



COMPETITIVE SEALED PROPOSAL (CSP)

**Forest Trail Elementary School Fire Sprinkler Renovation Phase II
CSP # 201718-005**

The Eanes Independent School District invites qualified firms to respond to a CSP for Forest Trail Elementary School Fire Sprinkler Renovation Phase II. This Competitive Sealed Proposal can be reviewed and downloaded at the following website:

<http://www.eanesisd.net/departments/business/purchasing>

Competitive sealed proposals will be received by the Eanes Independent School District until 1:00 PM Thursday February 15, 2018, in the Eanes ISD District Operations Center located at 4300 Westbank Drive, Unit 2, Austin, Texas 78746, in accordance with Tex., Local Gvmt. Code 271.025, for the following work:

Forest Trail Elementary School Fire Sprinkler Renovation Phase 2
12303 S Capital of TX Hwy., Austin, Texas 78746

All potential bidders shall attend a pre-bid meeting at 2:00 PM on Friday February 2, 2018 at Eanes ISD District Operations Center located at 4300 Westbank Drive, Unit 2, Austin, Texas 78746. Meeting will take place in the conference room. Attendees should be prepared to check in with ID at the front desk.

Proposals will not be accepted after 1:00 PM on Thursday February 15, 2018.

Proposals will be opened on Thursday February 15, 2018 at 1:10 PM in the EISD District Operations Center Conference Room located at 4300 Westbank Drive, Unit 2, Austin, Texas 78746. Awarded firm will be approved by the EISD Board at the Tuesday February 27, 2018 meeting.

Sincerely,
Sylvie Pouget
Purchasing Coordinator

Please include the following forms in your proposal.
If you are awarded a contract, you will be filing the HB 1295 form with the TEC.

601 CAMP CRAFT RD.
AUSTIN, TEXAS 78746

PHONE: (512) 732.9036
FAX: (512) 732.9038

WEB: WWW.EANESISD.NET
EMAIL: SPOUGET@EANESISD.NET

SUSPENSION OR DEBARMENT CERTIFICATE

Non-Federal entities are prohibited from contracting with or making sub-awards under covered transactions to parties that are suspended or debarred or whose principals are suspended or debarred. Covered transactions include procurement for goods or services equal to or in excess of \$100,000.00 contractors receiving individual awards for \$100,000.00 or more and all sub-recipients must certify that the organization and its principals are not suspended or debarred.

By submitting this offer and signing this certificate, the bidder:

1. Certifies that the owner/operator has not been convicted of a felony except as indicated on separate attachment to this offer, in accordance with Section 44.034 of the Texas Education Code, and
2. Certifies that no suspension or disbarment is in place, which would preclude receiving a federally funded contract under the Federal OMB, A-102, Common Rule (____.36)

Vendor Name: _____

Address: _____ City: _____ Zip Code: _____

Telephone: () _____ Fax Number: () _____

E-mail Address: _____

Authorized Company Official Signature: _____

Please Print Company Officials Name: _____

Title of Official: _____

Date: _____

CERTIFICATE OF RESIDENCY

The State of Texas has passed a law concerning non-resident contractors. This law can be found in Texas Government Code under Chapter 2252, Subchapter A.

<http://www.capitol.state.tx.us/statutes/docs/GV/content/htm/gv.010.00.002252.00.htm>. This law makes it necessary for Eanes ISD to determine the residency of its bidders. In part, this law reads as follows:

Section: 2252.001

- (1) 'Non-resident bidder' refers to a person who is not a resident.
- (2) 'Resident bidder' refers to a person whose principal place of business is in this state, including a contractor 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 proposal 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."

I certify that

(Name of Company Bidding)

is, under Section: 2252.001 (3) and (4), a

_____ Resident Bidder _____ Non-resident Bidder

My or Our principal place of business under Section: 2252.001 (3) and (4), is in the city of

_____ in the state of _____.

Signature of Authorized Company Representative

Print Name

Title

Date

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

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).

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.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 Name of vendor who has a business relationship with local governmental entity.

2 ☐ **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.)

3 Name of local government officer about whom the information is being disclosed.

Name of Officer

4 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.

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?

☐ Yes

☐ No

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?

☐ Yes

☐ No

5 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.

6 ☐ 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).

7

Signature of vendor doing business with the governmental entity

Date

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.

Eanes Independent School District
601 Camp Craft Road, Austin Texas 78746

FELONY CONVICTION NOTICE

Senate Bill 1 passed by the State of Texas Legislators, 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 owners 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 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”. This disclosure is not required of a publicly-held corporation (option A).

I, the undersigned agent for the firm named below, certify that the information concerning notification of felony conviction had been reviewed by me and the following information furnished is true to the best of my knowledge (select one answer).

Vendor's Name: _____

Authorized Company Officer's Name: (please print) _____

Title: _____

A. My firm is a publicly-held corporation; therefore, this reporting requirement is not applicable.

Signature of Company Officer: _____

B. My firm is not owned nor operated by anyone who has been convicted of a felony.

Signature of Company Officer: _____

C. My firm is owned or operated by the following individual(s) who has/have been convicted of a felony (list names and titles):

Details of Conviction: _____

ALL VISITORS TO ANY EANES ISD BUILDING WILL BE REQUIRED TO PRESENT A PICTURE ID AND BE ENTERED INTO THE VISITOR MANAGEMENT SYSTEM IN ORDER TO RECEIVE A VISITOR'S PASS. NO VISITOR WILL BE ALLOWED ENTRY WITHOUT A VISITOR'S PASS.

Signature of Company Officer: _____

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

OFFICE USE ONLY

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the goods or services to be provided under the contract.

4 Name of Interested Party	City, State, Country (place of business)	Nature of Interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party.

☐

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day
of _____, 20 _____, to certify which, witness my hand and seal of office.

Signature of officer administering oath

Printed name of officer administering oath

Title of officer administering oath

ADD ADDITIONAL PAGES AS NECESSARY

EANES INDEPENDENT SCHOOL DISTRICT

PROJECT MANUAL FOR FOREST TRAIL ELEMENTARY SCHOOL FIRE SPRINKLER RENOVATION PHASE II AUSTIN, TEXAS CSP#201718-005

**EANES INDEPENDENT SCHOOL DISTRICT
AUSTIN, TEXAS**

EANES INDEPENDENT SCHOOL DISTRICT

Board of Trustees

Dr. Colleen Jones
President

Jennifer Salas
Vice President

Christie Bybee
Secretary

Ellen Balthazar

John Havenstrite

Jason Paull

Julia Webber

Tom Leonard, Ed. D
Superintendent

Jeremy Trimble
Chief Operations Officer

PROJECT MANUAL FOR FOREST TRAIL ELEMENTARY SCHOOL FIRE SPRINKLER RENOVATION PHASE II CSP#201718-005

EANES INDEPENDENT SCHOOL DISTRICT
AUSTIN, TEXAS

MEP Engineer

MEP Engineering, Inc.
1120 S. Capital of Texas Highway
Building 1, Suite 150
Austin, Texas 78746
Ph: (512) 306-9650
Fax: (512) 306-9655

Date: January 24, 2018

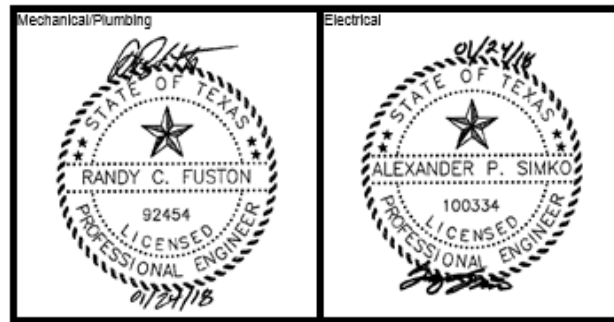


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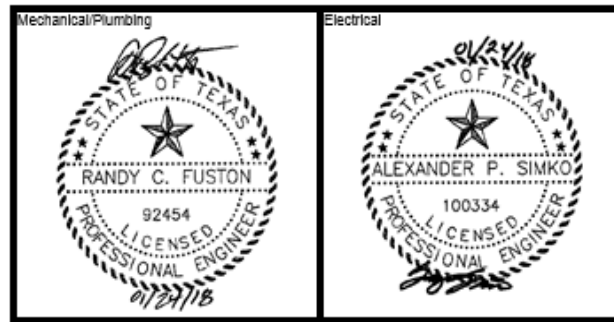


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SECTION 00 02 00 - ADVERTISEMENT FOR COMPETITIVE SEALED PROPOSALS

Competitive sealed proposals will be received by the Eanes Independent School District until 1:00 PM Thursday February 15, 2018, in the Eanes ISD District Operations Center located at 4300 Westbank Drive, Unit 2, Austin, Texas 78746, in accordance with Tex., Local Gvmt. Code 271.025, for the following work:

Forest Trail Elementary School Fire Sprinkler Renovation Phase 2
12303 S Capital of TX Hwy., Austin, Texas 78746
Eanes Independent School District

In accordance with the Tex. Ed. Code as amended, EISD shall evaluate all proposals based on a combination of factors that the District determines provide the best value to the District, including: (a) price; (b) the proposer's experience and reputation; (c) the proposer's past performance and quality of work; (d) the proposer's personnel to be assigned to the project; and (e) the proposer's methodology.

Copies of Drawings, Specifications and other Contract Documents are on file at MEP Engineering, Inc., 1120 S Capital of TX Hwy., Building 1, Suite 150, Austin, Texas 78746 (512) 306-9650, for public inspection. Copies may be obtained by prospective proposers with a payment of \$50.00 for each set.

All potential bidders shall attend a pre-bid meeting at 2:00 PM on Friday February 2, 2018 at Eanes ISD District Operations Center located at 4300 Westbank Drive, Unit 2, Austin, Texas 78746. Meeting will take place in the conference room. Attendees should be prepared to check in with ID at the front desk.

By submitting a proposal, each proposer agrees to waive any claim it has or may have against the Owner, the Engineer, and their respective employees arising out of or in connection with the administration, evaluation, or recommendation of any proposal; waiver of any requirements under the Bid Documents, or the Contract Documents, acceptance or rejection of any proposal; and award of the Contract.

The Contract will be awarded to the lowest and/or best qualified responsible proposer. The Owner reserves the right to accept any of the proposals submitted or to reject any or all proposals and to waive informalities and irregularities in the proposals and in the bidding.

The successful proposer shall be required to provide a Performance Bond and Payment Bond. The Bid Security will not be returned until these bonds are provided.

Attention is called to the fact that not less than those wages adopted by the Eanes ISD Board of Trustees will be paid on the project. All Contractors shall comply with prevailing wage rates in accordance with the civil statutes of the State of Texas.

SELECTION CRITERIA: In accordance with Texas Education Code as amended, Eanes Independent School District shall evaluate all proposals based on a combination of factors that the District determines provides the best value to the District including:

- a. Price; 25%
- b. Proposer's experience and reputation; 20%
- c. Proposer's past performance and quality of work; 25%
- d. Proposer's personnel to be assigned to the project; 15%
- e. Proposer's prior experience with Eanes ISD; 10%
- f. Attendance at the pre-proposal conference. 5%

The General Contractor shall be in the prime business as general or a mechanical contractor (with a Texas air conditioning license) and shall have been in business seven continuous years under the company submitting a proposal on this project. Specific related school experience is required. All Proposers shall visit the job site before submitting proposal.

The successful proposer shall be required to provide a Performance Bond and Payment Bond. The Bid Security will not be returned until these bonds are provided.

Proposals will be opened on Thursday February 15, 2018 at 1:10 PM in the EISD District Operations Center Conference Room located at 4300 Westbank Drive, Unit 2, Austin, Texas 78746.

Awarded firm will be approved by the EISD Board at the Tuesday February 27, 2018 meeting.

A 5% bid bond is required. 100% performance and payment bonds will be required as stated in the Contract Documents.

Eanes Independent School District

By: Sylvie Pouget
Purchasing Coordinator

SECTION 00 10 00 - INSTRUCTIONS TO PROPOSERS

1. BID SECURITY

The Proposer must submit a Cashier's Check, Certified Check or Bid Bond payable without recourse to the order of Eanes Independent School District, Austin, Texas, in the amount of Five percent (5%) of the largest total amount of their proposal. This is considered a guarantee that the Proposer will enter into a Contract and execute Payment and Performance bonds with ten (10) Days after notice of award.

If the Competitive Sealed Proposal is not accepted within Thirty (30) Days after the time set for the submission of the bids, or if the successful Proposer executes and delivers agreement, bonds, and insurance certificates, the Cashier's Check will be returned.

2. CONTRACT SURETY

The successful Proposer shall furnish One Hundred Percent (100%) bonds covering the faithful performance of the Contract and the payment of all obligations including mechanic's and material man's liens arising thereunder. The Owner shall have the right to approve any surety company, and the Proposer agrees to provide the Owner any information requested by the Owner regarding such company. Surety company to be on the Texas Education Agency's list of acceptable surety companies.

3. BASIS OF PROPOSALS

The Contract between the Owner and the Contractor will be for the full amount of the Work (as defined in the Contract Documents). The payment and performance bonds for the Owner will be based on this figure.

4. DOCUMENTS

Copies of Drawings, Specifications and other Contract Documents are on file at MEP Engineering Inc., 1120 Capital of Texas Highway South, Building 1, Suite 150, Austin, Texas 78746 (512) 306-9650 for public inspection. This Competitive Sealed Proposal can be reviewed and downloaded at the following website:
<http://www.eanesisd.net/departments/business/purchasing>

Copies may be obtained by prospective proposers with a payment of \$50.00 for each set. Proposer shall return the documents in good condition within three (3) days from the Bid Opening date. Additional copies may be obtained for the cost of reproduction.

5. PROPOSALS - See "Invitation for Competitive Sealed Proposal" for time, date and location for Opening of Proposals.

All Proposals shall be submitted on forms prepared by the Engineer and shall be subject to all requirements of the Contract Documents and any Addenda.

Proposals shall be filled out in their entirety. DO NOT USE bound Proposals; separate copies are available from the Engineer. Include Bid Bond, Suspension and Debarment Certification, and Felony Conviction Notice.

The Owner does not obligate itself to accept the lowest or any bid. EISD reserves the rights to award the Contract to any Proposer at any time within thirty days after the opening of the proposals, to reject any or all proposals, and to waive objection to any informality in the submission of proposals.

The Contractor shall submit with their Proposal a completed copy of Contractor's Qualification Statement, AIA Document A-305-1986. The Document shall be submitted in a separate sealed envelope. Copies of the Document will be furnished upon request by the Engineer to each Proposer.

All Proposals and Contractor's Qualification Statement shall be enclosed in a sealed opaque envelope marked with the Project, Name of Proposer, and Date and Time of Opening.

6. DISCREPANCIES

Any discrepancies between the Drawings and Specifications or errors must be reported to the Engineer for interpretation.

The Engineer will at all times endeavor to explain and interpret all discrepancies, but does not bind itself for any interpretation not in writing.

In the event of discrepancies which have not been interpreted in writing or conflicts within the Contract Documents, including drawings and specifications, the Proposer shall consider that the greater value or quantity shall apply and the submitted Competitive Sealed Proposal shall reflect this fact.

7. SUBSTITUTION AND SUBMISSION OF MATERIALS

Any reference in the Specifications to materials, products, fixtures, etc., shall not be construed as limiting competition in any manner; however, only the Engineer shall have the authority to determine whether a material is equal. No substitution will be allowed unless authorized in writing by the Engineer.

Where a definite material is specified, it is to set a standard, unless so noted that NO substitution allowed.

When several acceptable brands or manufacturers are named, the first named is the one used in designing the job. Manufacturers of products not named in the Specifications will be required to show evidence satisfactory to the Engineer, that their product is equal in construction, similar in design, and will serve the intended purpose as the item specifically named.

8. TIME OF COMPLETION

Forest Trail Elementary School must be Substantially Complete on or before August 3, 2018. Each Proposer shall stipulate on his Proposal Form that he will substantially complete the work on or before August 3, 2018. The date for Substantial Completion (as defined in the Contract Documents) must make allowance for anticipated work days which will be lost due to inclement weather because no extension of contract time shall be allowed for inclement weather days, Final Completion (as defined in the Contract Documents) must be on or before August 17, 2018. This Contract shall be subject to Liquidated Damages as hereinafter specified.

The Owner intends to begin moving furniture and personnel into the school on August 4, 2018. The contractors work after August 3, 2018 shall be limited to Final Clean and punch items only. Final Clean shall be as defined in 01 11 00 Summary of Work. All new and existing systems shall be operational. Substantial completion shall be defined as all work substantially complete, operating and functioning and the building and systems suitable for owner use. Final completion shall mean all systems are operational, the building is useable by the owner and all deficiencies (punch list items) generated by the substantial completion are complete.

9. LIQUIDATED DAMAGES

The General Contractor shall be Substantially Complete and have all Final Cleaning done by August 17, 2018, subject however, only to extensions of time approved by the Engineer under provisions of Paragraph 8.3.1 of the General Conditions. To include: For each day the work remains in an incomplete or unfinished condition such that the owner cannot move in on August 4, 2018, including any extensions of time granted by the Engineer, the Contractor agrees to his liability for Liquidated Damages for each day Completion exceeds such allotted time, Saturdays, Sundays and holidays included. The agreed measure of Liquidated Damages for each day in excess of the time allotted for completion shall be in accordance with the following schedule:

The agreed measure of liquidated damages per day shall be

Damages Estimated.

Total Value Delayed	Damages Per Calendar Day
0 to \$10,000.00	50.00
\$10,000.01 to \$50,000.00	100.00
\$50,000.01 to \$100,000.00	200.00
\$100,000.01 to \$500,000.00	300.00
\$500,000.01 to \$1,000,000.00	400.00
\$1,000,000.01 to \$5,000,000.00	500.00
\$5,000,000.01 to \$10,000,000.00	1,000.00
\$10,000,000 to \$20,000,000	2,000.00
over \$20,000,000	2,500.00

It is understood that the Liquidated Damages as herein set out are not to be construed in any sense as a penalty but as a fair estimate of damages agreed to by the parties in the event that Final Completion is not timely. It is further understood that time is of the essence.

