  
817-547-5626

**Pre-Proposal Conference:** Thursday February 14, 2019 at 2:00 PM  
Haltom High School (West side of building)  
5501 Haltom RD.  
Haltom City, Texas 76137

**Proposal Due Date and Time:** Tuesday, February 26, 2019  
2:00 PM Base Proposals & Alternates  
Proposals must be stamped in at the BISD Purchasing Department  
Proposals received after 2:00 PM will not be accepted

**Proposal Opening Location:** Birdville Independent School District  
Purchasing Department, 2<sup>nd</sup> Floor  
3124 Carson Street  
Haltom City, TX 76117

Proposal Documents will be available Friday February 8, 2019. General Contractors may contact Shelley Freeman ([shelley.freeman@birdvilleschools.net](mailto:shelley.freeman@birdvilleschools.net), 817-547-5626) with Birdville ISD for plans and specifications.

All proposals must be in the hands of the Owner no later than the time specified in this document. Please seal all proposals in duplicate in an envelope with the following information on the face of the envelope.

Name of Offeror (General Contractor)  
**Haltom High School Window Waterproofing Repair**  
Birdville ISD RFCSP No.: 093-19  
\_\_\_\_\_ (Name of Bonding Company)

The Owner reserves the right to reject any and all proposals and to waive any informality in the Competitive Sealed Proposal process. No proposal shall be withdrawn within sixty (60) days after the proposal opening without the specific consent of the Owner. Refer to Instructions to Offerors Section AB.

**SELECTION CRITERIA:** Selection criteria are included in the Project Manual and Selection Criteria and are available on request by perspective Offerors from the office of the Architect.

**PROPOSAL BOND:** A Proposal Bond from a bonding company acceptable to the Owner or a certified check in an amount equal to 5% of the greatest amount proposal must accompany each offeror's proposal.

**PAYMENT BOND AND PERFORMANCE BOND:** A Payment Bond and Performance Bond, each in an amount equal to 100% of the Contract Sum conditioned upon the faithful performance of the Contract will be required if conditions specified in Section AB, Instructions to Offerors for detailed Bond requirements are applicable.

The prevailing rates of wages as stipulated in the Supplementary Conditions herewithin are the minimums that must be paid in conformance with all applicable laws of the State of Texas.

All Offerors (General Contractors) submitting proposals are encouraged to attend the proposal opening and visit the Project site.

Subcontractors and Suppliers intending to submit proposals to General Construction Offerors are required to prepare their proposals based on a complete set of proposal documents. If after reviewing the complete set of proposal documents, Subcontractors and Supplier Offerors desire to purchase individual drawings and specification sections for their proposal convenience, they may do so by ordering the specific drawings and specifications directly from the reproduction company. Each offeror purchasing a partial set of proposal documents is responsible for determining exactly which documents he requires and is responsible for all costs associated with printing and delivery. Subcontractors and Suppliers exercising this option must agree to do so on the basis that 1) all documents shall be returned to the Architect, without refund, after submitting a proposal and 2) documents shall not be used on other construction projects. Successful Subcontractors and Supplier Offerors may retain their Proposal Documents until completion of the construction. The subcontractor/supplier is responsible for all the associated work and coordination when not obtaining a complete set of drawings.

**END OF DOCUMENT**

## SECTION AB

### INSTRUCTIONS TO OFFERORS

The attached pages contain the required information to prepare a proposal as requested. The contract will be awarded to the company who, based on all responses and applying all criteria, is determined by the District to be the best-qualified company to provide the required product and service.

Proposals must be submitted on the forms provided. Submit one original and one copy of your proposal. All documents shall be placed in an envelope, sealed, properly identified with the project name (listed above), and deliver to the Birdville Independent School District, Purchasing Office, 3124 Carson Street, Haltom City, TX 76117 by the proposal due date and time (listed above). Proposals received after that time will be returned unopened.

The District reserves the right to reject any and/or all proposals, to make awards as they may appear advantageous to the District and to waive all formalities and irregularities in proposing.

Pricing must be firm for acceptance for 90 days from the date of opening. Proposals must show the full name and address of the vendor. Unsigned proposals will be disqualified. The person signing the proposal must be someone with the authority to bind their firm to a contract. Items must conform to appropriate local, state and federal ordinances, statutes, and regulations governing the manufacture, safety, and installation of the item. By signing this proposal, the company certifies and represents to the District that the vendor has not offered, conferred or agreed to confer any pecuniary benefit or other thing of value for the receipt of special treatment, advantage, information, recipient's decision, opinion, recommendation, and vote of any other exercise of discretion concerning this proposal. The signer further certifies that this company is not prohibited from doing business with any Federal Department or Agency and that to the best of their knowledge no company employee, either full or part time, owner, official, stockholder, subcontractor, or member of their immediate family, are related to a member of the Board of Trustees in violation of the Nepotism Prohibition of the State of Texas Government Code (Chapter 573 Gov. Code).

The specifications set forth for this proposal are not intended to be restrictive. The intent of this proposal is to obtain the most appropriate building at the most economical price available. The specifications are established to ensure that the District remains within the bounds of the rules and regulations that govern its operation and to protect the taxpayer's investment in this entity. Any questions concerning this proposal should be directed in writing to the Architect: Harold Stephens with PBK [harold.stephens@pbk.com](mailto:harold.stephens@pbk.com) and Owner: Shelley Freeman with BISD [shelley.freeman@birdvilleschools.net](mailto:shelley.freeman@birdvilleschools.net). BISD reserves the right to award projects deemed in the best interest of the district in terms of value.

### **SUMMARY OF WORK**

BISD is making repairs to the waterproofing above the windows of the west wall at Haltom High School.

#### **1.1 QUALIFIED OFFERORS**

- A. Competitive Sealed Proposals will be accepted from qualified Offerors (General Contractors) only for the entire scope of work described in the Contract Documents. As a prerequisite to an Offeror's qualifying for the award of contract on this work, the Offeror must complete each item of the Contractor's Qualification Statement (AIA Document A305). The Statement forms may be obtained from the Dallas Chapter of the American Institute of Architects, 1909 Woodall Rodgers Freeway., Dallas, TX 75243 or the Fort Worth Chapter of the American Institute of Architects, 3425 W 7th St, Fort Worth, TX 76107, (817) 334-0155. In addition to the information contained in the Statement form, offerors shall also address the selection criteria issues listed under the paragraph below for Determination of Successful Respondent and Award of Contract. The Statement and other requested information shall be submitted at the time of receipt of Proposals in four (4) copies, three (3) for the Owner and one (1) for the Architect. Qualification statements submitted by FAX

transmission will not be accepted. AIA A305 submission is not mandatory prior to proposal submission, however should be included with the Proposal submitted April 3, 2018 at 2:00 PM.

- A. References: Complete the Reference Form (Form H, within the Proposer's Return Packet) with three (3) references of similar services completed in the past twenty-four (24) months. Two (2) of the references shall be school districts serviced. The references should be of like size and nature as the BISD. The references shall include the name of the company, contact person, phone number, fax number and a **current/verified e-mail address**, length of time work has been performed, types of tasks performed and service provided. Reference Form H shall be submitted with the proposal.
- B. The primary purposes of the evaluation process will be to:
  - 1. Gather information for the Owner's evaluation procedure.
  - 2. Enable the Architect to evaluate the Contractor's qualifications and determine which Contractors the Architect could recommend to the Owner should such recommendation be requested by the Owner.
- C. In arriving at his opinion concerning the Contractor's qualifications, the Architect will use the same criteria that the Owner will use in determination of the successful Contractor as detailed hereinafter.
- D. In the event an Offeror fails to submit the specified Contractor's Qualification Statement in accordance with the schedule established, such noncompliance shall be considered by both the Owner and Architect as a negative factor in the determination of the successful Offeror.

## 1.2 OFFEROR'S PRESENTATION

- A. Each Offeror by making his Proposal represents that:
  - 1. He has read and understands the Proposal Documents and his Proposal is made in accordance therewith.
  - 2. He has thoroughly familiarized themselves with Division 01 General Requirements as they are applicable to subsequent specification sections.
  - 3. He has visited the site, has familiarized himself with the local conditions under which the work is to be performed and has correlated his observations with the requirements of the proposed Contract Documents.
  - 4. He agrees to comply with the requirements of the following paragraph. Any Offeror who subsequently does not agree to comply with these requirements will automatically disqualify himself from proposing or receiving award of the contract.
- B. He/She agrees that:
  - 1. Work on the project will begin immediately upon receipt of signed Contract or Notice to Proceed.
  - 2. Offeror will participate as a team member in cooperation with the Project Architect, Engineers, Owner, and Owners agents and/or consultants.
  - 3. The Offeror will assign a competent full-time superintendent, to the project, and that superintendent shall be maintained on the project for the duration of the project, subject only to his continuous employment.
  - 4. The Offeror will furnish and pay for a proposal bond in the amount of ten percent (5%) of the contract amount.
  - 5. If awarded, the Offeror shall furnish and pay for a Performance Bond and a Payment Bond each in the full contract amount.
  - 6. Offeror shall carry and keep in full force for the duration of the Project, insurance coverage for builder's risk, workmen's compensation, comprehensive general liability, and automobile liability as required by the General Conditions and/or Supplementary General Conditions of the Specifications.
  - 7. Each Offeror by making his Proposal represents that his Proposal includes only material and equipment specified in the Proposal Documents and supplemented, if necessary, for a complete and operating system.

8. Where subcontract work is involved and where Acceptable Subcontractors are designated for particular sections or phases of the Work, each Offeror by making his Proposal represents that his Proposal includes only firms designated as Acceptable Subcontractors.
9. That no asbestos PCBs or lead building materials shall be used, and that each Offeror (and sub-offeror or supplier submitting a proposal to an Offeror) shall submit an affidavit at Project Close-out stating that no asbestos, PCB's or lead building materials has been used on the Project.

### 1.3 PROPOSAL DOCUMENTS

- A. Proposal Documents include the Request for Competitive Sealed Proposals, Instructions to Offerors, the Proposal Form, and the proposed Contract Documents, including any Addenda issued prior to receipt of proposals.
- B. Contract Documents for the work consist of the Owner-Contractor Agreement, the Conditions of the Contract (General, Supplementary and other Conditions), the Drawings, the Specifications, and all Addenda issued prior to receipt of proposals.
- C. Unless specified otherwise, all drawings and specifications associated with this project are included with this proposal request.
- D. Any addenda issued during the time allotted shall be covered in the proposal, and in closing the Contract; they will become a part thereof.

### 1.4 PROPOSAL PROCEDURES

- A. A proposal is invalid if it has not been received at the designated location prior to the time and date for receipt of proposals indicated in the Request for Competitive Sealed Proposals, or prior to any extension thereof issued to the Offerors by Addenda.
- B. All requested Alternates shall be proposed. If no change in the Base Proposal is required, enter "No Change".
- C. Prior to the receipt of Proposals, Addenda will be forwarded to planholders and will be available for inspection wherever the proposal documents are kept available for that purpose.
  1. Submit all questions about the specifications to the Architect and Owner in writing. Replies will be issued to all prime vendors on record as Addenda and will become part of the Contract. The Owner will not be responsible for oral clarification. Questions received less than two days before the proposal opening cannot be answered. Address all questions to **Harold Stephens with PBK; [harold.stephens@pbk.com](mailto:harold.stephens@pbk.com) and Shelley Freeman with BISD [shelley.freeman@birdvilleschools.net](mailto:shelley.freeman@birdvilleschools.net).**
- D. Proposals will be received in duplicate only on the Owner's Form of Proposal for the work as indicated by the Proposal Documents and filled in. No proposal will be considered unless it is filed with the Purchasing Department, 3124 Carson Street, Fort Worth, Texas 76117 within the time limit for receiving proposals as stated in the Advertisement. Each proposal shall be in a sealed envelope, plainly marked with the word, "Proposal", and the name or description of the project.
- E. The Proposal Form must be accompanied by Proposal Bond or Certified Check in the amount of 5% of the proposal.
- F. All proposals must be delivered sealed to the above address at or before the time and date set. Proposals will be received at no other place. If Proposal is sent by U.S. Mail, it must be sent Registered Mail.
- G. A proposal may be withdrawn only upon request by the Offeror or his duly authorized representative, provided such request is received by the Owner at the place designated for

receipt of proposals and prior to the time fixed for the opening of proposals. A withdrawal of a proposal shall not be effective unless a written confirmation of the withdrawal is received by the Owner at said place within 48 hours before the time fixed for the opening of proposals. The Proposal Bond will be returned with the proposals if withdrawn in accordance with the above. The withdrawal of a proposal does not prejudice the right of the Offeror to file a new proposal at the time and place stated. No proposal may be withdrawn after the time fixed for the opening of proposals for a period of 30 days.

- H. The proposals filed with the Purchasing Department will be opened publicly and shall thereafter remain on file with the School District.

### 1.5 INTERPRETATION OF PROPOSAL DOCUMENTS

- A. Offerors and sub-offerors requiring clarification or interpretation of the Proposal Documents shall make a written or verbal request which shall reach the Architect at least ten (10) days prior to the date for receipt of proposals.
- B. Any interpretation, correction or change of the Proposal Documents will be made by Addendum. Interpretations, corrections or changes of the Proposal Documents made in any other manner will not be binding.

### 1.6 SUBSTITUTIONS OF MATERIALS AND EQUIPMENT

- A. The materials, products and equipment described in the Proposal Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. The materials and equipment named in, and the procedures covered by these specifications have been selected as a standard because of quality, particular suitability or record of satisfactory performance. It is not intended to preclude the use of equal or better materials or equipment provided that same meets the requirements of the particular project and is approved in an addendum as a substitution prior to the submission of proposals.
- B. No substitution will be considered prior to receipt of proposals unless written request for approval has been received by the Architect at least four (4) days prior to the date for receipt of proposals as described in Section 01 25 13 – Products and Substitutions. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including drawings, cuts, performance and test data and any other information necessary for an evaluation. The Architect's decision of approval or disapproval of a proposed substitution shall be final.
- C. If the Architect approves any proposed substitution prior to receipt of proposals, such approval will be set forth in an Addendum. Offerors shall not rely upon approvals made in any other manner.
- D. No substitutions will be considered after the Contract award.

### 1.7 REJECTION OF PROPOSALS

- A. The Owner shall have the right to reject any or all proposals and to reject a proposal not accompanied by any required proposal security, or by other data required by the Proposal Documents, or to reject a proposal which is in any way incomplete or irregular. All proposals submitted are subject to this reservation. Proposals may be rejected for any of the following specific reasons:
  - 1. Proposals received after the time limit for receiving proposals
  - 2. Proposals containing any irregularities
  - 3. Unbalanced value of any items
- B. Proposals shall be considered irregular if they show any omissions, alterations of form, additions or conditions not called for, or irregularities of any kind. The Owner reserves the right to reject any or all proposals and to waive any formalities or irregularities and to make the award of the contract in the best interest of the Owner. In case of ambiguity or lack of clearness

in stating prices in the proposal, the District reserves the right to adopt the prices written in words.

- C. The Owner reserves the right to reject any proposal if the evidence submitted by, or investigation of, such offeror fails to satisfy the Owner that such offeror is properly qualified to carry out the obligations of the contract and to complete the work therein. Award may be made to other than the low-dollar offeror and given the one offering the “best value” to the school district, in addition to the purchase price, based on the published selection criteria and on its ranking evaluation.
- D. Do not submit voluntary alternates. The Owner reserves the right to reject any proposal which is accompanied by conditional or qualifying statements, or “voluntary alternates”.

### 1.8 DISQUALIFICATION OF VENDORS

- A. Vendors may be disqualified and their proposals not considered for any of the following reasons:
  - 1. Reason for believing collusion exists among vendors
  - 2. Reasonable grounds for believing that any vendor is interested in more than one proposal for the work contemplated
  - 3. The vendor being interested in any litigation against the District
  - 4. The vendor being in arrears on any existing Contract or having defaulted on a previous Contract
  - 5. Lack of competency as revealed by the financial statement, experience and equipment questionnaires, omission of required bid submittals, etc.
  - 6. Uncompleted work which, in the judgment of the District, will prevent or hinder the prompt completion of additional work, if awarded

### 1.9 INSURANCE

- A. Each Offeror shall include in his proposal the complete cost and shall carry and keep in full force for the duration of the project insurance coverage as required under the Contract. The Contractor shall show proof of insurance before any Contract can be entered into.

### 1.10 WORKERS' COMPENSATION INSURANCE COVERAGE

- A. Definitions: Certificate of Coverage ("certificate") - A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, of a coverage agreement (TWCC-81, TWCC-82, TECC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

Duration of the Project - includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

Persons Providing Services on the Project ("subcontractors" in 406.096) - includes all persons or entities performing all or part of the service the contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other services related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

- B. The contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011 (44) for all employees of the contractor providing services on the project, for the duration of the project.

- C. The contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract.
- D. If the coverage period shown on the contractor's current certificate of coverage ends during the duration of the project, the contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.
- E. The contractor shall obtain from each person providing services on a project, and provide to the governmental entity:
  - 1. a certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and
  - 2. no later than seven days after receipt by the contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.
- F. The contractor shall retain all required certificates of cover for the duration of the project and for one year thereafter.
- G. The contractor shall notify the governmental entity in writing by certified mail or personal delivery, within 10 days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.
- H. The contractor shall post on each project site a notice, in the text, form, and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.
- I. The contractor shall contractually require each person with whom it contracts to provide services on a project to:
  - 1. Provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011 (44) for all of its employees providing services on the project, for the duration of the project;
  - 2. Provide to the contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;
  - 3. Provide to the contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;
  - 4. Obtain from each other person with whom it contracts, and provide to the contractor:
    - a. A certificate of coverage, prior to the other person beginning work on the project; and
    - b. A new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;
  - 5. Retain all required certificates of coverage on file for the duration of the project and for one year thereafter;
  - 6. Notify the governmental entity in writing by certified mail or personal delivery, within 10 days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and
  - 7. Contractually require each person with whom it contracts, to perform as required by paragraphs (1) - (7), with the certificates of coverage to be provided to the person for whom they are providing services.
- J. By signing this proposal or providing or causing to be provided a certificate of coverage, the contractor is representing to the governmental entity that all employees of the contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's



Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

- K. The contractor's failure to comply with any of these provisions is a breach of contract by the contractor which entitles the governmental entity to declare the contract void if the contractor does not remedy the breach within ten days after receipt of notice of breach from the governmental entity.

**1.11 PERFORMANCE BOND AND PAYMENT BOND**

- A. Each Offeror shall include in this proposal the premium costs for 100% Performance Bond and 100% Payment Bond as applicable. These bonds shall cover the faithful performance of the contract and payment of all obligations arising thereunder in such form as the Owner may prescribe. The bonding companies must be acceptable to the Owner. The selected Offeror shall deliver the required bonds to the Owner not later than the date of execution of the Contract. **Unless otherwise specified, the cost of the premium for the Performance and Payment Bonds shall be included in the Contractor's Proposal.**

**1.12 PROPOSAL SECURITY**

- A. No proposal will be considered unless it is accompanied by a Certified or Cashier's Check or Proposal Bond executed on the form attached. In either case the amount shall be not less than ten percent (5%) of the greatest amount proposed (considering alternates, if any). The proposal security shall insure the execution of the contract and the furnishing of an acceptable Performance Bond and Payment Bond as applicable by the successful Offeror within ten (10) days after notification of award to such Offeror and that this proposal will not be withdrawn within 30 days after date of opening of proposals without the consent of the Owner. Proposal Bond shall be prepared in the identical form of AIA Document A310 or the form attached.

**1.13 WAGE RATES**

- A. Contractor shall utilize Prevailing Wage Rate Schedule in Exhibit 1 attached.

**1.14 CRIMINAL HISTORY CHECKS AND BADGING REQUIREMENTS**

During the term of this agreement, the proposer's employees have access to Birdville ISD facilities while students are present which could result in contact with students. Subsequently, the proposer is responsible for complying with Texas Education Code § 22.0834. The various levels of criminal history and badging requirements are described below:

- A. All proposers who will only deliver to the front office, but not enter a school building to perform service will be required to complete Form N and submit the Certification for Criminal History Check Form with their proposal.
- B. For all proposers who perform service within the school buildings, but do not involve direct and ongoing contact with students, the proposer is instructed to follow the procedures as outlined for obtaining badging through FC Background. FC Background is an independent firm selected to perform criminal history checks for the Birdville ISD contractors and vendors who do not have direct and ongoing contact with students. In addition to FC Background's badging process, the proposer is responsible for ensuring direct access to students is prohibited. The proposer and all workers on Birdville ISD property will enforce compliance and shall certify compliance with Texas Education Code § 22.0834, see Form N. As a minimum the contractor/vendor is responsible for the following:
  - 1. Contractor/vendor shall only use restrooms designated for contractors/workers. Student restrooms are prohibited from use. The following are the only facilities for use:
    - a. Inside Birdville ISD buildings, "faculty only" facilities, if necessary, with preference for contractors to use contractor furnished "portable" facilities;
    - b. Outside Birdville ISD property, contractor/vendor furnished "portable" facilities.

2. Proposers are not allowed direct and ongoing unsupervised contact with students in areas including, but not limited to: classrooms, elevators, athletic buildings, weight rooms, gymnasiums, auditorium, practice rooms, band halls, hallways, locker rooms, office spaces where students are located.
  3. Precautions listed in this section are minimal requirements to avoid direct and unsupervised contact with students. The successful proposer is responsible for implementing additional measures to ensure direct and ongoing unsupervised contact with a student does not exist.
  4. The company recommended for award shall complete the background screening and badging process with FC Background to have all employees and sub-contractors working on-site for Birdville ISD. All costs associated with badging are the responsibility of the successful proposer.
    - a. FC Background Information:
      - i. FC Background  
Phone 972-404-4479 Fax 214-306-8207  
Monday-Friday 6am – 6pm (CST)  
[Customer.support@fcbgbackground.com](mailto:Customer.support@fcbgbackground.com)
      - ii. Facility maps are available on [www.fcbgbackground.com](http://www.fcbgbackground.com)
      - iii. Cost per employee is \$30.00 per subject (additional criminal records search fees may apply)
    - b. Birdville ISD Badging Qualifications:
      - i. No felony convictions, no open or pending felony cases (no limit);
      - ii. No misdemeanor convictions involving crimes against children or crimes of moral turpitude;
      - iii. No registered sex offenders; or
      - iv. No outstanding warrants for crimes that would disqualify an individual from receiving a badge.
  5. If at any time a contractor finds themselves with direct and ongoing unsupervised contact, they should report to the administrator on duty and remove themselves from the service until requirements listed in section C can be completed.
- C. For all proposers who perform service where there is direct and ongoing unsupervised contact with students(s) Form N shall be completed and proposer shall comply with the following:
1. Individuals
    - a. Obtain a required criminal history record information through the Department of Public Safety's Fingerprint-based Applicant Clearinghouse of Texas (FACT), regarding its employees assigned to work on Birdville ISD premises. The following steps should be followed to complete this process:
      - i. If you are an individual/sole proprietor (one-person company) you must contact Birdville ISD Shelley Freeman at [shelley.freeman@birdvilleschools.net](mailto:shelley.freeman@birdvilleschools.net) to obtain a FAST pass.
      - ii. Follow instructions on the FAST Pass to arrange an appointment to be finger printed. Contractor may select the most convenient location in their zip code.
      - iii. After fingerprinting is completed, email Shelley Freeman, Director of Purchasing at [shelley.freeman@birdvilleschools.net](mailto:shelley.freeman@birdvilleschools.net) and provide the following: RFCSP number, full name and date of birth date for person assigned to work on site during the contract term. If it is not possible to verify an employee based on the name and date of birth, it may be necessary to provide a driver's license number or state identification card.

2. Contractor Personnel
  - a. For all contractors/vendors/subcontractors who will have direct and ongoing unsupervised contact with students(s) and have multiple personnel working for that contractor, the following will apply.
    - i. Awarded contractor/vendor/subcontractor will receive an award letter from Birdville ISD and/or contract from the general contractor prior to contact the Department of Public Safety.
    - ii. Contact the Department of Public Safety at 512-424-2474. Select option 2 to establish a vendor account and obtain a FAST Pass. This process can take up to seven to ten business days.
    - iii. Follow instructions on the FAST Pass to arrange an appointment for employees to be finger printed. Employers may select the most convenient location based on your zip code.
    - iv. After fingerprinting is completed, email Shelley Freeman, Director of Purchasing at [shelley.freeman@birdvilleschools.net](mailto:shelley.freeman@birdvilleschools.net) and provide the following: RFCSP number, full name and date of birth for all personnel assigned to work on site during the contract term. If it is not possible to verify an employee based on the name and date of birth, it may be necessary to provide a driver's license number or state identification card.
    - v. If an employee is arrested while under contract, the contractor must contact Shelley Freeman, Director of Purchasing, at 817-547-5626 immediately. The incident must be reported within three (3) business days of the arrest. The employee shall be removed from work on Birdville ISD for the duration of the contract. Failure to do so will make the contract null and void.

#### 1.15 SUBMISSION OF POST PROPOSAL INFORMATION

- A. The apparent Selected Offeror shall within one (1) days after proposals are received submit the following to the Architect's Office:
  1. Preliminary project schedule.
  2. An experience profile of the selected Offeror's superintendent scheduled to work on this project. In addition, the apparent selected Offeror shall cooperate with the Owner, supplying requested information to substantiate the qualifications of the superintendent. If, in the opinion of the Owner, the superintendent does not qualify, the Owner may request the submission of another superintendent and more information. The Owner reserves the right to reject the apparent selected Offeror if an acceptable superintendent is not presented.

#### 1.16 AWARD OF CONTRACT

- A. The Offeror to whom the award is made will be promptly notified. If an Offeror (a) withdraws his proposal within 30 days after the date of time fixed for the opening of proposals in the Request for Competitive Sealed Proposals, or (b) fails or refuses to execute the Agreement, or other required forms within ten (10) days after the same are presented to him for signature, or (c) fails or refuses to furnish properly executed Performance Bond and Certification of Required Insurance within 15 calendar days of execution date of the Agreement, the Owner may award the work to another Offeror or Offerors or may call for new proposals.
- B. The Offeror will be required to (a) submit his Proposal and Proposal Bond, (b) execute Contract and Performance and Payment Bonds, and (c) submit Certification of required insurances, all using the Owner's own forms for such respective purposes.
- C. Proposal Bond is forfeited if proposal is withdrawn after the proposal opening, or Contract Documents are not executed in accordance with the above.

#### 1.17 NOTICE TO PROCEED

- A. The Offeror shall not commence work under this Contract until he receives the written Notice to Proceed, or the Contract is duly signed by the Owner.

**1.18 COMPLETION TIME**

- A. Offerors shall familiarize themselves with the Owners requirements concerning the project schedule as described in Section 01 32 16 of this Project Manual.
- B. Having thoroughly familiarized himself with the conditions as they exist at the building sites and acquainted himself with the labor supply and the material market, the Offeror will state in his proposal that he agrees to be substantially complete with the work by the date stated above.
- C. It is therefore expressly agreed as a part of the consideration inducing the Owner to execute this contract that the Owner may deduct liquidated damages from the final payment made to the Contractor for each and every calendar day beyond the agreed date which the Contractor shall require for Substantial Completion of the work included in this contract. **The Contractor shall pay to the Owner as liquidated damages the sum of \$250.00 per day** which will be sustained by the Owner in the event that the work is not completed within the agreed time, or within the legally extended time, if any, otherwise provided for herein. Said sum shall be considered as liquidated damages only and in no sense shall be considered a penalty, said damage being caused by additional compensation to personnel, for loss of interest on money and other miscellaneous increased costs, all of which are difficult of exact ascertainment. Also, any disruption of Owner's use of the existing facilities or newly completed facilities will also be subject to liquidated damages. Refer to Section 01 32 16 for additional requirements. Delays, disruption of use, failures to complete, and liquidated damages are fully described under Article 8.3 of the Supplementary Conditions. The definition of Substantial Completion is found in Article 9.8.1 of the AIA General Conditions and Supplementary Conditions bound herein.

**1.19 BUILDING GUARANTEES**

- A. Except where otherwise stipulated in the contract document, the Contractor shall, as per his contract, guarantee all materials and workmanship furnished under this contract for a period of one (1) year after the date of final acceptance of the work by the Owner's representative and shall repair and make good, without expense to the Owner, any and all defects in material supplied for his work which may develop within that time.
  - 1. All required guarantees shall be submitted to the Owner's representative on the approved form before the project will be accepted.
    - a. Waiver of lien against project
    - b. Contractor's affidavit of bills paid
    - c. All other guarantees

**1.20 AFFIDAVIT OF NON-ASBESTOS, LEAD, AND PCB USE IN PROJECT**

- A. The use of any construction process or the installation of any asbestos, lead and PCBs or material containing asbestos, lead and PCBs is strictly prohibited for this Project.
- B. Prior to submitting a proposal, Offerors shall notify the Architect, in writing, of any materials in these specifications which are known to contain or are likely to contain asbestos, lead or PCBs.
- C. The Offeror, and sub-offerors shall agree to refrain from using products which are known to contain asbestos, lead, and PCB containing materials as applicable to the project. They shall also affirm that lead or lead bearing materials have not been incorporated into potable water systems, and that lead sheet flashing used in through roof plumbing penetration applications is the only lead on the Project.
- D. The Selected Offeror (Contractor) **must** execute Document AE Affidavit of Non-Asbestos, Lead, and PCB Use and submit at Project Closeout. The Subcontractors to the Contractor **must** execute Close-out Form "D", attached to section 01 77 00, Subcontractors Hazardous Material Certificate and submit at Project Closeout.

**1.21 AVAILABILITY OF MATERIALS AND SYSTEMS**

- A. A serious effort has been made to select only materials that are systems that are readily available. As far as is known at proposal time all items are either available "off the shelf" or within a relatively short period of time. If during the proposal period, an Offeror becomes aware of an availability or delivery problem with any of the specified systems or materials, he should notify the Architect immediately. The Architect will promptly explore possibilities for selecting other systems or materials which would circumvent the problem and notify Offerors of any changes in an addendum, otherwise it will be understood that only specified systems and materials that are readily available are included in the proposals.

**1.22 USE OF ASBESTOS FREE MATERIALS, PRODUCTS AND SYSTEMS**

- A. The Offeror is reminded to refer to the Paragraph above for requirements during the Proposal period and the following requirements during performance of the Work regarding the use of asbestos free materials, products and systems in the Project.
1. Since many materials, products and systems are proprietary, it is not possible to know all of the materials or components which go into producing such material, product or system without the manufacturer divulging trade secrets or patent information. Every effort has been made to specify materials, products or systems, which either as an "off the shelf" material, product or system or as a custom material, product or system do not contain asbestos.
  2. It is the Contractor's responsibility to submit an affidavit from the manufacturer to ascertain that every material, product or system used in the Project does not contain asbestos. In the event the material, product or system is found to contain asbestos, the Contractor shall offer for the Architect's consideration a substitution which he knows does not contain asbestos.
  3. Even though a material, product or system is specified or a specification is based on a particular material, product or system, the Contractor will not be relieved from the responsibility to ascertain that materials, products and systems used in the Project do not contain asbestos. Under no circumstances shall a material, product or system which is known, suspected or found to contain asbestos be used on the Project.
  4. If a material, product or system containing asbestos is used, the Contractor shall remove and replace the material, product or system with one which is asbestos free at no additional expense to the Owner, including removal and replacement of other materials affected by the removal of the asbestos bearing material, product or system, i.e. gypsum wallboard removed, replaced, and repainted on account of insulation being removed, etc.

**1.23 DETERMINATION OF SUCCESSFUL RESPONDENT AND AWARD OF CONTRACT**

- A. In determining the Selected Offeror, the Owner will evaluate the information derived from the Offeror's (Contractor's) Qualification Statement, information received from completed Offeror's reference surveys, direct experience with the Offeror by Selection Committee members, the Offeror's proposal including information requested with the proposals and post proposal information submitted by the Offeror relative to the following Selection Criteria. A maximum of **one hundred (100) points** may be scored to each proposal. [Architect and Owner to discuss for appropriateness on each project].

60%	Proposal amount
10%	Schedule
10%	Reputation of the vendor and the vendor's goods and services
10%	Quality of the vendor's goods or services
5%	Extent to which the goods and services meet the district's needs
<u>5%</u>	<u>Vendor's past relationship with the district</u>
100%	Total

- A. The Selection Committee consisting of Birdville Independent School District administrators, architects, consultants and other staff will make an initial evaluation of the proposals. The committee's recommendation will be considered by the Birdville Independent School District Board of Trustees ("Board"). The District reserves the right to review the recommendation with the District's Leadership Team and others deemed appropriate by the District prior to review by the entire Board. The final decision-making authority on the proposals rests with the full Board. Decision-making authority has not been delegated to any person or entity other than the Board.
- B. The District will make such investigations as it deems necessary to determine the ability of the offeror to perform the Work, and the offeror shall furnish all such information and data for this purpose as may be requested. The District reserves the right to reject any proposal if the evidence submitted by, or investigation of, such offeror fails to satisfy the District that such offeror is properly qualified to carry out the obligations of the Contract and to complete the Work contemplated therein.
- C. The District reserves the right to reject any or all proposals and to waive any formalities or irregularities and to make the award of the contract in the best interest of the District.
- D. A decision regarding determination of the successful Offeror will be made by the District as soon as practical.

**END OF SECTION**

# PROPOSER'S RETURN PACKET

## SECTION II COVER PAGE



**RFCSP: #093-19**  
**HALTOM HIGH SCHOOL WINDOW**  
**WATERPROOFING REPAIRS**  
**DUE DATE: February 26, 2019**  
**TIME: 2:00 PM CST**

**PROPOSER IDENTIFICATION: (Please print information clearly.)**

<b>Company Name:</b>		<b>Date:</b>	
<b>Address:</b>		<b>Phone:</b>	
		<b>Fax:</b>	
<b>City/St/Zip</b>		<b>Email:</b>	

*I hereby acknowledge receipt of the following addenda (if applicable) which have been issued and incorporated into the RFQ Document. (Please initial in ink beside each addendum received.)*

<b>Addendum No. 1</b>		<b>Addendum No. 3</b>	
<b>Addendum No. 2</b>		<b>Addendum No. 4</b>	

**SECTION III**  
**RFCSP RESPONSE CHECKLIST**

To be considered for award of **this** solicitation, all pages contained in the “Packet” (including but not limited to forms A – N, Required Federal Contract Provisions, the Cover Page, plus any/all attachments, must be completed with all requested information, **SIGNED** and **RETURNED** in a sealed envelope or other appropriate package adequate to conceal and contain the contents prior to the RFCSP date and time. Each RFCSP shall be placed in a separate envelope and properly identified with the RFCSP Number, RFCSP Title, Name of Company submitting RFCSP, and the established time and date to be opened.

