

INVITATION FOR PROPOSALS

CITY OF CONROE

**RFP 0526-2022 GENERAL CONSTRUCTION TO INCLUDE
HVAC REPLACEMENT AND UPGRADES
(Finishes and Electrical)
CITY OF CONROE AQUATIC CENTER
WOMENS LOCKER ROOM**



**CITY OF CONROE
P.O. BOX 3066
CONROE, TEXAS 77305**

RESPONSES DUE MAY 26, 2022 AT 2:00 PM

NOTICE TO BIDDERS

The City of Conroe will receive sealed proposals electronically through Vendor Registry or in triplicate for RFP #0505-2022 - HVAC Replacement at City of Conroe Aquatics Center – Women’s Locker Room, located in Montgomery County, Texas. The proposals shall be appropriately marked “**RFP #0526-2022 - HVAC Replacement Including Finishes and Electrical at City of Conroe Aquatics Center – Women’s Locker Room**” and delivered to the City Secretary 300 West Davis, 3rd Floor, Conroe Texas 77301. Names of proposers will be publicly opened and read on **Thursday, May 26th, 2022 at 2:00 p.m.** in the 1st Floor Council Chambers at City Hall (300 West Davis).

A **pre-bid meeting** including site visit will be held on **May 19, 2022 at 9:00 AM** at the City of Conroe Aquatics Center located at 1205 Callahan Ave., Conroe Texas 77305.

Bids must be accompanied by a certified check upon some responsible bank of the State of Texas or a bid bond from a Surety Company holding a permit in the State of Texas in the amount of 10% of the bid. The amount of said check or bond will be forfeited to the Owner and the bank or surety shall be liable to the Owner for the amount in the event the successful proposer shall fail or refuse to enter into a contract or furnish bonds as hereafter required.

The successful proposer must furnish a performance bond and a payment bond on the forms provided, each in the amount of 100% of the contract price from a Surety Company holding a permit in the State of Texas and approved by the Federal Government.

Proposal documents may be reviewed and downloaded online at Vendor Registry www.cityofconroe.org with instructions to download documents from Vendor Registry

No bid may in any way qualify, modify, substitute or change any part of the specifications or contract documents. The City of Conroe reserves the right to reject any and all offers, and to waive informalities in submission of proposals. The City of Conroe also reserves the right to award this proposal to the lowest most qualified responsible bidder meeting all the specifications or to the bidder who provides goods or services at the best value for the City.

CC: 5/12/22 & 5/16/22

CITY OF CONROE, TEXAS

**CITY OF CONROE
PURCHASING DEPARTMENT
REQUEST FOR SEALED RFP**

The City of Conroe will receive sealed RFPs electronically through Vendor Registry or in triplicate for the **RFP #0526-2022 HVAC Replacement – City of Conroe Aquatics Center – Women’s Locker Room**, located in Montgomery County, Texas. The RFPs shall be appropriately marked “**RFP #0526-2022 HVAC Replacement – City of Conroe Aquatics Center – Women’s Locker Room**” and delivered to the City Secretary 300 West Davis, 3rd Floor, Conroe Texas 77301. Bids will be publicly opened and read on **Thursday, May 26, 2022** at **2:00 p.m.** in the 1st Floor Council Chamber at City Hall (300 West Davis).

Date: April 20, 2022

Bids will be received until: 2:00 P.M. on May 5, 2022

Pre-Bid Meeting and Site Visits: May 19, 2022 @ 9:00 AM at the City of Conroe Aquatics Center 1205 Candy Cane Lane. Conroe Texas 77301.

For: HVAC Replacement

DESCRIPTION	LUMP SUM FOR HVAC REPLACEMENT
Complete price for General Contracting to include HVAC Replacement and upgrades as per the plans and drawings included in this RFP	\$ _____
State warranty for service, parts and labor: _____ _____ _____	
Alternate additional warranty: Describe and pricing: _____ _____ _____	
Price : \$ _____	

Company Name

**CITY OF CONROE
PURCHASING DEPARTMENT
REQUEST FOR SEALED RFP**

INSTRUCTIONS TO PROPOSER - - - - -PLEASE READ CAREFULLY

1. The City of Conroe, Tax No. 74-6000-555 is exempt from all Federal Excise Taxes. Do not include tax in your bid price or invoice. Taxable items must be so designated, and the City will supply contractor with Tax Exemption Certificate, properly executed. Prices should be itemized.
2. The City of Conroe will pay for articles or services purchased under this bid within thirty (30) days after due and proper delivery or performance of service is made and accompanied by an invoice.
3. This purchasing contract is subject to the attached **Purchasing Terms and General Conditions**.
4. In case of discrepancy between the unit price and the extension price, the unit price will be taken.
5. **ALL PROPOSALS MUST BE SIGNED BY HAND.**

The undersigned hereby offers to furnish and deliver the articles or services as specified above at the prices and terms there stated and in strict accordance with the specifications and general conditions of bidding, all of which are made a part of this offer. This offer is not subject to withdrawal.

Names of
Business: _____

Mailing
Address: _____

City _____ State _____ Zip _____

By: _____ Title _____

Phone: _____ E-mail Address: _____

CITY OF CONROE

1. Preparation of RFPs:

Submit RFPs electronically through Vendor Registry or in triplicate (***one original, two manual copies.***) on the prescribed forms or copies thereof, along with Bid bond if required, in a sealed envelope marked "**RFP # 0526-2022 HVAC Replacement Including Finishes and Electrical – City of Conroe Aquatics Center – Women’s Locker Room**". Prepare RFPs in accordance with the requirements of the Notice to Bidders, and any instructions in the Proposal and plans, specifications and drawings.

2. Owner:

The City reserves the right to award parts of RFPs, reject any or all RFPs and to waive technical irregularities. Contract award will be made on the basis of the lowest qualified responsible respondent or the respondent who provides the goods and services at the best value for the City, considering the selection criteria below.

Best Value Selection Criteria:

- | | |
|--|---------|
| a) The Proposed Price/Cost. | 50 Pts. |
| b) The Quality of the bidders Goods or Services | 20 Pts. |
| c) The Reputation and Past Relationship with the City. | 20 Pts. |
| d) Time for Completion or Project Scheduling | 10 Pts. |

3. Questions and Inquires:

ALL questions regarding specifications must be asked through Vendor Registry. Answers will be posted on Vendor Registry.

4. Submission of RFPs:

Submit electronically through Vendor Registry OR one (1) original and (2) two copies of each proposal shall be submitted to the address below by the time and date set forth. Responses received later than the due date will not be accepted, and returned unopened. Names of Respondents will be read aloud at 2:00 PM in the 1st Floor Council Chambers, 300 West Davis Conroe Texas 77301.

Due Date: May 26, 2022 2:00 PM

Mail: City of Conroe	Physical:	City of Conroe
Soco Gorjon, City Secretary		Soco Gorjon, City Secretary
P.O. Box 3066		300 W. Davis
Conroe, TX. 77305		Conroe, TX. 77301

5. Scope of Work: Replace HVAC in ladies locker room, make general upgrades including electric and finishing work. All adjacent Finishes must be protected. If any finishes are damaged during construction it is the responsibility of the contractor to repair at their cost. Startup shall be done by the manufacturer’s representative. All startup documents shall be turned in to City Staff. Duct work shall be tested for leaks prior to insulation and pipes need to be air tested prior to insulation.

6. RFP Evaluation and Award:

As required under Government Code 252.042, the Owner upon appropriate evaluation of all qualified candidates will rank up to three Candidates based on the criteria established below to determine the most qualified firm. After review of the proposals and prior to the final ranking, the committee may conduct interviews with the shortlisted firm(s). The committee will verify references and past work history for specific firms. The committee's decision will be submitted to the City Council for consideration.

7. Interviews

After written proposals are received and initially evaluated, the Owner may require one or more of the Candidates to provide an oral presentation as a supplement to their statements. Any Candidate required to interview should be prepared to discuss and substantiate any area of their proposal. The Owner is under no obligation to grant interviews to any Candidate receiving a copy of this RFP and/or submitting a written proposal in response to this RFP.

8. References:

The City of Conroe may request respondents to supply, with this Invitation to RFP, a list of at least five (5) references where like services have been supplied by their firm. Include name of firm, contact person, address, telephone and fax number.

9. Delivery of Proposals:

It is the proposer's responsibility to deliver his proposal at the proper time to the proper place. The fact that a proposal was dispatched will not be considered. The proposer must have the proposal actually delivered before the time set and the start of opening of the RFPs. Any RFPs received after the time and date specified in the Notice to Bidders will be returned unopened.

10. Materials and Services:

The proposer warrants that goods, materials or services delivered to the City will meet the minimum specifications set forth herein. The proposer shall furnish all data pertinent to specifications and warranties, which apply to items in the RFP.

11. Price of Materials and Sales Tax:

Prices for all goods or services shall remain firm for the duration of this contract and shall be stated on the pricing sheet. Prices shall be all inclusive. Any price not shown on the RFP sheet will not be honored by invoice. No price changes, additions or subsequent qualifications will be honored during the course of this contract. All prices must be written in ink or typewritten. If there are additional charges of any kind, other than those mentioned above, specified or unspecified, proposer must indicate both items required and attendant cost or forfeit the right to payment. This Contract is issued by an organization, which qualifies for exemption pursuant to the provisions of Article 20.04 (F) of the Texas Limited Sales, Excise and Use Tax Act.

12. Indemnification:

The Proposer shall, defend, indemnify, and hold harmless the City of Conroe, their officers, and agents from and against any and all claims, demands, causes of action, orders, decrees, or judgments for injury, death, damage to person or property, loss, damage, or liability of any kind (including without limitation liability under any federal, state, or local environmental law, Compensation and Liability Act; fees and costs (including all costs or settlements and reasonable attorney's fees incurred in defending any claim, demand, or cause of action) occasioned by, growing out of, or arising from (a) the performance of any product or service to be supplied by the Proposer, or (b) by any act, error or omission on the part of the Proposer, its agents, employees, or subcontractors, and or (c) any failure to fully comply with all applicable laws and regulations by the Proposer, its agents, employees, or subcontractors.

13. Insurance Requirements:

The proposer shall procure and maintain, at its expense, during the term of this RFP, at least the following insurance, covering work performed.

COVERAGE	LIMITS
A. Worker's Compensation	- As required by Texas Law
B. Employer's Liability	- \$ 1,000,000 each occurrence
C. Public Liability (Bodily injury)	- \$1,000,000 combined single limit
D. Public Liability (Property damage)	- \$1,000,000 combined single limit
E. Automobile Liability (Bodily injury)	- \$ 200,000 each person
F. Automobile Liability (Property damage)	- \$ 50,000 each occurrence

The Proposer agrees to furnish insurance certificates, showing the respondents compliance with this section if required by the City.

14. Bonding:

Each bid must be accompanied by a bid bond or other acceptable security in an amount equal to ten percent (10%) of the base offer amount. The bond may consist of a surety bid bond executed by a surety licensed to do business in the State of Texas, or a certified check or cashier's check in the required amount drawn on a bank doing business in the State of Texas and made payable to the City of Conroe, Texas.

The bid / bid bond of the successful proposer shall be returned upon issuance of a notice to proceed to the proposer. The bonds of unsuccessful proposer's shall be returned upon the earlier of (1) the issuance of a notice to proceed to the successful proposer, or (2) the expiration of thirty (30) days following the bid opening.

As a condition for award of contract, a Performance Bond, and a Payment Bond, each in an amount not less than 100% of the contract sum, conditioned upon the faithful performance of the Contract, will be required of the Contractor. Bonding companies must be acceptable to the Owner. The amount of each bond shall be adjusted by the amount of any change order.

15. Conditions of Work:

Respondents are expected to be fully informed of construction and labor conditions under which the work will be performed, and to have thoroughly reviewed the plans, contract documents and specifications. Failure to do so will not relieve a successful proposer of any obligations to furnish material and labor necessary to complete the project.

16. Conditions of Conduct:

At all times any agent, officer, or employee of Proposer shall be present upon property owned by the City of Conroe, the terms and conditions of the Drug and Alcohol Policy currently adopted by the City of Conroe, shall be deemed applicable to such persons. Violations of terms and conditions while present on the premises owned by the City of Conroe shall be grounds for termination of any contract between the City and Proposer. A copy of this policy is available for public inspection in the office of the City Secretary and copies may be obtained at a nominal charge.

17. Ethical Standard:

No City official or employee shall have interest in any contract resulting from this bid. Individuals with a possible conflict will enact a public disclosure record by completing a "Statement of Financial Interest" form.

**Refer to "Project Number and Title" on the 1295 form.
Example forms are included with this Bid.**

- **1295 certificate of Interested Parties**
- **Conflict of Interest Questionnaire**
- **HB 89 Verification Form**
- **SB 252 Verification Form**
- **SB 19**
- **SB 13**

The forms stated above MUST be returned as part of your Bid response. Failure to include these forms may result in your Bid being considered unresponsive and therefor disqualified. Sample copies of these forms are included in the Bid. The web address to the Texas Ethics Commission website with instructions is listed below:

(Sample Forms are attached)

https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

18. RFPs:

All RFPs must be consistent in every respect and no special conditions may be made or included by the proposer.

If a contract is awarded, it will be awarded to the most responsible proposer having previous experience, meeting all the qualifications and specifications for this type of work and on the bases of the arrangement of selected RFP items that offer the best value to the City of Conroe.

19. Unit Prices if Applicable:

The unit price of each of the items in the RFP proposal shall include its pro-rata share of overhead so that the sum of the products obtained by multiplying the quantity shown for each item by the unit price proposed represents the total RFP. Any RFP not conforming to the condition may be rejected. The unit prices will be used to determine the amount of any change orders resulting from an increase or decrease in quantities, if such applies.

20. Corrections:

Erasures or other corrections in the RFP must be noted over the signature of the proposer.

21. Withdrawal of RFPs:

RFPs may be withdrawn by written request dispatched for delivery in the normal course of business prior the RFP opening. The RFP guaranty of any proposer withdrawing his RFP in accordance with the above will be returned promptly.

22. Award of Contract:

The City reserves the right to award this contract to the low bidder or to the bidder whose response is the best value to the City of Conroe.

23. Equal Employment Opportunity:

Attention is called to the requirements for ensuring that employees and applicants for employment are not discriminated against because of their age, race, color, creed, sex or national origin.

24. Payment:

The City of Conroe is exempt from state sales tax and federal excise tax. These taxes shall not be included in the submitted pricing. The City will provide tax exemption certificate upon request.

Payment will be scheduled within thirty (30) days upon complete delivery and acceptance of all services and receipt of an original invoice complying with the terms and conditions of the award.

Invoices must be submitted by the vendor to the City of Conroe Purchasing Dept., P.O. Box 3066, Conroe Texas 77305 or by email at acctpay@cityofconroe.org. If invoices are subject to cash discount, discount period will be taken from the date of completion of order or date of receipt of invoice, whichever occurs last regardless of whether or not correct discount terms appear on invoice.

25. Default:

The City reserves the right to terminate this contract with 30 days written notice for any reason if found to be in the best interest of the City of Conroe.

26. Term of Contract

This contract will begin after award and will continue and continue until project is complete.

27. Respondents:

Should a respondent discover a discrepancy or an omission in the RFP documents, they should at once notify the Purchasing Department so that an addendum can be issued. No explanation or interpretation other than an addendum issued by the City will be considered official or binding. Each Addenda interpretation made will be uploaded to Vendor Registry no later than Monday, May 23, 2022 by 5:00 pm, prior to RFP opening. It is, however, the proposer's responsibility to make inquiry as to any addendum issued. All such addendums shall become part of the Contract Documents and all respondents shall be bound by such addenda, whether or not received by the respondents.

RESPONSE FORMAT

The items listed below shall be submitted with each proposal and should be submitted in the order shown. Each section should be clearly labeled, with pages numbered and separated by tabs. Failure by a Proposer to include all listed items may result in their proposal being rejected.