10. INDEX OF DRAWINGS

The following is the Index of Drawings for this Project:

Forest Trail Elementary School

COVERSHEET

Sheet CVR

FIRE PROTECTION

Sheet F1.0 – F3.4

11. LABOR WAGE SCALE

Provisions of the contract will require the successful Proposer to comply with all state laws, including the provisions of Article 5150a, Vernon's Texas Civil Statutes, concerning prevailing rates, hourly rates, prevailing rates for legal holiday and overtime work, required payment of such rates and record keeping. As required to be paid by contractor and each sub-contractor are as listed.

The Contractor shall forfeit as penalty to the State, County, City and County, Town, District or other political subdivision on whose behalf this contract is made or awarded ten dollars (\$10.00) for each laborer, workman or mechanic employed, for each calendar day, or portion thereof, such laborer, workman or mechanic is paid less than the said stipulated rates for any work done under said contract, by him, or by any subcontractor under him.

The Eanes Independent School District shall require the submission of certified payrolls

with each application for payment. The certified payrolls are to cover the same time period as the application for payment.

The Eanes Independent School District shall conduct random employee interviews across various trades at job site with no warning.

Wage rates issued herein shall remain in effect for the duration of this contract. The adopted wage rate follows:

EANES INDEPENDENT SCHOOL DISTRICT ADOPTED MINIMUM PREVAILING WAGE
RATE

HOURLY WAGE RATES FOR BUILDING CONSTRUCTION CRAFTS

Standard Occupational Classification (SOC)	SOC Title	Eanes ISD Proposed Rates 2015
#47-1011	First-Line Supervisors of Construction Trades	26.72
#47-2011	Boilermakers	25.60
#47-2021	Brickmasons and Blockmasons	17.74
#47-2022	Stonemasons	17.14
#47-2031	Carpenters	17.29
#47-2041	Carpet Installers	15.70
#47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	14.86
#47-2043	Floor Sanders and Finishers	14.68
#47-2044	Tile and Marble Setters	15.00
#47-2051	Cement Masons and Concrete Finishers	13.78
#47-2053	Terrazzo Workers and Finishers	15.20
#47-2061	Construction Laborers	12.27
#47-2071	Paving, Surfacing, and Tamping Equipment Operators	14.75
#47-2072	Pile-Driver Operators	20.36

#47-2073	Operating Engineers and Other Construction Equipme	16.79
#47-2081	Drywall and Ceiling Tile Installers	15.66
#47-2082	Tapers	18.14
#47-2111	Electricians	21.84
#47-2121	Glaziers	17.17
#47-2131	Insulation Workers, Floor, Ceiling, and Wall	15.36
#47-2132	Insulation Workers, Mechanical	16.43
#47-2141	Painters, Construction and Maintenance	13.79
#47-2142	Paperhangers	15.05
#47-2151	Pipelayers	19.93
#47-2152	Plumbers, Pipefitters, and Steamfitters	22.45
#47-2161	Plasterers and Stucco Masons	16.24
#47-2171	Reinforcing Iron and Rebar Workers	16.38
#47-2181	Roofers	17.87
#47-2211	Sheet Metal Workers	20.26
#47-2221	Structural Iron and Steel Workers	11.41
#47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, an	12.53
#47-3012	Helpers--Carpenters	13.72
#47-3013	Helpers--Electricians	12.39
#47-3014	Helpers--Painters, Paperhangers, Plasterers, and S	11.49
#47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and St	12.14
#47-3016	Helpers--Roofers	13.41
#47-3019	Helpers, Construction Trades, All Other	20.86
#47-4011	Construction and Building Inspectors	24.99
#47-4021	Elevator Installers and Repairers	33.07
#47-4031	Fence Erectors	19.72
#47-4041	Hazardous Materials Removal Workers	17.14
#47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	16.99
#47-5021	Earth Drillers, Except Oil and Gas	16.47

Note: Journeyman wages are stipulated above. All apprentices and helpers will be paid a minimum of 50% of journeyman wages or minimum wage whichever is greater.

12. SUBMITTALS

Prior to the award of the Contract, the Engineer will notify the Proposer in writing if either the Owner or Engineer, after due investigation, has reasonable objection to a person or entity proposed by the Proposer. If the Owner or Engineer has reasonable objection to a proposed person or entity, the Proposer may, at the Proposer's option, (i) withdraw the proposal, or (ii) submit an acceptable substitute person or entity with an adjustment in the base proposal or alternate proposal to cover the difference in cost occasioned by such substitution. The Owner may accept the adjusted price of the proposal or disqualify the Proposer. In the event of either withdrawal or disqualification, bid security will not be forfeited.

The Proposer will be required to establish to the satisfaction of the Engineer and Owner the reliability and responsibility of the persons or entities proposed to furnish and perform the work described in the bidding documents.

The Proposer shall, as soon as practicable after notification of selection for the award of a Contract, furnish to the Owner through the Architect in writing:

- A. A designation of the work to be performed with the Proposer's own forces;
- B. Names of the manufacturers, products and the suppliers of principal items or systems of materials and equipment proposed for the work; and
- C. Names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the work.

Persons and entities proposed by the Proposer and to whom the Owner and Engineer have made no reasonable objection must be used on the work for which they were proposed and shall not be changed except with the written consent of the Owner and Engineer.

13. INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

The Proposer shall carefully study and compare the bidding documents with each other, and with other work being bid concurrently or presently under construction to the extent that it relates to the work for which the proposal is submitted, shall examine the site and local conditions, and shall at once report to the Engineer errors,

inconsistencies or ambiguities discovered.

Proposer's and sub-Proposers requiring clarification or interpretation of the bidding documents shall make a written request which shall reach the Engineer at least seven days prior to the date for receipt of proposals.

Interpretations, corrections and changes of the bidding documents will be made by addendum. Interpretations, corrections and changes of the bidding documents made in any other manner will not be binding, and Proposers shall not rely upon them.

14. SUBMISSION OF PROPOSALS

All copies of the proposal, the bid security, if any, and other documents required to be submitted with the proposal shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to EISD and shall be identified with the project name, the Proposer's name and address and, if applicable, the designated portion of the work for which the proposal is submitted. If the proposal is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notations "SEALED PROPOSAL ENCLOSED" on the face thereof.

Proposals shall be deposited at the designated locations prior to the time and date of receipt for proposals. Proposals received after the time and date for receipt for proposals will be returned unopened.

The Proposer shall assume full responsibility for timely delivery at the location designated for receipt of proposals.

Oral, telephonic or telegraphic proposals are invalid and will not receive consideration.

No binding contract will be created between Eanes Independent School District and a prospective Proposer simply by virtue of the prospective Proposer's submission of the lowest responsible proposal. Eanes Independent School District expressly retains its authority to reject any and all proposals.

15. PROPOSAL PRICING

Proposal prices may not be altered or amended after opening of proposals has occurred except to correct self-evident errors.

No increase in price will be considered after opening of proposals has occurred, except a price decrease is permitted if the successful Proposer is the lowest and best Proposer according to all evaluative standards.

Proposal prices that include escalation clauses shall not be considered.

Proposal prices are firm for acceptance by Eanes Independent School District for 30 days from the date opening of proposals has occurred.

All prices for supplies and materials shall be quoted F.O.B. Destination.

16. CONTRACT AWARDS

Pursuant to Tex. Ed. Code, as amended, Eanes Independent School District may consider the following in determining to whom to award a contract, with the associated weighting:

- A. Price; 25%
- B. Proposer's experience and reputation; 20%
- C. Proposer's past performance and quality of work; 25%
- D. Proposer's personnel to be assigned to the project; 15%
- E. Proposer's prior experience with Eanes ISD; 10%
- F. Attendance at the pre-proposal conference. 5%

17. ADDITIONAL CONSIDERATIONS: NONRESIDENT PROPOSERS

Non resident Proposers' proposals shall be evaluated in compliance with Tex. Gov. Code 2252.002.

18. REJECTION OF PROPOSALS

Eanes Independent School District may, at it option, reject any proposal which;

Materially fails to conform to the specification requirements of the invitation, including but not limited to:

- A. Failure to state the price;
- B. Augmentation of the language to include impermissible conditions; and
- C. Attempts to limit the rights of Eanes Independent School District under the contract.
- D. Failure to submit a completed Contractor Qualification Statement.
- E. Failure to notify Eanes Independent School District of, or misrepresentation of the conduct leading to, any felony conviction for any owner or operator of Proposer's organization. This requirement shall be waived as to publicly held corporations. (Tex. Ed. Code 44.034)

Fails to arrive at Eanes Independent School District within the time specified.

Is not in the best interest of Eanes Independent School District.

Has not been presented in a sealed envelope or has been presented with

incorrect information on the face of the envelope such as:

1. Incorrect project name
2. Incorrect proposal opening date
3. Incorrect name and address of Proposer

19. WITHDRAWAL AND AMENDMENT

Any Proposer may withdraw or amend his proposal at any time before the time for closing receipt of proposals. Any such amendment must be in writing and signed by the Proposer.

A contract awarded in violation of Sections 1 through 19 above is void. *Tex. Local Gvmt. Code, 271.028.*

20. PRE BID CONFERENCE

A bidders conference has been scheduled for 2:00 P.M., Friday, February 2, 2018, at the Eanes ISD District Operations Center located at 4300 Westbank Drive, Unit 2, Austin, Texas 78746.

21. CONTRACTOR PROFILE AND METHODOLOGY

Company Name: _____

Company Address: _____

Contact Numbers:

Voice: _____

E-mail: _____

Fax: _____

If there is no toll free number shall the company accept collect calls?

___ Yes ___ No

A person to contact when calling the company _____

References:

Please list three (3) Texas school districts of comparable size to EISD which you have served in the past three years, with contacts and telephone numbers:

1. _____

2. _____

3. _____

Qualifications of Proposer's Personnel: Name, Years of Service, Experience, Resume
(attach additional sheets if necessary).

Project Manager: _____

Superintendent: _____

Lead Trades Personnel: _____

Corporate contact for this proposal:

Name: _____ Address: _____

Phone: _____ Fax: _____

E-Mail: _____

Local contact for this proposal:

Name: _____ Address: _____

Phone: _____ Fax: _____

Construction sequence by area (listing major activities by trade and associated schedule), method of installation and location of barriers, coordination between trades, access routes, location of temporary facilities (field office, trash receptacle, personnel parking, construction vehicle parking, storage sheds, etc.), vehicle routing, construction fencing (if necessary), ductwork protection, final cleaning protection of roof, methods and schedule, demobilization method and schedule, and any other applicable information.

[illegible]

END OF INSTRUCTIONS TO PROPOSERS

Mrs. Sylvie Pouget
Eanes Independent School District
601 Camp Craft Rd
Austin, Texas 78746

Dear Ms. Pouget:

The undersigned, having examined the site of the proposed Work for the Forest Trail Elementary School Fire Sprinkler Renovation Phase 2 hereby proposes as General Contractor to furnish all materials, labor, equipment and services necessary to complete the work in strict conformity with all of the Contract Documents, including the drawings, specifications and Addenda No. _____, Addenda No. _____, Addenda No. _____, prepared by MEP Engineering and any laws, statutes, ordinances, rules or regulations of any governmental agencies or public authorities relating thereto for the sum of:

Owner's Contingency Allowance (Betterment) of \$100,000 to be included in Base Bid

Base Bid

_____ Dollars
(\$ _____).

If awarded the Contract, the undersigned agrees to execute the Contract for Construction as included in the Bid Package and Substantially Complete the work, including Final Clean within _____ calendar days from issuance of Notice to Proceed for the Forest Trail Elementary School as specified after Substantial Completion, or be subject to Liquidated Damages as explained in the Owner - Contractor Agreement (enclosed) at the rate schedule listed in the General Conditions of the Contract.

Contractor acknowledges that the Substantial Completion Date and Final Completion Date is essential to the Owner's operational and educational activities, and therefore time is of the essence in meeting said date. All bonds and proof of insurance (in a form satisfactory to the Owner) shall be provided to the Owner within ten (10) days of award of the Contract for Construction. Work to commence within ten (10) days of contract execution.

Bidder agrees that this Bid shall be good and may not be withdrawn for a period of Thirty (30) calendar days, after the scheduled closing time for receiving Bids.

The Owner does not obligate itself to accept the lowest or any bid. EISD reserves the rights to award the Contract to any bidder at any time within thirty days after the opening of the proposals, to reject any or all proposals, and to waive objection to any informality in the submission of proposals.

Capitalized terms not otherwise defined in this letter shall have the meanings assigned them in the Contract for Construction.

The undersigned affirms that they are duly authorized to execute this contract, that this company, corporation, firm, partnership or individual has not prepared this bid in collusion with any other Bidder, and that the contents of this bid as to prices, terms or conditions of said bid 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 bid.

Respectfully Submitted,

Signed _____

Title _____

For (Firm) _____

Address _____

Telephone _____

(Sealed if Corporation)
State whether Corporation,
Partnership, or Individual



Please include the following forms in your proposal.

If you are awarded a contract, you will be filing the HB 1295 form with the TEC.

SUSPENSION OR DEBARMENT CERTIFICATE

Non-Federal entities are prohibited from contracting with or making sub-awards under covered transactions to parties that are suspended or debarred or whose principals are suspended or debarred. Covered transactions include procurement for goods or services equal to or in excess of \$100,000.00 contractors receiving individual awards for \$100,000.00 or more and all sub-recipients must certify that the organization and its principals are not suspended or debarred.

By submitting this offer and signing this certificate, the bidder:

1. Certifies that the owner/operator has not been convicted of a felony except as indicated on separate attachment to this offer, in accordance with Section 44.034 of the Texas Education Code, and
2. Certifies that no suspension or disbarment is in place, which would preclude receiving a federally funded contract under the Federal OMB, A-102, Common Rule (____.36)

Vendor Name: _____

Address: _____ City: _____ Zip Code: _____

Telephone: () _____ Fax Number: () _____

E-mail Address: _____

Authorized Company Official Signature: _____

Please Print Company Officials Name: _____

Title of Official: _____

Date: _____

CERTIFICATE OF RESIDENCY

The State of Texas has passed a law concerning non-resident contractors. This law can be found in Texas Government Code under Chapter 2252, Subchapter A.

<http://www.capitol.state.tx.us/statutes/docs/GV/content/htm/gv.010.00.002252.00.htm>. This law makes it necessary for Eanes ISD to determine the residency of its bidders. In part, this law reads as follows:

Section: 2252.001

- (1) 'Non-resident bidder' refers to a person who is not a resident.
- (2) 'Resident bidder' refers to a person whose principal place of business is in this state, including a contractor 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 proposal 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."

I certify that

(Name of Company Bidding)

is, under Section: 2252.001 (3) and (4), a

_____ Resident Bidder _____ Non-resident Bidder

My or Our principal place of business under Section: 2252.001 (3) and (4), is in the city of

_____ in the state of _____.

Signature of Authorized Company Representative

Print Name

Title

Date

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

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).

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.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 Name of vendor who has a business relationship with local governmental entity.

2 ☐ **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.)

3 Name of local government officer about whom the information is being disclosed.

Name of Officer

4 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.

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?

☐ Yes ☐ No

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?

☐ Yes ☐ No

5 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.

6 ☐ 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).

7

Signature of vendor doing business with the governmental entity

Date

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.

Eanes Independent School District
601 Camp Craft Road, Austin Texas 78746

FELONY CONVICTION NOTICE

Senate Bill 1 passed by the State of Texas Legislators, 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 owners 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 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”. This disclosure is not required of a publicly-held corporation (option A).

I, the undersigned agent for the firm named below, certify that the information concerning notification of felony conviction had been reviewed by me and the following information furnished is true to the best of my knowledge (select one answer).

Vendor's Name: _____

Authorized Company Officer's Name: (please print) _____

Title: _____

A. My firm is a publicly-held corporation; therefore, this reporting requirement is not applicable.

Signature of Company Officer: _____

B. My firm is not owned nor operated by anyone who has been convicted of a felony.

Signature of Company Officer: _____

C. My firm is owned or operated by the following individual(s) who has/have been convicted of a felony (list names and titles):

Details of Conviction: _____

ALL VISITORS TO ANY EANES ISD BUILDING WILL BE REQUIRED TO PRESENT A PICTURE ID AND BE ENTERED INTO THE VISITOR MANAGEMENT SYSTEM IN ORDER TO RECEIVE A VISITOR'S PASS. NO VISITOR WILL BE ALLOWED ENTRY WITHOUT A VISITOR'S PASS.

Signature of Company Officer: _____

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the goods or services to be provided under the contract.

4 Name of Interested Party	City, State, Country (place of business)	Nature of Interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party.

☐

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day
of _____, 20 _____, to certify which, witness my hand and seal of office.

Signature of officer administering oath

Printed name of officer administering oath

Title of officer administering oath

ADD ADDITIONAL PAGES AS NECESSARY

The "Standard Form of Agreement Between Owner and Contractor", On the Basis of A Stipulated Price, Form EJCDC No. 1910-8-A-1., (1996 Edition)., will be the form used as a contract for this work.

Copies of this Document may be examined in the Engineer's office.

