

RE-ROOFING AND RENOVATIONS

VIGOR HIGH SCHOOL AUDITORIUM BUILDING

FOR THE

MOBILE COUNTY SCHOOL SYSTEM

MOBILE, ALABAMA



THE MOBILE COUNTY PUBLIC SCHOOLS Board of Education

THE MOBILE COUNTY BOARD of SCHOOL COMMISSIONERS

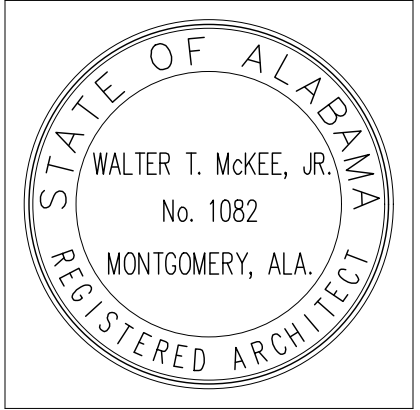
DISTRICT 4	SHERRY DILLIHAY- McDADE	PRESIDENT
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DISTRICT 2	DON STRINGFELLOW	
DISTRICT 3	DR. REGINALD CRENSHAW	
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RE-ROOFING AND RENOVATIONS VIGOR HIGH
SCHOOL AUDITORIUM BUILDING for the
Mobile County School System
913 North Wilson Avenue, Prichard AL 36610

SHEET TITLE:
COVER SHEET AND INDEX
TO DRAWINGS



PROJ. MGR.: JWW
DRAWN:
DATE: 7-8-26
REVISIONS

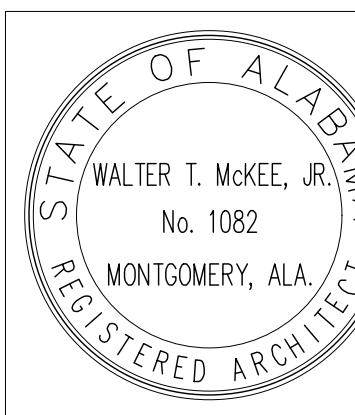
JOB NO. 26-021
SHEET NO:

T1.1



913 North Wilson Avenue, Prichard AL 36610

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PROJ. MGR.: JWW	
DRAWN:	
DATE: 7-8-26	
REVISIONS	

JOB NO.	26-021
SHEET NO:	

A1.1

SITE OF WORK EXAMINATION

THESE DRAWINGS WERE COMPILED BY THE ARCHITECT FROM THE OWNER'S RECORD DRAWINGS AND FROM ON-SITE OBSERVATIONS TO INDICATE THE BUILDING ARRANGEMENT.

ALL CONTRACTORS SUBMITTING PROPOSALS FOR THIS WORK SHALL FIRST EXAMINE THE PREMISES AND ALL CONDITIONS THEREIN. ALL PROPOSALS SHALL TAKE INTO CONSIDERATION ALL SUCH CONDITIONS AS MAY AFFECT THE WORK UNDER THIS CONTRACT.

