



Primary Engineering, Inc.
2828 Lake Ave.
Fort Wayne, Indiana 46805
260-424-0444 ph
www.primary-eng.com



Addendum: **1**
Date: **3/7/2025**
Project: **FWCS HPB Natatorium HVAC Improvements**

Comm #: **24634**

The following items shall be incorporated into the specifications and drawings and are considered to be integral to the bid documents for the project. Acknowledgement of receipt of this addendum is required on the bid form.

Item #1: General Clarifications.

- A. Refer to attached meeting agenda and meeting minutes for the pre-bid meeting.
- B. Refer to attached Architectural Addendum 1 from Moake Park Group, Inc.
- C. Refer to attached Structural Addendum 1 from structural Engineering Services, LLC.
- D. Contractor shall modify existing wet-system fire suppression piping and sprinkler heads as required for revisions to ductwork and equipment. Refer to General Fire Protection Notes on Drawing Sheet M001 for more information.
- E. Contractor shall provide and install new structural lintels at all new mechanical openings through existing walls. Refer to structural drawings for more information.

Item #2: Specification Section 000132 "EBE/MBE/WBE Information."

- A. See attached revised specification section.

Item #3: Specification Section 011000 "Summary of Work."

- A. Revise pre-bid building visitation requirements Part 1.7A. Revise On-Site Work Hours Part 1.9 B. Revise weekend work requirements Part 1.9 B.1. Revise Additional Work restrictions Part 1.9 B.3. See attached revised specification section.

Item #4: Specification Section 230713 "Duct Insulation."

- A. Add Part 2.2 I as follows:
 - 2.2 I. Flexible Elastomeric Insulation: EPDM Closed-cell expanded rubber materials; suitable for maximum use temperature between minus 70 deg F and 220 deg F. Comply with ASTM C534, Type II for sheet materials.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Aeroflex USA, Inc.; Aerocel EPDM
 - b. Armacell; UT Solaflex EPDM

Item #5: Specification Section 236200 “Packaged Compressor and Condenser Units.”

- A. Add TempMaster and Quantech as allowable manufacturers.

Item #6: Specification Section 237313.16 “Indoor, Semi-Custom Air-Handling Units.”

- A. Add PACE as an allowable manufacturer.

Item #7: Drawing Sheet M001 “Mechanical Information Sheet.”

- A. Add General Mechanical Note 18. Revise Controls Point List Schedule. See attached drawing revision to M001 dated 3/7/2025.

Item #8: Drawing Sheet M201 “First Floor Mechanical Plan.”

- A. Add refrigerant monitoring and exhaust systems. Add condensate piping to HVAC-1. See attached drawing revision to M201 dated 3/7/2025.

Item #9: Drawing Sheet M202 “Second Floor Mechanical Plan.”

- A. Add refrigerant monitoring and exhaust systems. Add condensate piping to HVAC-1. See attached drawing revision to M202 dated 3/7/2025.

Item #10: Drawing Sheet M203 “Roof Mechanical Plan.”

- A. Add gooseneck intakes for refrigerant monitoring and exhaust systems. See attached drawing revision to M203 dated 3/7/2025.

Item #11: Drawing Sheet M302 “Enlarged Mechanical Plans and Sections.”

- A. Add refrigerant monitoring and exhaust systems. Revise AHU-1 and AHU-2. Add hot water duct coils DC-1 and DC-2. See attached drawing revision to M302 dated 3/7/2025.

Item #12: Drawing Sheet M303 “Enlarged Mechanical Plan and Sections.”

- A. Add refrigerant monitoring and exhaust systems. Add condensate piping to HVAC-1. See attached drawing revision to M303 dated 3/7/2025.

Item #13: Drawing Sheet M401 “Mechanical Details.”

- A. Revise AHU-1 Detail. Revise AHU-2 Detail. See attached drawing revision to M401 dated 3/7/2025.

Item #14: Drawing Sheet M501 “Mechanical Schedules.”

- A. Add Exhaust Fan Schedule. Add Hot Water Reheat Coil Schedule. Revise Air Handler Schedule. Revise Diffuser and Grille Schedule. See attached drawing revision to M501 dated 3/7/2025.



Primary Engineering, Inc

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(260) 424-0444 phone
info@primary-eng.com

Pre-Bid Meeting Minutes

Date: 3/4/2025

Project Name: FWCS HPB Natatorium HVAC Improvements

Project #: 24634

Attachments:

Pre-bid meeting agenda
Pre-bid sign-in sheet

Notes:

The following notes represent a record of topics discussed during site visits to evaluate scope of services on the project. If any omissions or errors have been made, please notify our office in writing within 5 working days of receipt.

1. Information in the attached Pre-Bid Meeting Agenda was reviewed.
2. This project does not involve aquatics consultants or alterations to pool systems.
3. Other projects by others scheduled concurrently include pool deck floor tile repair and roof structure cleaning.
4. Construction dates will be revised in Addendum 1.
5. Contractor site visits during bidding may be scheduled with FWCS Facilities. Access will not be allowed without prior approval.

Signed: _____

Andrew Louderback

- Project File
- Chronological File
- Shop Drawing File
- Cc:



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 info@primary-eng.com

Pre-Bid Meeting Sign-In Sheet

Project: FWCS HPB Natatorium HVAC Improvements
 Date: 3/4/2025

Name	Firm	Email Address
ROBB FULTZ	ACB	
Paul Wybo	ACB	pwylbo@ACBgeneralcontractor.com
Jon Meyer	ACB	
Andrew Tucker	Dirig SM	andy@dirigsheetmetal.com
Jason Hoern	Dahm Brothers, Inc.	jthoen@dahmbrothers.com
Brad Schinnerer	CONTI Mechanical	bschinnerer@conti.corporation.com
Eric Tyleu	Schenkel	etyleu@xibuild.com
Eric Pepple	Current	KdWolford@currenthvac.com
Alan Williamson	WMI	awilliamson@wmiinc.com
Jayde Steffen	FWCS	
Kyle Kristaino	Shawnee	KKristaino@ShawneeConstruction.com
Serry Gressley	Protechs	jgressley@protechinc.com
Caleb Somerville	Protechs	csomerville@protechinc.com
ANDREW LOUDERBACK	PRIMARY ENGINEERING	
Travis Scudlo	FWCS	
Kevin Thomas	FWCS	



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Fort Wayne Community Schools
Facilities Department

HPB Natatorium HVAC Improvements

Pre-Bid Meeting
March 4, 2025



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HPB Natatorium HVAC Improvements



Jayde Steffen

FWCS Coordinator of Capital Projects
Jayde.Steffen@fwcs.k12.in.us

John Hudson

FWCS Coordinator of Design Controls
John.Hudson@fwcs.k12.in.us

Travis Searles

FWCS Coordinator of Capital Projects
Travis.Searles@fwcs.k12.in.us

Andrew Louderback

Mechanical Engineer
Primary Engineering, Inc.
alouderback@primary-eng.com

Jeremy Ogle

Architect
The Moake Park Group, Inc.
jogle@moakepark.com

Ethan Hess

Structural Engineer
Structural Engineering Services, LLC
ehess@structuralengr.com

Wayne Richardson

Civil Engineer
Bertsch – Frank & Associates, LLC
wrichardson@bertschfrank.com



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HPB Natatorium HVAC Improvements



- Bids are due on March 18, 2025 at 2:00 pm local time. Deliver to 1519 Catalpa St, Fort Wayne, IN to the Facilities Reception Desk (Sarah) via the West Entry #1.
- Submit all bid forms in duplicate and include all forms filled out, including Form 96, E-Verify, E/M/W Owned Business, Subcontractor/Vendor List, Iran Certification
- The apparent low bidder will be contacted and must submit the following items within 48 hours of the bid opening:
 - A complete list of all sub contractors.
 - A complete list of all material suppliers.



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Summary of Work:

- Replacement of existing air handling units with addition of air-conditioning.
- Addition of air handling unit and ductwork for second floor spectator cooling.
- Replace (2) existing PoolPak pool dehumidification units with (1) outdoor Innovent unit.
- New structural equipment platform for rooftop equipment.
- In-fill of abandoned therapy pool.
- New outdoor mechanical yard with screen with revised grading and drainage.
- New MDP Panel.
- Lighting and fire protection adjustments.



HPB Natatorium HVAC Improvements



Specifications:

- 000126 – Background Check Requirement
- 004343 – Responsible Bidder Requirements
 - Contractors must certify that they are in compliance with the federal Fair Labor Standards Act (FLSA) and the [Indiana Minimum Wage Law](#).
- 000131 – FWCS Document Management Procure
- 000127 – Smoking Policy
- 000129 – Dust Control
- 000133 – Liquidated Damages
- 011000 – Summary of Work



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Schedule:

Substantial Completion Date:	October 23, 2026
Final Completion Date:	November 6, 2026
Construction Start Date:	June 30, 2025

- June 30, 2025 through July 3, 2025: “Non-Deck.”
- August 8, 2025 through August 24, 2025: “Pool Empty.”
- August 25, 2025 through September 5, 2025: “Non-Deck.”
- September 8, 2025 through September 26, 2025: “Outdoor.”
- July 31, 2026 through October 9, 2026: “Pool Empty” and “Outdoor”.

“Non-Deck”: Indoor Work allowed on First Floor in mechanical, storage, and support spaces. Work allowed on Second Floor. Work on first floor natatorium pool deck prohibited. Natatorium utility interruptions prohibited.

“Pool Empty”: Pool will be drained. All Work Allowed. Natatorium utility interruptions allowed.

“Outdoor”: Indoor Work prohibited. Outdoor Work allowed. Natatorium utility interruptions prohibited.



HPB Natatorium HVAC Improvements



Estimated cost:	\$2,700,000 Base Bid + \$500,000 Alternates (excluding work by Owner)
Bid Bond:	5%
Perf. Bond:	100%
Allowance:	\$75,000 Contingency (included in bid)
Permits:	Include all construction permits in bid

FWCS is tax exempt



HPB Natatorium HVAC Improvements



Alternates:

Alternate No. 1: add cleaning of existing HVAC air distribution systems by certified member of NADCA as indicated with Demolition Plan Note 8 on Drawing Sheet M101, Plan Notes 4 and 5 on Drawing Sheets M201 and M202, Plan Note 10 on Drawing Sheets M301, and Specification Section 230130.52 "Existing HVAC Air Distribution System Cleaning." Alternate includes provide and install of all required duct access doors.

Alternate No. 2: add demolition of existing AHU-4 as shown on Drawing Sheet M102 and add new AHU-4 and ACCU-AHU-4 as shown on Drawing Sheets M203 and M302. Alternate includes disconnect and reconnect of existing ductwork and piping. Alternate includes installation of new coil circulator pump HWP-AHU-4. Base bid shall include modifications of existing ductwork and piping as required to accommodate all other Base Bid scope of Work.



HPB Natatorium HVAC Improvements



Procedure for Visiting the Schools:

The building will be open to Contractors for field investigation on:

- Tuesday, March 4 from 11:30am-12:30pm
- Monday, March 10 from 10:30am-12:30pm
- Thursday, March 13 from 2:45-4:45pm

Contractors are required to check in at main office.

3D Matterport Scans are available



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- Project Management will be done using FWCS's Procore Online system to submit and track all submittals, RFI's, PR's, etc. If you are not familiar with it, there are training classes at FWCS periodically and you will need to use this tool.
- Dust control and housekeeping Spec Section 000129. You must use wet cutting methods, use dust control partitions, protect smoke detectors, seal doors/louvers/diffusers, and do not use FWCS trash cans/dumpsters.
- Dust control on pool drains.
- Disposal of scrap metal is the responsibility of the contractor.



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- Hot work permits are required for any grinding, welding, torching, etc. and must have a fire watch person observing. This is not another person in the room working, but another person observing the hot work and nothing else.
- Construction staging/storage allowed on site as long as it does not obstruct doors/corridors. C.O.I.'s are required for material stored off-site.
- Maintain roof warranty.
- Corrosion resistant materials required.



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- Asbestos testing reports are available. Abatement will be by Owner.
- Test and Balance: Fluid Dynamics, Inc., Synergy Test and Balance, or Mechanical Test and Balance, Total Balance, Inc.
- Temperature controls by Owner (Automated Logic).



HPB Natatorium HVAC Improvements



- All requests for clarification or material additions to specs shall be submitted via email to alouderback@primary-eng.com no later than 12:00 Noon on March 14, 2025. This is the cut off for questions that can be answered via addendum.
- Addendum #1: March 7, 2025
- Addendum #2: March 14, 2025
- Bids due: March 18, 2025



HPB Natatorium HVAC Improvements



thank you



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SECTION 000132 – EBE/MBE/WBE INFORMATION

Following is a list of the Emerging Business Enterprise owners, Women’s Business Enterprise owners, and Minority Business Enterprise owners currently certified by the City of Fort Wayne. Fort Wayne Community Schools supports participation of minority owned businesses as a goal and encourages bidders to solicit bids from MBE, WBE and EBE contractors. There is no requirement or quota for MBE, WBE and EBE participation on this project. We are encouraging participation to the extent possible. Bidders are requested to submit the names of the firms which they have contacted on the Bid Form provided in these specifications.

END OF SECTION



SECTION 011000 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Work by Owner.
4. Work under separate contracts.
5. Future work.
6. Owner-furnished products.
7. Contractor-furnished, Owner-installed products.
8. Access to site.
9. Coordination with occupants.
10. Work restrictions.
11. Specification and drawings conventions.
12. Miscellaneous provisions.

B. Related Requirements:

1. Section 015000 “Temporary Facilities and Controls” for limitations and procedures governing temporary use of Owner’s facilities.

1.3 PROJECT SUMMARY

A. Project Identification: HPB Natatorium.

1. Project Location: 3301 Calhoun Street, Fort Wayne, IN 46807.



- B. Owner: Fort Wayne Community Schools
 - 1. Owner's Representative: Jayde Steffen
- C. Lead Design Consultant: Primary Engineering, Inc.
- D. Consultants: Primary Engineering, Inc. has retained the following design professionals who have prepared designated portions of the contract documents:
 - 1. Bertsch Frank & Associates LLC
 - 2. Structural Engineering Services, LLC
 - 3. Moake Park Group, Inc.
- E. The Owner maintains tax exempt status and all work shall be tax free. Owner shall provide tax exempt documentation to Contractor.
- F. All permits and fees associated with the construction are the responsibility of the Contractor to pay.
- G. All work performed by the Contractor shall comply with local and state codes/regulations.
- H. Web-Based Project Software: Project software administered by Owner will be used for purposes of managing communication and documents during the construction phase.
 - 1. See Section 0113100 "Project Management and Coordination" for requirements for using web-based Project software.

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The work of the Project is defined by the Contract Documents and consists of the following:
 - 1. Base Bid: The Project Base Bid consists of HVAC improvements.
 - 2. Alternate Bids: See section 012300 Alternates.
- B. Type of Contract:
 - 1. Project will be constructed under a single prime contract.
 - a. Temperature controls work and any required asbestos abatement shall be separate contracts direct to Owner.

1.5 WORK BY OWNER

- A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract or by Owner. Coordinate the Work of this Contract with work performed by Owner.



1.6 WORK UNDER SEPARATE CONTRACTS

- A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying Work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under separate contracts.
 - 1. Asbestos abatement shall be provided under separate contract. All contractors must coordinate schedules and it is the responsibility of the General Contractor to incorporate the work schedule of the abatement contractors into the master project schedule with allocated time for removal and air testing.
 - 2. Temperature controls work shall be provided under separate contract with Automated Logic Controls. All contractors must coordinate schedules and it is the responsibility of the General Contractor to incorporate the work schedule of the controls contractor into the master project schedule with allocated time for installation of controls following mechanical/electrical equipment with adequate time at the completion of each phase for check-out and verification.

1.7 ACCESS TO SITE

- A. Bidding: Each contractor and sub-contractor shall be responsible to visit the project site to verify existing conditions prior to the bidding date and be aware of the conditions of the existing building. The Owner will make the building available for inspection as follows:
 - 1. Tuesday, March 4 from 11:30am-12:30pm
 - 2. Monday, March 10 from 10:30am-12:30pm
 - 3. Thursday, March 13 from 2:45-4:45pm. **Do not arrive prior to 2:45 pm.**
- B. General: Each Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicate by requirements of this section.
- C. Use of Site: Limit use of Project site to Work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Driveways, Walkways and Entrances: Keep driveways, loading areas and entrances serving premises clear and available to Owner, Owner's employees and emergency vehicles at all times. Do not use these areas for parking or for storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrance by construction operations.
 - b. Schedule deliveries to minimize space and time requirements for storage of material and equipment on site.
- D. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations.



1. Protect staff and students from dangerous conditions that might result from construction activities.
- E. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.
- F. Each Contractor shall limit the use of the premises for work and storage to allow work by other Contractors and Owner occupancy. Storage of materials for construction activities in existing buildings is permissible only upon approval by the assigned Owner Project Coordinator.
 1. Each Contractor shall assume complete responsibility for the protection and safekeeping of products under his contract, stored at the site.
 2. Each Contractor shall move his stored products that interfere with the operation of the Owner or other Contractors.

1.8 COORDINATION WITH OCCUPANTS

- A. Full Owner Occupancy: Owner will occupy site and existing building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
 1. Maintain access to existing walkways, corridors and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
 2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.
 3. Note that the primary functions of this school facility must continue and can not be interrupted by the construction activities. Special considerations for noise/dust/odor control must be provided to prevent disruption of the academic environment.
 4. Contractors shall maintain an atmosphere of professionalism while on school grounds.
 - a. Use of profane or lewd language by workers will not be tolerated.
 - b. Any worker wearing clothing containing vulgar or inappropriate content will be asked to leave the premises immediately.
 - c. Use of radios/cell phones to play loud music will not be permitted.

1.9 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.



1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 7:00 a.m. to 5:00 p.m., Monday through Friday, unless otherwise indicated.
 1. Weekend Hours: With Owner's prior approval, weekend hours may be permitted. Notification of need for weekend hours must be submitted no later than two (2) weeks prior to weekend needed for work.
 2. Hours for Utility Shutdowns: Power shutdowns must occur when the building is not occupied and must be scheduled with the Owner in advance. Extended shutdowns lasting more than 4 hours must occur on a weekend and utilize overnight periods to be scheduled with the Owner.
 3. Additional Work Restrictions: Work shall be restricted by the following:
 - a. Definitions:
 - i. "Non-Deck": Indoor Work allowed on First Floor in mechanical, storage, and support spaces. Work allowed on Second Floor. Work on first floor natatorium pool deck prohibited. Natatorium utility interruptions prohibited.
 - ii. "Pool Empty": Pool will be drained. All Work Allowed. Natatorium utility interruptions allowed.
 - iii. "Outdoor": Indoor Work prohibited. Outdoor Work allowed. Natatorium utility interruptions prohibited.
 - b. August 4, 2025 through August 7, 2025: "Non-Deck" and "Outdoor."
 - c. August 8, 2025 through August 24, 2025: "Pool Empty."
 - d. August 25, 2025 through September 5, 2025: "Non-Deck."
 - e. September 8, 2025 through September 26, 2025: "Non-Deck" and "Outdoor."
 - f. July 31, 2026 through October 9, 2026: "Pool Empty" and "Outdoor".
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to the requirements indicated:
 1. Notify Owner not less than seven (7) days in advance of proposed utility interruptions.
 2. Obtain Owner's written permission before proceeding with utility interruptions.
- D. Noise, Vibration and Odors: Coordinate operations that may result in high levels of noise and vibration, odors or other disruption to Owner occupancy with Owner.
 1. Notify Owner not less than seven (7) days in advance of proposed disruptive operations.



2. Obtain Owner's written permission before proceeding with disruptive operations.
3. Each Contractor and Sub-contractor shall take reasonable measures to limit activities which cause undue noise during 2nd shift work which may affect neighboring residents.
 - a. Refrain from using telescoping forklifts to dump trash after 9:00 pm.
 - b. Take special care in closing storage containers at the end of the work shift (do not slam container doors).
 - c. Schedule material and equipment deliveries during late afternoon hours only.
- E. I-LEARN/Achievement Testing: Testing will occur in the spring and fall of each school year. Contractor shall verify exact dates with Owner. NO work shall be permitted in the building during the school day during testing without prior written approval. The Owner reserves the right to allow specific trades and activities in limited areas depending on the potential for noise and disturbance during these times.
 1. Any inspection work occurring during testing periods must be completed either before or after school is in session.
- F. Restricted Substances: Use of tobacco products, e-cigarettes (vaping) and other controlled substances on Project site is not permitted on Fort Wayne Community Schools property.
- G. Employee Identification: Provide identification in the form of clothing or hard hats with company logos for all Contractor and Sub-contractor personnel working on Project site. Require personnel to wear identification at all times.

1.10 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words and phrases when used in particular situations. These conventions are as follows:
 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall", "shall be" or "shall comply with", depending on the context, are implied where a colon (;) is used within a sentence or phrase.
 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 1. Terminology: materials and products are identified by the typical generic terms used in the individual Specifications Sections.