Please verify that the documents listed below have been completed, signed, and included in your RFCSP prior to submittal. **TO BE CONSIDERED FOR AWARD, ALL MANDATORY FORMS MUST BE COMPLETED, SIGNED AND RETURNED WITH THIS SOLICITATION.**

**Mandatory Forms (required to be considered for the Award of this solicitation):**

- Proposer Return Packet and Addendum(s) (Submittals as detailed in the specifications)
  - Proposer’s Questionnaire
  - Insurance
  - References
- Completed – Packet Cover Page
- Completed – Proposer Information Response Form – Form A
- Completed – Deviation/Compliance Signature Form – Form B
- Completed – Non-Collusion Statement – Form C
- Completed – Buy American Provision – Form D
- Completed – HACCP Plan – Form E
- Completed – Criminal Background Check and Felony Conviction Notification – Form F
- Completed – Resident/Nonresident Bidder’s Certification – Form G
- Completed – References – Form H
- Completed – Senate Bill 9 Proposer Certification – Form I
- Completed – EPCNT – Form J
- Completed – Cooperative List – Form K
- Completed – Conflict of Interest Questionnaire – Form L
- Completed – Historically Underutilized Business (HUB) Certification – Form M
- Completed – W-9, Tax Payer Identification Number & Certification (not included in packet)



**FORM A  
PROPOSER INFORMATION RESPONSE FORM**

The undersigned, in submitting this RFCSP and endorsement of same, represents that he/she is authorized to obligate his/her Proposer, that he/she is an equal opportunity employer and will not discriminate with regard to race, color, religion, national origin, sexual orientation, or age or disability unrelated to job performance of this RFCSP; and that he/she has read this entire RFCSP package (Sections I through IX), is aware of the covenants contained herein and will abide by and adhere to the expressed requirements in *all* sections of this RFCSP.

**SUBMITTED BY**

Primary Contact/Title:

Company name:

Phone:

Fax:

E-mail:

Registered company address:

City:

State:

ZIP Code:

Website:

HUB:

M/WBE:

EIN or SS#:

DUN:

**REMIT INFORMATION**

Contact Person:

Address:

City:

State:

ZIP Code:

Phone:

Fax:

E-mail:

Division/Bid#:

**ADDITIONAL REMIT ADDRESSES**

Location Name/Type:

Address:

City:

State:

ZIP Code:

Phone:

Fax:

E-mail:

Division/Bid#:

**PROPOSER QUALIFICATIONS**

How many years has your company been in this type of business?

Number of staff in your organization?

Are you willing to accept a split or multiple award?

Are you willing to accept procurement card payment?

Are criminal and civil arrest/charge records checked?

Is random drug testing performed?

Are your employees required to wear uniforms, name tags/badges and company identifications?

**HOW WOULD YOU LIKE TO RECEIVE YOUR PURCHASE ORDERS? EMAIL, FAX OR US MAIL**  
*CHECK ALL THAT APPLY*

<input type="checkbox"/> Fax	<input type="checkbox"/> E-mail	<input type="checkbox"/> U S Mail
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**PLEASE LIST ANY CURRENT AWARDED BIDS YOU HAVE WITH OTHER DISTRICTS OR CO-OPS**

Bid or Co-op#:	Contact:	Phone:
Bid or Co-op #:	Contact:	Phone:
Bid or Co-op #:	Contact:	Phone:

**SIGNATURES OF COMPANY OFFICIAL**

Print Name: \_\_\_\_\_

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

Print Title:

Date:

**FORM B  
DEVIATION/COMPLIANCE SIGNATURE FORM**

If the undersigned Proposer intends to deviate from the Item(s) Specifications listed in this RFCSP document, all such deviations must be listed on this page, with complete and detailed conditions and information included or attached. **The District will consider any deviations in its RFCSP award decisions, and the District reserves the right to accept or reject any RFCSP based upon any deviations indicated below or in any attachments or inclusions.**

In the absence of any deviation entry on this form, the Proposer assures the District of his/her full compliance with the Terms and Conditions, Item Specifications, and all other information contained in this RFCSP document.

**No Deviation**

**Yes Deviations**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

If yes is checked, please list below. Attach additional sheet(s) if needed.

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**FORM C  
NON-COLLUSION STATEMENT**

“The undersigned affirms that he/she is duly authorized to execute this RFCSP, that this company, corporation, Proposer, partnership or individual has not prepared this RFCSP in collusion with any other Proposer, and that the contents of this RFCSP as to prices, terms or conditions of said RFCSP have not been communicated by the undersigned nor by any employee or agent to any other person engaged in this type of business prior to the official opening of this RFCSP.”

Proposer hereby assigns to purchaser any and all claims for overcharges associated with this RFCSP which arise under the antitrust laws of the United States, 15 USCA Section 1 and which arise under the antitrust laws of the State of Texas, Business and Commerce Code, Section 15.01.

*Does vendor agree?    Yes \_\_\_\_\_ Initials of authorized company representative*

**FORM D**  
**BUY AMERICAN PROVISION**

School and institutions participating in the NSLP and SBP are required by law to use child nutrition funds, to the maximum extent practicable, to buy domestic commodities or products for meals served under these programs. A “domestic commodity or product” is defined as one that either is produced in the U.S. or is processed in the U.S. substantially using agricultural commodities that are produced in the U.S. The term “substantially” means that over 51 percent of the final processed product consists of agricultural commodities that were grown domestically. Therefore, when child nutrition funds are used to acquire foods, schools and institutions must ensure that the items comply with this requirement. Additional requirements for preference for agricultural products from Texas are applicable to the use of child nutrition funds, in accordance with the Buy American Provision, Section 44.042, Texas Education Code.

*Does Proposer agree? Yes \_\_\_\_\_ Initials of authorized company representative*

**FORM E**  
**HACCP PLAN**

HACCP is a management system in which food safety is addressed through the analysis and control of biological, chemical, and physical hazards from raw materials production, procurement and handling, to manufacturing, distribution and consumption of the finished product.

Our company has a current Hazard Analysis and Critical Control Points Plan (HACCP) or good manufacturing practices in place for the duration of this contract.

**Yes, we have a HACCP**

**No, we do not have an HACCP**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**FORM F**  
**CRIMINAL BACKGROUND CHECK AND FELONY CONVICTION NOTIFICATION**

**(a) CRIMINAL BACKGROUND CHECK**

Proposer will obtain history record information that relates to an employee, applicant for employment, or agent of the Proposer if the employee, applicant, or agent has or will have continuing duties related to the contracted services; and the duties are or will be performed on school property or at another location where students are regularly present. The Proposer certifies to the Birdville ISD before beginning work and at no less than an annual basis thereafter that criminal history record information has been obtained. Proposer shall assume all expenses associated with the background checks, and shall immediately remove any employee or agent who was convicted of a felony, or misdemeanor involving moral turpitude, as defined by Texas law, from Birdville ISD’s property or other location where students are regularly present. Birdville ISD shall be the final decider of what constitutes a “location where students are regularly present.” Proposer’s violation of this section shall constitute a substantial failure.

If the Proposer is the person or owner or operator of the business entity, that individual may not self-certify regarding the criminal history record information and its review, and must submit original evidence acceptable to the District with this Agreement showing compliance.

**(b) FELONY CONVICTION NOTIFICATION**

State of Texas Legislative Senate Bill No. 1, Section 44.034, Notification of Criminal History, Subsection (a), states, “A person or business entity that enters into a contract with a school district must give advance notice to the District if the person or owner or operator of the business entity has been convicted of a felony.” The notice must include a general description of the conduct resulting in the conviction of a felony.

Subsection (b) states, “A school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction.” The district must compensate the person or business entity for services performed before the termination of the contract.

I, the undersigned agent for the Proposer named below, certify that the information concerning criminal background check and notification of felony convictions has been reviewed by me, the following information furnished is true to the best of my knowledge, and I acknowledge compliance with this section. Proposer is responsible for the performance of the persons, employees and/or sub-Proposers. Proposer agrees to provide services for the Birdville ISD pursuant to this RFCSP on any and all Birdville ISD campuses or facilities. Proposer will not assign individuals to provide services at a Birdville ISD campus or facility who have a history of violent, unacceptable, or grossly negligent behavior or who have a felony conviction, without the prior written consent of the Birdville ISD Purchasing Department.

***THE FELONY CONVICTION NOTICE IS NOT REQUIRED OF A PUBLICLY-HELD CORPORATION.***

<b>Proposer’s Name:</b>			
A. <i>My firm is a publicly-held corporation; therefore, this reporting requirement is not applicable.</i>	<b>Y</b>	<b>N</b>	
B. <i>My firm is not owned nor operated by anyone who has been convicted of a felony.</i>	<b>Y</b>	<b>N</b>	
C. <i>My firm is owned or operated by the following individual(s) who has/have been convicted of a felony:</i>	<b>Y</b>	<b>N</b>	
Name of Felon(s):			
Details of Conviction(s):			
Signature of Company Official:		Date:	
<b><i>NOTE: Name and signature of company official should be the same as initials on the affidavit (Form B).</i></b>			

**FORM G**  
**RESIDENT/NONRESIDENT CERTIFICATION**

Texas Government Code Chapter 2252 relates to bids by nonresident Proposers. The pertinent portions of the Act are as follows:

Section 2252.001(3) "Nonresident bidder" means a bidder who is not a resident (of the State of Texas).

Section 2252.001(4) "Resident bidder" means a bidder whose principal place of business is in this state, including a Proposer whose ultimate parent company or majority owner has its principal place of business in this state.

**Section 2252.002**

A governmental entity may not award a governmental contract to a nonresident bidder unless the nonresident underbids the lowest bid submitted by a responsible resident bidder by an amount that is not less than the amount by which a resident bidder would be required to underbid the nonresident bidder to obtain a comparable contract in the state in which the nonresident's principal place of business is located.

Company Name: \_\_\_\_\_ is/isn't a Resident Bidder of Texas as defined in Texas Government Code Section 2252.001(4).

**Yes - Resident**

**No - Nonresident**

If the Bidder is a Nonresident Bidder of Texas, please answer the following:

Does the Proposer's ultimate parent company or majority owner employ at least 500 persons in Texas?	Yes _____ No _____
-----------------------------------------------------------------------------------------------------	--------------------

*Does Proposer agree? Yes \_\_\_\_\_ Initials of authorized company representative*

**FORM H  
REFERENCES**

Proposers must provide at least three (3) references for which they have performed similar services within the past twenty-four (24) months. Two (2) of the references shall be school districts serviced. The references should be of like size and nature as the BISD. The references shall include the name of the company, contact person, phone number, fax number and e-mail address, length of time work has been performed, types of tasks performed and service provided. See attached reference sheet.

1.	Company Name:			
	Address:			
	City/State/Zip:			
	Contact Person:		Email:	
	Business Phone:		Fax:	
	Description of project or work completed:			
2.				
	Company Name:			
	Address:			
	City/State/Zip:			
	Contact Person:		Email:	
	Business Phone:		Fax:	
	Description of project or work completed:			
3.				
	Company Name:			
	Address:			
	City/State/Zip:			
	Contact Person:		Email:	
	Business Phone:		Fax:	
	Description of project or work completed:			

**FORM I**  
**MODEL SB 9 PROPOSER CERTIFICATION FORM**

**Criminal History Record Information Review of Certain Contract Employees**

**Introduction:** Texas Education Code Chapter 22 requires service Proposers to obtain criminal history record information regarding covered employees and to certify to the District that they have done so. Covered employees with disqualifying convictions are prohibited from serving at a school district.

**Definitions:**

*Covered employees:* Includes all employees of a Proposer (to include any subcontractors and/or independent Proposers) who have or will have continuing duties related to the service to be performed at the District and have or will have direct contact with students. The District will be the final arbiter of what constitutes direct contact with students.

*Disqualifying conviction:* One of the following offenses, if at the time of the offense: (a) a felony offense under Title 5, Texas Penal Code; (b) an offense for which a defendant is required to register as a sex offender under Chapter 62, Texas Code of Criminal Procedure; or c) an equivalent offense under Federal law or the laws of another state.

On behalf of \_\_\_\_\_ ("Name of Proposer"),

I First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

Certify that [check one]:

None of the Proposer's employees are *covered employees*, as defined above.

*Or*

Some or all of the Proposer's employee are *covered employees*. If this box is selected, I further certify that:

Proposer has obtained all required criminal history record information, through the Texas Department of Public Safety, regarding its covered employees. None of the covered employees has a disqualifying conviction. Proposer has taken reasonable steps to ensure that its employees who are not covered employees do not have continuing duties related to the contract services or direct contact with students.

If Proposer receives information that a covered employee has a disqualifying conviction, Proposer will immediately remove the covered employee from contract duties and notify the District in writing within three (3) business days.

Upon request, Proposer will make available for the District's inspection the criminal history record information of any covered employee. If the District objects to the assignment of a covered employee on the basis of the covered employee's criminal history record information, Proposer agrees to discontinue using that covered employee to provide services at the District.

Noncompliance by the Proposer with this certification may be grounds for contract termination.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



FORM J



**INTERLOCAL AGREEMENT CLAUSE**

Several governmental entities around the Birdville ISD have indicated an interest in being included in this contract. Should these governmental entities decide to participate in this contract, would you (the Proposer) agree that all terms, conditions, specifications, and pricing would apply?

Yes \_\_\_\_\_ No \_\_\_\_\_

If you (the Proposer) check yes, the following will apply:

Governmental entities utilizing Internal Governmental contracts with the Birdville ISD will be eligible, but not obligated, to purchase materials/services under the contract(s) awarded as a result of this solicitation. All purchases by governmental entity other than Birdville ISD will be billed directly to that governmental entity and paid by that government entity. Birdville ISD will not be responsible for another governmental entity's debts. Each governmental entity will order its own material/service as needed. For information regarding the Educational Purchasing Cooperative of North Texas, please visit their website at the following address: <http://www.epcnt.com/INDEX.htm>

Company Name: \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_

**FORM K  
COOPERATIVE LIST**

Birdville ISD is a member of the following Cooperatives. Please check if your company is a member of the following cooperatives.

- BuyBoard - The Local Government Purchasing Cooperative
- Choice Partners (Harris County Department of Education)
- DIR - State Purchasing Cooperative - Department of Information Resources
- EPCNT - Educational Purchasing Cooperative of North Texas
- HGAC – Houston-Galveston Area Council
- National Intergovernmental Purchasing Alliance (IPA)
- NJPA – National Joint Powers Alliance
- PACE - Purchasing Association of Cooperative Entities
- Tarrant County Cooperative Purchasing Program
- TCPN - The Cooperative Purchasing Network
- Texas Smart Buy - State Purchasing Cooperative
- TIPS - The Interlocal Purchasing System
- U.S. Communities
- Other(s) \_\_\_\_\_
- None

*Does Proposer agree? Yes \_\_\_\_\_ Initials of authorized company representative*

# FORM L

<p style="text-align: center;"><b>CONFLICT OF INTEREST QUESTIONNAIRE</b></p> <p style="text-align: center;"><b>For vendor doing business with local governmental entity</b></p>	<p style="text-align: right;"><b>FORM CIQ</b></p>
<p><b>This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.</b></p> <p>This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).</p> <p>By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code.</p> <p>A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.</p>	<p><b>OFFICE USE ONLY</b></p> <hr/> <p>Date Received</p>
<p><b>1</b> Name of vendor who has a business relationship with local governmental entity.</p>  	
<p><b>2</b> <input type="checkbox"/> Check this box if you are filing an update to a previously filed questionnaire. (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)</p>	
<p><b>3</b> Name of local government officer about whom the information is being disclosed.</p>  <p style="text-align: center;">_____</p> <p style="text-align: center;">Name of Officer</p>	
<p><b>4</b> Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.</p>      <p>A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?</p> <p style="text-align: center;"><input type="checkbox"/> Yes     <input type="checkbox"/> No</p> <p>B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?</p> <p style="text-align: center;"><input type="checkbox"/> Yes     <input type="checkbox"/> No</p>	
<p><b>5</b> Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.</p>	
<p><b>6</b> <input type="checkbox"/> Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).</p>	
<p><b>7</b></p>  <p style="text-align: center;">_____</p> <p style="text-align: center;">Signature of vendor doing business with the governmental entity</p>	<p style="text-align: center;">_____</p> <p style="text-align: center;">Date</p>

**CONFLICT OF INTEREST QUESTIONNAIRE**  
**For vendor doing business with local governmental entity**

A complete copy of Chapter 176 of the Local Government Code may be found at <http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm>. For easy reference, below are some of the sections cited on this form.

**Local Government Code § 176.001(1-a):** "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

- (A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;
- (B) a transaction conducted at a price and subject to terms available to the public; or
- (C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

**Local Government Code § 176.003(a)(2)(A) and (B):**

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

\*\*\*

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds \$2,500 during the 12-month period preceding the date that the officer becomes aware that

- (i) a contract between the local governmental entity and vendor has been executed;
- or
- (ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than \$100 in the 12-month period preceding the date the officer becomes aware that:

- (i) a contract between the local governmental entity and vendor has been executed; or
- (ii) the local governmental entity is considering entering into a contract with the vendor.

**Local Government Code § 176.006(a) and (a-1)**

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

- (1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);
- (2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or
- (3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

- (A) begins discussions or negotiations to enter into a contract with the local governmental entity; or
- (B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

- (A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);
- (B) that the vendor has given one or more gifts described by Subsection (a); or
- (C) of a family relationship with a local government officer.

**FORM M**

**HISTORICALLY UNDERUTILIZED BUSINESS (HUB)  
CERTIFICATION**

Companies that have been certified by the Texas Building and Procurement Commission (TBPC) as Historically Underutilized Business (HUB) entities are encouraged to indicate their HUB status when responding to this Bid Invitation. The electronic catalogs will indicate HUB certification for vendors that properly indicate and document their HUB certification on this form.

I certify that my company has been certified by the Texas Building and Procurement Commission as a Historically Underutilized Business (HUB), and I have attached a copy of our HUB Certification to this form. (Required documentation for recognition as a HUB).

Minority

Small Business

Woman Owned

My company has NOT been certified by the Texas Building and Procurement Commission as a Historically Underutilized Business (HUB).

---

SIGNATURE OF AUTHORIZED REPRESENTATIVE

---

NAME ( PLEASE PRINT )

---

TITLE

---

DATE

**SECTION V**  
**BIRDVILLE INDEPENDENT SCHOOL DISTRICT**  
**STANDARD TERMS AND CONDITIONS**

The words “bids,” “request for proposals,” “quotes,” “RFPs,” “RFCSPs,” “solicitation,” “procurement,” and their derivatives may be used interchangeably in these terms and conditions. These terms and conditions apply to all procurement types to which they are attached. The term vendor, contractor or firm means each vendor chosen for award by Birdville ISD.

These Standard Terms and Conditions are part of the final contract and part of the terms and conditions of each purchase order issued in connection with this solicitation.

1. **INDEPENDENT PROPOSER** - Proposer shall operate hereunder as an independent Proposer and not as an officer, agent, servant or employee of Birdville ISD. Proposer shall have exclusive control of, and the exclusive right to control, the details of its operations hereunder and all persons performing same, and shall be solely responsible for the acts and omissions of its officers, agents, employees, Proposers, subcontractors and consultants.
2. **ASSIGNMENT** - The Proposer shall not sell, assign, transfer or convey any interest in this contract in whole or in part without the prior written consent of the Birdville ISD. No assignment, transfer or conveyance under this contract will be effective without the prior written consent of the School District.
3. **CONFLICT OF INTEREST** – The Proposer covenants and agrees that Proposer and its officers, employees, and agents will have no interest, including personal financial interest, and will acquire no interest, either directly or indirectly, which will conflict in any manner with the performance of the services called for under this Contract. No officer or employee of the School District shall have a financial interest, direct or indirect, in any contract with the BISD, or be financially interested, directly or indirectly, in the sale to the School District of any land, materials, supplies or services, except on behalf of the BISD or in compliance with the provisions of the Birdville ISD Policies and Procedures Manual. Any violation of this provision shall render this contract voidable at the discretion of the School District.
4. **SEVERABILITY** - In case any one or more of the provisions contained in this contract shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision of this contract, and this contract shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.
5. **MODIFICATIONS** - This contract can be modified only by written agreement of the parties.
6. **GRATUITIES** - The District may, by written notice to the Proposer, cancel this RFCSP without liability to Proposer if it is determined by the District that gratuities, in the form of entertainment, compensation, gifts, or otherwise, were offered or given by the Proposer, or any agent or representative of the Proposer, to any Board Member, officer, or employee of the Birdville ISD with a view toward securing a RFCSP or securing favorable treatment with respect to the awarding or amending, or the making of any determinations with respect to the performing of such an agreement.
7. **JURISDICTION** - The Purchase Order(s) resulting from this RFCSP shall be enforceable in Tarrant County, Texas, and if legal action is necessary by either party with respect to the enforcement of any and all of its terms and conditions, exclusive venue for same shall lie in Tarrant County, Texas.
8. **COMPLIANCE WITH LAWS** – Vendor shall comply with all federal, state and local laws, statues, ordinances, rules and regulations, including, if applicable, worker’s compensation laws, minimum and maximum salary and wage statues and regulations, prompt payment and licensing laws and regulations. For the entire duration of this contract, Vendor shall maintain all required licenses, certifications, permits and any other documentation necessary to perform this Agreement. When required or requested by Birdville ISD, Vendor shall furnish proof of Vendor’s compliance with this provision.

9. **EQUAL OPPORTUNITY** – It is the policy of Birdville ISD not to discriminate on the basis of race, color, national origin, gender, limited English proficiency or handicapping conditions in its programs. Vendor agrees not to discriminate against any employee or applicant for employment to be employed in performance of this Agreement, with respect to hire, tenure, terms, conditions and privileges of employment, or matter directly or indirectly related to employment, because of age (except where based on bona fide occupational qualification) or race, color, religion, national origin, or ancestry. Vendor further agrees that every subcontractor entered into for the performance of this Agreement shall contain a provision requiring non-discrimination in employment herein specified, binding upon each subcontractor. Breach of this covenant may be regarded as a material breach of the agreement.
10. **MINORITY & WOMEN’S BUSINESS ENTERPRISE (MWBE), HISTORICALLY UNDERUTILIZED BUSINESS (HUB) AND SMALL BUSINESS ENTERPRISE (SBE) PARTICIPATION** – Birdville ISD encourages the use of MWBE, HUB and SBE as prime and subcontractors. However, these entities must meet the same minimum standards and requirements of the prime contractor. It will be the responsibility of the prime contractor to pre-qualify any subcontractors offered as MWBE, HUB or SBE participants. Proposers shall indicate on their submitted proposals whether or not they are WMBE, HUB or SBE vendor and whom they are certified e.g. City, State, Federal. Complete the enclosed HUB Certification and provide a copy of the certificate(s) with the proposal. Please note that Birdville ISD does not have any percentage of participation or a disparity study completed.
11. **SAFETY** – Vendors, its subcontractors, and their respective employees shall comply fully with all applicable federal, state, and local safety and health laws, ordinances, rules and regulations in the performance of services under this Agreement, including without limitation, those promulgated by Birdville ISD and by the Occupational Safety and Health Administration (OSHA). All items must meet all applicable OSHA standards and regulations and all electrical items must bear appropriate listing from UL, FMRC or NEMA. In case of conflict, the most stringent safety requirements shall govern. Vendor shall comply with all other safety guidelines and standards as required by Birdville ISD. Vendor shall indemnify and hold Birdville ISD, harmless from all claims, demands, suits, actions, judgments, fines, penalties and liability of every kind arising from the breach of Vendor’s obligations under this provision.
12. **MATERIAL SAFETY DATA SHEET** – Vendor must provide, at no cost, at least one copy of any applicable Manufacturer’s Material Safety Data Sheet(s) (MSDS) with each shipment during the term of the contract. If OSHA or Federal or State laws provide for additional requirements, those requirements are in addition to the MSDS required.
13. **RECYCLED MATERIALS** – Texas state law requires that a purchasing preference be given to any product made from recycled material if it meets written specifications as to quality and quantity. If a product bid on this solicitation contains recycled material, identify the item number and report the percent of the recycled material in the product and the percent of the post-consumer material used in the product. “Post-consumer” means material that has been recycled after sale to a consumer as opposed to reuse of manufacturing waste prior to sale. In addition, identify any products that meet the criteria of “Environmentally Sensitive.”
14. **REMEDIES** - No right or remedy granted herein or reserved to the parties is exclusive of any right or remedy herein by law or equity provided or permitted; but each shall be cumulative of every right or remedy given hereunder. No covenant or condition of this contract may be waived without consent of the parties. Forbearance or indulgence by any party shall not constitute a waiver of any covenant or condition to be performed pursuant to this contract.
15. **NON-APPROPRIATION CLAUSE** – In accordance with Texas Local Government Code 271.903 concerning non-appropriation of funds for multi-year contracts, the proposer recognizes that the continuation of any contract after the close of any given fiscal year of the School District, which fiscal year ends on June 30 of each year, shall be subject to School Board budget approval. Should funding not be approved by the School Board for any given budget year during the contract term, the contract will terminate and become null and void.

16. **PROPOSER TO PACKAGE GOODS** - Proposer will package goods in accordance with good commercial practice. Each shipping container, shall be clearly and permanently marked as follows: (a) Proposer's name and address; (b) Consignee's name, address and purchase order or purchase change order number; (c) Container number and total number of containers, e.g., box 1 of 4 boxes; and (d) Number of the container bearing the packing slip. Proposer shall bear cost of packaging unless otherwise provided. Goods shall be suitably packed to secure lowest transportation costs and to conform to requirements of common carriers and any applicable specifications. District's count or weight shall be final and conclusive on shipments not accompanied by packing list.
17. **PLACE OF DELIVERY** - The place of delivery shall be set forth in the block of the purchase order or purchase change order entitled "Ship To."
18. **TITLE AND RISK OF LOSS** - The title and risk of loss of goods shall not pass to the Birdville ISD until the School District actually receives and takes possession of the goods at the point(s) of delivery, after inspection and acceptance of goods.
19. **FORCE MAJEURE** - Neither Proposer nor the District shall be responsible or deemed to be in default of its obligations to the other to the extent any failure to perform or delay in performing its obligations under this RFCSP is caused by events or conditions beyond the reasonable control of that party, and are not due to the negligence or willful misconduct of such party (hereinafter, "Force Majeure events"). For purposes of this RFCSP, Force Majeure events shall include, but not be limited to, acts of God or public enemy, war, riot or civil commotion, strikes, epidemic, fire, earthquake, tornado, hurricane, flood, explosion, or other catastrophes, or events or conditions due to governmental law, regulations, ordinances, order of a court of competent jurisdiction, executive decree or order. However, in the event of such delay(s) or nonperformance, the party so delayed shall furnish prompt written notice to the other party (including the date of inception of the Force Majeure event and the extent to which it will affect performance) and shall undertake all efforts reasonably possible to cure the delay or nonperformance and mitigate its effects or to otherwise perform. The District shall not be responsible for payment for any product or service delayed or foreclosed by any Force Majeure event unless and until such delayed or foreclosed product or service is provided. The provisions of this section shall not preclude the District from canceling or terminating any resulting award (or any order for any goods or services included herein), or from revising the scope of the Work, as otherwise permitted under this RFCSP.
20. **RIGHT OF INSPECTION** - BISD shall have the right to inspect the goods upon deliver before accepting them. Proposer shall be responsible for all charges for the return to Proposer of any goods rejected as being nonconforming under the specifications.
21. **RIGHT TO AUDIT** - Proposer agrees that the BISD shall, until the expiration of three (3) years after final payment under this Contract, have access to and the right to examine any directly pertinent books, documents, papers and records of the Proposer involving transactions relating to this Contract. Proposer agrees that the School District shall have access, during normal working hours, to all necessary Proposer facilities, and shall be provided adequate and appropriate workspace, in order to conduct audits in compliance with the provisions of this section. The BISD shall give Proposer reasonable advance notice of intended audits.
22. **PRODUCT GUARANTEE** - Proposer guarantees equipment or product offered will meet or exceed specifications identified in this proposal invitation. The proposer shall, upon request, replace any equipment or product proved to be defective and make any and all adjustments necessary without any expense to the District. If at any time, the equipment or product cannot satisfactorily meet the requirements of the specifications, the proposer shall, upon written request from the District, promptly remove such equipment or product without any further expense to the District.



23. **GEOGRAPHIC PREFERENCE** – Birdville ISD may apply preference to agricultural products produced, processed, or grown in Texas if the cost to the school district is equal and the quality is equal; if agriculture products produced, processed, or grown in Texas are not equal in cost and quality to other products, the school district give preference to agriculture products produced, processed, or grown in other states of the United States over foreign products if the cost to the school district is equal and the quality is equal; a school district that purchases vegetation for landscaping purposes, including plants, shall give preference to Texas vegetation if the cost to the school district is equal and the quality is not inferior. Preferences must be explicitly claimed by Vendor and may not be applicable in procurements and/or contracts involving federal funds unless the procurement and/or contract involves unprocessed locally grown or locally raised agricultural products for use by Birdville ISD, in a Child Nutrition Program. See Texas GOV'T Code 2252.001-.004; 2 C.F.R 200.319.
24. **COPYRIGHT** – All contracts paid from State or Federal grants administered by a State or Federal agency must retain copyright for the State and Federal government (if a Federally funded contract) unless otherwise negotiated in writing with the State or Federal agency pursuant to the provisions in 2 CFR 200.315, title to intangible property vents the Birdville ISD, as long as such property is used for authorized purposes. However, the State and Federal awarding agency reserve a royalty-free, non-exclusive and irrevocable right to reproduce, publish, or otherwise use the work for Federal purposes, and to authorize others to do so. The Vendor agrees to protect Birdville ISD, from any claim involving infringement of patents or copyrights.
25. **PRICE WARRANTY** - The price to be paid by the BISD shall be that contained in Proposer's proposal, which Proposer warrants to be no higher than Proposer's current prices on orders by others for products of the kind and specification covered by this contract for similar quantities under like conditions and methods of purchase. In the event Proposer breaches this warranty, the prices of the items shall be reduced to Proposer's current prices on orders by others, or in the alternative upon School District's option, BISD shall have the right to cancel this contract without liability to Proposer for breach or for Proposer's actual expense.
26. **SILENCE OF SPECIFICATION** - The apparent silence of these specifications as to any detail or to the apparent omission from it of a detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.
27. **INDEMNIFICATION** – **Proposer does hereby agree to waive all claims, release, indemnify and both hold harmless the School District, its officials, agents and employees, in both their public and private capacities, from and against any and all liability, claims, losses, damages, suits, demands or causes of action, including all expenses of litigation and/or settlement, court costs and attorney fees, which may arise by reason of death or injury to persons or loss of, damage to, or loss of use of any property occasioned by any error, omission, or negligent act of the Proposer, its officers, agents, employees, subcontractors, invitees, or other persons for whom the Proposer is legally liable, arising out of or in connection with the performance of this contract, and Proposer will at its own cost and expense defend and protect the School District against any and all such claims and demands.**
28. **NON-DISCRIMINATION** - Proposer shall not discriminate against any employee or applicant for employment of Proposer or of the School District because of race, age, color, religion, sex, national origin, ancestry, disability, or place of birth. Proposer shall take action to ensure that all persons are employed and/or treated without regard to their race, age, color, religion, sex, national origin, ancestry, disability, or place of birth. This action shall include, but not be limited to the following: employment, promotion, demotion, transfer, working conditions, recruitment, layoff, termination, rates of pay or other forms of compensation, and training opportunities.
29. **DISABILITY** - In accordance with the provisions of the Americans With Disabilities Act of 1990 (ADA), Proposer warrants that it, and any and all of its subcontractors, will not unlawfully discriminate on the basis of disability in the provision of services to the general public, nor in the availability, terms and/or conditions of employment for applicants for employment with, or employees of Proposer or any of its subcontractors. **Proposer warrants it will fully comply with ADA's provisions and any other applicable federal, state and local laws concerning disability and will defend, indemnify and hold the School District harmless against**



**any claims or allegations asserted by third parties or subcontractors against School District arising out of Proposer's and/or its subcontractor's alleged failure to comply with the above-referenced laws concerning disability discrimination in the performance of this contract.**

30. **DRUG POLICY** - All BISD property and facilities are a “drug-free zone.” No one may use, consume, carry, transport, or exchange tobacco, cigarettes or illegal drugs while in a School District building or while on School District property. The responding company and its employees shall adhere to this policy.
31. **TERMINATION FOR DEFAULT** - BISD reserves the right to terminate the contract without prior notice in the event the Proposer defaults or breaches any of the terms and conditions of this contract, or otherwise fails to perform in accordance with the proposal specifications. In the event of termination the School District reserves the right to complete the work or services in any manner it deems desirable, including engaging the services of other parties therefore and/or awarding the proposal to the next lowest responsible proposer. Any such act by the School District shall not be deemed a waiver of any other right or remedy. If after exercising any such remedy, the cost to the School District of the performance of the balance of the work or services is in excess of that part of the contract sum, which has not therefore been paid to the Proposer hereunder, Proposer shall be liable for and shall reimburse the School District for such excess. Proposers shall, for this purpose, keep their proposals open and prices fixed for a period of 90 days following the award of this proposal.
32. **TERMINATION WITHOUT CAUSE** - BISD shall have the right to terminate the contract, in whole or in part, without cause any time upon thirty (30) days' prior written notice. Upon receipt of a notice of termination, the Proposer shall promptly cease placing orders and all further work pursuant to the Contract, with such exceptions, if any, specified in the notice of termination. BISD shall pay the Proposer, to the extent funds are appropriated or otherwise legally available for such purposes, for all goods delivered and services performed and obligations incurred prior to the date of termination in accordance with the terms hereof.
33. **NO THIRD-PARTY BENEFICIARY** – For purposes of this contract, including its intended operation and effect, the parties to this contract specifically agree and contract that: (1) the agreement only affects matters/disputes between the parties to this contract, and is in no way intended by the parties to benefit or otherwise affect any third person or entity, notwithstanding the fact that such third person or entity may be in a contractual relationship with School District or Proposer or both; and (2) the terms of this contract are not intended to release, either by contract or operation of law, any third person or entity from obligations owing by them to either School District or Proposer.
34. **ENTIRE AGREEMENT** – This contract embodies the complete agreement of the parties hereto, superseding all oral or written previous and contemporary agreements between the parties relating to matters herein and, except as otherwise provided herein, cannot be modified without written agreement of the parties.

**FORM AD**

**WARRANTY CERTIFICATE**

PROJECT NAME: Haltom High School Window Waterproofing Repair

Birdville ISD Proposal Number: RFCSP #093-19

Architect's Project Number: 1960

OWNER NAME: Birdville Independent School

\_\_\_\_\_ Warrants \_\_\_\_\_  
(Name of Company) (Description of Work/Products/ Division Number)

against defective materials, workmanship, machinery, hardware, and equipment. The above mentioned company agrees to repair or replace such defective items at its own expense for a period of \_\_\_\_ year/s from the Date of Substantial Completion.

**FIRM ISSUING WARRANTY:** \_\_\_\_\_ **Phone No.** \_\_\_\_\_

**Address:** \_\_\_\_\_ **City** \_\_\_\_\_ **State** \_\_\_\_\_ **Zip** \_\_\_\_\_

IN WITNESS WHEREOF, the above bonded parties have executed this instrument under their several seals this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ the name and Corporate Seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representatives, pursuant to authority of its governing body.

\_\_\_\_\_  
(Printed Name) (Signature) (Title)

(Seal, if a Corporation)  
State whether Corporation,  
Partnership or Individual

Subscribed and sworn to me on this \_\_\_\_\_ day of \_\_\_\_\_, ..

\_\_\_\_\_  
Notary Public

My Commission expires \_\_\_\_\_

**THIS FORM SHALL BE SUBMITTED ALONG WITH ALL ORIGINAL WARRANTIES AS SPECIFIED IN THE CONTRACT DOCUMENTS**

**FORM AE**

**AFFIDAVIT OF NON-ASBESTOS, LEAD, AND PCB USE IN PROJECT**

Complete this form and return to the Architect upon close-out of the project.