END OF SECTION

SECTION 00 60 00 - PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that the undersigned Principal and Surety are firmly bound to Eanes Independent School District ("EISD") in the principal sum of

_____ Dollars (\$_____).

Now the condition of this bond is this: that, whereas the undersigned Principal has entered into a certain Contract with EISD, which Contract is dated for reference _____, whereunder Principal undertakes to perform the following-described Work of construction, alteration or repair:

Forest Trail Elementary School Fire Sprinkler Renovation Phase 2
Eanes Independent School District

NOW, THEREFORE, if the Principal shall faithfully perform the Contract in accordance with the Contract Documents and shall fully indemnify and save harmless EISD from all costs and damage which EISD may suffer by reason of Principal's default or failure to do so, and shall fully reimburse and repay EISD all outlay and expense which EISD may incur in making good any such default, then this obligation shall be null and void, otherwise it shall remain in full force and effect.

Surety waives notice of any change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder, and of any termination for the Principal's default of the Principal's right to proceed, and agrees and stipulates that no such change, extension of time, alteration, addition or termination shall, in anywise, affect its obligation on this bond.

Principal:_____

By :_____

Title:_____ Date:_____

Surety:_____

By:_____

Title:_____ Date:_____

SECTION 00 62 00 - PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that the undersigned Principal and Surety are firmly bound to Eanes Independent School District ("EISD") in the principal sum of

_____ dollars (\$_____).

Now the condition of this bond is this: that, whereas the undersigned Principal has entered into a certain Contract with EISD, which Contract is dated for reference _____, whereunder Principal undertakes to perform the following described Work of construction:

Forest Trail Elementary School Fire Sprinkler Renovation Phase 2
Eanes Independent School District

NOW, THEREFORE, if the Principal shall well and faithfully make payment to each and every claimant (as defined in Article 5160, Revised Civil Statutes of Texas, as amended) supplying labor and material in the prosecution of the Work provided for in said Contract, then this obligation shall be null and void; otherwise, it shall remain in full force and effect. Each such claimant shall have a direct right of action on this bond.

Surety waives notice of any change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder, and of any termination for the Principal's default of the Principal's right to proceed, and agrees and stipulates that no such change, extension of time, alteration, addition or termination shall, in anywise affect its obligation on this bond.

Principal:_____

By:_____

Title: _____ Date:_____

Surety:_____

By:_____

Title: _____ Date:_____

SECTION 00 70 00 - INSURANCE REQUIREMENTS

1. INDEMNITY AND INSURANCE

A. Indemnification for personal injury, death, and property damage or loss. Contractor agrees to fully indemnify, and hold harmless Owner (including their officers, directors, agents, and Architect/Engineer) from and against any claims, demands, liability, causes of action, suits, judgments, or defense expenses (including attorney's fees) for the death or personal injury of any person (s) (including, but not limited to Contractor, Contractor's agents, employees, or invitees and the agents, employees, or invitees of such contractors) or for damage to property of any person, (including the loss or loss of use thereof), directly or indirectly connected with, attributable to, or arising from:

1. The work to be performed under this Contract, or any activities of Contractor (or of its agents, employees, subcontractors, invitees, or the agents, employees, or invitees of such contractors): or
2. The providing of Owner of any tools, machinery, equipment, equipment operators, or other personnel to Contractor or to its subcontractors or their use thereof.

This indemnity applies in either of the following instances: where injury, death, damage, or loss is caused by the negligence or fault of Contractor (or of its agents employees, subcontractors, invitees, or the agents, employees, or invitees of such subcontractors), even though also caused by the joint or concurrent negligence or fault of Owner; or where injury, death, damage, or loss is caused by the negligence or fault of Owner in failing to provide a safe place to work or in failing to warn or to supervise Contractor (or its agents, employees, subcontractors, invitees, or the agents, employees, or invitees of such Contractors), even though caused without the negligence or fault of Contractor.

B. Contractor shall indemnify and save harmless Owner from any and all laborers', materialmen's, and mechanics' liens upon the property and premises upon which the Work is being performed that arise out of the Work, and shall keep such property free and clear of all liens, claims and encumbrances arising out of the performance of this contract.

Contractor shall carry throughout the life of this Contract, at his expense, with insurers licensed in Texas having a rating by A.M. Best and Company of at least A-VIII.

Contractor shall promptly obtain insurance for the Work as specified in this Contract Agreement. Contractor shall provide the required accord form insurance certificate (s) to Owner prior to commencing the Work and shall be liable to Owner for the consequences of Contractor's delay in obtaining the required insurance policies and coverages. Contractor acknowledges that it may not enter the jobsite until owner receives and approves the specified insurance certificate (s).

Each insurance certificate must state that the insurance carrier is required to give Owner thirty (30) days prior written notice of cancellation or material change which reduces or restricts the coverages or liability limits of any insurance policy. Contractor's insurance certificate (s) shall include the Owner and it's agents as Additional Insured and also include the Project name in a conspicuous location. The insurance requirements described in this Agreement are not intended to and shall not in any way limit or qualify the liabilities and obligations Contractor assumes pursuant to this Agreement.

During the full term of the Work and of this Agreement, Contractor shall at all times maintain the following insurance coverage in primary and/or excess form with limits not less than those described below, with insurers licensed to do business and admitted in the State of Texas and in forms or policies acceptable to Owner.

The Worker's Compensation Insurance policy will be endorsed to include a waiver of subrogation in favor of the Owner and its agents.

Worker's Compensation Insurance:

Worker's Compensation: Statutory Limits
Employer's Liability: \$500,000/500,000/500,000

Commercial General Liability Insurance:

Bodily Injury and Property Damage: \$1,000,000/Occurrence
General Aggregate: \$2,000,000

Products & Completed Operations Aggregate:
\$1,000,000/Occurrence
General Aggregate: \$2,000,000

The Commercial General Liability Policy shall include the following minimum coverages:
Premises/Operations, Independent Contractors, Products and Completed Operations for a period of two (2) years after Substantial Completion of the Project, Broad Form Contractual Liability to cover the Indemnity and other applicable sections of this Agreement, Broad Form Property Damage, Personal Injury Liability.

Owners Protective Liability issued in the name of Leander Independent School District.

Bodily Injury and Property Damage: \$1,000,000/Occurrence
General Aggregate: \$2,000,000
Products and Completed Operations: \$1,000,000/Occurrence

The Owners Protective Liability Policy shall include the following minimum coverages:
Premises/Operations, Independent Contractors, Products and Completed Operations for a period of two (2) years after Substantial Completion of the Project, Broad Form Contractual Liability to cover the Indemnity and other applicable sections of this Agreement, Broad Form Property Damage, Personal Injury Liability.

Comprehensive Automobile Liability Insurance:

Bodily Injury and Property Damage: \$1,000,000 Combined Single Limit The Comprehensive Automobile Liability Policy shall be written on a standard form and cover all owned, non-owned and hired automobiles.

Umbrella Insurance:

Bodily Injury and Property Damage: \$5,000,000 per occurrence and in aggregate

The Umbrella Policy shall provide coverage that is as broad as the primary policy and the limits shall be in addition to those provided by the coverages required in the Employer's Liability (Worker's Compensation) Section, the Commercial General Liability Insurance Section, and the Comprehensive Automobile Liability Insurance Section.

Builder's Risk Insurance:

a. The Contractor shall obtain at their expense, on an All Risk of physical loss basis, Builder's Risk Insurance coverage including workmanship acceptable to the Owner, in the amount of insurance equal at all time to 100% of the insurable value of materials delivered and labor performed. The policy so issued in the name of the contractor shall also name his Subcontractors and the Owner as additional insureds, as their respective interests may appear. The policy shall have endorsements as follow:

"This insurance shall be specific as to coverage and not considered as contributing insurance with any permanent insurance maintained on the present premises."

b. Loss, if any, shall be adjustable with and payable to the Owner and Contractor. The Builder's Risk insurance shall be issued to insure replacement cost and cover all property in transit, stored or installed at job site.

SECTION 01 00 00 – GENERAL REQUIREMENTS

PART 1 GENERAL

1.1 CONTRACT TIME

- A. In accordance with the proposal and agreement, all work under the contract is to begin June 1, 2018 and be substantially completed by the contractor including the Owner's acceptance and be ready for the Owner to operate on or before August 3, 2018. The contractor shall be complete (Final Completion) on or before August 17, 2018.
- B. It is recommended that the contractor order items that require long delivery time as early as possible to insure that they can be obtained in adequate time to prevent any delays in the work. The engineer will endeavor to return submittals on long lead items in 2 calendar days or less.

1.2 INSPECTION OF SITE

- A. The contractor and his subcontractors will be held to have examined the premises before submitting proposals for this work and to have satisfied himself as to the conditions under which he will be obligated to perform his work or that will in any manner affect that work under this contract. No extra payments will be allowed for claims for additional work that could have been determined or anticipated by such inspection.

1.3 FIELD MEASUREMENTS

- A. Before ordering any materials or doing any work, each contractor shall verify all measurements at the area of construction and shall be responsible for their correctness. No extra charge or compensation will be allowed on account of differences between actual dimension of work and the measurements indicated on the drawings.
- B. Any difference which may be found shall be submitted to EISD and the Engineer for consideration before proceeding with the work.

1.4 INTERPRETATION OF CONTRACT DOCUMENTS

- A. Figures shall prevail over scaled measurements and detailed drawings over general drawings. Conflicts in drawings or specifications shall be brought to EISD's attention at once before proceeding with work. EISD's and the Engineer's interpretation shall be binding.

1.5 TEMPORARY CONSTRUCTION AND SERVICES

- A. The contractor shall provide the following specific items of temporary construction and services:

1.6 STORAGE OF MATERIALS

- A. The contractor shall utilize space for the storage of equipment and material as designated by the Owner.
- B. The contractor shall take all reasonable precautions to protect his materials and equipment from damage due to weather, theft, vandalism, etc. He shall continue such protection until final completion of the work and its acceptance by the Owner. All materials affected by the weather shall be covered and protected to keep them free from damage while being transported to the site; when stored at the site, they shall be placed on raised platforms and protected by waterproof covers. Any material damaged by water or other causes shall be removed from the site.
- C. Losses of material or equipment from theft, fire, vandalism, etc., prior to final acceptance shall be borne by the contractor.

1.7 SECURITY/PROTECTION PROVISIONS

- A. The types of temporary security and protection provisions required include but are not limited to fire protection, barricades, warning signs/lights, site enclosure fence, building enclosure/lock-up, watchman service, personnel security program (theft prevention), environmental protection and similar provisions intended to minimize property losses, personal injuries and claims for damages at project site. Provide security/protection services and systems in coordination with activities and in a manner to achieve effectiveness.
- B. The contractor shall protect and be responsible for damage to his work from date of agreement until final payment is made and shall make good without cost to the Owner any damage or loss that may occur during this period. He shall cover building openings to protect and secure buildings from unauthorized intrusion and weather damage. He shall at no time leave unsecured tools or materials unattended to create an "attractive nuisance". The contractor shall protect the exterior of buildings and premises from damage resulting from construction operations and shall be held liable for repair and/or replacement made necessary by such operations.
- C. Barriers: The contractor shall furnish, install and maintain suitable barriers to prevent injury to the public or Owner's personnel where construction operations pose a hazard. The contractor and Owner shall coordinate the specific type and location of barriers which may be required. Such barriers shall not hinder the Owner's use of the facilities from time to time as may be necessary.

1.8 OWNER'S OPERATIONS

- A. All contractors are hereby notified that the Owner's operations in the existing buildings are to continue from time to time during construction of this project. It shall be the General Contractor's responsibility to take such steps as may be necessary to prevent the following or similar circumstances from happening due to his operations:
 - 1. Injury to Owner's personnel.
 - 2. Damage to Owner's property.
 - 3. Damage to Owner's stored equipment.
 - 4. Interference with Owner's operations.
 - 5. Creation of fire, safety or health hazard.
 - 6. Loss of security on existing buildings.
 - 7. Leaks in existing buildings.
- B. Subcontractors and suppliers are also expected to cooperate fully in preventing circumstances such as those noted above in facilitating the Owner's operation in the existing buildings.

1.9 CONTRACTOR'S USE OF PREMISES

- A. The contractor shall limit his use of the premises to access to and egress from the work and storage area for materials, equipment and job office.
- B. The contractor shall provide his own job office. Job office shall have facilities for storage of submittals and review of plans and specifications.
- C. The contractor shall assume full responsibility for the protection and safe-keeping of products and equipment under this contract stored on the site.
- D. The contractor shall assume full responsibility for repairs to existing building and premises caused by damage due to negligence or improper use of the Owner's facilities.
- E. The contractor shall coordinate with school personnel any utility outages, work involving access to the existing facility or any other activity that would interfere with or interrupt school operations.
- F. The contractor shall be prepared to adjust the work schedule to after school hours, construct temporary barricades, dust proof enclosures and take appropriate action for noise attenuation if required.

- G. Exit doors from the existing buildings within the general construction area will remain open during school hours for emergency purposes. The contractor shall maintain safe egress from these points at all times.

1.10 UTILITY OUTAGES

- A. Before starting any work relating to existing utilities (electrical, sewer, water, heat, gas, fire lines, etc.) that will temporarily discontinue or disrupt service to the existing building, notify the Engineer and the Owner 72 hours in advance and obtain the Owner's approval before proceeding with this phase of the work. When possible schedule utility outages when the building is closed.

1.11 CLEAN UP

- A. Each contractor shall provide daily clean-up and removal of debris resulting from his construction operations. Exterior grounds shall be left clean at end of each construction day. Interiors shall be left broom clean at end of each construction day.
- B. The contractor may with the Owner's permission place approved commercial-type trash receptacles with closeable top for deposit of trash and debris and provide for disposal of contents at no expense to Owner.
- C. The Contractor will not be permitted to use any EISD trash or garbage receptacles. Clean-up of all construction related materials, waste or litter must be completed before the work will be considered complete.

END OF SECTION 01 00 00

SECTION 01 11 00 – SUMMARY OF WORK

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract including General and Supplementary Provisions and other Division 1 Specification Sections apply to this Section.

1.2 PROJECT DESCRIPTION

- A. The project consists of:
 - 1. Installing fire sprinkler protection within the remaining portion of the school unprotected.

All of the above work is as shown on Contract Documents prepared by MEP Engineering, Inc.

1.3 CONTRACTOR USE OF PREMISES

- A. General: Limit use of the premises to construction activities in areas indicated.
- B. Confine materials and equipment storage, temporary facilities, and parking to areas as required by Owner to minimize conflicts and facilitate Owner's usage. The site may not be used for living quarters. Existing employees and visitors parking areas may be used.

1.4 OWNER OCCUPANCY

- A. Owner occupancy: The Owner may occupy limited portions of the site and existing building during the construction period. Cooperate with the Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the work so as not to interfere with the Owner's operations including vehicular circulation on the site.
- B. Provide minimum of 72-hour notice to owner and receive written notice to proceed before interrupting any utility.
- C. Partial Owner occupancy: The Owner reserves the right to occupy and to place and install equipment in areas of the building prior to substantial completion. Such placing of equipment and partial occupancy shall not constitute acceptance of the total work.
- D. Contractor to phase work as much as possible to assist AISD housekeeping prepare for the following school year.

1.5 COORDINATION

- A. General: The work of the Contract includes coordination of the entire work of the project including diagrams and schedules and control of site utilization from beginning of construction activity through project close-out and warranty periods.

1.6 MISCELLANEOUS PROVISIONS

- A. Copies of Contract Documents: The Owner will supply to the contractor not less than five sets of contract documents and any additional surplus sets from bidding, free of charge, for construction purposes; additional copies will be available to the contractor at the cost of reproduction.
- B. Asbestos: In accordance with federal legislation (Asbestos Hazard Emergency Response Act, 1986, PL99-519), each project must be certified to be constructed with no materials containing asbestos. Contractor, subcontractors and suppliers will be required to sign a statement to this effect. Any asbestos discovered in the existing facility will be removed by Owner.

- C. Construction Operations: The Engineer assumes no responsibility for physical construction operations. The contractor shall be solely responsible for construction methods, means, procedures and supervision of the work.
 - D. Safety: Comply with all laws governing safety, specifically the "Occupational Safety and Health Standards" (OSHA).
 - E. Permits and fees: Contractor shall procure and pay for building permit and other permits, licenses, deposits, meters, connecting of temporary and permanent utilities and all fees required. Contractor shall verify and coordinate all work with utility company requirements and shall verify inverts.
 - F. Cooperation with building officials: Cooperate with utility and governmental authorities and inspectors to facilitate required inspections and approvals.
 - G. Notification: The contractor shall notify the Engineer at least 48 hour in advance of start of each classification of work and concealment of work. Notify Engineer and Testing and Inspection Service 24 hours in advance of operations requiring testing services.
 - H. Cutting and patching: Cut existing construction as required to provide for installation of other components or performance of other construction activities and patch and restore construction using methods least likely to damage elements to be retained or adjoining construction.
 - I. Work in existing building: Provide barricades, warning signs and other forms of protection as required to protect Owner's personnel and general public. Protect existing finish work indicated to remain from damage. Repair or replace damaged work indicated to remain as required to restore to condition equal to or better than condition at start of work. Provide temporary weather protection where interior of existing building is exposed due to alterations to exterior of building to insure no water leakage or damage occurs to interior of building or contents. Owner will remove contents in areas of construction as required for performance of work in advance of construction operations. Coordinate scheduling with Owner. The Owner will add all moveable furniture from the building before construction begins.
 - J. Final cleaning: Final cleaning shall be performed by the Contractor and includes normal construction clean up as well as cleaning as defined by the attached EISD Cleaning Guidelines, as well as stripping and waxing floors and shampooing and drying carpets. The Contractor shall only use the cleaning and waxing products listed in the EISD Cleaning Guidelines unless specific permission is given in writing by the Owner. The school shall be Final Cleaned thoroughly inside and outside. The **entire** Bridge Point Elementary School shall be Final Cleaned after substantial completion on August 4, 2017. Remove all debris, waste materials, the contractor's tools, construction equipment and surplus materials from the site. Remove all temporary facilities. All cleaning shall be complete by August 18, 2017. All carpets shall be dry and ready for use by 5:00PM August 18, 2017. The contractor shall obtain any temporary devices such as dehumidifiers, fans etc, as necessary, to ensure that all carpets are dry within 24 hours of being shampooed. Carpets that are not dry and ready for use at 5:00 PM on August 18, 2017 will begin assessment of liquidated damages. Remove all debris, waste materials, the contractor's tools, construction equipment and surplus materials from the site. Remove all temporary facilities.
 - K. Warranties: All warranties will start after the date of Substantial Completion. All materials, equipment, work etc. performed will have a Warranty date that begins based on the Substantial Completion of that work.
- 1.7 A. Refer to attached EISD Campus Cleaning Guidelines, (3 pages).
- 1.8 A. Refer to attached EISD HVAC Owner Requirements, (2 pages).