2. Abbreviations: Materials and products are identified by the typical generic terms as part of the U.S. National CAD Standard and scheduled on Drawings.
3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

1.11 MISCELLANEOUS PROVISIONS

A. Asbestos Containing Materials (ACM)

1. Any ACM shall be removed by the Owner prior to the start of work schedule by the Contractor.
2. If any other suspect ACM is discovered during the course of work, Contractor shall promptly notify the Owner. Owner shall perform testing and, if determined to be regulated asbestos containing building materials, Category I or Category II non-friable asbestos containing materials, the Owner will be responsible to remove materials in compliance with regulatory standards.
3. Contact FWCS designated Project Manager at (260) 467-2075.

B. Existing Conditions

1. Each Contractor is responsible to field verify existing conditions and dimensions. The Contractor requiring said verification for the construction or fabrication of his material shall be the Contractor responsible for procurement of the field information.
2. Notify the design architect/engineer promptly if existing field conditions differ from those indicated on the bid documents. Do not remove or alter structural components without prior written approval.

C. Each Contractor shall be responsible for securing his work and equipment at the close of each work day.

D. Fire alarms: If the work requires repair, modifications or replacement of fire alarm systems or components, the Contractors shall provide notification to the Owner a minimum of 72 hours before a fire alarm is rendered inactive.

1. If a fire alarm device is fouled with construction debris/duct/dirt and activates the alarm system, the Contractor shall be solely responsible for all costs associated with false fire truck dispatch and shall replace the soiled device with a new device matching the device that initiated the alarm. Cleaning a triggering device is not acceptable.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)



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END OF SECTION

Addendum D1

re: **FORT WAYNE COMMUNITY SCHOOLS**
Helen P. Brown Natatorium
HVAC Improvements
 Project No. 24634

issue date: **March 7, 2025**

This Addendum forms a part of the Contract Documents for the above-referenced project and is issued in accordance with the Instructions to Bidders. Acknowledge receipt of this addendum by inserting its number in the space provided in the bid form.

ITEM	LOCATION	DESCRIPTION
A1.01	DRAWINGS A202 Second Floor Plan <i>(Drawing Reissued)</i>	<u>ADD:</u> Sheet A202 reissued to indicate additional roof penetrations.

Submitted by:
The Moake Park Group, Inc.

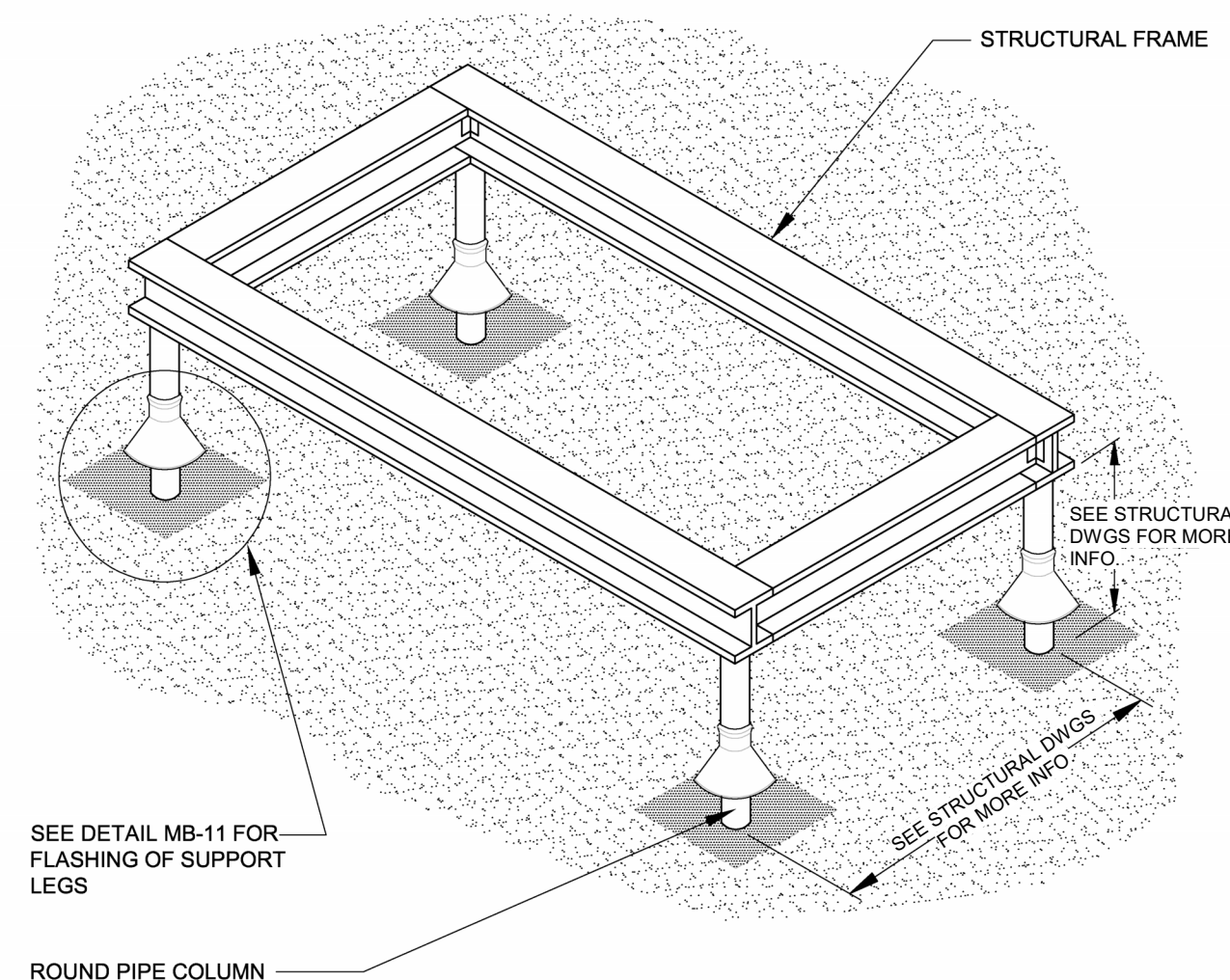


Jeremy M. Ogle, AIA and Principal

attachments: Drawing A202 **(Reissued)**

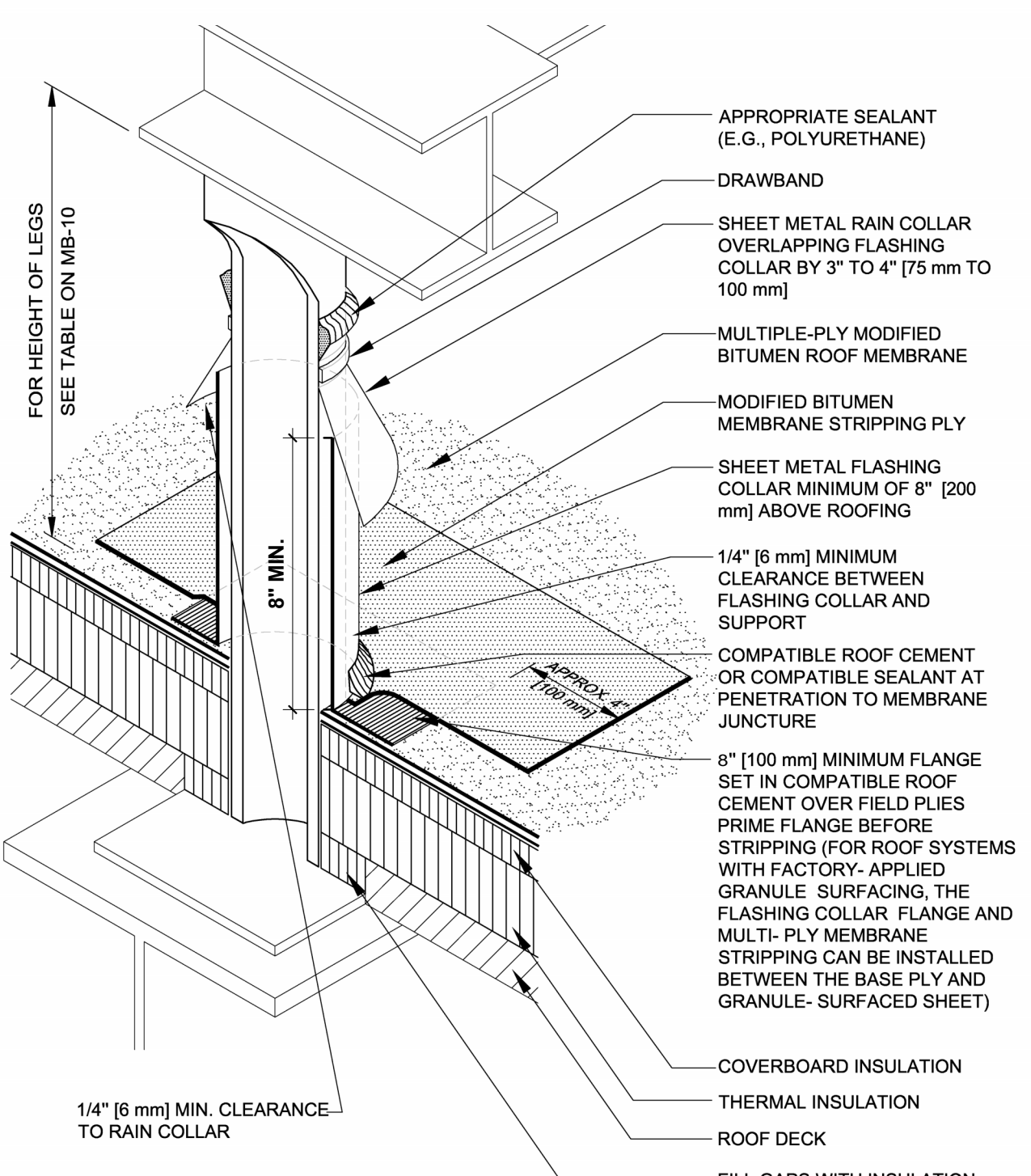
copies: All Plan Holders
 111030.00/670





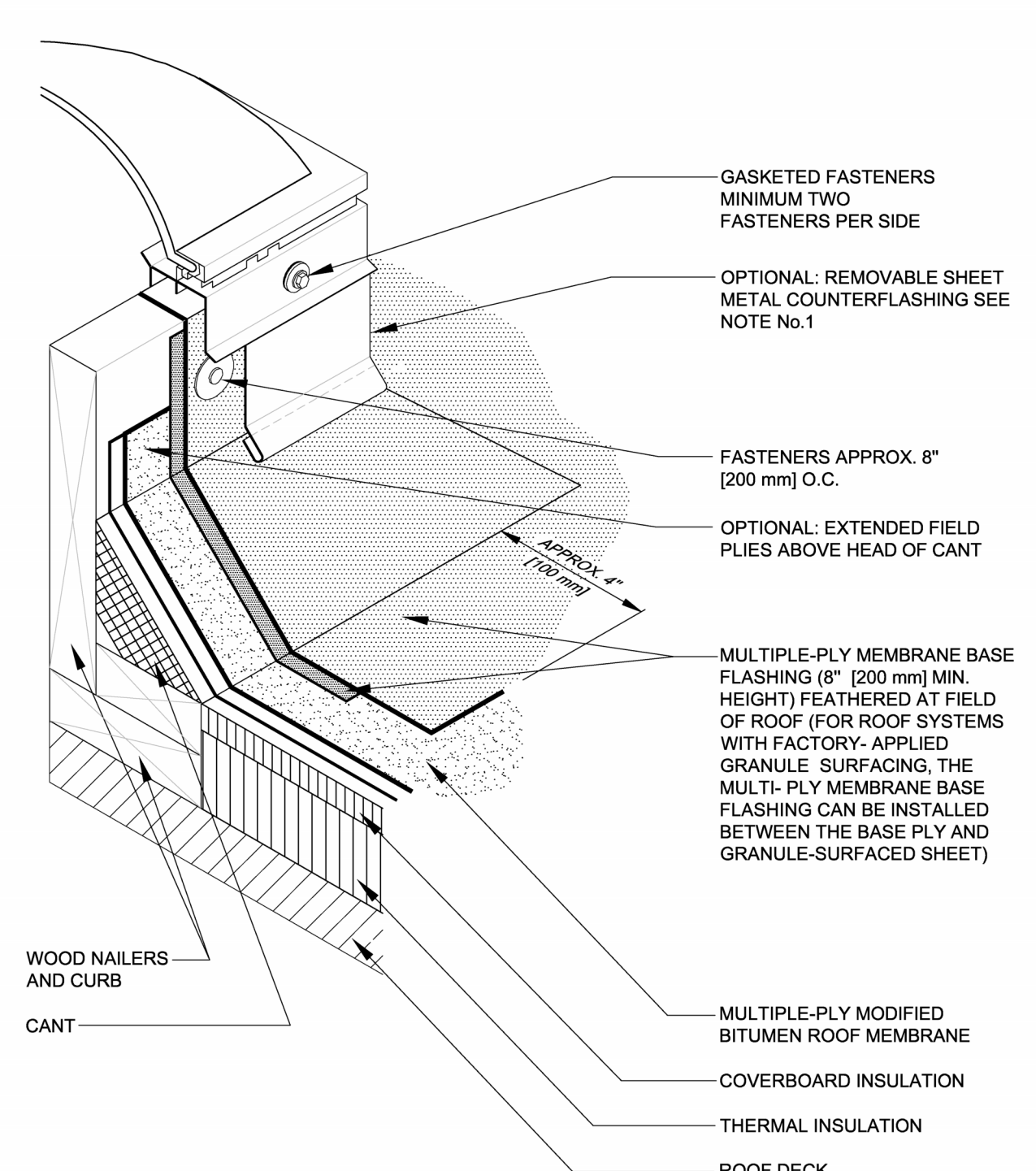
- NOTES:
- THIS DETAIL MAY BE PREFERABLE TO DETAIL MB-9 WHEN THE CONCENTRATED LOADS CAN BE LOCATED DIRECTLY OVER COLUMNS OR HEAVY CROSS IN THE STRUCTURE OF THE BUILDING. THIS DETAIL CAN BE ADAPTED FOR OTHER USES, SUCH AS SIGN SUPPORTS.
 - REFER TO THE INTRODUCTION FOR ADDITIONAL INFORMATION.

EQUIPMENT SUPPORT STAND
2001 NOT DRAWN TO SCALE MB-10



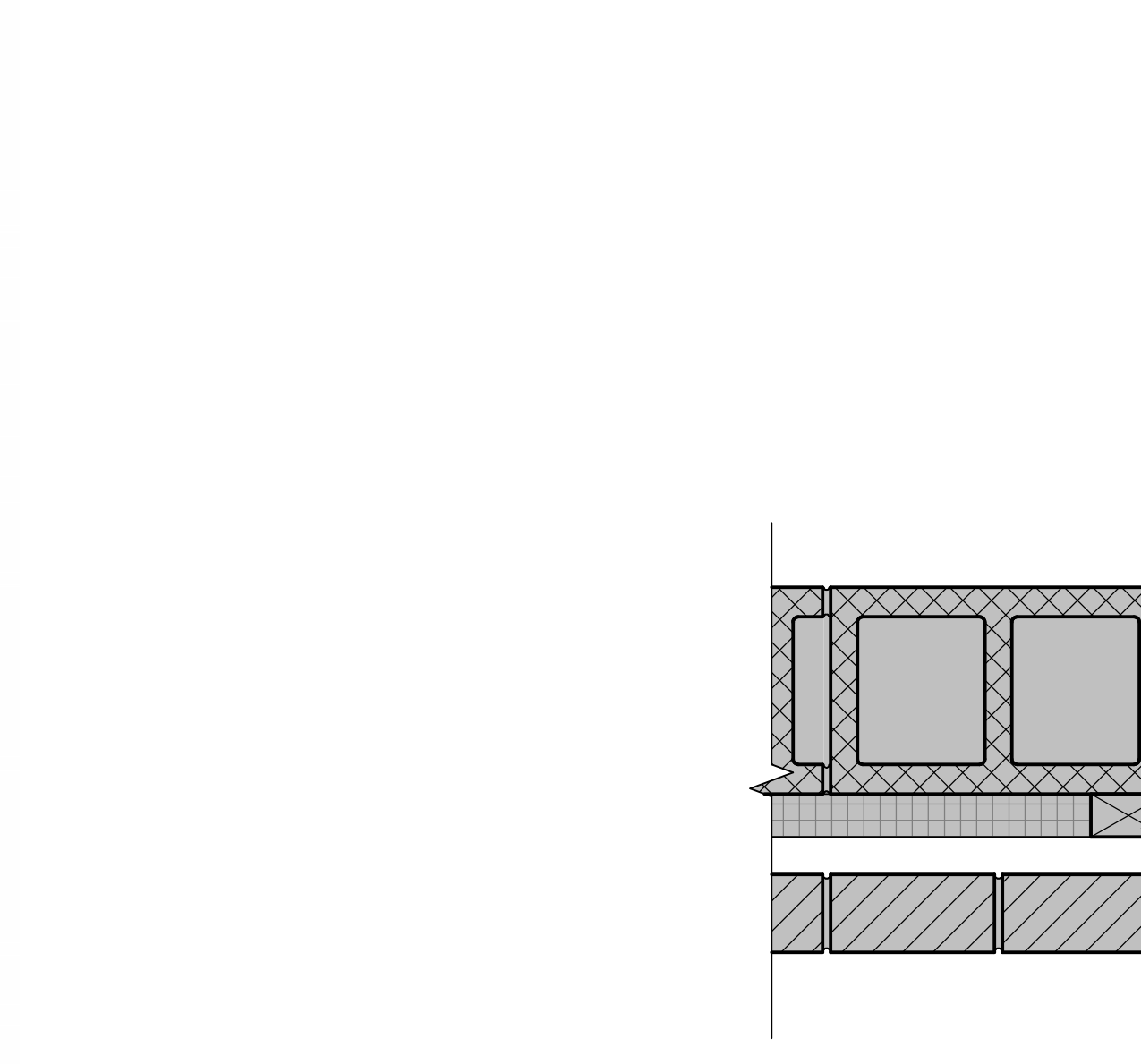
- NOTES:
- REFER TO THE INTRODUCTION FOR ADDITIONAL INFORMATION.

EQUIPMENT SUPPORT STAND AND TYPICAL RAIN COLLAR PENETRATION DETAIL
2001 NOT DRAWN TO SCALE MB-11

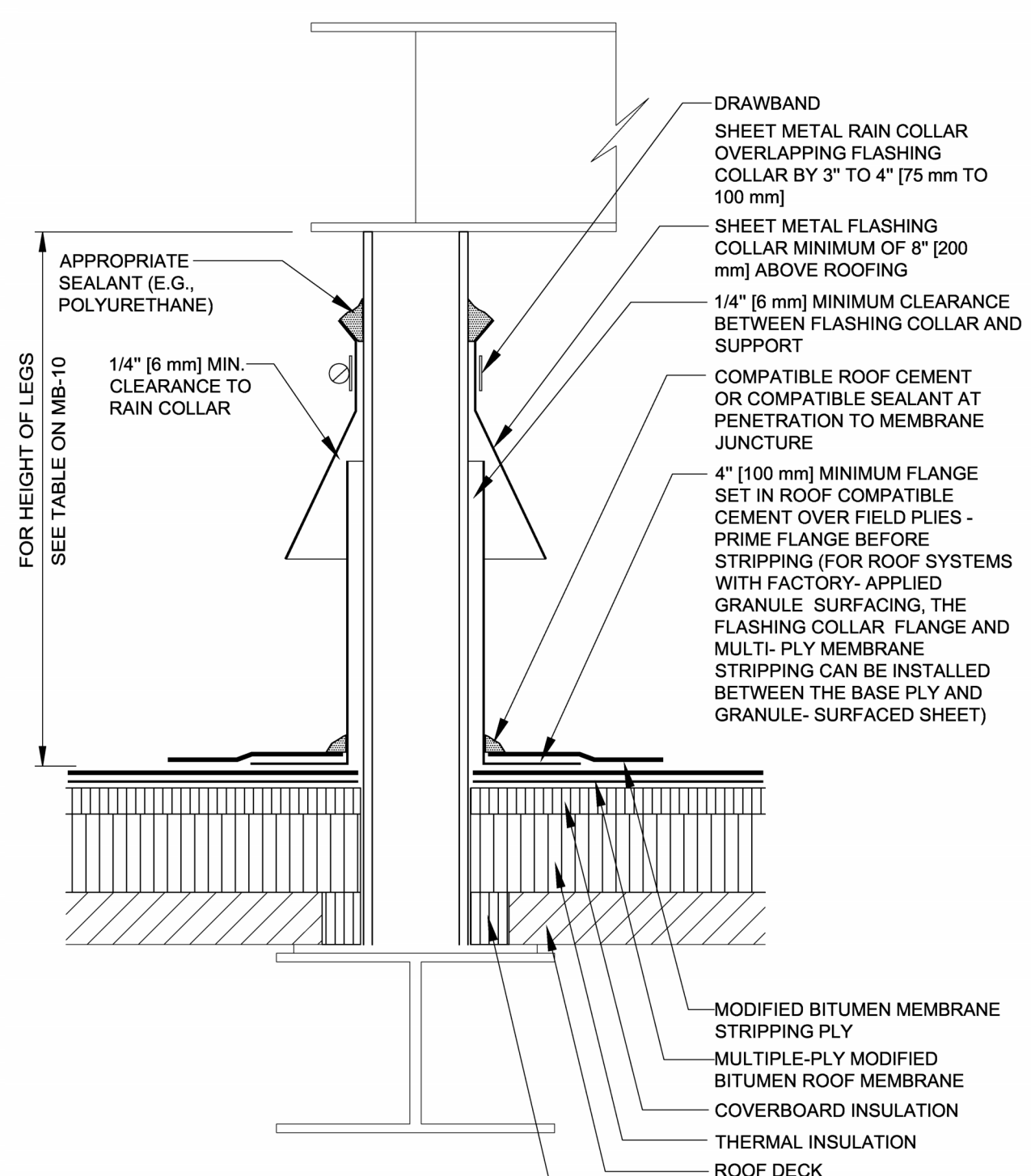


- NOTES:
- WHERE THE SKYLIGHT, SCUTTLE, OR SMOKE VENT FRAME OVERLAPS THE BASE FLASHING AT LEAST 3" (75 mm) THE REMOVABLE SHEET METAL COUNTERFLASHING IS NOT REQUIRED.
 - REFER TO THE INTRODUCTION FOR ADDITIONAL INFORMATION.
 - REFER TO THE SHEET METAL SECTION OF THE METAL ROOFING MANUAL FOR JOINERY AND SECUREMENT OPTIONS FOR SHEET METAL.