❖ Tab 1 – Cover Letter

Provide a cover letter indicating your firm's understanding of the requirements relating to this proposal. The letter must be brief and formal from the proposer that provides information regarding the firm's interest in and ability to perform the requirements of this RFP. A person who is authorized by the organization to enter into an agreement with the City of Conroe will sign the letter.

Please include all contact information.

❖ Tab 2 – Acceptance of Conditions (Your proposal)

Include all required forms including insurance, bonds (letter from Surety Company stating your company is bondable and original bond is due at time of contract award), conflict of interest form, Certificate of Interested Parties Form, HB 89 and SB 252, SB 19, SB 13 Forms and all required back up information requested.

Include pricing for project.

Include all pertinent information regarding your company's plan to implement the scope of the project according to the plans and drawings included with this RFP. Include all warranty information.

Indicate any exceptions to the specifications, terms and conditions of this RFP, including the Scope of Services.

❖ Tab 3 – Company Background

1. Years in business under present name.
2. Name and address of each office location.
3. Ownership structure (Corporation / Partnership).
4. Names and titles of officers in the company.
5. Company trade organizations / associations / affiliations

❖ **Tab 4 – Qualifications**

1. Describe firm qualifications, experience and project understanding.
2. Provide resumes for key personnel that will be assigned to this project.
3. Demonstrate the firm’s qualifications and experience in providing HVAC services to similar entities.

❖ **Tab 5 – Project Manager**

1. Identify the Project Manager, including experience and qualifications related to this project.

❖ **Tab 6 – References**

1. Provide references of similar projects for which your company has, in whole, provided general contracting services that involve HVAC services and incidental repairs to include electric and finishes. (5 references)

❖ **Tab 7 – List of Ongoing and Completed Projects**

1. Provide a list of similar projects in which your company is currently involved, or has been involved.
2. Please list project description and status.

❖ **Tab 8 – Customer Support**

1. Describe the firm’s physical availability to the City of Conroe in terms of communication, meetings and fieldwork.
2. How will distance from the project site and the City of Conroe affect the response time to critical matters pertaining to the project?

Any **purchasing related** questions may be directed to Kristina Colville at kcolville@cityofconroe.org. or 936-522-3830.

All **Specification questions** MUST be asked on Vendor Registry.

Agreement and Certification:

The Undersigned Agrees That:

- A. No Federal, State, County or Municipal taxes have been included in the quoted prices and none will be added.
- B. Prices in this proposal have not knowingly been disclosed with any other provider and will not be prior to award.
- C. Prices in this proposal have been arrived at independently, without consultation, communication or agreement for the purpose of restricting competition.
- D. No attempt has been made nor will be to induce any other person or firm to submit a proposal for the purpose of restricting competition.
- E. The individual signing this proposal certifies that he/she is a legal agent of the proposer, authorized to represent the proposer and is legally responsible for the offer with regard to supporting documentation and prices provided.

SIGNATURE SHEET

My signature also certifies that the accompanying proposal is not the result of, or affected by, any unlawful act of collusion with another person or company engaged in the same line of business or commerce, or any act of fraud punishable by Texas Law.

My signature also certifies that this firm has no business or personal relationships with any other companies or persons that could be considered as a conflict of interest or potential conflict of interest to the City of Conroe (House Bill 914), and that there are no principals, officers, agents, employees, or representatives of this firm that have any business or personal relationships with any other companies or persons that could be considered as a conflict of interest or a potential conflict of interest pertaining to any and all work or services to be performed as a result of this request and any resulting contract with the City of Conroe.

I hereby certify that I am authorized to sign as a Representative for the Firm:

Complete Legal Name of Firm: _____

Order From Address: _____

Remit To Address: _____

Fed ID No.: _____

Signature: _____

Name (type/print): _____

Title: _____

Telephone: (____) _____ **Fax No.:** (____) _____

Date: _____ **Minority:** _____ **Women Owned:** _____

To receive consideration for award, this signature sheet must be returned WITH RESPONSE.

DOCUMENT 00520
BID BOND

BIDDER (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

BID

BID DUE DATE: _____

PROJECT (Brief Description Including Location): _____

BOND

BOND NUMBER: _____

DATE:(Not later than Bid Due Date): _____

PENAL SUM: _____

IN WITNESS WHEREOF, Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

BIDDER

SURETY

_____(Seal)
Bidder's Name and Corporate Seal

_____(Seal)
Surety's Name and Corporate Seal

By: _____
Signature and Title

By: _____
Signature and Title
(Attach Power of Attorney)

Attest: _____
Signature and Title

Attest: _____
Signature and Title

Note: (1) Above addresses are to be used for giving required notice.
(2) Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents and Contract Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents and Contract Documents, or
 - 3.2 All bids are rejected by Owner, or
 - 3.3 Owner fails to issue a notice of award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of and any and all defenses based on or arising out of any time extension to issue notice of award agreed to in writing by Owner and Bidder, provided that the time for issuing notice of award including extensions shall not in the aggregate exceed 120 days from Bid Due Date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in paragraph 4 above is received by Bidder and Surety, and in no case later than one year after Bid Due Date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notice required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent or representative who executed this Bond on behalf of Surety to execute, seal and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of the Bond conflicts with any applicable provision of any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "bid" as used herein includes a bid, offer or proposal as applicable.

STATE OF TEXAS
COUNTY OF MONTGOMERY

LET IT BE KNOWN BY THIS INSTRUMENT:

That we, _____, as Principal, and _____, a corporation duly authorized to do business in this State, as Surety, are this date held and firmly bound unto the City of Conroe, Texas in the amount of _____

_____ Dollars (\$ _____) for payment of which indemnity the said Principal and Surety, by this declaration, do firmly bind themselves, their heirs, executors, administrators, successors and assigns, jointly and individually.

This bond is made to secure the performance of Principal with respect to a contract dated _____ made by and between Principal and the City of Conroe, Texas for _____

The conditions of this obligation are, therefore, such that it shall remain in full force and effect until the Principal shall faithfully perform the Contract in accordance with the Contract Documents.

In the event of Principal's failure to faithfully perform the Contract, Surety will assume full responsibility for completion of the Contract and become entitled to payment of the balance of the Contract amount.

The liabilities, rights, limitations, and remedies concerning this Bond shall be determined in accordance with the provisions of Chapter 2253 of the Texas Government Code, pursuant to which this bond is executed and given.

IN WITNESS TO THIS DECLARATION, the said Principal and Surety have signed and sealed this instrument,

this _____ day of _____, 2_____.

PRINCIPAL

SURETY*

By: _____
Name: _____
Title: _____

By: _____
Name: _____
Address of Attorney-In-Fact

Telephone No. of Attorney-In Fact

PAYMENT BOND

Bond Identification No. _____

STATE OF TEXAS
COUNTY OF MONTGOMERY

LET IT BE KNOWN BY THIS INSTRUMENT:

That we, _____, as Principal, and _____, a corporation duly authorized to do business in this State, as Surety, are this date held and firmly bound unto the City of Conroe, Texas in the amount of _____

_____ Dollars (\$ _____) for payment of which indemnity the said Principal and Surety, by this declaration, do firmly bind themselves, their heirs, executors, administrators, successors and assigns, jointly and individually.

This bond is made to secure the performance of Principal with respect to a contract dated _____ made by and between Principal and the City of Conroe, Texas for _____

This Bond is entered into for the protection of claimants supplying labor and material in the prosecution of the Work provided for in said Contract Documents, and all such claimants shall have a direct right of action under the Bond as provided in Chapter 2253, Texas Government Code.

The liabilities, rights, limitations, and remedies concerning this Bond shall be determined in accordance with the provisions of Chapter 2253 of the Texas Government Code, pursuant to which this bond is executed and given.

IN WITNESS TO THIS DECLARATION, the said Principal and Surety have signed and sealed this instrument,

this _____ day of _____, 2_____.

PRINCIPAL

SURETY*

By: _____
Name: _____
Title: _____

By: _____
Name: _____
Address of Attorney-In-Fact _____

Telephone No. of Attorney-In Fact

**ATTACH CERTIFICATE OF LIABILITY INSURANCE
(HERE)**

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

CONFLICT OF INTEREST QUESTIONNAIRE

For vendor doing business with local governmental entity

FORM CIQ

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.

_____ (“Company or Business Name”)
House Bill 89 Verification

I, _____ (Person name), the undersigned representative of _____ (Company or Business Name) hereafter referred to as “Company”; being an adult over the age of eighteen (18) years of age, after being duly sworn by the undersigned notary, do hereby depose and verify under oath that the company named-above, under the provisions of Subtitle F, Title 10, Government Code Chapter 2270:

1. Does not boycott Israel currently; and
2. Will not boycott Israel during the term of the contract.

Pursuant to Section 2270.001, Texas Government Code:

1. *“Boycott Israel” means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes; and*
2. *“Company” means a for-profit sole proprietorship, organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, or any limited liability company, including a wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of those entities or business associations that exist to make a profit.*

DATE

SIGNATURE OF COMPANY REPRESENTATIVE

On this the ____ day of _____, 20____, personally appeared _____, the above-named person, who after by me being duly sworn, did swear and confirm that the above is true and correct.

NOTARY SEAL

NOTARY SIGNATURE

Date

**CITY OF CONROE
PURCHASING DEPARTMENT**

SENATE BILL 252 CERTIFICATION

On this day, I, _____, the Purchasing Representative for the City of Conroe, Texas, pursuant to Chapter 2252, Section 2252.152 of the Texas Government Code, certify that I did review the website list prepared, maintained, and made available to the City of Conroe by the Comptroller of the State of Texas of companies known to have contracts with or provide supplies or services to Iran, Sudan or any foreign terrorist organization. I have ascertained that the below-named company is not contained on said list of companies that do business with Iran, Sudan or any Foreign Terrorist Organization.

Company Name

RFP or Vendor number

CERTIFICATION CHECK PERFORMED BY:

Purchasing Representative

Date

_____ (“Company or Business Name”)
Senate Bill 19 Verification

I, _____ (Person name), the undersigned representative of _____ (Company or Business Name) hereafter referred to as “Company”; being an adult over the age of eighteen (18) years of age, after being duly sworn by the undersigned notary, do hereby depose and verify under oath that the company named-above, under the provisions of Subtitle F, Title 10, Government Code Chapter 2274:

- (1) does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association; and,
- (2) will not discriminate during the term of the contract against a firearm entity or firearm trade association.

Pursuant to Section 2274.001, Texas Government Code:

1. “Ammunition” means a loaded cartridge case, primer, bullet, or propellant powder with or without a projectile.
2. "Company" means a for-profit organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, or limited liability company, including a wholly owned subsidiary, majority-owned subsidiary, parent company, or affiliate of those entities or associations that exists to make a profit. The term does not include a sole proprietorship.
3. "Discriminate against a firearm entity or firearm trade association":
 - (A) means, with respect to the entity or association, to:
 - (i) refuse to engage in the trade of any goods or services with the entity or association based solely on its status as a firearm entity or firearm trade association;
 - (ii) refrain from continuing an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association; or
 - (iii) terminate an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association; and
 - (B) does not include:
 - (i) the established policies of a merchant, retail seller, or platform that restrict or prohibit the listing or selling of ammunition, firearms, or firearm accessories; and
 - (ii) a company’s refusal to engage in the trade of any goods or services, decision to refrain from continuing an existing business relationship, or decision to terminate an existing business relationship:
 - (aa) to comply with federal, state, or local law, policy, or regulations or a directive by a regulatory agency; or

(bb) for any traditional business reason that is specific to the customer or potential customer and not based solely on an entity's or association's status as a firearm entity or firearm trade association.

4. "Firearm" means a weapon that expels a projectile by the action of explosive or expanding gases.
5. "Firearm accessory" means a device specifically designed or adapted to enable an individual to wear, carry, store, or mount a firearm on the individual or on a conveyance and an item used in conjunction with or mounted on a firearm that is not essential to the basic function of the firearm. The term includes a detachable firearm magazine.
6. "Firearm entity" means:
 - (A) a firearm, firearm accessory, or ammunition manufacturer, distributor, wholesaler, supplier, or retailer; and
 - (B) a sport shooting range as defined by Section 250.001, Local Government Code.
7. "Firearm trade association" means any person, corporation, unincorporated association, federation, business league, or business organization that:
 - (A) is not organized or operated for profit and for which none of its net earnings inures to the benefit of any private shareholder or individual;
 - (B) has two or more firearm entities as members; and
 - (C) is exempt from federal income taxation under Section 501(a), Internal Revenue Code of 1986, as an organization described by Section 501(c) of that code.

DATE

SIGNATURE OF COMPANY REPRESENTATIVE

On this the ____ day of _____, 20__, personally appeared _____, the above-named person, who after by me being duly sworn, did swear and confirm that the above is true and correct.

NOTARY SEAL

NOTARY SIGNATURE

DATE

Senate Bill 13 Verification

I, _____ (Person name), the undersigned representative of _____ (Company or Business Name) hereafter referred to as "Company"; being an adult over the age of eighteen (18) years of age, after being duly sworn by the undersigned notary, do hereby depose and verify under oath that the company named-above, under the provisions of Subtitle F, Title 10, Government Code Chapter 2274:

- (1) does not boycott energy companies; and
- (2) will not boycott energy companies during the term of the contract.

Pursuant to Section 2274.001, Texas Government Code:

- 1. "Boycott energy company" has the meaning assigned by Section 809.001.
- 2. "Company" has the meaning assigned by Section 809.001, except that the term does not include a sole proprietorship.

DATE

SIGNATURE OF COMPANY REPRESENTATIVE

On this the ____ day of _____, 20__, personally appeared _____, the above-named person, who after by me being duly sworn, did swear and confirm that the above is true and correct.

NOTARY SEAL

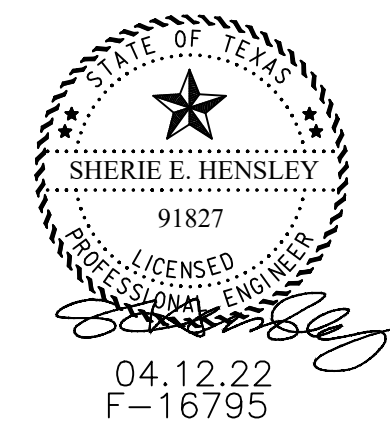
NOTARY SIGNATURE

DATE



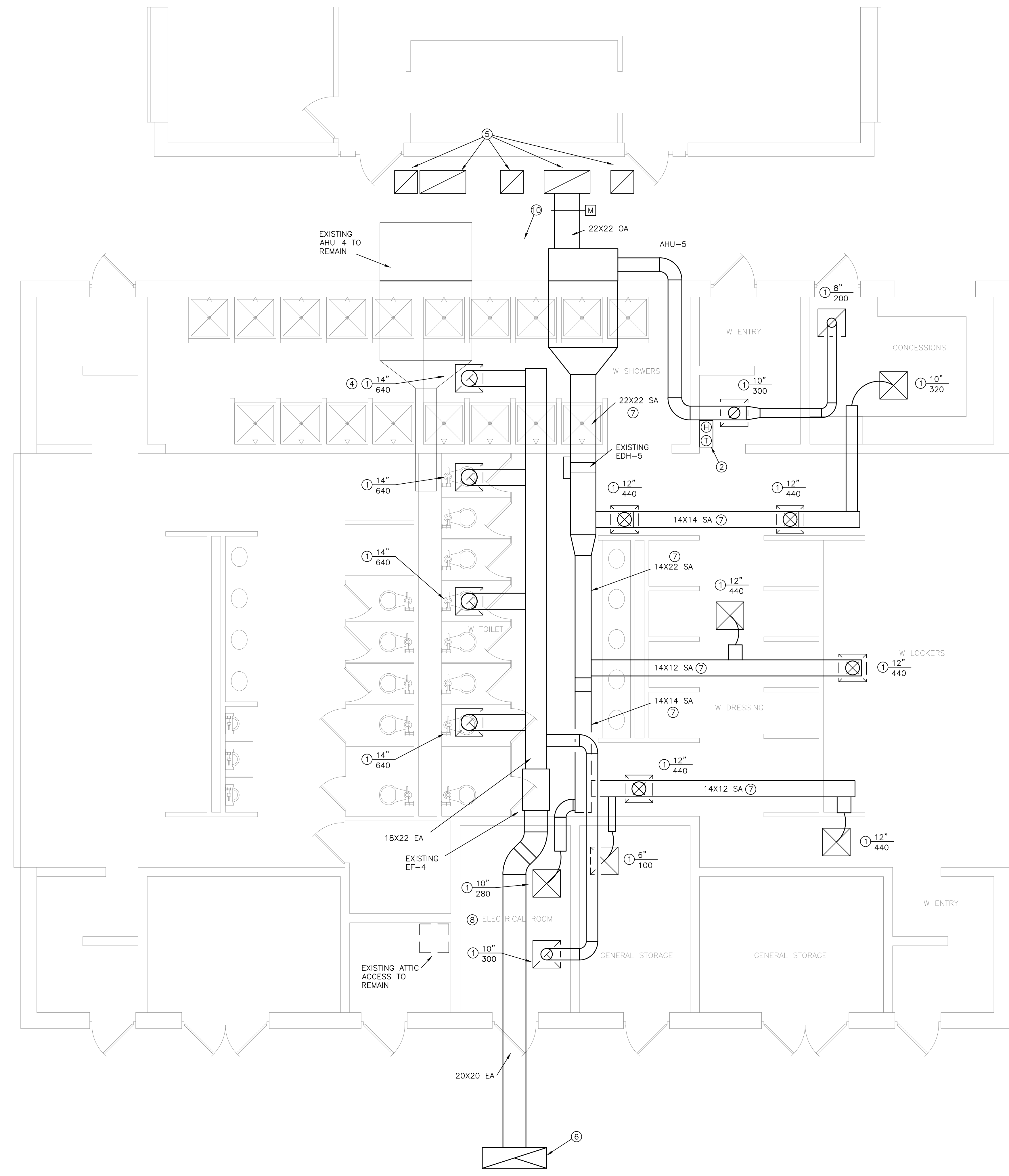
H4 ARCHITECTS + ENGINEERS
 H4ARCHITECTS.COM
 22015 OAKHURST DR.
 SPRING, TEXAS 77389
 281.528.8584
 TX-16795