END OF SECTION 01 11 00



EANES ISD
AUSTIN, TEXAS

EISD Campus Cleaning Guidelines

ALL AREAS

(includes offices, conference rooms, classrooms, restrooms, lobbies, corridors, stairwells, entry ways, breezeways, elevators.)

Empty trash receptacles, replace liner (if soiled), wash receptacles (as needed) and dispose of trash
Sweep floors, removing debris from behind doors, in corners and around furniture.
Vacuum carpets/floors, removing debris from behind doors, in corners and around furniture.
Spot mop floors/spot clean carpet, removing spills/stains.
Do not water natural plants.
Damp mop all hard surface floors including hallways, interior stairs, landings, breezeways
Spot wash walls and doors, clean around light switches as needed.
Clean wash basins and utility sinks.
Dust all interior surfaces below and above 6 ft. and ceiling areas for cobwebs, etc.
Wash interior window as time permits.
Clean air grills and vents and dust venetian blinds and window sills.
Flush eye washers, flush safety showers.

RESTROOMS

Complete a full-scale cleaning of restrooms. Disinfect wash basins, urinals, commodes, trash receptacles and dispensers. Sweep & mop floors.
Damp wipe doors, walls & partitions. Clean mirrors and bright metal surfaces.
Service all dispensers, including sanitary napkins dispensers.
Spray clean walls, stalls, fixtures and scrub restroom floors.

LOBBIES, CORRIDORS & STAIRWELLS

Clean drinking fountains.
Sweep and spot mop interior stairs and landings.
Dust & clean handrails, metal railings, fire extinguishers.
Apply a coat of floor finish and buff hard surfaces (lobbies & corridors).
Bonnet-shampoo carpeted areas.

ENTRYWAYS & BREEZEWAYS

Sweep building entrances, remove dust tags, spider webs from walls, ceiling, & corners.
Vacuum entry mats and exchange as required.
Clean entry glass doors and walls.
Wash down floors, exterior signs and landings.

ELEVATORS

Vacuum all elevator tracks.

Specific Requirements

Stripping & waxing of all VCT or terrazzo floors

Shampoo all carpet

Deep clean all restrooms

Special Cleaning

Cleaning processes

Cleaning chemicals, wax, floor stripper

Betco Quat-Stat Disinfectant

Betco Fast Draw PH7 ULTRA Daily Floor Cleaner

Betco #11 Oxy Cleaner

Betco glass cleaner

Floor stripping process / Ax-it plus strip

Equipment needed: dust mops, broom, dust pan, protective gear, measuring cup, wet floor signs, tape, double bugs, mop, mop bucket, buffer, black pads, scrappers, wet vac, floor stripper

Dust Mop floor

Tape off doorways and edges

Put wet floor signs

Wear protective equipment

Mix floor stripper properly to specs using cool water

Scrape finish from edges if needed

Floor mop stripper, let dwell to specs

Use a clean black stripping pad

Walk where you scrub, flip or change pad when clogged or needed

Wet vac pickup

Damp mop rinse with clean water 2x

Change out mop water when dirty

Properly clean and store all equipment

Apply finish when floor is completely dry

Waxing Process / Betco Hard As Nails 20% Solid

Equipment needed: waxing rayon mop, mop bucket, trash liner, wet floor signs, wax

Use a clean rayon flush mop

Put floor signs out.

Line the bucket, pour finish in bucket.

Wax areas in sections

Flip mop to prevent dragging of wax.

Recoat floor when touch to the floor is completely dry.

Put 5 complete coats to floor.

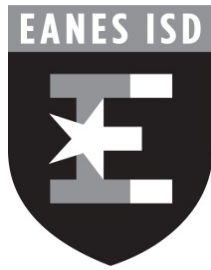
Prespraying Extraction of carpet / ES-Steam extraction cleaner
<i>Equipment needed: protective gear, wet floor signs, vacuum, spray bottle, prespray pressure sprayer</i>
Vacuum area completely and spray spots with prespray remover see specs on spotter
Place wet floor signs on carpet or entrance
Allow dwelling time for cleaner on carpet
Use cleaning solution in extractor.
Use the double pass method and overlap your passes.
Use carpet floor dryer to allow appropriate drying time (24 Hrs. Maximum)

Restroom Cleaning

<i>Equipment needed: mop bucket, wet mop, dust pan, broom, paper towels, swab bowl mop, duster, Betco Quat-Stat Disinfectant, Betco glass cleaner.</i>
Remove all trash or debris from floor
Remove trash from trash can
High dust all areas
Sweep floor
Using Betco Quat-Stat Disinfectant spray inside and outside of toilet and all urinals, scrub inside of toilet and urinals and flush, dry with dry towels and wipe chrome handle with a damp wet towel.
Spray and wipe sinks and counter tops with Betco Quat-Stat Disinfectant
Spray and wipe mirrors with Betco glass cleaner.
All restroom partitions will be wiped down with Betco Quat-Stat Disinfectant and wipe down toilet dispenser with damp towel
All chrome to be wiped down with damp towel, no chemical needed
Wet mop floor with Betco Fast Draw PH7 ULTRA Daily Floor Cleaner.

Classroom cleaning process

<i>Equipment needed: vacuum , duster, Betco glass cleaner , Betco Quat-Stat Disinfectant</i>
Throw all trash from classroom
High dust all areas
Clean and dust window seals
Wipe all walls down to remove dust
Use Betco Quat-Stat Disinfectant clean all sinks
Vacuum carpet
If VCT floor,. Strip and wax.



**EANES
INDEPENDENT
SCHOOL
DISTRICT**

EANES ISD OWNER HVAC REQUIREMENTS

* Gas heating if natural gas is available.
*No installation of "Factory equipment Controls". District BAS is to have access and control for all equipment including: fans, dampers, dehumidification, compressors, etc. Excluding Chillers and Boilers.
* No VAV's inside classrooms. Access must be from hall or mech room.
* Humidity control on all new package units.
* No ERV's. All fresh air makeup is to be conditioned
* CO2, humidity, and temp on all zone sensors.
* Install hail guards on all exterior units.
* Provide water hose bib and power receptacle on roof area within 100' radius for service.
* Do not block access panels on equipment installed above the ceiling.
* All OA dampers actuator controlled, including split systems
* Provide access panels for proper equipment maintenance at all hard ceiling locations
* Units above lay-in ceiling must be set a min. of 1' or max. of 3' above grid when measured to the bottom of the unit.
*Provide catwalk or platform for all indoor equip above 10'
* Have access to all roof levels via site built ladders or stairs.
* Provide ladder cage at all exterior locations when travelling vertically over 16'.
* Control modules and Electrical Disconnect shall be mounted on access panel side of VAV or air handler within reach.
* Fan coil box filters in ceiling grid not at box
* No multi-zoning.
* Provide access panel on unit for parts removal.
* Fill out refrigerant compliance logs for all a/c equipment
* All MDF rooms must have split system.
* Install all VAV boxes in hallways or entry ways.
* No insulation liner inside ductwork.
*Polyurethane insulation on all outdoor piping
*Fibergalss insulation on all indoor piping

* Polyurethane insulation must be use on outdoors piping and fiberglass indoors.
* Phase protector on all thee phase equipment.
* Double containment tanks for water treatment.
* Install coupon racks on all water loops.
* Cross flow stainless steel cooling towers with access doors and basin heaters.
*Both Automaict and Manual isolation valves on all chillers and cooling towers.
* Accessible ends on chiller bundles for cleaning.
* Install eye wash on mechanical room by water treatment chemicals.
* Label all HVAC equipment installed above ceiling using district approved method.
* Evaporation credits on all cooling towers. Coordinate with municipality requirements
* Energy recovery wheels shall be RotorSource
* Filter grills should be provided on all duct return projects.
* Install filtration system on all cooling towers.
* No wiring shall be installed inside ductwork
*ABB VFDs with mechanical bypass to be used on all AHUs, pumps, etc.
* Provide shaft grounding rings for bearing protection on all VFD's
* 5 year warranty parts and labor on all chillers and boilers.
* Factory training on all new equipment.
* Provide Conditioning at electrical rooms containing Transformer.
* Paint all water and gas lines.
* Install condensate overflow shut off switches on all equipmen, especially on over flow drain pans.
*All removable panels, filters, valves, motors (AHU), etc must be accessible from ground level
* A classroom mockup shall be provided on all renovation projects. This mockup of a typical classroom installation of ALL Componen. Must be complete and approved by district M&O prior to t work in the rest of the project.
ENTIRE CAMPUS SHOULD BE THOROUGHLY CLEANED BY CONTRACTOR TO INCLUDE: STRIPPING/WAXING OF VCT FLOORING, DUSTING, WIPING VERTICAL & HORIZONTAL SURFACES, CARPETS SHAMPOOED, ETC.
CONTRACTOR RESPONSIBLE FOR ADEQUATE FLOOR PROTECTION THROUGHOUT PROJECT. METHOD TO BE APPROVED BY OWNER.

SECTION 01 25 13 – PRODUCTS AND SUBSTITUTIONS

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification sections, apply to the work of this section.

1.2 DESCRIPTION OF REQUIREMENTS

- A. Definitions: Definitions used in this paragraph are not intended to negate the meaning of other terms used in the Contract Documents, including such terms as, "specialties", "systems", "structure", "finishes", "accessories", "furnishings", "special construction" and similar terms. Such terms are self explanatory and have recognized meanings in the construction industry.
 - 1. "Products" are items purchased for incorporation into the Work, regardless of whether they were specifically purchased for the project or taken from the Contractor's previously purchased stock. The term "product" as used herein included the terms "material", "equipment", "system" and other terms of similar intent.
 - 2. "Named Products" are products identified by use of the manufacturer's name for a product, including such items as a make or model designation, as recorded in published product literature, of the latest issue as of the date of the Contract Documents.
 - 3. "Materials" are products that must be substantially cut, shaped, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form units of work.
 - 4. "Equipment" is defined as a product with operational parts, regardless of whether motorized or manually operated, and in particular, a product that requires service connections such as wiring or piping.
- B. Substitutions: Requests for change in the products, materials, equipment and methods of construction required by the Contract Documents are considered requests for "substitutions" and are subject to the requirements specified herein. The following are not considered substitutions:
 - 1. Revisions to the Contract Documents, where requested by the Owner or Engineer, are considered as "changes" not substitutions.
 - 2. Substitutions requested during the bidding period, which have been accepted prior to the Contract Date, are included in the Contract Documents by Addendum.
 - 3. Specified Contractor options on products and construction methods included in the Contract Documents are choices available to the Contractor and are not subject to the requirements for substitutions as herein specified.
 - 4. Except as otherwise provided in the Contract Documents, the Contractor's determination of and compliance with governing regulations and orders as issued by governing authorities do not constitute "substitutions" and do not constitute a basis for change orders.

1.3 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same generic kind, from a single source, for each unit of work. When it is discovered that specified products are available only from sources that do not or cannot produce an adequate quantity to complete project requirements in a timely manner, consult with the Engineer for a determination of what product qualities are most important before proceeding. The Engineer will designate those qualities, such as visual, structural, durability, or compatibility, that are most important. When the Engineer's determination has been

made, select products from those sources that produce products that possess the most important qualities, to the fullest extent possible.

- B. Compatibility of Options: Compatibility of products is a basic requirement of product selections. When the Contractor is given the option of selecting between two or more products for use on the project, the product selected must be compatible with other products previously selected, even if the products previously selected were also Contractor options. The complete compatibility between the various choices available to the Contractor is not assured by the various requirements of the Contract Documents, but must be provided by the Contractor.

1.4 SUBSTITUTION REQUEST

- A. During Bidding, only written Request for Substitutions will be considered. Written requests must include all pertinent information noted in the following paragraphs 1.4.C and 1.4.D. Written requests must be received no later than 7 days prior to the bid date.
- B. After date of Contract, the Owner may consider formal requests from Contractor for substitution of products in place of those specified when submitted in accordance with the requirements of this Section. One or more of the following conditions must also be documented.
- C. The substitution must be required for compliance with interpretation of code requirements or insurance regulations.
- D. The substitution must be due to the unavailability of the specified products, through no fault of the Contractor.
- E. The substitution may be requested when subsequent information discloses the inability of the specified products to perform properly or to fit in the designated space.
- F. The substitution may be due to the manufacturer's or fabricator's refusal to certify or guarantee performance of the specified product as required.
- G. The substitution may be requested when it is clearly seen, in the judgment of the Engineer that a substitution would be substantially to the Owner's best interest in terms of cost, time or other consideration.
- H. Submit one copy of Request for Substitution. Include in Request:
- I. Complete data substantiating compliance of proposed substitution with Contract Documents.
- J. Product identifications, including manufacturer's name and address.
- K. Manufacturer's literature including product description, performance and test data, and reference standards.
- L. Name and address of similar projects on which product was used and date of installation.
- M. Itemized comparison proposed substitution with product or method specified.
- N. For request submitted after bids are received, accurate cost data on proposed substitution in comparison with products or method specified, and date relating to changes in construction schedule.
- O. In submitting Request for Substitution, Manufacturer, Subcontractor or Contractor where Contractor is initiating request makes the following representations.
- P. They have personally investigated proposed product and insure that it acceptable or superior in all respects to that specified.
- Q. They will provide the same guarantee for substitution as for product specified, and that substitution will not adversely effect any related specified products guarantee.
- R. They will coordinate installation of accepted substitution into Work, making changes as may be required for Work to be completed in all respects as originally specified.
- S. They waive all claims for additional costs related to substitution which consequently becomes apparent.
- T. Cost data is complete and included all related costs under the Contract, but excludes:
 - 1. Cost under separate Contracts.
 - 2. Design consultant's redesign.
 - 3. Substitutions will not be considered if:

- i. They are indicated or implied on Shop Drawings or Product Data submittals without request.
- ii. Acceptance will require substantial revision of Contract Documents.

PART 2 PRODUCTS

2.1 GENERAL PRODUCT COMPLIANCE

- A. General: Requirements for individual products are indicated in the Contract Documents; compliance with these requirements is in itself a contract requirement. These requirements may be specified in any one of several different specifying methods, or in any combination of these methods. These methods include the following:
 1. Proprietary
 2. Descriptive
 3. Compliance with Reference Standards
- B. Compliance with codes, compliance with graphic details, allowances, and similar provisions of the Contract Documents also having a bearing in the selection process.
- C. Procedures for Selecting Products: The Contractor's options in selecting products are limited by requirements of the Contract Documents and governing regulations. They are not controlled by industry traditions or procedures experienced by the Contractor on previous construction projects. Required procedures include but are not limited to the following for the various indicated methods of specifying:
- D. Proprietary and Semiproprietary Specification Requirements:
 1. Proprietary Specification: Where only a single product or manufacturer is named, provide the product indicated, unless the specification indicates possible consideration of other products. Advise the Engineer before proceeding, when it is discovered that the named product is not a reasonable or a feasible solution.
 2. Semiproprietary Specification: Where two or more products or manufacturers are named, provide one of the products named, at the Contractor's option. Exclude products that do not comply with specification requirements. Do not provide or offer to provide an unnamed product, unless the specification indicates possible consideration of other products. Advise the Engineer before proceeding where none of the named products comply with specification requirements, or are feasible for use.
 3. Descriptive Specification Requirements: Where the specifications describe a product or assembly generically, in detail, listing the exact characteristics required, but without use of a brand or trade name, provide products or assemblies that provide the characteristics indicated and otherwise comply with Contract requirements.
 4. Compliance with Standards, Codes and Regulations: Where the specifications require only compliance with an imposed standard, code or regulation, the Contractor has the option of selecting a product that complies with specification requirement, including the standards, codes and regulations.
 5. Allowances: Refer to individual sections of the specifications and "Allowance" provisions in Division 1 sections for an indication of product selections that are controlled by established allowances, and for the procedures required for processing such selections.

2.2 GENERAL PRODUCT REQUIREMENTS

- A. General: Provide products that comply with the requirements of the Contract Documents and that are undamaged and, unless otherwise indicated, unused at the time of installation. Provide products that are complete with accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.

PART 3 EXECUTION

3.1 INSTALLATION OF PRODUCTS

- A. General: Except as otherwise indicated in individual sections of these specifications, comply with the manufacturer's instructions and recommendations for installation of the products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other work. Clean exposed surfaces and protect surfaces as necessary to ensure freedom from damage and deterioration at time of acceptance.

END OF SECTION 01 25 13

SECTION 01 30 00 – ADMINISTRATIVE PROVISIONS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Title of Work, and type of Contract
- B. Preconstruction Conference
- C. Work Sequence
- D. Contractor Use of Premises
- E. Owner-furnished Products
- F. Allowances
- G. Coordination
- H. Reference Standards
- I. Project Meetings

1.2 RELATED REQUIREMENTS

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work of this contract comprises general construction including site work, plumbing, mechanical and electrical for the Summitt Elementary School HVAC Renovation for the Austin Independent School District, Austin, Texas.