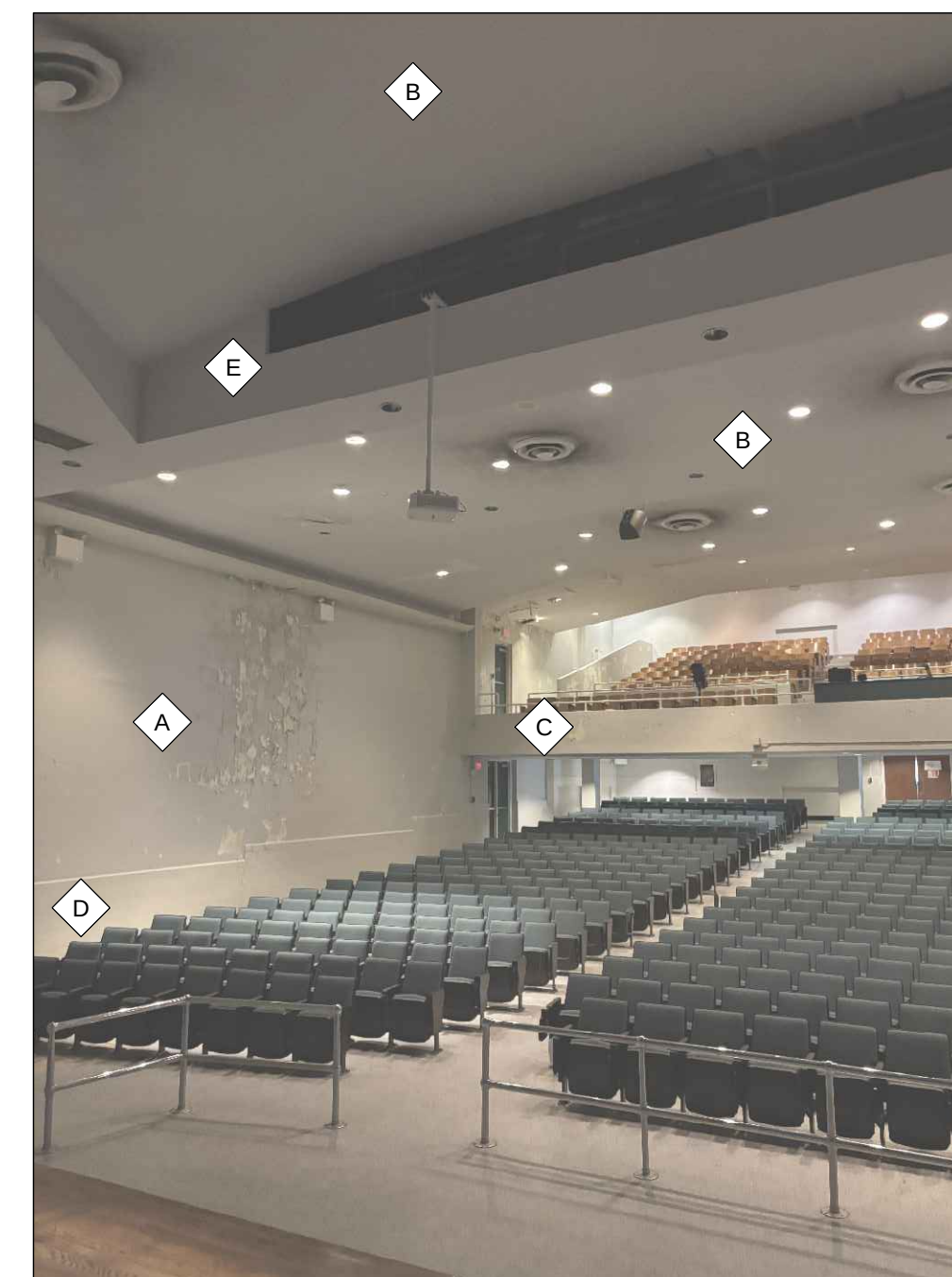
DRAWINGS ARE DIMENSIONED FOR BIDDING PURPOSES ONLY. CONTRACTORS SHALL MEASURE ALL EXISTING WORK AT THE PREMISES AND VERIFY ALL DIMENSIONS NEEDED TO PROPERLY INTERFACE IMPROVEMENTS WITH ALL EXISTING ELEMENTS WHICH ARE TO REMAIN.