PROJECT NAME: Haltom High School Window Waterproofing Repair

Birdville ISD Proposal Number: RFCSP #093-19

Architect's Project Number: 1960

OWNER NAME: Birdville Independent School District

The undersigned affirms and certifies that "to the best of their knowledge and belief asbestos, lead, and PCB containing materials have not been used or incorporated into the Work and lead or lead bearing materials have not been incorporated into potable water systems", including, but not limited to those water systems for drinking fountains, all sinks, showers, bath tubs, residential and commercial kitchen equipment, ice machines, and hose bibbs, as applicable to the project, and that lead sheet flashing used in through roof plumbing penetration applications is the only lead on the Project.

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

DATE: \_\_\_\_\_

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

TITLE: \_\_\_\_\_

COMPANY: \_\_\_\_\_

The person signing above hereby certifies that he or she is fully authorized and empowered to execute this instrument and to bind the person or entity named hereto and does in fact so execute this instrument.

STATE OF TEXAS )

COUNTY OF \_\_\_\_\_ )

Sworn to and subscribed before me at \_\_\_\_\_, Texas, this the \_\_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_  
Notary Public in and for \_\_\_\_\_ County, Texas

**END OF FORM**

**FORM AF**

**CERTIFICATION  
OF PROJECT  
COMPLIANCE**

**Distribution to:**

District

Architect/Engineer

Contractor

Texas Education Agency

Other

Building Department

**1. PROJECT INFORMATION:**  
(name, address)

**ARCHITECT/ENGINEER:**

**CONTRACTOR/CM:**

**PROJECT NUMBER:**

**CONTRACT DATE:**

**DISTRICT:** Birdville Independent School District

**DATE DISTRICT AUTHORIZES PROJECT:**

**BRIEF DESCRIPTION OF PROJECT:**

**2. CERTIFICATION OF DESIGN AND CONSTRUCTION**

The intent of this document is to assure that the school district has provided to the architect/engineer the required information and the architect/engineer has reviewed the School Facilities Standards as required by the State of Texas, and used his/her reasonable professional judgment and care in the architectural/engineering design and that the contractor has constructed the project in a quality manner in general conformance with the design requirements and that the school district certifies to project completion.

**3. The District** certifies that the enrollment projections, educational specifications and objectives of this facility along with the identified building code to be used have been provided to the architect/engineer.

**DISTRICT:** Birdville ISD

**BY:**

**DATE:**

**4. The Architect/Engineer** certifies the above information was received from the school district, and that the building(s) were designed in accordance with the applicable building codes. Further, the facility has been designed to meet or exceed the design criteria relating to space (minimum square footage), educational adequacy, and construction quality as contained in the School Facilities Standards as adopted by the State Board of Education, July 1992, and as provided by the district.

**ARCHITECT/ENGINEER:**

**BY:**

**DATE:**

**5. The Contractor/CM** certifies that this project has been constructed in general conformance with the construction documents as prepared by the architect/engineer listed above.

**CONTRACTOR/CM:**

**BY:**

**DATE:**

**4. The District** certifies completion of the project (as defined by the architect/engineer and contractor).

**DISTRICT:** Birdville ISD

**BY:**

**DATE:**

**INSTRUCTIONS FOR COMPLETION OF “CERTIFICATION OF PROJECT COMPLIANCE” FORM**

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Section 1. Identify the following:

- name and address of the school facility
  - the Architect/Engineer and Contractor
  - the school district's project number (if applicable)
  - the date of execution of the construction contract
  - name, address, and telephone number of the school district
  - the date that the school district authorized the superintendent to hire an architect/engineer
  - scope of the project.
- 

Section 2. This section outlines the intent of the document. No action required.

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Section 3. This section is to be executed by the school district upon transmittal of the information (as listed) to the architect/engineer and is to remain in the custody of the school district throughout the entire project.

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Section 4. This section is to be executed by the architect/engineer upon completion of the plans and specifications and in conjunction with the completion of the plan review for code compliance (ref. 19 TAC §61.104, School Facilities Standards) and returned to the school district's files.

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Section 5. This section is to be executed by the contractor upon substantial completion of the project and retained in the school district's files.

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Section 6. This section is to be executed by the school district upon acceptance and occupancy of the project.

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NOTE: DO NOT SUBMIT THIS DOCUMENT TO THE TEXAS EDUCATION AGENCY. The school district will retain this document in their files indefinitely until review and/or submittal is required by representatives of the Texas Education Agency.

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**END OF FORM**

**FORM AG**

**REQUEST FOR CLARIFICATION DURING PROPOSAL PROCESS**

**All clarifications requested during the proposal process must be submitted in written form using the form provided.** Email to the attention of **Harold Stephens** at [harold.stephens@pbk.com](mailto:harold.stephens@pbk.com) and **Shelley Freeman** at [shelley.freeman@birdvilleschools.net](mailto:shelley.freeman@birdvilleschools.net). All pertinent responses to clarification requests will be made by addenda to the Contract Documents.

PROJECT: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

**SUBMITTED BY**

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

TITLE: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

EMAIL: \_\_\_\_\_

CLARIFICATION REQUESTED	ARCHITECT USE
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**END OF FORM**

**FORM AH**

**PROJECT CLOSE OUT**

**TO BE INITIALED BY ARCHITECT AND CONTRACTOR PRIOR TO OWNER'S FINAL CLOSEOUT REVIEW**

**PROJECT NAME:** \_\_\_\_\_

**NOTE: SUBMIT ALL DOCUMENTS RELATED TO SUBCONTRACTORS AND SUPPLIERS IN ALPHABETICAL ORDER BY NAME OF COMPANY UNLESS NOTED OTHERWISE**

\_\_\_\_\_ "Consent Of Surety To Final Payment" AIA G707  
\_\_\_\_\_ 1. *Transmit Copy to Insurance Risk Analyst (Owner)* \_\_\_\_\_ Contr. Initials \_\_\_\_\_ Arch. Initials  
\_\_\_\_\_ 2. Check for Corporate Seal  
\_\_\_\_\_ 3. Check for Original Signature  
\_\_\_\_\_ 4. Check for Project Name

\_\_\_\_\_ "Contractor's Affidavit of Release of Liens" AIA G706  
\_\_\_\_\_ 1. Check for Notary \_\_\_\_\_ Contr. Initials \_\_\_\_\_ Arch. Initials  
\_\_\_\_\_ 2. Check for Original Signature  
\_\_\_\_\_ 3. Check for Project Name

\_\_\_\_\_ "Contractor's Affidavit of Payment of Debts and Claims" AIA G706  
\_\_\_\_\_ 1. Check for Notary \_\_\_\_\_ Contr. Initials \_\_\_\_\_ Arch. Initials  
\_\_\_\_\_ 2. Check for Original Signature  
\_\_\_\_\_ 3. Check for Project Name

\_\_\_\_\_ "Certificate of Substantial Completion" AIA G704  
\_\_\_\_\_ Contr. Initials \_\_\_\_\_ Arch. Initials

\_\_\_\_\_ General Contractor's Written Guarantee  
\_\_\_\_\_ 1. Check for Notary \_\_\_\_\_ Contr. Initials \_\_\_\_\_ Arch. Initials  
\_\_\_\_\_ 2. Check for Original Signature  
\_\_\_\_\_ 3. Check for Project Name

\_\_\_\_\_ Sub Contractor's Waiver of Lien (Subcontractors/Major Suppliers)  
Must be **Unconditional** \_\_\_\_\_ Contr. Initials \_\_\_\_\_ Arch. Initials  
\_\_\_\_\_ 1. Check for Notary  
\_\_\_\_\_ 2. Check for Original Signature  
\_\_\_\_\_ 3. Check for Project Name

\_\_\_\_\_ List of Final Subcontractor/Suppliers/Local Representatives  
\_\_\_\_\_ 1. *Update Sub Contractor's Notebook (Owner)* \_\_\_\_\_ Contr. Initials \_\_\_\_\_ Arch. Initials

\_\_\_\_\_ Subcontractors Written Guarantee  
\_\_\_\_\_ 1. Check for Original Signature \_\_\_\_\_ Contr. Initials \_\_\_\_\_ Arch. Initials  
\_\_\_\_\_ 2. Check for Project Name  
\_\_\_\_\_ 3. Check for Notary  
\_\_\_\_\_ 4. Start date to be date of Substantial Completion of final phase of project

\_\_\_\_\_ Asbestos Certificate (Architect, General Contractor/Contractor,  
Subcontractors, Material/Eqpmnt Suppliers – Notarized) \_\_\_\_\_ Contr. Initials \_\_\_\_\_ Arch. Initials  
\_\_\_\_\_ 1. Check Against Subcontractor List  
\_\_\_\_\_ 2. Check for Notary  
\_\_\_\_\_ 3. Check for Project Name  
\_\_\_\_\_ 4. Check for Original Signature

\_\_\_\_\_ 5. *Transmit Originals to Special Services, Keep Copies for File. (Owner)*

_____ Asbestos Manifest	_____	_____
_____ Signed by all appropriate parties	Contr. Initials	Arch. Initials
_____ Project Compliance Certificate <i>(provided by Architect)</i>	_____	_____
_____ 1. Check for Original Signature	Contr. Initials	Arch. Initials
_____ 2. Check for Project Name		
_____ TDLR Inspection	_____	_____
_____ Inspection Report	Contr. Initials	Arch. Initials
_____ Approved letter from TDLR or deficiencies corrected and documented		

In accordance with the Contract Documents, based on data comprising the attached, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Project close out documents has been completed as indicated, the accuracy of the documents is in accordance with the Contract Documents.

Architect:

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the close out documentation attached has been accurately completed in accordance with the Contract Documents, and requests permission to submit the FINAL Application and Certification for Payment AIA G702 Document for the retainage amount of 5% of the total contract sum.

Contractor:

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

**END OF FORM**



**FORM BB**

**TEXAS STATUTORY PAYMENT BOND**      **Bond No.:** \_\_\_\_\_  
(Penalty of this bond must be 100% of contract amount)

KNOW ALL MEN BY THESE PRESENTS, that: \_\_\_\_\_  
(hereinafter called the Principal), as principal,  
a corporation organized and existing under the laws of the State of \_\_\_\_\_  
authorized and admitted to do business in the State of Texas and licensed by the State of Texas to execute  
bonds as Surety (hereinafter called the Surety), as Surety, are held and firmly bound unto

\_\_\_\_\_  
\_\_\_\_\_

(hereinafter called the Obligee) in the amount of \_\_\_\_\_

\_\_\_\_\_

Dollars(\$ \_\_\_\_\_) for the payment whereof, the said Principal and Surety bind themselves,  
and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these  
presents.

WHEREAS, the Principal has entered into a certain written contract with the Obligee, dated this  
\_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

**Haltom High School Window Waterproofing Repair**  
**BIRDVILLE INDEPENDENT SCHOOL DISTRICT**

which contract is hereby referred to and made a part hereof as fully and the same extent as if copied at length  
herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall pay all  
claimants supplying labor and material to him or a Subcontractor in the prosecution of the work provided for in  
said contract, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter 22 53 of the Texas  
Government Code and all liabilities on this bond to all such claimants shall be determined in accordance with  
the provisions of said Chapter to the same extent as if it were copied at length herein.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this Instrument this  
\_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Witness: \_\_\_\_\_ Principal (Seal)

\_\_\_\_\_ By: \_\_\_\_\_

Witness: \_\_\_\_\_ Surety (Seal)

\_\_\_\_\_ By: \_\_\_\_\_  
Attorney-in-Fact

\_\_\_\_\_

Surety Address

\_\_\_\_\_ Surety Telephone Number

**FORM CA**  
**PROPOSAL FORM**

We, the undersigned, propose to enter into a Contract with the Birdville Independent School District to furnish labor, material, tools, transportation, insurance, permits, and all incidentals necessary for the completion of the subject project, in accordance with the specifications and plans included in this proposal package.

**Haltom High School Window Waterproofing Repair**

We have carefully reviewed and understand the “Instructions to Proposers”, the specifications and have aquatinted ourselves with the existing and anticipated conditions that might affect the Work.

We understand that if we are the Successful Vendor, a Contract will be prepared and if that Contract is in excess of \$25,000, we will furnish satisfactory payment and performance bonds each in the full amount of the Contract covering all parts of the Work

We attach a bid bond in the sum of 5% of the amount of our proposal executed by:

\_\_\_\_\_ Surety;

\_\_\_\_\_ Attorney-in-fact, Agent.

CONTRACTOR NAME (FIRM): \_\_\_\_\_

**1.0 Pricing**

The following pricing includes the following: Provide all items, articles, materials, labor and incidentals required for the completion of the work per the attached instructions to proposers and plans.

<b>BASE PRICE DESCRIPTION</b>	<b>PROPOSAL AMOUNT (Dollars)</b>
BASE PRICE (including Allowances per 2.0)	\$

**2.0 Allowances**

The following allowances are to be included in the Base Prices (above). Allowances shall include Contractor’s overhead and profit. To adjust allowance amounts, Contractor will be asked to prepare a proposal based on the difference between the actual allowance expenditure and the amount of the allowance.

<b>ALLOWANCE NUMBER</b>	<b>ALLOWANCE DESCRIPTION</b>	<b>ALLOWANCE AMOUNT (Dollars)</b>
01	Owner’s Contingency Allowances	\$2,000.00

**3.0 Alternates**

The Contractor proposes the following all inclusive price for the items/tasks listed in the table below in the event that the Owner should elect to add one or more of these Alternates to the project after receipt of bids and during contract negotiations.

ALTERNATE NO.	ALTERNATE DESCRIPTION	ALTERNATE AMOUNT (DOLLARS)

**4.0 Unit Prices**

The Contractor proposes the following all inclusive unit prices for the items/tasks listed in the table below in the event that unforeseen conditions are encountered and additional work is needed. Unit prices include all necessary material, delivery costs, installation, insurance, overhead and profit. Failure to provide unit pricing for each item may result in the Proposal being deemed as non-responsive.

UNIT PRICE NO.	UNIT PRICE ITEM	UNIT OF MEASURE	UNIT PRICE (ADD)

**5.0 Schedule**

The Contractor understands that BISD desires that the Project be completed within the expected durations listed below. Contractor agrees to base their price on the proposed completion schedule as a minimum, but may, at their option, propose a duration that is of less duration and indicate this duration in the table below:

PROJECT NAME	OWNER'S EXPECTED SUBSTANTIAL COMPLETION DATE	CONTRACTOR'S PROPOSED SUBSTANTIAL COMPLETION DATE
Haltom High School Window Waterproofing Repair	August 1, 2019	

Company Name \_\_\_\_\_

Name of Person Responsible for Proposal \_\_\_\_\_

Title of Person Responsible for Proposal \_\_\_\_\_

\_\_\_\_\_  
 Signature of Person Responsible for Proposal

Address \_\_\_\_\_

City/State/Zip Code \_\_\_\_\_

Phone/Fax Numbers \_\_\_\_\_

E-Mail Address \_\_\_\_\_

Date \_\_\_\_\_

## SECTION 01 11 00

### SUMMARY OF WORK

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to this Section.

#### PART 1 - GENERAL

##### 1.1 DESCRIPTION OF WORK

- A. THE PROJECT and COMPONENTS: Consists of repairs to the waterproofing material above the windows on the west wall of Haltom High School.

Base proposal scope of work:

Remove three courses of brick above the windows identified on the drawings, install new through wall flashings with proper end dams at each side of windows and install new brick to match adjacent light colored brick on recent building addition.

##### 1.2 CONTRACT DESCRIPTION

- A. Perform Work of Contract under separate contract with Owner in accordance with the Conditions of the Contract, and as modified by Supplementary Conditions of the Contract.

##### 1.3 CONTRACTS AND USE OF SITE

- A. Contractor Use of Premises:
1. Confine operations at site to areas permitted by:
    - a. Law
    - b. Ordinances
    - c. Contract Documents
  2. Do not unreasonably encumber site with materials or equipment.
  3. Assume full responsibility for protection and safekeeping of products stored on premises.
  4. Obtain and pay for use of additional storage or work areas as needed for operations.
  5. Contractor shall establish secured staging area for work and coordinate and provide for safe passage and exit from building areas during construction, as determined by City and District officials.
  6. Contractor shall coordinate all construction activities with Owner.
  7. Owner reserves the right to perform construction operations with its own forces or to employ separate contractors on portions of the Project. Contractor shall coordinate with this work in terms of providing site access, work space, and storage space, cooperation of work forces, scheduling, and technical requirements.
  8. Coordinate all utility shutdowns with Owner and, as required, with local utility companies, prior to commencement of shutdown.
- B. Owner Occupancy:
1. Partial Owner Occupancy: The Owner reserves the right to place and install equipment in completed areas of the building, prior to Substantial Completion provided that such occupancy does not interfere with completion of the Work. Such placing of equipment and partial occupancy shall not constitute acceptance of the total Work.
  2. A Certificate of Substantial Completion will be executed in accordance with conditions of the Contract.

3. Contractor shall obtain a Certificate of Occupancy from local building officials prior to Owner occupancy.
  4. Prior to partial Owner occupancy, mechanical and electrical systems shall be fully operational. Required inspections and tests shall have been successfully completed. Upon occupancy the Owner will provide operation and maintenance of mechanical and electrical systems in occupied portions of the building.
  5. Prior to partial Owner occupancy, emergency and life safety systems shall be fully operational. Emergency and life safety systems include, but are not limited to, fire sprinkler systems, fire alarm systems, and emergency egress devices. For emergency exiting purposes, the path of travel shall be clearly delineated and functional. If required, temporary barricades shall separate on-going construction from occupied spaces as allowed by the governing agency holding jurisdiction over the Project. Required inspections and tests shall have been successfully completed. Upon occupancy the Owner will provide operation and maintenance of emergency and life safety systems in occupied portions of the building.
- C. Owner-Furnished Items:
1. The Owner may provide items to the Contractor for installation in accordance with manufacturer's recommendations and instructions.
  2. The Owner will arrange and pay for delivery of Owner-furnished items in accordance with the Contractor's Construction Schedule, and will inspect deliveries for damage.
  3. If Owner-furnished items are damaged, defective or missing, through no fault of the Contractor, the Owner will arrange for replacement.
  4. The Contractor is responsible for designating the delivery dates of Owner-furnished items in the Contractor's Construction Schedule and for receiving, unloading and handling Owner-furnished items at the site. The Contractor is responsible for protecting Owner-furnished items from damage, including damage from exposure to elements, and to repair or replace items damaged as a result of his operations.
- D. Coordination with Owner's Forces or Owner's Contractors:
1. Provide site access, space allocation, scheduling, scheduling coordination, coordination of work forces and coordination of technical requirements with contractors that may be selected and employed by Owner to perform work simultaneously and in conjunction with the Work, which may include, but shall not be limited to the following, as applicable to the Project:
    - a. Materials Inspection and Testing Agency
    - b. HVAC Testing, Adjusting, Balancing Agency
    - c. Telephone System Contractor
    - d. Surveying
    - e. Geotechnical Engineering and Consulting
- E. The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the jobsite safety thereof and, except as stated below, shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely written notice to the Owner and Architect and shall not proceed with that portion of the Work without further written instructions from the Architect. If the Contractor is then instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Owner

shall be solely responsible for any resulting loss or damage but only to the extent the Owner would be responsible for any such losses or damages under state and/or federal law.

- F. The Architect will neither have control over or charge of, nor be responsible for, the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract, except as noted in the above paragraph.

#### **1.4 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. Architects/Engineers written responses to Minor Change directives, Change Proposal Requests, and other supplemental instructions.
  5. Change Orders and other modifications to the Contract.
  6. Reviewed Shop Drawings, Product Data, and Samples.
  7. Manufacturer's instruction for assembly, installation, and adjusting.

#### **1.5 PROTECTION OF EXISTING PROPERTY**

- A. Contractor shall provide and maintain adequate protection of all Owners' existing property during duration of Project.

#### **1.6 USE OF ASBESTOS FREE MATERIALS, PRODUCTS AND SYSTEMS**

- A. The Contractor is reminded to refer to Instructions to Proposers for requirements regarding asbestos containing materials (ACM).

### **PART 2 - PRODUCTS**

#### **2.1 MATERIALS**

- A. Refer to Specification Sections.

### **PART 3 – INSTRUCTIONS TO OFFERORS**

#### **1.7 QUALIFIED OFFERORS**

- A. Proposals will be accepted from qualified General Contractors only for the entire scope of work described in the Contract Documents. As a prerequisite to a Contractor's qualifying for the award of contract on this work, the Contractor must complete each item of the Contractor's Qualification Statement (AIA Document A305). The Statement forms may be obtained from the office of the Dallas Chapter of the American Institute of Architects, 1909 Woodall Rodgers Freeway., Dallas, TX 75243 or the office of the Fort Worth Chapter of the American Institute of Architects, 3425 W 7th St, Fort Worth, TX 76107, (817) 334-0155.
- B. Every interested Offeror shall be required to submit AIA Document A305, (Contractor's Qualification Statement) with the proposal. AIA Documents submitted by FAX transmission will not be accepted.
- C. In addition, the Reference Form (Form H, within the Proposer's Return Packet) should be complete with three (3) references of similar services completed in the past twenty-four (24) months. Two (2) of the references shall be school districts serviced. The references should be of like size and nature as the BISD. The references shall include the name of the

company, contact person, phone number, fax number and a **current/verified e-mail address**, length of time work has been performed, types of tasks performed and service provided. Reference Form H shall be submitted with the proposal.

- D. The primary purposes of the evaluation process will be to:
  - 1. Gather information for the Owner's evaluation procedure.
  - 2. Enable the Architect to evaluate the Contractor's qualifications and determine which Contractors the Architect could recommend to the Owner should such recommendation be requested by the Owner.
- E. In arriving at his opinion concerning the Contractor's qualifications, the Architect will use the same criteria that the Owner will use in determination of the successful Contractor as detailed hereinafter.
- F. In the event an Offeror fails to submit the specified Contractor's Qualification Statement in accordance with the schedule established, such noncompliance shall be considered by both the Owner and Architect as a negative factor in the determination of the successful Offeror.

#### **PART 4 - EXECUTION**

##### **4.1 CONSTRUCTION SCHEDULE**

- A. The Work shall commence on Notice to Proceed and shall be Substantially Complete by August 1, 2019.
- B. Refer to Section 01 32 16 for phasing and other scheduling requirements and to General Conditions for information concerning liquidated damages.

**END OF SECTION**

**SECTION 01 21 00**

**ALLOWANCES**

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to this Section.

**PART 1 - GENERAL**

**1.1 CONDITIONS**

- A. Cash allowances are hereby established for Owner's Contingency, Scope of Work items and materials in the amounts listed below and shall be included in the Contract Sum. These sums shall be reconciled in accordance with Article 3.8 of the General Conditions.
- B. Allowances for materials, such as brick, tile, etc., shall be for the net cost of materials only, without sales tax, delivered and unloaded at the jobsite. The party who makes the purchase (Contractor or subcontractor) shall include handling costs on site, labor, overhead, profit and other expenses contemplated for each allowance in the Contractor's Sum and not in the allowance. Include labor under allowance, only when labor is specified to be included.
- C. Allowances for Scope of Work , such as Owner's contingency, graphics, technology, etc., will be adjusted, as necessary, to reflect the difference between the allowance amount stated and Contractor's handling costs, cost of materials, without sales tax, plus labor, subcontract costs, with overhead and profit markup, and any other reasonable costs, except the Contractor's overhead and profit, which is not allowed.
- D. Contractor shall cause the work covered by these allowances to be performed for such amounts and by such persons as the Architect may direct or by persons selected by competitive sealed proposals, but he will not be required to employ persons against whom he makes reasonable objection. If any items cost less than the amount listed, the Owner shall be given a credit in the amount of the difference. If the Owner so desires, credits in one allowance category may be transferred to any other allowance category. If any items cost more than the amount listed, such adjustment will include additional handling costs on the site, labor, installation costs, overhead, profit and other expenses resulting to the Contractor or subcontractor from any increase over the original allowance, unless such increase is funded by a transfer of funds from other allowances in which case no overhead and profit will be allowed. If the final cost of all allowances, when determined, is more or less than the sum of the allowances, the Contract Sum will be adjusted accordingly by Change Order.
- E. Contractor shall proceed with the work in question only after receiving written directions executed by the Owner and the Architect. Such direction will be provided by an Allowance Expenditure Authorization prepared by the Architect and executed by Owner, Architect and Contractor. Owner will not be obligated to pay the cost of any work completed without prior authorization.
- F. Unexpended balance of allowance sums shall revert to the Owner in the final settlement of the Contract.

**PART 2 - PRODUCTS**

Not Used

**PART 3 - EXECUTION**

**3.1 ALLOWANCES –**

- A. Owner's Contingency Allowance: \$2,000.00
  - 1. Contractor shall include the amount indicated in their Base Proposal as a contingency to cover the cost of hidden, concealed or otherwise unforeseen conditions which develop during completion of the work. Contractor shall be allowed to recover all costs associated with the completion of work under this contingency, however, no overhead or profit will be allowed.

**END OF SECTION**



**SECTION 01 26 00**

**CONTRACT MODIFICATION PROCEDURES**

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to this Section.

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Change procedures.
- B. Defect assessment.

**1.2 GENERAL**

- A. Coordinate requirements of this Section with the requirements of the General and Supplementary Conditions of the Contract concerning change procedures.

**1.3 CHANGE PROCEDURES**

- A. Submittals: Submit name of individual authorized to receive change documents, and be responsible for informing others in Contractor's employ or Subcontractors of changes to the Work.
- B. Minor Changes: The Architect/Engineer may advise of minor changes in the Work not involving adjustment to Contract Sum/Price or Contract Time by issuing supplemental instructions on Minor Change form or by other similar documents in the form issued by the Architect.
- C. Change Proposal Request: The Architect may issue a Change Proposal Request (CPR) or other similar request for proposal in the form issued by the Architect, including a detailed description of proposed change with supplementary or revised Drawings and Specifications, a change in Contract Time for executing the change and the period of time during which the requested price will be considered valid. Contractor will prepare and submit estimate in the form of a Change Proposal so as to not cause delays in the Project.
- D. Use of allowances must be approved by issuance of Allowance Expenditure Authorization (AEA) by Architect prior to modification of the schedule of values. The AEA may be comprised of a single executed Change Proposal, an accumulation of executed Change Proposals, or other similar documentation in the form allowed by the Architect in accordance with Document CB, Supplementary Conditions of the Contract.
- E. Contractor may propose changes which, in his opinion, will provide value to the Owner, by submitting a request for change to Architect, describing proposed change and its full effect on the Work. Include a statement describing reason for the change, and effect on Contract Sum/Price and Contract Time with full documentation and a statement describing effect on Work by separate or other Contractors. If accepted by Architect and approved by Owner, submit a Change Order in accordance with the requirements of this Section. This request will not be considered a substitution except as defined by Section 01 25 13, Product Substitution Procedures. Owner is not obligated to accept this request.
- F. Construction Change Directive: Architect/Engineer may issue directive, on AIA Form G713 Construction Change Directive or other similar document in the form issued by the Architect, and signed by Owner, instructing Contractor to proceed with change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute change.

- G. Document each quotation for change in cost or time with sufficient data to allow evaluation of quotation.
- H. Change Order Forms: AIA G701 - Change Order.
- I. Execution of Change Orders: The Architect will prepare and sign the Change Order, the contractor shall sign the Change Order indicating acceptance of the change, and then the Owner will execute the Change Order.
- J. Correlation Of Contractor Submittals:
  - 1. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Sum/Price.
  - 2. Promptly revise progress schedules to reflect change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
  - 3. Promptly enter changes in Project Record Documents.

#### **1.4 DEFECT ASSESSMENT**

- A. Replace the Work, or portions of the Work, not conforming to specified requirements at no additional cost to the Owner.
- B. If, in the opinion of the Architect/Engineer or Owner, it is not practical to remove and replace the Work, the Architect will direct appropriate remedy or adjust payment.
- C. The defective Work may remain, but sum/price will be adjusted to new sum/price at the discretion of Architect or Owner.
- D. Individual specification sections may modify these options or may identify specific formula or percentage sum/price reduction.
- E. Authority of Architect/Engineer, or other appropriate agent identified to perform assessment by the Architect/Engineer or Owner, to assess defects and identify payment adjustments, is final.
- F. Non-Payment For Rejected Products: In addition to replacement of rejected Work, payment will not be made for rejected products for any of the following:
  - 1. Products wasted or disposed of in a manner that is not acceptable.
  - 2. Products determined as unacceptable before or after placement.
  - 3. Products not completely unloaded from transporting vehicle.
  - 4. Products placed beyond lines and levels of required Work.
  - 5. Products remaining on hand after completion of the Work.
  - 6. Loading, hauling, and disposing of rejected products.

#### **PART 2 - PRODUCTS**

Not Used.

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

Not Used.

**END OF SECTION**

**SECTION 01 29 00**

**PAYMENT PROCEDURES**

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to this Section.

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Procedures for submitting Applications for Payment.

**1.2 GENERAL**

- A. Coordinate requirements of this Section with the requirements of the General and Supplementary Conditions of the Contract concerning payment procedures.

**1.3 SCHEDULE OF VALUES**

- A. Submit printed schedule on AIA Form G703 - Continuation Sheet for G702 in accordance with Section 01 29 73, Schedule of Values. Contractor's standard form or electronic media printout will be considered but must be approved by the Owner.

**1.4 APPLICATIONS FOR PAYMENT**

- A. Submit four (4) notarized originals of each application on AIA Form G702 - Application and Certificate for Payment and AIA G703 - Continuation Sheet for G702 or other similar form approved by the Owner.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Submit updated construction schedule with each Application for Payment.
  - 1. Submit recovery schedule if project is over 2 weeks behind schedule.
- D. Provide ten (10) photos per site with each application.
- E. Payment Period: Submit at intervals stipulated in the Agreement in accordance with Document CB, Supplementary Conditions of the Contract.
- F. Only materials stored on the project site shall be paid for unless the materials are stored in a bonded warehouse, naming Birdville Independent School District as insured.
- G. Substantiating Data: When Architect/Engineer requires substantiating information, submit data justifying dollar amounts in question. Items which may be requested by the Architect or Owner to substantiate costs include, but are not limited to the following:
  - 1. Current Record Documents as specified in Section 01 77 00, Closeout Procedures, for review by Owner which will be returned to Contractor.
  - 2. Labor time sheets, purchase orders, or similar documentation.
  - 3. Affidavits attesting to off-site stored products.

**PART 2 – PRODUCTS Not Used.**

**PART 3 – EXECUTION Not Used.**

**END OF SECTION**

**SECTION 01 29 73**

**SCHEDULE OF VALUES**

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to this Section.

**PART 1 - GENERAL**

**1.1 DESCRIPTION**

- A. Work Included: Repaint existing interior elements as directed in the drawings.
- B. Coordinate requirements of this Section with the requirements of the General and Supplementary Conditions of the Contract concerning Schedule of Values.

**1.2 QUALITY ASSURANCE**

- A. Use required means to assure arithmetical accuracy of the sums described.
- B. When so required by the Owner, provide copies of the subcontracts or other data acceptable to the Owner, substantiating the sums described.

**1.3 SUBMITTALS**

- A. Prior to the first Application for Payment, submit a proposed schedule of values to the Owner, as outlined below:
  - 1. Meet with the Owner and determine additional data, if any, required to be submitted.
  - 2. Secure the Owner's approval of the schedule of values prior to submitting first Application for Payment.

**1.4 SCHEDULE OF VALUES**

- A. The Schedule of Values shall be broken down into item costs for each specification section as a minimum. After review by the Owner, the Schedule of Values shall be broken down into further items as required. (See following list and refer to the enclosed sample.). In addition, total each Specification Division separately.
  - 1. Schedule of values shall be broken down by project area.
- B. Schedule of Values - Items in addition to Specification Sections.
  - 1. Mobilization
  - 2. Clean Up
  - 3. Bonds, Insurance
  - 4. Misc. Mechanical Accessories
  - 5. Demolition
  - 6. Allowances (listed separately)
  - 7. Record drawings and close-out documents
  - 8. Donated items individually itemized at \$0.00 (zero dollars).

**PART 2 - PRODUCTS**

Not Used

**PART 3 - EXECUTION**

**3.1 SCHEDULE OF VALUES**

- A. Refer to following sample.