1.4 CONTRACT METHOD

- A. Construct the work under a single lump sum contract. (See enclosed Agreement)

1.5 PRECONSTRUCTION CONFERENCE

- A. A preconstruction meeting will be held at a time and place designated by the Engineer, for the purpose of identifying responsibilities of the Owner's and the Engineer's personnel and explanation of administrative procedures.

1.6 WORK SEQUENCE

- A. Construct work during the construction period, coordinate construction schedule and operations with owner. Renovation and other disruptive activities shall not commence prior to June 1, 2018 unless approved by Eanes ISD. Substantial completion shall be on or before August 3, 2018.

1.7 CONTRACTOR USE OF PREMISES

- A. Limit use of premises for Work and for construction operations, to allow for limited Owner occupancy. Owner will not move out of areas of construction and contractor shall minimize access to these areas during summer.
- B. Coordinate use of premises under direction of Engineer with Owner.

1.8 OWNER-FURNISHED PRODUCTS

- A. None
- B. Owner's Responsibilities
 - 1. Coordinate with Contractor
 - 2. Warranty on owner furnished products.
- C. Contractor's Responsibilities
 - 1. Receive and unload new products at site; inspect new products for completeness, for damage, jointly with Owner.
 - 2. Handle, store, install and finish products.
 - 3. Repair or replace items damaged by Work of this contract.

1.9 COORDINATION

- A. Coordinate work of the various sections of Specifications to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items installed later.
- B. Verify characteristics of elements of interrelated operating equipment are compatible; coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- C. Coordinate space requirements and installation of mechanical and electrical work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit as closely as practical; make runs parallel with lines of building. Coordinate locations of fixtures and outlets with finish elements. Utilize spaces for other installations, for maintenance and for repairs.
- D. In finished areas except as otherwise shown, conceal pipes, ducts, and wiring in the construction. Coordinate locations of fixtures and outlets with finish elements.

1.10 REFERENCE STANDARDS

- A. For products specified by association or trade standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. The date of the standard is that in effect as of the date of OWNER-CONTRACTOR Agreement, except when a specified date is specified.
- C. Obtain copies of standards when required by Contract Documents. Maintain copy at job site during progress of the specific work.

1.11 PROJECT MEETINGS

- A. Project meetings will be held bi-weekly or as often as Owner requests with the Contractor, major Subcontractors, Owner and Engineer.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION 01 30 00

SECTION 01 32 00 – RECORD DRAWINGS

PART 1 GENERAL

1.1 DESCRIPTION AND RESPONSIBILITIES

- A. Record drawings are drawings that reflect changes in the work from that shown on the original drawings. Record drawings are the responsibility of the contractor and are part of the Contract between the Owner and contractor. At the end of the Project, the contractor is to submit the record drawings to the Engineer.
- B. As-built conditions are important to the Owner for future maintenance, repairs, renovations and additions to the work; therefore, the contractor is required to furnish Record Drawings that are complete and accurate and that are clear and legibly drawn.

1.2 AS BUILTS

- A. The following general requirements apply to all record drawings:
 - 1. They shall be produced and maintained at the contractor's expense.
 - 2. They shall be complete, indicating all elevations and changes from the original drawings.
 - 3. They shall be done clearly, carefully and legibly and additional drawings shall be provided as necessary for clarification.
 - 4. They shall be kept up to date during the entire course of the work and shall be available for examination when requested or when needed to establish clearance for other parts of the work.

1.3 DRAWING REQUIREMENTS

- A. The contractor shall maintain Record Drawings on one set of drawings reserved exclusively for that purpose. Changes shall be drawn and indicated on these copies in red pencil or ink.
- B. The quality of the drawings is required to be clear and legible. Should the person maintaining the Record Drawings be unable to print, write or draw legibly, then the contractor shall employ a draftsman who can produce proper drawings of good quality. The Engineer reserves the right of approval as to the quality of the Record Drawings.
- C. The drawings shall indicate all changes in sizes, dimensions, change orders, locations of piping and other changes authorized by the Engineer including but not limited to the following:
 - 1. Engineer reviewed changes that the contractor elects to make in construction or location of work..
 - 2. All changes in location of electrical equipment and conduit runs, all changes in location of plumbing equipment and piping, and all changes in the location of HVAC ductwork and equipment.
 - 3. In addition, it shall be possible using these documents to correctly and easily locate, identify and establish sizes of all piping, directions and the like as well as all other features of work which will be concealed in the finished building.
- D. Owner's as-built drawings
 - 1. The contractor will submit the completed set of as-built blue-line prints within five (5) days after the date of Substantial Completion for the project. The Engineer will not authorize final payment to the contractor until as-built drawings have been approved..

END OF SECTION 01 32 00

SECTION 01 33 00 - SUBMITTALS

PART 1 GENERAL

1.1 SCOPE

- A. Submittals and their submissions shall be in complete conformance with the contract Documents including General, Supplemental and Special Conditions.
- B. The number of copies to be submitted with each Submittal will be determined at the Pre-Construction Conference; however, in no case shall the number be less than that required to be returned to the contractor plus three (3) copies retained by the Engineer, Project Manager and Owner.

1.2 SUBMITTAL LIST

- A. Within ten (10) days after date of Start Work Order or Notice to Proceed with the work, the contractor shall submit to the Engineer a "Submittal List" indicating the specified submittal requirements of each section.
- B. The Engineer may approve or reject the list. If rejected, revise and resubmit the list in accordance with the Engineer's comments. The Engineer may delete or add to the list of Submittals at his discretion.

1.3 LOGGING AND NUMBERING

- A. The contractor shall keep a "submittal log" detailed enough for tracking and identifying each submittal and indicating the dates of submission and return.
- B. Consecutively number all submittals. Accompany each with a letter of transmittal containing all pertinent information required for identification.

1.4 SHOP DRAWINGS AND SAMPLES

- A. Make all shop drawings accurate, to scale and sufficient in size to show all pertinent aspects of the item, its construction jointage and its method of connection to the work. Shop drawings must be sufficient in detail to show compliance with the Contract Documents and to indicate fabrication.

1.5 MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS

- A. Submit all required manufacturers' information and specifications of a product together with all other required data in one submittal. Do not break up a single product into several submittals.
- B. When specified, include the following manufacturers' data with the submittal:
 - 1. Certification.
 - 2. Guarantee/warranty.
 - 3. Installation instructions.
 - 4. Color or product samples.
 - 5. Specifications.
 - 6. Code compliance (Fire, UL, etc.)
 - 7. Maintenance requirements and instructions.

1.6 CONTRACTOR'S REVIEW

- A. The contractor shall review submittals for conformance to the Contract Documents in quality, quantity, design and dimension before they are sent to the Engineer for review.
- B. To certify that the submittal has been reviewed and approved by the contractor, he shall stamp the submittal with an "Approved" ink stamp and sign and date the submittal.

END OF SECTION 01 33 00

SECTION 01 40 00 - QUALITY CONTROL

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality assurance and control of installation.
- B. References.
- C. Inspection and testing laboratory services.
- D. Manufacturers' field services and reports.
- E. Permits and inspections.

1.2 RELATED SECTIONS

- A. Section 01 30 00 - Submittals: Submission of Manufacturers' Instructions and Certificates.
- B. Section 01 60 00 - Material and Equipment: Requirements for material and product quality.

1.3 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. General Contractor to be responsible for payment all of testing and inspection.
- C. Comply fully with manufacturers' instructions, including each step in sequence.
- D. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- E. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- F. Perform work by persons qualified to produce workmanship of specified quality.
- G. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.4 REFERENCES

- A. Conform to reference standard by date of issue current on date specified in product Sections.
- B. Obtain copies of standards when required by Contract Documents.
- C. Should specified reference standards conflict with Contract Documents, request clarification for Architect/Engineer before proceeding.
- D. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.5 MANUFACTURERS' FIELD SERVICES AND REPORTS

- 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 applicable, and to initiate instructions when necessary.
- B. Individuals to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- C. Submit report in duplicate within 30 days of observation to Architect/Engineer for review.

1.6 PERMITS AND INSPECTIONS

- A. The Contractor is required to pay for all required Building Permits, etc.
- B. All Inspections by the City or other Governing Offices shall be coordinated by the Contractor.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION 01 40 00

SECTION 01 60 00 - MATERIAL AND EQUIPMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Transportation and handling.
- C. Storage and protection.
- D. Product options.
- E. Substitutions.

1.2 RELATED SECTIONS

- A. Section 01 30 00 - Administrative Provisions.
- B. Section 01 40 00 - Quality Control: Product quality monitoring.

1.3 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, and systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- C. Provide interchangeable components of the same manufacturer, for similar components.

1.4 TRANSPORTATION AND HANDLING

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

1.5 STORAGE AND PROTECTION

- A. Store and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate controlled enclosures.
- B. For exterior storage of fabricated products, place on sloped supports, above ground.
- C. Provide off-site storage and protection when site does not permit on-site storage or protection. Materials and equipment stored offsite must be in a licensed, bonded and insured warehouse (within 50 miles of Jobsite) in order to be included on a pay application. The Owner reserves the right to verify materials and equipment stored in warehouses.
- D. No materials or equipment may be stored at jobsite prior to June 14, 2013. Any materials and equipment that is to be stored from shall be stored indoors, except for the Heat Recovery Unit equipment.
- E. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- F. Store loose granular materials on solid flat surfaces in a well-drained area. Provide mixing with foreign matter.
- G. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- H. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

1.6 ASBESTOS PRODUCTS

- A. Contractor and Subcontractors shall certify that no asbestos products have been incorporated within the construction of this project. Certificates to accompany warranties.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not used

END OF SECTION 01 60 00

SECTION 01 77 00 - CONTRACT CLOSEOUT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Closeout procedures.
- B. Final cleaning.
- C. Adjusting.
- D. Project record documents.
- E. Operation and maintenance data.
- F. Warranties.
- G. Spare parts and maintenance materials.

1.2 RELATED SECTIONS

- A. Section 01 30 00 - Administrative Provisions
- B. Conditions of the Contract: Fiscal provisions, legal, submittals, and other administrative requirements.

1.3 CLOSEOUT PROCEDURES

- A. Inspection
 - 1. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's inspection. Engineer will make final inspection and prepare a list of deficiencies remaining to final completion.
 - 2. Contractor will correct deficiencies and notify Engineer who make a re-inspection. If project is completed and ready for Owner move-in, Engineer will and declare project substantially complete and notify owner the project is ready for final inspection and acceptance.
 - 3. The Owner, Engineer and contractor will inspect the facility and note remaining deficiencies, if any, and the owner will begin to move into the facility.
 - 4. Contractor will correct all deficiencies and notify Engineer. Engineer and owner will make final inspection and determine if all deficiencies are completed. Failure to pass this inspection, i.e., correct all deficiencies, could result in back charge of costs to Contractor of additional inspections by Engineer and Owner.
- B. Provide submittals to Engineer that are required by governing or other authorities, including one set of final as-built submittals for Owner.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- D. Owner will occupy Project for the purpose of conducting business, under provision stated in Certificate of Substantial Completion.

1.4 FINAL CLEANING

- A. Execute final cleaning as described in Section 01 11 00.
- B. Clean surfaces exposed to view; remove temporary labels, stains and foreign substances.
- C. Clean equipment and fixtures to a sanitary condition.
- D. Clean debris from roofs, gutters, downspouts, and drainage systems.
- E. Clean site; sweep paved areas, rake clean landscaped surfaces.
- F. Remove waste and surplus materials, rubbish, and construction facilities from the site.

1.5 ADJUSTING

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

1.6 PROJECT RECORD DOCUMENTS

- A. Maintain on site, one set of the following record documents; record actual revisions to the Work:
 - 1. Contract Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other Modifications to the Contract.
 - 5. Reviewed shop drawings, product data, and samples.
- B. Store Record Documents separate from documents used for construction.
- C. Record information concurrent with construction progress.
- D. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and Modifications.
- E. Record Documents and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured depths of foundations in relation to finish main floor datum.
 - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - 4. Field changes of dimension and detail.
 - 5. Details not on original Contract Drawings.
- F. At Contract Closeout, submit documents with transmittal letter containing date, Project title, Contractor's name and address, list of documents, and signature of Contractor.
- G. Provide electronic copy of project record documents.

1.7 OPERATION AND MAINTENANCE DATA

- A. Submit three (3) sets prior to final inspection, bound in 8-1/2 x 11 inch text pages, three D side ring high capacity binders with durable plastic covers.
- B. Prepare binder covers with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project, and subject matter of binder when multiple binders are required.
- C. Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- D. Contents: Prepare a Table of Contents for each volume, with each Product or system description identified, type on 24 pound white paper.
- E. Part 1: Directory, listing names, addresses, and telephone numbers of Engineer, Contractor, Subcontractors, and major equipment suppliers.
- F. Part 2: Operation and maintenance instructions, arranged by and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - 1. Significant design criteria.
 - 2. List of equipment.
 - 3. Parts list for each component.
 - 4. Operating instructions.
 - 5. Maintenance instructions for equipment and systems.

- 6. Maintenance instructions for special finishes, including recommended cleaning methods and materials and special precautions identifying detrimental agents.
- G. Part 3: Project documents and certificates, including the following:
 - 1. Shop drawings and product data.
 - 2. Certificates.
 - 3. Photocopies of warranties.
- H. Submit one copy of completed volumes in final form 15 days prior to final inspection. This copy will be returned with Engineer comments. Revise content of documents as required prior to final submittal.
- I. Submit final volumes revised, within ten days after final inspection.

1.8 WARRANTIES

- A. Provide duplicate notarized copies.
- B. Execute and assemble documents from Subcontractors, suppliers, and manufacturers.
- C. Provide Table of Contents and assemble in three D side ring binder with durable plastic cover.
- D. Submit prior to final Application for Payment.
- E. For items of Work delayed beyond date of Substantial Completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.
- F. All materials, equipment, and work completed will have warranties that begin at the Substantial Completion of that work.

1.9 SPARE PARTS AND MAINTENANCE MATERIALS

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

PART 2 – PRODUCTS

Not used

PART 3 – EXECUTION

Not used

END OF SECTION 01 77 00

SECTION 09 51 00 - ACOUSTICAL CEILINGS

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Non-fire rated suspended metal grid systems complete with wall trim.
- B. Lay-in ceiling boards.

1.2 RELATED WORK

- A. Division 26: Lighting fixtures within ceiling system.
- B. Division 23: Air Diffusers within ceiling system.

1.3 REFERENCE STANDARDS

1.4 SUBMITTAL

- A. Submit shop drawings of acoustical ceiling system in accordance with Section 01300.
- B. Clearly indicate grid layout and all related dimensioning, junctions with other work or ceiling finishes, inter-relation of mechanical and electrical items related to system and walls.

1.5 ENVIRONMENTAL CONDITIONS

- A. Do not install acoustical ceilings until building is enclosed, sufficient heat is provided, dust generating activities have terminated and overhead mechanical work is completed, tested and approved.
- B. Permit work to dry prior to commencement of installation.
- C. Maintain uniform temperatures of minimum 61 degrees F. and humidity of 20% to 40% prior to, during and after installation.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Substitutions: Items of same function and performance are acceptable in conformance with Section 01 25 13.

2.2 SUSPENSION SYSTEM

- A. Type and Manufacturer: General - 15/16" Intermediate duty, Class "A". Heavy Duty at Multi Purpose Room - Equal to USG DX/DXL26 white grid No. 004.
 - 1. Acceptable Manufacturers:
 - a. Armstrong - Fine Prelude
 - b. Chicago Metallic Corp. 200 Series
 - c. USG Interiors - DX 24

- B. Grid: Non-fire rated exposed tee components die cut and interlocking.
- C. Accessories: stabilizer bars, furring clips, splices, edge moldings hold down clips and as required to complete and complement suspended ceiling grid system.
- D. Materials/Finish: Commercial quality cold rolled steel with galvanized coating; white finish on exposed surfaces. See Reflected Ceiling Plans for location of color.
- E. Carrying Channels and Hangers: Galvanized steel; size and type to suit application and to rigidly secure the complete acoustic unit ceiling system, with maximum deflection of 1/360.

2.3 LAY-IN PANELS

- A. Acoustic Boards: Moisture Resistant Acoustical Ceiling Tile, 24 inch x 24 inch size x 5/8 minimum inch thick; 0.83 light reflectance; 0.10 NRC range per ASTM C 423; treat with antimicrobial treatment solution which inhibits mold and mildew growth. Color: White, See Reflected Ceiling Plans for locations.
 - 1. Acceptable Manufacturers:
 - a. Armstrong - Clean Room VL, #868.
 - b. Equivalent by USG Interiors or Celotex

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install acoustical system(s) in accordance with manufacturer's recommendations to produce finished ceiling true to lines and levels and free from warped, soiled or damaged grid or lay-in panels.
- B. Install ceiling system(s) in a manner capable of supporting all superimposed loads, with maximum permissible deflection of 1/360 of span and maximum surface deviation of 1/8 inch in 10 ft.
- C. Install after major above-ceiling work is complete. Co-ordinate the location of hangers with other work. Ensure the layout of hangers and carrying channels are located to accommodate fittings and units of equipment which are to be placed after installation of ceiling grid system(s).
- D. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest adjacent hangers and related carrying channels as required to span the required distance.
- E. Supply hangers or inserts for installation to the respective section in ample time and with clear instructions for their correct placement. If steel deck is not supplied with hanger tabs, co-ordinate the installation of hanger clips during steel deck erection. Provide additional hangers and inserts as required.
- F. Hang independently of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of the longitudinal axis of face plane of adjacent members.
- G. Center ceiling system(s) on room axis leaving equal border pieces (or as shown on reflected ceiling plan).
- H. Do not support fixtures from or on main runners or cross runners if weight of the fixture

causes the total dead load to exceed the deflection capability. In such cases, support fixture loads by supplementary hangers located within 6 inches of each corner, or support the fixtures independently.