ALL DRAWINGS AND SPECIFICATIONS ISSUED AS PART OF THE SERVICE PROVIDED BY H4 ARCHITECTS + ENGINEERS FOR THE PROJECT. THE ARCHITECTS AND ENGINEERS ARE NOT RESPONSIBLE FOR THE ACCURACY OF THE DRAWING AND SPECIFICATIONS UNLESS THEY ARE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF THE ARCHITECTS + ENGINEERS. THE ARCHITECTS + ENGINEERS SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE PROJECT.



04.12.22
 F-16795

**AQUATICS CENTER
 CITY OF CONROE**
 1205 CALLAHAN AVE
 CONROE, TEXAS 77305



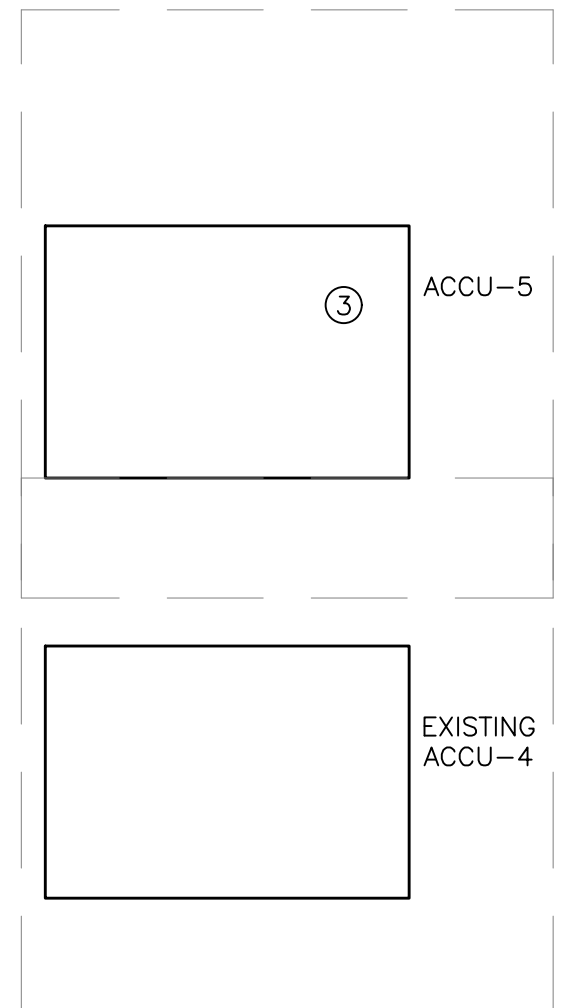
REMOVE AND REPLACE ALL FLEX DUCT WORK SERVING WOMEN'S LOCKER ROOM. RECONNECT TO EXISTING AIR DEVICES. PROVIDE SHEET METAL DUCTWORK WITH DUCT WRAP. MAX 5FT FLEX DUCT ON SUPPLY.

MECHANICAL GENERAL NOTES

- FIELD VERIFY ALL EXISTING CONDITIONS.
- DUCT DIMENSIONS ARE INSIDE CLEAR.
- CONFIRM PLACEMENT OF MECHANICAL EQUIPMENT WITH STRUCTURAL ENGINEER.
- MAINTAIN A MINIMUM OF 3FT BETWEEN EXHAUST AND OPENINGS INTO BUILDING AND 10FT BETWEEN EXHAUST AND OUTSIDE AIR INTAKE.
- MAINTAIN MINIMUM CLEARANCE TO ALL EQUIPMENT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- BALANCE ALL AIR DEVICES TO CFM SHOWN.
- ROUTE ALL DUCTWORK AND ACCESSORIES IN AREAS WITH NO CEILING ORGANIZED AND PERPENDICULAR TO WALLS.
- CLEAN ALL EXISTING AIR DEVICES OR PROVIDE NEW TO MATCH.
- RECONNECT NEW DUCTWORK TO EXISTING EQUIPMENT. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- DUCTWORK
 - CLEAN ALL EXTERNALLY LINED DUCTS. REPAIR ANY DAMAGED INSULATION.
 - REPLACE ALL DUCTWORK INTERNALLY LINED.
 - REPAIR FLEX DUCT.
- REPAIR ANY DAMAGED REFRIGERANT LINE INSULATION.
- FIELD VERIFY OPERATION OF EXISTING DUCT SMOKE DETECTORS WITH FIRE ALARM CONTROL UNIT/SYSTEM. PROVIDE SERVICE AND MAINTENANCE AS REQUIRED AND REPORT WORKING CONDITION TO OWNER.
- MODIFY ROUTING OF PIPING (HVAC AND PLUMBING) AS REQUIRED FOR NEW ATTIC ACCESS.
- PROVIDE SERVICE AND MAINTENANCE OF EDH-5 AND EF-4 AS REQUIRED AND REPORT WORKING CONDITION TO OWNER.

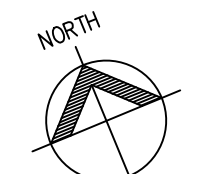
MECHANICAL KEY NOTES

- EXISTING AIR DEVICE. REBALANCE TO CFM SHOWN. MINIMUM NECK SIZE SHOWN.
- REMOVE EXISTING THERMOSTAT AND HUMIDISTAT. REPLACE WITH AAGN ASM01820 DIGITAL ROOM TEMPERATURE AND HUMIDITY SENSOR.
- PROVIDE NEW REFRIGERANT LINES FROM NEW AHU TO NEW ACCU. INSULATE.
- EXHAUST DUCT TO BE ROUTED TO AVOID COMPRESSING DUCT WORK.
- REMOVE AND CLEAN EXISTING OUTSIDE AIR GRILLES. REINSTALL WITH NEW CEILING. REFER TO ARCHITECTURAL. RECONNECT DUCTWORK.
- CLEAN EXISTING EXHAUST LOUVER.
- DUCT SIZES AS SHOWN OR EQUIVALENT FREE AREA.
- COORDINATE DUCTWORK WITH EXISTING ELECTRICAL.
- PROVIDE NEW CONDENSATE PRIMARY AND SECONDARY DRAIN TO EXISTING DRAIN LOCATION.
- REFER TO ARCHITECTURAL FOR NEW ATTIC ACCESS LOCATED IN BREZZEWAY. MODIFY DUCTS AS NEEDED.



NO.	DESCRIPTION	DATE
	ISSUE FOR CONSTR	04.12.22

PROJECT NUMBER
 2022409
 DRAWN BY
 SEH
 CHECKED BY
 SEH
 DRAWING NAME
 MECHANICAL PLAN
 DRAWING NUMBER
 M-1.01



1 MECHANICAL PLAN
 1/4" = 1'-0"

\\H4-dc-01\h4\Engineers\Projects\2022\2022409 COC Aquatics Center\M2022409 M101.dwg, 4/12/2022 9:01:33 AM, SherieH



H4 ARCHITECTS + ENGINEERS

14400 WOODWAY DRIVE
SPRING, TEXAS 77380
281.528.8564
1747-16795

ALL DRAWINGS AND SPECIFICATIONS ISSUED AS PART OF THE SERVICE PROVIDED BY THE ARCHITECT FOR THE PROJECT SHALL REMAIN THE PROPERTY OF THE ARCHITECT. ANY REPRODUCTION OF THE DRAWING AND/OR SPECIFICATIONS WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT IS STRICTLY PROHIBITED. THE ARCHITECT ASSUMES NO LIABILITY FOR THE DESIGN OF ANY STRUCTURE OR MATERIALS, UNLESS INDICATED OTHERWISE ON THE DRAWING.



04.12.22
F-16795

AQUATICS CENTER
CITY OF CONROE
1205 CALLAHAN AVE
CONROE, TEXAS 77305

NO. DESCRIPTION DATE
ISSUE FOR CONSTR 04.12.22

PROJECT NUMBER
2022409
DRAWN BY
SEH
CHECKED BY
SEH
DRAWING NAME

MECHANICAL
SCHEDULES

DRAWING NUMBER

M-2.01

AIR HANDLING UNIT SCHEDULE														
EQUIPMENT NO	SERVICE	LOCATION	SUPPLY FAN			COOLING COIL			HEATING COIL			MANUFACTURER AND MODEL	WEIGHT (LBS)	NOTES
			OUTSIDE AIR CFM	CFM	ESP (IN WG)	HP	MBH (TH/SH)	EAT (DB/WB)	LAT	KW	ELECTRICAL V/PH/Hz			
AHU-5	WOMENS LOCKER	ATTIC	2720	3220	0.6	1.93	BHP	220/134	95/76	54	EXISTING DUCT HEATER	AACN H3-CRB-3-0-182C-000-ACDE- AE0-000-0A0-00A0020-00-00 0000000	625	ALL
NOTES:														
1. WALL MOUNTED TEMPERATURE/HUMIDITY SENSOR														
2. THERMALLY BROKEN DOUBLE WALL CABINET WITH 1" THICK, R-6.25 FOAM INSULATION														
3. 8-ROW EVAPORATOR COIL AND CU TUB/AL FIN CONSTRUCTION														
4. DOUBLE SLOPED 304 STAINLESS STEEL DRAIN PAN														
5. 2" MERV-8 FILTER														
6. DUCT MOUNTED ELECTRIC HEATER SHALL BE INTERLOCKED TO FACTORY MOUNTED DDC CONTROLLER														
7. INTERLOCK EXISTING EXHAUST FAN (EF-4) WITH SUPPLY FAN (AHU-5).														
8. INTERLOCK MOTORIZED DAMPER WITH SUPPLY FAN (AHU-5).														

AIR COOLED CONDENSING UNIT SCHEDULE										
EQUIPMENT NO.	SERVICE	COOLING CAPACITY (TONS)	MIN EER (ARI)	AMBIENT TEMP (°F)	ELECTRICAL V/ø/Hz	FANS	REFRIGERANT	MANUFACTURER AND MODEL	WEIGHT (LBS)	NOTES
ACCU-5	AHU-5	20	10.9	105	460/3/60	2	R410A	AACN CFA-020-C-A-3-DA00K-00-DO-00-000-D-FE00 -0000C00-00000DB	1423	ALL
NOTES:										
1. G90 GALVANIZED STEEL CABINET AND 2,500 HOUR SALT SPRAY PAINT										
2. LEAD REFRIGERATION CIRCUIT WITH FULLY MODULATING DIGITAL SCROLL COMPRESSOR										
3. FACTORY MOUNTED SOUND BLANKETS										
4. ECM CONDENSER FAN HEAD PRESSURE CONTROL										
5. LOW AMBIENT OPERATION DOWN TO 35 DEG F										
6. FACTORY MOUNTED DDC CONTROLLER										
7. STANDARD 1 YEAR COMPLETE PARTS WARRANTY AND YEAR 2-5 COMPRESSOR PARTS ONLY WARRANTY										

DUCT CONSTRUCTION MINIMUM SHEET METAL THICKNESS			
RECTANGULAR DUCTS			
MAXIMUM SIZE (INCHES)	STEEL (MINIMUM THICKNESS, NORMAL)		
THROUGH 12	0.022 INCH (26 GAGE, GALV.)		
13 THROUGH 30	0.028 INCH (24 GAGE, GALV.)		
31 THROUGH 54	0.034 INCH (22 GAGE, GALV.)		
ROUND DUCTS			
MAXIMUM SIZE (INCHES)	SPIRAL SEAM DUCT	LONGITUDINAL SEAM DUCT	FITTINGS
	STEEL (MINIMUM THICKNESS, NORMAL)	STEEL (MINIMUM THICKNESS, NORMAL)	STEEL (MINIMUM THICKNESS, NORMAL)
THROUGH 12	0.019 INCH (28 GAGE, GALV.)	0.022 INCH (26 GAGE, GALV.)	0.022 INCH (26 GAGE, GALV.)
13 THROUGH 18	0.022 INCH (26 GAGE, GALV.)	0.028 INCH (24 GAGE, GALV.)	0.028 INCH (24 GAGE, GALV.)
19 THROUGH 28	0.028 INCH (24 GAGE, GALV.)	0.034 INCH (22 GAGE, GALV.)	0.034 INCH (22 GAGE, GALV.)

DUCT & PIPING MATERIAL & INSULATION SCHEDULE		
SYSTEM	DUCT/PIPING MATERIAL	INSULATION MATERIAL
CONDENSATE DRAINS	TYPE "L" HARD DRAWN COPPER	AP ARMAFLEX (25/50 RATED), 3/4" THICKNESS MINIMUM, THICKER IF REQUIRED TO PREVENT CONDENSATION AT 85°F AND 70% RELATIVE HUMIDITY
SUPPLY & RETURN DUCT (RECTANGULAR)	GALVANIZED SHEET METAL LINER	JOHNS MANVILLE PERMACOTE LINACOUSTIC OR EQUAL, 1-1/2 LB/CU FT, NFPA 25/50 FLAME SPREAD AND SMOKE DEVELOPED RATING, MINIMUM INSTALLED R-6 INSIDE AND R-8 OUTSIDE BUILDING ENVELOPE.
SUPPLY & RETURN DUCT (SPIRAL/ROUND)	SPIRAL/ROUND DUCT LINER INSULATION	CERTAINTEED TOUGHGUARD ULTRA*ROUND SPIRAL DUCT LINER, NFPA 25/50 FLAME SPREAD AND SMOKE DEVELOPED RATING, MINIMUM INSTALLED R-6 INSIDE AND R-8 OUTSIDE BUILDING ENVELOPE.
EXHAUST DUCT	GALVANIZED SHEET METAL, UNLINED	NONE
FLEXIBLE SUPPLY DUCT	UL 181, CLASS 1, INTERLOCKING SPIRAL OF ALUMINUM FOIL	THERMAFLEX M-KE, FIBERGLASS INSULATION, FIBERGLASS REINFORCED VAPOR-BARRIER FILM, MINIMUM INSTALLED R-6 INSIDE AND R-8 OUTSIDE BUILDING ENVELOPE.
SUPPLY, RETURN & OUTSIDE AIR DUCT	GALVANIZED SHEET METAL DUCT WRAP	1-1/2 LB/CU FT DENSITY FIBERGLASS FOIL-BACK, FLAME SPREAD RATING 25 OR LESS, SMOKE DEVELOPED RATING 50 OR LESS, MINIMUM INSTALLED R-6 INSIDE AND R-8 OUTSIDE BUILDING ENVELOPE.
REFRIGERANT PIPING	TYPE "L" HARD DRAWN COPPER	ARMAFLEX 1" THICKNESS MINIMUM FOR LIQUID WITH MANUFACTURER-APPROVED PROTECTION FOR INSULATION EXPOSED TO WEATHER
NOTES:		
1. FIRST 20 FT OF SUPPLY AND RETURN AIR DUCTWORK DOWNSTREAM OF AIR HANDLING EQUIPMENT SHALL BE LINED. REMAINING DUCTWORK SHALL BE WRAPPED UNLESS OTHERWISE NOTED.		
2. DUCT AND PLENUMS SHALL BE SEALED IN ACCORDANCE WITH THE MECHANICAL CODE AND SMACNA METHOD A.		