FLOOR PLAN LEGEND

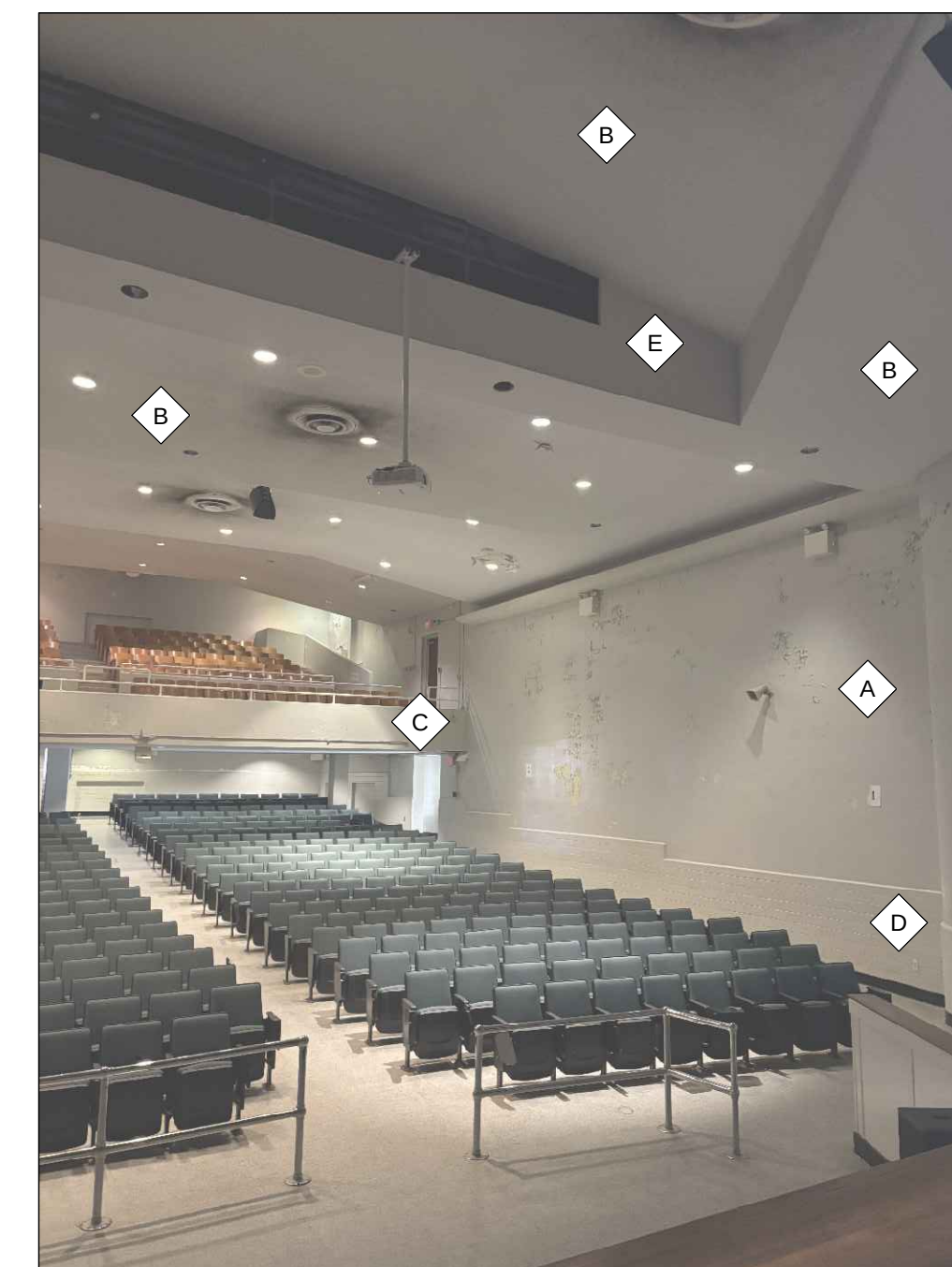
SYMBOL	DESCRIPTION
CORRIDOR 	SCHEDULED ROOM NAME AND NUMBER
	ELEVATION SYMBOL
	REPAIR AND PAINT ALL EXISTING PAINTED SURFACES, RAILS AND KNEE WALLS AT BALCONY RAMPS

GENERAL NOTES

PAINTING NOTE:
CONTRACTOR SHALL PAINT ALL PREVIOUSLY PAINTED SERVICES COMPLETE.
CONTRACTOR SHALL REMOVE ALL PEELING PAINT OVER ENAMEL PAINT ON ALL
SURFACES. CONTRACTOR SHALL REPAIR EXISTING DAMAGED PLASTER WALLS, CEILINGS
AND FURRING AND PATCH AS DIRECTED IN SPECS. DE-GLOSS ALL PAINTED ENAMEL
SURFACES AS REQUIRED SEE SPECS. CONTRACTOR SHALL PROTECT ALL SEATING FROM
DAMAGE DURING THE EXTEND OF THE PROJECT.