SKYLIGHT, SCUTTLE, AND SMOKE VENT
2001 NOT DRAWN TO SCALE MB-14

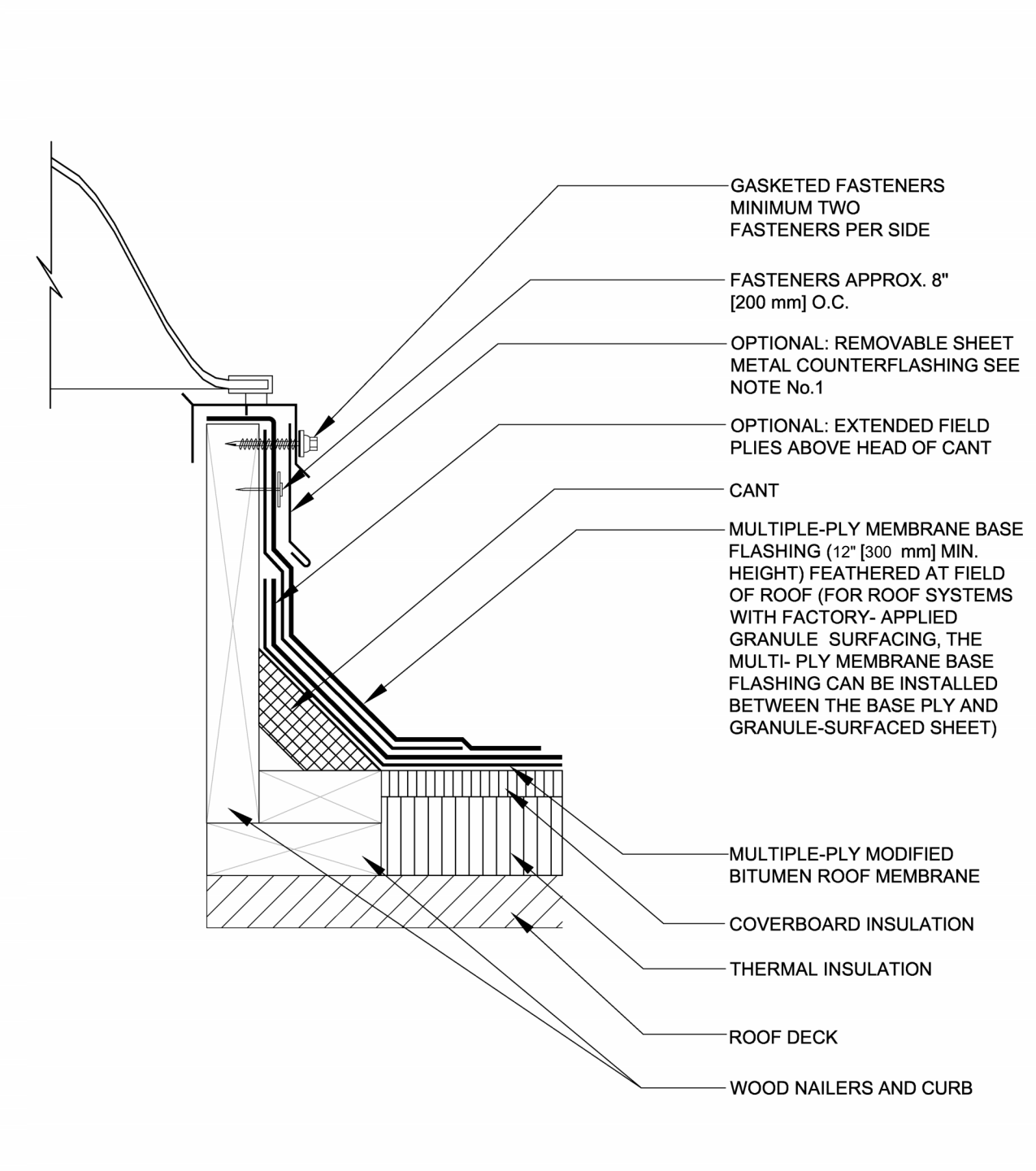


5 Typ. Jamb Detail
1 1/2" = 1'-0"



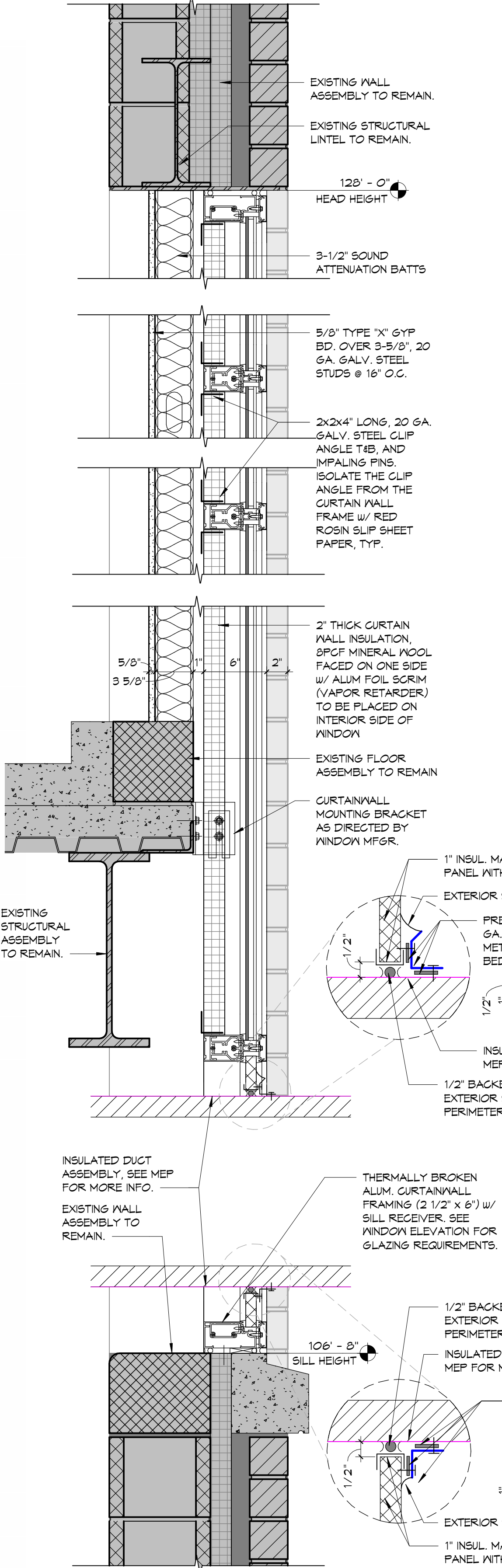
- NOTES:
- REFER TO THE INTRODUCTION FOR ADDITIONAL INFORMATION.

EQUIPMENT SUPPORT STAND AND TYPICAL RAIN COLLAR PENETRATION DETAIL
2001 NOT DRAWN TO SCALE MB-11S

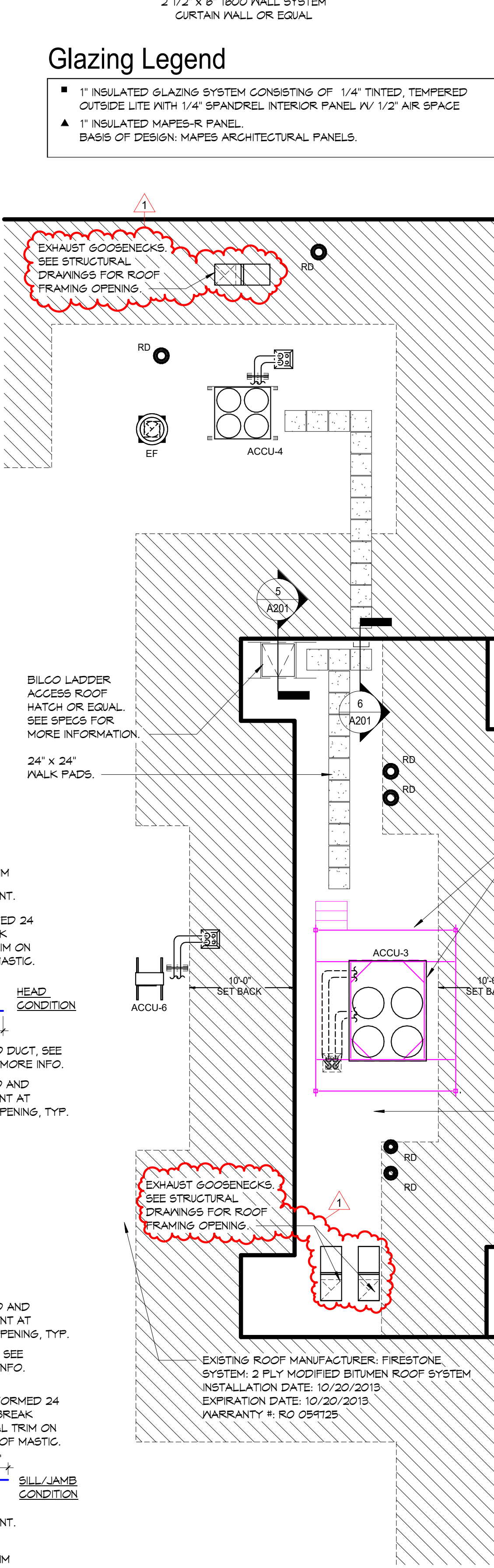


- NOTES:
- WHERE THE SKYLIGHT, SCUTTLE, OR SMOKE VENT FRAME OVERLAPS THE BASE FLASHING AT LEAST 3" (75 mm) THE REMOVABLE SHEET METAL COUNTERFLASHING IS NOT REQUIRED.
 - REFER TO THE INTRODUCTION FOR ADDITIONAL INFORMATION.
 - REFER TO THE SHEET METAL SECTION OF THE METAL ROOFING MANUAL FOR JOINERY AND SECUREMENT OPTIONS FOR SHEET METAL.

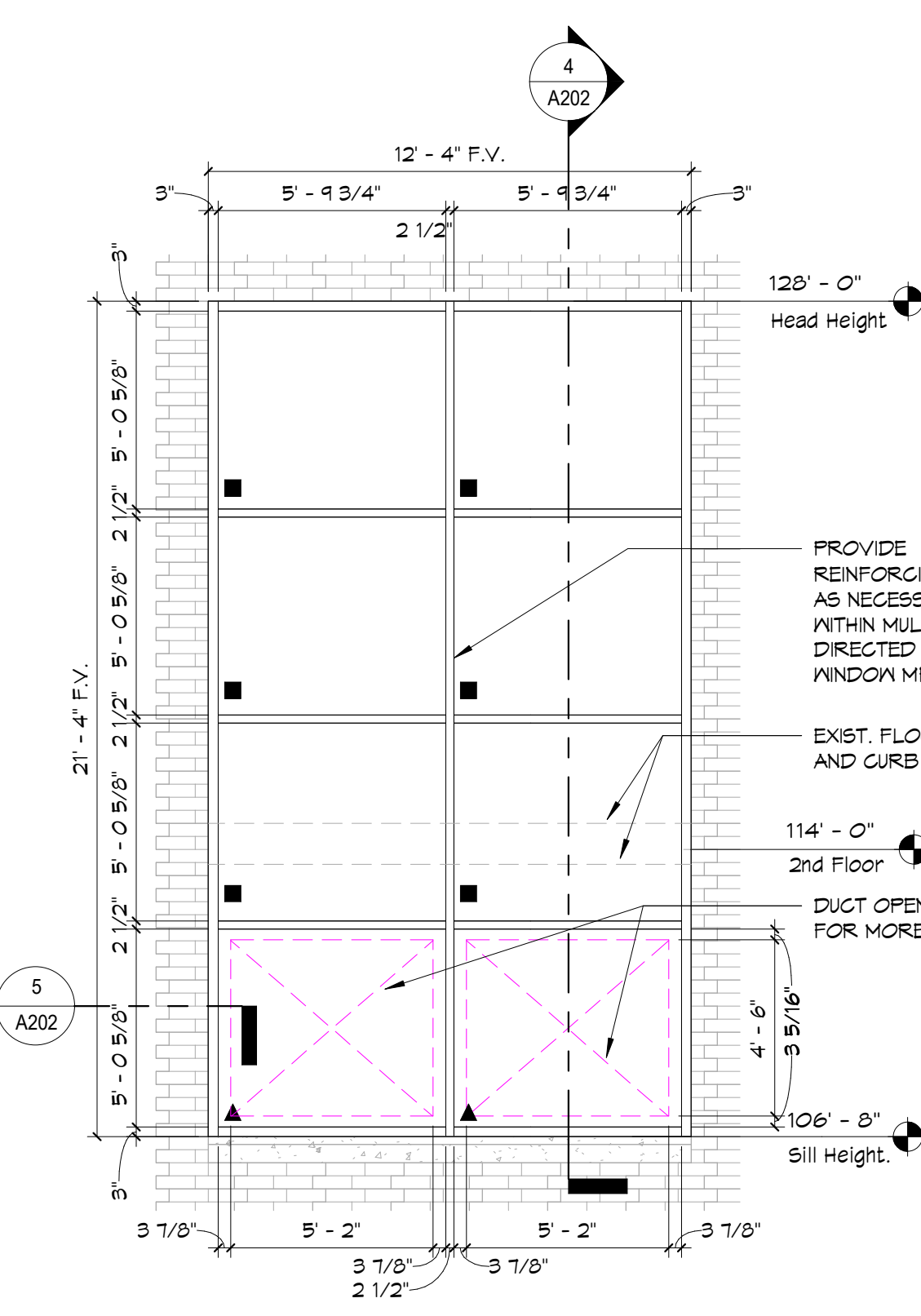
SKYLIGHT, SCUTTLE, AND SMOKE VENT
2001 NOT DRAWN TO SCALE MB-14S



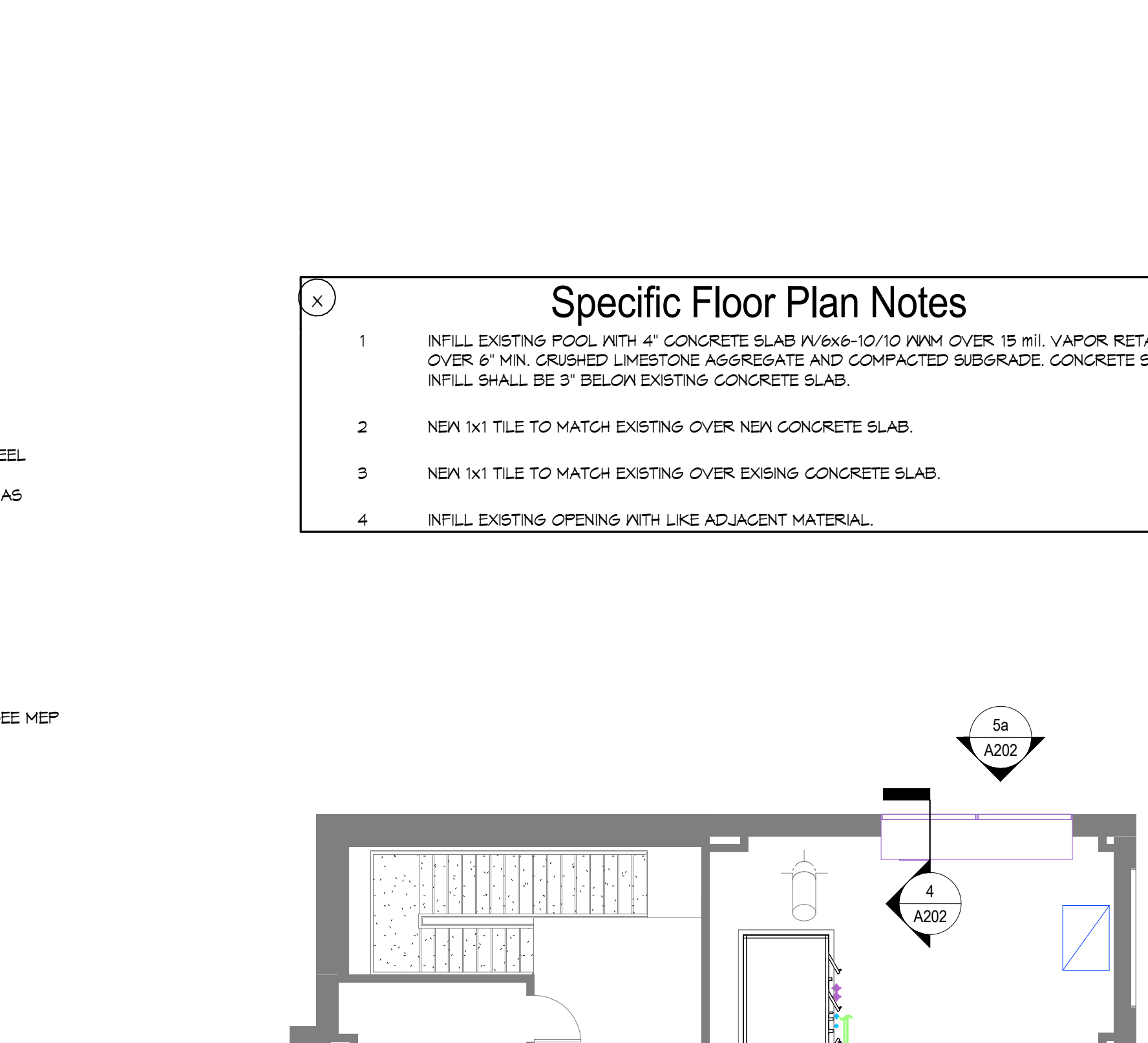
4 Window Section Details
1 1/2" = 1'-0"



3 Partial Roof Plan
1/8" = 1'-0"



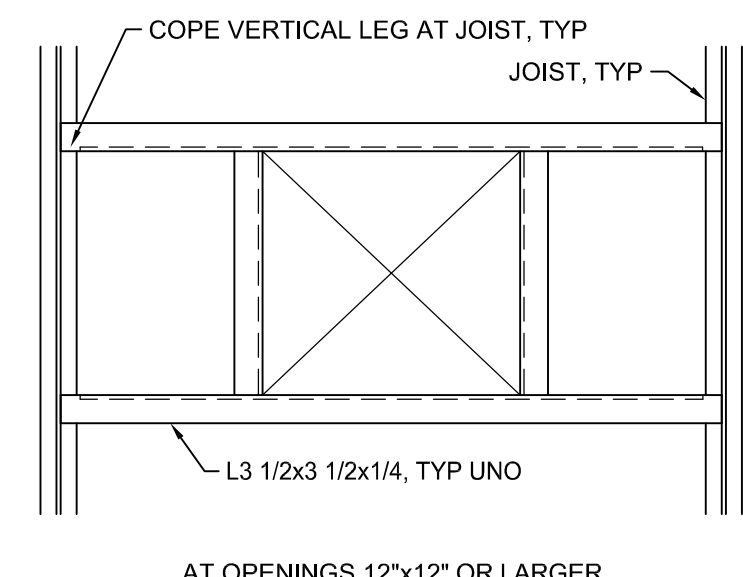
2 Partial Second Floor Plan
1/8" = 1'-0"



1 Partial Second Floor Demo Plan
1/8" = 1'-0"

- Specific Floor Plan Notes**
- INFILL EXISTING POOL WITH 4" CONCRETE SLAB (4#6x6-10/10 W/M OVER 15 mil. VAPOR RETARDER OVER 6" MIN. CRUSHED LIMESTONE AGGREGATE AND COMPACTED SUBGRADE. CONCRETE SLAB INFILL SHALL BE 3" BELOW EXISTING CONCRETE SLAB.
 - NEW 1X1 TILE TO MATCH EXISTING OVER NEW CONCRETE SLAB.
 - NEW 1X1 TILE TO MATCH EXISTING OVER EXISNG CONCRETE SLAB.
 - INFILL EXISTING OPENING WITH LIKE ADJACENT MATERIAL.