DIVISION 23 - HEATING VENTILATING AND AIR CONDITIONING

230000 HVAC BASIC REQUIREMENTS

- A. MINIMUM STANDARDS FOR ALL WORK SHALL BE CITY OF CONROE AMENDMENTS TO 2009 INTERNATIONAL BUILDING CODE, 2009 INTERNATIONAL MECHANICAL CODE, AND 2015 INTERNATIONAL ENERGY CONSERVATION CODE.
- B. REFERENCES: THE STANDARDS MENTIONED HEREIN WILL BE REFERRED TO IN THE DESIGN OF MECHANICAL SYSTEMS. THE ENGINEER WILL SELECT APPROPRIATE SECTIONS OF THE STANDARD TO BE APPLIED IN ACCORDANCE WITH ESTABLISHED ENGINEERING PRINCIPLES AND PRACTICES.
 - 1. APPLICABLE SECTIONS OF NFPA
 - 2. AMERICANS WITH DISABILITIES ACT (ADA)
 - 3. TEXAS ACCESSIBILITY STANDARDS (TAS)
- C. SITE CONDITIONS: BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE PROPOSED SITE AND DETERMINE ANY CONDITIONS THAT MAY AFFECT THE WORK. NO ALLOWANCE SHALL BE MADE FOR FAILURE TO MAKE SURE EXAMINATIONS.
- D. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
- E. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH ALL OTHER TRADES INCLUDING ARCHITECT, STRUCTURAL, CIVIL, PLUMBING, AND ELECTRICAL.
- F. DO NOT SCALE FROM THE ENGINEER DRAWINGS. REFER TO THE DIMENSIONED DRAWINGS OF THE ARCHITECT FOR EXACT LOCATIONS OF FIXTURES, EQUIPMENT, ETC.
- G. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND INSPECTIONS REQUIRED FOR THE INSTALLATION OF WORK AND PAY ALL INCIDENTAL CHARGES.
- H. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL TESTS NECESSARY TO PREVENT CONCEALMENT OF DEFECTS OR IMPROPER WORK. UPON COMPLETION OF WORK, TEST INSTALLATION THOROUGHLY AND RENDER IT FREE FROM LEAKS OR IMPROPER CONNECTIONS.
- I. PROTECT EQUIPMENT AND WORK FROM DAMAGE DURING HANDLING AND INSTALLATION UNTIL COMPLETION OF CONSTRUCTION. REMOVE ALL EXCESS DEBRIS AND CLEAN ALL EQUIPMENT UPON COMPLETION OF WORK. TOUCH UP WITH PAINT WHERE REQUIRED.

230513 COMMON MOTOR REQUIREMENTS FOR HVAC EQUIPMENT

- A. PROVIDE HIGH EFFICIENCY MOTORS IN ACCORDANCE WITH INTERNATIONAL ENERGY CONSERVATION CODE.

230517 SLEEVES AND SLEEVE SEALS

- A. INSTALL SLEEVES FOR PIPING PASSING THROUGH PENETRATIONS IN FLOORS, PARTITIONS, ROOFS, AND WALLS.
 - 1. CAST-IRON PIPE SLEEVES: CAST OR FABRICATED OF CAST OR DUCTILE IRON AND EQUIVALENT TO DUCTILE-IRON PRESSURE PIPE, WITH PLAIN ENDS AND INTEGRAL WATERSTOP COLLAR.
 - 2. GALVANIZED-STEEL SHEET PIPE SLEEVES: 0.0239-INCH MINIMUM THICKNESS; ROUND TUBE CLOSED WITH WELDED LONGITUDINAL JOINT.
- B. MAINTAIN INDICATED FIRE OR SMOKE RATING OF WALLS, PARTITIONS, CEILING, AND FLOORS AT PENETRATIONS. COORDINATE WITH ARCHITECTURAL SEAL ALL HVAC AND PIPE PENETRATIONS WITH FIRE- AND SMOKE-STOP MATERIALS. COMPLY WITH REQUIREMENTS FOR FIRESTOPPING AND FILL MATERIALS SPECIFIED IN DIVISION 07 "PENETRATION AND FIRESTOPPING."

230548 VIBRATION ISOLATION

- A. VIBRATION ISOLATION WILL BE PROVIDED AS REQUIRED TO MINIMIZE TRANSMISSION TO STRUCTURE. EQUIPMENT AND PIPING SHALL HAVE ISOLATORS INSTALLED AT POINTS OF SUPPORT. APPROVED MANUFACTURERS: AMBER/BOOTH, MASON, KINETICS NOISE CONTROL, VIBRO-Acoustics.

230593 TESTING, ADJUSTING, AND BALANCING FOR HVAC

- A. ADJUST ALL AIR SYSTEM DAMPERS AND VOLUME CONTROLLERS TO OBTAIN PROPER AIR BALANCE THROUGHOUT THE CONDITIONED AREA. THE AIR QUANTITIES SHOWN ON THE DRAWINGS FOR INDIVIDUAL OUTLETS MAY BE CHANGED TO OBTAIN UNIFORM TEMPERATURE WITHIN EACH ZONE, BUT THE TOTAL AIR QUANTITY SHOWN FOR EACH ZONE MUST BE OBTAINED WITHIN +/- 10% MAXIMUM TEMPERATURE VARIATION WITHIN A ZONE SHALL BE 2°F.
- B. ADJUST ALL BLOWER DRIVES TO OBTAIN PROPER TOTAL AMOUNTS OF AIR, INCLUDING EXHAUST AND OUTSIDE AIR SUPPLY.
- C. CALIBRATE, SET, AND ADJUST ALL AUTOMATIC TEMPERATURE CONTROLS.
- D. PROVIDE A WRITTEN REPORT TO THE OWNER AND ENGINEER IN ACCORDANCE WITH AABC, NEBB, OR ASHRAE 111.

230713 DUCT INSULATION

- A. ACOUSTICAL LINER: JOHNS MANVILLE PERMACOTE LINACOUSTIC OR APPROVED EQUAL; DENSITY 1-1/2 LB PER CUBIC FOOT OR GREATER, "K" VALUE NOT MORE THAN 0.28 AT 75°F MEAN TEMPERATURE DIFFERENCE. INTERIOR FACE OF LINER SHALL BE COATED WITH A SMOOTH, POLYMER BASED SUBSTANCE THAT INHIBITS MICROBIOLOGICAL GROWTH, DOES NOT HAVE CAVITIES FOR COLLECTION OF DIRT AND DEBRIS, AND MEETS NFPA 25/50 STANDARDS FOR FLAME SPEED AND SMOKE DEVELOPED RATINGS. THE MANUFACTURER SHALL CERTIFY THAT THE SURFACE COATING IS CLEANABLE WITH INDUSTRY STANDARD DUCT CLEANING EQUIPMENT AND SHOW TYPE OF EQUIPMENT.
 - 1. PROVIDE LINER IN THE FIRST 20 FEET OF ALL SUPPLY AND RETURN DUCTWORK, ALL EXPOSED DUCTWORK AND IN ALL RETURN TRANSFER DUCTS.
- B. INSULATION WRAP: 3/4" LB. DENSITY GLASS FIBER WRAP WITH FOIL BACK VAPOR BARRIER JACKET.
- C. ALL INSULATION THICKNESS SHALL MEET THE MINIMUM REQUIREMENTS OF INTERNATIONAL ENERGY CONSERVATION CODE.

230719 HVAC PIPING INSULATION

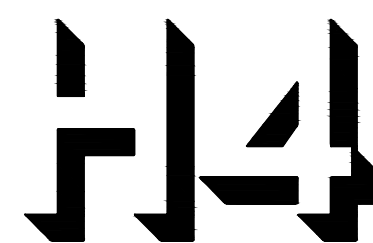
- A. CONDENSATE DRAIN PIPING SYSTEMS WITHIN AIR CONDITIONED SPACES: FACTORY MOLDED FIBERGLASS PIPE COVERING DENSITY NOT LESS THAN 3 LBS. PER CU.FT., CONDUCTIVITY (K) NOT HIGHER THAN 0.27 AT 75°F WITH FACTORY ATTACHED WHITE SELF SEALING LAP AS-J SSL VAPOR BARRIER JACKET.

233113 METAL DUCTS

- A. DRAWING PLANS, SCHEMATICS, AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF DUCT SYSTEM. INDICATED DUCT LOCATIONS, CONFIGURATIONS, AND ARRANGEMENTS WERE USED TO SIZE DUCTS AND CALCULATE FRICTION LOSS FOR AIR-HANDLING EQUIPMENT SIZING AND FOR OTHER DESIGN CONSIDERATIONS. INSTALL DUCT SYSTEMS AS INDICATED UNLESS DEVIATIONS TO LAYOUT ARE APPROVED ON SHOP DRAWINGS.
- B. GENERAL MATERIAL REQUIREMENTS: COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE" FOR ACCEPTABLE MATERIALS, MATERIAL THICKNESS, AND DUCT CONSTRUCTION METHODS UNLESS OTHERWISE INDICATED. SHEET METAL MATERIALS SHALL BE FREE OF PITTING, SEAM MARKS, ROLLER MARKS, STAINS, DISCOLORATIONS, AND OTHER IMPERFECTIONS.
 - 1. DUCTS CONNECTED TO AIR HANDLING EQUIPMENT: GALVANIZED SHEET STEEL: COMPLY WITH ASTM A 653/A 653M.
 - a. GALVANIZED COATING DESIGNATION: G60.
 - 2. HANGER SPACING: COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE," TABLE 5-1, "RECTANGULAR DUCT HANGERS MINIMUM SIZE," AND TABLE 5-2, "MINIMUM HANGER SIZES FOR ROUND DUCT," FOR MAXIMUM HANGER SPACING; INSTALL HANGERS AND SUPPORTS WITHIN 24 INCHES OF EACH ELBOW AND WITHIN 48 INCHES OF EACH BRANCH INTERSECTION.
- 233300 AIR DUCT ACCESSORIES
 - A. VOLUME DAMPERS: PROVIDE VOLUME DAMPERS IN BRANCH DUCTWORK AS REQUIRED FOR PROPER BALANCING OF THE SUPPLY AND RETURN AIR SYSTEMS.
 - B. FLEXIBLE DUCTWORK
 - 1. INSULATED, FLEXIBLE DUCT: UL 181, CLASS 1, INTERLOCKING SPIRAL OF ALUMINUM FOIL; FIBERGLASS INSULATION; FIBERGLASS REINFORCED VAPOR-BARRIER FILM WITH A FLAME SPREAD LESS THAN 25; SMOKE DEVELOPED LESS THAN 50 SIMILAR TO THERMAFLEX M-KE, MINIMUM R-6 INSIDE AND R-8 OUTSIDE BUILDING ENVELOPE.
 - 2. CONNECT FLEXIBLE DUCT TO METAL DUCT WITH ADHESIVE AND SHEET METAL SCREWS.
 - 3. CONNECT AIR DEVICES WITH A MAXIMUM 5'-0" LENGTH OF FLEXIBLE DUCT CLAMPED OR STRAPPED IN PLACE.
 - C. FLEXIBLE CONNECTORS: PROVIDE FLEXIBLE CONNECTORS AT ALL AIR HANDLING EQUIPMENT.
 - 1. INDOOR FLEXIBLE CONNECTOR FABRIC: GLASS FABRIC DOUBLE COATED WITH NEOPRENE.
 - a. MINIMUM WEIGHT: 26 OZ./SQ.YD.
 - b. TENSILE STRENGTH: 480 LBF/INCH N THE WARP AND 360 LBF/INCH IN THE FILLING.
 - c. SERVICE TEMPERATURE: MINUS 40 TO PLUS 200 DEG F.

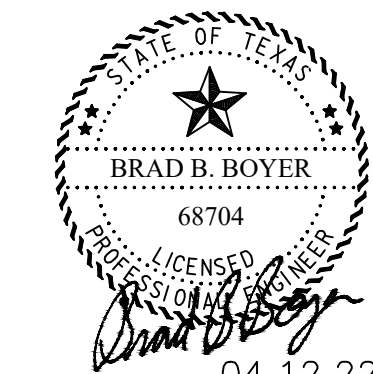
\\H4-dc-01\h4\Engineers\Projects\2022\2022409 COC Aquatics Center\M201.dwg, 4/12/2022 9:01:19 AM, SherieH

\\H4-dc-01\h4\Engineers\Projects\2022\2022409 COC Aquatics Center\E\2022409 E\101.dwg, 4/12/2022 9:01:02 AM, SherieH



ARCHITECTS + ENGINEERS
H4ARCHITECTS.COM
25215 OAKHURST DR
SPRING, TEXAS 77380
281.528.8564
TX-161795

ALL DRAWINGS AND SPECIFICATIONS ISSUED AS PART OF THE SERVICES RENDERED BY THE ARCHITECT FOR THE PROJECT ARE THE PROPERTY OF THE ARCHITECT. ANY REPRODUCTION OF THE DRAWING AND/OR SPECIFICATION WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT IS STRICTLY PROHIBITED. THE USER OF THIS DRAWING AGREES TO HOLD THE ARCHITECT HARMLESS.



04.12.22
F-16795

AQUATICS CENTER
CITY OF CONROE
1205 CALLAHAN AVE
CONROE, TEXAS 77305

DIVISION 26 – ELECTRICAL

260000 ELECTRICAL BASIC REQUIREMENTS

- A. MINIMUM STANDARDS FOR ALL WORK SHALL BE CITY OF CONROE AMENDMENTS TO THE 2020 NATIONAL ELECTRICAL CODE, 2015 INTERNATIONAL ENERGY CONSERVATION CODE, AND 2009 INTERNATIONAL BUILDING CODE.
- B. REFERENCES: THE STANDARDS MENTIONED HEREIN WILL BE REFERRED TO IN THE DESIGN OF ELECTRICAL SYSTEMS. THE ENGINEER WILL SELECT APPROPRIATE SECTIONS OF THE STANDARD TO BE APPLIED IN ACCORDANCE WITH ESTABLISHED ENGINEERING PRINCIPLES AND PRACTICES.
 1. APPLICABLE SECTIONS OF NFPA
 2. AMERICANS WITH DISABILITIES ACT (ADA)
 3. TEXAS ACCESSIBILITY STANDARDS (TAS)
- C. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID DATE AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING INSTALLATIONS. DETERMINE THE EXTENT OF THE NEW WORK TO PERFORM THIS CONTRACT. NO ALLOWANCES WILL BE MADE FOR FAILURE TO COMPLY WITH THIS REQUIREMENT OR LACK OF FAMILIARIZATION WITH EXISTING INSTALLATIONS.
- D. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
- E. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH ALL OTHER TRADES INCLUDING ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, AND PLUMBING.
- F. DO NOT SCALE FROM THE ENGINEER DRAWINGS. REFER TO THE DIMENSIONED DRAWINGS OF THE ARCHITECT FOR EXACT LOCATIONS OF FIXTURES, EQUIPMENT, ETC.
- G. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND INSPECTIONS REQUIRED FOR THE INSTALLATION OF WORK AND PAY ALL INCIDENTAL CHARGES.
- H. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL TESTS NECESSARY TO PREVENT CONCEALMENT OF DEFECTIVE OR IMPROPER WORK. UPON COMPLETION OF WORK, TEST INSTALLATION THOROUGHLY AND REMEND IT FROM MALFUNCTIONS, SAFETY ISSUES, AND IMPROPER CONNECTIONS.
- I. PROTECT EQUIPMENT AND WORK FROM DAMAGE DURING HANDLING AND INSTALLATION UNTIL COMPLETION OF CONSTRUCTION. REMOVE ALL EXCESS DEBRIS AND CLEAN ALL EQUIPMENT UPON COMPLETION OF WORK. TOUCH UP WITH PAINT WHERE REQUIRED.
- J. ALL MATERIAL SHALL BE NEW, UNDAMAGED, AND UNBLEMISHED AND UL LISTED EXACT AS NOTED.
- K. ALL WORK SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE TIME OF OWNER ACCEPTANCE. WORK OR EQUIPMENT FOUND TO BE SUB-STANDARD OR FAULTY SHALL BE CORRECTED DURING THESE PERIODS AT NO COST TO OWNER.
- L. PROVIDE TEMPORARY SERVICE AS REQUIRED FOR CONSTRUCTION POWER AND REMOVE SUCH TEMPORARY SERVICE WHEN WORK IS COMPLETE.