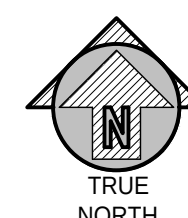
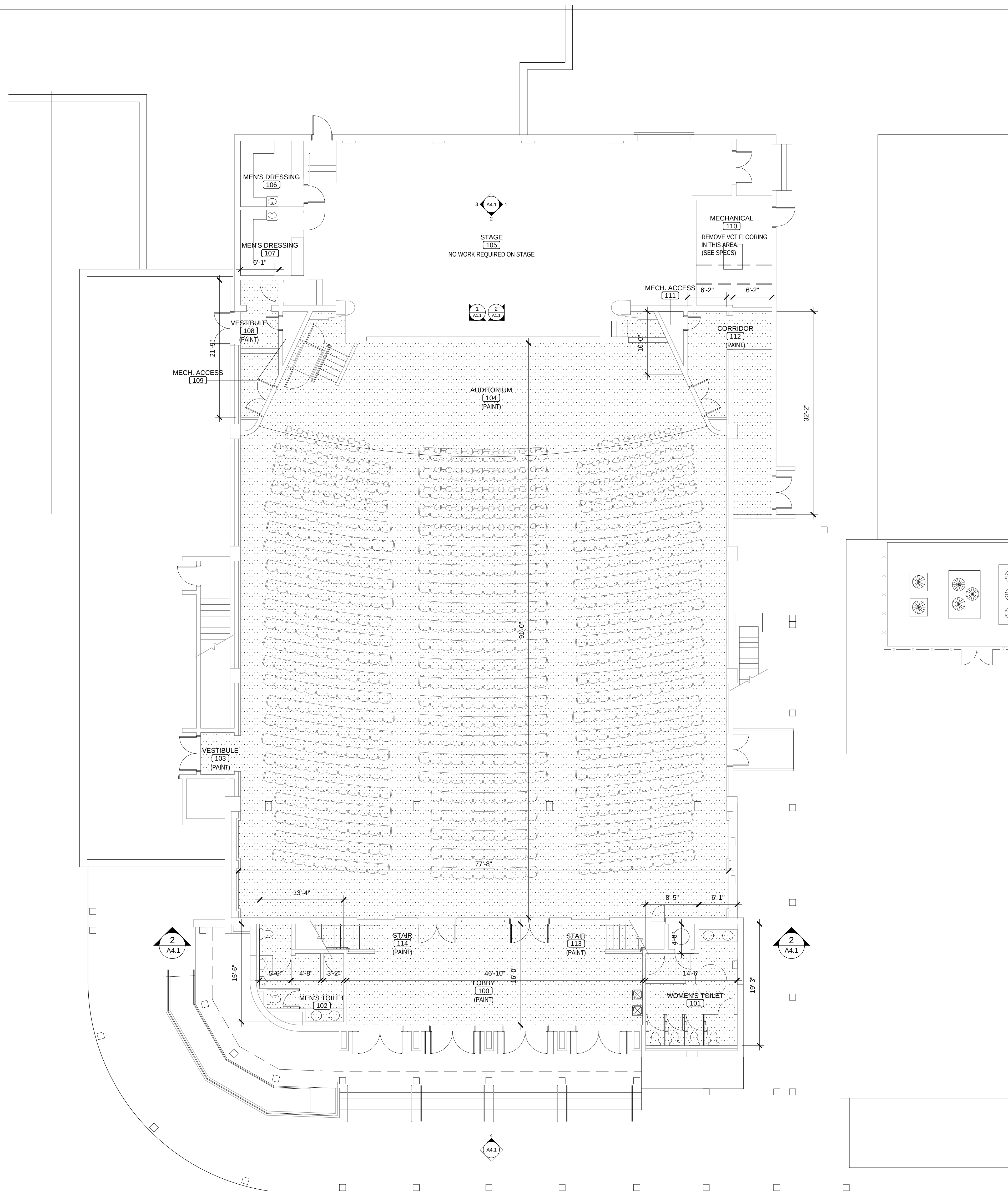
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2 PHOTO