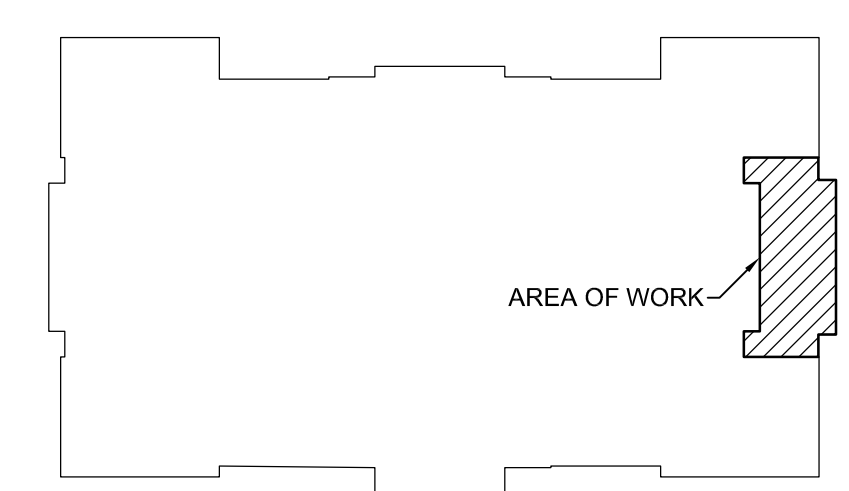
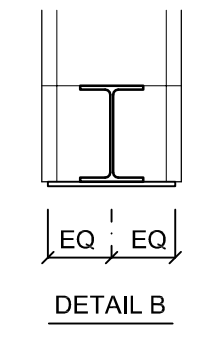
- Glazing Legend**
- 1" INSULATED GLAZING SYSTEM CONSISTING OF 1/4" TINTED, TEMPERED OUTSIDE LITE WITH 1/4" SPANDREL INTERIOR PANEL, 1/2" AIR SPACE
 - 1" INSULATED MAPES PANEL



Typ Floor/Roof Opening
 SCALE: NTS

MK	SIZE	DETAIL
L1	(3) J.J.L4x3 1/2x5/16 (LLV)	—
L2	W8x18 + BOT PLATE 3/8"x16"	A
L3	(2) L4x3 1/2x5/16 (LLV)	—

DO NOT EXTEND BOTTOM PLATE BEYOND MASONRY OPENING. SECURE INFILL BLOCK TO BEAM WITH METAL TIES WELDED TO BEAM. L (MECH); DESIGNATES LINTELS LOCATED AT MECHANICAL OPENINGS AND ARE SUPPLIED AND INSTALLED BY GENERAL CONTRACTOR.



KEYPLAN

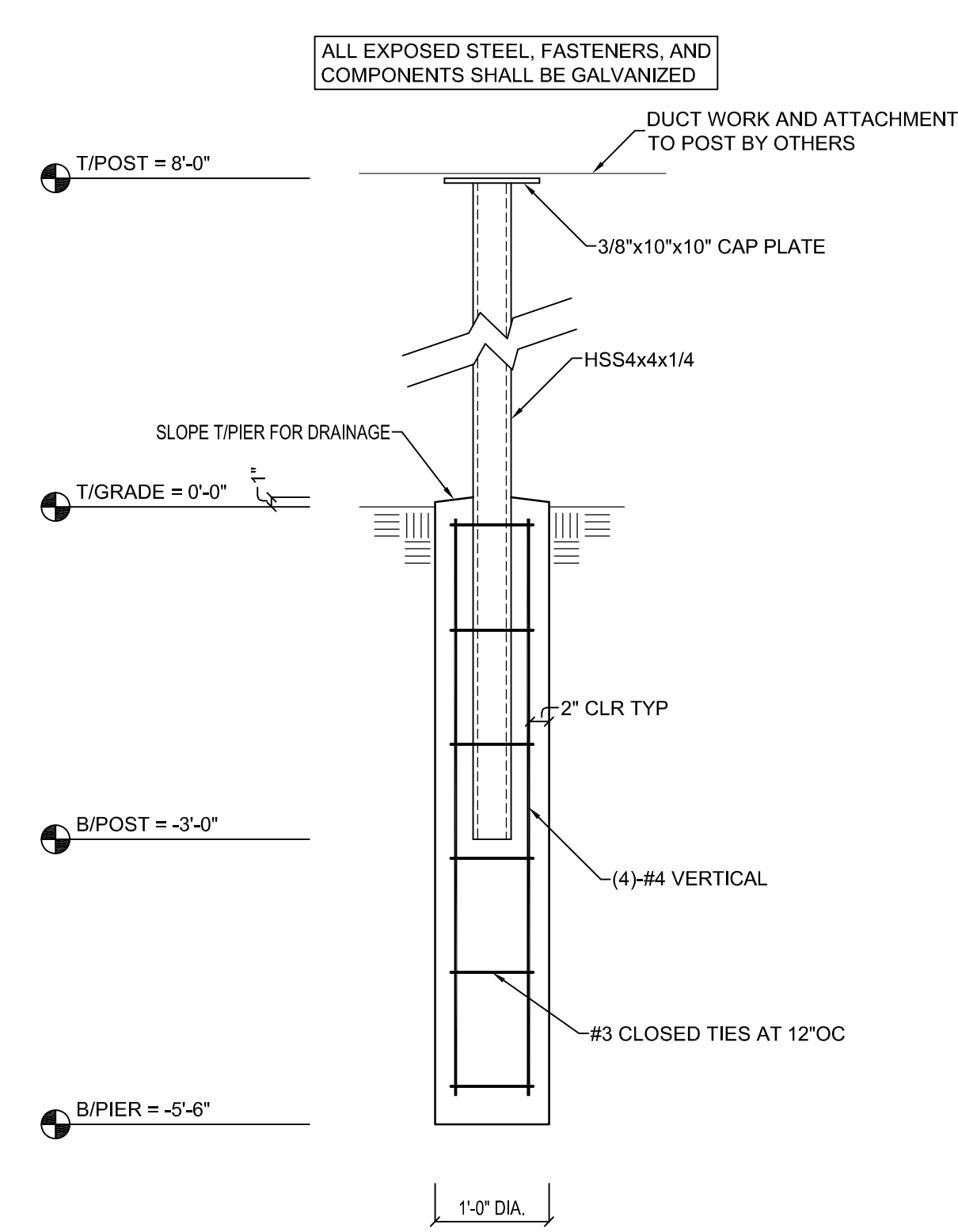
NOTE A: CONTRACTOR SHALL SHORE UP EXISTING STRUCTURE AS REQUIRED TO CUT OUT AND REMOVE MASONRY AT EXISTING CONC BLOCK/ BRICK WALL FOR NEW OPENING. CONTRACTOR SHALL SAWCUT THE OPENING A MINIMUM OF 8" BEYOND EDGE OF REQUIRED OPENING EACH SIDE AND INSTALL NEW 8" CONCRETE BLOCK (FIELD DETERMINE WIDTH OF WALL) FULL HEIGHT UNDER NEW STEEL LINTEL BEAM BEARING. ALL CORES OF NEW CONCRETE BLOCK SHALL BE GROUTED FULL HEIGHT.

STRUCTURAL STEEL

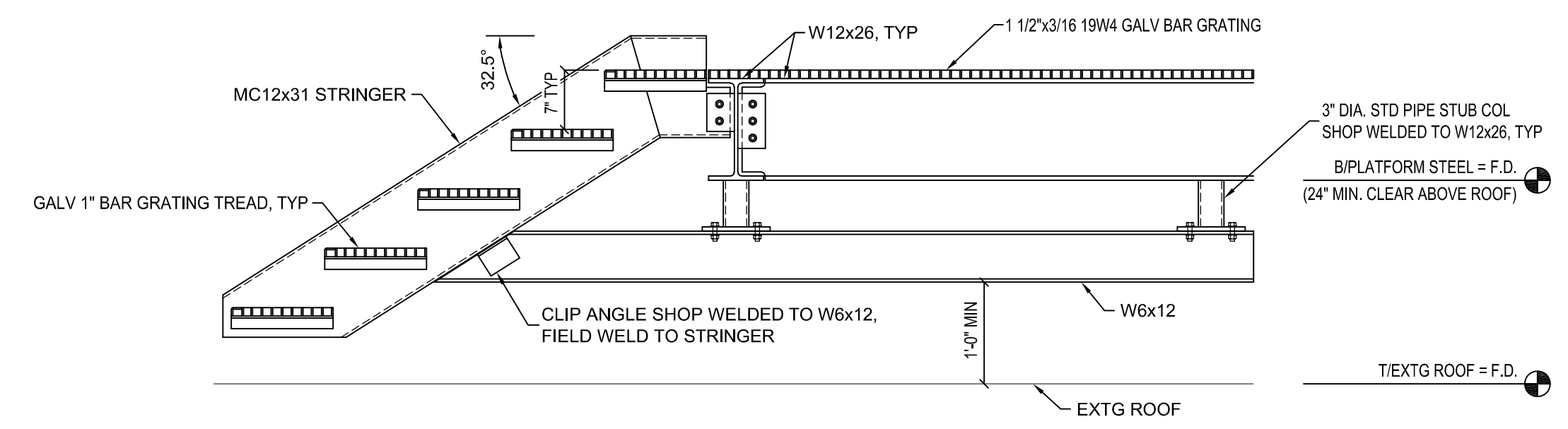
- All structural steel shall be detailed with load transmitting field connections made with bearing-type 3/4" diameter ASTM A-325 bolts (snug-tight) UNF. All high strength bolts shall be designed as bearing "N" type so that continuous special inspection is not needed unless indicated otherwise on drawings. Shop connections shall be welded. Use no more than two bolt diameters for the project UNO. Skip one size between bolt diameters.
- Structural steel material is as follows:
 - Wide flange shapes ASTM A992
 - Structural steel plates and rolled shapes other than wide flange shapes ASTM A36
 - Structural steel tubing ASTM A500, Grade C
- Provide 1/4" beam stiffeners to all beams at center line of columns crossed over by beams except where framed connections of other beams occur.
- Field welds to be made with E70XX electrodes according to AWS. Welded connections using ASTM A992 steel as a base metal shall be made with E70XX low hydrogen electrodes.
- All design, fabrication and erection of structural steel shall be in accordance with AISC and AWS specifications.
- All connections not specifically detailed on contract documents shall be designed and detailed by the structural steel fabricator in compliance with AISC standards. All connections shall be clearly shown on final shop drawings submitted for approval prior to fabrication.
- Lintels not indicated on plans are as follows:
 - Provide angle lintels over all openings and recesses in both interior and exterior walls unless otherwise noted. All lintels for mechanical and electrical openings are not shown. See mechanical and electrical plans for locations of lintels and lengths required for ductwork, pipes, electrical conduits, etc.
 - Angle lintels shall have a minimum end bearing on masonry of 4 1/2", but not less than 1" of such bearing for each foot of opening width. Angles in pairs shall be welded or bolted together with 1/2" diameter bolts at 18" oc. In case of single angle, anchor to concrete or masonry backup with 1/2" diameter expansion type anchors at 18" oc.
 - For 6" block partitions use two (2)-L3 1/2x 2 1/2x 5/16 (LLV) for spans up to 10'-0". For 8" to 10" block partitions use two (2)-L4x 3 1/2x 5/16 (LLV) for spans up to 7'-0". For spans 7'-0" to 10'-0" use two (2)-L3x 3 1/2x 3/8 (LLV). For 12" walls use three (3) angles as specified for 8" to 10" walls above.
 - Coordinate masonry rough openings with all trades.
- Shop drawings shall show complete details and schedules for fabrication, layout and erection. Submit shop drawings for approval prior to fabrication.
- All beams and beam lintels shall be field welded to bearing plates with 3/16" fillet weld each side of bottom flange.
- All exposed steel (entire assembly) shall be galvanized.
- Field drilled holes shall be reamed, cleaned and deburred prior to assembly of the connection.
- Beams with specified camber shall be cambered upward. Beams without specified camber shall be fabricated so that after erection any minor camber due to rolling or shop assembly is upward.
- Thermal cutting shall preferably be done by machine. Hand thermally cut edges subjected to substantial stress or are to be welded, shall be reasonably free of notches or gouges. Notches or gouges larger than 3/16" that remain from cutting shall be removed by grinding. Re-entrant corners shall be shaped notch-free to a radius of at least 1/2".
- Erector shall maintain minimum temporary bracing at each bay in each direction until the roof diaphragm and permanent lateral load resisting system construction are complete.
- Fabricator shall be responsible for design of all connections not specifically detailed on the plans. Where end reaction are not shown on the plans, design simple beam connections for at least 50% of the allowable uniform load given in the beam tables in Chapter 3 of the AISC Steel Construction Manual - Allowable Stress Design (14th Ed.) for the given span and beam size. Use ASD values unless noted otherwise.

CONCRETE

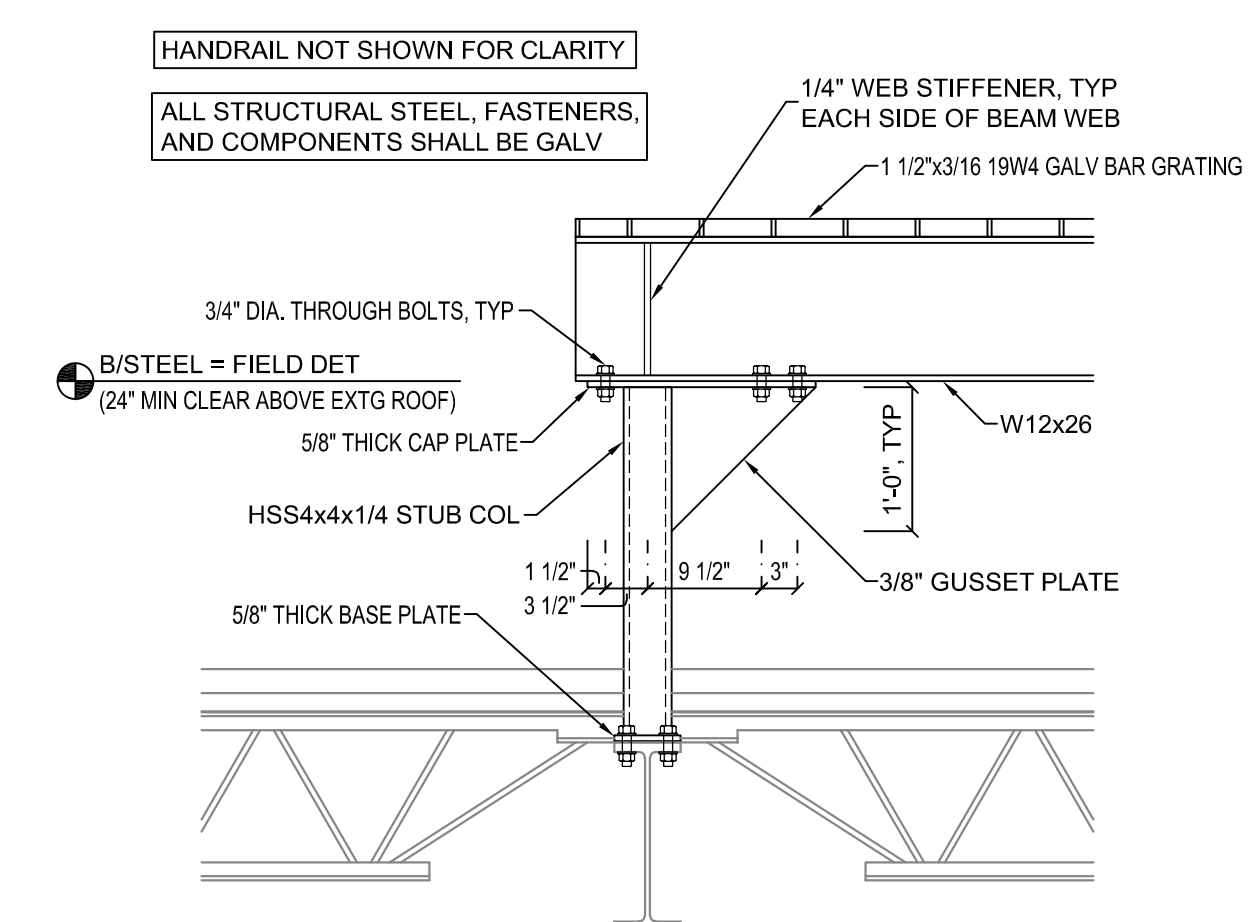
- Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301. Mix designs are as follows:
 - Compressive strength (28 day) 4,000 psi
 Water/cement 5
 Gallon/sack (maximum)
 Cement 6
 Sack/cubic yard (minimum)
 - Maximum slump to be 4"
 - Concrete strengths and densities shall be as follows:
 Foundations 4,000 psi
- Minimum concrete cover over main reinforcing steel shall be as follows:
 - At foundations 3"
 - At all dirt faces of walls and wall faces exposed to weather 2"
- All reinforcing steel shall be ASTM A-615, Grade 60. All W.W.M. shall be of cold drawn wire and shall meet all requirements of ASTM A-185 for smooth wire and ASTM A-497, Grade 75 for deformed bars.



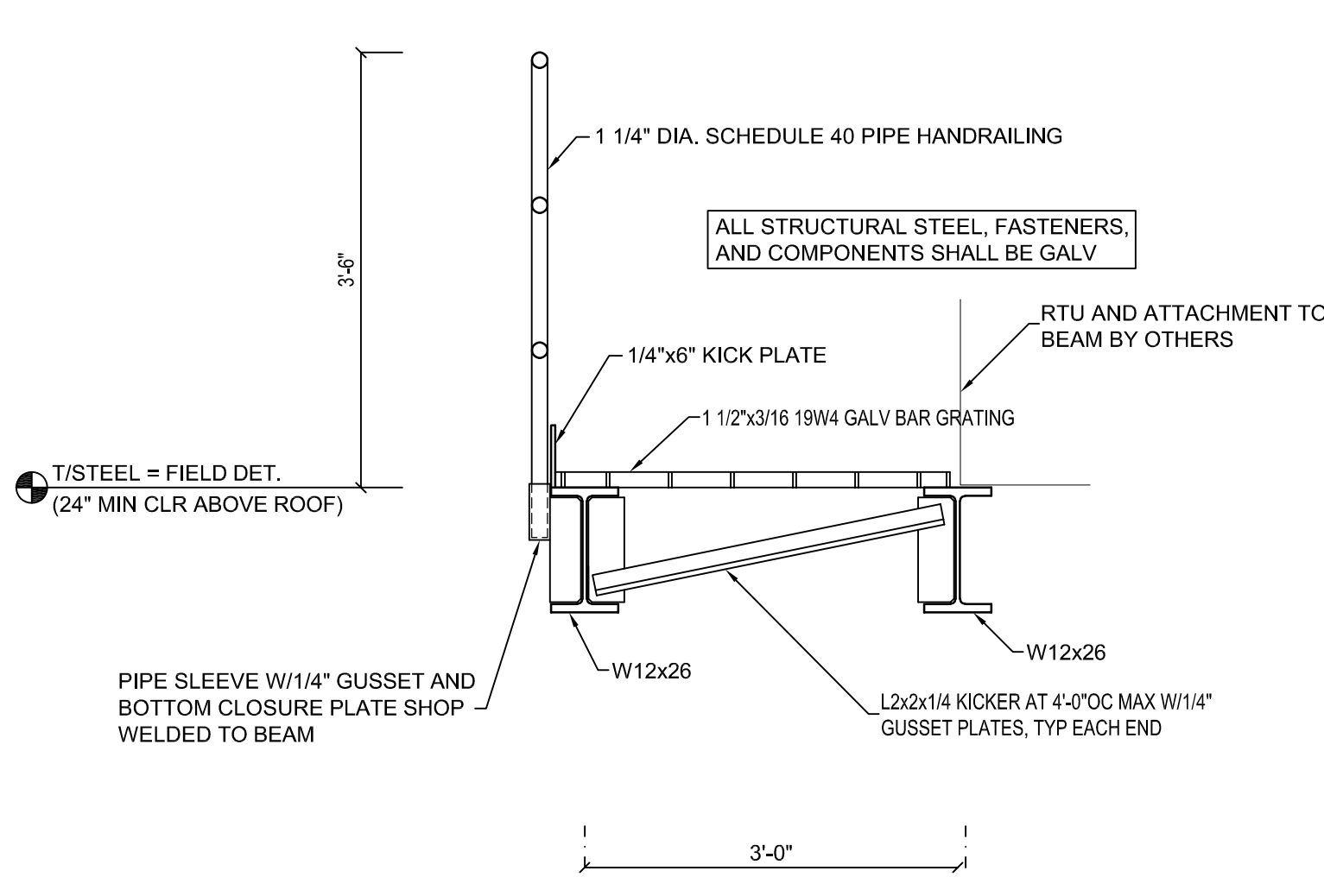
Typ Duct Support Detail
 SCALE: 3/4" = 1'-0" AT EXTERIOR DUCTS