260519 LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

- A. ALL WIRE SHALL BE COPPER COMPLYING WITH ASTM B3 FOR BARE ANNEALED TYPE AND ASTM B8 FOR STRANDED CONDUCTORS. MINIMUM SIZE NO. 12 AWG TYPE THHN OR SIMILAR.
- B. ALL WIRING SHALL BE LISTED AND LABELED AS DEFINED IN NFPA (NEC) 70, BY A QUALIFIED TESTING AGENCY, AND MARKED FOR INTENDED LOCATION AND USE.
- C. NO WIRE SMALLER THAN #12 FEEDER WIRE SHALL BE THW OR THWN INSULATED.
- D. FIXTURE WIRE SHALL BE TYPE PF.
- E. CONDUCTOR INSULATION:
 1. TYPES RHH AND RHW-2: COMPLY WITH UL 44.
 2. TYPES USE-2 AND SE: COMPLY WITH UL 854.
 3. TYPES THHN AND THWN-2: COMPLY WITH UL 83.
 4. TYPES THW AND THW-2: COMPLY WITH NEMA WC-70/ICEA S-95-658 AND UL 83.
 5. TYPE XHHW-2: COMPLY WITH UL 44.
- F. CONNECTORS AND SPLICES: FACTORY-FABRICATED CONNECTORS, SPLICES AND LUGS OF SIZE, AMPACITY RATING, MATERIAL, TYPE, AND CLASS FOR APPLICATION AND SERVICE INDICATED. LISTED AND LABELED AS DEFINED IN NFPA (NEC) 70, BY A QUALIFIED TESTING AGENCY, AND MARKED FOR INTENDED LOCATION AND USE.
- G. JACKETED CABLE CONNECTORS: FOR STEEL AND ALUMINUM JACKETED CABLES, ZINC DIE-CAST WITH SET SCREWS, DESIGNED TO CONNECT CONDUCTORS SPECIFIED IN THIS SECTION.
- H. LUGS: ONE PIECE, SEAMLESS, COPPER, DESIGNED TO TERMINATE CONDUCTORS SPECIFIED IN THIS SECTION.
- I. FEEDERS AND BRANCH CIRCUITS: SOLID FOR NO. 10 AWG AND SMALLER; STRANDED FOR NO. 8 AWG AND LARGER.
- J. SERVICE ENTRANCE: TYPE THHN/THWN-2, SINGLE CONDUCTORS IN RACEWAY; TYPE XHHW-2, SINGLE CONDUCTORS IN RACEWAY; TYPE USE, SINGLE CONDUCTOR IN RACEWAY; TYPE SE, MULTICONDUCTOR CABLE.
- K. EXPOSED FEEDERS: TYPE THHN/THWN-2, SINGLE CONDUCTORS IN RACEWAY; TYPE XHHW-2, SINGLE CONDUCTORS IN RACEWAY; TYPE AC, ARMORED CABLE; TYPE MC, METAL-CLAD CABLE.
- L. FEEDERS CONCEALED IN CEILINGS, WALLS, AND PARTITIONS: TYPE THHN/THWN-2, SINGLE CONDUCTORS IN RACEWAY; TYPE AC, ARMORED CABLE; TYPE MC, METAL-CLAD CABLE.
- M. EXPOSED BRANCH CIRCUITS: REFER TO "FEEDERS CONCEALED IN CEILINGS, WALLS, AND PARTITIONS."
- N. BRANCH CIRCUITS CONCEALED IN CEILINGS, WALLS, AND PARTITIONS: REFER TO "FEEDERS CONCEALED IN CEILINGS, WALLS, AND PARTITIONS."
- O. CORD DROPS AND PORTABLE APPLIANCE CONNECTIONS: TYPE SO, HARD SERVICE CORD WITH STAINLESS-STEEL WIRE MESH, STRAIN RELIEF DEVICE AT TERMINATIONS TO SUIT APPLICATION.
- P. PERFORM TESTING IN ACCORDANCE WITH APPLICABLE NATIONAL ELECTRICAL TESTING ASSOCIATION STANDARDS TO ENSURE A SAFE INSTALLATION THAT OPERATES AS DESIGNED.

260526 GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

- A. ALL WORK SHALL BE GROUNDED TO COMPLY WITHOUT EXCEPTION WITH ALL PROVISIONS OF ARTICLE 250 OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE. ALL CIRCUITS SHALL CONTAIN INSULATED GROUNDING CONDUCTOR. ALL RECEPTACLES SHALL HAVE AN INSULATED GREEN GROUNDING CONDUCTOR TERMINATED ON THE DEVICE GROUND SCREW.
- B. COMPLY WITH IEEE C2 GROUNDING REQUIREMENTS FOR UNDERGROUND DISTRIBUTION SYSTEM COMPONENTS.
- C. COMPLY WITH UL 467 FOR GROUNDING AND BONDING MATERIALS AND EQUIPMENT.
- D. INSULATED CONDUCTORS, COPPER WIRE OR CABLE INSULATED FOR 600 V UNLESS OTHERWISE REQUIRED BY APPLICABLE CODE OR AUTHORITIES HAVING JURISDICTION.
- E. BARE COPPER CONDUCTORS:
 1. SOLID CONDUCTORS: ASTM B3.
 2. STRANDED CONDUCTORS: ASTM B8.
 3. TINNED CONDUCTORS: ASTM B33.
 4. BONDING CABLE: 28 KCMIL, 14 STRANDS OF NO. 17 AWG CONDUCTOR, 1-1/4" IN DIAMETER.
 5. BONDING CONDUCTOR: NO. 4 OR NO. 6 AWG, STRANDED CONDUCTOR.
 6. BONDING JUMPER: COPPER TAPE, BRAIDED CONDUCTORS TERMINATED WITH COPPER FERRULES; 1-5/8" WIDE AND 1/16" THICK.
 7. TINNED BONDING JUMPER: TINNED-COPPER TAPE, BRAIDED CONDUCTORS TERMINATED WITH COPPER FERRULES; 1-5/8" WIDE AND 1/16" THICK.
- F. CONNECTORS: LISTED AND LABELED BY A NATIONALLY-RECOGNIZED TESTING LABORATORY AND IN COMPLIANCE WITH THE FOLLOWING:
 1. BOLTED CONNECTORS (CONDUCTORS AND PIPES): COPPER OR COPPER ALLOY.
 2. WELDED CONNECTORS: EXOTHERMIC-WELDING KITS OF TYPES RECOMMENDED BY KIT MANUFACTURER FOR MATERIALS BEING JOINED AND INSTALLATION CONDITIONS.
 3. BUS-BAR CONNECTORS: MECHANICAL TYPE, CAST SILICON BRONZE, SOLDERLESS COMPRESSION TYPE WIRE TERMINALS, AND LONG-BARREL, TWO-BOLT CONNECTION TO GROUND BUS BAR.

- G. GROUNDING ELECTRODES: COPPER-CLAD STEEL RODS, 3/4" X 10'.
- H. GROUNDING AND BONDING FOR PIPING:
 1. METAL WATER SERVICE PIPE: INSTALL INSULATED COPPER GROUNDING CONDUCTORS, IN CONDUIT, FROM BUILDING'S MAIN SERVICE EQUIPMENT, OR GROUNDING BUS, TO MAIN METAL WATER SERVICE ENTRANCES TO BUILDING. CONNECT GROUNDING CONDUCTORS TO MAIN METAL WATER SERVICE PIPES; USE A BOLTED CLAMP CONNECTOR OR BOLT A LUG-TYPE CONNECTOR TO A PIPE FLANGE BY USING ONE OF THE LUG BOLTS OF THE FLANGE, WHERE A DIELECTRIC MAIN WATER FITTING IS INSTALLED, CONNECT GROUNDING CONDUCTOR ON STREET SIDE OF FITTING. BOND METAL GROUNDING CONDUCTOR CONDUIT OR SLEEVE TO CONDUCTOR AT EACH END.
 2. WATER METER PIPING: USE BRAIDED-TYPE BONDING JUMPERS TO ELECTRICALLY BYPASS WATER METERS. CONNECT TO PIPE WITH A BOLTED CONNECTOR.
 3. PERFORM TESTS AND INSPECTIONS. INSPECT PHYSICAL AND MECHANICAL CONDITION, VERIFY TIGHTNESS OF ACCESSIBLE, BOLTED, ELECTRICAL CONNECTIONS WITH A CALIBRATED TORQUE WRENCH ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

260529 HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

- A. STEEL SLOTTED SUPPORT SYSTEMS: COMPLY WITH MFMA-4 FACTORY-FABRICATED COMPONENTS FOR FIELD ASSEMBLY.
- B. CONDUIT AND CABLE SUPPORT DEVICES: STEEL HANGERS, CLAMPS, AND ASSOCIATED FITTINGS, DESIGNED FOR TYPES AND SIZES OF RACEWAY OR CABLE TO BE SUPPORTED.
- C. SUPPORT FOR CONDUCTORS IN VERTICAL CONDUIT: FACTORY-FABRICATED ASSEMBLY CONSISTING OF THREADED BODY AND INSULATING WEDGING PLUGS OR PLUGS FOR NONARMORED ELECTRICAL CONDUCTORS OR CABLES IN RISER CONDUITS. PLUGS SHALL HAVE NUMBER, SIZE, AND SHAPE OF CONDUCTOR GRIPPING PIECES AS REQUIRED. SUIT INDIVIDUAL CONDUCTORS OR CABLES SUPPORTED. BODY SHALL BE MADE OF MALLEABLE IRON.
- D. STRUCTURAL STEEL FOR FABRICATED SUPPORTS AND RESTRAINTS: ASTM A36/A36M STEEL PLATES, SHAPES, AND BARS; BLACK AND GALVANIZED.
- E. MOUNTING, ANCHORING, AND ATTACHMENT COMPONENTS: ITEMS FOR FASTENING ELECTRICAL ITEMS OR THEIR SUPPORTS TO BUILDING SURFACES INCLUDE THE FOLLOWING:
 1. POWER-ACTUATED FASTENERS: THREADED-STEEL STUD, FOR USE IN HARDENED PORTLAND CEMENT CONCRETE, STEEL, OR WOOD, WITH TENSION, SHEAR, AND PULLOUT CAPACITIES APPROPRIATE FOR SUPPORTED LOADS AND BUILDING MATERIALS WHERE USED.
 2. MECHANICAL EXPANSION ANCHORS: INSERT-WEDGE-TYPE, STAINLESS STEEL, FOR USE IN HARDENED PORTLAND CEMENT CONCRETE, WITH TENSION, SHEAR, AND PULLOUT CAPACITIES APPROPRIATE FOR SUPPORTED LOADS AND BUILDING MATERIALS WHERE USED.
 3. CONCRETE INSERTS: STEEL OR MALLEABLE IRON, SLOTTED SUPPORT SYSTEM UNITS ARE SIMILAR TO MSS TYPE 18 UNITS AND COMPLY WITH MFMA-4 OR MSS SP-58.
 4. CLAMPS FOR ATTACHMENT TO STEEL STRUCTURAL ELEMENTS: MSS SP-58 UNITS ARE SUITABLE FOR ATTACHED STRUCTURAL ELEMENT.
 5. THROUGH BOLTS: STRUCTURAL TYPE, HEX HEAD, AND HIGH STRENGTH. COMPLY WITH ASTM A325.
 6. TOGGLE BOLTS: STAINLESS STEEL SPRINGHEAD TYPE.
 7. HANGER RODS: THREADED STEEL.
- F. FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES: WELDED OR BOLTED STRUCTURAL STEEL SHAPES, SHOP OR FIELD FABRICATED TO FIT DIMENSIONS OF SUPPORTED EQUIPMENT. COMPLY WITH INDUSTRY-ACCEPTED STANDARDS FOR STEEL SHAPES AND PLATES.

260533 RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

- A. METAL CONDUITS, TUBING, AND FITTINGS SHALL BE LISTED AND LABELED AS DEFINED IN NFPA (NEC) 70, BY A QUALIFIED TESTING AGENCY, AND MARKED FOR INTENDED LOCATION AND APPLICATION.
- B. APPLY RACEWAY PRODUCTS (MINIMUM 3/4" TRADE SIZE) AS SPECIFIED BELOW U.O.N.
 1. OUTDOORS
 - 1.1. EXPOSED: RNC, EPC-80-PVC.
 - 1.2. CONCEALED ABOVEGROUND: EPC-80-PVC.
 - 1.3. UNDERGROUND: RNC, EPC-80-PVC, DIRECT BURIED.
 - 1.4. CONNECTION TO VIBRATING EQUIPMENT (INCLUDING TRANSFORMERS AND HYDRAULIC, PNEUMATIC, SOLENOID, OR MOTOR-DRIVEN EQUIPMENT): LFMC.
 - 1.5. BOXES AND ENCLOSURES, ABOVEGROUND: NEMA 250, TYPE 3R.
 - 2.1. EXPOSED, NOT SUBJECT TO DAMAGE: EMT.
 - 2.2. EXPOSED, SUBJECT TO DAMAGE: GRC.
 - 2.3. CONCEALED IN CEILINGS, WALLS, AND PARTITIONS: EMT OR MC.
 - 2.4. CONNECTION TO VIBRATING EQUIPMENT (INCLUDING TRANSFORMERS AND HYDRAULIC, PNEUMATIC, SOLENOID, OR MOTOR-DRIVEN EQUIPMENT): FMC, EXCEPT USE LFMC IN DAMP OR WET LOCATIONS.
- C. IN ADDITION TO NFPA (NEC) 70 COMPLIANCE, COMPLY WITH NECA 1 AND NECA 101 FOR INSTALLATION REQUIREMENTS.
- D. SEAL ALL CONDUIT PENETRATIONS THROUGH WALLS WITH UL LISTED FIRE RETARDANT SEALANT.
- E. KEEP RACEWAYS AT LEAST 6" AWAY FROM PARALLEL RUNS OF HOT-WATER PIPES. INSTALL HORIZONTAL RACEWAY RUNS ABOVE WATER PIPING.
- F. BOXES, ENCLOSURES, AND CABINETS INSTALLED IN WET LOCATIONS SHALL BE LISTED FOR USE IN WET LOCATIONS.
- G. SHEET METAL OUTLET AND DEVICE BOXES: COMPLY WITH NEMA OS1 AND UL 514A.
- H. CAST-METAL OUTLET AND DEVICE BOXES: COMPLY WITH NEMA FB1, FERROUS ALLOY, TYPE FD, WITH GASKETED COVER.
- I. NONMETALLIC OUTLET AND DEVICE BOXES: COMPLY WITH NEMA OS2 AND UL 514C.
- J. SMALL SHEET METAL PULL AND JUNCTION BOXES: COMPLY WITH NEMA OS1.
- K. CAST-METAL ACCESS, PULL, AND JUNCTION BOXES: COMPLY WITH NEMA FB1 AND UL 1773, GALVANIZED, CAST IRON WITH GASKETED COVER.
- L. HINGED-COVER ENCLOSURES: COMPLY WITH UL 50 AND NEMA 250, TYPE 1 OR TYPE 3R WITH CONTINUOUS HINGE COVER WITH FLUSH LATCH U.O.N.
- M. CABINETS:
 1. NEMA 250, TYPE 1 OR TYPE 3R, GALVANIZED STEEL BOX WITH REMOVABLE INTERIOR PANEL AND REMOVABLE FRONT, FINISHED INSIDE AND OUT WITH MANUFACTURER'S STANDARD ENAMEL.
 2. HINGED DOOR IN FRONT COVER WITH FLUSH LATCH AND CONCEALED HINGE.
 3. KEY LATCH TO MATCH PANELBOARDS.
 4. METAL BARRIERS TO SEPARATE WIRING OF DIFFERENT SYSTEMS AND VOLTAGE.
 5. ACCESSORY FEET WHERE REQUIRED FOR FREESTANDING EQUIPMENT.
 6. NONMETALLIC CABINETS SHALL BE LISTED AND LABELED AS DEFINED IN NFPA (NEC) 70, BY A QUALIFIED TESTING AGENCY, AND MARKED FOR INTENDED LOCATION AND APPLICATION.