**END OF SECTION**

**SCHEDULE OF VALUES - SAMPLE**

Item No.	Description of Work	Scheduled Value	Work Completed		Stored Materials	Total Completed	%	Balance To Finish	Retainage
			Previous App.	This App.					
	<b>Div. 1 - General Reqs.</b> Site Work General Conditions Suoverision Mobilization Bonds & Insurance Permits Contractor's Fee Close-Out Documents								
	<b>Div. 1 - Total</b>								
	<b>Div. 2 - Existing Conditions</b> Demolition (As applicable) Erosion Control <b>Div. 2 - Total</b>								
	<b>Div. 3 - Concrete</b> Drill Piers Caps & Beams Slab on Grade Cooling Tower Basin Misc Bldg Conc Floor Sealer Rebar Matl Rebar Labor Lt.Wt.Insul Fill - Materials Lt.Wt.Insul Fill - Labor Close-Out Documents								
	<b>Div. 3 - Total</b> <b>Div 4 - Masonry</b> Brickwork - Labor Brickwork - Matls Concrete Masonry - Labor Concrete Masonry - Materials Str. Glazed Tile-Labor Str. Glazed Tile-Materials Close-Out Documents								
	<b>Div. 4 - Total</b>								
	<b>Div 5 - Metals</b> Structural Steel - Labor Structural Steel - Materials Alternating Stairs Misc. Steel - Materials Steel Joists - Materials Lt. Gauge Steel Framing-Labor Lt. Gauge Steel Framing-Matls Metal Decking - Labor Expansion Joint Covers Metal Decking - Matls Close-Out Documents								
	<b>Div. 5 - Total</b>								
	<b>Div. 6 - Wood &amp; Plastics</b> Rough Carpentry - Labor Rough Carpentry - Materials								

**SCHEDULE OF VALUES - SAMPLE**

Item No.	Description of Work	Scheduled Value	Work Completed		Stored Materials	Total Completed	%	Balance To Finish	Retainage
			Previous App.	This App.					
	Millwork - Labor Millwork - Materials Close-Out Documents								
	<b>Div. 6 - Total</b>								
	<b>Div. 7 - Thermal and Moisture Protection</b> Waterpfng / Dampprfng-Matls Waterpfng / Dampprfng-Labor Building Insulation - Labor Building Insulation - Materials Fireproofing - Labor Fireproofing - Materials Metal Roof - Labor Metal Roof - Materials Metal Roof Guarantee Built-up Roofing-Labor Built-up Roofing-Materials Built-up Roofing Guarantee Roof Accessories Building Sheet Metal - Labor Building Sheet Metal - Matls Bldg. Sheet Metal Guarantee Roof Curbs Roof Hatches Sealants Close-Out Documents								
	<b>Div. 7 - Total</b>								
	<b>Div. 8 - Doors and Frames</b> Finish Carpentry/Door - Labor Finish Hardware - Matls Thresholds & Seals - Matls+B66 Hollow Metal Doors & Frames - Matls Plastic Faced Doors-Matls Overhead Doors & Grilles-Labor Overhead Doors & Grilles - Matls Alum. Entrances & Store-fronts - Labor Alum. Entrances & Store-fronts - Matls Alum. Windows - Labor Alum Windows - Matls Glass & Glazing-Labor Glass & Glazing-Matls Close-Out Documents								
	<b>Div. 8 - Total</b>								
	<b>Div. 9 - Finishes</b> Lath & Plaster-Labor Lath & Plaster-Matls Gypsum Wallboard Systems - Labor Gypsum Wallboard								

**SCHEDULE OF VALUES - SAMPLE**

Item No.	Description of Work	Scheduled Value	Work Completed		Stored Materials	Total Completed	%	Balance To Finish	Retainage
			Previous App.	This App.					
	Systems - Matls Ceramic Tile - Labor Ceramic Tile - Matls Quarry Tile - Labor Quarry Tile - Matls Terrazzo-Labor Terrazzo-Matls Acoustic Clg. - Labor Acoustic Clg. - Matls Acoustic Wall Panels Resilient Flooring - Labor Resilient Flooring - Matls Carpet - Labor Carpet - Matls Athletic Flooring - Materials Athletic Flooring - Labor Floor Sealer Painting - Labor Painting - Mtls Close-Out Documents								
	<b>Div. 9 - Total</b>								
	<b>Div. 10 - Specialties</b> Visual Display Boards & Tackboards - Materials Visual Display Boards & Tackboards - Labor Toilet Partitions - Labor Toilet Partitions - Matls Louvers Aluminum Flag Pole Graphics Lockers Cubicle Curtains & Track Fire Extinguisher Cabinets Demountable Partitions-Labor Demountable Partitions-Matls Shelving Toilet Room Accessories-Matls Toilet Room Accessories-Lbr Close-Out Documents								
	<b>Div. 10 - Total</b>								
	<b>Div. 11 - Equipment</b> Stage Curtains Misc. Appliances Food Service Eqpt-Labor Food Service Eqpt-Matls Close-Out Documents								
	<b>Div. 11 - Total</b>								
	<b>Div. 12 - Furnishings</b> Horizontal Blinds Projection Screens Casework - Labor Casework - Matls								

**SCHEDULE OF VALUES - SAMPLE**

Item No.	Description of Work	Scheduled Value	Work Completed		Stored Materials	Total Completed	%	Balance To Finish	Retainage
			Previous App.	This App.					
	Science Casework - Labor Science Casework - Mats Close-Out Documents								
	<b>Div. 12 - Total</b>								
	<b>Div. 13 - Specialties</b> Stage Curtains and Draperies Music Instrument Storage Bleachers Press Box Pre-eng. Metal Bldg. Stadium Seating Close-Out Documents								
	<b>Div. 13 - Total</b>								
	<b>Div. 14 - Conveying Systems</b> Platform Lifts Elevators Close-Out Documents								
	<b>Div. 14 - Total</b>								
	<b>Div. 21, 22 - Plumbing</b> Shop Drawings As-Builts/Close-Out/ O&M Manuals Sanitary Underground - Labor Sanitary Underground - Mats Storm Underground - Labor Storm Underground - Mats Domestic Water - Labor Domestic Water - Mats Plumbing Insulation - Mats Plumbing Insulation - Labor Gas Piping - Mats Gas Piping - Labor Grease Trap Plumbing Fixtures - Mats Plumbing Fixtures - Labor Coordination Drawings Close-Out Documents								
	<b>Div. 21, 22 Plumbing - Total</b>								
	<b>Div. 23 - Mechanical</b> Shop Drawings As-Builts/Close-Out/ O&M Manuals Chillers - Mats Chillers - Labor Cooling Towers - Mats Cooling Towers - Labor Boilers - Mats Boilers - Labor								



**SCHEDULE OF VALUES - SAMPLE**

Item No.	Description of Work	Scheduled Value	Work Completed		Stored Materials	Total Completed	%	Balance To Finish	Retainage
			Previous App.	This App.					
	AHU's - Matls								
	AHU's - Labor								
	Fans - Matls								
	Fans - Labor								
	Grilles - Matls								
	Grilles - Labor								
	Ductwork - Matls								
	Ductwork - Labor								
	Pumps - Mtls								
	Pumps - Labor								
	Water Treatment - Labor								
	Water Treatment - Matls								
	Isolation - Labor								
	Isolation - Matls								
	Pipe Flex - Matls								
	Pipe Flex - Labor								
	Connections								
	Sheet Metal - Matls								
	Sheet Metal - Labor								
	Duct Insulation - Matls								
	Duct Insulation - Labor								
	Pipe Insulation - Matls								
	Pipe Insulation - Labor								
	VAV Boxes - Materials								
	VAV Boxes - Labor								
	Refrigerant Monitor - Matls								
	Refrigerant Monitor - Labor								
	Unit Heaters - Materials								
	Unit Heaters - Labor								
	Startup								
	Controls - Matls								
	Control - Labor								
	Engineer / Submittals								
	Modules / End Devices								
	Low Voltage Wiring								
	Startup								
	Close-Out Documents								
	Fire Sprinkler								
	Engineer / Submittals								
	Piping - Materials								
	Piping - Labor								
	Equipment - Materials								
	Equipment - Labor								
	Trimout - Materials								
	Trimout - Labor								
	Pipe, Valves, Fittings - Labor								
	Pipe, Valves, Fittings - Matls								
	Misc. - Matls								
	Insulation - Matls								
	Insulation - Labor								
	Sanitary Above Slab-Labor								
	Sanitary Above Slab-Matls								
	Storm Above Slab - Labor								
	Storm Above Slab - Matls								
	Gas - Labor								
	Gas - Matls								

**SCHEDULE OF VALUES - SAMPLE**

Item No.	Description of Work	Scheduled Value	Work Completed		Stored Materials	Total Completed	%	Balance To Finish	Retainage
			Previous App.	This App.					
	Fixtures - Labor Fixtures - Matls Permits Coordination Drawings Close-Out Documents								
	<b>Div. 23 Mechanical - Total</b>								
	<b>Div. 26 - Electrical</b> Mobilization+B220 Shop Drawings As-Builts/Close-Out/ O&M Manuals Underground Conduit - Labor Conduit - Matl Wire - Labor Wire - Matls Feeder Wire - Labor Feeder Wire - Matls Switches/Recpt. Switchgear - Labor Switchgear - Matls Temporary - Materials Temporary - Labor Gas Generator - Materials Gas Generator - Labor Fixtures - Labor Fixtures - Matls Communications - Labor Communications - Matls Fire Alarm - Labor Fire Alarm - Matls Security - Labor Security - Matls Low Voltage Ltng Sys-Matls Low Voltage Ltng Sys-Labor Voice System - Materials Voice System - Labor Video System - Materials Video System - Labor Data System - Materials Data System - Labor Master Clock - Materials Master Clock - Labor+B277 Coordination Drawings Close-Out Documents								
	<b>Div. 26 - Total</b>								
	<b>Divs. 31, 32 and 33 - Earthwork, Exterior Improvments and Utilities</b> Site Clearing & Grubbing Building Pad - Materials Building Pad - Labor Paving Subgrade Signage / Striping Bike Racks Landscaping - Materials								

**SCHEDULE OF VALUES - SAMPLE**

Item No.	Description of Work	Scheduled Value	Work Completed		Stored Materials	Total Completed	%	Balance To Finish	Retainage
			Previous App.	This App.					
	Landscaping - Labor Hydro Mulch - Materials Hydro Mulch - Labor Irrigation - Materials Irrigation - Labor Earthwork Finish Grading Stabilization - Materials Stabilization - Labor Site Drainage - Materials Site Drainage - Labor Chain Link Fence-Materials Chain Link Fence-Labor Paving - Labor Paving - Materials Sidewalks Close-Out Documents								
<b>Div. 31, 32 and 33 - Total</b>									
	<b>General Conditions</b> Mobilization Temp. Facilities Final Cleaning Record Documents/Close-out/ O&M Manuals Supervision Permits Bonds Insurance Allowances Alternates (list) Change Orders A. PR# B. PR# C. PR#								

END OF SECTION

**SECTION 01 31 13**

**PROJECT COORDINATION**

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to this Section.

**PART 1 - GENERAL**

**1.1 REQUIREMENTS**

- A. General: notify the Owner whenever there is need of clarification or interpretation of the Contract Documents prior to commencement of work.
- B. Commencement of work without Owner's prior notification means Contractor's acceptance of responsibility.
- C. Commencement of work without Owner's prior notification implies Contractor's understanding of conditions, assemblies, methods, or procedures.
- D. The project superintendent shall notify the Owner on an ongoing basis of ongoing work.

**PART 2 - PRODUCTS**

Not Used

**PART 3 - EXECUTION**

**3.1 PRE-CONSTRUCTION CONFERENCE**

- A. The Contractor shall contact Owner at least ten (10) days prior to commencing construction in order for Architect to schedule a pre-construction meeting with Contractor, Architect, and Owner. This meeting must occur prior to commencement of any construction.

**3.2 CONFERENCES AND MEETINGS**

- A. Refer to Section 01 31 19, Project Meetings for requirements pertaining to Pre-construction Conference, Progress Meetings, and Pre-installation Conferences.

**END OF SECTION**

## SECTION 01 31 19

### PROJECT MEETINGS

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to this Section.

#### PART 1 - GENERAL

##### 1.1 REQUIREMENTS INCLUDE

- A. The Owner's:
  - 1. Scheduling of each meeting (pre-construction meeting, periodic project meetings, and specialty called meetings throughout the progress of the Work).
  - 2. Preparation of agenda for meetings.
  - 3. Presiding at minutes, including all significant proceedings and decisions.
  - 4. Recording, reproducing, and distributing copies of meeting minutes within two (2) working days, excluding weekends and holidays, after each meeting to:
    - a. All participants in the meeting.
    - b. All parties affected by decisions made at the meeting.
  - 5. Providing status report of allowance funds.
  
- B. The Contractor's:
  - 1. Making physical arrangement for meetings.
  - 2. Participation in all meetings and conferences.
  - 3. Scheduling attendance of Job Superintendent, Project Coordinator, and other parties affecting or affected by decisions made at meetings and conferences as their interests require.
  - 4. Scheduling Pre-installation conferences.
  - 5. Scheduling Pre-Closeout Meeting
  - 6. Providing updated schedules.
  - 7. Providing status reports/logs of CPRs, MCs, and shop drawings/submittals.

#### PART 2 - PRODUCTS

Not Used

#### PART 3 - EXECUTION

##### 3.1 PRE-CONSTRUCTION CONFERENCE

- A. Contractor shall contact Owner at least ten (10) days prior to commencing construction in order for Owner to schedule a pre-construction meeting with Contractor and Owner. This meeting must occur prior to commencement of any construction.
  
- B. Owner will:
  - 1. Administer pre-construction conference for the establishment of communication methods, procedures and Owner requirements.
  - 2. Administer site mobilization conference for clarification of Owner and Contractor.
  
- C. Location: At Project site as designated by the Owner.
  
- D. Attendance:
  - 1. Contractor or Contractor's Representative
  - 2. Job Superintendent
  - 3. Project Coordinator (Manager)
  - 4. Owner or Owner's Representative

5. Major subcontractors
  6. Major suppliers
  7. Owner's Representative
  8. Others as appropriate
- D. Meeting Agenda, may include, but is not limited to:
1. Discussion on major subcontracts and suppliers and projected construction schedules.
  2. Critical work sequencing.
  3. Major equipment deliveries and priorities. Discussion of long lead time items.
  4. Project coordination and designation of responsible personnel.
  5. Procedures and processing of field decisions, proposal requests, submittals, minor changes, change orders and applications for payment.
  6. Method of distribution of Contract Documents.
  7. Procedures for maintaining Record Documents.
  8. Use of premises, office work and storage areas, on-site parking, and Owner's requirements.
  9. Construction facilities and temporary utilities.
  10. Housekeeping procedures.

### 3.2 PROGRESS MEETINGS

- A. Architect will:
1. Schedule project meetings throughout progress of the work at weekly intervals, and specially called meetings.
  2. Set agenda and administer said meetings.
  3. Preside at meetings.
  4. Record meeting minutes, including all significant proceedings and decisions.
  5. Reproduce and distribute copies of meeting minutes within two (2) working days, excluding weekends and holidays, after each meeting to:
    - a. All participants in the meeting.
    - b. All parties affected by decisions made at the meeting.
- B. Contractor shall:
1. Make physical arrangements for meetings.
- C. Attendance:
1. Contractor or Contractor's Representative
  2. Job Superintendent
  3. Project Coordinator (Manager)
  4. Owner or Owner's Representative
  5. Major subcontractors
  6. Major suppliers
  7. Others as appropriate
- D. Meeting Agenda, may include, but is not limited to:
1. Review and approval of minutes of previous meeting.
  2. Review of Work progress since previous meeting.
  3. Field observations, problems, and conflicts.
  4. Review of off-site fabrication and delivery schedules.
  5. Corrective measures and procedures to regain projected schedule.
  6. Revisions to Construction Schedule.
  7. Plan progress and schedule during succeeding work period.
  8. Coordination of schedules.
  9. Review submittal schedules and expedite as required.
  10. Maintenance of quality standards.

11. Allowance balances.
12. Review of proposed changes and substitutions for:
  - a. Effect on Construction Schedule and on completion date.
  - b. Effect on other contracts of the Project.
13. Status of Allowance Expenditure Authorizations (AEAs).
14. Status of Change Proposal Requests (CPRs).
15. Status of Minor Changes (MCs).
16. Status of submittals, review of submittal log.
17. Other items and critical issues affecting Work.

### **3.3 PRE-INSTALLATION CONFERENCES**

- A. In accordance with the requirements of Section 01 11 00, Notification of Architect Requirements, the Contractor will convene pre-installation conferences when required by individual specification Sections or as required by the Architect, prior to the Contractor commencing Work of the Section.
- B. Attendance, optional:
  1. General Contractor or Contractor's Representative
  2. Project Coordinator (Manager)
  3. Owner or Owner's Representative
- C. Attendance, required:
  1. Project Superintendent
  2. Sub-contractor's Project Manager
  3. Sub-contractor's Foreman
  4. Engineer's Representative, as needed.
  5. Manufacturer's Representative, as needed.
  6. Governing Agency Official, as required
  7. Inspection Agency Representative, as required.
  8. Others affecting or affected by Work.
- D. Meeting Agenda, may include, but is not limited to:
  1. Review of conditions of installation.
  2. Preparation and installation procedures.
  3. Coordination with related work
  4. Review of the contract document requirements.
  5. Review of code enforcement or testing requirements.
  6. Questions related to work required.

### **3.4 PRE-CLOSEOUT MEETING**

- A. In accordance with the requirements of Section 01 77 00, Closeout Procedures, the Contractor will convene a pre-closeout meeting when he considers the Work or designated portion of the Work is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the work for its intended use.
- B. Attendance, required:
  1. Owner or Owner's Representative
  2. Project Coordinator (Manager)
  3. General Contractor or Contractor's Representative
  4. Project Superintendent
  5. Engineer's Representative, as needed.
- C. Meeting Agenda, may include, but is not limited to:

1. Review of the contract document requirements for Substantial Completion and Project Closeout
2. Review of Work which remains to be completed or corrected.
3. Closeout Document review schedule and log
4. Review of closeout procedures including, but not limited to Record Drawings, Warrantees, Operation and Maintenance Manuals, and Owner Demonstrations and Start-up.
5. Review of code enforcement or testing requirements.
6. Questions related to work required.

**END OF SECTION**



## SECTION 01 32 16

### CONSTRUCTION PROGRESS SCHEDULE

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to this Section.

#### PART 1 GENERAL

##### 1.1 SUBMITTALS

- A. Schedules:
  - 1. Preliminary Analysis: Within 10 (ten) days after receipt of Award of Contract, submit a preliminary construction schedule for review by Owner.
  - 2. Construction Schedule: Within 14 (fourteen) days after receipt of Notice to Proceed, submit one (1) reproducible and four (4) prints of the approved construction schedule.

##### 1.2 RELIANCE UPON SCHEDULE

- A. The construction schedule as approved by the Owner will be an integral part of the contract and will establish conditions for various activities and phases of constructions.

##### 1.3 CONSTRUCTION SCHEDULE

- A. Diagram: Graphically show the order of all activities necessary to complete the work and the sequence in which each activity is to be accomplished.
- B. Activities shown on the diagram shall include but not necessarily be limited to:
  - 1. Project mobilization
  - 2. Submittals and approvals of shop drawings and samples
  - 3. Phasing of construction
  - 4. Procurement of equipment and critical materials
  - 5. Fabrication and installation of special material and equipment
  - 6. Final clean-up
  - 7. Final inspection and testing
- C. The construction schedule shall be updated and submitted with each Application for Payment.

##### 1.4 CONSTRUCTION SCHEDULE LIMITATIONS

- A. Work performed under this Contract shall be done in accordance with the following paragraphs:
  - 1. All work may proceed immediately upon Notice to Proceed and continue uninterrupted.
  - 2. The Owner has a critical need for the work to begin upon Notice to Proceed and be Substantially Complete as outlined in Section 2.1.
  - 3. Under the Base Proposal only, the successful Offeror will be 1) entitled to certain extensions of time and 2) subject to liquidated damages for work not completed beyond the agreed date which the Contractor shall require for Substantial Completion of the work included in this contract. Refer to Supplementary Conditions for additional requirements and liquidated damages.
  - 4. Failure to complete and close-out project after substantial completion may result in liquidated damages. Refer to Supplementary Conditions for additional requirements and liquidated damages.

5. Certificate of Substantial Completion will be issued for any of the above mentioned areas of work which are complete prior to the completion of the entire project.
6. The Owner may at his discretion approve changes recommended by the successful Offeror to the above-mentioned schedule provided that the Owner's use of newly completed areas are not disrupted.

**END OF SECTION**

## SECTION 01 33 00

### SUBMITTAL PROCEDURES

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to this Section.

#### PART 1 - GENERAL

##### 1.1 SUBMITTAL PROCEDURES

- A. Transmit to the Architect/Engineer each item indicated in individual specification sections with approved form identifying:
  - 1. Date of submission and dates of any previous submissions.
  - 2. Project title and number
  - 3. Contract identification
  - 4. Names of Contractor, Supplier, Manufacturer
  - 5. Pertinent drawing sheet and detail number, and specification section number, as appropriate
  - 6. Deviations from Contract Documents.
- B. Contractor shall be responsible for initial review prior to submittal to Owner to verify adequacy and conformance to contract requirements. Lack of review by Contractor may be grounds for rejection.
- C. Apply Contractor's stamp, signed, to each item submitted, certifying that review and verification of products, field dimensions, adjacent construction work and coordination of information is in accordance with the requirements of the work and contract documents.
- D. Transmit each item in accordance with approved schedule, and in such sequence as to cause no delay in the work or in the work of any other Contractor. Allow minimum of ten (10) days for adequate Architect/Engineer review of each submittal. Time may vary according to scope and complexity of item under review. Allow adequate time in schedule for revisions and resubmittal as deemed necessary.
- E. Submit one (1) opaque print or copy of the submittal to the Owner plus one (1) electronic original. Transmit the printed copy of consultant and engineering submittals directly to respective consultants with a transmittal and the electronic original to the Architect. The Architect and Consultant will make up the printed copy and return to the Contractor upon completion of review. It will be the Contractors responsibility to scan and distribute the necessary quantity of copies of the reviewed submittal to all concerned parties.
- F. Submit each item according to individual specification sections and identified by Division, Section, and individual submittal number. Maintain log according to each Division.
- G. Revise and resubmit submittal as required; identify all changes made since previous submittal.
  - 1. Make any corrections or changes in the submittals required by the Architect/Engineer and resubmit until approved.
  - 2. Submit new submittal as required for initial submittal.

##### 1.2 PROPOSED PRODUCTS LIST

- A. Within 30 days after date of Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

### 1.3 PRODUCT DATA

- A. Submit to Architect for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Submit the number of copies of product data and samples which the Contractor and his subcontractors need for their use PLUS two (2) additional sets for the Architect, one (1) additional set for the Owner and one (1) additional set for each of the Architect's consultants involved with the particular Section of Work.
- C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project

### 1.4 MSDS SHEETS

- A. The Texas Asbestos Health Protection Rules (Title 25. Health Services, Part I. Texas Department of Health Chapter 295 - Occupational Health, Subchapter C - Texas Asbestos Health Protection) were approved and became effective on October 20, 1992, and amended March 27, 2003. The Rules established the procedures and means to implement the provisions of Senate Bill 1341 and House Bill 79.
- B. Pursuant to the above referenced Rules, submit MSDS Sheets showing that materials used in the Project, contain 1.0 percent or less asbestos. This requirement pertains to every material in every Section of the Specifications, as applicable to the Project, whether written therein, or not. Submit MSDS Sheets for materials, including, but not limited to the following, as applicable to the Project.
  - 1. Surfacing Materials:
    - a. acoustical plaster;
    - b. decorative plaster/stucco;
    - c. textured paint/coating;
    - d. spray applied insulation;
    - e. blown-in insulation
    - f. fire proofing insulation;
    - g. joint compound; and
    - h. spackling compounds
  - 2. Thermal System Insulation:
    - a. taping compounds (thermal)
    - b. HVAC duct insulation;
    - c. boiler insulation;
    - d. breaching insulation;
    - e. pipe insulation; and
    - f. thermal paper products
  - 3. Miscellaneous Material:
    - a. cement wallboard/siding;
    - b. asphalt/vinyl floor tile
    - c. vinyl sheet flooring/vinyl wall coverings;
    - d. floor backing;
    - e. construction mastic;
    - f. ceiling tiles/lay-in ceiling panels;
    - g. packing materials;
    - h. high temperature gaskets;
    - i. laboratory hoods/table tops
    - j. fire blankets/curtains;
    - k. elevator equipment panels;
    - l. elevator brake shoes;

- m. ductwork flexible fabric connections;
- n. cooling towers;
- o. heating and electrical ducts;
- p. electrical panel partitions;
- q. electrical cloth/electrical wiring insulation;
- r. chalkboards;
- s. roofing shingles/tiles;
- t. roofing felt;
- u. base flashing;
- v. fire doors;
- w. caulking/putties;
- x. adhesives/mastics; and
- y. wallboard

### 1.5 SHOP DRAWINGS

- A. Submit to Architect/Engineer for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. All dimensions indicated on the drawings are based on the specific models and manufacturers of products, equipment, fixtures and miscellaneous items specified. If the Contractor uses an approved product by another listed manufacturer which is different than the specific model and manufacturer listed in these specifications, then the Contractor shall be solely responsible for the coordination of any dimensional changes required, including structural, relocation of walls, equipment, fixtures, ceilings and miscellaneous items. When dimensional changes are required in these situations, the Contractor shall submit a proposed modification drawing to the Architect for approval prior to proceeding with the work. All causes and effects of the dimensional change shall be indicated on the Contractor's drawing submittal.
- D. The Contractor shall provide composite drawings within three (3) months of contract signing showing how all piping, ductwork, lights, conduit, equipment, etc. will fit into the ceiling space allotted, including clearances required by the manufacturer, by Code, or in keeping with good construction practice. Space for all trade elements must be considered on the same drawing. Drawings shall be at ¼ inch per foot minimum scale and shall include invert elevations and sections required to meet intended purpose.

### 1.6 SAMPLES

- A. Submit for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents.
- B. Submit for aesthetic, color, or finish selection. Submit full range of manufacture's standard colors, textures, and patterns for Architect's selection.
- C. Submit samples to illustrate functional characteristics of the Product, with integral parts and attachment devices. Coordinate submittal of different categories for interfacing work.
- D. Submit the number specified in respective Specification Section; minimum of two (2), of which one (1) will be retained by Architect.
- E. Reviewed samples which may be used in the Work are indicated in individual specification sections.
- F. Samples will not be used for testing purposes unless specifically stated in specification section.

**1.7 DESIGN DATA**

- A. When required, submit for Architect/Engineer's knowledge as contract administrator or for Owner.
- B. Submit design data for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

**1.8 TEST REPORTS**

- A. In accordance with Section 01 45 23, Inspection and Testing Laboratory Services, submit test reports for Architect/Engineer's knowledge as contract administrator or for Owner. Architect will determine whether corrective action is required.
- B. Submit test reports for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

**1.9 CERTIFICATES**

- A. When specified in individual specification sections, submit certification by manufacturer, installation/application subcontractor, or Contractor to Architect, in quantities specified.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or product, but must be acceptable to Architect and Owner.
- D. Submit required certificates in duplicate.

**1.10 GUARANTEES**

- A. When specified in individual specification sections, submit warranties by manufacturer, installation/application subcontractor, fabricator, or Contractor to Architect, in quantities specified.
- B. Submit warranties in accordance with Section 01 77 00, Closeout Procedures.

**1.11 MANUFACTURER'S INSTRUCTIONS**

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, to Architect for delivery to Owner in quantities specified.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
- C. Submit required instructions in duplicate.

**1.12 MANUFACTURER'S FIELD REPORTS**

- A. Submit reports for Architect/Engineer's benefit as contract administrator or for Owner.
- B. Submit report in quantity specified or required within ten (10) days of observation to Architect for information. Architect will determine whether corrective action is required.
- C. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.

**1.13 ERECTION DRAWINGS**

- A. When required, submit drawings for Architect/Engineer's benefit or for Owner.
- B. Submit for information for limited purpose of assessing conformance with information given and design concept expressed in Contract Documents.
- C. Data indicating inappropriate or unacceptable Work may be subject to action by Architect/Engineer or Owner. Architect will determine whether corrective action is required.

**PART 2 - PRODUCTS**

Not Used

**PART 3 - EXECUTION**

Not Used

**END OF SECTION**

**SECTION 01 41 00**

**REGULATORY REQUIREMENTS**

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to this Section.

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Quality Assurance.
- B. References Standards.
- C. Definitions.
- D. Abbreviations.
- E. Format and Specification Context Explanations.
- F. Drawing Symbols.
- G. General Requirements.

**1.2 QUALITY ASSURANCE**

- A. General:
  - 1. For products or workmanship specified by a standard of an association, trade, or Federal standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable code authorities having jurisdiction.
  - 2. The contractual relationship of the parties to the Contract should not be altered from the Contract Documents by mention or inference otherwise in any reference standard.
  - 3. Obtain copies of standards when required by Contract Documents.
  - 4. Maintain copy of standards at jobsite during submittals, planning, and progress of the specific work for which the standards pertain, until the date of Substantial Completion.
  - 5. In the absence of specific instructions in the specifications, materials, products, equipment and their installation shall conform to the applicable codes, regulations and standards specified therein. When a conflict exists between the applicable code, regulation and standard and that specified, the more stringent code regulation or standard shall prevail, except as authorized by applicable authorities having jurisdiction.
- B. Specifications and Drawings: The Drawings and Specifications are correlative and have equal authority and priority. Base disagreements in themselves or in each other on the most expensive combination of quantity and quality of work indicated. In the event of such disagreement bring it to the attention of the Architect, who will determine the appropriate method to perform the work.
- C. Industry Standards: Where compliance with two (2) or more industry standards or sets of requirements are specified, and overlapping of those different standards or requirements establishes different or conflicting minimums or levels of quality, the most stringent requirement is intended and will be enforced, unless specifically detailed language written into Contract Documents clearly indicates that a less stringent requirement is to be fulfilled.



Refer apparently equal-but-different requirements, and uncertainties as to which level of quality is more stringent, to the Architect for a decision before proceeding.

- D. Contractor's Option: Except for overlapping or conflicting requirements, where more than one (1) set of requirements are specified for a particular unit of work, option is intended to be Contractor's regardless of whether or not it is specifically indicated as such.
- E. Minimum Quality/Quantity: In every instance, the quality level or quantity shown or specified is intended to be the minimum for the work to be performed or provided. Except as otherwise specifically indicated, the actual work may either comply exactly with the minimum (within specified tolerances), or may exceed that minimum within reasonable limits. In complying with requirements, indicated numeric values are either minimums or maximums as noted or as appropriate for context of requirements. Refer instances of uncertainty to Architect for decision before proceeding.
- F. Specialists' Assignments: In certain instances, specification text requires (or implies) that specific work is to be assigned to specialists, who are engaged for performance of work. Such assignments shall be recognized as special requirements over which the Contractor has no choice or option. These requirements should not be interpreted so as to conflict with applicable regulations, union jurisdiction settlements and similar conventions. Such assignments are intended to establish which party or entity involved in a specific unit of work is recognized as "expert" for the indicated construction processes or operations. Nevertheless, the final responsibility for fulfillment of the entire set of requirements remains with the Contractor.

### 1.3 REFERENCE STANDARDS

- A. Dates of codes, regulations and standards specified shall be the latest date of issue of that code, regulation or standard prior to the date of issue of this Project Manual or Document, except as modified or otherwise directed by the applicable codes and their supplements and amendments adopted by the code authorities having jurisdiction.
  - 1. Date of Issue - The "date of issue" as it appears in the statement above, means the date which appears on the cover of the Project Manual or Document corresponding to the date of issue of the Contract Documents.
  - 2. Code Authorities: The "code authorities" as it appears in the statement above, means the authorities responsible for code enforcement.

### 1.4 DEFINITIONS

- A. General Explanation: A substantial amount of specification language consists of definitions for terms found in other Contract Documents, including those in the AIA A201 General Conditions of the Contract for Construction, Supplementary Conditions, the Drawings, and the Specifications. Drawings must be recognized as being diagrammatic in nature and not completely descriptive of requirements indicated thereon. Certain terms used in the Contract Documents are defined in the General Conditions, Supplementary Conditions, and in this Section. Definitions and explanations contained in this Section are not necessarily either complete or exclusive, but are general for this Work to the extent that they are not stated more explicitly in another element of the Contract Documents. In the event of a conflict in definitions or explanations within the Contract Documents or whenever there is need of clarification or interpretation of definitions within or between the Contract Documents, notify the Architect immediately and proceed as directed. Except in cases where definitions are determined by code authorities having jurisdiction, the Architect's interpretation of all definitions will take precedence.

- B. General Requirements: The provisions or requirements of Division 1 - Sections apply to entire Work of Contract and, where indicated, to other elements which are included in the Project.
- C. Special Conditions: Wherever the term “Special Conditions”, appears in the Contract Documents, it refers collectively to all requirements of the Owner in addition to the sections in Division 1, General Requirements, and to Articles contained in the General Conditions and Supplementary Conditions.
- D. Architect: Wherever the term “Architect” or any derivative thereof appears in the Contract Documents, it means PBK, 100 Throckmorton Street, Suite 1550, Fort Worth, TX 76102, 817.332.4333, or their authorized representative(s).
- E. Bid, Competitive Sealed Proposal (CSP), Response, Offer, etc.: Wherever the term "Bid", "Competitive Sealed Proposal (CSP)", "Response", "Offer", "Proposal", or any derivative thereof, or similar term appears in the Contract Documents, they mean one and the same, and shall mean Competitive Sealed Proposal, which by definition allows the Owner to accept the “best value” for the school district based on factors other than cost in selecting the Contractor.
- F. Contractor, General Contractor, Construction Manager, etc: Wherever the term "Contractor", "General Contractor", "Construction Manager" or any derivative thereof, or similar term appear in the Contract Documents, they mean one and the same.
- G. Subcontractor, Sub-subcontractor, Bidder, etc.: Wherever the term "Subcontractor", Sub-subcontractor", "Bidder", "Bidder/Vendor", "Vendor", "Installer", "Integrator", "Respondent", "Offeror", or any derivative thereof, or similar term appears in the Contract Documents, they mean one and the same, and shall refer to the entity (person or firm) licensed and meeting all applicable regulations of the State of Texas and Department of Labor to perform the Work, or their authorized representative(s).
  - 1. Responsibilities: To avoid any misunderstanding or lack of interpretation, the responsibility for performing the Work is totally that of the entity defined above, and the resolutions proposed in his shop drawings and related documentation shall be demonstrated throughout the Work and specified warranty period.
  - 2. In the event of a controversy involving the Contract Documents or interpretation of Project requirements, the decision of the Architect will take precedence.
- H. District, School District, Owner, etc.: Wherever the term “District”, “School District”, “Owner”, “Birdville ISD”, BIRD, or similar such term appears in the Contract Documents, it means the Birdville Independent School District, or its authorized representative(s).
- I. Consultants: Wherever the term "Consultant", or any derivative thereof appears in the Contract Documents, it means the following to whom that portion of the work applies.
- J. Indicated: Wherever the term "indicated", or any derivative thereof appears in the Contract Documents, it means a cross-reference to graphic representations, notes, or schedules on Drawings, to other paragraphs or schedules in the Specifications, and to similar means of recording requirements in the Contract Documents. Where terms such as “shown”, “noted”, “scheduled”, and “specified” are used in lieu of “indicated”, it is for the purpose of helping reader locate cross-reference, and no limitation of location is intended except as specifically noted.
- K. Directed, Requested, Etc: Where not otherwise explained, terms such as “directed”, “requested”, “authorized”, “selected”, “approved”, “required”, “accepted”, and “permitted” or any derivative thereof appears in the Contract Documents, it means as “directed by the Architect”, “requested by the Architect”, and similar phrases with actions taken by the

Architect. However, no meaning or otherwise shall be interpreted to extend the Architect's responsibility into Contractor's area of construction supervision.

- L. Approve: Wherever the term "Approve", or any derivative thereof appears in the Contract Documents, it means only the Architect, or an individual designated by him as his representative, can approve or disapprove contract actions. Even if the specifications indicate that an individual other than the Architect, such as the "Engineer" or "Consultant" will approve or disapprove an action, it is understood that only the Architect has this authority unless the individual is so designated by him in writing. Even when an individual is so designated, the Contractor may appeal the action to the Architect and the Architect's decision will be final. In no case will "approval" by the Architect be interpreted as a release of the Contractor from responsibility to fulfill requirements of the Contract Documents.
- M. Furnish: Wherever the term "Furnish", or any derivative thereof appears in the Contract Documents, it means supply or deliver to Project site, ready for unloading, unpacking, assembly, erection, placing, installing, anchoring, applying, curing, finishing, protecting, cleaning and similar operations, as applicable in each instance.
- N. Install: Wherever the term "Install", or any derivative thereof appears in the Contract Documents, it means performing the operations at the Project site, of unloading, unpacking, assembly, erection, placing, installing, anchoring, applying, curing, finishing, protecting, cleaning and similar operations, as applicable in each instance.
- O. Provide: Wherever the term "Provide", or any derivative thereof appears in the Contract Documents, it means furnish and install at the Project site, complete and ready for intended use, as applicable in each instance.
- P. Project, Site: Wherever the term "Project", "Site", or similar such term appears in the Contract Documents, it means the space available to the Contractor for performance of the Work, either exclusively or in conjunction with others performing work as part of the Project. The extent of project or site is shown on the Drawings, and may or may not be identical with description of land upon which Project is to be built.
- Q. Installer: Wherever the term "Installer", or any derivative thereof appears in the Contract Documents, it means the entity (person or firm) engaged by the Contractor or its subcontractor or sub-subcontractor for performance of a particular unit of work at the Project, including installation, erection, application and similar required operations. It is a general requirement that such entities (Installers) be expert in operations they are engaged to perform.
- R. Specialist: Wherever the term "Specialist", or any derivative thereof appears in the Contract Documents, it means an individual or firm of established reputation (or if newly organized, whose personnel have previously established a reputation in the same field), which is regularly engaged in, and which maintains a regular force of workmen skilled in either (as applicable) manufacturing or fabricating items required by the Contract, installing items required by the Contract, or otherwise performing work required by the Contract. Where the Contract Specification requires installation by a specialist, that term shall also be deemed to mean either the manufacturer of the item or firm who will perform the work under the manufacturer's direct supervision.
- S. Testing Laboratory: Wherever the term "Testing Laboratory", or any derivative thereof appears in the Contract Documents, it means an independent entity engaged to perform specific inspections or tests of the work, either at the Project site or elsewhere; and to report and (if required) interpret results of those inspections or tests.