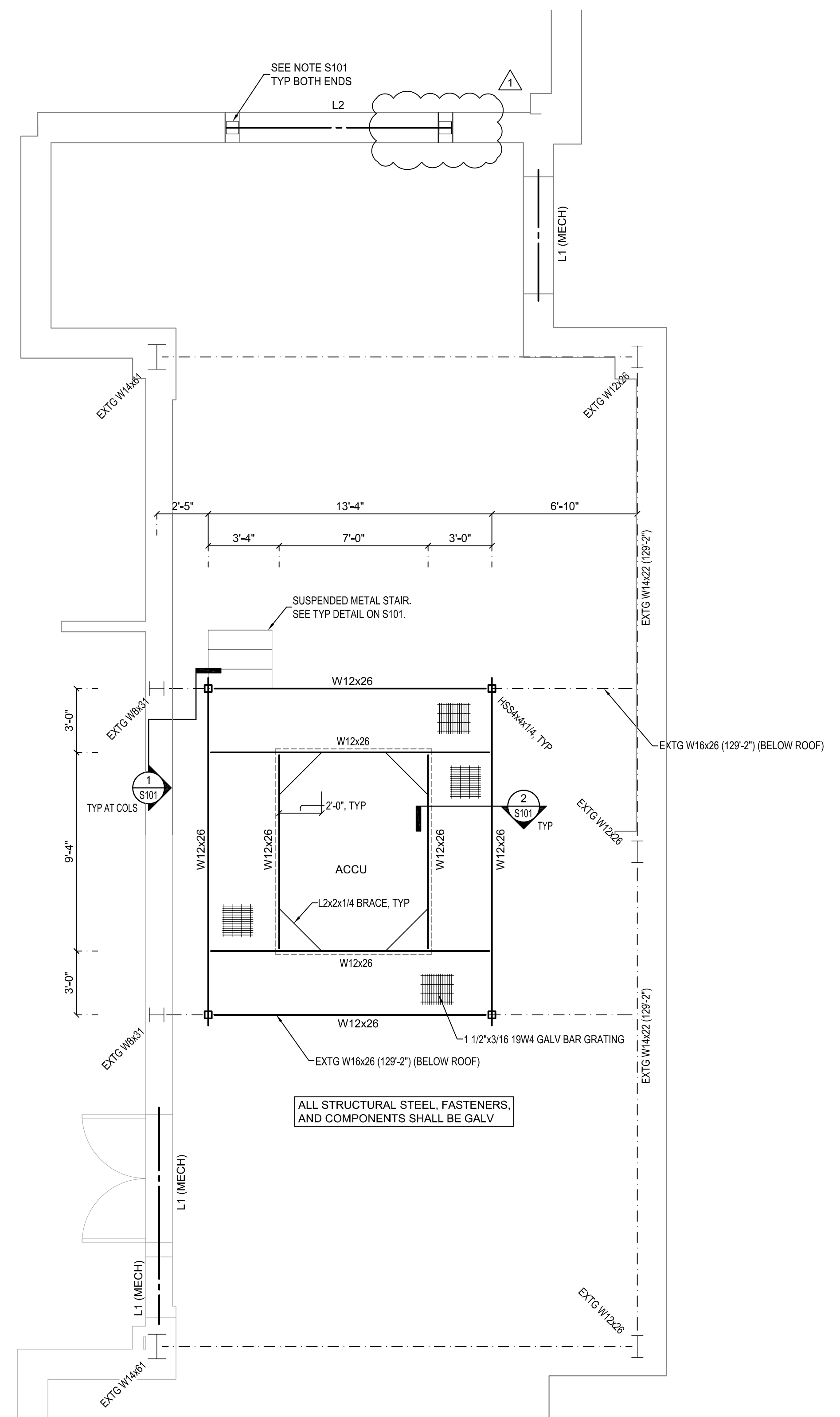
Typical Suspended Stair Section
 SCALE: 3/4" = 1'-0"



Section 1
 SCALE: 3/4" = 1'-0"



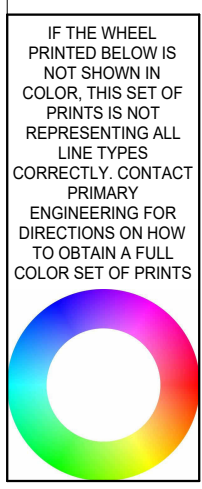
Section 2
 SCALE: 3/4" = 1'-0"



Mechanical Platform Framing Plan
 SCALE: 1/4" = 1'-0"

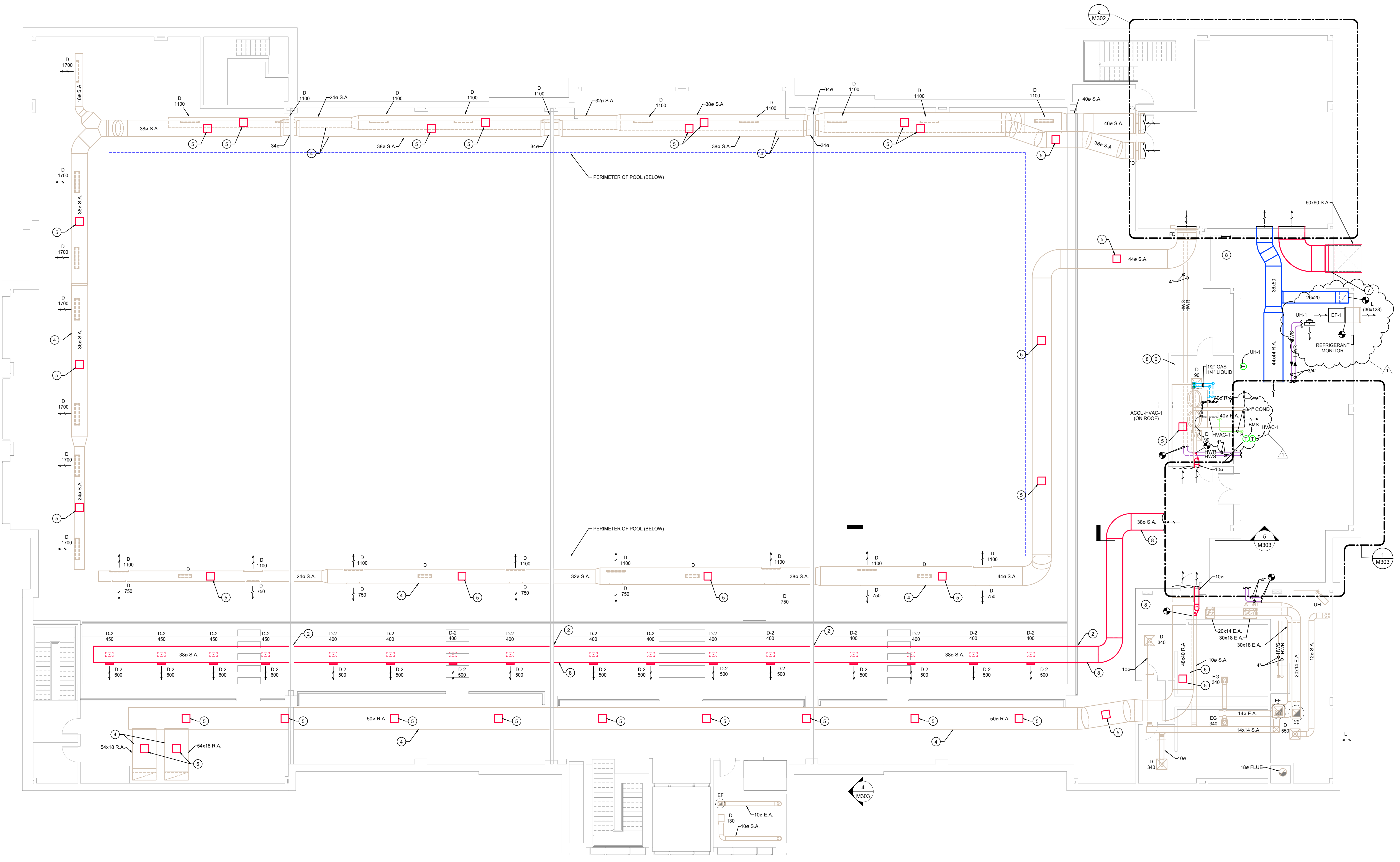
- NOTES:
 1. B/STEEL = +24" ABOVE ROOF MATERIAL.
 2. PROVIDE 5/8" (MINIMUM) CAP PLATES AT COLUMNS.
 3. PROVIDE 1/4" STIFFENER PLATES EACH SIDE OF WEB WHERE BEAM EXTENDS OVER COLUMN.

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SCALE: 1/16" = 1'-0" SCALE: 3/32" = 1'-0" SCALE: 1/8" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1" = 1'-0"

- PLAN NOTES**
1. PROVIDE AND INSTALL NEW CEILING MOUNTED MINI-SPLIT SYSTEM. MODIFY EXISTING CEILING AS REQUIRED.
 2. ROUTE NEW SUPPLY AIR DUCTWORK THROUGH EXISTING STRUCTURE.
 3. ROUTE PIPING UP THROUGH ROOF WITH PATE PIPE CURB.
 4. ALTERNATE BID #1: CLEAN EXISTING DUCTWORK, GRILLES, AND DIFFUSERS. REFER TO DUCT CLEANING SPECIFICATION.
 5. ALTERNATE BID #1: PROVIDE AND INSTALL NEW ALUMINUM DUCT ACCESS DOOR ON EXISTING DUCTWORK FOR DUCT CLEANING ACCESS. KEYS ADC FOR RECTANGULAR AND ADL-R FOR ROUND, OR APPROVED EQUAL. FIELD PAINT TO MATCH EXISTING DUCT.
 6. CONTRACTOR SHALL CAREFULLY TAKE DOWN, SALVAGE AND REINSTALL EXISTING CEILING ACOUSTICAL CEILING TILE SYSTEM AS REQUIRED TO GAIN ACCESS TO WORK THIS ROOM.
 7. CUT AND PATCH EXISTING WALL AS REQUIRED TO ROUTE NEW DUCTWORK. SALVAGE EXISTING BRICK AND DELIVER TO OWNER.
 8. MODIFY EXISTING WET SYSTEM PIPE SUPPRESSION PIPING AND SPRINKLER HEADS AS REQUIRED FOR NEW DUCTWORK AND EQUIPMENT THIS ROOM.
 9. PROVIDE AND INSTALL NEW REFRIGERANT EXHAUST FAN. RECONNECT TO EXISTING LOUVER PLENUM. CAP REMAINING PLENUM OPENINGS WITH SHEET METAL INSULATED WITH 1" THICK FLEXIBLE ELASTOMERIC.



SECOND FLOOR MECHANICAL PLAN
1/8" = 1'-0"

PRIMARY ENGINEERING INC.
Indianapolis
9788 Crossroads Blvd, Suite 103
Indianapolis, Indiana 46256
www.primaryeng.com

Fort Wayne
2828 Lake Ave.
Fort Wayne, Indiana 46805
info@primaryeng.com

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CERTIFICATION

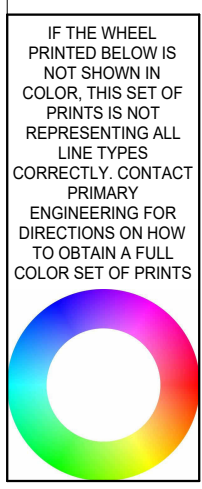
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DATE: 02.24.2025
COMM: 24634

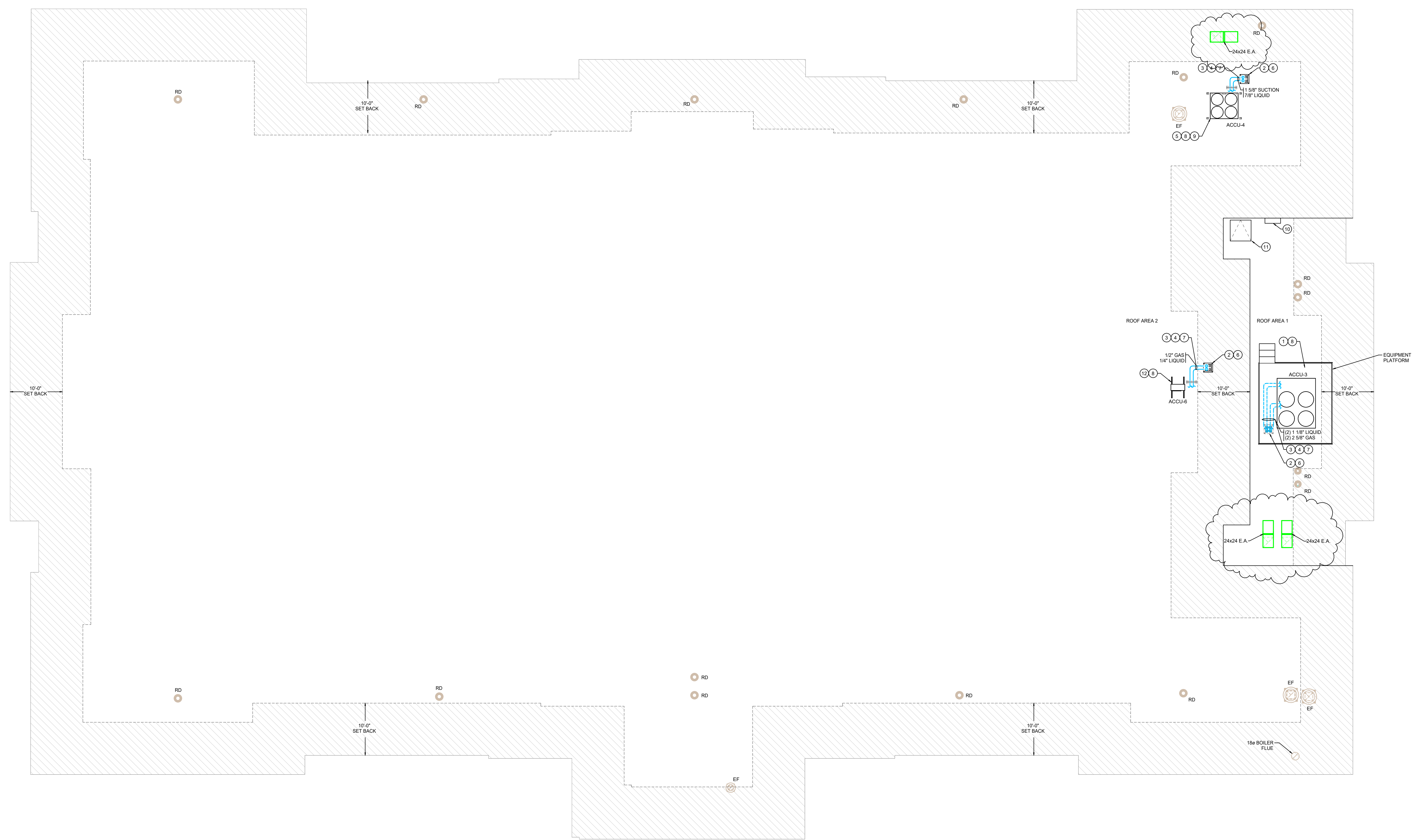
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SECOND FLOOR MECHANICAL PLAN

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M202

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ROOF MECHANICAL PLAN
1/8" = 1'-0"



- GENERAL NOTES**
- AREA 1 ROOF WARRANTY INFORMATION: DERBIGUM 2-PLY MODIFIED, INSTALLED 10/7/2005, WARRANTY EXPIRED.
 - AREA 2 ROOF WARRANTY INFORMATION: FIRESTONE MBR, INSTALLED 10/20/2013, EXPIRES 10/20/2033, 342 SQUARES, WARRANTY # RD 059725.
 - MAINTAIN ROOF WARRANTY. REFER TO ARCHITECTURAL DRAWINGS FOR MORE INFORMATION.

- PLAN NOTES**
- PROVIDE AND INSTALL NEW CONDENSING UNIT ON NEW STRUCTURAL STEEL PLATFORM. REFER TO STRUCTURAL DRAWINGS FOR MORE INFORMATION.
 - CUTCORE EXISTING ROOF AS REQUIRED TO ROUTE NEW MEP.
 - VERIFY EXACT REQUIREMENTS WITH MANUFACTURER FOR REFRIGERANT PIPING.
 - PROVIDE AND INSTALL 20 MIL SELF-ADHESIVE ALUMINUM JACKETING ON ALL EXPOSED OUTDOOR PIPING AND DUCTWORK.
 - PROVIDE AND INSTALL NEW CONDENSING UNIT ON FLASHED-IN EQUIPMENT RAILS. 18" TALL THYBAR TENS-1 OR APPROVED EQUAL. REFER TO ARCHITECTURAL DRAWINGS FOR MORE INFORMATION.
 - PROVIDE AND INSTALL PIPE CURBS FOR REFRIGERANT PIPING ROOF PENETRATIONS. 18" TALL INSULATED METAL ROOF CURB WITH PATE PCC CAP OR APPROVED EQUAL. REFER TO ARCHITECTURAL DRAWINGS FOR MORE INFORMATION.
 - PROVIDE AND INSTALL B-LINE DURA BLOK PIPE SUPPORTS FOR NEW PIPING. REFER TO MANUFACTURER'S REQUIREMENTS AND ROOF WARRANTY FOR EXACT QUANTITY AND SPACING OF SUPPORTS.
 - MAINTAIN MANUFACTURER'S CLEARANCE REQUIREMENTS FOR SERVICE AND AIRFLOW.
 - ACCU LOCATION CENTERED ABOVE EXISTING STRUCTURAL STEEL COLUMN BELOW.
 - NEW ROOF ACCESS LADDER. REFER TO ARCHITECTURAL DRAWINGS FOR MORE INFORMATION.
 - NEW ROOF HATCH. REFER TO ARCHITECTURAL DRAWINGS FOR MORE INFORMATION.
 - PROVIDE AND INSTALL EQUIPMENT ON B-LINE DURA BLOK EQUIPMENT SUPPORTS.

PRIMARY ENGINEERING INC
Indianapolis
2828 Lake Ave
Fort Wayne, Indiana 46805
info@primary-eng.com
www.primary-eng.com

Fort Wayne
9788 Crossroads Blvd, Suite 103
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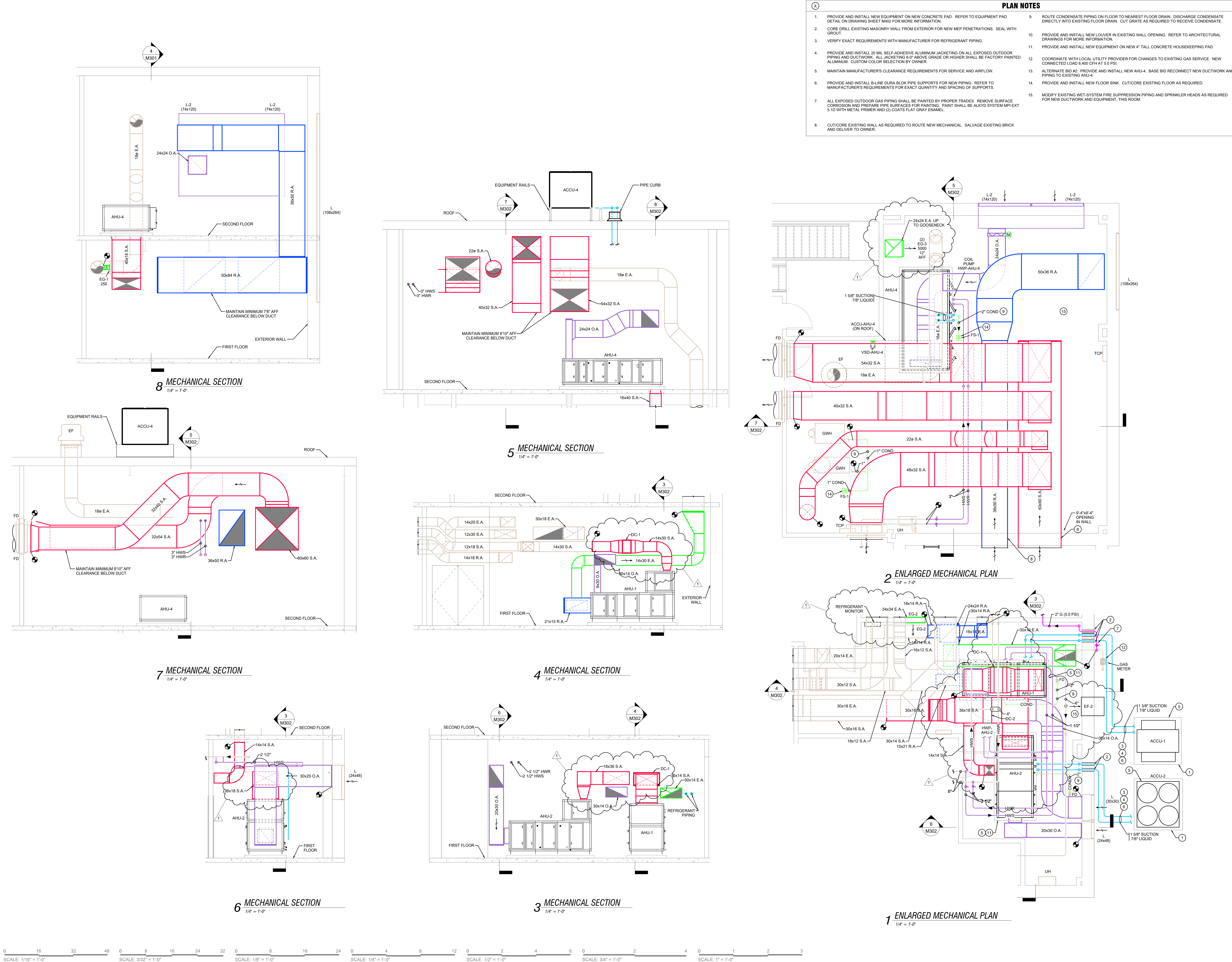
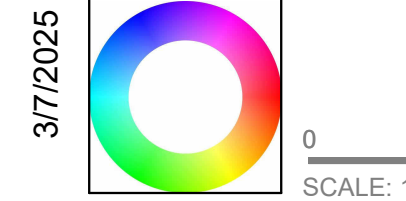
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TITLE:
ROOF MECHANICAL PLAN

SHEET:
M203

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 DIRECTIONS ON HOW
 TO OBTAIN A FULL
 COLOR SET OF PRINTS.