260544 SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING

- A. PROVIDE U.L. LISTED FIRESTOP SEALING SYSTEMS AT ALL ELECTRICAL PENETRATIONS OF RATED FLOORS AND WALLS.
- B. WALL SLEEVES SHALL COMPLY WITH THE FOLLOWING:
 1. STEEL PIPE SLEEVES SHALL COMPLY WITH ASTM A53/A53M, TYPE E, GRADE B, SCH. 40, ZINC COATED, FLAME ENDS.
 2. CAST-IRON PIPE SLEEVES SHALL BE CAST OR FABRICATED "WALL PIPE," EQUIVALENT TO DUCTILE-IRON PRESSURE PIPE, WITH PLAIN ENDS AND INTEGRAL WATERSTOP U.O.N.

260553 IDENTIFICATION FOR ELECTRICAL SYSTEMS

- A. COMPLY WITH ASME A13.1, IEEE C2, NFPA (NEC) 70, 29 CFR 1910.144, 29 CFR 1910.145, ANSI Z35.4 (SAFETY SIGNS AND LABELS).

- B. ADHESIVE-ATTACHED LABELING MATERIALS, INCLUDING LABEL STOCKS, LAMINATING ADHESIVES, AND INKS USED BY LABEL PRINTERS, SHALL COMPLY WITH UL 969.

- C. ACCESSIBLE RACEWAYS AND METAL-CLAD CABLES, 600 V OR LESS, FOR SERVICE, FEEDER, AND BRANCH CIRCUITS, MORE THAN 30 A AND 120 V TO GROUND: IDENTIFY WITH SELF-ADHESIVE VINYL LABELS AT 30' MAXIMUM INTERVALS.
- D. ACCESSIBLE RACEWAYS AND CABLES WITHIN BUILDINGS: IDENTIFY THE COVERS OF EACH JUNCTION AND PULL BOX WITH SELF-ADHESIVE VINYL LABELS CONTAINING THE WORD "POWER" AND SYSTEM VOLTAGE.
- E. POWER-CIRCUIT CONDUCTOR IDENTIFICATION: 600 V OR LESS, WITHIN VAULTS, PULL AND JUNCTION BOXES, MANHOLES, AND HANDHOLES, USE COLOR-CODING CONDUCTOR TAPE TO IDENTIFY THE PHASE. USE INDUSTRY STANDARD COLORS FOR UNDERGROUND SERVICE FEEDER AND BRANCH-CIRCUIT CONDUCTORS.
- F. CONTROL-CIRCUIT CONDUCTOR IDENTIFICATION: FOR CONDUCTORS AND CABLES IN PULL AND JUNCTION BOXES, MANHOLES, AND HANDHOLES, USE WRITE-ON TAGS WITH THE CONDUCTOR OR CABLE DESIGNATION, ORIGIN, AND DESTINATION.
- G. CONTROL-CIRCUIT CONDUCTOR TERMINATION IDENTIFICATION: PROVIDE HEAT-SHRINK PREPRINTED TUBES WITH THE CONDUCTOR DESIGNATION, H. CONDUCTORS TO BE EXTENDED IN THE FUTURE: ATTACH WRITE-ON TAGS MARKER TAPE TO CONDUCTORS AND LIST SOURCE.
- I. AUXILIARY ELECTRICAL SYSTEMS CONDUCTOR IDENTIFICATION: IDENTIFY FIELD-INSTALLED ALARM, CONTROL, AND SIGNAL CONNECTIONS.
- J. LOCATIONS OF UNDERGROUND LINES: IDENTIFY WITH UNDERGROUND-LINE WARNING TAPE FOR POWER, LIGHTING, COMMUNICATION, CONTROL, WIRING, AND OPTICAL-FIBER CABLE.
- K. WORKSPACE INDICATION: INSTALL FLOOR MARKING TAPE TO SHOW WORKING CLEARANCES IN THE DIRECTION OF ACCESS TO LIVE PARTS. WORKSPACE SHALL COMPLY WITH NFPA (NEC) 70 AND 29 CFR 1926.403 U.O.N.
- L. WARNING LABELS FOR INDOOR CABINETS, BOXES, AND ENCLOSURES FOR POWER AND LIGHTING: SELF-ADHESIVE WARNING LABELS.
- M. ARC FLASH WARNING LABELING: SELF-ADHESIVE THERMAL TRANSFER VINYL LABELS: COMPLY WITH NFPA 70E AND ANSI Z535.4.
- N. OPERATING INSTRUCTION SIGNS: INSTALL INSTRUCTION SIGNS TO FACILITATE PROPER OPERATION AND MAINTENANCE OF ELECTRICAL SYSTEMS AND ITEMS TO WHICH THEY CONNECT.
- O. EQUIPMENT IDENTIFICATION LABEL: ON EACH UNIT OF EQUIPMENT, INSTALL A UNIQUE DESIGNATION LABEL THAT IS CONSISTENT WITH WIRING DIAGRAMS, SCHEDULES, AND OPERATION AND MAINTENANCE MANUAL.

NO.	DESCRIPTION	DATE
	ISSUE FOR CONSTR	04.12.22

PROJECT NUMBER
2022409

DRAWN BY
SEH

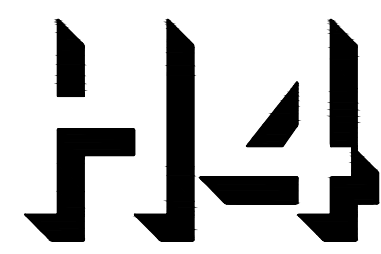
CHECKED BY
SEH

DRAWING NAME

ELECTRICAL
NOTES

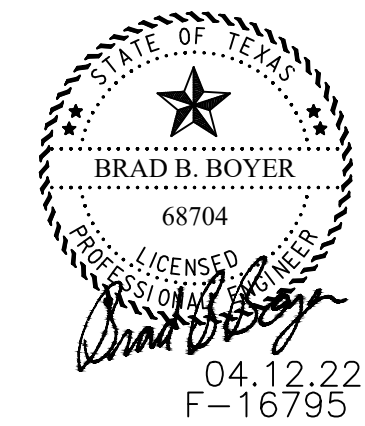
DRAWING NUMBER

E-0.00



H4 ARCHITECTS + ENGINEERS
 H4ARCHITECTS.COM
 25215 OAKHURST DR
 SPRING, TEXAS 77389
 281.528.8584
 TX-161905

ALL DRAWINGS AND SPECIFICATIONS ISSUED AS PART OF THE SERVICES PROVIDED BY THE ARCHITECT FOR THE PROJECT SHALL BE THE PROPERTY OF THE ARCHITECT. ANY REVISIONS TO THE DRAWINGS AND/OR SPECIFICATIONS MUST BE MADE BY THE ARCHITECT. NO PART OF THIS DRAWING OR SPECIFICATION IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN CONSENT OF H4 ARCHITECTS + ENGINEERS.



04.12.22
 F-16795

AQUATICS CENTER
 CITY OF CONROE
 1205 CALLAHAN AVE
 CONROE, TEXAS 77305

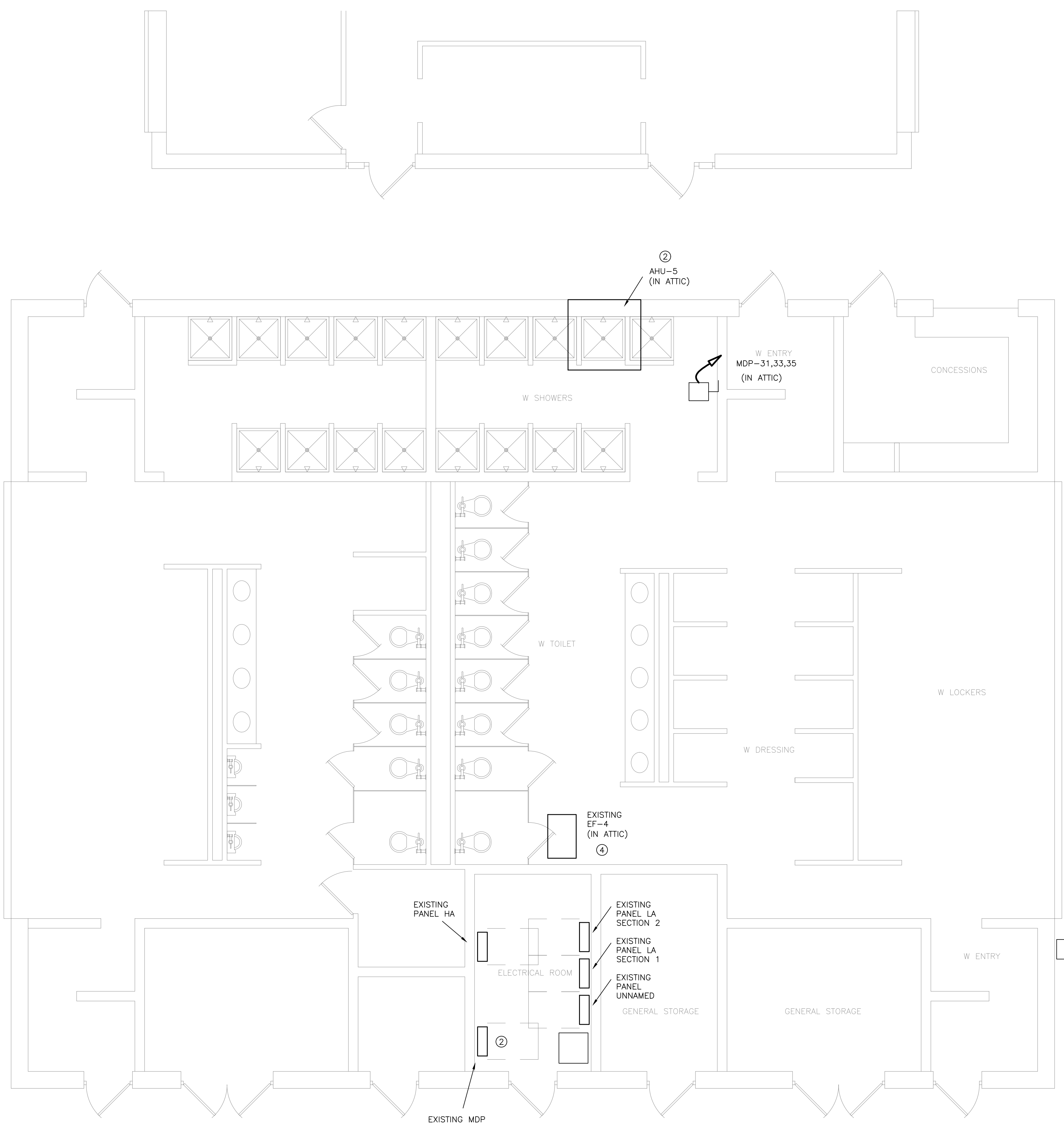
EXISTING PANEL MDP										NOTES	
NEMA 1										1. FIELD VERIFY EXISTING AIC RATING	
										2. BALANCE ALL LOADS	
										3. LABEL ALL CIRCUITS	
CIRCUIT DESCRIPTION	WATT LOAD	#	BRKR	CIRCUIT NUMBER				BRKR	WIRE	WATT LOAD	CIRCUIT DESCRIPTION
				1	10,889		A	0	2		
				3	10,889		B	0	4		
				5	10,889		C	0	6		
				7			A	0	8		
				9			B	0	10		
				11			C	0	12		
				13			A	0	14		
				15			B	0	16		
				17			C	0	18		
				19			A	0	20		
				21			B	0	22	100/0	EX MENS HEATER
				23			C	0	24		
				25			A	0	26		
				27			B	0	28	100/0	WOMENS HEATER
				29			C	0	30		
				31	1,328		A	0	32		
				33	1,328		B	0	34	20/0	EXISTING
				35			C	0	36		
				37			A	0	38		
				39			B	0	40	20/0	EXISTING
				41			C	0	42		
				43			A	0	44		
				45			B	0	46	60/0	EXISTING
				47			C	0	48		
				49			A	0	50		SPACE
				51			B	0	52		SPACE
				53			C	0	54		SPACE

CONNECTED	DEMAND
NON-CONTINUOUS *1 38,850	100% 38,850
EXISTING PEAK *2 134,001	125% 167,501
KITCHEN EQUIPMENT *3 0	85% 0
RECEPTACLE *4 0	NEC 220.44 0

*CONFIRM UNUSED
 *NEW

TOTAL	LOAD (VA)	A PH (AMP)	B PH (AMP)	C PH (AMP)
	204151	248	246	246

ELECTRICAL LOAD ANALYSIS			
LOAD			VA
EXISTING PEAK LOAD	134000 X 1.25	=	167500
NEW HVAC LOAD AT 100%		=	32666
TOTAL		=	200166
AT 480V, 3ø = 241 AMPS			
EXISTING PANEL CAPACITY IS 400 AMPS			



- POWER GENERAL NOTES
1. FIELD VERIFY ALL EXISTING CONDITIONS. TRACE ALL CIRCUITS. LABEL AS NEEDED.
 2. ALL EXTERIOR DEVICES SHALL BE WEATHERPROOF.
 3. CONTRACTOR TO PROVIDE IDENTIFICATION/LABELING FOR ALL EQUIPMENT.
 4. REUSE EXISTING CONDUIT AND JUNCTION BOXES IF IN GOOD CONDITION AND CODE COMPLIANT.

- POWER KEY NOTES
1. ACCU-5 AND CIRCUIT TO BE REMOVED AND REPLACED. PROVIDE NEW BREAKER, CONDUCTORS, AND LOCAL NO FUSE DISCONNECT. REFER TO MDP SCHEDULE.
 2. AHU-5 AND CIRCUIT TO BE REMOVED AND REPLACED. PROVIDE NEW BREAKER, CONDUCTORS, AND LOCAL NO FUSE DISCONNECT. REFER TO MDP SCHEDULE.
 3. CONFIRM EXISTING RECEPTACLE OR PROVIDE NEW FOR SERVICING EQUIPMENT SHALL BE LOCATED ON THE SAME LEVEL AND WITHIN 25FT OF HEATING, AIR CONDITIONING, AND REFRIGERATION EQUIPMENT. IF NEW, CONNECT TO NEAREST EXISTING 20A CIRCUIT NOT TO EXCEED 16A. CONFIRM EXISTING DISCONNECT FOR EF-4 OR PROVIDE NEW.