## 1.5 FORMAT AND SPECIFICATION CONTEXT EXPLANATIONS

- A. Underscoring: Is used strictly to assist reader of specification text in scanning text for key words (for quick recall). No emphasis on or relative importance is intended where underscoring is used.
- B. Capitalization: Except for manufacturer, product, or trademark names, capitalization is used strictly to assist reader of specification text in scanning text for key words (for quick recall). No emphasis on or relative importance is intended where capitalization is used.
- C. Imperative language: Is used generally in specifications. Except as otherwise indicated, requirements expressed imperatively are to be performed by Contractor. For clarity of reading at certain locations, contrasting subjective language is used to describe responsibilities which must be fulfilled indirectly by the Contractor, or when so noted, by others.
- D. Section Numbering: Is used to facilitate cross-reference in Contract Documents. Sections are placed in Project Manual in numeric sequence; however, numbering sequence is not complete, and listing of sections at beginning of Project Manual must be consulted to determine numbers and names of specification sections in Contract Documents.
- E. Page Numbering: Pages are numbered independently for each section. The section number is shown preceded by the project number and followed by the page number at the bottom of each page, to facilitate the location of text. The project number is given to identify the project, for which specification was written, should the section become separated from the Project Manual.
- F. Specifying Methods: The techniques or methods of specifying to record requirements varies throughout text, and may include “prescriptive”, “open-generic descriptive”, “compliance with standards”, “performance”, or a combination of these. The method used for specifying one unit of work has no bearing on requirements for another unit of work.
- G. Abbreviations: The language of Specifications and other Contract Documents is of the abbreviated type in certain instances, and implies words and meanings which will be appropriately interpreted. Actual work abbreviations of a self-explanatory nature have been included in texts. Specific abbreviations have been established, principally for lengthy technical terminology and primarily in conjunction with coordination of specification requirements with notations on drawings and in schedules. These are frequently defined in section at first instance of use. Trade association names and titles of general standards are frequently abbreviated. Singular words will be interpreted as plural and plural words will be interpreted as singular where applicable and where full context of the Contract Documents so indicates. A list of typical abbreviations, includes, but is not limited to the following trade associations and organizations. Refer to Drawings and other Contract Documents for other abbreviations.

AA	Aluminum Association
AAMA	Architectural Aluminum Manufacturer's Assn.
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ACIL	American Council of Independent Laboratories
AGA	American Gas Association
AGC	Associated General Contractors of America
AHA	American Hardboard Association
AHGA	American Hotdip Galvanizers Association
AI	Asphalt Institute
AIA	American Institute of Architects
AISC	American Institute of Steel Construction

AISI	American Iron & Steel Institute
AITC	American Institute of Timber Construction
ANSI	American National Standards Institute
APA	American Plywood Association
ARI	Air Conditioning & Refrigeration Institute
ASA	Acoustical Society of America
ASA	American Subcontractors Association
ASAHC	American Society of Architectural Hardware Consultants
ASC	Adhesive & Sealant Council, Inc.
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigeration, and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASPE	American Society of Professional Engineers
ASPI	American Wood Preserver's Institute
ASTM	ASTM International
AWI	Architectural Woodwork Institute
AWS	American Welding Society
BIA	Brick Institute of America
BRI	Building Research Institute
CRA	California Redwood Association
CLFMI	Chain Link Fence Manufacturers Institute
CRSI	Concrete Reinforcing Steel Institute
CSI	Construction Specifications Institute
DHI	Door and Hardware Institute
EPA	Environmental Protection Agency
FTI	Facing Tile Institute
FGMA	Flat Glass Marketing Association
GA	Gypsum Association
HPMA	Hardwood Plywood Manufacturers Association
IBC	International Building Code
ICBO	International Conference of Building Officials
ICC	International Code Council
IEEE	Institute of Electrical and Electronic Engineers
JSMA	Joint Sealer Manufacturers Association
MFMA	Maple Flooring Manufacturers Association
ML/SFA	Metal Lath/Steel Framing Association
NAAMM	National Association of Architectural Metal Manufacturers
NAMM	National Association of Mirror Manufacturers
NBLP	National Bureau of Lathing & Plastering
NCPI	National Clay Pipe Institute
NCMA	National Concrete Masonry Association
NEMA	National Electrical Manufacturers Assn.
NESC	National Environmental Systems Contractors
NFPA	National Fire Protection Association
NFPA	National Forest Products Association
NHLA	National Hardwood Lumber Association
NOMMA	National Ornamental Metal Manufacturers Assn
NPVLA	National Paint, Varnish and Lacquer Assn.
NRMCA	National Ready Mixed Concrete Assn.
NRCA	National Roofing Contractors Association
NSPE	National Society of Professional Engineers
NWMA	National Woodwork Manufacturers Assn., Inc.
OSHA	Occupational Safety and Health Administration
PDCA	Painting and Decorating Contractors of America
PI	Perlite Institute, Inc.
PCA	Portland Cement Association

RFCI	Resilient Floor Covering Institute
RVFC	Rubber and Vinyl Floor Council
SBCCI	Southern Building Code Congress International, Inc.
SFPA	Southern Forest Products Association
SHLMA	Southern Hardwood Lumber Manufacturing Assn.
SDI	Steel Deck Institute
SDI	Steel Door Institute
SJI	Steel Joist Institute
SSPC	Steel Structures Painting Council
TCA	Tile Council of America, Inc.
UBC	Uniform Building Code
UL	Underwriter's Laboratories, Inc.
VBI	Venetian Blind Institute
VFI	Vinyl Fabrics Institute
WCLIB	West Coast Lumber Inspection Bureau
WRCLA	Western Red Cedar Lumber Association
WWPA	Western Wood Products Association

## 1.6 DRAWING SYMBOLS

- A. General: Except as otherwise indicated, graphic symbols used on drawings are those symbols recognized in the construction industry for purposes indicated. Where not otherwise noted, symbols defined by "Architectural Graphic Standards", published by the American Institute of Architects (AIA) and John Wiley & Sons, Inc., latest edition. Refer instances of uncertainty to Architect for clarification before proceeding.
- B. Mechanical/Electrical Drawings: Graphic symbols used in Mechanical/Electrical Drawings are generally aligned with symbols recommended by American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE). Where appropriate, those symbols are supplemented by more specific symbols as recommended by other recognized technical organizations, including, but not limited to American Society of Mechanical Engineers (ASME), American Society of Professional Engineers (ASPE), Institute of Electrical and Electronic Engineers (IEEE) and similar organizations. Refer instances of uncertainty to Architect for clarification before proceeding.

## 1.7 GENERAL REQUIREMENTS

- A. Color, Texture, or Pattern Requirements:
1. When color, texture, or pattern is specified, the item, product, or material shall be furnished in the specified color, texture, or pattern, as applicable.
  2. When more than one (1) approved manufacturer is named in the Specifications, Contractor may select any of the approved manufacturers and submit the full range of colors, textures, and patterns (standard and special) available of that manufacturer for the Architect's review and selection.
  3. When the term "match existing", or any derivative thereof appears in the Contract Documents, it means that the sample must match the Owner's existing work in every respect as to color, texture, and pattern, as applicable.
  4. When the term "match Architect's approved sample", or any derivative thereof appears in the Contract Documents, it means that the Architect has selected a sample which must be matched in every respect as to color, texture, and pattern, as applicable.
  5. When an item or product is specified of a manufacturer for which only one (1) color, texture, or pattern is available, and a color, texture, or pattern other than that one is specified, Contractor shall bring it to the attention of the Architect for a decision prior to proceeding with the work. Do not proceed with the work until Architect has approved the color, texture, and pattern, as applicable.

6. When an item or product is specified of a manufacturer for which no color, texture, or pattern is specified, and colors, textures, and patterns are available, Contractor shall bring it to the attention of the Architect and submit the full range of colors, textures, and patterns (standard and special) available of that manufacturer for the Architect's review and selection. Do not proceed with the work until Architect has selected and approved the color, texture, and pattern, as applicable.
  7. When due to the nature of the item, product, or material, i.e. face brick, tile pavers, natural stone, etc, Contractor shall submit sample or samples which exhibits the full range of characteristics (colors, i.e. lights and darks, as well as textures, and patterns) for which the item, product, or material is available. The Architect will select the color, texture, and pattern, as applicable, from those available and request a sample panel exhibiting the approved characteristics. The approved color range, texture, and pattern, as applicable will then become the standard for which all work on the project will be judged. Architect will be final judge as to having performed work in conformance with approved characteristics.
  8. Under no circumstances are colors, textures, patterns, or any other characteristics for which an item, product, or material are available to be selected by anyone other than the Architect or his authorized representative.
  9. Non-conforming work shall be removed from the site and replaced with new conforming work at no additional expense to Owner.
- B. Continuity of Building Envelope, Full Height Partitions, and Fire Rated Construction:
1. Continuity of Building Envelope:
    - a. All materials such as exterior sheathing, membrane flashings, vapor barriers, insulations, dampproofing, waterproofing, roofing, flashings, etc. and all penetrations, holes, gaps, joints, and openings through such materials shall be sealed to ensure continuity of building envelope, whether indicated or not.
    - b. Refer instances of uncertainty to Architect for clarification before proceeding with work.
  2. Full Height Partitions:
    - a. All full height partitions shall be from floor to bottom of deck structure and shall be made to fit around steel joists, beams, etc., whether indicated or not.
    - b. Seal joints at top of partitions, in flutes of steel deck, and around structural elements with a compressible filler and/or sealant to accommodate movement due to expansion, contraction, and deflection, whether indicated or not. Treat seals in joints of fire rated partitions as specified below for fire rated construction, whether indicated or not.
    - c. Refer instances of uncertainty to Architect for clarification before proceeding with work.
  3. Fire Rated Construction:
    - a. All seals in fire rated construction, whether at top, bottom, or penetrations through fire rated construction, shall be made with firestopping and fire safing materials to maintain fire rating integrity of construction and satisfy authorities having jurisdiction, whether indicated or not.
    - b. Refer instances of uncertainty to Architect for clarification before proceeding with work.
- C. Plumbing Line Protection:
1. Placing or washing materials, including, but not limited to the following, down any plumbing line or fixture is strictly forbidden.
    - a. Concrete, cement, sludge, mortar, grout, plaster, or any other cementitious material
    - b. Paint, paint thinner, turpentine, kerosene, gasoline, oil, or any other petroleum or hazardous products.

2. Cleaning painting equipment, including brushes in new or existing plumbing fixtures is strictly prohibited.
  3. If requested, Contractor shall certify that all affected plumbing lines and fixtures are clean, free flowing and running. Plumbing lines and fixtures damaged as a result of any of the above shall be repaired or replaced at no expense to Owner. Contractor shall bear responsibility and all costs of fines, penalties, and legal fees attributed to violations as levied by authorities having jurisdiction.
- D. Hanging Items from Deck and Structure: Ducts, pipes, conduits, equipment, and other items indicated to be supported from the structure shall be accomplished using approved hangwires, hangers, or devices of type, size and material recommended to suit the application and installed in accordance with recommendations of the hanger or device manufacturer, Architect and/or Structural Engineer, or code authorities having jurisdiction, whichever is the more stringent requirement. Nothing shall be hung from the deck and structure unless directed to do so by the Architect and/or Structural Engineer. Powder activated devices in metal deck are not permitted.
- E. Ducts, Pipes, Conduits, and Wires: Shall be concealed in walls, chases, and enclosed areas out of view, unless specifically indicated as exposed or where exposure is required for proper function of item, such as air registers, air returns, louvers, grilles, vents, thermostats, electrical receptacles, telephone/data terminals and jacks, light switches, etc. Refer instances of uncertainty to Architect for clarification before proceeding.
- F. Fasteners:
1. Unless specifically indicated or directed otherwise, all fasteners in work exposed to view, shall be concealed in the finished work.
  2. No fasteners shall show through or telegraph through exposed face of finished work and all finished surfaces shall be free of all evidence of the existence of fasteners.
  3. Fasteners shall be spaced to accurately and rigidly secure work in place.
  4. If not shown or otherwise required or recommended by manufacturer, standard, or code authorities having jurisdiction, fastener spacing shall not exceed 12 inches on center.
  5. Non-conforming work shall be removed from the site and replaced with new conforming work at no additional expense to Owner.
- G. Exposed Metal Work:
1. Unless specifically indicated or directed otherwise, all exposed metal work shall be flat with all surfaces free of distortions, oil canning, waves, dents, scratches, weld marks, and other surface defects detrimental to good appearance or function.
  2. All steel exposed to exterior weather or moisture, either exposed or concealed in work, shall be hot-dip galvanized, phosphate treated for paint retention and shop prime painted.
  3. Non-conforming work shall be removed from the site and replaced with new conforming work at no additional expense to Owner.
- H. Continuous Date and Time Code Operated Devices:
1. Devices used in the construction of this Project which use continuous date and time codes in their operation, whether software or hardware, and whether upgradable or not, including, but not limited to air handling, lighting, alarm, communication, security, and instrumentation systems, elevators, escalators and other conveying systems. In addition, such devices shall remain compliant for 100 years or the life of the device, whichever comes first.

## PART 2 - PRODUCTS

Not Used



**PART 3 - EXECUTION**

Not Used

**END OF SECTION**

**SECTION 01 45 00**

**QUALITY CONTROL**

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to this Section.

**PART 1 – GENERAL**

**1.1 SECTION INCLUDES**

- A. Quality Assurance: Requirements for material and product quality and control of installation.
- B. Tolerances
- C. References and Standards
- D. Mock-ups
- E. Testing Laboratory Services
- F. Inspection Services
- G. Manufacturers' field services

**1.2 RELATED SECTIONS – may include but not limited to:**

- A. Section 01 41 00 – Regulatory Requirements
- B. Section 01 45 23 – Testing and Inspecting Services
- C. Section 01 33 00 - Submittal Procedures
- D. The Work of this Section shall be included as a part of all Sections of Work, whether referenced therein or not.

**1.3 DESCRIPTION OF REQUIREMENTS**

- A. Unless specifically noted otherwise, perform all Work shown, mentioned, or reasonably inferred and comply with all work restrictions.
- B. Many of the requirements specified elsewhere are included herein for reference and convenience. Where a conflict occurs between the Contract Documents, either within themselves or each other, the more stringent requirement or the most expensive combination of materials and workmanship shall prevail.
- C. Contractor shall:
  - 1. Perform Work in accordance with the General Conditions, as specified herein, and with the quality control requirements of each Specification Section;
  - 2. Perform Work in the highest quality workmanship, unless specified otherwise;
  - 3. Join materials with a uniform and accurate fit so they meet with neat straight lines, free of smears, overlaps or irregularities, as applicable to the work;
  - 4. Install all exposed materials appropriately level, plumb, and at accurate angles as shown and flush with adjoining materials;
  - 5. Attach materials with sufficient strength, and with number and spacing of fasteners and attachments that will not fail until materials joined are broken or permanently deformed;

6. Use concealed fasteners, unless shown or directed otherwise.

#### **1.4 QUALITY ASSURANCE AND 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 manufacturer's instructions conflict with Contract Documents, request clarification from Architect/Engineer 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. Perform Work 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, or disfigurement.

#### **1.5 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/Engineer before proceeding.
- C. Adjust Products to appropriate dimensions; position before securing Products in place.

#### **1.6 REFERENCES AND STANDARDS**

- A. For Products or workmanship specified by association, trade, or other consensus 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 by date of issue current on date of Owner-Contractor Agreement except where specific date is established by code.
- C. Obtain copies of standards where required by product specification sections.
- D. When specified reference standards conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- E. Neither contractual relationships, duties, responsibilities of parties in Contract nor those of Architect/Engineer shall be altered from Contract Documents by mention or inference otherwise in reference documents.
- F. Refer to Section 01 41 00, Codes, Regulations and Standards, for additional information concerning applicable reference and standards requirements.

#### **1.7 MOCK-UP REQUIREMENTS**

Not Used.

### **1.8 TESTING SERVICES**

- A. Owner will appoint, employ, and pay for specified services of an independent firm to perform testing.
- B. The independent firm will perform tests and other services specified in individual specification sections and as required by the Architect/Engineer, Owner, or authority having jurisdiction.
- C. Testing and source quality control may occur on or off the project site. Perform off-site testing as required by the Architect/Engineer or the Owner.
- D. Reports will be submitted by the independent firm to the Owner, Architect/Engineer, and Contractor, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
- E. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
  - 1. Notify Architect/Engineer and independent firm 48 hours prior to expected time for operations requiring services, or as specified in individual specification sections.
  - 2. Make arrangements with independent firm and pay for additional samples and tests required.
- F. Testing does not relieve Contractor to perform Work to contract requirements.
  - 1. Moisture tests for flooring are the Contractor's responsibility and not part of the testing allowance scope.
- G. Re-testing required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by the Architect/Engineer. Payment for re-testing will be charged to the Contractor by deducting testing charges from the Contract Sum/Price.
- H. Refer to Section 01 45 23, Inspection and Testing Laboratory Services, for additional information concerning testing, and submittal procedures and requirements for Testing Reports.

### **1.9 INSPECTION SERVICES**

- A. Owner will appoint, employ, and pay for specified services of an independent firm to perform inspection.
- B. The independent firm will perform inspections and other services specified in individual specification sections and as required by the Architect/Engineer, Owner, or authority having jurisdiction.
- C. Inspecting may occur on or off the project site. Perform off-site inspecting as required by the Architect/Engineer or the Owner.
- D. Reports will be submitted by the independent firm to the Owner, Architect/Engineer, and Contractor, indicating inspection observations and indicating compliance or non-compliance with Contract Documents.
- E. Cooperate with independent firm; furnish safe access and assistance by incidental labor as requested.
  - 1. Notify Architect/Engineer and independent firm 48 hours prior to expected time for operations requiring services, or as specified in individual specification sections.

- A. Inspecting does not relieve Contractor to perform Work to contract requirements.
- B. Refer to Section 01 45 23, Inspection and Testing Laboratory Services, for additional information concerning inspections, and submittal procedures and requirements for Inspection Reports.

#### **1.10 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 as required, and to initiate instructions when necessary.
- B. Submit qualifications of observer to Architect/Engineer within ten (10) days after receipt of Notice to Proceed, in advance of required observations. Observer subject to approval of Architect/Engineer and Owner.
- C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- D. Refer to Section 01 33 00, Submittal Procedures, for additional information concerning submittal procedures and requirements for Manufacturers Field Reports.

#### **1.11 PHOTOGRAPHIC DOCUMENTATION**

- A. Digital Photographs: Submit 10 exterior image files monthly with payment application. In addition to periodic construction photos noted below.
  - 1. Digital Camera: Minimum sensor resolution of 5 mega pixels.
  - 2. Format: Unaltered original files, with same aspect ratio as the sensor, uncropped, date and time stamped, in folder named by date of photograph, accompanied by key plan file.
  - 3. 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. Name of Architect.
    - d. Name of Contractor.
    - e. Date photograph was taken.
    - f. Unique sequential identifier keyed to accompanying key plan.
- B. Aerial Photography
  - 1. Submit monthly aerial photographs of the project. The photos shall be taken from 4 different angles and 4 sets of color 8 x10 inch prints and high resolution digital copies shall be submitted.
- C. Periodic Construction Photographs
  - 1. Provide digital photos for all through wall flashing locations, documentation on photographic paper (two images per sheet) to allow a ½ inch wide margin and punched for standard three ring binder. Photos shall be taken by a representative of the general contractor only and will constitute as a record of observation by the general contractor prior to the location being covered up. Print sheets for review during each progress meeting.

#### **PART 2 - PRODUCTS**

Not Used.

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

**3.1 EXAMINATION**

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify 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 utility services are available, of correct characteristics, and in correct locations.

**3.2 PREPARATION**

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

**END OF SECTION**

**SECTION 01 50 00**

**TEMPORARY FACILITIES AND CONTROLS**

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to this Section.

**PART 1 - GENERAL**

**1.1 DESCRIPTION OF REQUIREMENTS**

- A. Specific administrative and procedural minimum actions are specified in this Section, as extensions of provisions in other Contract Documents. These requirements have been included for special purposes as indicated. Nothing in this Section is intended to limit types and amounts of temporary work required, and no omission from this Section will be recognized as an indication that such temporary activity is not required for successful completion of the Work and compliance with requirements of the Contract Documents. Provisions of this Section are applicable to, but are not limited to the temporary power, temporary water, field office, sanitary facilities, storage facilities, signs, barriers, security, cleaning, first aid facilities, fire protection, construction aids, and parking facilities as further expanded in this Section.
- B. This Section covers the temporary facilities required by the Construction Manager for the Construction Manager's use only. Subcontractor's and Suppliers are responsible for their own temporary facilities as required by their scope of work. The Construction Manager will provide limited temporary facilities for the use of the subcontractor supplier as they become available. Subcontractors and Suppliers are referred to Section AC for further details.

**1.2 JOB CONDITIONS**

- A. General: Establish and initiate use of each temporary facility at time first reasonably required for proper performance of the Work. Terminate use and remove facilities at earliest reasonable time, when no longer required or when permanent facilities have, with authorized use, replaced their need.
- B. Conditions of Use:
  - 01 Install, operate, maintain and protect temporary facilities in a manner and at locations which will be safe, non-hazardous, sanitary, and protective of persons and property, and free of deleterious effects.
  - 02 Contractor shall be responsible for overloading or excess use of or damage resulting from the overloading or excess use of existing utilities.

**PART 2 - PRODUCTS**

**2.1 MATERIALS**

- A. Materials, not specifically described herein, but required for proper completion of Work of this Section, may be new or used as selected by the Contractor, but shall be of design, type, size, and strength recommended to suit intended purpose.
- B. Items required to protect the tenants, workmen, and public from danger, shall be sufficiently designed to protect them. Where required, exclude the public from all hazards.

**PART 3 - EXECUTION**

### **3.1 UTILITIES**

- A. Temporary Power: Construction Manager/Contractor shall use temporary power from existing utilities, but must provide all wiring, lamps, distribution of power, and equipment required for construction, inspection and testing of Work.
- B. Temporary Water: Construction Manager/Contractor shall use temporary water from existing utilities, but must provide all hoses and equipment required for construction, inspection and testing of Work.

### **3.2 FIELD OFFICE**

- A. Construction Manager/Contractor does not need to provide a job trailer. Job trailers may be provided if contractor deems them necessary.

### **3.3 SANITARY FACILITIES**

- A. Construction Manager/Contractor shall furnish and maintain temporary sanitary facilities. Comply with regulations of State Department of Health and other authorities having jurisdiction. Construction Manager/Contractor may not use the Owner's facilities.

### **3.4 STORAGE FACILITIES**

- A. Construction Manager/Contractor shall provide and maintain adequate weathertight lockable storage facilities, raised above the ground, with sides and top enclosed.
- B. Construction Manager/Contractor shall replace materials improperly stored and damaged by weathered conditions.
- C. Construction Manager/Contractor shall remove storage facilities when materials can be stored within the structure in a weathertight condition.
- D. Construction Manager/Contractor shall provide for temporary freeze protection as needed.

### **3.5 SIGNS**

- A. Other signs permitted at the site:
  - 01 Warning signs.
  - 02 Directional signs.
  - 03 Identification signs at field offices.
  - 04 Emergency medical services sign.
- B. Construction Manager/Contractor shall allow no other signs to be displayed at the project site, unless authorized by the Owner.

### **3.6 BARRIERS, CONSTRUCTION FENCE AND SECURITY**

- A. Construction Manager/Contractor shall:
  - 01 Provide temporary barricades on all portions of the site adjacent to the construction and accessible to the public;
  - 02 Provide approved barriers around trees and plants designated to remain. Protect against vehicular traffic, stored materials, dumping, chemically injurious materials, water puddling and continuous running water;
  - 03 Provide a minimum 6 feet-0 inch high chain link construction fence around the area of the kettle or pump trailer and any stored dangerous material for the



duration of the construction period. Said temporary construction fence shall have lockable access gates necessary to adequately access the area in order to execute the project. Access gates shall be locked at the completion of each days' work; and

- 04 Determine if and when watchmen are necessary for protection of the Work, and provide such services when necessary. Neither the provision of watchmen nor the failure to provide watchmen shall relieve the Construction Manager/Contractor of responsibility in event of injury to persons or damage to property.

### **3.7 CLEANING**

- A. Trash Removal: Construction Manager/Contractor shall clear the site of trash at least once a week. When rapid accumulation occurs, make more frequent removals. Remove highly combustible trash such as paper and cardboard daily. Dumpsters will not be allowed to overflow and should be emptied on a regular basis.
- B. Disposition of Debris: Construction Manager/Contractor shall remove debris from site and make legal disposition. Locations for disposal shall be of the Construction Manager's/Contractor's choice within the above restriction. No debris nor material may be buried or burned at the site, without the permission of authorities having jurisdiction. Take necessary precautions to prevent accidental burning of materials by avoiding large accumulations of combustible materials.

### **3.8 TEMPORARY FIRST AID FACILITIES**

- A. Construction Manager/Contractor shall:
  - 01 Provide first aid equipment and supplies, with qualified personnel continuously available to render first aid at the site; and
  - 02 Provide a sign, posted at the field office telephone or job site construction manual, listing the telephone numbers for emergency medical services: Physicians, ambulance services and hospitals.

### **3.9 TEMPORARY FIRE PROTECTION**

- A. Construction Manager/Contractor shall provide a fire protection and prevention program for employees and personnel at the site; and provide and maintain fire extinguishing equipment ready for instant use at all areas of the Project and at specific areas of critical fire hazard.
- B. Equipment:
  - 01 Hand extinguishers of the types and sizes recommended by the National Board of Fire Underwriters to control fires from particular hazards.
  - 02 Barrels of water with buckets designated for fire-control purposes.
  - 03 Water hoses connected to an adequate water pressure and supply system as needed.
  - 04 Construction period use of permanent fire protection system.
- C. Enforce fire-safety discipline:
  - 01 Store volatile materials in an isolated, protected location.
  - 02 Avoid accumulations of flammable debris and waste in or about the Project.
  - 03 Prohibit smoking in the vicinity of hazardous conditions.
  - 04 Closely supervise welding and torch-cutting operations in the vicinity of combustible materials and volatile conditions.
  - 05 Supervise locations and operations of portable heating units and fuel.

- D. Construction Manager/Contractor shall maintain fire extinguishing equipment in working condition, with current inspection certificate attached to each extinguisher.

**3.10 CONSTRUCTION AIDS**

- A. Construction Manager/Contractor shall:
  - 01 Provide construction aids and equipment required to assure safety for personnel and to facilitate the execution of the work, i.e. scaffolds, staging, ladders, stairs, ramps, runways, platforms, railings, hoists, cranes, chutes and other equipment applicable and required for the performance of the work; and
  - 02 Maintain all equipment in a first-class, safe condition.

**3.11 PARKING FACILITIES**

- A. Construction Manager/Contractor shall:
  - 01 Coordinate location of parking for personnel and employees at the facility to avoid interference with traffic, walks, work and storage areas, or with materials-handling equipment; and

END OF SECTION

**SECTION 01 71 23**

**FIELD ENGINEERING**

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to this Section.

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Measures to ensure adequate quality control and quality assurance for all Work in accordance with Conditions of the Contract, as specified herein, and with the quality control and quality assurance requirements of each Specification Section, and authorities having jurisdiction.

**1.2 RELATED SECTIONS**

- A. All Sections of Work requiring layout, survey, reference points and their verification and protection, and quality control and assurance monitoring requirements.

**1.3 DEFINITIONS**

- A. Survey and Field Engineering: Wherever the terms “Survey”, “Field Engineering” or any derivative thereof, or similar term appears within this Section, they mean one and the same, and shall mean the survey or field engineering work performed by the Field Engineer as defined below and is separate from that of the survey work provided by the Owner.
- B. Field Engineer: Wherever the term “Field Engineer” or any derivative thereof, or similar term appears in the Contract Documents, it shall refer to the General Contractor’s employee(s) that are expert in, routinely engaged in, and have at least five (5) years experience in, the practice of construction project field engineering, building and project layout, construction measurements and monitoring, etc.
- C. “Construction Surveyor”: Wherever the term “Construction Surveyor”, or any derivative thereof, or similar term appears in the Contract Documents, the entity (person or firm) licensed as a Registered Professional Land Surveyor or Professional Engineer of the discipline required for specific service on the Project in the State in which the Project occurs, with five (5) years minimum experience, and meeting all applicable regulations of the State in which the Project occurs and Department of Labor, and other authorities having jurisdiction to perform the Work. To avoid any misunderstanding or lack of interpretation, the entity responsible for performing the Work of this Section shall be employed by the General Contractor, and the responsibility, including methods and means, is totally that of the General Contractor.
- D. Quality Control and Quality Assurance: Wherever the terms “Quality Control”, “Quality Assurance” or any derivative thereof, or similar term appears in the Contract Documents, they mean one and the same, and shall mean an aggregate of activities of the General Contractor, such as design analysis and statistical sampling with inspection for defects, designed to ensure adequate quality in materials and workmanship whether factory manufactured or jobsite produced.

**1.4 QUALITY CONTROL AND QUALITY ASSURANCE**

- A. Employ a Construction Surveyor complying with the definition above and acceptable to the Owner and Architect, to perform all Construction Surveying. Provide full responsibility

for the Construction Surveyor and accuracy of the performance of all items of Work shown on Drawings, specified herein, or in other Specification Sections.

### **1.5 SUBMITTALS FOR REVIEW**

- A. Submit name, address, telephone number, fax number, and registration number of the proposed Construction Surveyor prior to starting Work of this Section.
- B. Submit evidence of Construction Surveyor's Errors and Omissions insurance coverage in the form of an Insurance Certificate, if different from Construction Manager's.
- C. Upon request by Architect, submit documentation verifying accuracy of all Survey Work, including a certificate sealed and signed by the Construction Surveyor, that the elevations and locations of the Work are in conformance with Contract Documents and such information has been incorporated into the Project Record Documents.
- D. Submit Project Record Documents under provisions of Section 01 77 00, Closeout Procedures.

### **PART 2 - PRODUCTS**

Not Used

### **PART 3 - EXECUTION**

#### **3.1 EXAMINATION**

- A. Verify locations of survey control points prior to starting work.
- B. Promptly notify Architect of discrepancies discovered.

#### **3.2 SURVEY REFERENCE POINTS**

Not Used.

#### **3.3 FIELD ENGINEERING AND CONSTRUCTION SURVEYOR REQUIREMENTS**

Not Used.

#### **3.4 PROJECT RECORD DOCUMENTS**

- A. Maintain a complete and accurate log of control and Field Engineer work as it progresses.
- B. Upon completion of Work, including, but not limited to earthwork, formwork, foundation, structural steel erection, and major site improvements, prepare Project Record Documents illustrating dimensions, locations, angles, and elevations of construction and site work.
- C. Submit Project Record Documents as specified in Paragraph 1.5.

**END OF SECTION**

## SECTION 01 77 00

### CLOSEOUT PROCEDURES

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to this Section.

#### PART 1 - GENERAL

##### 1.1 PRE-CLOSEOUT MEETING

- A. Pre-Closeout Meeting: Schedule and convene Pre-Closeout Meeting with Owner and Architect in accordance with Section 01 31 19, Project Meetings.

##### 1.2 SUBSTANTIAL COMPLETION

- A. The following items shall be completed before Substantial Completion will be granted:
  - 1. Contractor's Completion List (Punch List): Submit a thorough list of items to be completed or corrected, along with a written request for Substantial Completion and for review of the Work or portion of the Work. The Architect/Engineer's Project Representative, at their discretion, may attend and assist in the preparation of the Contractor's Punch List.
  - 2. Architect's Supplemental Punch List: The Architect/Engineer, along with the Owner at the Owner's discretion, will inspect the Work utilizing the Contractor's prepared Punch List, noting completed items and incomplete items, and will prepare a supplemental list of items that have been omitted or incomplete items that were not previously noted.
  - 3. Operations and Maintenance Manuals: Submit as described in paragraph 1.3.
  - 4. Final Cleaning: Provide final cleaning and adequate protection of installed construction as described in paragraph 1.6 and 1.7.
  - 5. Starting of systems: Start up equipment and systems as described in paragraph 1.8.
  - 6. Testing and balancing: Testing and balancing of systems must be performed and completed by Owner's forces, and the report submitted and accepted by Architect/Engineer and Owner, as described in the Contract Documents. Make adjustments to equipment as required to achieve acceptance.
  - 7. Demonstrations: If required by individual specification sections or by Owner, provide demonstrations and instructions for use of equipment as described in paragraph 1.9.
- B. Date of Substantial Completion: Complete or correct items identified on Punch List and confirm that all items have been corrected prior to Architects re-inspection. Architect/Engineer, along with the Owner, will re-inspect the corrected work to establish the Date of Substantial Completion. Incomplete items remaining will be appended to the Certificate of Substantial Completion (AIA G704). The Date of Substantial Completion represents day one (1) of the closeout period, and represents the date of commencement of the Contractors correctional period and all warranty periods as described and required by the Contract Documents, except as amended in the Certificate of Substantial Completion and elsewhere in the Contract Documents.
- C. Certificate of Substantial Completion: When the Work or designated portion thereof is substantially complete; Architect will prepare the Certificate of Substantial Completion to be executed by the Owner and Contractor. Items on the appended Punch List shall be completed or corrected within the time limits established in the Certificate.

### 1.3 OPERATIONS AND MAINTENANCE MANUAL

- A. As a requirement for Substantial Completion, the final Operation and Maintenance Manual shall be submitted to, and reviewed and accepted by the Architect prior to issuance of the Certificate.
- B. Prepare 3-ring D-slant binder cover and spine with printed title "OPERATIONS AND MAINTENANCE MANUAL", title of project, and subject matter of binder when multiple binders are required.
- C. Submit one (1) copy of preliminary Operations and Maintenance Manuals to respective consultants (Civil, MEP, Structural, etc.) for review of conformance with contract requirements prior to submitting final to Architect. Allow time for proper review.
- D. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- E. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- F. Contents: Prepare Table of Contents for each volume, with each product or system description identified, typed on white paper, in three parts as follows:
  - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, Subcontractors, and major equipment suppliers.
  - 2. Part 2: Operation and Maintenance 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. Equipment start-up instructions
    - e. Operating instructions.
    - f. Maintenance instructions for equipment and systems.
    - g. Maintenance instructions for finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
  - 3. Part 3: Project documents and certificates, including the following:
    - a. Product data.
    - b. Air and water balance reports.
    - c. Photocopies of warranties, certificates and bonds. Submit originals with Closeout Documents as specified below.
- G. Submit one (1) final original and two (2) copies to Architect.

### 1.4 PROJECT CLOSEOUT

- A. Final Payment will not be authorized by the Architect until the Architect finds the Work acceptable under the Contract Documents, subject to the completion and acceptance of the following requirements and other applicable Contract requirements:
  - 1. Close-out Documents: Provide bound closeout documents as described in paragraph 1.5. Refer to Document CB, Supplementary Conditions, Paragraph 9.10 for additional information.
  - 2. Record Documents: Submit as described in paragraph 1.10.
  - 3. Extra materials: Provide extra stock, materials, and products as described in paragraph 1.11 when required by individual specification sections.

4. Locks: Make final changeover of permanent locks and transmit keys to the Owner. Advise the Owner's personnel of changeover in security provisions.
5. Temporary Facilities: Discontinue and remove temporary facilities from the site, along with mockups, construction aids, and similar elements.
6. Warranties, Certificates and Bonds: Execute and assemble transferable warranty documents, certificates, and bonds from subcontractors, suppliers, and manufacturers as described in paragraph 1.12.
7. Final Inspection and Acceptance by Architect is achieved as described in paragraph 1.13.