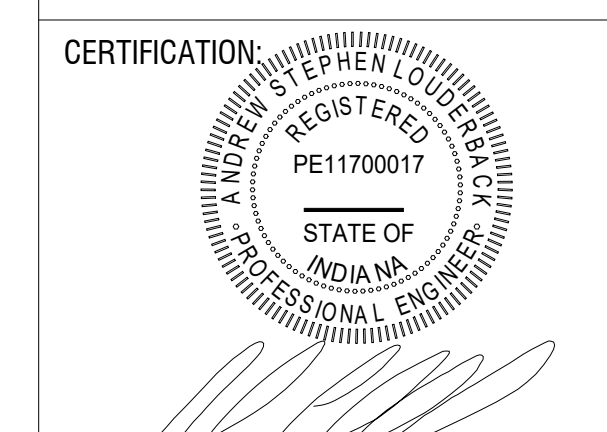
- PLAN NOTES**
1. PROVIDE AND INSTALL NEW EQUIPMENT ON NEW CONCRETE PAD. REFER TO EQUIPMENT PAD DETAIL ON DRAWING SHEET M302 FOR MORE INFORMATION.
 2. CORE DRILL EXISTING MASONRY WALL FROM EXTERIOR FOR NEW MEP PENETRATIONS. SEAL WITH GROUT.
 3. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER FOR REFRIGERANT PIPING.
 4. PROVIDE AND INSTALL 20 MIL SELF-ADHESIVE ALUMINUM JACKETING ON ALL EXPOSED OUTDOOR PIPING AND DUCTWORK. ALL JACKETING 6'-0" ABOVE GRADE OR HIGHER SHALL BE FACTORY PAINTED ALUMINUM. CUSTOM COLOR SELECTION BY OWNER.
 5. MAINTAIN MANUFACTURER'S CLEARANCE REQUIREMENTS FOR SERVICE AND AIRFLOW.
 6. PROVIDE AND INSTALL B-LINE DURA BLOCK PIPE SUPPORTS FOR NEW PIPING. REFER TO MANUFACTURER'S REQUIREMENTS FOR EXACT QUANTITY AND SPACING OF SUPPORTS.
 7. ALL EXPOSED OUTDOOR GAS PIPING SHALL BE PAINTED BY PROPER TRADES. REMOVE SURFACE CORROSION AND PREPARE PIPE SURFACES FOR PAINTING. PAINT SHALL BE ALKID SYSTEM WITH EXT 5.1D WITH METAL PRIMER AND (2) COATS FLAT GRAY ENAMEL.
 8. CUT/CORE EXISTING WALL AS REQUIRED TO ROUTE NEW MECHANICAL. SALVAGE EXISTING BRICK AND DELIVER TO OWNER.
 9. ROUTE CONDENSATE PIPING ON FLOOR TO NEAREST FLOOR DRAIN. DISCHARGE CONDENSATE DIRECTLY INTO EXISTING FLOOR DRAIN. CUT GRATE AS REQUIRED TO RECEIVE CONDENSATE.
 10. PROVIDE AND INSTALL NEW LOUVER IN EXISTING WALL OPENING. REFER TO ARCHITECTURAL DRAWINGS FOR MORE INFORMATION.
 11. PROVIDE AND INSTALL NEW EQUIPMENT ON NEW 4" TALL CONCRETE HOUSEKEEPING PAD.
 12. COORDINATE WITH LOCAL UTILITY PROVIDER FOR CHANGES TO EXISTING GAS SERVICE. NEW CONNECTED LOAD 8,400 CFH AT 5.0 PSI.
 13. ALTERNATE BID #2. PROVIDE AND INSTALL NEW AHU-4. BASE BID RECONNECT NEW DUCTWORK AND PIPING TO EXISTING AHU-4.
 14. PROVIDE AND INSTALL NEW FLOOR SINK. CUT/CORE EXISTING FLOOR AS REQUIRED.
 15. MODIFY EXISTING WET-SYSTEM FIRE SUPPRESSION PIPING AND SPRINKLER HEADS AS REQUIRED FOR NEW DUCTWORK AND EQUIPMENT, THIS ROOM.

PRIMARY ENGINEERING INC
 Indianapolis
 Fort Wayne
 2838 Lake Ave.
 Fort Wayne, Indiana 46805
 info@primary-eng.com
 www.primary-eng.com

Fort Wayne
 9785 Crossroads Blvd, Suite 103
 Indianapolis, Indiana 46256
 info@primary-eng.com
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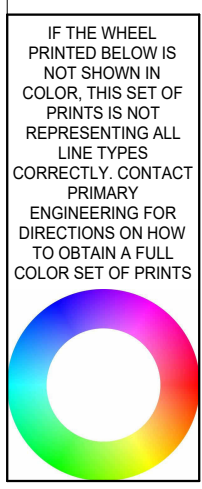
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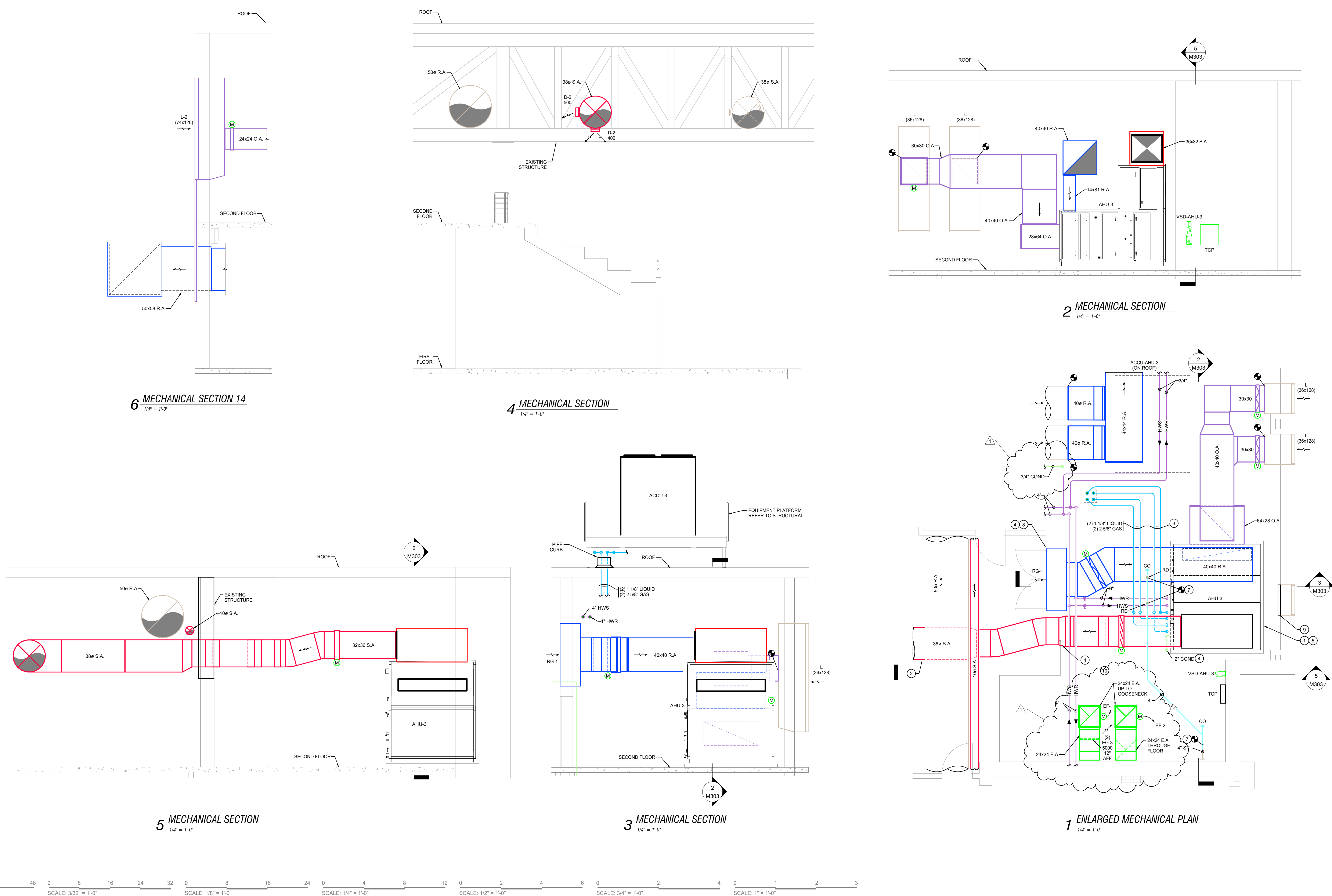
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M302

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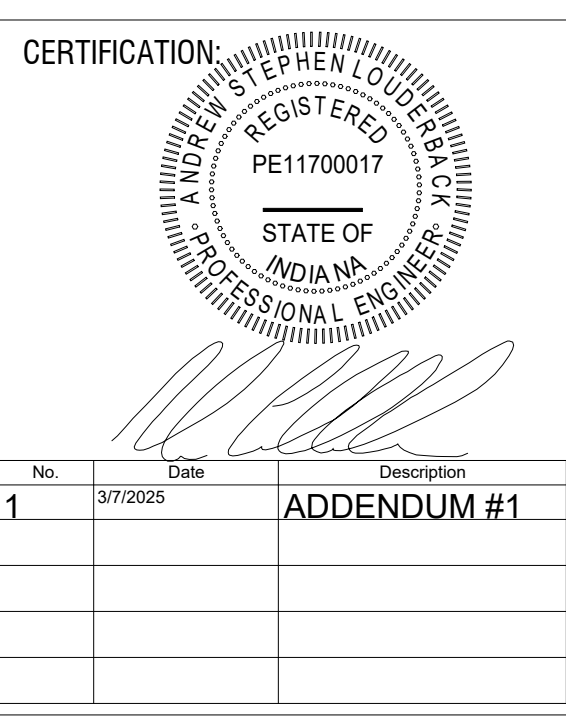


IF THE WHEEL PRINTED SHOWS COLOR, THIS SET OF PRINTS IS NOT SHOWN IN COLOR. THIS SET OF PRINTS IS NOT REPRESENTING ALL LINE TYPES. CORRECTLY CONTACT PRIMARY ENGINEERING FOR DIRECTIONS ON HOW TO OBTAIN A FULL COLOR SET OF PRINTS.



- PLAN NOTES**
1. PROVIDE AND INSTALL NEW EQUIPMENT ON NEW 4" TALL CONCRETE HOUSEKEEPING PAD.
 2. ROUTE NEW SUPPLY AIR DUCTWORK THROUGH EXISTING STRUCTURE.
 3. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER FOR REFRIGERANT PIPING.
 4. CUT/CORE EXISTING WALL AS REQUIRED TO ROUTE NEW MECHANICAL. SALVAGE EXISTING BRICK AND DELIVER TO OWNER.
 5. MAINTAIN MANUFACTURER'S CLEARANCE REQUIREMENTS FOR SERVICE AND AIRFLOW.
 6. ROUTE CONDENSATE PIPING ON FLOOR TO BELOW. CORE DRILL EXISTING FLOOR AS REQUIRED.
 7. TIE-IN TO EXISTING STORM PIPING AND EXTEND NEW AS REQUIRED.
 8. PROVIDE AND INSTALL 1"x1" 11 GAUGE ALUMINUM WOVEN WIRE MESH OVER NEW 6"x6" 2" RETURN AIR FLENUM. FIELD PAINT WIRE MESH TO MATCH ADJACENT WALL. FIELD PAINT INSIDE FLENUM SURFACES AND VISIBLE PORTIONS OF RETURN DUCT FLAT BLACK.
 9. CAP AND ABANDON EXISTING LOUVER. PROVIDE AND INSTALL (2) LAYERS 2" THICK POLYISOCYANURATE INSULATION COVERED WITH 20 MIL SELF ADHESIVE ALUMINUM JACKETING, ALL SIDES. SEAL AIR AND WATER TIGHT.
 10. MODIFY EXISTING WET-SYSTEM FIRE SUPPRESSION PIPING AND SPRINKLER HEADS AS REQUIRED FOR NEW DUCTWORK AND EQUIPMENT, THIS ROOM.