NO.	DESCRIPTION	DATE
	ISSUE FOR CONSTR	04.12.22

PROJECT NUMBER
 2022409
 DRAWN BY
 SEH
 CHECKED BY
 SEH
 DRAWING NAME

ELECTRICAL PLAN
 DRAWING NUMBER

E-1.01

1 ELECTRICAL PLAN
 1/4" = 1'-0"

\\H4-dc-01\h4\Engineers\Projects\2022\2022409 E-1.01.dwg, 4/12/2022 9:00:49 AM, SherieH

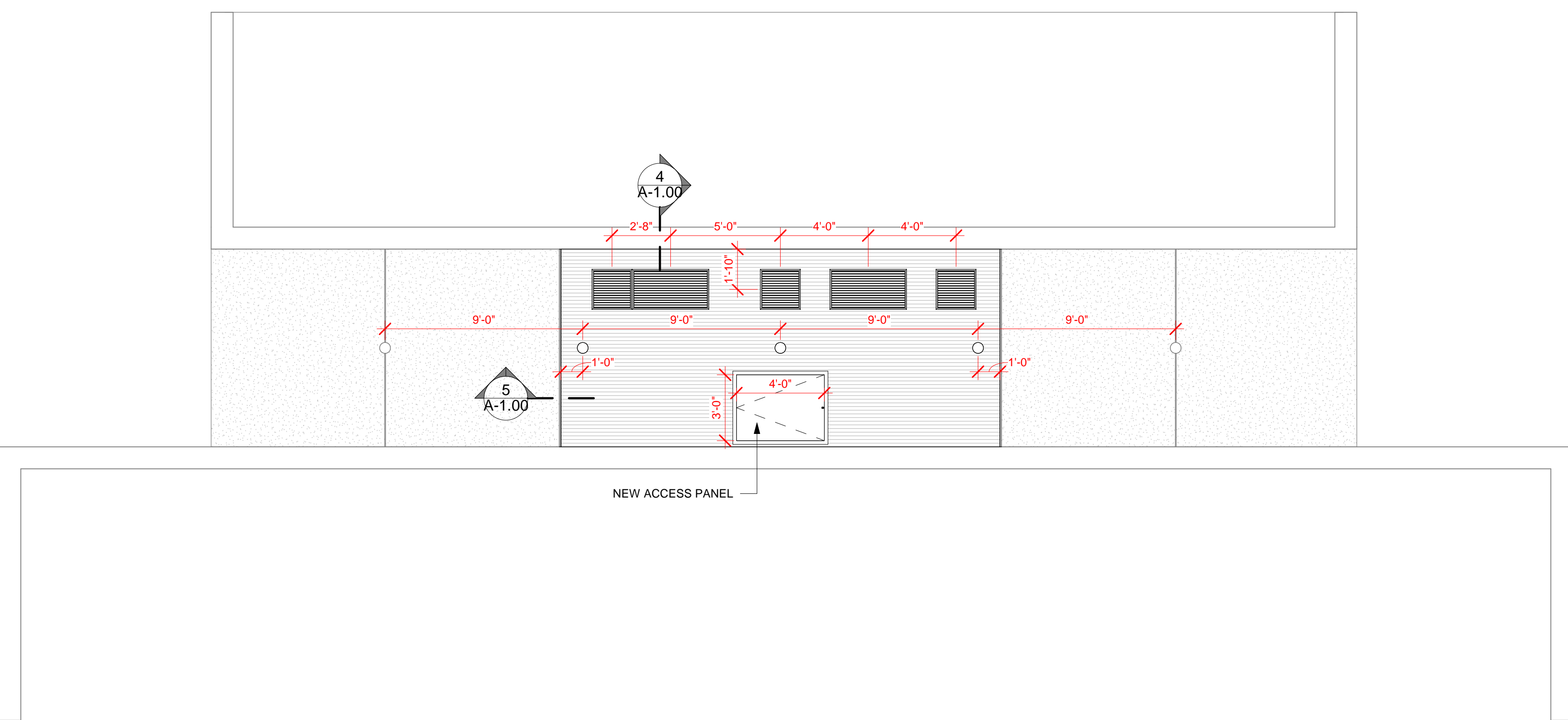
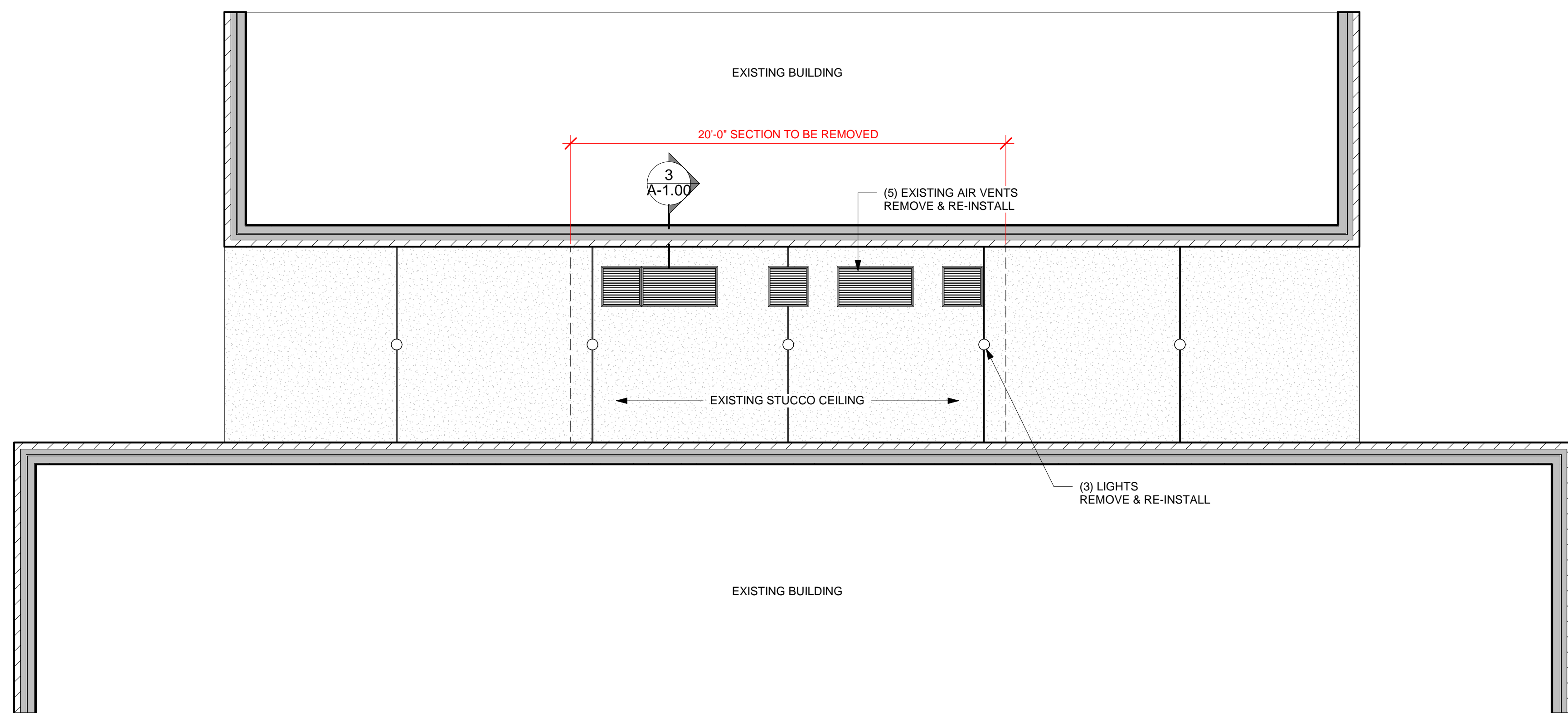


H4 ARCHITECTS + ENGINEERS
 H4ARCHITECTS.COM
 25215 OAKHURST DR
 SPRING, TEXAS 77386
 281.528.8524
 TX-F-16795



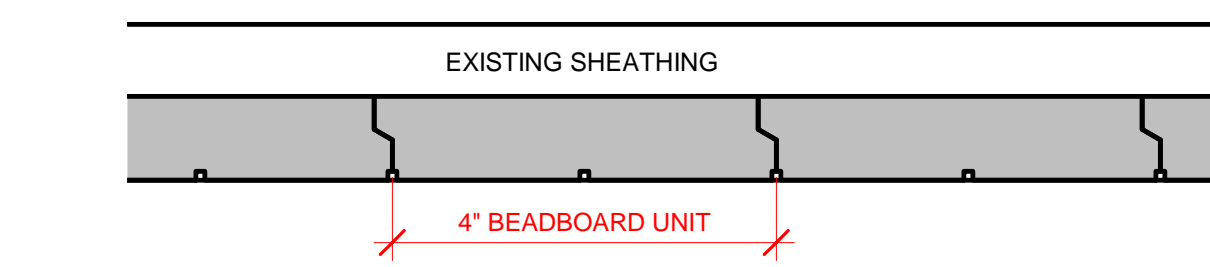
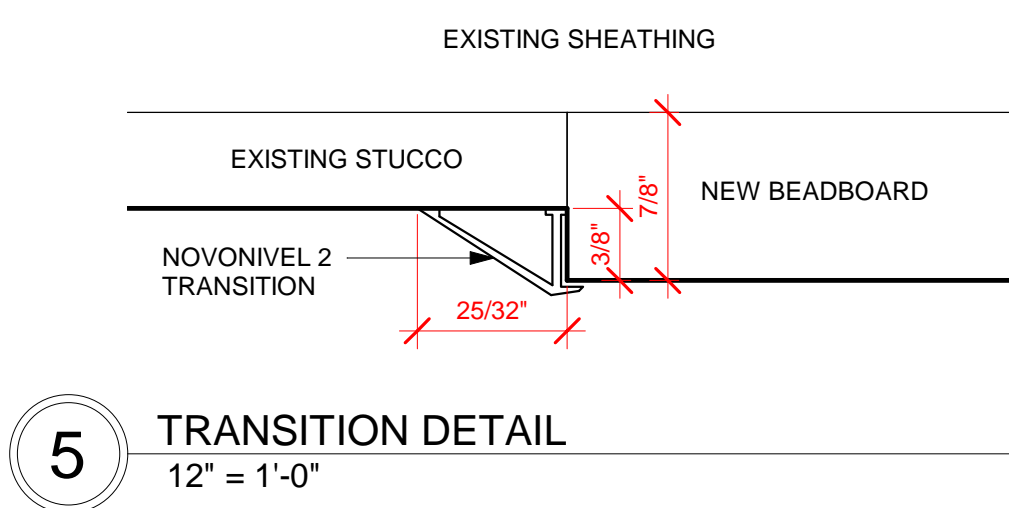
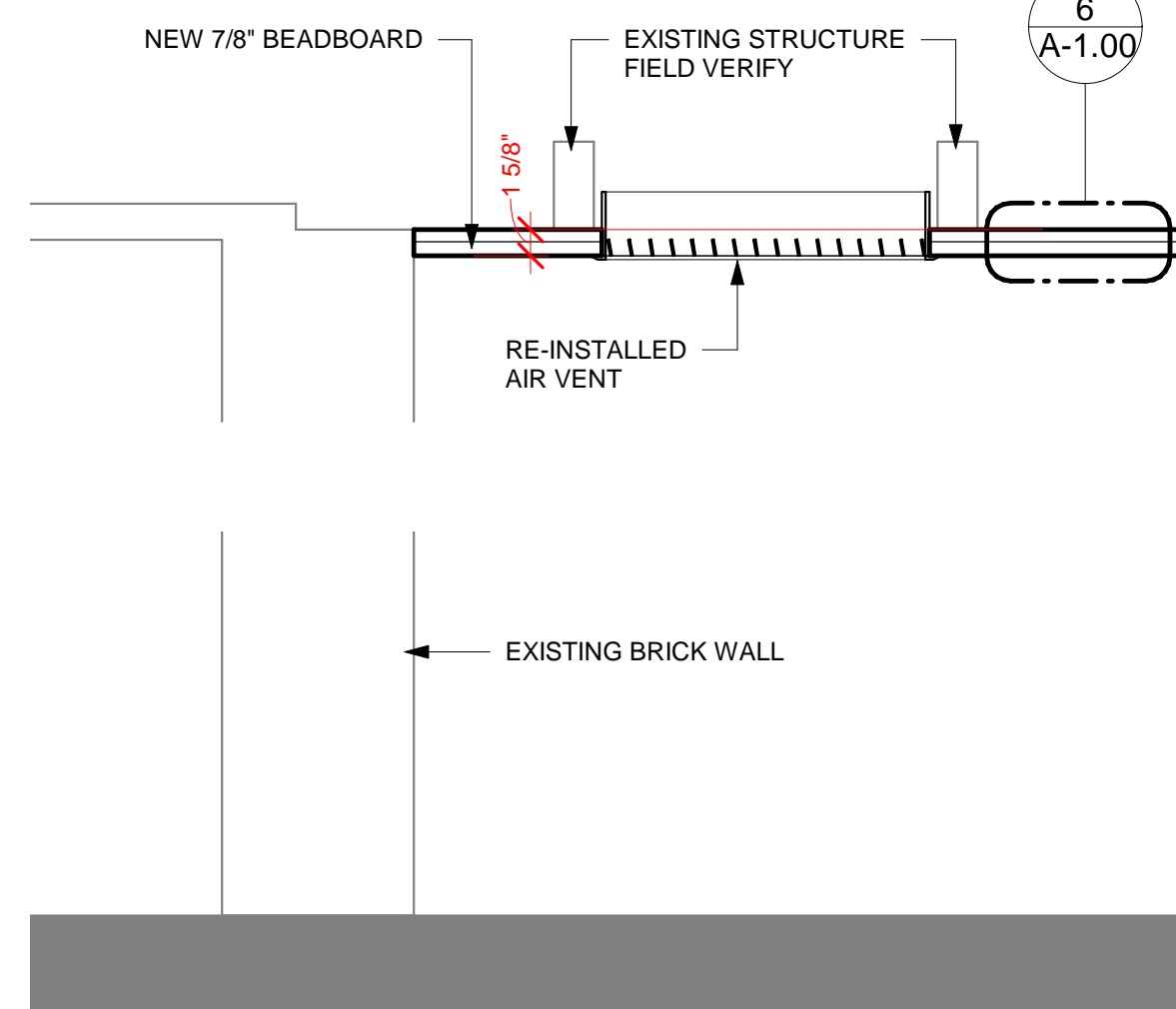
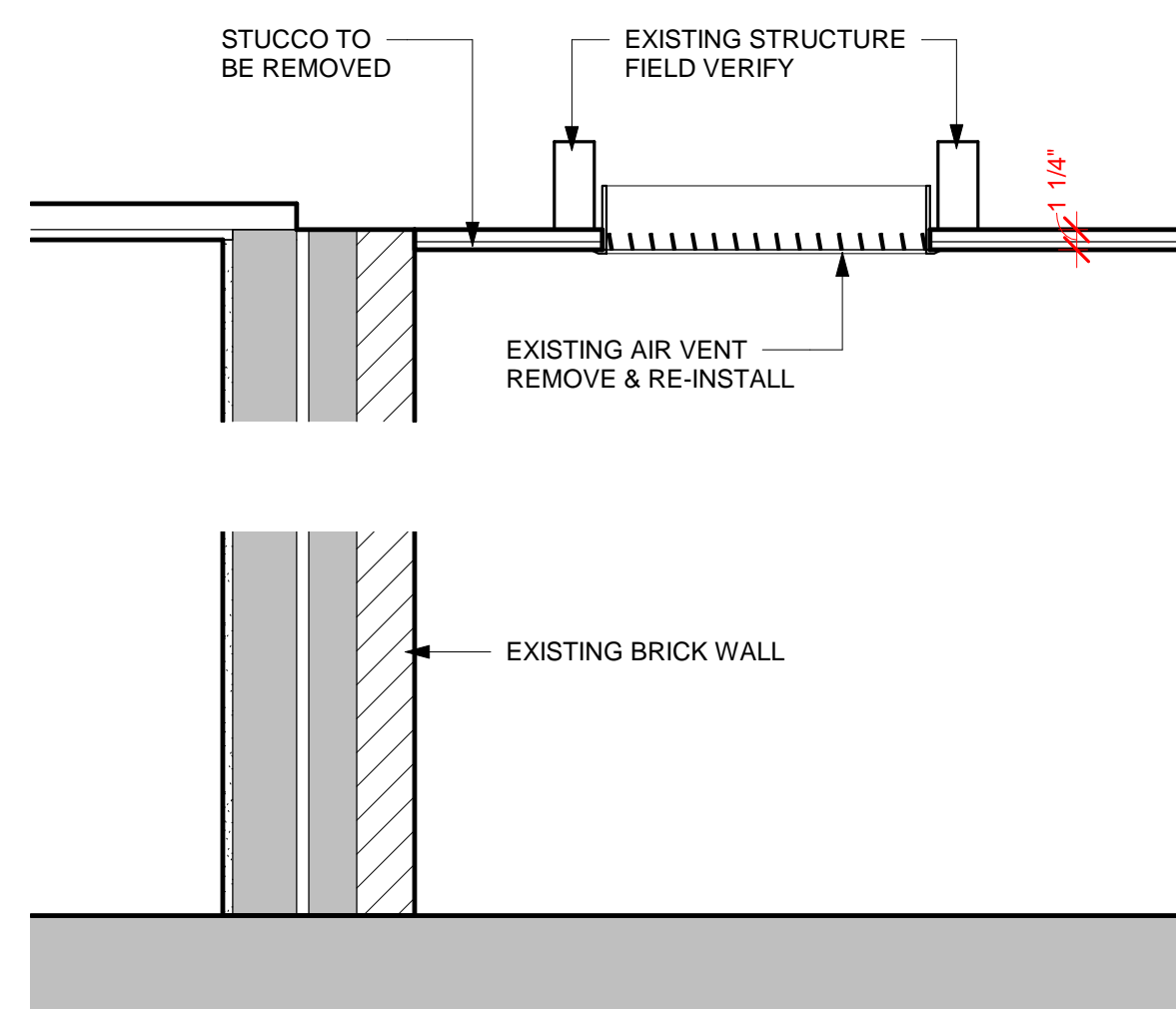
04.12.2022