- I. Do not install fixtures so that main runners and cross runners will be eccentrically loaded. Where fixture installation would produce rotation of runners, provide stabilizer bars.
- J. Install edge moldings at intersection of ceiling and vertical surfaces, using maximum lengths, straight, true to line and level. Miter corners. Provide edge moldings at junctions with other ceiling finishes.
- K. Fit acoustic lay-in panels in place, free from damaged edges or other defects detrimental to appearance and function. Lay directionally patterned tile one way with pattern parallel to shortest room axis. Fit border units neatly against abutting surfaces.
- L. Install lay-in panels level, in uniform plane and free from twist, warp and dents.
- M. Install hold-down clips on all lay-in panels to hold such panels tight to grid system where within 20 ft. of exterior door(s).

3.2 ADJUSTMENTS

- A. Adjust any sags or twists which develop in the ceiling system(s) and replace any part which is damaged or faulty.

END OF SECTION 09 51 00

SECTION 095113 - ACOUSTICAL PANEL CEILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes acoustical panels and exposed suspension systems for ceilings.

1.3 DEFINITIONS

- A. AC: Articulation Class.
- B. CAC: Ceiling Attenuation Class.
- C. LR: Light Reflectance coefficient.
- D. NRC: Noise Reduction Coefficient.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Verification: For each component indicated and for each exposed finish required, prepared on Samples of size indicated below.
 - 1. Acoustical Panel: Set of 6-inch- (150-mm-) square Samples of each type, color, pattern, and texture.
 - 2. Exposed Suspension System Members, Moldings and Trim: Set of 12-inch- (300-mm-) long Samples of each type, finish, and color..

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type of acoustical ceiling panel and supporting suspension system through one source from a single manufacturer.
- B. Fire-Test-Response Characteristics: Provide acoustical panel ceilings that comply with the following requirements:
 - 1. Fire-Resistance Characteristics: Where indicated, provide acoustical panel ceilings identical to those of assemblies tested for fire resistance per ASTM E 119 by UL or another testing and inspecting agency acceptable to authorities having jurisdiction.

- a. Fire-Resistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory" or from the listings of another testing and inspecting agency.
 - b. Identify materials with appropriate markings of applicable testing and inspecting agency.
- 2. Surface-Burning Characteristics: Provide acoustical panels with the following surface-burning characteristics complying with ASTM E 1264 for Class A materials as determined by testing identical products per ASTM E 84:
 - a. Smoke-Developed Index: 450 or less.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical panels, suspension system components, and accessories to Project site in original, unopened packages and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.
- B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content.
- C. Handle acoustical panels carefully to avoid chipping edges or damaging units in any way.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install acoustical panel ceilings until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

1.8 COORDINATION

- A. Coordinate layout and installation of acoustical panels and suspension system with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system, and partition assemblies.

1.9 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Acoustical Ceiling Panels: Full-size panels equal to 2.0 percent of quantity installed.

PART 2 - PRODUCTS

2.1 ACOUSTICAL PANELS, GENERAL

- A. Acoustical Panel Standard: Provide manufacturer's standard panels of configuration indicated that comply with ASTM E 1264 classifications as designated by types, patterns, acoustical ratings, and light reflectances, unless otherwise indicated.
- B. Acoustical Panel Colors and Patterns: Match appearance characteristics indicated for each product type.
- C. Broad Spectrum Antimicrobial Fungicide and Bactericide Treatment: Provide acoustical panels treated with manufacturer's standard antimicrobial formulation that inhibits fungus, mold, mildew, and gram-positive and gram-negative bacteria and showing no mold, mildew, or bacterial growth when tested according to ASTM D 3273 and evaluated according to ASTM D 3274 or ASTM G 21.

2.2 ACOUSTICAL PANELS FOR ACOUSTICAL PANEL CEILING ACT-1

- A. Basis-of-Design Product: Subject to compliance with requirements, provide USG, Inc.; ClimaPlus "Radar" or a comparable product by one of the following:
 - 1. Chicago Metallic Corp.
 - 2. Armstrong Industries, Inc.
- B. Classification: Provide panels complying with ASTM E 1264 for type, form, and pattern as follows:
 - 1. Type and Form: Type III, Form 1.
 - 2. Pattern: EIC.
- C. Color: White.
- D. LR: Not less than 0.85.
- E. NRC: Not less than 0.55.
- F. CAC: Not less than 35.
- G. Edge/Joint Detail: Square.
- H. Thickness: 7/8 inch.
- I. Modular Size: As indicated on Drawings.
- J. Antimicrobial Treatment: Broad spectrum fungicide and bactericide based.
- K. Recycled Content: Not less than 48%.

2.3 METAL SUSPENSION SYSTEMS, GENERAL

- A. Metal Suspension System Standard: Provide manufacturer's standard direct-hung metal suspension systems of types, structural classifications and finishes indicated that comply with applicable requirements in ASTM C 635.
- B. Finishes and Colors, General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes. Provide manufacturer's standard factory-applied finish for type of system indicated.
 - 1. High-Humidity Finish: Comply with ASTM C 635 requirements for "Coating Classification for Severe Environment Performance" where high-humidity finishes are indicated.
- C. Attachment Devices: Size for five times the design load indicated in ASTM C 635, Table 1, "Direct Hung," unless otherwise indicated.
 - 1. Power-Actuated Fasteners in Concrete: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with clips or other accessory devices for attaching hangers of type indicated, and with capability to sustain, without failure, a load equal to 10 times that imposed by ceiling construction, as determined by testing per ASTM E 1190, conducted by a qualified testing and inspecting agency.
- D. Wire Hangers, Braces, and Ties: Provide wires complying with the following requirements:
 - 1. Zinc-Coated, Carbon-Steel Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper.
 - 2. Size: Select wire diameter so its stress at 3 times hanger design load (ASTM C 635, Table 1, "Direct Hung") will be less than yield stress of wire, but provide not less than 0.135-inch- (3.5-mm-) diameter wire.
- E. Hanger Rods: Mild steel, zinc coated or protected with rust-inhibitive paint.
- F. Angle Hangers: Angles with legs not less than 7/8 inch (22 mm) wide; formed with 0.04-inch- (1-mm-) thick, galvanized steel sheet complying with ASTM A 653/A 653M, G90 (Z275) coating designation; with bolted connections and 5/16-inch- (8-mm-) diameter bolts.

2.4 METAL SUSPENSION SYSTEM FOR ACOUSTICAL PANEL CEILING

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Armstrong World Industries, Inc.; Prelude, 15/16" exposed Tee System, or a comparable product by one of the following:
 - 1. Chicago Metallic Corp.
 - 2. USG Interiors, Inc.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, including structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.

- 1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders, and comply with layout shown on reflected ceiling plans.

3.3 INSTALLATION

- A. General: Install acoustical panel ceilings to comply with ASTM C 636 or UBC Standard 25-2 and seismic design requirements indicated, per manufacturer's written instructions and CISCA's "Ceiling Systems Handbook."

- B. Suspend ceiling hangers from building's structural members and as follows:

- 1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
 - 2. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
 - 3. Splay hangers only where required and, if permitted with fire-resistance-rated ceilings, to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
 - 4. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices.
 - 5. Secure wire hangers to ceiling suspension members and to supports above with a minimum of three tight turns. Connect hangers directly either to structures or to inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
 - 6. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both structure to which hangers are attached and type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
 - 7. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, postinstalled mechanical or adhesive anchors, or power-actuated fasteners that extend through forms into concrete.

8. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
 9. Do not attach hangers to steel deck tabs.
 10. Do not attach hangers to steel roof deck. Attach hangers to structural members.
 11. Space hangers not more than 48 inches (1200 mm) o.c. along each member supported directly from hangers, unless otherwise indicated; provide hangers not more than 8 inches (200 mm) from ends of each member.
 12. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.
- C. Secure bracing wires to ceiling suspension members and to supports with a minimum of four tight turns. Suspend bracing from building's structural members as required for hangers, without attaching to permanent metal forms, steel deck, or steel deck tabs. Fasten bracing wires into concrete with cast-in-place or postinstalled anchors.
- D. Install suspension system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.
- E. Install acoustical panels with undamaged edges and fit accurately into suspension system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide a neat, precise fit.
1. Arrange directionally patterned acoustical panels as follows:
 - a. As indicated on reflected ceiling plans.
 - b. Install panels with pattern running in one direction parallel to axis of space.
 - c. Install panels in a basket-weave pattern.
 2. For square-edged panels, install panels with edges fully hidden from view by flanges of suspension system runners and moldings.
 3. For reveal-edged panels on suspension system runners, install panels with bottom of reveal in firm contact with top surface of runner flanges.
 4. For reveal-edged panels on suspension system members with box-shaped flanges, install panels with reveal surfaces in firm contact with suspension system surfaces and panel faces flush with bottom face of runners.
 5. Paint cut edges of panel remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.
 6. Install hold-down clips in areas indicated, in areas required by authorities having jurisdiction, and for fire-resistance ratings; space as recommended by panel manufacturer's written instructions, unless otherwise indicated.
 7. Protect lighting fixtures and air ducts to comply with requirements indicated for fire-resistance-rated assembly.

3.4 CLEANING

- A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION 095113

SECTION 21 05 00 - COMMON WORK RESULTS FOR FIRE SUPPRESSION

PART 1 GENERAL

1.1 SCOPE

- A. This section specifies the general requirements for the design, furnishing, and installation of fire suppression systems. These requirements apply to all other Division 21 sections specifying fire suppression components and systems.

1.2 REFERENCE STANDARDS (Use edition in effect at the time the design is submitted.)

- A. NFPA 13. Standard for the Installation of Sprinkler Systems.
- B. NFPA 14. Standard for the Installation of Standpipe and Hose Systems.
- C. NFPA 24. Standard for the Installation of Private Fire Service Mains and Their Appurtenances.
- D. NFPA 25. Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems.

1.3 QUALITY ASSURANCE

- A. Make the installation in accordance with applicable standards, statutes, ordinances, codes and regulations of National Fire Protection Association (NFPA), Underwriters Laboratories (UL), OSHA, the local Fire Department and any state, local or other governmental authorities having jurisdiction.
- B. Comply with the requirements of the Owner's property insurance underwriter as applicable.
- C. In cases where requirements contained in these specifications are more stringent than the requirements of the above standards and authorities, comply with these specifications.
- D. Resolve any code violation discovered in Contract Documents with the Architect/Engineer prior to award of the Contract. After award of the Contract, make any correction or addition necessary for compliance with applicable codes as part of the Work.
- E. Furnish and install equipment and materials in accordance with ASME, NFPA, FM and UL. Fittings, sprinklers, valves, hoses and the like must be UL listed for fire service.
- F. Maintain one copy of each document on site.
- G. Obtain and pay for all permits and inspections.
- H. Perform any electrical work in conformance with the requirements of Division 26 Specifications.

1.4 CONTRACTOR QUALIFICATIONS

- A. Contractor for the work under this section must be a specialist in this field and have the personal experience, training, skill and depth of organization to design, furnish and install a practical working system. If required, the Contractor must provide acceptable evidence of having contracted for and installed not less than three systems of comparable size and type to this one, that have served their Owners satisfactorily for not less than three years.
- B. The foreman for this work must have experience in installing not less than three such systems that have been approved by the local fire marshal's office. Provide adequate and competent supervision to ensure first class workmanship and installation.
- C. The sprinkler contractor must hold a Certificate of Registration from the State Fire Marshal per the Texas State Sprinkler Rules and Article 5.43-3 Insurance Code. Provide a copy of this license and the license and experience resume of the responsible managing employee with the bid.
- D. Execute the Work and install all materials in accordance with the best practice of the trades in a thorough, substantial, workmanlike manner, presenting a neat appearance when completed. Work must be done by mechanics skilled in the trade.
- E. The sprinkler contractor is responsible for all construction techniques required for all fire protection systems herein specified and indicated on the drawings.

1.5 SUBMITTALS

- A. Submit information in .pdf format
 - a. With a cover sheet for each Section of the specifications having the following information
 - i. Project name
 - ii. Architect's name

- iii. Consultant's name
 - iv. Contractor's name
 - v. Sub-contractor or supplier's name
 - vi. Index of materials included in submittal
 - b. With a separate file name for each Section of the specifications followed by a number identifying submission number; example: 21 05 00-01.pdf for original submittal and 21 05 00-02.pdf for first resubmittal
 - c. Resubmittals
 - i. Submissions that require corrections and/or additional information shall be resubmitted in their entirety
 - ii. Data that has been revised and or added to the original submission shall be clearly marked on the Index of Materials
- B. Submit manufacturer's technical product data for valves, sprinklers, fire and jockey pumps and controller, back flow devices, fire department connections, switches, fire hose cabinets, etc. as appropriate. Include sufficient data to substantiate that materials conform to the requirements of this specification.
- C. Submit preliminary layout to the Architect/Engineer, indicating only sprinkler locations coordinated with ceiling or floor deck above as appropriate. Indicate the locations of all light fixtures and air devices on the layout. Coordinate locations of ceiling-mounted devices with the Architect's reflected ceiling plan, the applicable MEP plans, and with the affected trades.
- D. Submit drawings and other information as appropriate to clearly define the locations and requirements for all electrical and fire alarm connections needed for the system, including fire pumps, air compressors, supervisory switches, flow switches, electric-actuated valves, etc.
- E. Prepare hydraulic calculations and detailed drawings. Submit for approval to all applicable approving authorities as listed above.
- F. Submit drawings, data sheets and calculations to the authority having jurisdiction and, where applicable, Owner's building insurance underwriter for approval immediately after award of Contract to avoid delays in construction of the project. Obtain all required approvals before starting construction; assume all responsibility for delays resulting from failure to obtain required approvals in a timely manner.
- G. Prior to installation, furnish a minimum of seven (7) copies of stamped approved drawings to the Architect/Engineer.

1.6 AUTOMATIC SPRINKLER SYSTEM DESIGN CRITERIA

- A. Requirements.
 - 1. Furnish and install a complete, working and approved automatic sprinkler system for the entire building, which may include concealed spaces, attics, stairs and outside covered walkways as required by all authorities listed in this specification. Furnish and install a complete automatic wet pipe sprinkler system for all heated building areas and a complete dry pipe system for all unheated areas where piping is subject to freezing and temperatures cannot be reliably maintained at or above 40 degrees.
 - 2. Reference floor plans for additional requirements. Drawings indicate a general arrangement of the system and are not to be considered as a complete or final design. Clearly indicate any deviations from the general arrangement of the systems indicated on the Drawings at the time of bidding the Work; submit a detailed description of the proposed deviation with the bid. Such change to the sprinkler system design or arrangement is considered a part of the Work.
- B. Flow Test. Prior to design, conduct a flow test with representatives of the Owner's Insurance Company, where applicable, and the local Fire Department present. The testing location shall be representative of the water supply being utilized by the sprinkler system. Refer to NFPA 13, Annex A, sections applying to Water Supplies. It is the sole responsibility of the Contractor to determine available flow and pressures.
- C. System Design.
 - 1. Assume responsibility for the complete design of the fire sprinkler system. Adequately account for all pressure losses through the water supply piping and the sprinkler system as well as fluctuations in supply pressures. Accept sole responsibility for replacing or otherwise correcting any portion of the fire sprinkler system that does not meet available pressures and flow rates. Including a minimum of 5 psi "cushion" in all hydraulic

- calculations.
- 2. Design the system for the appropriate hazard and occupancy classification as defined by NFPA 13 or other appropriate regulations, requirements, etc.
- 3. Hazard Classification. Determine proper hazard classification for the various portions of the Work in accordance with NFPA 13. Request clarification from the Architect as to function and type of construction as required to make this determination.
- 4. Areas Subject to Freezing. Use dry pendant sprinklers and/or a dry pipe system as appropriate. If a dry pipe system is required, verify prior to bidding whether adequate provision has been made in the Drawings for electrical service to the dry system air compressor. If not, notify Architect/Engineer in writing immediately.
- 5. Hydraulically design all automatic sprinkler systems.
- 6. Design all piping to be above finished ceilings and below roof insulation.
- 7. Provisions for flushing systems. Arrange sprinkler system for flushing. Design all systems with readily removable fittings at the end of all cross mains. Design all cross mains to terminate in 1¼ in. or larger pipe. Arrange all branch lines to facilitate flushing wherever possible. Route all drain lines to outside.
- 8. Coordinate exact locations of all access doors with Architect/Engineer during system design phase. Obtain location review from Architect/Engineer for each and every access door.
- 9. It is acceptable to locate sprinklers in ceiling tiles off center of the tiles, but no closer than 6 in. to any ceiling grid line.
- D. Additionally, the design must meet the requirements of all applicable NFPA standards.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver all products properly packaged in factory-fabricated containers.
- B. Handle all products carefully to avoid damaging products.
- C. Store all products in a clean, dry space in original containers. Protect products from weather, damaging fumes, construction debris and traffic.
- D. Protect sprinklers from paint. Where finish work is included, do not remove protective clips and caps from sprinklers or cover plates installed until all finishing operations are completed. Replace any painted sprinklers or cover plates.
- E. Provide temporary end caps and closures on piping and fittings. Maintain these in place until piping is connected.

1.8 OPERATION AND MAINTENANCE DATA

- A. Furnish instruction manual describing all components and functions, complete installation instructions, procedures for placing system in operation, maintenance procedures and instructions, catalog cut sheets, record drawings, spare parts list, inspection data, replacement parts numbers and availability, copies of signed records of acceptance testing, location and telephone numbers for 24 hour, 7-day service, and electrical wiring diagrams.

1.9 PROJECT RECORD DOCUMENTS

- A. Furnish a complete set of record drawings. Indicate actual locations of sprinklers, piping, valves, drains and test locations, etc.

1.10 GUARANTEE

- A. Guarantee work for 1 year from the date of final acceptance of the project. During that period make good any faults or imperfections that may arise due to defects or omissions in materials, workmanship or design.