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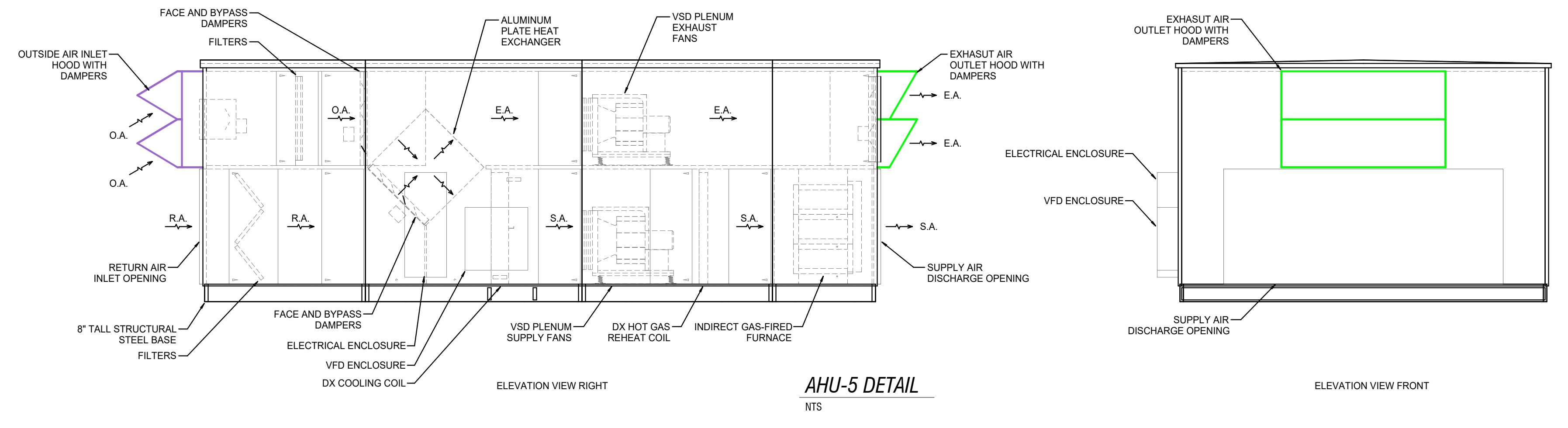
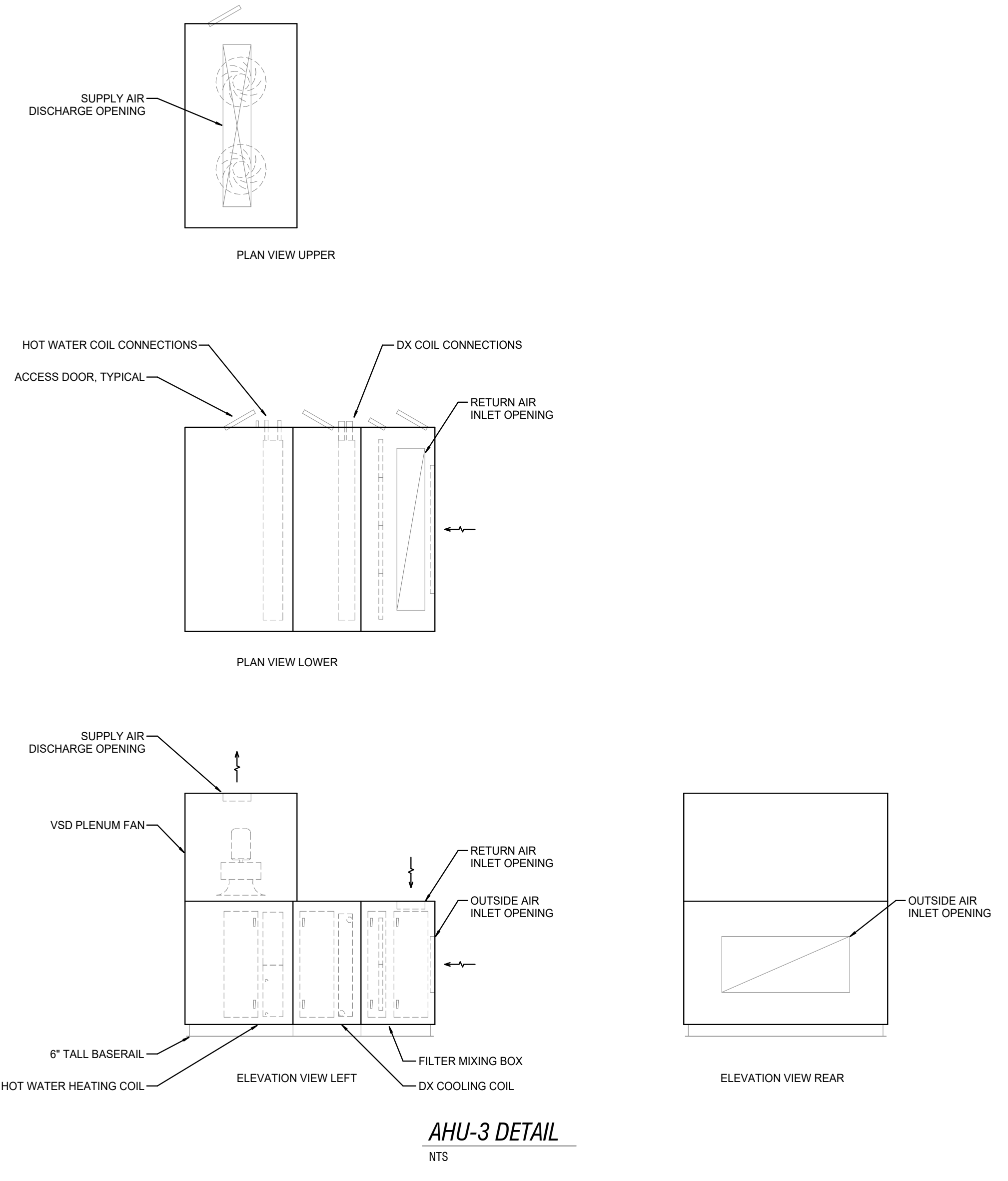
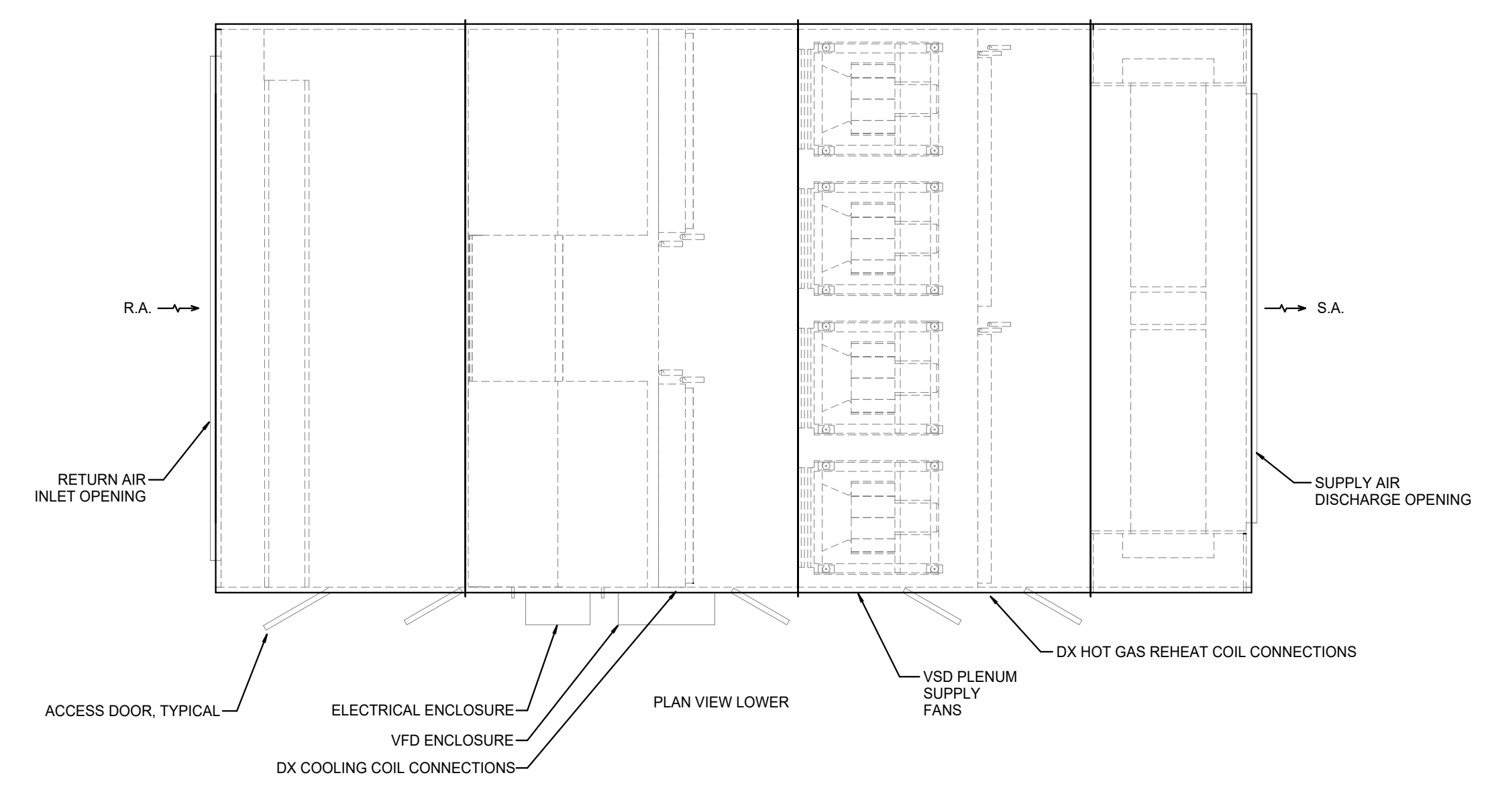
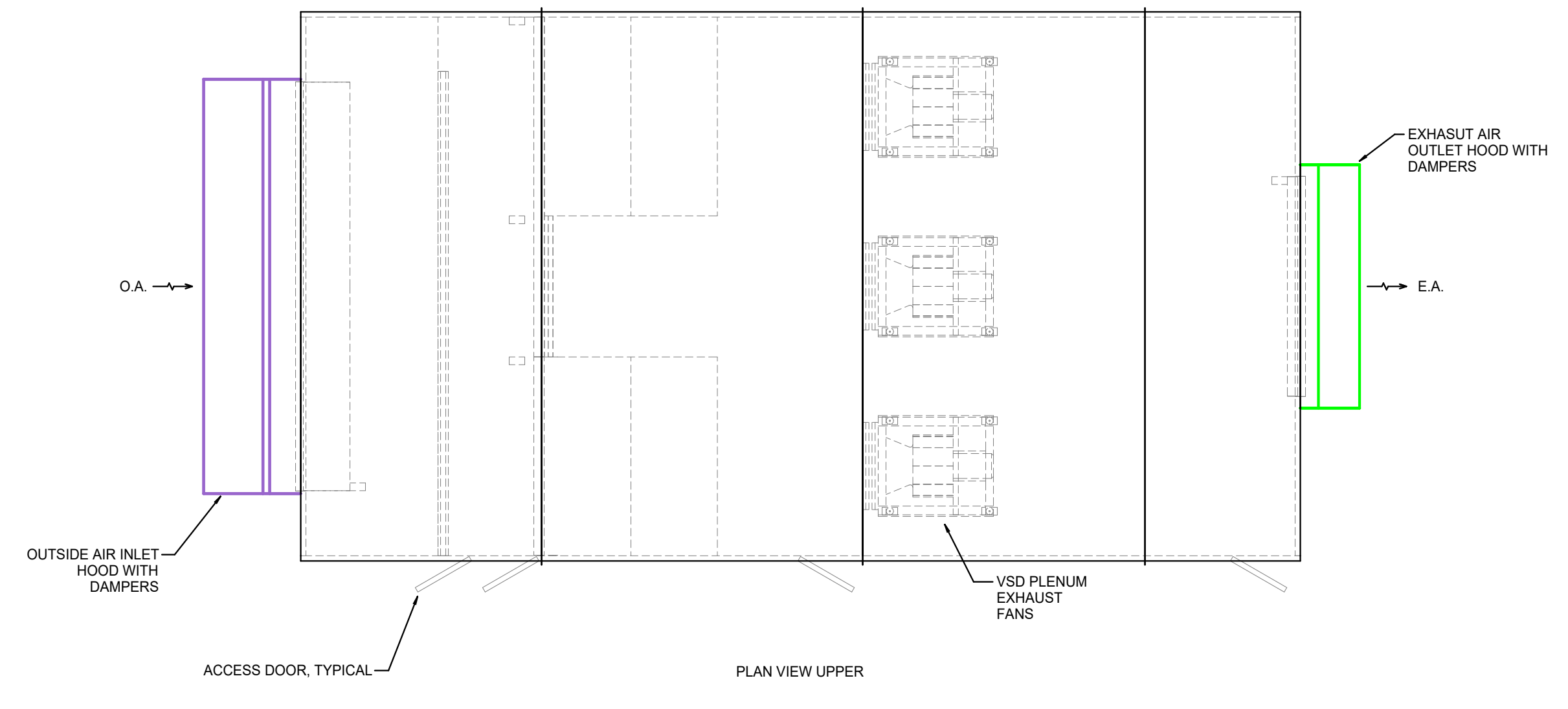
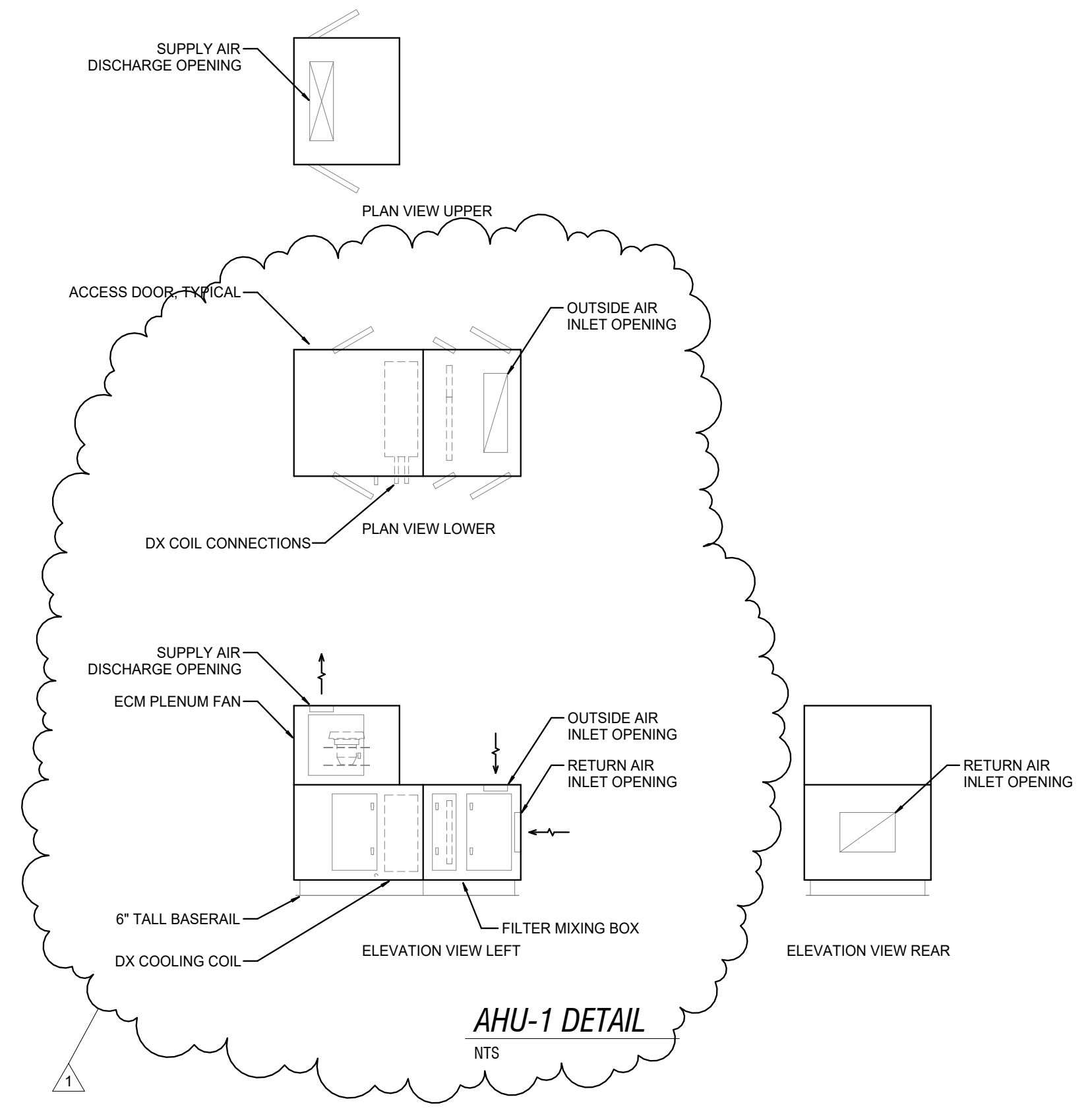
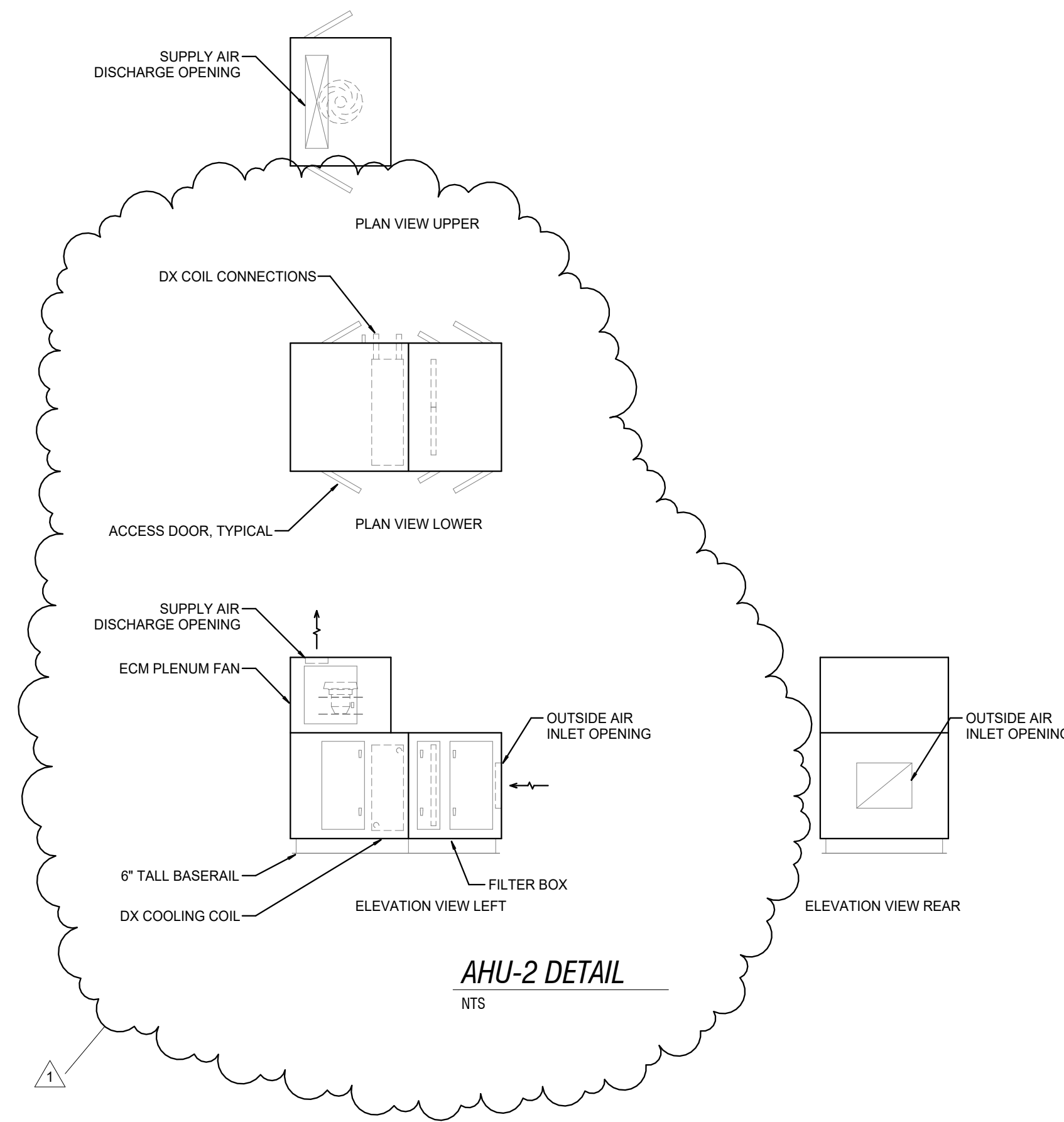
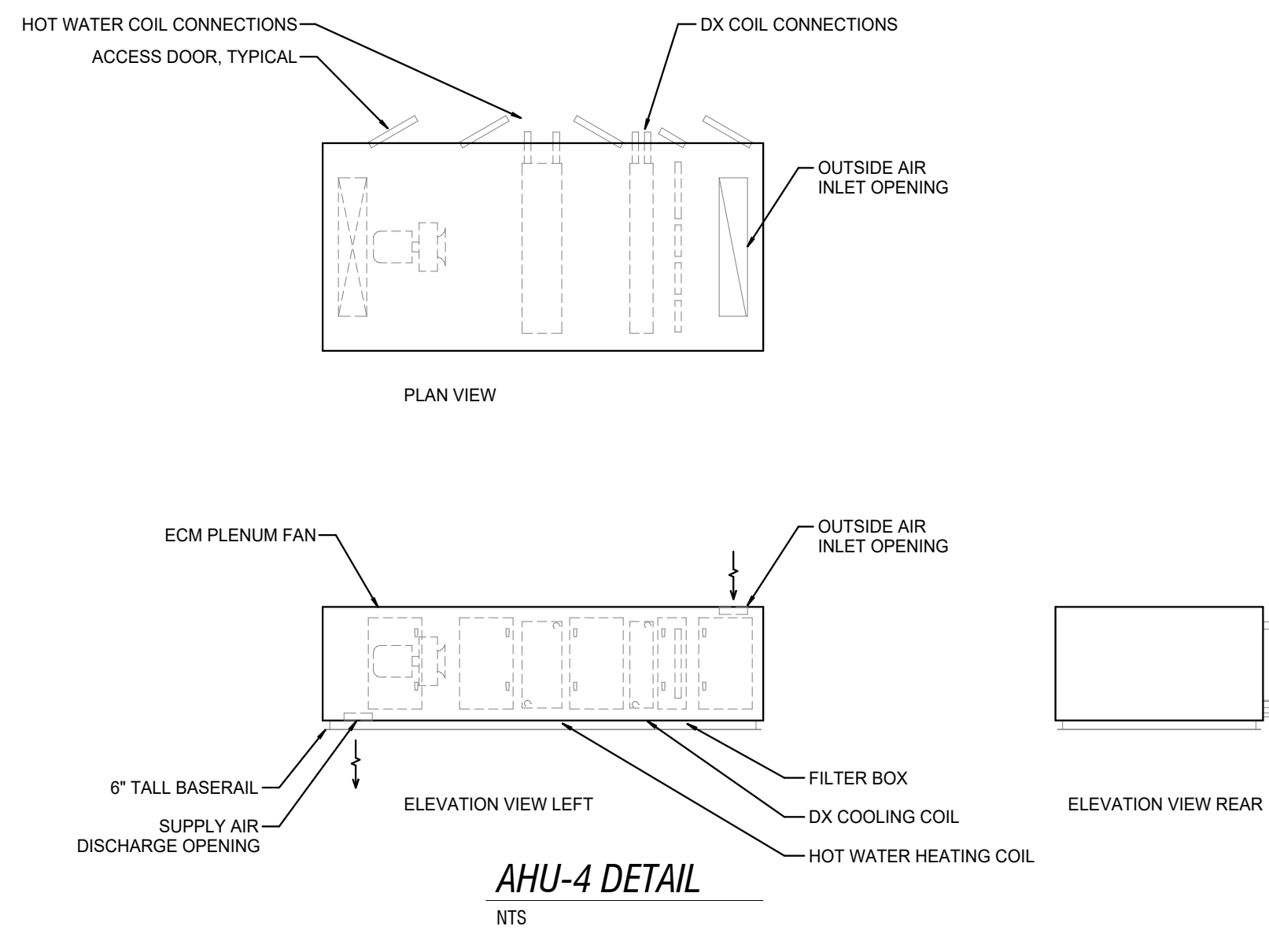
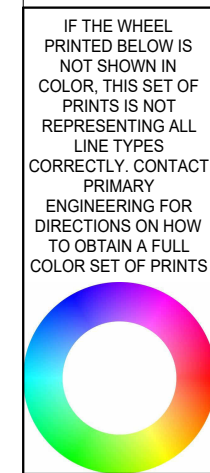
DATE: 02.24.2025
COMM: 24634

TITLE:
ENLARGED MECHANICAL PLAN SECTIONS

SHEET:
M303

PRIMARY ENGINEERING INC
 Indianapolis
 Fort Wayne
 2828 Lake Ave.
 Fort Wayne, Indiana 46805
 info@primary-eng.com
 www.primary-eng.com





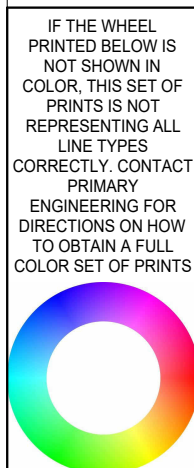
CERTIFICATION

No.	Date	Description
1	3/7/2025	ADDENDUM #1

DATE: 02.24.2025
COMM: 24634

TITLE:
MECHANICAL DETAILS

SHEET:
M401



HOT WATER REHEAT COIL SCHEDULE

TAG	MFR.	SERVICE	AIRFLOW (CFM)	FACE VELOCITY (FPM)	TOTAL CAP (MBH)	EAT/LAT (DEG F)	EWT/LWT (DEG F)	FLOW (GPM)	WPD (FT)	FLUID VELOCITY (FPS)	FLUID	COIL IN. (IN)	DUCT IN. (IN)	APD (IN W.C.)	ROWS	FIN. IN.	CONTROL VALVE	REMARKS
DC-1	AEROFIN	AHU-1	3400	767	172.0	60 / 107	180 / 160	18.0	2.6	3.5	WATER	34.5 x 18.5	30 x 14	0.28	3	7	3-WAY	1, 2, 3, 4
DC-2	AEROFIN	AHU-2	4200	847	493.0	110 / 100	180 / 160	47.0	3.0	4.6	WATER	34.5 x 18.5	30 x 16	0.29	3	12	3-WAY	1, 2, 3, 4

REMARKS:
 1. PROVIDE AND INSTALL WITH CASED COIL AND FLANGED CONNECTIONS.
 2. CASING SHALL BE 16 GA. GALVANIZED STEEL.
 3. COIL TUBE SHALL BE ASTM-A588B COPPER TUBE 0.025 IN x 0.035 IN WITH ASTM B209 ALUMINUM FIN. 0.0075 IN THICK FIN.
 4. COIL HEADER SHALL BE COPPER OR RED BRASS.