## 1.5 CLOSEOUT DOCUMENTS

- A. Coordinate the following items with the requirements of Document CB, Supplementary Conditions of the Contract.
- B. Prepare 3-ring D-slant binder cover and spine with printed title "CLOSEOUT DOCUMENTS", title of project, and subject matter of binder when multiple binders are required. Submit one (1) original and two (2) copies.
- C. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- D. The close-out documents shall be neatly organized and easily useable as determined by the Architect and Owner. Separate Close-out Documents binders from Operations and Maintenance Manuals. Documents identified as "affidavit" shall be notarized.
- E. Contents: Prepare Table of Contents for each volume, with each item description identified, typed on white paper, in five (5) parts as follows:
  1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, Subcontractors, and major equipment suppliers. All General Contractor's vendors/suppliers and subcontractors that provided materials or performed any work related to this project must be listed on this form. Submit Final List of Subcontractors.
  2. Part 2: Closeout Documents and Affidavits, include the following:
    - a. AIA G707 - Consent of Surety to Final Payment;
    - b. AIA G706 - Contractor's Affidavit of Payment of Debts and Claims;
    - c. AIA G706A - Contractor's Affidavit of Release of Liens;
    - d. Subcontractor's Release of Lien: Include contractor's, subcontractor's and direct material and equipment supplier's separate final releases. Submit on attached Close-out Form "A" - Affidavit of Subcontractor's Release of Lien.
  3. Part 3: Project documents and certificates, including the following:
    - a. Copy of Certificate of Substantial Completion (AIA G704);
    - b. Copy of All Permits;
    - c. Copy of Final Utility Bill or letter of transfer;
    - d. Copy of Certificate of Occupancy;
    - e. Certification of Project Compliance: Submit on attached Form AJ. Owner and Architect will initiate form and forward to Contractor for signature once Substantial Completion is established;
    - f. Hazardous Material Certificate: Submit on attached Close-out Form "B". Affidavits from Contractor, Subcontractors and General Contractor's vendors or suppliers stating that no hazardous materials/products have been used or installed in this project.
  4. Part 4: Warranties, compile sequentially based on specification sections:
    - a. General Contractor's Warranty: Submit on company letterhead as described below. This Warranty shall state all sections of Work

- performed by General Contractor's own forces, and warranty period for each section of Work;
- b. Subcontractor's Warranty: notarized, and submitted on attached Close-out Form "C". This Warranty shall state all sections of Work performed by the subcontractor and warranty period;
- 5. Part 5: Receipts:
  - a. Extra Stock: Provide original receipts for delivery of "Extra Stock" items as described below, (if applicable). Receipts must be signed by an authorized Owner's representative;
  - b. Keys: Provide original receipts for delivery of "Keys", (if applicable). Receipts must be signed by an authorized Owner's representative.
- F. In addition to the three (3) required close-out binders listed above, provide Architect with one (1) separate binder for their records containing the following:
  - 1. Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, Subcontractors, and major equipment suppliers;
  - 2. all MSDS sheets for the project;
  - 3. all warranties from Contractor, subcontractors, direct suppliers, and manufacturers.
- G. Failure to complete and close-out project after substantial completion may result in liquidated damages being assessed to the Contractor. Refer to Conditions of the Contract for additional requirements and liquidated damages.

#### **1.6 FINAL CLEANING**

- A. Execute final cleaning prior to final project inspection and acceptance.
- B. Clean interior and exterior glass, and surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces, mop hard floor surfaces.
- C. Remove smudges, marks, stains, fingerprints, soil, dirt, spots, dust, lint, and other foreign materials from finished and exposed surfaces
- D. Clean equipment and fixtures to sanitary condition with cleaning materials appropriate to surface and material being cleaned.
- E. Clean and replace filters of operating equipment as required by Contract Documents
- F. Clean debris from roofs, gutters, downspouts, and drainage systems.
- G. Clean site; sweep paved areas, rake clean landscaped surfaces.
- H. Remove waste and surplus materials, rubbish, and temporary construction facilities from site.

#### **1.7 PROTECTING INSTALLED CONSTRUCTION**

- A. Protect installed Work and provide special protection where specified in individual specification sections until Work is accepted by Architect and Owner.
- 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. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic from landscaped areas.

## **1.8 STARTING OF SYSTEMS**

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify Architect/Engineer and Owner 48 hours prior to start-up of each item.
- C. Verify each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.
- D. Verify tests, meter readings, and specified electrical characteristics agree with those required by equipment or system manufacturer.
- E. Verify wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of Contractors' personnel, and installer in accordance with manufacturers' instructions.
- G. When specified in individual specification sections or required by manufacturer, 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. When specified in individual specification sections or required by Owner or Architect/Engineer, submit a written report in accordance with Section 01300, Submittal Procedures, that equipment or system has been properly installed and is functioning correctly.

## **1.9 DEMONSTRATION AND INSTRUCTIONS**

- A. Demonstrate operation and maintenance of products to Owner's personnel a minimum of 48 hours prior to date of Final Completion in accordance with Owner's requirements.
- B. Demonstrate Project equipment instructed by qualified manufacturer's representative who is knowledgeable about the Project and equipment.
- C. For equipment or systems requiring seasonal operation, perform demonstration for other season within six (6) months.
- D. Utilize maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel to explain all aspects of operation and maintenance.
- E. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment.
- F. Prepare and insert additional data in maintenance manuals when need for additional data becomes apparent during instruction.

- G. Review and verify proper start-up and operation of equipment prior to scheduling demonstrations with Owner.

#### **1.10 PROJECT RECORD DOCUMENTS**

- A. Record Documents, as described in the supplementary conditions, shall be submitted at Project Closeout. Final Payment will not be authorized by the Architect until final review and acceptance by Architect and Engineers is achieved in accordance with the Owners requirements.
- B. At the Contractors request, and with associated fee, Architect may provide electronic versions of the construction drawing and specification files for Contractors use, subject to the terms and conditions of Architects standard electronic document transfer agreement.
- C. Submit reproducible to respective consultants (Civil, Structural, MEP, *etc.*) for review. Consultant will mark-up corrections and return to Contractor for final revisions. Make final revisions prior to submitting to Architect.
  - 1. Format: One (1) set of film positive reproducibles and two (2) sets bluelines of approved reproducibles.
  - 2. In addition, provide the Owner with one (1) set of Record Drawings on a non-rewritable CD in AutoCAD® latest release.
  - 3. Provide one set of as-built specifications identifying selected manufacturers.

#### **1.11 EXTRA STOCK, MATERIALS AND MAINTENANCE PRODUCTS**

- A. Furnish extra stock, maintenance, and extra products in quantities specified in individual specification sections.
- B. Deliver to Project site and place in location as directed by Owner; obtain signed receipt from Owner's authorized representative prior to final application for payment. Delivery of materials to, or obtaining receipt from anyone other than Owner's authorized representative may constitute breach of this requirement and may require delivery of additional materials at no cost to the Owner if original materials are misplaced.
- C. Include signed receipts for delivery of extra stock and materials, including keys, with Closeout Documents.

#### **1.12 WARRANTIES, CERTIFICATES AND BONDS**

- A. Definitions:
  - 1. Standard Product Warranties: preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.
  - 2. Special Warranties: written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide coverage of specific defects, or both.
- B. In accordance with the general warranty obligations under Paragraph 3.5 of the General Conditions as amended by the Supplementary Conditions, the General Contractor's warranty shall be for a period of one (1) year following the date of Substantial Completion, hereinafter called the one-year warranty period. The Contractors one-year general warranty shall include all labor, material and delivery costs required to correct defective material and installation. This warranty shall not limit the Owner's rights with respect to latent defects, gross mistakes, or fraud.
- C. The Contractor's one-year warranty shall run concurrently with the one (1) year period for correction of Work required under Paragraph 12.2 of the General Conditions.

- D. In addition to the Contractors one-year warranty, Special Warranties as described in individual specifications sections, shall extend the warranty period for the period specified without limitation in respect to other obligations which the Contractor has under the Contract Documents.
- E. Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve the suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.
- F. Warranty Requirements:
  - 1. When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.
  - 2. When Work covered by a warranty has failed and been corrected by replacement or reconstruction, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
  - 3. Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.
  - 4. Written warranties made to the Owner are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.
  - 5. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or designated portion of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.
- G. Compile copies of each required warranty properly executed by the Contractor and the subcontractor, supplier, or manufacturer. Verify documents are in proper form, contain full information, and are notarized. Co-execute warranties, certificates and bonds when required and include signed warrantees with Closeout Documents submitted to the Architect.
- H. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.

### **1.13 FINAL COMPLETION AND FINAL PAYMENT**

- A. Final Notice and Inspection:
  - 1. When all items on the Punch List have been corrected, final cleaning has been completed, and installed work has been protected, submit written notice to the Architect that the Work is ready for final inspection and acceptance.
  - 2. Upon receipt of written notice that the Work is ready for final inspection and acceptance, the Architect and Engineer will make final inspection.
- B. Final Change Order: When the Project Closeout items described above are successfully completed and the Work is found acceptable to Architect/Engineer and Owner, a Final Change Order will be executed. This Change Order will include any Allowance adjustments as required by the Contract Documents.

- C. Final Application for Payment: When all of the above items are successfully complete, submit to the Architect a final Application for Payment and request for release of retainage.
- D. Release of Retainage: Release of retainage will not be authorized by the Architect until Contractor completes all requirements for close-out to the satisfaction of the Owner and Architect as described herein.

**1.14 TERMINAL INSPECTION**

- A. Immediately prior to expiration of the one (1) year period for correction of the Work, the Contractor shall make an inspection of the work in the company of the Architect and the Owner. The Architect and the Owner shall be given not less than ten (10) days notice prior to the anticipated date of terminal inspection.
- B. Where any portion of the work has proven to be defective and requires replacement, repair or adjustment, the Contractor shall immediately provide materials and labor necessary to remedy such defective work and shall execute such work without delay until completed to the satisfaction of the Architect and the Owner, even if the date of completion of the corrective work may extend beyond the expiration date of the correction period.
- C. The Contractor shall not be responsible for correction of work which has been damaged because of neglect or abuse by the Owner nor the replacement of parts necessitated by normal wear in use.

**PART 2 - PRODUCTS**

Not Used

**PART 3 - EXECUTION**

Not Used

**END OF SECTION**

CLOSE-OUT FORM "A"

SUBCONTRACTOR'S AFFIDAVIT OF RELEASE OF LIEN

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS:

\_\_\_\_\_, being first duly sworn, deposes and says:

1. That he / she is the \_\_\_\_\_ of \_\_\_\_\_, the subcontractor who supplied, installed, and /or erected the work described below, and that, he /she is duly authorized to make this Affidavit and Subcontractor Release:

Project:

Owner: Birdville Independent School District      Architect:   PBK  

Work Performed: \_\_\_\_\_ Specification Section(s): \_\_\_\_\_

2. That all work required under the subject subcontractor of the subject construction project has been performed in accordance with the terms thereof, that all material men, sub-subcontractors, mechanics, and laborers have been paid and satisfied in full and that there are no outstanding claims of any character arising out of the performance of said subcontractor which have not been paid and satisfied in full.
3. That to the best of his / her knowledge and belief, there are no unsatisfied claims for damages resulting from injury or death to any employees, sub-subcontractors, or the public at large arising out of the performance of said subcontract, or any suits or claims for any other damages of any kind, nature, or description which might constitute a lien upon the property of the Owner.
4. That he / she has received full payment of all sums due him / her for materials furnished and services rendered by the undersigned in connection with the performance of said subcontract and has and does hereby release the Owner and the Architect and his consultants and the Contractor from any and all claims of any character arising out of or in any way connected with performance of said subcontract.

ATTEST (If Corporation)

\_\_\_\_\_  
Name of Subcontractor

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
(By) (Title)

-----  
JURAT

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Sworn to and subscribed before me on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

(Seal)

\_\_\_\_\_  
(Notary Public Signature)

CLOSE-OUT FORM "B"

SUBCONTRACTOR HAZARDOUS MATERIAL CERTIFICATE

THE STATE OF \_\_\_\_\_ PROJECT:  
COUNTY OF \_\_\_\_\_ OWNER: Birdville Independent School District  
ARCHITECT: PBK  
SPECIFICATION SECTION(S):

KNOW ALL MEN BY THESE PRESENTS:

\_\_\_\_\_, being first duly sworn, deposes and says that he / she is the \_\_\_\_\_ of \_\_\_\_\_, the subcontractor / supplier who constructed or provided the section(s) of work referenced above, and that he / she is duly authorized to certify to the best of his / her information, knowledge, and belief no asbestos, lead or PCB containing products have been incorporated into the project.

ATTEST (If Corporation)

\_\_\_\_\_  
Name of Subcontractor / Supplier

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
(By) (Title)

-----  
-----  
JURAT

THE STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Sworn to and subscribed before me on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

(Seal)

\_\_\_\_\_  
(Notary Public Signature)

CLOSE-OUT FORM "C"

SUBCONTRACTOR WARRANTY

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS:

\_\_\_\_\_, being first duly sworn, deposes and says:

1. That he / she is the Subcontractor (or the \_\_\_\_\_ of \_\_\_\_\_ the subcontractor) who supplied, installed, and / or erected the work described below, and that, he / she is duly authorized to make this Subcontractor Warranty:

Project:

Owner: Birdville Independent School District      Architect:   PBK  

Work Performed: \_\_\_\_\_ Specification Section(s): \_\_\_\_\_

2. The undersigned Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract are of good quality and new except where otherwise required or permitted by the Contract Documents, that the Work is free from defects not inherent in the quality required or permitted, and that the Work conforms with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The Subcontractor's warranty excludes remedy for damage or defect caused by abuse, modifications not executed by the Subcontractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage.
3. In the event of failure of materials, products, or workmanship, during the specified warranty periods, the Subcontractor shall take appropriate measures to assure correction or replacement of the defective items, whether notified by the Contractor, Owner or Architect.
4. The Subcontractor warrants the work performed for a period of \_\_\_\_\_ months from the date of Substantial Completion, except as follows: \_\_\_\_\_

ATTEST (If Corporation)

\_\_\_\_\_  
Name of Subcontractor

\_\_\_\_\_  
Secretary

(By)

(Title)

JURAT

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Sworn to and subscribed before me on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

(Seal)

\_\_\_\_\_  
(Notary Public Signature)

**SECTION 02 50 00**

**SELECTIVE DEMOLITION**

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable to this Section.

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Partial demolition of existing building(s) as required to accommodate work including, but not limited to:
  - 1. New roofing, flashing and related work.
  - 2. Removal of existing mechanical, electrical, and plumbing items and associated utilities indicated or required, except for electrical work performed by Owner.

**1.2 SUBMITTALS**

- A. Submit the following items.
  - 1. Itemized Demolition Schedule.
  - 2. Detail all demolition methods to be used.

**1.3 PERMITS**

- A. Procure and pay for all necessary permits or certificates required to complete the work specified. Make any and all required notifications and comply with all applicable Federal, State and local ordinances.

**1.4 QUALITY ASSURANCE**

- A. Provide at least one person who shall be present and in charge of the Demolition Work at all times and who shall be thoroughly familiar with all phases of all work performed under this section.
- B. Comply with all pertinent codes and regulations applying to this work. Where cutting or modifications are to be made to existing fire-rated construction, provide temporary closures of fire-resistive materials as required to maintain fire rating until such time as permanent fire-rated improvements are completed.

**1.5 JOB CONDITIONS**

- A. Use all means necessary to prevent the spread of dust during performance of this work. Provide additional clean filters for the existing air handling system serving those areas to remain to protect them from construction dust.
- B. Use all means necessary to protect the existing building to remain from all types of damage, including fire, water damage, and unnecessary interruption of utility services. In the event of damage of any kind, immediately make all repairs and replacements necessary to the approval of the Owner at no additional cost to the Owner.
- C. Motor driven equipment shall have functional mufflers.
- D. Visit the site and examine the existing structure. Note all conditions as to the character and extent of work involved.



## **PART 2 - PRODUCTS**

### **2.1 GENERAL**

- A. Provide all barricades, shoring, and bracing necessary to protect the tenants, workmen, and Public from danger. Barricades shall be sufficiently designed to protect and or exclude the public from all hazards.
- B. All other materials not specifically described but required for proper completion of Work of this Section, shall be as selected by the Contractor subject to the approval of the Owner.
- C. Summary: Provide selective demolition as required.
  - 1. Demolish existing construction, finishes and building components designated to be removed.
  - 2. Protect portions of building adjacent to or affected by selective demolition, providing temporary shoring and other support as required to prevent unwanted collapse or movement or other damage.
  - 3. Remove and legally dispose of demolished materials off-site.
  - 4. Notify Owner at least 24 hours prior to shut-off of existing utilities. Cap off utilities, if any, that are discontinued in use.

### **2.2 DEMOLITION WORK**

- A. Perform demolition work as required to complete the new construction.
- B. Perform demolition work in manner so as to allow Owner's use of existing facility.
- C. Perform demolition work in order to maintain Owner's construction schedule.

### **2.3 REMOVAL OF ROOF MATERIAL AND DECKING**

- A. Roofing debris shall not be permitted to fall on adjoining roof deck in masses to exceed safe carrying capacity of decks. Existing roofs and decks shall be properly protected with plywood under area to be demolished.
- B. Structural or load-supporting members shall not be cut or removed adjacent to existing structures to remain until all loads carried by members have been removed or adequately supported.
- C. The Contractor shall take all precautions necessary to ensure the safety of the building occupants and workers.

## **PART 3 - EXECUTION**

### **3.1 DEMOLITION**

- A. Before commencing the Work of this Section, verify with the Owner that all items to be removed by the Owner have been removed. Schedule the work in a careful manner with all necessary consideration for the Public and the Owner. The owner reserves the right to salvage any items scheduled to be removed. All items of existing equipment and materials or any other item of value shall be brought to the Owners attention prior to demolition.

- B. All material removed under this Contract, which is not to be salvaged or reused, shall become the property of the Contractor and be promptly removed from the site. At all times use movable debris boxes, covered, to convey the material through the building. Do not store or permit debris to accumulate on the site.
- C. Conduct operations so as not to interfere with adjacent occupied spaces, roads, streets, drives, walks, service lines and the like.
- D. Disconnect electric, telephone, gas, water, steam, or other lines as required in accordance with rules and regulations of authorities having jurisdiction, as specified, or as directed by the Architect. Coordinate all disruptions in utility services with Owner. Verify that the utility services to the existing building to remain will continue operation. Relocate and reconnect existing utilities as needed to maintain operation of the existing facility.
- E. Remove all debris from the building premises and leave the construction site "Clean" each day. All debris shall be dumped in an approved disposal facility and all fees for this shall be paid by the Contractor.
- F. Dumpsters shall not overflow and shall be emptied on a regular basis.
- G. Contractor may retain any materials he desires if the Owner has not requested them to be salvaged. Contractor is responsible for completely removing all demolished materials from the site and disposing of them in accordance with all local, State and Federal Regulations.
- H. Keep all pedestrian areas clear for passage at all times.

### **3.2 MAINTAINING TRAFFIC**

- A. Do not close or obstruct streets, sidewalks, parking lots, drives, trash truck passageways, without obtaining Owner's permission. Do not store materials in streets, drives, or outside of construction limits.
- B. Conduct operations with minimum interference with streets, driveways, sidewalks, and adjacent facilities.
- C. Provide, erect, maintain lights, barriers, fences as required to maintain strict security at construction site and prevent unauthorized access to area of construction site. Refer to Section 01501, Temporary Facilities.

### **3.3 UTILITY LINES**

- A. Until acceptance, maintain, preserve existing utilities traversing premises.

### **3.4 PROTECTION OF STRUCTURES, PROPERTY**

- A. Execute demolition work to insure adjacent property against damage which might occur from falling debris or other causes.
- B. Take precautions to guard against movement, settlement, or be liable for such movement, settlement, or collapse; repair promptly such damage when so ordered.
- C. Repair damage to Owner's property or any other person or persons on or off premises by reason of required work.

**3.5 DEBRIS**

- A. Remove, as it accumulates, debris, except as otherwise specified, resulting from demolition operations. Do not store or permit debris to accumulate on site. If Contractor fails to remove debris promptly, Owner reserves the right to have it be removed at Contractor's expense.

END OF SECTION

**SECTION 04 20 00**

**UNIT MASONRY**

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to this Section.

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Concrete masonry units (CMU)
- B. Face brick, including solids.
- C. Mortar, grout, reinforcement, anchorages, flashing, and accessories shown, specified, or required to complete Work.
- D. Contractor performing Work of this Section shall be responsible for performing cast stone work specified in Section 04 72 00.
- E. Calcium silicate masonry units.

**1.2 RELATED WORK**

- A. Section 01 45 23 - Testing and Inspecting Services
- B. Section 04 01 20 – Unit Masonry Cleaning
- C. Section 04 72 00 - Architectural Cast Stone
- D. Section 05 50 00 - Miscellaneous Metals: Steel masonry lintels.
- E. Section 07 21 00 - Building Insulation
- F. Section 07 92 00 - Building Sealants
- G. Section 09 91 00 - Painting and Staining
- H. All Sections of Work built-in, adjacent to, or applied to unit masonry work.
- I. Allowances: Furnish the following under the allowances indicated as specified in Division 1 Section "Allowances":
  - 1. Face Brick

**1.3 REFERENCES**

- A. ASTM International (ASTM)
  - 1. A153, Standard Specification for Zinc Coating (Hot-Dip) on Iron & Steel Hardware
  - 2. A307, Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength
  - 3. A615, Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
  - 4. A706, Standard Specification for Low-Alloy Steel Deformed Bars for Concrete
  - 5. C67, Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile
  - 6. C90, Standard Specification for Loadbearing Concrete Masonry Units

7. C140, Standard Test Methods of Sampling and Testing Concrete Masonry Units and Related Units
8. C144, Standard Specification for Aggregate for Masonry Mortar
9. C150, Standard Specification for Portland Cement
10. C207, Standard Specification for Hydrated Lime for Masonry Purposes
11. C216, Standard Specification for Facing Brick (Solid Masonry Units Made from Clay or Shale)
12. C270, Standard Specification for Mortar for Unit Masonry
13. C331, Standard Specification for Lightweight Aggregates for Concrete Masonry Units
14. C332, Standard Specification for Lightweight Aggregates for Insulating Concrete
15. C404, Standard Specification for Aggregates for Masonry Grout
16. C476, Standard Specification for Grout for Masonry
17. C578, Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation
18. C652, Standard Specification for Hollow Brick (Hollow Masonry Units Made From Clay or Shale)
19. C780, Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry
20. C979, Standard Specification for Pigments for Integrally Colored Concrete
21. D226, Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing
22. D1751, Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types)
23. E119, Standard Test Methods for Fire Tests of Building Construction and Materials

B. Underwriters' Laboratories, Inc. (UL)

#### 1.4 QUALITY ASSURANCE

- A. Where requirements of this Section are in conflict with requirements noted on the Structural Drawings, the Structural Drawings shall take precedence. Refer to Structural Drawings for information on load-bearing CMU walls.
- B. Fire Performance Characteristics: Where indicated or required, provide materials and construction which are identical to assemblies whose fire endurance has been determined by testing in compliance with ASTM E119 by U.L. or other recognized testing and inspection organization or by other means, acceptable to authority having jurisdiction.
- C. Masonry Cleaning: Workers shall have minimum 5 years of masonry cleaning experience, and shall be approved by cleaner manufacturer prior to application of cleaning material, and shall meet with cleaner manufacturer for demonstration and instructions for use of product prior to application.
- D. Single Source Responsibility:
  1. For Masonry Units: Obtain masonry units of uniform texture and color, or a uniform blend within the accepted ranges for those characteristics, from one (1) manufacturer for each different product required for each continuous surface or visually related surfaces.
  2. For Mortar and Grout Materials: Brands of cementitious materials and admixtures, and the source of supply of sand and aggregates shall remain the same throughout the Work where exposed to view and where not scheduled to receive a subsequently applied finish, i.e. parging, painting, etc., unless directed otherwise in writing by the Architect.

3. Contractor's Responsibility: Contractor performing Work of this Section shall be responsible for coordinating with others performing work which is built-in or adjacent to unit masonry work.

## **1.5 SUBMITTALS**

- A. Product Data: Submit schedules, charts, literature, and illustrations to indicate the performance, fabrication procedures, product variations, and accessories.
- B. Samples: Two (2) sets of color chips representing manufacturer's full range of available colors and textures of each face brick for Architect's selection and approval.
- C. Sample Panel(s):
  1. Do not start masonry until Architect has approved samples.
  2. Sample panel shall be 6 feet long by 8 feet high showing selected color range and texture, bonding, joint shape, and quality of workmanship. Include a brick and expansion joint, and any specialty details, such as reveals, soldier courses, etc. Include mock-up of installation of thru-wall flashing at foundation sill and lintel above openings.
  3. Brace and support as required to withstand structural windloads.
  4. A separate panel for each type of masonry and back up wall used is required.
  5. Sample panel(s) shall remain at the jobsite until the approval of the Architect, Owner and commissioning consultant agree it can be removed.
  6. Installed materials shall be visible and integrated into adjacent materials.
- D. Certification: Submit manufacturer's affidavit that materials used in Project contain no asbestos.
- E. Mortar and Grout Mix Designs: Submit two (2) copies of proposed mortar and grout mix designs to Owner's testing laboratory.

## **1.6 PRE-INSTALLATION CONFERENCE**

- A. Refer to Section 01 31 13 – Project Coordination

## **1.7 TESTS AND INSPECTIONS**

- A. Materials and installation of masonry shall be subject to testing and inspection by an independent testing laboratory. Such tests and inspections shall not relieve Contractor of responsibilities for providing materials and procedures which comply with Contract Documents. Promptly remove and replace materials which do not comply.
- B. Owner will select Inspection and Testing Laboratory and will pay for all Work required by Inspection and Testing Laboratory.

## **1.8 DELIVERY, STORAGE AND PROTECTION**

- A. Deliver and store materials in dry protected areas off ground. Keep free of stain or other damage before, during and after installation. Replace any damaged material at no cost to Owner.
- B. During freezing weather, protect masonry units with tarpaulins or other suitable material. Keep free of stain or other damage before, during and after installation. Replace damaged material at no cost to Owner.
- C. Protect reinforcement and accessories from elements.

## **1.9 SITE CONDITIONS**

- A. Cold Weather Protection:
  - 1. No masonry shall be laid when the temperature of the outside air is below 40 degrees F, unless protection measures are employed and pre-approved by the Architect.
  - 2. Protection measures for cold weather erection include maintaining space and masonry unit temperatures of at least 40 degrees F for 48 hours prior to and after erection.
- B. Hot Weather Protection:
  - 1. When the mean daily temperature exceeds 100 degrees F or exceeds 90 degrees F with a wind velocity greater than 8 mph, fog spray all newly constructed masonry until damp, at least three (3) times a day until the masonry is three (3) days old. Each fog spray application shall be at least 3 hours after the previous spray.

## **1.10 BRACING OF MASONRY DURING ERECTION**

- A. All masonry shall be adequately braced at all times during erection.

## **1.11 COORDINATION**

- A. Openings and chases for heating, plumbing, electrical ducts, pipes, and conduits shall be built into masonry walls as required. Provide for installation of bolts, toggles, flashings, beams, anchors, hangers, nailing strips, wall plugs, and frames as required. Consult other trades in advance and make provisions for installation of their work to avoid cutting and patching. Coordinate installation of steel reinforcement for reinforced masonry. Coordinate placement of concrete in masonry beams, lintels, soffits, and pilasters.
- B. Contractor performing Work of this Section shall be responsible for and coordinate with work of Section 07 11 00, Dampproofing Above Grade and all Sections of Work built-in, adjacent to, or applied to unit masonry work.

## **1.12 WARRANTY**

- A. Warrant the Work specified herein for one (1) year against becoming unserviceable or causing an objectionable appearance resulting from either defective or nonconforming materials or workmanship.
- B. Defects shall include, but not be limited to, the following:
  - 1. Noticeable deterioration of unit or mortar finish.
  - 2. Chalking or dusting excessively.
  - 3. Changing color in irregular fashion.
  - 4. Cracking or spalling.
  - 5. Releasing from substrate.
  - 6. Staining or discoloring, including efflorescence.

## **PART 2 - PRODUCTS**

### **2.1 APPROVED MANUFACTURERS**

- A. Specifications are based on products of manufacturers named within the specifications. Other manufacturers must have a minimum of five (5) years experience manufacturing

products equal to those specified and comply with requirements of Division 1 regarding substitutions to be considered.

## 2.2 MATERIALS

- A. Concrete Masonry Units (CMU/Block):
1. Type/Sizes:
    - a. Concealed cavity block and interior block, unless otherwise noted: Regular smooth face units with 8 inch by 16 inch face dimensions as shown on drawings or required, 4 inch, 6 inch, 8 inch, and 12 inch depths as indicated on drawings.
      - 1) Color: Standard
    - b. Exterior exposed block: Regular smooth face units with 8 inch by 16 inch face dimensions as shown on drawings or required, 4 inch, 6 inch, and 8 inch depths as indicated on drawings.
      - 1) Color: Standard
    - c. Exterior exposed burnished block (polished): Integrally colored face units with 8 inch by 16 inch face dimensions as shown on drawings or required, 4 inch, 6 inch, and 8 inch depths as indicated on drawings.
      - 1) Color: As selected by Architect
    - d. Interior exposed burnished block (polished): Integrally colored face units with 8 inch by 16 inch face dimensions as shown on drawings or required, 4 inch, 6 inch, and 8 inch depths as indicated on drawings.
      - 2) Color: As selected by Architect
  2. Integral Water Repellant (In exterior exposed CMU): "Dry-Block Block Admixture" integral water repellant admixture as manufacturer by W.R. Grace & Co., or equal.
  3. Specification: Comply with ASTM C90 (Class D-2 (2 hour) and Class B-4 (4 hour)) block at rated walls)
    - a. Grade: Type N, highest standard for typical cavity block and interior use. Type S, for exterior exposed masonry walls.
    - b. Aggregate: Lightweight in accordance with ASTM C331
  4. Curing: Rotary kiln process.
  5. Provide bullnose units at all outside corners.
  6. Provide bond beams, control joints, jambs, lintels, soaps, cap blocks, and fillers to match and compliment block units as shown or required.
  7. Approved Manufacturers:
    - a. Builders Concrete Products
    - b. Featherlite Building Products
    - c. Headwaters Construction Products
    - d. Innovative Precast Concrete Products (IPC)
    - e. Revels Block & Brick Co., Inc.
    - f. Texas Building Products, Inc.
    - g. Texas Industries, Inc.
    - h. Trenwyth Industries, Inc.
- B. Face Brick: To match adjacent light colored existing brick; comply with the requirements of ASTM C216 or C652, Grade SW, in accordance with the following list, including solids and special shapes as indicated or required (all colors).
1. Brick A: Acme
- C. Flashing and Accessories:
1. Copper Laminated Flashing: See 3.3.1.2.b, application guidelines for locations.
    - a. Flashing: A full sheet of copper weighing five (5) ounces per square foot coated or bonded on both sides with one (1) of the following:
      - 1) Modified asphalt compound coated.



- 2) Asphalt saturated, waterproof glass fiber laminated fabric.
- b. Approved Manufacturers:
  - 1) Advanced Building Products, Inc.
  - 2) Hohmann & Barnard, Inc.
  - 3) Sandell Manufacturing Company, Inc.
  - 4) York Manufacturing, Inc.
- c. Mastic: manufacturer recommended asphalt troweled mastic for sealing copper laminated flashings
2. Asphalt-free Copper Fabric Flashing (Contractor's Option – in lieu of item 2.2.D.1 above):
  - a. Glass fabric scrim bonded to a full sheet of copper for general thru-wall flashing as an alternative to asphalt coated copper specified above and where sealant compatibility is required. Provide manufacturers approved seam tape.
  - b. Approved Product/Manufacturer: Multi-flash 500 as manufactured by York Manufacturing, Inc.; or Copper-Tuff as manufactured by Hohmann & Barnard, Inc. (No substitutions)
3. Membrane Flashing: See 3.3.I.2.a, application guidelines for locations.
  - a. Self-Adhered Flexible Flashing: 40-mil, rubberized asphalt adhesive reinforced flashing with a high density cross laminated polyethylene film. Provide compatible substrate primer as instructed by manufacturer.
  - b. Approved Products/Manufacturers:
    - 1) "TW-Thru Wall Flashing" manufactured by Tamko Waterproofing.
    - 2) "Perm-A-Barrier" manufactured by W. R. Grace & Co.
    - 3) "Blueskin TWF" manufactured by Henry Company
    - 4) "Bitu-Rap" manufactured by Nervastral, Inc.
    - 5) "Air-Shield" manufactured by W.R. Meadows, Inc.
    - 6) "AquaFlash 500" manufactured by Fiberweb.
2. Substrate Primer: as instructed by membrane manufacturer
3. Termination Bar: 1/8 inch thick by 1 inch minimum wide aluminum, w/ pre-punched holes, and self-tapping screws.

D. Mortar:

1. Materials: (Unless stated otherwise on Structural Drawings)
  - a. Portland Cement: ASTM C150, Type 1.
  - b. Hydrated Lime: ASTM C207, TYPE "N", typical. Use TYPE "S" for load-bearing masonry.
  - c. Aggregate: Sand conforming to ASTM C144
  - d. Water: Clean and potable
  - e. Admixtures For Mortar:
    - 1) General: Do not use calcium chloride
    - 2) Integral Water Repellant (In mortar of exterior exposed CMU): "Dry- Block Mortar Admixture" integral water repellant admixture as manufacturer by W.R. Grace & Co., or equal. Note: Water repellent block admixture and mortar admixture are not interchangeable.
2. Mix Design: (Proportions by volume) (Unless stated otherwise on Structural Drawings)
  - a. Typical, Non-load bearing masonry
    - 1) Type: ASTM C270, Type "N"
    - 2) Proportions: 1 part cement, 1 part hydrated lime and 6 parts sand to provide a compressive strength of 750 psi in 28 days. Do not use calcium chloride.
  - b. Load bearing structural masonry

Δ1

- 1) Type: ASTM C270, Type "S"
- 2) Proportions: 1 part cement, 1/2 part hydrated lime and 4-1/2 parts sand to provide a compressive strength of 1800 psi in 28 days. Do not use calcium chloride.

E. Grout:

1. Materials: (Unless stated otherwise on Structural Drawings)
  - a. Hydrated Lime: ASTM C207, TYPE "S"
  - b. Portland Cement: ASTM C150, Type 1.
  - c. Water: Clean and potable
  - d. Aggregates:
    - 1) Course aggregate shall conform to ASTM C404.
    - 2) Fine aggregate shall conform to ASTM C144.
2. Mix Design: (Unless stated otherwise on Structural Drawings)
  - a. Comply with ASTM C476 to provide a compressive strength of 2,500 psi in 28 days, unless noted otherwise. Do not use calcium chloride.
    - 1) Fine Grout: Fine grout conforming to ASTM C476 and consisting of 1 part Portland cement, 0 to 1/10 part lime and 2-1/4 to 3 parts sand by volume.
    - 2) Course Grout Mix: Course grout conforming to ASTM C476 and consisting of 1 part Portland cement, 0 to 1/10 part lime and 2-1/4 to 3 parts sand, and 1 to 2 parts course aggregate.