**AQUATICS CENTER
 CITY OF CONROE**
 1205 CALLAHAN AVE
 CONROE, TEXAS 77305



1 EXISTING RCP
 1/4" = 1'-0"

2 PROPOSED RCP
 1/4" = 1'-0"

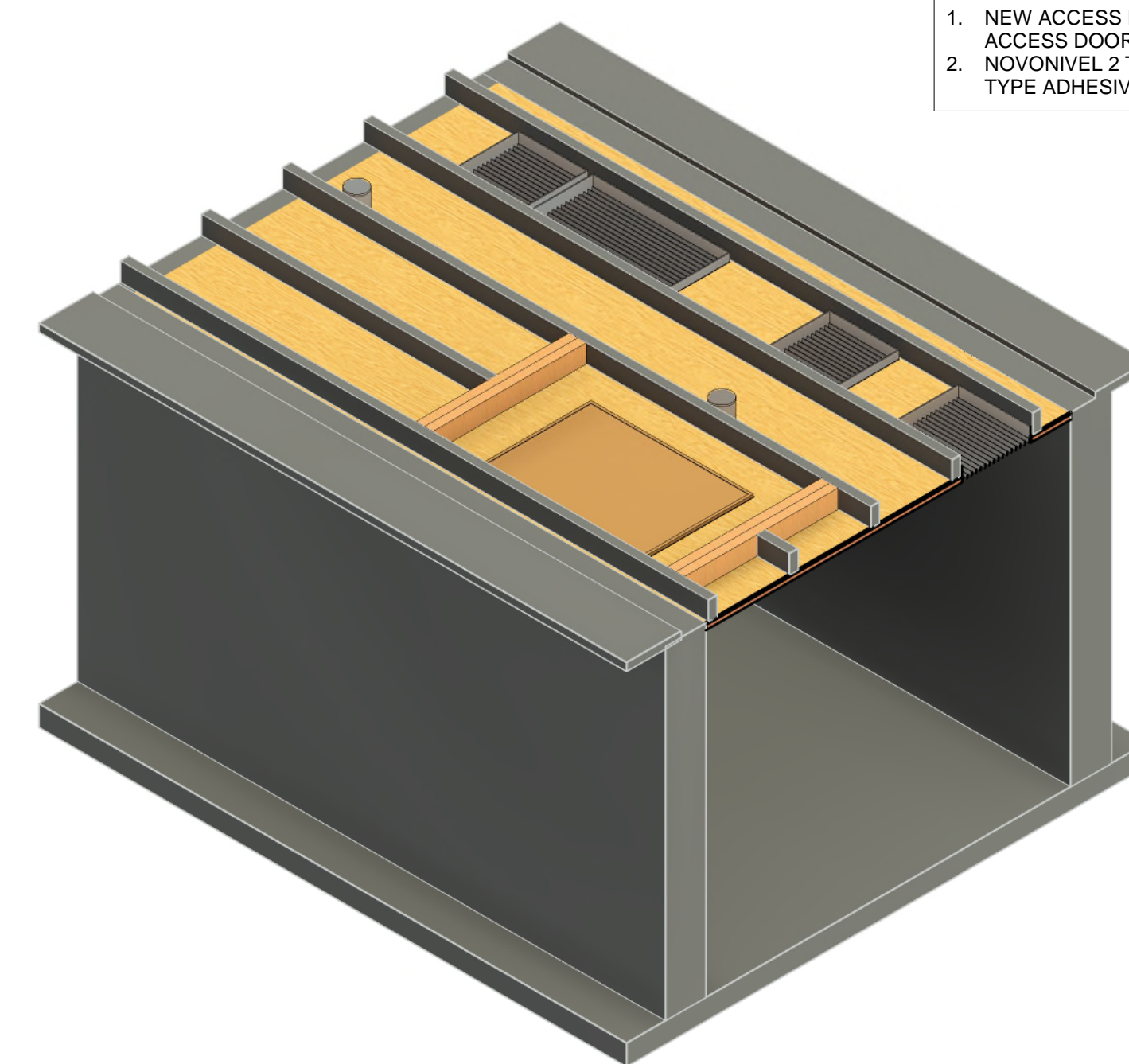


3 EXISTING SECTION
 1" = 1'-0"

4 PROPOSED SECTION
 1" = 1'-0"

6 INTERLOCKING BEADBOARD DETAIL
 6" = 1'-0"

NOTES
 1. NEW ACCESS PANEL TO BE W/ AL 1600 SERIES ALUMINUM ACCESS DOOR. REFER TO ATTACHED SPECIFICATION SHEET.
 2. NOVONIVEL 2 TRANSITION TO BE FIXED WITH A SILICONE-TYPE ADHESIVE.



W:\4-45-01\Architects\Projects\2022\20220208 COC Aquatics Center\A-1.00 Aquatics Center.rvt
 4/12/2022 8:45:41 AM

NO.	DESCRIPTION	DATE
	ISSUE FOR CONSTR	04.12.22

PROJECT NUMBER
 2022028
 DRAWN BY
 LTH
 CHECKED BY
 JAH
 DRAWING NAME
 DETAILS

DRAWING NUMBER
A-1.00

April 12, 2022

City of Conroe Aquatic Center – Women’s Locker AHU/ACCU
1205 Callahan Ave
Conroe, Texas 77305

- I. Concerns presented during meetings with COC and H4 (meeting dates: 01.10.22 and 03.23.22)
 - A. AHU/ACCU 2002 at life expectancy
 - B. Humidity within locker room
 - C. Replace flex duct
 - D. Access to ‘attic’ equipment
- II. Existing equipment serving Women’s Locker Room
 - A. AHU-5
 1. Model number nameplate not visible
 2. Disconnect label not visible
 3. MDP-31,33,35

CIRCUIT DIRECTORY	
1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25 AHU-4	26 HA
27 AHU-4	28 HA
29 AHU-4	30 HA
31 AHU-5	32 ACCU-1
33 AHU-5	34 ACCU-1
35 AHU-5	36 ACCU-1
37 ACCU-4	38 ACCU-2
39 ACCU-4	40 ACCU-2
41 ACCU-4	42 ACCU-2

114B361HO1



B. ACCU-5

1. Existing Dimensions: 77"Lx43"W
2. AAON CFA-020-3:AAAP0A0
3. Serial #200208-CCCJ02066
4. MCA = 45.8A
5. MOCP = 60A
6. 460V/3phase
7. MDP-37,39,41; 40A/3

AAON COIL PRODUCTS, INC.

LONGVIEW, TEXAS

ETL[®] LISTED US

2001778
CONFORMS TO UL STANDARD 1995
CERTIFIED TO CAN/CSA STD C22.2 NO. 236

UL 1995-CAN/CSA-C22.2 No. 236-M90 HEATING AND COOLING EQUIPMENT

MODEL NO. **CA0560**
CA-20-3:AAAP0A0
SERIAL NO. **200208-CCCJ02066**

VOLTAGE **460**
FREQ. **60 HZ** **3 PHASE**

MIN. CIRCUIT AMPACITY **45.8 AMP**
MAX. OVERCURRENT PROTECTION **60 AMP**

CENTRAL AIR CONDITIONER

SIZE **X**

QTY	HP	VAC	PH	RPM	FLA	RLA	LRA
2		460	3	3450		19.2	113.0
2	.75	460	1	1075	3.5		

CAUTION: USE TIME DELAY TYPE FUSES.

CLEARANCES (MINIMUM TO COMBUSTIBLE) (In Inches)
DOOR INSTALLATION ONLY. FOR INSTALLATION ON COMBUSTIBLE
CANADA & USA) OR CLASS A, B, OR C ROOF COVERING MATERIAL, (USA ONLY).

TOP-NO OBSTRUCTIONS • FLOOR-NO OBSTRUCTIONS

48 LEFT SIDE- 48 RIGHT SIDE- 48 BACK- 48

REFRIG. R-22

Low Side Test Press. (150 psig) High Side Test Press. (300 psig)

80 oz. (2) 80 oz. (3) oz. (4) oz.

WARNING

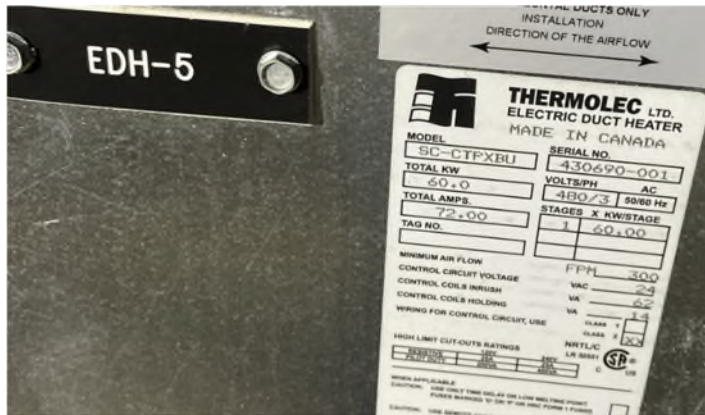
DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE



C. Duct Heater

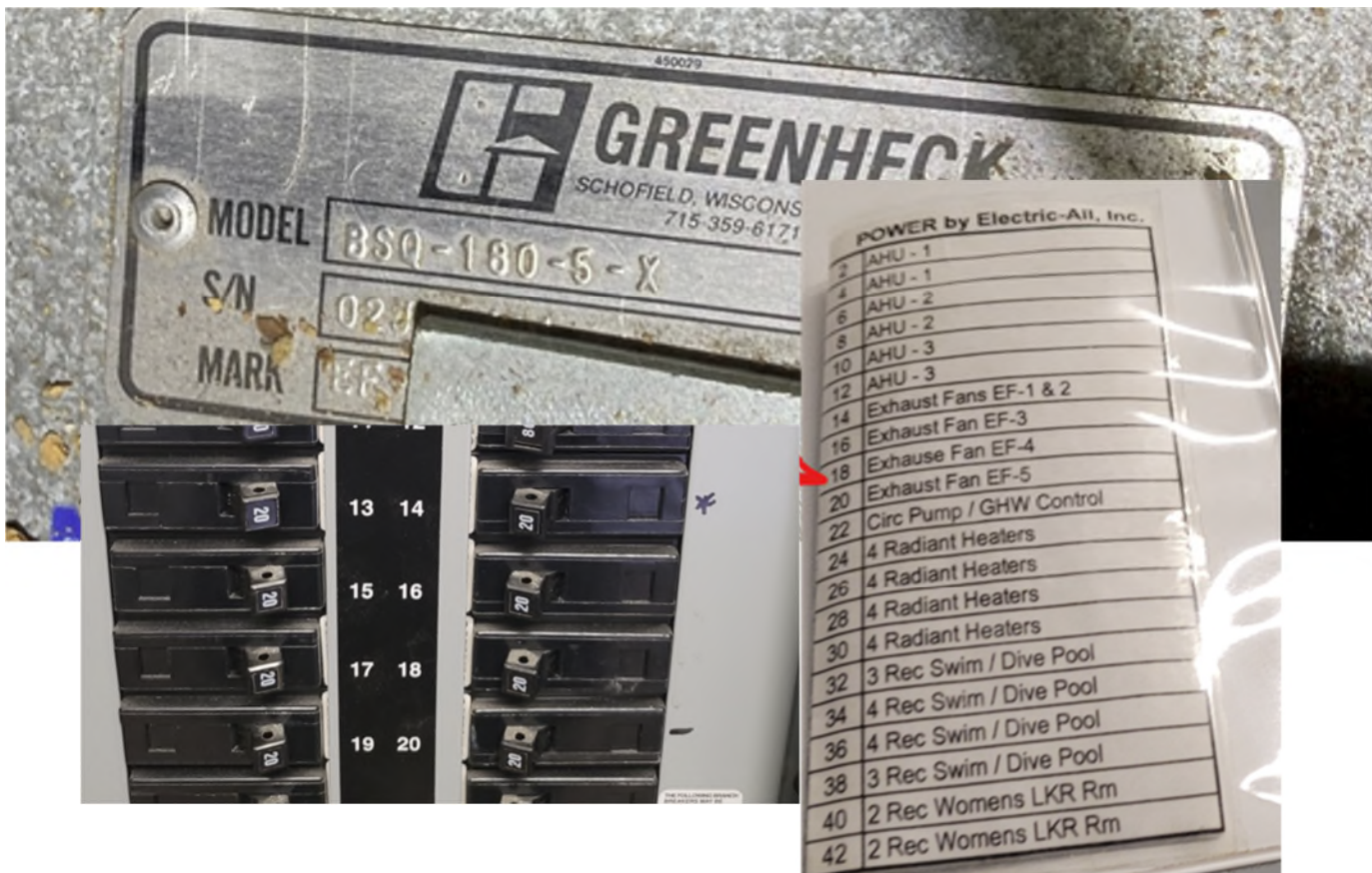
1. Thermolec SC-CTPXBU
2. 60kW; 480V/3phase; 72A; 1 stage
3. MDP-26,28,30; 100A/3

Heavy Duty Safety Switch
100 Amp, 600 Volts A-c
Horsepower Related



D. EF-4

1. Greenheck BSQ-180-5-X
2. LA Section 1 – 18; 20A/1



- III. Existing conditions
 - A. Three sides of Women's Locker Room exterior exposure
 - B. East exposure 8'-6" glass
 - C. Existing exhaust duct serving shower area may be constricted

- IV. Recommendations
 - A. Replace AHU/ACCU-5
 - B. Rebalance exhaust system
 - C. Balance supply and return systems after new AHU installed
 - D. Provide new temperature/humidity sensor
 - E. Interlock existing duct heater to AHU via factory mounted DDC Controller
 - F. Clean all exterior grilles (outside air intake, exhaust)
 - G. Clean all externally lined ductwork. Repair any damaged insulation.
 - H. Replace internally lined ductwork. Replace flex duct.
 - I. Ensure doors are not being left open or held open for long periods of time which may cause humidity concerns depending on outdoor conditions.
 - J. Remove stucco from breezeway. Replace with beadboard with 3ftx4ft hinged, lockable access panel.
 - K. Repair/replace/add plywood attic walk path as needed.
 - L. Label all electrical panels and panel schedules.