HYDRONIC PUMP SCHEDULE

TAG	MFR.	MODEL	FRAME SIZE (IN)	IMPELLER DIA (IN)	FLOW (GPM)	HEAD (FT)	MOTOR (HP)	MOTOR (BHP)	EFF (%)	PLEV (%)	MOTOR RPM	DESIG RPM	ELEC (V/PH)	SERVICE	REMARKS
HWP-AHU-2	BELL & GOSSETT	E-90 2SAAB	-	3.75	WATER	47	40	1.5	0.73	64.8	3600	3108	460/3	AHU-2	1, 2, 3, 4
HWP-AHU-3	BELL & GOSSETT	E-90 2MAC	-	3.875	WATER	122	40	2	1.69	74.1	3600	3553	460/3	AHU-3	1, 2, 3, 4
HWP-AHU-4	BELL & GOSSETT	E-90 1,2SAAB	-	3.75	WATER	58	40	1.5	0.86	65.1	3600	3301	460/3	AHU-4	1, 2, 3, 4, 5

REMARKS:
 1. ALL MOTORS SHALL BE NON-OVERLOADING.
 2. MOTOR SHALL BE MULTI-TAP 480V/240V BALDOR SUPER-E WITH INTEGRAL SHAFT GROUNDING RINGS AND COMPLY WITH NEMA MG1 FOR VARIABLE SPEED OPERATION.
 3. MOTOR SHALL HAVE CLASS F INSULATION FOR USE WITH VARIABLE SPEED DRIVE.
 4. MANUFACTURER SHALL ALIGN PUMP SHAFT IN THE FIELD, PRIOR TO START-UP. PROVIDE WRITTEN REPORT OF ALIGNMENT AND START-UP.
 5. ALTERNATE BID #2.

GENERAL MECHANICAL EQUIPMENT SCHEDULE

TAG	TYPE	REMARKS
HT-1	SELF-REGULATING ELECTRIC HEAT TAPE	
HT-2	HEAT TRACE	

PERFORMANCE: 40 BTU PER FOOT (40 W/M), 277 V / 1 PH, 100 LINEAL FEET TOTAL
REMARKS: 1. PROVIDE AND INSTALL WITH METAL BRAID AND THERMOPLASTIC JACKET

EXHAUST FAN SCHEDULE

TAG	AREA SERVED	MFR.	MODEL	CFM	TSP (IN W.C.)	MOTOR (HP)	MOTOR (BHP)	RPM	DRIVE TYPE	SONES	ELEC (V/PH)	CONTROL	REMARKS
EF-1	REFRIGERANT	GREENHECK	AER-24-03-0628	10000	0.5	3.0	2.9	1750	DIRECT	38	460/3	TCC	1, 2, 3, 4, 5
EF-2	REFRIGERANT	GREENHECK	AER-20-03-0319	3000	0.5	3/4	0.5	1750	DIRECT	26	115/1	TCC	1, 2, 3, 4, 5

REMARKS:
 1. PROVIDE AND INSTALL WITH NEMA 1 ELECTRICAL DISCONNECT SWITCH.
 2. PROVIDE AND INSTALL WITH WALL HOUSING.
 3. PROVIDE AND INSTALL WITH LOW LEAKAGE INSULATED MOTORIZED CONTROL DAMPER.
 4. PROVIDE AND INSTALL WITH SPARK B CONSTRUCTION.
 5. CONFIGURE DAMPER AND FAN INSIDE BUILDING WITH FLUSH EXTERIOR EXHAUST.
 6. CONFIGURE DAMPER AND FAN OUTSIDE BUILDING WITH FLUSH INTERIOR EXHAUST.
NOTES:
 TCC = TEMPERATURE CONTROL CONTRACTOR.
 EC = ELECTRICAL CONTRACTOR.

LOUVER SCHEDULE

TAG	MFR.	MODEL	FACE SIZE (IN)	FREE AREA (SF)	AIRFLOW (CFM)	FACE VELOCITY (FPM)	THICKNESS (IN)	WATER PEN (IN)	FINISH	SERVICE	REMARKS
L-1	GREENHECK	EHH-601	74x120	31.5	-	-	6	99.4	2.0 mil 70% KYNAR	INTAKE	1, 2, 3
L-2	GREENHECK	EHH-601	74x120	31.5	-	-	6	99.4	2.0 mil 70% KYNAR	INTAKE	1, 2, 3

REMARKS:
 1. REFER TO ARCHITECTURAL PLANS FOR MORE INFORMATION.
 2. PROVIDE AND INSTALL WITH CHANNEL FRAME AND EXTENDED BILL WITH END DAMPS.
 3. COLOR SHALL BE SELECTED BY OWNER.
NOTE: PRIOR TO ORDERING ANY LOUVER, CONTRACTOR SHALL FIELD VERIFY ANY EXISTING OPENINGS THAT LOUVERS MUST BE INSTALLED IN. WATER PENETRATION EFFECTIVENESS WITH 3 IN/HR RAINFALL AND 29 MPH WIND.

MINI-SPLIT HVAC INDOOR UNITS

TAG	MFR.	MODEL	TYPE	COOLING CAP (MBH) AT 95 DEG F	CFM	CONTROL TYPE	ELEC (V/PH)	MCA (A)	REMARKS
HVAC-1	MTSUBISHI	PLA-A19KA7	CEILING	18.0	425	WIRED WALL	208/1	1.0	1, 2, 3, 4

REMARKS:
 1. E.C. SHALL PROVIDE AND INSTALL DISCONNECT SWITCH. COORDINATE LOCATION PRIOR TO ROUGH-IN.
 2. PROVIDE AND INSTALL WITH REMOTE WALL MOUNTED THERMOSTAT AND PACKAGED CONTROLS.
 3. PROVIDE AND INSTALL WITH INTEGRAL CONDENSATE PUMP.
 4. PROVIDE AND INSTALL WITH CUSTOM METAL FILTER FRAME AND MEDIA FROM HOMETOWN FILTER.

MINI-SPLIT OUTDOOR UNIT SCHEDULE

TAG	MFR.	MODEL	EQUIP. SERVED	COOLING CAP (MBH) AT 95 DEG F	MAX REF LINE LENGTH (FT)	COOLING SEER	ELEC (V/PH)	MCA (A)	MOP (A)	REMARKS
ACCU-6	MTSUBISHI	PLV-A19KA7	HVAC-1	18.0	165	24.0	208/1	11	29	1, 2, 3

REMARKS:
 1. PROVIDE AND INSTALL WITH BACNET INTERFACE.
 2. PROVIDE AND INSTALL WITH LOW AMBIENT COOLING KIT.
 3. PROVIDE AND INSTALL WITH HAIL GUARD.

VARIABLE SPEED DRIVE SCHEDULE

TAG	MFR.	MODEL	EQUIPMENT SERVED	MOTOR SIZE (HP)	ELEC (V/PH)	BYPASS	ENCLOSURE	REMARKS
VSD-AHU-3	ABB	ACH580	AHU-3	(1) 19.0	460/3	NONE	NEMA 4X	1, 2, 3, 4
VSD-AHU-4	ABB	ACH580	AHU-4	7 1/2	460/3	NONE	NEMA 4X	1, 2, 3, 4

REMARKS:
 1. REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS AND INFORMATION.
 2. COORDINATE EXACT MOTOR DATA WITH EQUIPMENT BEING SERVED BY THIS DRIVE.
 3. PROVIDE WITH MANUAL LOCKABLE DISCONNECT SWITCH INTEGRAL TO DRIVE.
 4. PROVIDE WITH BACNET INTERFACE FOR FULL INTEGRATION INTO BMS.

DIFFUSER AND GRILLE SCHEDULE

TAG	MFR.	MODEL	NECK SIZE (IN)	FACE SIZE (IN)	THROW PATTERN	MAX CFM	MAX APD (IN)	THROW (FT)	MAX IN.	MATERIAL	REMARKS
D-1	TITUS	300FL	18x10	20x12	DBL DEFL	777	0.09	36	27	ALUMINUM	1, 2
D-2	TITUS	300FL	22x6	24x6	DBL DEFL	616	0.11	36	30	ALUMINUM	1, 2
EG-1	TITUS	350FL	18x6	20x6	35 DEG DEFL	252	0.032	-	10	ALUMINUM	1, 2
EG-2	TITUS	33RL	34x34	36x36	38 DEG DEFL	3072	0.04	-	23	STEEL	1, 2
EG-3	TITUS	33RL	40x20	44x22	38 DEG DEFL	2204	0.04	-	22	STEEL	1, 2

REMARKS:
 1. COLOR SHALL BE WHITE.
 2. PROVIDE AND INSTALL WITH FRAME FOR SURFACE INSTALLATION.

HOT WATER UNIT HEATER SCHEDULE

TAG	MFR.	MODEL	TYPE	CAPACITY (MBH)	AIRFLOW (CFM)	EAT (DEG F)	EWT/LWT (DEG F)	FLOW (GPM)	MOTOR (HP)	ELEC (V/PH)	REMARKS
UH-1	STERLING	HS-180	HORIZONTAL	100	2200	95	180 / 160	11.8	1/3	120/1	1

REMARKS:
 1. PROVIDE AND INSTALL WITH OSHA APPROVED FAN GUARD.

AIR HANDLER SCHEDULE

TAG	SPACE SERVED	MODEL	OFFICE	WEST MAKEUP AIR	HEAT EXCHANGER	EAST MAKEUP AIR	AHU-4
INDOOR/OUTDOOR CONSTRUCTION							
UNIT DIM WxLxH (IN)	48x117x72	51x115x78	102x125x122	69x140x39			
UNIT WEIGHT (LBS)	2271	2485	3659	2173			
FILTER AREA (SF)	6	9.9	39.7	6.2			
FILTER AIR VELOCITY (FPM)	597	473	489	530			
FILTER APD (IN W.C.)	0.95	0.77	0.78	0.92			
FILTER TYPE	2" PLEATED	2" PLEATED	2" PLEATED	2" PLEATED			
FILTER EFF.	MERV 8	MERV 8	MERV 8	MERV 8			

REMARKS:
 1. CASING SHALL BE 2" THICK DOUBLE WALL INSULATED R-13 MINIMUM.
 2. +/- 1/2" W.C. STATIC PRESSURE CLASSIFICATION.
 3. PROVIDE AND INSTALL ON 1/2" HIGH FULL LENGTH BASE RAIL (MINIMUM).
 4. ALL COIL HEADERS SHALL BE RED BRASS.
 5. ALL COOLING COIL CASING SHALL BE STAINLESS STEEL.
 6. DRAIN PAN SHALL BE DOUBLE WALL INSULATED STAINLESS STEEL.
 7. FILTER APD INCLUDES 0.5 IN WC DIRTY FILTER ALLOWANCE.
 8. REFER TO COOLING COIL CONDENSATE TRAP DETAIL ON DRAWINGS FOR MORE INFORMATION.
 9. REFER TO DRAWINGS FOR DETAILS ON MODULE CONFIGURATIONS.
 10. PROVIDE AND INSTALL WITH ALUMINUM TREATATE FLOORS.
 11. PROVIDE AND INSTALL WITH ELECTRICALLY COMMUTATED SUPPLY FAN MOTOR.
 12. PROVIDE AND INSTALL WITH HERMETIC FULLY COATED INTERIOR.
 13. PROVIDE AND INSTALL WITH CUSTOM METAL FILTER FRAME AND MEDIA FROM HOMETOWN FILTER.
 14. ALTERNATE BID #2.

PLUMBING FIXTURE SCHEDULE

TAG	MFR.	MODEL	COLOR	TRIM MFR.	TRIM MODEL	TRIM FINISH	FLOW RATE (GPF OR GPM)	TRIM TYPE	WASTE	VENT	CW	HW	REMARKS
FD-1	JR SMITH	305	PVC	-	2692 TRAP SEAL	PVC	-	SQUARE	-	-	-	-	1
FS-1	SIOUX CHIEF	800	PVC	-	1/2 OPEN PVC STRAINER, ALUMINUM DOME STRAINER	PVC	-	ROUND	-	-	-	-	1
EWV-1H	ELKAY	EMABPWSVSK	STAINLESS	-	-	STAINLESS	8 GPH	-	1 1/2"	1 1/2"	1/2"	-	2

REMARKS:
 1. ALL FLOOR DRAINS SHALL BE SUPPLIED WITH INTERNAL TRAP SEAL TO PREVENT EVAPORATION.
 2. 8.0 GPH REFRIGERATED WATER COOLER WITH BOTTLE FILLER AND STAINLESS STEEL FINISH. WITHOUT FILTER.

FIXED PLATE ENERGY RECOVERY SCHEDULE

TAG	MFR.	MODEL	SERVICE	MODE	AIRFLOW (CFM)	ESP (IN W.C.)	EAT (DEG F)	LAT (DEG F)	AIRFLOW (CFM)	ESP (IN W.C.)	EAT (DEG F)	LAT (DEG F)	REMARKS
AHU5	INNOVENT	H-150C-3900	NATATORIUM	SUMMER	35,000	0.96	82.0 / 60.0	84.8 / 55.1	30,000	0.74	87.0 / 77.6	83.9 / 76.8	1, 2
				WINTER	23,000	0.45	82.0 / 42.4	45.7 / 100	18,000	0.27	-10.0 / -10.9	44.0 / 29.8	

REMARKS:
 1. PROVIDE AND INSTALL WITH SMOOTH ALUMINUM CROSS FLOW PLATES WITH ALUMINUM FRAME AND END PLATES.
 2. PROVIDE AND INSTALL WITH 1/2" ALUMINUM DRAIN PAN.

CONDENSING UNIT SCHEDULE

TAG	MFR.	MODEL	EQUIP. SERVED	OP. WEIGHT (LBS)	REFRIG	TOTAL CAP (MBH)	SST (DEG F)	AMBIENT TEMP (DEG F)	EVAP CFM	EVAP EER (DEG F)	CAPACITY STEPS	REFRIG CIRCUITS	EER	ELEC (V/PH)	MCA (A)	MOP (A)	REMARKS
ACCU-1	TEMPMASTER	KC1150	AHU-1	519	R-454B	154	50	95	3400	78 / 69	2	1	-	460/3	28	35	1, 2, 3, 4, 5, 6, 7, 8
ACCU-2	TEMPMASTER	KC2000	AHU-2	945	R-454B	317	50	95	4200	87 / 78	2	1	-	460/3	55.1	70	1, 2, 3, 4, 5, 6, 7, 8
ACCU-3	QUANTECH	QCC3000	AHU-3	4170	R-454B	1024	50	95	15000	85 / 75	6	2	12.09	460/3	160.4	175	1, 2, 3, 4, 5, 6, 7, 8
ACCU-4	TEMPMASTER	KC3000	AHU-4	945	R-454B	317	50	95	4950	87 / 78	2	1	-	460/3	55.1	70	1, 2, 3, 4, 5, 6, 7, 8, 9
ACCU-5	INNOVENT	CAHU-0-460	AHU-5	12100	R-454B	2124	41.9	95	50000	83.9 / 76.8	VAR	4	10.5	460/3	355.5	400	1, 2, 3, 4, 5, 6, 7, 8

REMARKS:
 1. PROVIDE AND INSTALL WITH SINGLE POINT ELECTRICAL POWER CONNECTION AND FACTORY WIRED NEMA 3R ELECTRICAL DISCONNECT SWITCH.
 2. PROVIDE AND INSTALL WITH COIL HAIL GUARDS ON ALL SIDES.
 3. PROVIDE AND INSTALL WITH LOW SOUND CONSIDERATION FANS.
 4. PROVIDE AND INSTALL WITH COMPRESSOR SOUND BARRIERS.
 5. PROVIDE AND INSTALL WITH CONVENIENCE OUTLET.
 6. PROVIDE AND INSTALL WITH PHASE LOSS PROTECTION.
 7. PROVIDE AND INSTALL WITH LOW AMBIENT COOLING KIT TO 0 DEGREES F.
 8. PROVIDE AND INSTALL WITH NEOPRENE VIBRATION ISOLATION PADS.
 9. ALTERNATE BID #2.

NATATORIUM AIR HANDLER SCHEDULE

TAG	MFR.	MODEL	OFFICE	WEST MAKEUP AIR	HEAT EXCHANGER	EAST MAKEUP AIR	AHU-4
INDOOR/OUTDOOR CONSTRUCTION							
UNIT DIM WxLxH (IN)	48x117x72	51x115x78	102x125x122	69x140x39			
UNIT WEIGHT (LBS)	2271	2485	3659	2173			
FILTER AREA (SF)	6	9.9	39.7	6.2			
FILTER AIR VELOCITY (FPM)	597	473	489	530			
FILTER APD (IN W.C.)	0.95	0.77	0.78	0.92			
FILTER TYPE	2" PLEATED	2" PLEATED	2" PLEATED	2" PLEATED			
FILTER EFF.	MERV 8	MERV 8	MERV 8	MERV 8			

REMARKS:
 1. ALL SECTIONS SHALL BE DOUBLE WALL ALUMINUM CONSTRUCTION WITH MINIMUM R-13 INSULATION. SMACNA LEAKAGE CLASS 5.0, MAXIMUM L250 PANEL DEFLECTION AT 1/2" W.C. STATIC PRESSURE, AND DESIGNED FOR OUTDOOR INSTALLATION.
 2. PROVIDE AND INSTALL WITH ENERGY RECOVERY. REFER TO FIXED PLATE ENERGY RECOVERY SCHEDULE FOR MORE INFORMATION.
 3. REFRIGERANT COILS SHALL BE GALVANIZED STEEL CASING WITH COPPER TUBE WITH CORROSION RESISTANT COATING.
 4. PROVIDE AND INSTALL WITH SINGLE POINT ELECTRICAL POWER CONNECTION AND 6A SCGR.
 5. PROVIDE AND INSTALL WITH INDIVIDUAL PACKAGED VARIABLE SPEED DRIVES FOR EACH SUPPLY AND EXHAUST FAN. FANS SHALL BE CONFIGURED... OPERATE INDEPENDENTLY ON FAILURE OF OTHER FANS.
 6. PROVIDE AND INSTALL WITH ALUMINUM INSULATED DRAIN PAN.
 7. PROVIDE AND INSTALL WITH PACKAGED CONTROLS AND ALL ASSOCIATED ACTUATORS, DAMPERS, VALVES, SENSORS, CONTROLLERS, CABLING ETC. FOR A COMPLETE AND FULLY FUNCTIONING UNIT IN EVERY RESPECT.
 8. PROVIDE AND INSTALL WITH BACNET MSTR INTERFACE.
 9. PROVIDE AND INSTALL WITH EXTERNAL HEATED AND VENTILATED VSD ENCLOSURE.
 10. PROVIDE AND INSTALL WITH FACTORY WIRED NEMA 3R ELECTRICAL DISCONNECT.
 11. REFER TO DRAWINGS PLANS AND DETAILS FOR MODULE CONFIGURATIONS.
 12. MOTORS SHALL BE TERC PREMIUM EFFICIENCY WITH CLASS F INSULATION AND INTEGRAL SHAFT GROUNDING RING.
 13. PROVIDE AND INSTALL WITH INDIRECT FIRED FURNACES WITH 409SS HEAT EXCHANGER.
 14. PROVIDE AND INSTALL WITH COATED STRUCTURAL STEEL BASE AND WELDED ALUMINUM STRUCTURAL TUBE FRAME.
 15. PROVIDE AND INSTALL WITH OUTSIDE AIR AND EXHAUST AIR WEATHER HOOD WITH ALUMINUM BRIS SCREEN.
 16. PROVIDE AND INSTALL WITH OUTSIDE AIR AND EXHAUST AIR INSULATED LOW LEAKAGE CONTROL DAMPERS.

HOT GAS REHEAT SCHEDULE

TAG	MFR.	MODEL	FACE SIZE (IN)	FREE AREA (SF)	AIRFLOW (CFM)	FACE VELOCITY (FPM)	THICKNESS (IN)	WATER PEN (IN)	FINISH	SERVICE	REMARKS
HGR-1	GREENHECK	EHH-601	74x120	31.5	-	-	6	99.4	2.0 mil 70% KYNAR	INTAKE	1, 2, 3
HGR-2	GREENHECK	EHH-601	74x120	31.5	-	-	6	99.4	2.0 mil 70% KYNAR	INTAKE	1, 2, 3

HOT WATER UNIT HEATER SCHEDULE

TAG	MFR.	MODEL	TYPE	CAPACITY (MBH)	AIRFLOW (CFM)	EAT (DEG F)	EWT/LWT (DEG F)	FLOW (GPM)	MOTOR (HP)	ELEC (V/PH)	REMARKS
UH-1	STERLING	HS-180	HORIZONTAL	100	2200	95	180 / 160	11.8	1/3	120/1	1

FIXED PLATE ENERGY RECOVERY SCHEDULE

TAG	MFR.	MODEL	SERVICE	MODE	AIRFLOW (CFM)	ESP (IN W.C.)	EAT (DEG F)	LAT (DEG F)	AIRFLOW (CFM)	ESP (IN W.C.)	EAT (DEG F)	LAT (DEG F)	REMARKS
AHU5	INNOVENT	H-150C-3900	NATATORIUM	SUMMER	35,000	0.96	82.0 / 60.0	84.8 / 55.1	30,000	0.74	87.0 / 77.6	83.9 / 76.8	1, 2
				WINTER	23,000	0.45	82.0 / 42.4	45.7 / 100	18,000	0.27	-10.0 / -10.9	44.0 / 29.8	

CONDENSING UNIT SCHEDULE

TAG	MFR.	MODEL	EQUIP. SERVED	OP. WEIGHT (LBS)	REFRIG	TOTAL CAP (MBH)	SST (DEG F)	AMBIENT TEMP (DEG F)	EVAP CFM	EVAP EER (DEG F)	CAP
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