F. Reinforcement, Anchors and Tie Systems:

1. General: Reinforcement used in all wythes shall be galvanized after fabrication in accordance with ASTM A153, Class B-2.
2. Approved Manufacturers include the following:
  - a. Dur-O-Wal
  - b. Heckmann Building Products
  - c. Hohmann & Barnard, Inc
  - d. Wire-Bond
3. At solid multiple wythe masonry walls and single wythe masonry walls, (Interior partitions) use #9 gauge truss type reinforcing. Pre-fab corners and tees shall be used at all wall corners and intersections; width shall be two (2) inches less than nominal thickness of walls. Dur-O-Wal "Truss" at single wythe; "Trirod" at multiple, or Architect approved equal.
4. At Double Wythe Cavity Walls with Insulation Board: Use Hot-dipped galvanized, #9 gauge truss type with 3/16 inch adjustable pintle wall ties. Width of truss reinforcement shall be 2 inches less than the nominal thickness of wall. 3/16 inch wall tie double eye sections welded at 16 inches o.c. extended as required for insulation thickness. Pre fab corners and tees shall be used at all wall corners and intersections. Dur-O-Wal "Dur-O-Eye", or Architect approved equal.
5. At Masonry Anchored to Steel Spandrel Beam and Columns: Hot-dipped galvanized, No. 315 Anchor and No. 316 Pintle Tie manufactured by Heckmann Building Products, Inc., or Architect approved equal. Anchors detailed on Structural Drawings supersede.
6. At Veneer Brick Anchored to Light Gauge Steel Framing: Hot-dipped galvanized, No. 75HE Pos-i-Tie System utilizing self-tapping screw for steel studs with 5/8 inch barrel length, and 4 inch triangle wire tie for 2 inch cavity manufactured by Heckmann Building Products, Inc., or Architect approved equal. Anchors detailed on structural drawings supersede. Attachment screws shall be corrosion resistant type as recommended by manufacturer to suit application. Adjust wire tie size as required to conform with cavity depth if other than 2 inch.
7. Control Joint Anchor: Equal to Heckmann Building Products, Inc. No. 351 Anchor.

G. Precast Concrete U-Lintels:

1. Concrete Materials:
    - a. Portland Cement: ASTM C150 Type I or III, gray color
    - b. Aggregates: ASTM C33
    - c. Water: potable
    - d. Admixtures: Shall not contain calcium chloride or chloride ions
  2. Reinforcing:
    - a. Deformed Reinforcement: ASTM A615 Grade 40 or 60
    - b. Prestressing Strand: ASTM A416 270 ksi LL
  3. Fabrication:
    - a. Unless specified otherwise, conform to PCI MNL-116
    - b. U-lintel units 14 feet in overall length and shorter shall be made of concrete with a minimum strength of 3500 psi at 28 days.
    - c. U-lintel units exceeding 14 feet in overall length shall be made of concrete with a minimum strength of 6000 psi at 28 days and shall be prestressed concrete.
    - d. Units shall be sand block finish except prestressed, 6 inch wide, and 12 inch wide U-lintels shall be smooth form finished.
    - e. Tolerances shall be per PCI MNL-116
    - f. Minor patching in plant is acceptable provided structural adequacy of units is not impaired
  4. Acceptable Product/Manufacturer: Cast-Crete High Strength Precast Concrete U-lintels as manufactured by Cast-Crete, Tampa, FL (800) 999-4641, and locally distributed by Headwaters, (713) 365-9077.
- H. Miscellaneous Materials: (As shown or required)
1. Reinforcing Steel: ASTM A615, Grade 60.
  2. Forms: Form grade plywood with wood studs and wales as required.
  3. Shores: Patented shores of design and manufacture sufficient to safely support imposed loads.
  4. Premolded Filler: Fibrous mastic strips containing 35 percent to 50 percent asphaltic impregnation, ASTM D1751.
  5. Flashing Cement: "Nervaplast" cold setting mastic manufactured by Nervastral, Inc., or Architect approved equal.
  6. Building Felt: No. 15 asphalt saturated felt, ASTM D226.
  7. Dovetail Anchors: 16 gauge galvanized dovetail corrugated masonry anchor, 1 inch x 3-1/2 inch manufactured by AA Wire Products Co., Heckman Building Products, Inc., Dur-O-Wal, Inc., Hohmann & Barnard, Inc., Masonry Reinforcing Corporation of America, or Architect approved equal.
  8. Steel Shapes and Plates: As shown on drawings and specified in Section 05 50 00, Miscellaneous Metals.
  9. Headed Stud Anchor: Welded by full-fusion process as furnished by TRW Nelson Stud Welding Division, or Architect approved equal.
  10. Bolts: ASTM A307. Furnish with carbon steel washers.
  11. Deformed Bar Anchors: Welded by full-fusion process as furnished by TRW Nelson Stud Welding Division, or Architect approved equal.
  12. Reinforcing Bars to be Welded: ASTM A706.
  13. Cavity Drainage Protection: 2 inch thick by 10 inch high by 5 feet long recycled polyester/ polyethylene mesh, trapezoidal-shaped, continuous at foundation, at heads above openings, and shelf angles as indicated on drawings. Provide Mortar Net™ manufactured by Mortar Net USA, Ltd., Gary, IN; (800) 664-6638, or Architect approved equal.
  14. Masonry Color: Iron oxide pigment conforming to ASTM C979 in color(s) selected by Architect, shall be inert, stable to atmospheric conditions, sunfast, weather resistant, alkali resistant, water insoluble, and free of fillers and extenders, as manufactured by ChemSystems, Inc., Davis Colors, Solomon Grind-Chem Service, Inc., or Architect approved equal.

15. Weep Hole Vents: Brick Vent as manufactured by Williams Products, Inc. consisting of Injection molded PVC designed to fit in head joint in an offset "T" shape, allowing air to pass in and water to weep out. Weep hole vents shall be sized to match masonry (may require custom sizing).

I. Architectural Cast Stone: Refer to Section 04 72 00.

### **2.3 MASONRY STRENGTH**

- A. Ultimate compressive strength of masonry as required by design and determined by prism tests shall not be less than 1,800 psi, unless stated otherwise in Structural Drawings.

## **PART 3 - EXECUTION**

### **3.1 FORMS AND SHORES**

- A. Provide forms and shores sufficiently strong and rigid as required to support soffits, beams, and lintels during construction.
- B. Build forms to conform to shape, line, and dimension of masonry members as detailed, substantial and sufficiently tight to prevent leakage of mortar, grout or concrete. Properly brace or tie together so as to maintain position and shape.

### **3.2 PREPARATION OF MATERIALS**

- A. Concrete Masonry Units:
  1. Where cutting is required, masonry shall be cut with a sharp masonry saw.
  2. Ensure concrete masonry units to receive sand fill are ready for filling and cutouts are protected from material spillage.
- B. Brickwork: Dampen brick before laying in a manner consistent with the nature of the brick, the mortar, and the weather conditions.
- C. Mortar and Grout:
  1. Use suitable containers for material measurement. Measuring sand by the shovel is not acceptable.
  2. Thoroughly machine mix a minimum of five (5) minutes after all materials are in mixer.
  3. Consistency will completely fill all spaces intended to receive grout.
  4. Use within 2-1/2 hours of initial mixing.
  5. Mortar or grout shall not be used if curing has progressed to yield a stiff consistency.
- D. \Reinforcement:
  1. Reinforcement shall be free from loose rust and other coatings that would reduce the bond.
  2. Cut accurately to length and bend by such methods as will prevent injury to the material.
  3. Straighten out kinks or bends.
- E. Flashing:
  1. Locations: Install in exterior walls to divert moisture within walls to exterior surfaces.
  2. Bed Joints: Coordinate work with Division 4, Masonry. Install flashings between two (2) thin layers of masonry mortar without increasing thickness of mortar joint. Keep outer edge of flashing material ½ inch from exterior face of masonry.

3. Adjacent Work: Protect work by masking, covering, or other precautionary methods. Remove protection when no longer necessary.
4. Separate copper flashing from dissimilar materials.
5. Protect membrane flashing from overexposure to direct sunlight.

### 3.3 INSTALLATION

- A. General:
1. Do not use chipped or cracked concrete masonry units (CMU) and face brick, where exposed to view.
  2. Use masonry saws to cut and fit exposed units.
  3. Exposed masonry at exterior corners shall be solid units.
  4. Clean surface of masonry smooth and free from projections which might puncture or otherwise damage flashing material.
  5. Place through-wall flashing as follows:
    - a. Place on bed of mortar and cover with mortar.
    - b. Provide at steel columns and beams in exterior masonry walls and elsewhere as indicated on the drawings or required.
    - c. Install asphalt laminated copper membrane as base flashing at all exterior cavity walls below weep holes.
    - d. Install at material transitions inside exterior cavity walls, roof edge/exterior wall transitions, masonry joints (control/expansion) inside exterior cavity walls, exterior wall sill/weep conditions, exterior door and window frame perimeters, roof deck/exterior wall transitions, exterior wall penetrations (i.e. pipe, conduit, ducts, etc.). Provide membrane at all joints, holes, gaps or openings to ensure a continuously sealed building envelope.
  6. Lay masonry units plumb, true to line, and with level courses accurately spaced within allowable tolerances.
  7. Do not furrow bed joints.
  8. Stop off horizontal run by racking back in each course; toothing is not permitted.
  9. Adjust units to final position while mortar is soft and plastic.
  10. If units are displaced after mortar has stiffened, remove, clean joints and units and re-lay with fresh mortar.
  11. When joining fresh masonry to set or partially set masonry:
    - a. Remove loose masonry units and mortar
    - b. Clean and lightly wet exposed surface of set masonry prior to laying fresh mortar.
- B. Metal Door Frames: Fill jamb frames solid with mortar. Build in anchors.
- C. Lintels and Bond Beams: Provide reinforced unit type, except where steel lintels are shown. Use reinforcing bars as shown on the drawings. Completely fill in lintel block and bond beams with grout. Provide a minimum of 8 inch bearing at end of lintels.
- D. Corners: Connect corners with No. 9 galvanized wire or corrugated tie using one tie for each 4 inches of nominal wall thickness.
- E. Partition Tops: Allow space at top of horizontal spanning walls for compressible joint back-up and sealant as specified in Sealant section. Anchor top of walls to deck or structure.
- F. Mortar Beds:
1. Place mortar in a manner which will result in the development of adequate bond between the masonry and the reinforcement.
  2. Lay units with full mortar coverage on horizontal and vertical joints in all courses.
  3. Provide sufficient mortar on ends of masonry unit to fill head joints.

4. Rock closures into place with head joints thrown against two adjacent masonry units in place.
  5. Do not pound corners or jambs to fit stretcher units after setting in place.
  6. Where adjustment to corners or jambs must be made after mortar has started to set, remove mortar and replace with fresh mortar.
- G. Mortar Joints and Patterns:
1. Lay CMU in running one-half (1/2) bond pattern, unless noted otherwise.
  2. Lay brick in running one-third (1/3) bond pattern, unless noted otherwise on drawings. Refer to drawings for accent coursing.
  3. Provide flush joints where concealed from view and where dampproofing is scheduled.
  4. Provide standard concave tooled joint where masonry is exposed to view for brick and CMU, typically.
  5. All mortar joints to be of consistent size.
  6. Provide soldier courses where indicated, refer to the elevations.
  7. All horizontal joints shall be concave tooled joint at face of units, unless noted otherwise.
- H. Reinforcement, Anchor and Tie Systems:
1. General:
    - a. Completely embedded in mortar or grout.
    - b. All reinforcement consisting of bars or wire 1/4 inch or less in diameter embedded in the horizontal mortar joints shall have no less than 5/8 inch mortar coverage from the exposed face.
    - c. Where modular brick is used with brick coursing at 16 inches on center, provide ladder reinforcing within each wythe at 16 inches o.c. vertically for exterior wythe and back-up wythe, whether detailed or not. For other than modular brick, refer to Paragraph h. below.
    - d. Veneer anchors at exterior sheathed covered metal stud exterior walls shall be attached on outside face of sheathing using cadmium plated sheet metal screws. Spacing shall be same as stud spacing o.c. horizontally and 16 inches o.c. vertically.
    - e. Veneer anchors at interior brick walls with metal stud back-up shall be the same as Paragraph "d" above, except anchors shall be attached directly to metal stud with recommended corrosion resistant fasteners in accordance with manufacturer's recommendations.
    - f. At intersection of all perpendicular masonry walls provide two (2) vertical rows of ladder type reinforcing at 16 inches o.c. vertically.
    - g. Weld veneer anchors to structural steel in accordance with manufacturer's recommendations. Touch-up steel shop paint and galvanized coating on anchor with proper touch-up paint to match damaged coating in accordance with manufacturer's recommendations.
    - h. In cavity walls with CMU back-up, embed truss type horizontal reinforcement with integral adjustable pintle wall ties every 16 inches o.c. vertically.
    - i. Splices in reinforcement: Splices may be made only at such points and in such manner that the structural strength of the member will not be reduced. Lapped splices shall be eight (8) inches. Welded or mechanical connection shall develop the strength of the reinforcement.
    - j. Corrugated strap ties shall not be used as veneer anchors at exterior or where subject to moisture. Their use in interior, dry conditions are acceptable.
    - k. Place joint reinforcement in the first two (2) bed joints above and the first two (2) bed joints below masonry openings. Extend extra reinforcing two (2) feet beyond jambs.
    - l. Provide masonry ties at floor and roof decks as indicated.

- I. Flashing:
  1. Follow manufacturer's instructions for mechanically fastened installation with a termination bar.
  2. Application Guidelines - Install flashing at the following locations:
    - a. Membrane Flashing: material transitions inside exterior cavity walls, roof edge/exterior wall transitions, masonry joints (control/expansion) inside exterior cavity walls, exterior door and window frame perimeters, roof deck/exterior wall transitions, exterior wall penetrations (i.e. pipe, conduit, ducts, etc.). Provide membrane at all joints, holes, gaps, or openings to ensure a continuously sealed building envelope. Utilize primer on substrates as instructed by manufacturer.
    - b. Copper Flashing: At all horizontal wall flashing, including (but not limited to) exterior wall sill/weep conditions, exterior door and window head/weep conditions, masonry wall cap flashing and masonry wall base flashing.
  3. Apply substrate primer as instructed by membrane manufacturer to suit condition.
  4. Provide drip edge flashing at weep conditions with membrane flashing. Cut membrane flush with outside edge of brick over top of drip edge flashing to alleviate exposure to UV degradation and deterioration of asphalt membrane.
  5. On Horizontal Surfaces: The flashing shall be laid in a slurry of fresh mortar and topped with a fresh full bed of mortar. The flashing shall be cut flush with the exterior face of the wall after being left exposed for inspection purposes only. Flashing shall be carried through the wall, turned up where possible to facilitate drainage through the weepholes, then carried upward across the cavity a minimum of six (6) inches. Flashing will then be secured in back wall with termination bar.
  6. On Vertical Surfaces: Surfaces receiving the flashing shall be sufficiently spotted with asphalt mastic to hold in place until masonry is set. Secure in back wall with termination bar.
  7. Foundation Sill Dampproofing: The flashing for foundation sills shall be laid in a slurry of fresh mortar and topped with a fresh full bed of mortar. The flashing shall be cut flush with the exterior face of the wall after being left exposed for inspection purposes only. Flashing shall be sloped across the cavity and turned up the wall a minimum of ten (10) inches and secured to back wall with termination bar. Where sill and column meet, flashing shall be brought up a minimum of ten (10) inches up the column.
  8. Thru-Wall Flashing: Shall be cut flush with the exterior face of the wall after being left exposed for inspection purposes only. Carry flashing through the wall, turned up where possible to facilitate drainage through the weepholes, then carried upward across the cavity a minimum of six (6) inches, unless noted otherwise, and secure in back wall with termination bar.
  9. Cavity Wall: Flashing shall be laid in a slurry of fresh mortar and topped with a fresh full bed of mortar. Flashing shall be cut flush with the exterior face of the wall after being left exposed for inspection purposes only. Flashing shall be carried through the wall and upward across the cavity a minimum of six (6) inches, unless noted otherwise, and secured in the back wall with termination bar. Vertical membrane joints shall be secured with termination bar as instructed by membrane manufacturer.
  10. Heads and Sills: Flashing for heads and sills shall be cut flush with the exterior face of the wall after being left exposed for inspection purposes only. Flashing shall be carried through the wall and upward across the cavity a minimum of six (6) inches, unless noted otherwise. Head flashing shall be carried six (6) inches beyond both end of the steel lintel. Both head and sill flashing shall be turned up at the sides to form a pan. All corners shall be folded, NOT CUT. Install weepholes.

11. Spandrels: Spandrel flashing shall start from the outside toe of the shelf angle, go up the face of the beam and then through the wall, turned up on the inside not less than two (2) inches. Install weepholes.
  12. Parapet or Coping: Flashing for parapets or coping sills shall be laid in a slurry of fresh mortar and topped with a fresh full bed of mortar. Flashing shall be cut flush with the exterior face of the wall after being left exposed for inspection purposes only. Weepholes shall be installed immediately on top of the flashing.
  13. Lengths: Install flashings without longitudinal joints within walls, if possible. If required materials are not available in a single width, join by lapping material minimum two (2) inches and seal joint throughout its length with adhesive.
  14. End Joints: Avoid end joints in flashing. When end joints are necessary, lap flashing minimum six (6) inches and seal joint continuously with adhesive.
  15. Penetrations: Where anchors, pipes, and inserts penetrate flashing, make opening in flashing snug and seal with adhesive.
  16. Reglet Termination: Insert wedge into place and seal carefully with adhesive
  17. Termination Bar: Install flashing with termination bars in accordance with manufacturer's instructions. Provide 3 coursing at all termination bars, typical.
  18. Top Coat: After flashing material is in place (except in masonry joints where bond and mortar is required) trowel full 1/8 inch protective coating or mastic on all flashing faces.
- J. Laying Masonry: Lay units plumb, level, and true to line with full head and bed joints. Butter ends of masonry with sufficient mortar to fill head joints. Do not furrow bed joints. Slope top of bed joint toward center of wall to minimize amount of mortar forced into grout space. Remove mortar, protruding from joints into grout space, before pouring grout.
- K. Reinforcing Bars:
1. Hold vertical bars in position at top and bottom and at intervals not exceeding eight 8 feet-0 inches with a minimum clearance of 1/4 inch from masonry and not less than one (1) bar diameter between bars.
  2. When a foundation dowel is not in alignment with a vertical block cell or pilaster, slope it not more than one (1) horizontal in six (6) vertical to bring it into proper alignment before grouting.
  3. Place horizontal reinforcing bars in continuous masonry courses, consisting of bond-beam or trough block units, and solidly grout in place.
  4. Use straight reinforcing bars except for bends around corners and where bends or hooks are detailed on plans.
  5. Lap reinforcing steel 40 bar diameters minimum where spliced and wire together.
- L. Grouting: Where detailed place grout in reinforced masonry beams, walls, columns, and pilasters. All cells and spaces containing reinforcing bars shall be filled with grout. Wherever possible grouting shall be done from inside face of masonry. Exercise extreme care to prevent grout from staining face of masonry. Immediately remove any spilled grout from face and top of masonry.
1. Prior to grouting clean space so that all spaces to be filled with grout do not contain mortar projections greater than 1/2 inch, mortar droppings or other foreign material. Grout shall be placed so all spaces designated to be grouted shall be filled with grout and grout shall be confined to those specific spaces.
  2. Grout materials and water content shall be controlled to provide adequate fluidity for placement, without segregation of constituents and shall be mixed thoroughly.
  3. Between grout pours a horizontal construction joint shall be formed by stopping all wythes at the same elevation and with grout stopping a minimum of 1-1/2 inches below a mortar joint, except at top of wall. Where bond beams occur, stop grout pour a minimum of 1/2 inch below top of masonry.



4. Reinforcement shall be placed prior to grouting. Bolts shall be accurately set with templates or by approved equivalent means and held in place to prevent movement.
5. Segregation of grout materials and damage to masonry shall be avoided during the grouting process. Adequately brace masonry to prevent displacement or cracking during grouting operations.
6. Grout shall be consolidated by mechanical vibrator during placing, before loss of plasticity, in a manner to fill grout space. Grout pours greater than 12 inches shall be reconsolidated by mechanical vibration to minimize voids due to water loss. Grout pours 12 inches or less in height shall be mechanically vibrated, or puddled.
7. Grout shall not be handled nor pumped utilizing aluminum equipment.
8. Size and height limitations of grout space or cell shall be as follows:

GROUT TYPE	GROUT POUR MAX. HEIGHT (FEET)	LEAST CLEAR DIMENSIONS		CLEANOUTS REQUIRED
		Width of Grout Space (In.)	CMU Cell Dim. Dims. (In. x In.)	
Fine	1	3/4	1-1/2 x 2	No
Fine	5	1-1/2	1-1/2 x 2	No
Fine	8	1-1/2	1-1/2 x 3	Yes
Coarse	1	1-1/2	1-1/2 x 3	No
Coarse	5	2	2-1/2 x 3	No
Coarse	8	2	3 x 3	Yes

- a. Clear dimension is the cell or grout space width less mortar projections.
  - b. Grout space width shall be increased by the horizontal projection of the diameters of horizontal bars within the cross section of the grout space.
9. Place grout in lifts not exceeding 8 feet-0 inches.
- M. Concreting: Supervise placing of concrete in cores of masonry beams and lintels and over masonry soffits where structural concrete is detailed. Report discrepancies or procedures which may adversely affect performance of masonry work.
- N. Brick Weepholes:
1. Provide weepholes above all thru-wall flashings where weepholes occur at the base of the wall. The mason shall coordinate the location of the thru-wall flashings with the elevation of the sidewalks and planting beds on the civil engineering drawings. Both weepholes and thru-wall flashings shall be above the first course of brick above the sidewalks and planting beds. Pay particular attention to areas near exterior doors.
  2. Ensure cavity drainage protection is properly installed.
  3. Leave head joint free and clean of mortar.
  4. Spacing: 24 inches on center maximum for modular brick and block, unless shown otherwise.
  5. Keep weepholes and area above flashing free of mortar droppings.
  6. Coordinate weep holes to be located above sidewalks and paving.
- O. Sealant Joints:
1. Allow for sealant joints around outside perimeters of exterior doors, window frames and other wall openings.
  2. Uniform depth: 3/4 inch.
  3. Uniform width: As shown on the drawings but not less than 1/4 inch.
  4. Provide sample for Architect's approval.

5. Refers to drawing for locations and details of accent joints.
- P. Movement Joints (Expansion Joints and Control Joints):
1. Locate expansion and control joints as shown on drawings, or if not shown, comply with the following:
    - a. General:
      - 1) Vertical expansion joints shall be placed in the brick wythe and control joints shall be placed in the concrete masonry wythe, although they do not necessarily have to be aligned.
      - 2) Mortar and joint reinforcement shall not bridge brick movement joints.
      - 3) Mortar joints which stop at the expansion joint cavity shall be struck flush with the masonry unit, producing a continuous flat surface for the sealant to adhere to.
    - b. Vertical Expansion Joints:
      - 1) Locate expansion joints on long straight walls without openings maximum 25 feet-0 inches.
      - 2) Locate expansion joints at the corner of walls perpendicular to one another. In instances, where the joint is not desired at the corner, the expansion joint shall be located within 10 feet-0 inches of the corner in either wall, but not necessarily both. The spacing of expansion joints around a corner shall not exceed the spacing of expansion joints in a straight wall. For example, if the spacing between expansion joints on a straight wall is 25 feet-0 inches, then the spacing of expansion joints around a corner could be 10 feet-0 inches on one side of the corner and 15 feet-0 inches on the other side. Joint reinforcement may be added around wall corners to provide added tensile strength to the corner, but joint reinforcement shall not bridge the expansion joint.
    - c. Offsets and Setbacks:
      - 1) Locate expansion joints at 10 feet-0 inches maximum on one side of the offset or setback. The spacing of expansion joints around an offset or setback shall not exceed the spacing of expansion joints in a straight wall. See expansion joints at corners of perpendicular walls to one another above for example of spacing.
    - d. Openings (Doors and Windows):
      - 1) Locate vertical expansion joints along the edge or jamb of the opening of windows and doors. Single opening windows and doors under 6 feet-0 inches in width shall have expansion joint on one (1) side of the edge or jamb of the opening as determined by the Architect, unless shown otherwise on drawings. Windows and doors 6 feet-0 inches and over in width shall have expansion joints on both sides of the edge or jamb of the opening.
      - 2) Where masonry above an opening is supported by shelf angles attached to the structure, a vertical expansion joint shall be located alongside the opening, continuing through the horizontal support.
      - 3) Where masonry above the opening is supported by loose lintels (unattached to the structure), special detailing and construction is required. If the expansion joint runs along side the opening, the loose steel lintel shall be allowed to expand independently of the masonry. To accomplish this, form a slip plane with flashing located above and below the angle. A backer rod and sealant shall be installed in front of the toe of the angle, and space shall

be left at the end of the angle. Thus, a pocket will be formed which will allow movement of the steel angle within the brickwork. If the joint cannot be built in this manner, then the vertical expansion joint shall not be located alongside the opening, but rather, with Architect's prior approval, the joint shall be located halfway between the openings.

- e. Intersections and Junctions:
  - 1) Locate expansion joints at intersections of masonry walls and walls which serve different functions. If the masonry is not required to be bonded at the intersection, an expansion joint shall be incorporated. Walls which intersect at other than right angles are also vulnerable to cracking at the intersection.
  - 2) Locate expansion joint to separate adjacent walls of different heights to avoid differential movement, especially if the difference is very large.
- f. Parapets:
  - 1) All vertical expansion joints shall be carried through the parapets.
  - 2) Additional expansion joints shall be halfway between those running full height, unless the parapet is reinforced. These additional expansion joints shall continue down to a horizontal expansion joint, or continue to the base of the wall.
- g. Horizontal Expansion Joints:
  - 1) Locate horizontal expansion joints at shelf angles supporting brick masonry.
- h. Control Joints:
  - 1) Locate CMU control joints directly over concrete slab control joints.
  - 2) Whenever possible, lay out CMU so that control joint will coincide with CMU module (25 feet-0 inch maximum spacing between control joints), unless noted otherwise on drawings.
  - 3) Locate control joints at structural columns to isolate movement from continuing or intersecting walls and columns.
  - 4) Install backer rod and sealant in accordance with manufacturer's instructions.

### 3.4 ALLOWABLE TOLERANCES

- A. Maximum Variation from Plumb:
  - 1. In lines and surfaces of columns, walls and at rises:
    - a. 1/4 inch in 10 feet (1:480)
    - b. 3/8 inch in 20 feet (maximum)
    - c. 1/2 inch in 40 feet (1:960)
    - d. For external corners, expansion joints and other conspicuous lines:
    - e. 1/4 inch in 20 feet (maximum)
    - f. 1/2 inch in 40 feet (1:960)
- B. Maximum variation from level:
  - 1. 1/4 inch in any bay or 20 feet
  - 2. 1/2 inch in 40 feet (1:960)

### 3.5 REMOVAL OF FORMS AND SHORES

- A. Do not remove shores and forms under reinforced masonry beams, lintels, and soffits until members have hardened sufficiently to carry their own weight and other super imposed loads. Providing that sufficient curing has taken place, leave forms and shores in place as follows:

1. Beam and lintels: Minimum ten (10) days.
- B. Allow 16 hours to elapse after completion of masonry columns and walls before placing floor or roof construction loads on them. Allow an additional 48 hours before applying concentrated loads such as trusses, girders, and beams.

### **3.6 REPAIRING, POINTING AND CLEANING**

- A. All holes in exposed masonry shall be pointed, and defective joints shall be cut out and re-pointed with mortar.

### **3.7 REPAIR OR REPLACEMENT OF DAMAGED WORK**

- A. Imperfect or damaged work, or any material damaged or determined to be defective before final completion and acceptance of the entire job, shall be replaced at Contractor's expense and in conformity with all requirements of drawings and specifications to the satisfaction of the Owner and Architect. Removal and replacement of masonry work shall be performed in such a manner as not to impair the appearance or strength of the structure in any way.

### **3.8 CLEAN-UP AND PROTECTION**

- A. Clean up all debris caused by work of this Section, keeping the area clean and neat at all times.
- B. Cover all unfinished work at night against the elements with plastic sheeting, building paper, heavy canvas or other material approved by Architect to prevent water from entering cavities.
- C. Provide final protection and maintain conditions, in a manner acceptable to Installer, that ensure unit masonry is without damage and deterioration at time of Substantial Completion.

### **3.9 FIELD QUALITY CONTROL AND TESTING**

- A. Inspection and Testing Laboratory services shall be in accordance with Section 01 45 23, Testing and Inspecting Services.

**END OF SECTION**

**SECTION 07 62 00**

**ROOF RELATED SHEET METAL**

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable to this Section.

**PART I - GENERAL**

**1.1 SECTION INCLUDES**

- A. It is the intent of this Section that the Work shall:
  - 01 conform to all applicable building code requirements and of authorities having jurisdiction;
  - 02 include all shop and field formed sheet metal work shown on drawings, specified or required, including, but not limited to:
    - a. Roof penetration sleeves and hood and umbrella counterflashing
    - b. Metal counterflashing
    - c. Expansion joint
    - d. Roof drains
    - e. Scuppers
    - f. Metal perimeter edge
    - g. Gutters, Downspouts, Splash Blocks and Splash Pans
    - h. One-way roof moisture relief vents
    - i. Metal gravity vents
    - j. Metal heat exhaust vents
    - k. Sanitary vent pipes
    - l. Pipe box
    - m. Copings, trim and miscellaneous sheet metal accessories.
  - 03 be part of the Work of Section 07 52 50, Modified Bitumen Membrane Roofing System; and
  - 04 be performed by a single source contractor.

**1.2 RELATED WORK**

- A. Section 07 41 13 - Prefinished Metal Roofing
- B. Section 07 72 10 - Roof Accessories
- C. All Sections of Work relating to or affecting the roofing system, including mechanical, plumbing and electrical items.

**1.3 REFERENCES**

- A. ASTM International (ASTM)
  - 1. A525, Standard Specification for General Requirements for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process
  - 2. A526, Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Commercial Quality
  - 3. A527, Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Lock-Forming Quality
  - 4. A167, Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip
  - 5. B32, Standard Specification for Solder Metal
  - 6. C1107, Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink)
- B. FM Global (FM)

1. Loss Prevention Data Sheets: I-49, Perimeter Flashing
- C. Federal Specifications (FS)
  1. QQ-L-201
- D. National Association of Architectural Metal Manufacturers (NAAMM)
- E. National Roofing Contractors Association (NRCA)
  1. Roofing and Waterproofing Manual – Latest Edition
- F. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA)
  1. Architectural Sheet Metal Manual – Latest Edition

#### **1.4 SUBMITTALS**

- A. Product Data:
  1. Manufacturer's specifications and other data needed to prove compliance with specified requirements.
  2. Manufacturer's installation instructions.
- B. Shop Drawings: Indicating sizes, configurations, details of attachment to related and adjacent work, materials, and finishes.
- C. Samples:
  1. Full range of finish colors for Architect's selection.
  2. 12 inch long sample of each specified item with approved finish.
  3. Provide full size mockup of all shop built assemblies.

#### **1.5 QUALITY ASSURANCE**

- A. Single Source Responsibility: Fabricator and installer of roof-related flashing and accessories shall be the same as the membrane roof installer.
- B. Comply with governing codes and regulations of authorities having jurisdiction.

#### **1.6 INSTALLATION CONFERENCE**

- A. Refer to Section 01 31 13 – Project Coordination.

#### **1.7 DELIVERY, STORAGE AND HANDLING**

- A. Deliver, handle and store materials in accordance with manufacturer's instructions.
- B. Handle and store materials and equipment in such a manner as to avoid damage.
- C. No storage of materials shall be permitted on roof areas other than those materials that are to be installed the same day. Any exception must be in written form. Do not place materials or equipment in such a manner as to overload structure.

#### **1.8 WARRANTIES**

- A. Manufacturer's Product Warranty:
  1. Manufacturer's standard 20 year Kynar 500 or Hylar 5000 Finish warranty signed by the manufacturer, with guarantee covering any failure of the fluoropolymer finish during the warranty period.
  2. Failure is defined to include, but not be limited to:

- a. Deterioration of finish, such as fading, discoloring, peeling, cracking, corroding, etc.
3. Correction may include repair or replacement of failed product.
- B. Roofing Contractor's Warranty:
  1. Contractor shall warrant the sheet metal work and related work to be free from defects in workmanship and materials, and that the metal flashings will be and remain watertight, for a period of five (5) years from date of Substantial Completion.
  2. Defects shall include, but not be limited to:
    - a. Leaking water or bitumen within building or construction.
    - b. Becoming loose from substrate.
    - c. Loose or missing parts.
    - d. Finish failure as defined above.

## **PART 2 - PRODUCTS**

### **2.1 APPROVED MANUFACTURERS**

- A. Manufacturers named within specification are approved for use on the Project providing:
  1. their products meet or exceed the specifications;
  2. company has a minimum of five (5) years experience manufacturing products of the type specified;
  3. products have been tested in conjunction with roofing membrane system as an assembly and as such has obtained the same approval and rating as the roofing membrane system; and
  4. products are approved for use by the roofing membrane manufacturer.
- B. Substitutions shall be in accordance with Division 1 requirements regarding substitutions.

### **2.2 SHEET METAL MATERIALS**

- A. General Requirements: Roofing sheet metal system shall have been tested in conjunction with roofing membrane system as an assembly and have the same approval and rating as the roofing membrane system.
- B. Prefinished Galvanized Sheet Steel:
  1. Commercial quality with 0.20 percent copper, conforming to ASTM A526, except ASTM A527 for lock forming, with G-90 hot-dip galvanized coating designation.
  2. Thickness: Except as otherwise indicated, minimum 24 gauge. SMACNA recommendations shall govern.
  3. Finish: Kynar 500 or Hylar 5000 in color as selected by Architect from manufacturer's standard colors.
- C. Sheet Lead:
  1. Comply with FS QQ-L-201, Grade B
    - a. Four (4) pound minimum for use at roof drains and soil stacks.
- D. Stainless Steel: ASTM A167, Type 302/304 Soft Temper, No. 2D finish. Minimum thickness 24 gauge, except as otherwise noted.

### **2.3 FASTENERS**

- A. Same metal as flashing/sheet metal or other non-corrosive metal or as noted below.
- B. Exposed fasteners shall be self-sealing and gasketed for weathertight installation. (ZAC type)

- C. Match finish of exposed heads with material being fastened.
- D. Mechanical Fasteners:
  - 1. Nails: Ring shank, minimum 1-1/2 inches in length with 1/2 inch diameter head.
  - 2. Washers: Steel washers with bonded rubber sealing gasket.
  - 3. Screws: Self-tapping sheet metal type of stainless steel or compatible with material being fastened, with integral EPDM washers.
  - 4. Rivets: Stainless steel and cadmium plated material, closed end type of sizes recommended by sheet metal manufacturer to suit application.
- E. Clips:
  - 1. Continuous Cleat (coping/fascia): Minimum 22 gauge, G-90 galvanized finish or stainless steel. Match material of coping/fascia and provide one (1) gauge heavier.

## 2.4 RELATED MATERIALS

- A. Solder: ASTM B32, alloy grade 58, 50 percent tin, 50 percent lead.
- B. Flux:
  - 1. Phosphoric acid type, manufacturer's standard.
    - a. For Use with Steel or Copper: Rosin flux
    - b. For Use with Stainless Steel: Acid-chloride type flux, except use rosin flux over tinned surfaces.
- C. Underlayment:
  - 1. 48 mil minimum, non-reinforced, homogeneous, waterproof, impermeable elastomeric sheeting manufactured by Nervastral, Inc. or Lexsucu.
- D. Adhesives: Type recommended by flashing sheet manufacturer seaming and adhesive application of flashing sheet to ensure adhesion and watertightness.
- E. Metal Accessories: Sheet metal clips, straps, anchoring devices, clamps and similar accessories required for the complete installation of work, matching or compatible with material being installed, non-corrosive, size and gauge recommended by installer to suit application and performance.
- F. Sealant:
  - 1. Type A:
    - a. Type: One-part, non-sag, moisture-curing polyurethane sealant.
    - b. Approved Products/Manufacturers: "Chem-Calk 900" manufactured by Bostik Construction Products Division, "Vulkem 921" manufactured by Mameco International, Inc., "Dynatrol I" manufactured by Pecora Corporation, "NP 1" manufactured by Sonneborn Building Products, or approved equal.
  - 2. Type B:
    - a. Type: One-part, neutral-curing, medium-modulus silicone sealant for sealing metal to metal surfaces, i.e. metal edge, cover plates, etc.
    - b. Approved Products/Manufacturers: "Chem-Calk 1200" manufactured by Bostik Construction Products Division, "795 Silicone Building Sealant" manufactured by Dow Corning Corporation, "895 Silicone" manufactured by Pecora Corporation, "Omniseal" manufactured by Sonneborn Building Products, "Spectrem 2" manufactured by Tremco Incorporated, or approved equal.