PART 2 PRODUCTS

2.1 MATERIAL AND EQUIPMENT

- A. Furnish new and unused materials and equipment, approved by NFPA and Factory Mutual Engineering, and as listed in the UL list of "Inspected Fire Protection Equipment and Materials."

PART 3 EXECUTION

3.1 INSTALLATION

- A. Make installation according to approved drawings. Coordinate proposed location of piping with all trades.

3.2 TESTING

- A. Comply with Chapter 24, NFPA 13, for Approval, Acceptance Tests, and Material and Test Certificate.
- B. Flush the entire system of foreign matter.
- C. Give the entire system a complete hydrostatic test per NFPA 13.
- D. Certify that the system has been tested and meets or exceeds all specified requirements and code requirements.

3.3 COORDINATION

- A. Making adjustments to field conditions is considered a part of the Work. Do not use Contract Drawings accompanying these Specifications for rough-in locations but only for pipe sizing and general routing.
- B. Examine and become familiar with the Architectural, Structural, Electrical and Mechanical Drawings to be knowledgeable of all connections required and space limitations.
- C. The Drawings are diagrammatic and are not intended to show all the fittings required. Include all items of material and labor which are not specifically called for in Drawings or Specifications, but which are required to make the fire protection system installation completely functional. Make any necessary changes to avoid beams, footings, columns, piers, vents, ducts, equipment or other obstructions.
- D. Route sprinkler piping so that all ductwork, lights, structural members and main runs of all other piping take precedence over sprinkler piping; coordinate with all other trades.
- E. In any case where a pipe shown on a plan sheet differs from that shown on a riser, schematic or detail, use the larger of the two sizes shown.
- F. Coordinate all work with the building electrical and fire alarm systems as applicable, prior to beginning installation.

END OF SECTION 21 05 00

SECTION 21 13 13 - WET PIPE SPRINKLER SYSTEMS

PART 1 GENERAL

1.1 SCOPE

- A. This section specifies the design, furnishing, and installation of wet pipe sprinkler systems.

1.2 REFERENCE STANDARDS (Use edition in effect at the time the design is submitted.)

- A. ANSI/ASME B16.1. Cast Iron Pipe Flanges and Flanged Fittings, Class 25, 125, 250, and 800.
- B. ANSI/ASME B16.3. Malleable Iron Threaded Fittings, Class 150 and 300.
- C. ANSI/ASME B16.5. Pipe Flanges and Flanged Fittings.
- D. ANSI/ASME B16.9. Factory-made Wrought Steel Buttwelding Fittings.
- E. ANSI/ASME B16.11. Forged Steel Fittings, Socket-welding and Threaded.
- F. ANSI/ASME B16.25. Buttwelding Ends.
- G. ANSI/ASME B36.10. Welded and Seamless Wrought Steel Pipe.
- H. ANSI/ASME Section 9. Welding and Brazing Qualifications.
- I. ANSI/ASTM A135. Electric-Resistance Welded Steel Pipe.
- J. ANSI/ASTM A47. Malleable Iron Castings.
- K. ANSI/AWWA C110. Ductile Iron and Gray Iron Fittings.
- L. ANSI/AWWA C151. Ductile Iron Pipe, Centrifugally Cast.
- M. ASTM A53. Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless.
- N. ASTM A120. Pipe, Steel, Black and Hot-Dipped, Zinc-Coated (Galvanized) Welded and Seamless, for Ordinary Uses.
- O. ASTM A234. Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and Elevated Temperatures.
- P. ASTM A795. Black and Hot-Dipped, Zinc-Coated (Galvanized) Welded and Seamless Steel Pipe for Fire Protection Use.
- Q. AWS D10.9. Specifications for Qualification of Welding Procedures and Welders for Piping and Tubing.
- R. NFPA 13. Standard for the Installation of Sprinkler Systems.

1.3 APPLICABLE PROVISIONS

- A. Refer to Section 21 05 00 Common Work Results for Fire Suppression.
- B. Refer to Section 21 11 00 Facility Fire Suppression Water-Service Piping.

1.4 SUBMITTALS

- A. Prepare detailed drawings and submit for approval to all applicable approving authorities, as listed in Section 21 05 00.
- B. Make all submittals in accordance with the requirements of Section 21 05 00.

PART 2 PRODUCTS

2.1 PIPING, VALVES AND FITTINGS

- A. Furnish in accordance with Section 21 11 00.

2.2 AUTOMATIC WET PIPE FIRE SPRINKLER SYSTEM

- A. System. Furnish all necessary pipe, pipe fittings and accessories as required for a complete, working and approved system.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install the piping in accordance with Section 21 11 00.
- B. Make installation according to approved drawings. Coordinate proposed location of piping with all trades.
- C. Comply with Chapter 24, NFPA 13, for Approval, Acceptance Tests, and Material and Test Certificate.

D. Give the entire system a complete hydrostatic pressure test.

3.2 COORDINATION

A. Coordinate in accordance with Section 21 05 00.

END OF SECTION 21 13 13

SECTION 26 05 00 - COMMON WORK RESULTS FOR ELECTRICAL

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. All work specified in Division 26
 - 2. Work specified in Division 28 when referenced to this Section
 - 3. Work required by Division 1 as it applies to the work of Division 26, and Division 28 when referenced to this Section
 - 4. Furnishing and installing
 - a. Labor, materials, equipment, tools and appurtenances for complete and functioning permanent electrical systems
 - b. A temporary construction lighting and power distribution system
 - 5. Installing
 - a. Electrical materials and equipment specified in other Divisions of the Specifications
 - b. Final connections to equipment installed by others as part of the contract
 - 6. Obtaining
 - a. Required permits
 - 7. Paying for
 - a. Required permits
 - 8. Coordination
 - a. With existing building(s) features
 - b. With the work of other trades performing work on this contract
 - c. With sub-contractors performing work directly to this contractor
- B. Related Sections
 - 1. Division 2 for existing conditions and demolition
 - 2. All Sections of Division 26
 - 3. Some Sections of Division 28
 - 4. All Sections specifying equipment that requires 120 volt or higher electrical connections

1.2 REFERENCES

- A. Comply with the edition of the standards in effect at time of bidding unless otherwise noted
 - 1. All standards referenced in Division 26
 - 2. All standards referenced in Division 28 when referenced to this Section

1.3 SUBMITTALS

- A. Comply with the requirements of Division 1
 - 1. Submit information in .pdf format
 - a. With a cover sheet for each Section of the specifications having the following information
 - i. Project name
 - ii. Architect's name
 - iii. Consultant's name
 - iv. Contractor's name
 - v. Sub-contractor or supplier's name
 - vi. Index of materials included in submittal
 - b. With a separate file name for each Section of the specifications followed by a number identifying submission number; example: 26 05 00-01.pdf for original submittal and 26 05 00-02.pdf for first resubmittal
- B. Product data
 - a. Clearly indicate proposed products where more than one product or model number is shown on data sheet
 - b. Clearly indicate where products of different manufacturers are proposed for the same purpose

- C. Test Reports
 - 1. Submit within two weeks of successful completion of testing
 - 2. Include copies with Closeout Submittals
- D. Contract Closeout Submittals
 - 1. Operation and Maintenance Data
 - 2. Warranties
 - 3. Project Record Documents
 - 4. Test Reports
- E. Resubmittals
 - 1. Resubmit only those items that were identified in submittal reply as needing correction or additional information
 - 2. Data that has been revised and or added to the original submission shall be clearly marked on the submittal
- F. Scope of review
 - 1. Review is only for
 - a. General conformance with the design concept of the Project
 - b. General compliance with the Contract Documents
 - 2. The Contractor is responsible for
 - a. Confirming and correlating equipment dimensions at the Site
 - b. Information that pertains to fabrication processes or construction techniques
 - c. Coordination of the Work of all Trades
 - 3. Review and acceptance of submittals does not relieve the Contractor, any Subcontractor and/or Material Supplier of responsibility for
 - a. Deviation from the requirements of the Contract Documents
 - b. Errors or omissions in submittals
 - c. Failure to coordinate with Work required by other trades

1.4 QUALITY ASSURANCE

- A. Comply with the edition of applicable codes in effect at time of bidding, adopted by the Authority Having Jurisdiction, including but not limited to
 - 1. Code of the City of Westlake Hills
 - 2. International Energy Conservation Code (IECC)
 - 3. International Fire Code (IFC)
 - 4. International Building Code (IBC)
 - 5. Life Safety Code (LSC)
 - 6. National Electrical Code (NEC)
 - 7. National Electrical Safety Code (NESC)
 - 8. Occupational Safety and Health Act (OSHA)
 - 9. Texas Accessibility Standards (TAS)

1.5 DELIVERY, HANDLING AND STORAGE

- A. Schedule delivery of materials and equipment to the project site
 - 1. Only if there are proper facilities for their storage
 - 2. When they are ready for imminent installation
- B. Take steps necessary to prevent damage to materials and equipment during handling
- C. Store materials and equipment in proper facilities to protect them from the weather, contaminants, foreign objects and theft
 - 1. Materials suitable for installation outdoors or below grade may be stored outdoors
 - 2. Apply a suitable form of heat to the equipment in the space during extended durations of humidity levels above 70% to protect equipment from corrosion or insulation moisture absorption

1.6 INTERRELATIONSHIP OF DOCUMENTS

- A. Where the provisions stated below are in conflict with the General Conditions or Supplementary General Conditions of the Contract, the General Conditions or Supplementary General Conditions

- take precedence
- B. The Drawings and Specifications are complimentary to each other; items indicated on the Drawings but not specifically mentioned in the Specifications and/or items mentioned in the Specifications but not indicated on the Drawings shall be furnished and installed as if they were located in both documents
- C. Documents
 1. Specifications establish the nature, quality and expected performance of materials
 2. Drawings establish the locations, quantities and spatial relationships of the materials
 3. In case of conflicts within the documents, the precedence of documents is as follows:
 - a. Specifications take precedence over Drawings
 - b. Dimensioned drawings take precedence over scaled drawings
 - c. Large scaled drawings take precedence over small scaled drawings

1.7 DRAWINGS

- A. The drawings are diagrammatic in character
- B. The drawings generally indicate the approximate location of devices and equipment
 1. Details and/or dimensions may indicate exact location of devices and equipment
 2. Where exact location of devices and equipment is not dimensioned, location must be determined in the field in coordination with other trades performing work on the project
 3. Coordinate equipment rough-in and installation with submittals and shop drawings

1.8 CONTRACTOR QUALIFICATIONS

- A. Be a specialist in this field having the personal experience, training, skill and organization to construct complete and working systems
- B. Have on site supervisory personnel with experience in constructing no less than three projects with similar requirements to ensure the work will be performed in accordance with the contract documents
- C. Have competent workmen trained in the best practices of the trade to execute the work in a thorough, neat and workmanlike manner

PART 2 - PRODUCTS

2.1 SUBSTITUTION PROCEDURES

- A. Comply with the requirements of Division 1

2.2 CONSTRUCTION MATERIALS

- A. Shall be new, unless otherwise indicated on the drawings
- B. Shall conform to the requirements of the standards organizations regulating those products
- C. Shall be listed or labeled by Underwriters Laboratories where applicable
- D. Shall be manufacturer's standard product with specified standard options
- E. Shall have performed satisfactorily on similar projects for a period of no less than two years
- F. All adhesives, sealants, paints, coatings applied within the weatherproofed interior of the building shall comply with applicable VOC thresholds of SCAQMD 1113 and 1168.

2.3 CAPACITIES AND SPACE LIMITATIONS

- A. Capacities indicated in the documents are required minimums and may exceed minimums set by codes and standards
- B. Where circuiting required for proposed equipment in any Section of the Specifications exceeds the designed circuiting, the designed circuiting shall be adjusted to accommodate the proposed equipment at no cost to the Owner
- C. Proposed equipment which does not fit in the space allocated and satisfy required clearances and/or maintenance access will be replaced, at no cost to the Owner, with equipment that meets the spatial limitations of the project

PART 3 - EXECUTION

COMMON WORK RESULTS FOR ELECTRICAL

3.1 TEMPORARY CONSTRUCTION POWER

- A. Construct a temporary construction lighting and power distribution system that conforms to
 - 1. NEC - Article 590 Temporary Installations
 - 2. NECA 200 - Temporary Electrical Power at Construction Sites
 - 3. OSHA - 29 CFR 1926.56 Illumination, Table D-3 Illumination Intensities in Foot-Candles
- B. The proposed construction site currently has provisions for temporary construction power
 - 1. Make arrangements with the Owner to connect to the existing electrical distribution system where there is an adequate source of temporary construction power
 - 2. Coordinate with the General Contractor regarding who pays cost for power consumed by the temporary construction power system
- C. Remove the temporary construction power system when no longer required

3.2 OUTAGES

- A. Outages of existing services required for the project shall be scheduled in advance of the work
 - 1. Make request, in writing, to the Owner a minimum of 14 days before the desired time for an outage
 - 2. Deliver to the Owner a detailed schedule of activities during the proposed outage including estimated duration of each activity
- B. Schedule outages for after Owner's normal business hours, weekends or holidays
 - 1. Include premium time costs for outages in base bid
- C. Life safety systems
 - 1. Shall be maintained in full working condition during occupied hours if facility is to remain open during construction phase
 - 2. Including but not limited to
 - a. Emergency lighting
 - b. Fire alarm
 - c. Standby generators
 - d. Building communications

3.3 INSTALLATION

- A. Prior to beginning work
 - 1. Carefully review the Contract Documents
 - a. Notify the Architect/Engineer of discrepancies and obtain clarification before proceeding with the work
 - 2. Coordinate the work with that of other trades performing work on the project
 - a. Schedule work sequence to coordinate with other trades performing work on the project
 - b. Verify locations where other trades require permanent power connections
 - c. Verify electrical requirements for equipment specified in other Divisions of the Specifications
- B. In interior finished spaces, conceal electrical work in walls, chases, floors, crawl spaces and ceiling cavities, unless otherwise noted
- C. Exposed interior work is permitted
 - 1. Where exposure is necessary in order to function properly
 - 2. Where physical size precludes concealment
 - 3. Where shown or allowed by the specifications
- D. Set equipment level and plumb
- E. Equipment attached to the interior of exterior walls shall be spaced a minimum of 3/4" from walls using corrosion resistant materials and anchors

3.4 MANUFACTURERS' INSTRUCTIONS

- A. Follow manufacturers' written instructions regarding assembly, installation, adjustment and start-up procedures
- B. Notify the Architect/Engineer of any conflicts between the Contract Documents and the

manufacturer's instructions, and obtain clarification before proceeding with the work

3.5 EXISTING FACILITIES

- A. Protect existing facilities and equipment from ongoing construction activities
- B. Repair and/or replace existing facilities and equipment damaged by construction activities
- C. Secure permission from Owner before entering existing facilities
- D. Schedule construction activities far enough in advance with the Owner so that work can be scheduled when it is beneficial to both parties
- E. Notify Owner of any required roof penetrations

3.6 DEMOLITION

- A. Relocate existing electrical work as required to accommodate the work of other trades
- B. Extent of demolition is indicated on the drawings
- C. Field verify source of power for items to be removed before starting demolition operations
- D. Where partial removal of an existing circuit is required, maintain the remaining portion of the existing circuit in an operable condition
- E. Meet with Owner prior to starting demolition operations to determine if any demolished items are to be salvaged
 - 1. Deliver salvaged items to a location designated by the Owner
 - 2. Properly dispose of items not designated for salvage

3.7 COORDINATION WITH OTHER DIVISIONS

- A. Refer to the requirements of other Divisions and include in Division 26 any work outlined therein

3.8 CUTTING AND PATCHING

- A. Prior to any cutting operations required for penetration of floors, walls or roofs
 - 1. To the extent possible, investigate hidden conditions in the area to be cut
 - 2. Coordinate the proposed size and method of making openings in non-load bearing walls with the Architect
 - 3. Coordinate the proposed size and method of making openings in load bearing walls, floors and roofs with the Structural Engineer
 - a. If required by the Structural Engineer, X-ray the proposed area of the opening
- B. Reinforce openings as directed by the Architect and/or the Structural Engineer
- C. Cover openings exposed to the weather to prevent intrusion of water
- D. Restore surfaces damaged by cutting operations to match existing adjacent surfaces

3.9 CONDITIONS AT SUBSTANTIAL COMPLETION

- A. When the work is substantially complete, the contractor will inspect the work to ensure the following
 - 1. Lighting fixtures are operating; lamps, lenses and reflectors are cleaned of foreign materials, including fingerprints and smudges
 - 2. Lighting controls are functioning as designed and/or specified
 - 3. Device plates and exposed switch and receptacle parts are cleaned of foreign materials
 - 4. Enclosure interiors are vacuum cleaned and exterior surfaces are cleaned of foreign materials
 - 5. Enclosure surface finishes, if damaged, are restored to original condition or to the satisfaction of the Architect
 - 6. Panelboard circuit directories reflect the as-built information
 - 7. Required identification nameplates are in place and properly attached to the equipment
 - 8. Manufacturer's equipment nameplates are plainly visible
 - 9. Special systems are functioning properly

END OF SECTION 26 05 00

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SECTION 26 28 16.13 - ENCLOSED SWITCHES FOR ELEVATOR SERVICE

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. Enclosed switches with accessories for elevator service

1.2 REFERENCES

- A. NECA 1 - Good Workmanship in Electrical Construction
- B. NEMA KS 1 - Enclosed and Miscellaneous Distribution Equipment Switches (600 Volts Maximum)
- C. NEMA 250 - Enclosures for Electrical Equipment (1000V Maximum)

1.3 SUBMITTALS

- A. Product Data
 - 1. For each type and rating of switch
- B. Shop Drawings
 - 1. None required
- C. Test Reports
 - 1. None required
- D. Contract Closeout Submittals
 - 1. Operations and Maintenance
 - a. Include data per Division 1