- G. Liquid applied flashing system:
  - 1. Type: Fast cure liquid membrane flashing system, approved by Soprema
  - 2. Approved products/Manufacturers: "Alsan flashing system" manufactured by Soprema, Inc or approved equal.
- H. Termination Bar:
  - 1. Material: Extruded aluminum bar with flat profile.
  - 2. Size: 1/8 inch thick by one (1) inch wide with factory punched 1/4 inch x 3/8 inch oval holes spaced six (6) inches on center.
  - 3. Approved Product/Manufacturer: "TB 125" manufactured by TruFast Corp., or approved equal.
- I. Pipe Hangers and Supports: Refer to Section 07 72 10, Roof Accessories.
- J. Splash Blocks: Concrete type, of size and profiles indicated; minimum 3,000 psi compressive strength at 28 days, with minimum five (5) percent air entrainment. Use at locations where roof drainage dumps on ground.
- K. Splash Pans: 22 gauge stainless steel, of size and profiles indicated. Use at locations where roof drainage discharges over adjoining, lower roof level(s).
- L. One-Way Moisture Relief Vents: Shall be fabricated from spun aluminum as recommended by Roofing Manufacturer.

## 2.5 FABRICATION

- A. Except as otherwise indicated, fabricate work in accordance with SMACNA Architectural Sheet Metal Manual and other recognized industry practices and reviewed shop drawings. Form all flashings, receivers and counterflashings in accordance with standards set forth in the NRCA roofing manual and SMACNA.
- B. Comply with manufacturer's installation instructions and recommendations.
- C. Unless noted otherwise, fabricate perimeter edge/fascia, scuppers, gutters, downspouts, copings, and trim from pre-finished aluminum sheet.
- D. Shop fabricate work to greatest extent possible. Fabricate inside and outside corners for metal edges, counterflashing, and coping caps.
- E. Fabricate items to size and dimensions as indicated on the drawings. Limit single-piece lengths to ten (10) feet.
- F. Fabricate for waterproof and weather-resistant performance; with expansion provisions for running work sufficient to permanently prevent leakage, damage or deterioration of the work.
- G. Integrate flashing in a manner consistent with detailing. Form work to fit substrates.
- H. Make angle bends and folds for interlocking metal with full regard for expansion and contraction to avoid buckling or fullness in metal after installation.
- I. Fabricate items with straight lines, sharp angles, smooth curves, and true levels. Avoid tool marks, buckling, and oil canning.
- J. Fold back edges on concealed side of exposed edge to form hem.

- K. Unless noted otherwise, lap joints minimum one (1) inch. Rivet and solder joints on parts that are to be permanently and rigidly assembled.
- L. Seams:
  - 1. Wherever possible, fabricate non-moving seams in sheet metal with flat-lock seams and end joints.
  - 2. Pre-finished Steel Metal: Seal pre-finished metal seams with rivets and silicone sealant.
  - 3. Metal Other than Aluminum: Tin edges to be seamed, form seams, and solder.
- M. On Kynar 500 or Hylar 5000 pre-finished metal, surface sand metal flanges prior to applying any primers. Prime all metal in contact with bituminous material.
- N. Backpaint all concealed metal surfaces with bituminous paint where expected to be in contact with cementitious materials or dissimilar metals.
- O. Expansion Provisions: Where lapped or bayonet type expansion provisions in work cannot be used or would not be sufficiently waterproof or weatherproof, form expansion joints of intermeshing hooked flanges, not less than one (1) inch deep filled with mastic sealant concealed within joints.

## 2.6 FABRICATED ITEMS

- A. Metal Flashings: (Minimum ten (10') foot lengths)
  - 1. Through wall Receiver Tray: Minimum 24 gauge stainless steel, through wall receivers shall not extend past the face of the exterior veneer more than  $\frac{3}{4}$ ".
  - 2. Counterflashing: Minimum 24 gauge pre-finished galvanized metal.
- B. Wind Clips: Minimum 24 gauge to match material of counterflashing, one (1) inch wide by length to engage counterflashing a minimum of 1/2 inch. To be installed at all wall flashings and at curb flashing lengths longer than 5 feet.
- C. Metal Edge:
  - 1. Minimum 24 gauge pre-finished galvanized metal formed in maximum ten (10) foot lengths, with six (6) inch wide cover plates of same profile, four (4) inch flange, maximum seven (7) inch fascia, including a 3/4 inch gravel stop. For fascias over (7) inches a two (2) piece fascia with separate cleat will be required.
  - 2. Provide expansion slip joints at maximum 20 feet on center.
  - 3. Shop fabricate all interior and exterior corners. Fabricate exterior corners with 18 inch minimum to four (4) foot maximum legs. Lap, rivet, and seal prior to delivery to jobsite.
  - 4. Fabricate to sizes and dimensions as indicated on drawings with a minimum one (1) inch coverage past top of wall. Refer to SMACNA Fig. 2-5A.
  - 5. Provide mock-up for Architect's approval prior to fabrication.
- D. Continuous Cleats: Continuous strips, same material and profile, minimum one gauge heavier of item which cleats attach.
- E. Vent Hoods, Sleeves, Penetration Flashings, and Accessories: Minimum 24 gauge galvanized metal, or as shown or directed otherwise.
- F. Angle Termination Bar: One (1) inch x one (1) inch 24 gauge galvanized steel.
- M. Vent Pipe Flashing: Liquid applied flashing system fast cure liquid membrane flashing system, approved by Soprema

- G. Roof Drain Flashing: Four (4) pound lead, minimum 36 inches by 36 inches.
- H. Coping:
  - 1. 24 gauge pre-finished galvanized metal, with six (6) inch wide cover plates of same profile.
  - 2. Fabricate as outlined in SMACNA; Refer to Figure 3-4 A.
  - 3. Provide tapered substrate to slope to one (1) side, and cover with waterproof membrane.
  - 4. Install with continuous cleat one (1) side and fasten other side.
- I. Gutters, Downspouts and Collector Heads:
  - 1. Gutters and Downspouts: 24 gauge pre-finished galvanized metal formed in maximum ten (10) foot lengths, with six (6) inch wide cover plates. Minimum five (5) inch x six (6) inch box gutter (verify size meets rainfall data per SMACNA).
  - 2. Gutter/Downspout Straps: Minimum 24 gauge pre-finished (match color of gutter) galvanized metal. Hem both sides.
  - 3. Gutter Supports: 24 gauge pre-finished galvanized steel. Hemmed around 1/8 inch galvanized bent steel bracket.
  - 4. Gutter Screen: Stainless steel 1/4" diamond wire screen enclosed in a pre-finished steel frame.
  - 5. Collector Head: 24 gauge pre-finished galvanized metal. As outlined in SMACNA; Refer to Figure 1-25F and Figure 1-28 with alternate Section A-A.
- J. Pipe Box Cover: 24 ga. stainless steel.
- K. Heat Exhaust Curbs and Hoods: 22 gauge stainless steel.
- L. Expansion Joint Cover: Minimum 24 ga. pre-finished galvanized metal.

### **PART 3 - EXECUTION**

#### **3.1 EXAMINATION**

- A. Verify substrates are smooth and clean to extent required to perform sheet metal work.
- B. Verify roof openings, curbs, pipes, sleeves, ducts or vents through roof are solidly set in place.
- C. Verify that reglets, nailers, cants, and blocking to receive sheet metal are in place and free of concrete and soil.
- D. Do not start work until conditions are satisfactory.

#### **3.2 PREPARATION**

- A. Field measure site conditions prior to fabrication work.
- B. Install starter and edge strips and cleats before starting installation.

#### **3.3 INSTALLATION**

- A. Install sheet metal with lines, arises, and angles sharp and true, and plane surfaces free from objectionable wave, warp, or buckle. Exposed edges of sheet metal shall be folded back to form 1/4 inch hem on concealed side from view. Finished work shall be free from water retention and leakage under all weather conditions. Pre-fabricated corners or

transitions are required at changes in direction, elevation, or plane and at intersections. Locate field joints not less than 12 inches, nor more than three (3) feet from actual corner. Laps shall be one (1) inch, riveted and soldered at following locations:

1. Pre-fabricated corners;
  2. transitions;
  3. changes in direction, elevation, and plane; and
  4. at intersections.
- B. Anchor units of work securely in place to prevent damage or distortion from wind or buckling. Provide for thermal expansion of metal units; conceal fasteners wherever possible; and set units true to line and level as indicated. Install work with laps, joints, and seams which are permanently watertight and weatherproof.
- C. Install fabricated sheet metal items in accordance with manufacturer's installation instructions and recommendations and with SMACNA Architectural Sheet Metal Manual.
- D. Separations: Provide for separation of metal from dissimilar metal or corrosive substrates by coating concealed surfaces with zinc chromate, bituminous coating, or other permanent separation at locations of contact as recommended by manufacturer or fabricator. Do not use materials which are incompatible with roofing system.
- E. Continuous Cleat: At exposed edges of perimeter edge, fascias, cap flashings, and where required, attach continuous cleat at six (6) inches on center with appropriate fasteners.
- F. Gravel Guard/Fascia:
1. Install with expansion joints 10 feet o.c., 1/2 inch expansion leeway, with cover plate. If required install two piece fascia stagger cover plates 5 feet o.c.
  2. Set in asphalt mastic and fasten into nailer at 3 inches o.c. staggered.
  3. Buff sand Kynar surface of flange and prime.
  4. Strip in flange with specified stripping plies in hot bitumen extending 6 inches from the outer edge of the flange and butt base of gravel stop.
- G. Counterflashing:
1. Do not use surface mount counterflashing
  2. Set in through wall with receiver and spring lock counterflashing, as detailed in drawings and to NRCA roofing manual, SMACNA standards.
  3. Coordinate installation of through-wall flashing with the masonry contractor.
  4. Seal through-wall in conjunction with masonry wall waterproofing.
  5. Install wind clips 30 inches o.c. at all counterflashing over five (5) feet in length.
- H. Liquid Resin Flashing:
1. Clean all substrate and projections enclosed in resin flashing in any manner suitable and coated with a primer coating as approved by the manufacture. Flashing resin must be installed within 4 hours of primer.
  2. Install base coat of resin flashing, roll reinforcement fleece into wet resin pressing trapped air free with roller. Install top layer of resin flashing as approved by the manufacture.
- I. Sanitary Vent Stacks:
1. Clean all substrate and projections enclosed in resin flashing in any manner suitable and coated with a primer coating as approved by the manufacture. Flashing resin must be installed within 4 hours of primer.
  2. Install base coat of resin flashing, roll reinforcement fleece into wet resin pressing trapped air free with roller. Install top layer of resin flashing as approved by the manufacture.

- J. Roof Drains:
1. After membrane installation, prime bottom of lead flashing sheet and set in uniform bed of plastic roof cement at specified locations.
  2. Extend lead flashing into drain bowl or pipe a minimum of two (2) inches and over top of piping/bowl connection, if possible. Apply a continuous bead of specified Type A sealant, at intersection of pipe and drain bowl.
  3. If drain bowl and pipe connection is contaminated with bituminous material, strip-in area with three (3) coursing of plastic roof cement and fabric.
  4. Prime top of lead flashing sheet to receive strip-in membrane.
- K. Expansion Joint:
1. Construct wood curbs as shown on drawings and as outlined in the NRCA and SMACNA Manuals.
  2. Install underlayment, form envelope, and secure underlayment to curb. Fill envelope with compressible insulation.
  3. Securely fasten expansion joint cover to curb with grommetted fasteners spaced six (6) inches on center.
  4. Taper expansion joint down at the metal edge.
- L. Gutters, Downspouts and Collector Heads:
1. Install gutters as detailed.
  2. Install downspouts plumb and level, attached to columns or wall with straps located at top and bottom of downspout and maximum ten (10) feet on center.
  3. Install splash pad or block under discharge port of downspouts. Install splash pan over a protection (walkway) pad for downspouts located at roof level.
  4. End Caps, Downspout Outlets, Gutter and Downspout Straps, Support Brackets and joint fasteners to be manufactured to suit profile and dimension of gutter and downspout.
  5. Install all anchoring devices as outlined in SMACNA.
  6. Expansion Joints: Lap or Butt type per SMACNA, locate every 50 linear feet.
- M. Coping:
1. Install wood nailers as shown on drawings.
  2. Install metal cleats with appropriate fasteners spaced six (6) inches on center.
  3. Install underlayment over the wood substrate. Lap ends minimum of six (6) inches and secure membrane in place. Seal laps with appropriate adhesive.
  4. Install metal coping allowing 1/2 inch spaces between segments. Lock coping onto cleat and install appropriate fasteners through the interior fascia spaced 24 inches on center in enlarged holes.
  5. Install cover plate centered over coping joint in continuous beads of specified Type B sealant, placed approximately one (1) inch from cover edges. Refer to SMACNA for alternate joints as required by length.
  6. Install appropriate fastener through neoprene washer and cover plate between coping segments.
  7. Accommodate building wall expansion joints by terminating coping joints and cleats either side of expansion joint. Do not run coping or cleats continuous across joints. Install coping cover plate to span across joint and lap coping on each side of joint a minimum of four (4) inches. Fasten cover plate on one (1) side of joint only. (Provide wall flashing membrane up and over parapet wall in accordance with manufacturer's detail.)

### 3.4 CLEANING AND PROTECTION

- A. Remove flux and residual acid immediately by neutralizing with baking soda and washing with clean water. Leave work clean of stains.

- B. Remove scraps and debris and leave work area clean.
- C. Clean exposed metal surfaces, removing substances which might cause corrosion of metal or deterioration of finishes. Paint areas where finish is damaged on pre-finished metal by painting with a compatible paint in color to match undamaged finish.
- D. Prime soldered area of phosphatized metal after cleaning to prevent rusting.
- E. Paint metal flashings that have been soiled with bitumen with aluminized paint.
- F. Clean other work damaged or soiled by Work of this Section.
- G. Protect finished work from damage.

END OF SECTION

**SECTION 07 65 00**

**FLEXIBLE FLASHING**

**PART 1 – GENERAL**

**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

**1.2 SECTION INCLUDES**

- B. Provide flexible flashing where shown on drawings or required.

**1.3 RELATED SECTIONS**

- A. Section 04 20 00 – Unit Masonry
- B. Section 07 27 26 – Fluid Applied Air Barrier System

**1.4 SUBMITTALS**

- A. Product Data:
  - 1. Manufacturer's specifications and other data needed to prove compliance with specified requirements.
  - 2. Manufacturer's installation instructions.
- B. Certification: Manufacturer's affidavit that materials used in Project contain no asbestos.
- C. Compatibility: Submit letter from primary Fluid Applied Air Barrier System Manufacturer stating that materials proposed for use are permanently chemically compatible and adhesively compatible with adjacent materials proposed for use. Submit letter from Manufacturer stating that cleaning materials used during installation are chemically compatible with adjacent materials proposed for use.

**PART 2 - PRODUCTS**

**2.1 ACCEPTABLE MANUFACTURER**

- A. Manufacturers listed whose products meet or exceed the specifications are approved for use on the Project. Flexible flashing materials used shall be compatible with and not void any warranties of the air barrier system used. Other manufacturers must have a minimum of five (5) years' experience manufacturing products meeting or exceeding the specifications and comply with Division 1 requirements regarding substitutions to be considered.

**2.2 MATERIALS**

- A. Flashing:
  - 1. Copper Laminated Flashing:
    - a. Flashing: A full sheet of copper weighing five (5) ounces per square foot coated or bonded on both sides with one (1) of the following:
      - 1) Modified asphalt compound coated.
      - 2) Asphalt saturated, waterproof glass fiber laminated fabric.
    - b. Approved Manufacturers:
      - 1) Advanced Building Products, Inc.

- 2) Hohmann & Barnard, Inc.
    - 3) Sandell Manufacturing Company, Inc.
    - 4) York Manufacturing, Inc.
  - c. Mastic: Manufacturer recommended asphalt troweled mastic for sealing copper laminated flashings
2. Asphalt-free Copper Fabric Flashing (Contractor's Option – in lieu of item above):
  - a. Glass fabric scrim bonded to a full sheet of copper for general thru-wall flashing as an alternative to asphalt coated copper specified above and where sealant compatibility is required. Provide manufacturers approved seam tape.
  - b. Approved Product/Manufacturer: Multi-flash 500 as manufactured by York Manufacturing, Inc.; or Copper-Tuff as manufactured by Hohmann & Barnard, Inc. (No substitutions)
3. Membrane Flashing:
  - a. Self-Adhered Flexible Flashing: 40-mil, rubberized asphalt adhesive reinforced flashing with a high density cross laminated polyethylene film. Provide compatible substrate primer as instructed by manufacturer.
  - b. Approved Products / Manufacturers:
    - 1) "TW-Thru Wall Flashing" manufactured by Tamko Waterproofing.
    - 2) "Perm-A-Barrier" manufactured by W. R. Grace & Co.
    - 3) "Blueskin TWF" manufactured by Henry Co.
    - 4) "Bitu-Rap" manufactured by Nervastral, Inc.
    - 5) "Air-Shield" manufactured by W.R. Meadows, Inc.
    - 6) "AquaFlash 500" manufactured by Fiberweb.
4. Substrate Primer: as instructed by membrane manufacturer
5. Termination Bar: 1/8 inch thick by 1 inch minimum wide stainless steel, w/ pre-punched holes and self-tapping screws.
6. Weathering Flange at Door / Window Openings: Provide a 20 gauge (0.040") stainless steel or .040 aluminum 2"x3" weathering flange at head, jamb and under sill pan of storefront window and hollow metal door systems. Screw into wood blockings or substrate walls and strip into existing air barrier system.

### **PART 3 - EXECUTION**

#### **3.1 INSTALLATION**

- A. Flashing:
  1. Follow manufacturer's instructions for mechanically fastened installation with a termination bar.
  2. Application Guidelines - Install flashing at the following locations:
    - a. Membrane Flashing: material transitions inside exterior cavity walls, roof edge / exterior wall transitions, masonry joints (control/expansion) inside exterior cavity walls, exterior door and window frame perimeters, roof deck / exterior wall transitions, exterior wall penetrations (i.e. pipe, conduit, ducts, etc.). Provide membrane at all joints, holes, gaps, or openings to ensure a continuously sealed building envelope. Utilize primer on substrates as instructed by manufacturer.
    - b. Copper Flashing: At all horizontal wall flashing, including (but not limited to) exterior wall sill / weep conditions, exterior door and window head / weep conditions, intermediate and / or shelf angles, masonry wall cap flashing and masonry wall base flashing.
  3. Apply substrate primer as instructed by membrane manufacturer to suit condition.



4. Provide drip edge flashing at weep conditions with membrane flashing. Cut  $\frac{1}{4}$ " to  $\frac{1}{2}$ " behind with outside edge of brick over top of drip edge flashing to alleviate exposure to UV degradation and deterioration of asphalt membrane.
5. On Horizontal Surfaces: The flashing shall be laid in a slurry of fresh mortar and topped with a fresh full bed of mortar. The flashing shall be cut  $\frac{1}{4}$ " to  $\frac{1}{2}$ " behind the exterior face of the wall after being left exposed for inspection purposes only. Flashing shall be carried through the wall, turned up where possible to facilitate drainage through the weepholes, then carried upward across the cavity a minimum of six (6) inches. Flashing will then be secured in back wall with termination bar.
6. On Vertical Surfaces: Surfaces receiving the flashing shall be sufficiently spotted with asphalt mastic to hold in place until masonry is set. Secure in back wall with termination bar.
7. Foundation Sill Dampproofing: The flashing for foundation sills shall be laid in a slurry of fresh mortar or in a full bed of mastic and topped with a fresh full bed of mortar. The flashing shall be cut  $\frac{1}{4}$ " to  $\frac{1}{2}$ " behind the exterior face of the wall after being left exposed for inspection purposes only. Flashing shall be sloped across the cavity and turned up the wall a minimum of ten (10) inches and secured to back wall with termination bar. Where sill and column meet, flashing shall be brought up a minimum of ten (10) inches up the column.
8. Thru-Wall Flashing: Shall be cut  $\frac{1}{4}$ " to  $\frac{1}{2}$ " behind the exterior face of the wall after being left exposed for inspection purposes only. Carry flashing through the wall, turned up where possible to facilitate drainage through the weepholes, then carried upward across the cavity a minimum of six (6) inches, unless noted otherwise, and secure in back wall with termination bar.
9. Cavity Wall: Flashing shall be laid in a slurry of fresh mortar and topped with a fresh full bed of mortar. Flashing shall be cut  $\frac{1}{4}$ " to  $\frac{1}{2}$ " behind the exterior face of the wall after being left exposed for inspection purposes only. Flashing shall be carried through the wall and upward across the cavity a minimum of six (6) inches, unless noted otherwise, and secured in the back wall with termination bar. Vertical membrane joints shall be secured with termination bar as instructed by membrane manufacturer.
10. Heads, Jambs and Sills: Flashing for heads and sills shall be cut  $\frac{1}{4}$ " to  $\frac{1}{2}$ " behind the exterior face of the wall after being left exposed for inspection purposes only. Flashing shall be carried through the wall and upward across the cavity a minimum of six (6) inches, unless noted otherwise. Head flashing shall be carried six (6) inches beyond both end of the steel lintel. Both head and sill flashing shall be turned up at the sides to form a pan. All corners shall be folded, NOT CUT. Jambs are to be turned into the buildings to complete seal perimeter of window or door. Install weepholes.
11. Wood blockings: Flexible flashings are to cover wood blockings in their entirety.
12. Spandrels: Spandrel flashing shall start from the outside toe of the shelf angle, go up the face of the beam and then through the wall, turned up on the inside not less than two (2) inches. Install weepholes.
13. Parapet or Coping: Flashing for parapets or coping sills shall be laid in a slurry of fresh mortar and topped with a fresh full bed of mortar. Flashing shall be cut  $\frac{1}{4}$ " to  $\frac{1}{2}$ " behind the exterior face of the wall after being left exposed for inspection purposes only. Weepholes shall be installed immediately on top of the flashing.
14. Lengths: Install flashings without longitudinal joints within walls, if possible. If required materials are not available in a single width, join by lapping material minimum two (2) inches and seal joint throughout its length with adhesive.
15. End Joints: Avoid end joints in flashing. When end joints are necessary, lap flashing minimum six (6) inches and seal joint continuously with adhesive.
16. Penetrations: Where anchors, pipes, and inserts penetrate flashing, make opening in flashing snug and seal with adhesive.
17. Reglet Termination: Insert wedge into place and seal carefully with adhesive.

18. Termination Bar: Install flashing with termination bars in accordance with manufacturer's instructions. Provide 3 coursing at all termination bars, typical.
  19. Top Coat: After flashing material is in place (except in masonry joints where bond and mortar is required) trowel full 1/8 inch protective coating or mastic on all flashing faces.
- B. Bed Joints: Coordinate work with Division 4, Masonry. Install thru-wall flashings between two (2) thin layers of masonry mortar without increasing thickness of mortar joint. Keep outer edge of flashing material back 3/4 inch from face of masonry.

### **3.2 APPLICATION**

- A. Protect membrane from overexposure to direct sunlight.
- B. Follow manufacturer's recommendations for installation.
- C. Adjacent Work: Protect work by masking, covering, or other precautionary methods. Remove protection when no longer necessary.

END OF SECTION

**SECTION 07 92 00**

**BUILDING SEALANTS**

CONDITIONS OF THE CONTRACT AND DIVISION 1, as applicable, apply to this Section.

**PART 1 - GENERAL**

**1.1 SECTION INCLUDES**

- A. Exterior sealants and sealants for moving joints, except for joints in those systems listed under Related Work.
- B. Interior caulking.

**1.2 RELATED WORK**

- A. Section 03 30 00 - Cast-In-Place Concrete: Sealants used in conjunction with concrete paving.
- B. Section 07 41 13 - Prefinished Metal Roofing: Sealants used in conjunction with prefinished metal roofing.
- C. Section 07 51 13 – Built-Up Roofing System: Sealants used in conjunction with roofing system.
- D. Section 08 80 00 - Glazed Systems: Sealants used in conjunction with glazed systems.

**1.3 SUBMITTALS**

- A. Product Data:
  - 1. Manufacturer's specifications and other data needed to prove compliance with specified requirements.
  - 2. Manufacturer's installation instructions
- B. Sample: On site sample for Architect's approval of colors.
- C. Certification: Manufacturer's affidavit that materials used in Project contain no asbestos.

**1.4 INSTALLATION CONFERENCE**

- A. Refer to Section 01 31 13 – Project Coordination.

**1.5 REFERENCES**

- A. Federal Specifications (FS)
  - 1. TT-S-00227E
- B. ASTM International (ASTM)
  - 1. C793, Standard Test Method for Effects of Accelerated Weathering on Elastomeric Joint Sealants
  - 2. C794, Standard Test Method for Adhesion-In-Peel of Elastomeric Joint Sealants
  - 3. C834, Standard Specification for Latex Sealants
  - 4. C920, Standard Specification for Elastomeric Joint Sealants

## 1.6 WARRANTY

- A. Warrant the work specified herein for two (2) years against becoming unserviceable or causing an objectionable appearance resulting from either defective or nonconforming materials and workmanship.
- B. Defects shall include, but not be limited to:
  - 1. Leaking
  - 2. Cracking, splitting or releasing from substrate
  - 3. Deterioration or color change

## PART 2 - PRODUCTS

### 2.1 APPROVED MANUFACTURERS

- A. Specifications are based on products and manufacturers named. With the exception of where listed as No Substitutions, other manufacturers must have a minimum of five (5) years experience manufacturing equivalent products to those specified and comply with Division 1 requirements regarding substitutions to be considered.

### 2.2 MATERIALS

- A. Caulking for Exposed Non-Working Interior Locations:
  - 1. Type: Paintable Acrylic Latex conforming to ASTM C834, vertical grade as manufactured by Bostik Construction Products, Huntington Valley, PA; (800) 221-8726, Pecora Corp., Harleysville, PA; (800) 664-7903, Sika Corp., Lyndhurst, NJ; (800) 933-SIKA (7452), or Architect approved equal.
- B. Sealant for All Working Joints and Exposed Exterior Locations:
  - 1. Type: Single Component, Non-Sag Polyurethane Sealant: Sonneborn<sup>(R)</sup>/ChemRex "Sonolastic<sup>(R)</sup> NP 1<sup>(tm)</sup>" with plus or minus 25 percent movement capability for vertical joints; ASTM C920, Type S, Grade NS, Class 25; FS TT-S-00230C, Type II, Class A; USDA approved; SWRI validated; UL classified (fire resistance) as manufactured by Sonneborn/Chemrex, Shakopee, MN; (800) 433-9517. No substitutions.
  - 2. Refer to drawings and Section 04200, Unit Masonry for locations. Provide full sealant joints at building expansion joints.
- C. Primers, Cleaners, Top Coats: Use only materials listed as suitable in resistance to staining, compatibility and durability before proceeding.
- D. Expanded Polyethylene Joint Filler: Provide flexible, compressible, closed-cell, polyethylene of not less than 10 psi compression deflection (25 percent); except provide higher compression deflection strength as may be necessary to withstand installation forces and provide proper support for sealants, surface water absorption of not more than 0.1 pounds per square foot, as manufactured by Sonneborn, or pre-approved equal.
- E. Sealant Backer Rod: Provide compressible rod stack of polyethylene foam, polyurethane foam, polyethylene jacketed polyurethane foam, butyl rubber foam, neoprene foam or other flexible, permanent, durable, non-absorptive material as recommended by sealant manufacturer for back-up of and compatibility with sealant. Where used with hot-applied sealant, provide heat-resistant type which will not be deteriorated by sealant application temperature as indicated.
- F. Bond Breaker Tape: Provide polyethylene tape or other plastic tape as recommended by sealant manufacturer, to be applied to sealant-contact surfaces where bond to substrate or

joint filler must be avoided for proper performance of sealant. Provide self-adhesive tape where applicable.

### **PART 3 - EXECUTION**

#### **3.1 APPLICATION**

- A. **Temperatures:** Do not install sealants when air temperature is under 40 degrees F. Sealants may be warmed to ease installation when recommended by the manufacturer.
- B. **Tooling:** Tool exposed joints to a slightly concave surface using slicking materials recommended by the manufacturer. The tooling procedure shall press sealant against the sides of the groove. No materials shall be left "feathered" out or smeared on the abutting materials. If necessary, protect adjacent surfaces with tape. Completed joints shall have a uniform professional appearance. Use an anti-tack compound on sealant that does not set up fast enough to avoid dust collection.
- C. **Sealant Back-Up:** Provide a back-up filler where groove depth is too great to fill with sealant. Review joint design with Architect.
- D. **Compressive Filler:** Seal vertical expansion joints with fillers. Provide compressible filler twice the width of the joint and with a depth of 1-1/2 times the compressed width. Lap ends 2 inch minimum.

Seal ends together in such a manner to allow natural drainage. Install filler by compressing material and sliding into joint. Align filler on one face of the joint before it expands to the full joint width.

**END OF SECTION**





AREA OF WORK

Aerial View



*C. Mark Seiley*  
02.08.19

**PBK**

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Haltom High School Window  
Waterproofing Repair

DATE: 02/08/19

DRAWING #: ASK-01

DRAWN BY: CG

CHECKED BY: HS

PROJECT NO. : 1960

**BISD**

Birdville Independent School District  
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EXTENTS OF 3 COURSE BRICK REMOVAL, REPLACEMENT, AND WATERPROOFING REPAIR AT THIRD FLOOR WINDOWS

EXTENTS OF 3 COURSE BRICK REMOVAL, REPLACEMENT, AND WATERPROOFING REPAIR AT SECOND AND THIRD FLOOR WINDOWS

REMOVE 3 COURSES OF BRICK OVER WINDOWS TO EXTENTS SHOWN. INSTALL NEW WATERPROOFING PER DETAIL ASK-03. INSTALL NEW BRICK TO EXTENTS SHOWN TO MATCH ADJACENT 'WHITE' OR 'CREAM' COLORED ACME BRICK BAND.



MATCH NEW BRICK TO 'WHITE' OR 'CREAM' COLORED ACME BRICK BAND COLOR ON THIS FACADE

REMOVE 3 COURSES OF BRICK OVER WINDOWS TO EXTENTS SHOWN. INSTALL NEW WATERPROOFING PER DETAIL ASK-03. INSTALL NEW BRICK TO EXTENTS SHOWN TO MATCH ADJACENT 'WHITE' OR 'CREAM' COLORED ACME BRICK BAND.

EXTENTS OF 3 COURSE BRICK REMOVAL, REPLACEMENT, AND WATERPROOFING REPAIR AT FIRST AND SECOND FLOOR WINDOWS

EXTENTS OF 3 COURSE BRICK REMOVAL, REPLACEMENT, AND WATERPROOFING REPAIR AT FIRST FLOOR WINDOWS



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## Haltom High School Window Waterproofing Repair

DATE: 02/08/19

DRAWING #: ASK-02

DRAWN BY: CG

CHECKED BY: HS

PROJECT NO. : 1960

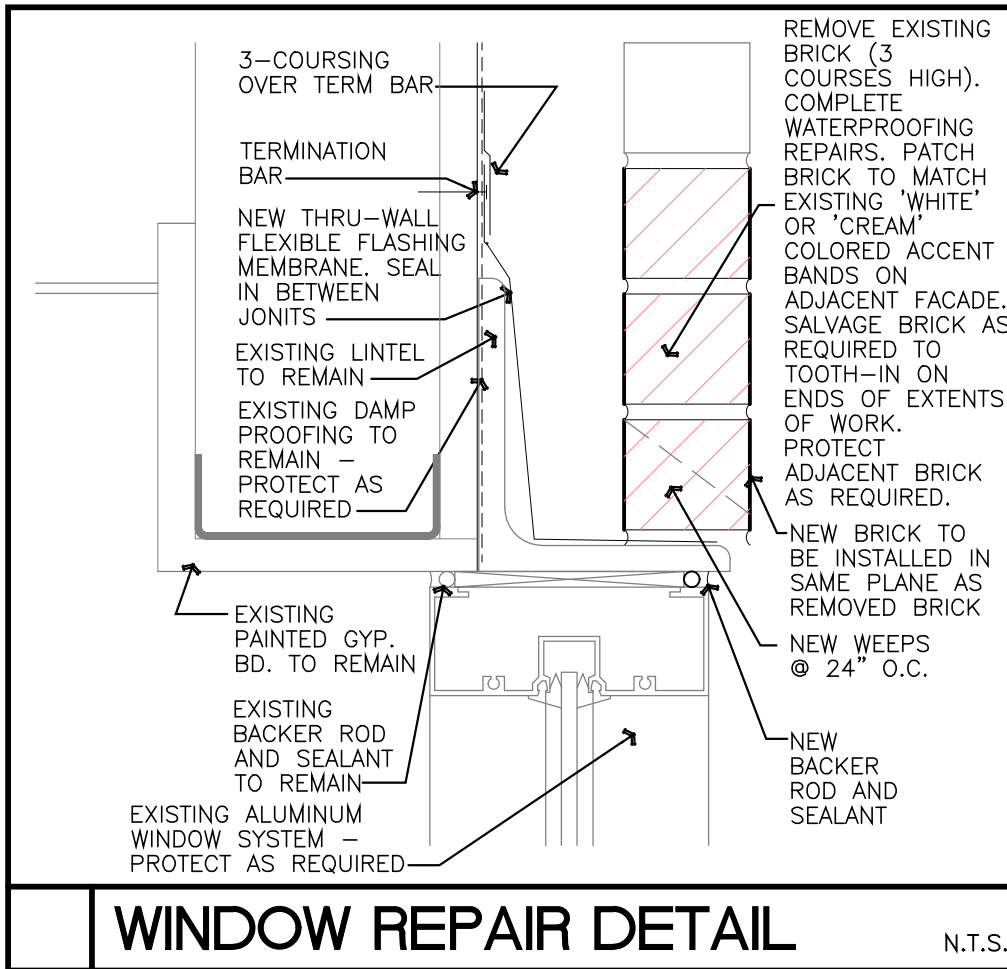


NOTE: DURING BRICK REMOVAL ABOVE WINDOWS, SALVAGE A SUFFICIENT AMOUNT OF EXISTING BRICK AS REQUIRED TO TOOTH-IN FIELD BRICK TO MATCH AT EACH END OF NEW BRICK BANDS ABOVE WINDOWS. PROTECT ALL EXISTING BRICK TO REMAIN AS REQUIRED.



*G. Mark Seley*  
02.08.19





  
*C. Mark Seiley*  
 02.08.19

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**Haltom High School Window Waterproofing Repair**

DATE: 02/08/19

DRAWING #: ASK-03

DRAWN BY: CG

CHECKED BY: HS

PROJECT NO. : 1960

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