1.4 QUALITY ASSURANCE

- A. Regulatory Requirements
 - 1. UL 98 - Enclosed and Dead-Front Switches
 - 2. UL 489 - Molded-Case Circuit Breakers, Molded-Case Switches, and Circuit-Breaker Enclosures
 - 3. UL 512 - Fuseholders

1.5 DELIVERY, STORAGE AND HANDLING

- A. Packing and Shipping
 - 1. Deliver switches in suitable containers or packing material
- B. Acceptance at Site
 - 1. Inspect switches for damage to product and finishes
- C. Storage and Protection
 - 1. Store in a clean dry environment
 - 2. Store products a minimum of 1-1/2" above floor
 - 3. Protect from dust, dirt and foreign objects

1.6 WARRANTY

- A. Include per Division 1

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Bussmann model PSxxTxxR2AF1
- B. Littelfuse model LPSxxTxxR2AF1

2.2 MANUFACTURED UNITS

- A. Conform to NEMA KS 1 (Type HD), NEMA 250, UL 98, UL 489 and UL 512
- B. Voltage and configuration

1. 480V
2. 3-pole
3. Fusible
4. Single-throw
5. Heavy duty
6. Lockable handle
7. Door interlock
- C. Amperage
 1. 60 amps
- D. Enclosure
 1. Interior: NEMA 1 surface-mounted
- E. Accessories
 1. Shunt trip
 2. Control power transformer with 120V secondary with 2 primary and 1 secondary fuses
 3. Fire safety interface 24V relay
 4. 1 normally open and 1 normally closed mechanically interlocked auxiliary contact for hydraulic elevator control
 5. Fire alarm voltage monitoring relay
 6. Fuses as indicated on the drawings

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install and connect
 1. In accordance with manufacturer's written instructions
 2. Per NECA 1
 3. With top of switch 60" above finished floor
 4. With nameplate per Section 26 05 53

3.2 ADJUSTING

- A. Plumb enclosures
- B. Verify that fuse sizes and types are per elevator manufacturer's requirements

3.3 CLEANING

- A. Clean exterior and touch up paint if necessary
- B. Vacuum interior of enclosure

END OF SECTION

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SECTION 28 31 00 – FIRE ALARM SYSTEM

PART 1 SCOPE

- 1.1 This section specifies the addition of new devices to the existing Silent Knight 5820XL fire alarm control panel system at Eanes ISD Forest Trail Elementary School. The contractor shall furnish and install all equipment, expansion cards, cabling, programming, etc. for relocation of existing devices and installation of new devices that communicate with the existing 5820XL FACP located in the main office. The system shall be complete and fully operational. The system shall be an electrically supervised automatic addressable system.
- 1.2 The contractor shall consult all other divisions of these specifications; determine the extent of impact on the work required by this section of the specifications or portion thereof and related work shown on the drawings.
- 1.3 The contractor shall include in his bid the cost of coordinating with all other trades required to relocate existing and install the new devices. Include electrical, fire protection, etc., contractors as required.
- 1.4 This is a performance specification and the contractor shall provide equipment, devices, peripherals, conduit, wire, outlet boxes and appurtenances required for a complete, compliant and operable system.
- 1.5 It is the intent of the contract drawings and specifications that the fire alarm contractor provides an installation complete in every respect. In the event that additional details or special construction is required for work indicated or specified in this section or work specified in other sections, it shall be the responsibility of the contractor to provide all material and equipment which is usually furnished with such systems in order to complete the installation, whether mentioned herein or not.
- 1.6 Items required but not limited to (not all items included in the paragraph are necessarily in the project scope):
 - 1.6.1 New addressable monitor modul(es), flow switch(es), tamper switch(es), cabling, testing.
 - 1.6.1.1 Quantity as required for new sprinkler riser.

PART 2 REFERENCE CODES AND STANDARDS, LATEST EDITIONS

- 2.1 ADA – American with Disabilities Act (Public Law 101-336).
- 2.2 FM – Factory Mutual.
- 2.3 IBC – International Building Code.
- 2.4 IFC – International Fire Code.
- 2.5 NFPA 70 – National Electrical Code.
- 2.6 NFPA 72 – National Fire Alarm Code.
- 2.7 NFPA 101 – Code for Safety to Life from Fire in Buildings and Structures.
- 2.8 TAS – Texas Accessibility Standards of the Architectural Barriers Act, Article 9102, Texas Civil Statutes.
- 2.9 Texas Insurance Code Article 5.43-2.
- 2.10 UL 38 – Standard for Manual Signaling Boxes for Fire Alarm Systems.
- 2.11 UL 217 – Standard for Smoke Alarms.
- 2.12 UL 228 – Standard for Door Closers-Holders, With or Without Integral Smoke Detectors
- 2.13 UL 268 – Smoke Detectors for Fire Alarm Systems.
- 2.14 UL 268A – Standard for Smoke Detectors for Duct Application.
- 2.15 UL 346 – Standard for Waterflow Indicators for Fire Protective Signaling Systems.
- 2.16 UL 464 – Standard for Audible Signal Appliances
- 2.17 UL 521 – Standard for Heat Detectors for Fire Protective Signaling Systems.
- 2.18 UL 864 – Standard for Control Units and Accessories for Fire Alarm Systems.

- 2.19 UL 1424 – Standard for Cables for Power-Limited Fire-Alarm Circuits.
- 2.20 UL 1481 – Standard for Power Supplies for Fire-Protective Signaling Systems.
- 2.21 .
- 2.22 UL 2053 – Standard for Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces.

PART 3 APPLICABLE PROVISIONS

- 3.1 These specifications are accompanied by drawings of the building and details of the installation indicating locations of some devices. The drawings and specifications are complementary to each other and what is required by one shall be binding as if required by both.
- 3.2 If the contractor deems any departure from the drawings necessary, details of such departure and reasons therefore shall be submitted to the Owner's representative for approval.
- 3.3 Should the drawings disagree in themselves, or with the specifications, the better quality of work and materials shall be estimated and, unless otherwise directed by the Owner's representative in writing shall be performed or furnished.
- 3.4 The contractor under the appropriate section of work shall install items specifically mentioned in the specifications but not shown on the drawings and/or items shown on the drawings but not specifically mentioned in the specifications as if they were both specified and shown.

PART 4 SUBMITTALS

- 4.1 Submit to and receive approval from the Authority Having Jurisdiction.
- 4.2 Submit to and receive approval from the Owner's representative, three copies of the following information:
 - 4.2.1 Manufacturer's technical product data on all components and miscellaneous materials. Include module space requirements on the motherboard and/or in the cabinet and data substantiating that the equipment will comply with the requirements.
 - 4.2.2 A written system description detailing all modules and/or components of the system; with particular emphasis on conformity to this specification.
 - 4.2.3 Written system sequence of operation detailing all operational aspects of the system.
 - 4.2.4 CAD generated riser, point-to-point wiring diagrams and floor plans, at the same scale as the contract documents, showing the location of all new devices, control panels, power supplies, interconnecting wiring, zoning and proposed addressing with nomenclature read-out to be used at the control panel.
 - 4.2.5 A copy of installer's current State license.

PART 5 QUALITY ASSURANCE

- 5.1 All components of the Fire Alarm System shall be listed and labeled as products of a single fire alarm system manufacturer under the appropriate category by the Underwriter's Laboratories, Inc., utilizing standard products and pieces.
- 5.2 The systems shall be engineered by a factory trained, authorized representative and licensed installer.

PART 6 CONTRACTOR QUALIFICATIONS

- 6.1 The contractor shall be an authorized representative of the manufacturer of the fire alarm system installed.

- 6.2 The contractor shall maintain a 24-hour service department and guarantee service within 8 hours, 7 days a week, 365 days a year.
- 6.3 The contractor shall be licensed by the State Fire Marshal to install, modify and service fire alarm systems.
- 6.4 Service technicians shall be licensed by the state and be factory trained in the maintenance and troubleshooting of the equipment supplied.
- 6.5 Field supervisor shall be licensed by the State Fire Marshal to supervise the installation of the fire alarm system.
- 6.6 Field technicians must have a minimum of 4 years of experience.
- 6.7 All other personnel shall be directly supervised on a one on one basis.

PART 7 OPERATION AND MAINTENANCE DATA (CLOSE OUT DOCUMENTS)

- 7.1 Furnish one updated floor plan identifying cabinets, remote amplifiers and power supplies, initiating devices and indicating devices with their appropriate addresses.
 - 7.1.1 Mount in a glass frame adjacent to the control panel.
- 7.2 Furnish the original and two copies of certificate of installation.
- 7.3 The original is shall be left at the control panel.
- 7.4 Furnish two electronic and three paper copies of "As-Built" drawings at the same scale as the contract documents with riser, point-to-point wiring diagrams and floor plans showing the location of all control panels, annunciators, devices, power supplies, amplifiers, interconnecting wiring, zoning and addressing with nomenclature read-out used at the control panel.
- 7.5 Furnish three printed copies of evidence of a functional system. In the event the system does not have memory capabilities, a performance test shall be performed to satisfy maintenance fire alarm personnel.
- 7.6 Furnish three copies, for each component:
 - 7.6.1 Equipment operations manuals.
 - 7.6.2 Equipment maintenance and testing manuals.
 - 7.6.3 Equipment data and parts lists.
- 7.7 Furnish three signed letters of guarantee, which specifies the substantial completion date and the guarantee period.

PART 8 SYSTEM DESCRIPTION

- 8.1 The contractor shall furnish and install all equipment, expansion cards, cabling, programming, etc. for relocation of existing devices and installation of new devices that communicate with the existing 5820XL FACP located in the main office. The system shall be complete and fully operational. The system shall be an electrically supervised automatic addressable system.

PART 9 SYSTEM OPERATION

- 9.1 The system alarm operation subsequent to activation of any alarm initiating device shall continue to function as presently programmed.

PART 10 PRODUCTS (Not all products listed necessarily used in the project, not all components to be used necessarily listed)

- 10.1 Compatible with existing Silent Knight 5820XL FACP
 - 10.1.1 Addressable monitor module(s)
 - 10.1.2 Flow switch(es)
 - 10.1.3 Tamper switch(es)

INSTALLATION

PART 11 GENERAL

- 11.1 The existing system, if applicable, shall be operational until the upgrade is certified by the Authority Having Jurisdiction.
- 11.2 Install the system in accordance with the plans and specifications, all applicable codes and the manufacturer's recommendations.
- 11.3 All conduit entries into fire alarm equipment enclosures shall be protected by a plastic bushing on the connector inside the enclosure. There shall also be a connector with a plastic bushing on the end of the conduit that is not connected to the enclosure. All conduits entering a fire alarm equipment enclosure shall be supported as per the requirements of NFPA 70.
- 11.4 Sleeve and seal all penetrations of fire rated walls or ceilings.
- 11.5 Provide junction boxes, with supports, for all devices.
- 11.6 Cabling, regardless of elevation, shall be enclosed in a galvanized rigid raceway unless within wall or above an accessible, suspended ceiling.
- 11.7 Cabling shall be plenum rated. Color shall match existing coloring scheme.
- 11.8 All surface mounted devices (flow and tamper supervisory devices) shall be installed in galvanized metal boxes not smaller than 4" x 4" x 2 1/8". Minimum box depth is 2 1/8".
- 11.9 Installation of the wiring for the fire alarm system is part of the work of this section, but is not specifically detailed on drawings. Determine exact number of wires for each type of device installed. Determine the size of the wire to prevent excessive voltage drop which might render the fire alarm devices inoperable.
- 11.10 The installation of all wiring, cable, and equipment shall be in accordance with the National Electrical Code, and specifically with Articles 760, 770, and 800, where applicable. In addition to meeting the requirements of the NEC and NFPA 72, the following conditions shall be required:
 - 11.10.1 All cables serving outbuildings shall have lightning/surge protection where leaving and entering each building.
 - 11.10.2 All cables shall be run parallel to the building lines.
 - 11.10.2.1 No cables can be run diagonally across any corridor or room.
 - 11.10.3 All cables shall be supported and strapped at intervals not to exceed 8 ft.
 - 11.10.4 All cables shall be supported within 3 ft of all boxes.
 - 11.10.4.1 Cables fished down walls shall be supported within 3 ft of the point of entry of the wall space.
 - 11.10.4.2 Where a quantity of cables is run together, they may be bundled using cable ties.
 - 11.10.4.2.1. Only cables from a specific system may be bundled together.
 - 11.10.4.2.2. Such bundling of cables shall not be allowed as a means of support. The 8-ft support spacing remains in effect.
 - 11.10.4.2.3. Only cable ties shall be permitted to bundle cables.
 - 11.10.4.2.3.1. Tape will not be permitted.

- 11.10.4.3 All cables shall be fastened to building structural elements with D-rings, J-hooks or other similar cable supporting devices. This includes cables run thru red iron or bar joists.
 - 11.10.4.3.1. Ducts are not an allowable means of support.
 - 11.10.4.3.2. Cables shall not be fastened to or come into contact with threaded rod.
 - 11.10.4.3.3. Cables shall not be supported by strut racks installed to support ductwork or any other mechanical or electrical system components.
 - 11.10.4.3.4. Cables shall not be supported by lay-in ceiling grid wires.
 - 11.10.4.3.5. Cables shall not lie on lay-in ceiling tiles.
- 11.10.4.4 No cable shall pass beneath any duct work, with the following exception:
 - 11.10.4.4.1. Where a device is located beneath ductwork, only that portion of cable that serves the device may pass under the ductwork.
- 11.10.4.5 All cable entries into ceiling-mounted boxes shall be secured with a clamping connector.
- 11.10.4.6 All cables installed underground in conduit or other raceways shall be rated for direct burial.
- 11.11 Cables, boxes, cabinets, and fittings shall be attached to structural components by straps, hangers, or similar fittings designed and installed so as not to damage the cable.
- 11.12 Cables, raceways, and equipment installed behind panels designed to allow access, including suspended ceiling panels, shall be arranged and secured so as to allow the removal of panels and access to the equipment.
- 11.13 Power-limited fire alarm circuit cables and conductors shall not be placed in any cable, cable tray, compartment, enclosure, manhole, outlet box, device box, raceway, or similar fitting with conductors of electric light, power, Class 1, or non-power-limited fire alarm circuits.
- 11.14 Install circuits so that a fault in one circuit shall not prevent the subsequent alarm operation of another circuit.
- 11.15 Enclose cabling in raceways in all areas unless within wall or above an accessible, suspended ceiling.
 - 11.15.1.1 Use Wiremold in interior finished spaces.
- 11.16 Install new, copper wiring using plenum rated cables, un-spliced from point to point, designed for the intended use.
- 11.17 Minimum #14 AWG conductor for notification and building control circuits.
- 11.18 Minimum #16 AWG conductor for initiation circuits.
- 11.19 T-Taping of supervised conductors will not be permitted on any conductor.
- 11.20 Color code cable jackets according to circuit types;
 - 11.20.1 Yellow for NAC (Notification Appliance Circuit) cables.
 - 11.20.2 Red for all other fire alarm system cables.
- 11.21 All power connections shall comply with the latest edition of the NEC and executed by a licensed electrical contractor.
- 11.22 Power connections shall not feed-thru other equipment.
- 11.23 Provide new circuit breakers, conduit and wiring for all equipment installed.

PART 12 LABELING

FIRE ALARM SYSTEM

- 12.1 Circuits shall be identified at terminal and junction locations.
- 12.2 Paint all fire alarm junction boxes and covers red.
- 12.3 Identify zone and device number on all detectors.
- 12.4 Identify panel and circuit label within the cabinet (s) served.
- 12.5 Labels shall be bold black letters/numbers not less than 1/4" in height on a white background. The label shall have an adhesive backing and be legible when standing on the floor.
- 12.6 Fire alarm equipment
 - 12.6.1 All fire alarm equipment shall be labeled to indicate the circuit and device. "Equipment" shall include all power supplies, all control relays, all monitoring relays, all parts of the emergency communication system, etc.
 - 12.6.2 All fire alarm equipment that is connected to the building electrical system shall have a label on the outside of the equipment enclosure that indicates the branch circuit to which the equipment is connected.

PART 13 TESTING

- 13.1 Furnish all instruments, labor and materials required for the tests and a qualified technician to conduct the tests.
- 13.2 Evidence of a functional system shall be provided in a printed document, legible and understandable to a person knowledgeably employed by the school district. In the event the system does not meet the required capabilities, the system shall be subjected to operational tests. Any deficiencies found shall be corrected and the system shall be retested prior to final acceptance. Tests shall be in accordance with procedures established within the National Fire Alarm Code.

PART 14 DEMONSTRATION AND OWNER TRAINING

- 14.1 The completed fire alarm system shall be demonstrated in the presence of the Owner. The essential functions of the system shall be demonstrated. The Owner's designated personnel shall be trained in all aspects of operation and maintenance of the system.

PART 15 CERTIFICATION

- 15.1 Upon completion of the testing, the manufacturer or his representative shall issue to the Owner a letter of certification that he has tested and adjusted the system, that all components are properly installed and free of defects, and that the system is in compliance with these Specifications and all applicable codes. In addition, the installation sticker and the certification certificate provided by the State Fire Marshal shall be completed with copies distributed and posted as required.

PART 16 REQUIRED TEST and INSPECTIONS

- 16.1 Inspections shall conform to the requirements of the National Fire Alarm Code, NFPA 72, Chapter 7.
- 16.2 Conduct the following test and inspections:
 - 16.2.1 Initial testing required under Paragraph 13.

PART 17 GUARANTEE

- 17.1 The system shall be guaranteed to be free from all defects in material and workmanship for a period of one year from the date of substantial completion. Equipment or components showing inherent defects of a mechanical or electrical nature shall be replaced promptly at no expense to the Owner.

END OF SECTION 28 31 00