KEY LEGEND

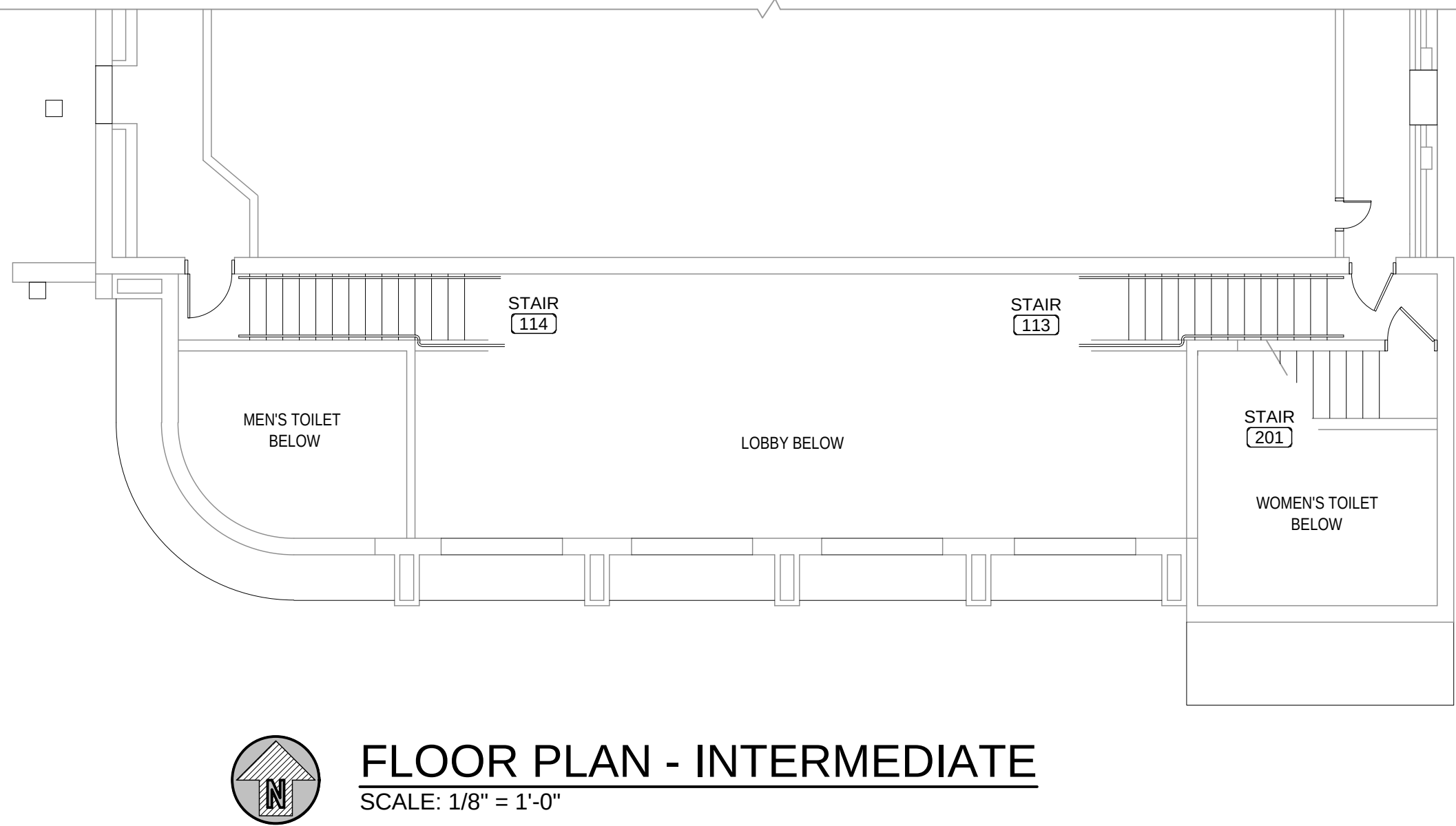
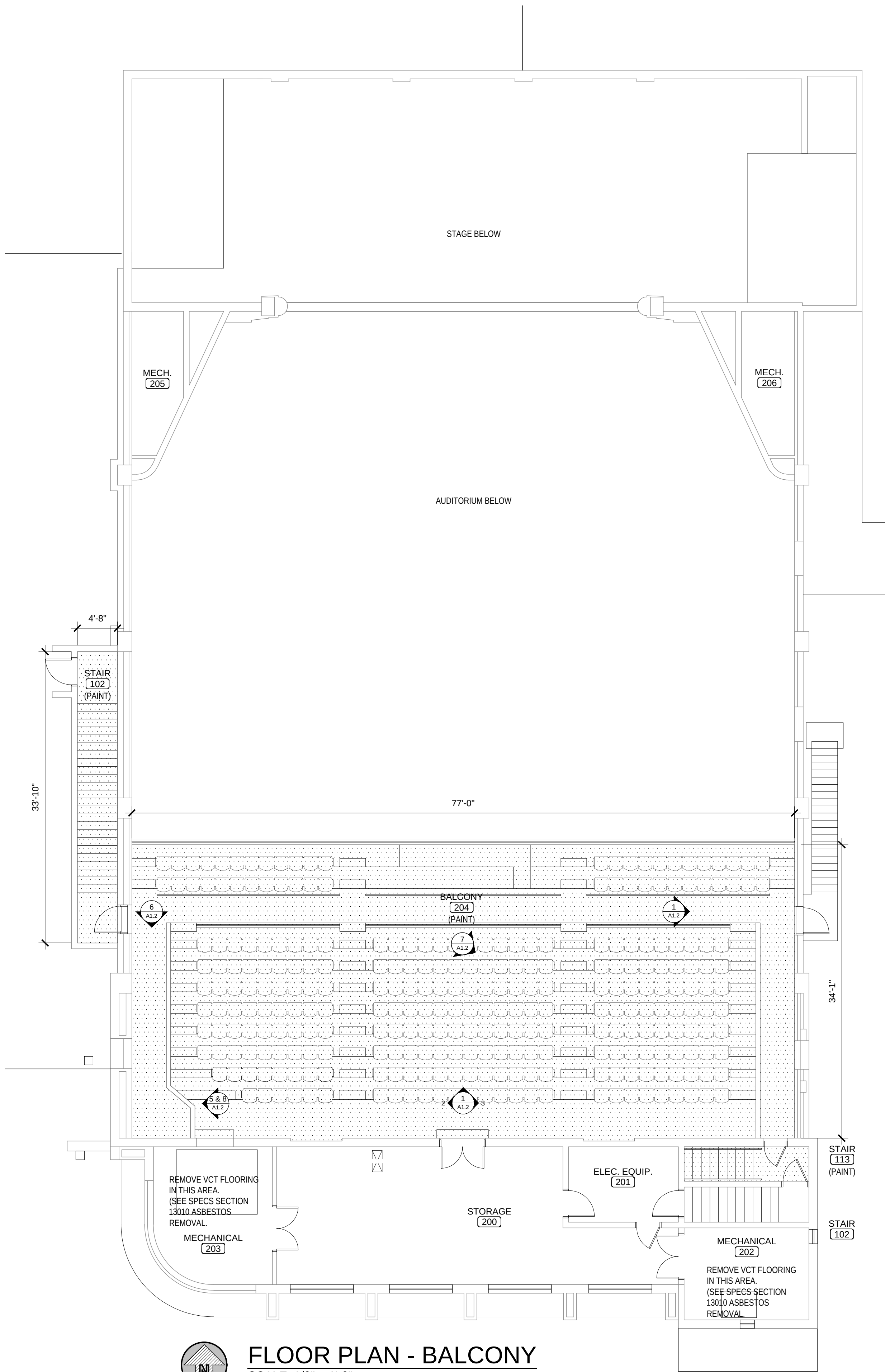
<u>SYMBOL</u>	<u>DESCRIPTION</u>
	REPAIR AND PAINT EXISTING PLASTER WALLS COMPLETE. (SEE SPECS)
	REPAIR AND PAINT EXISTING PLASTER CEILINGS COMPLETE. (SEE SPECS)
	REPAIR AND PAINT EXISTING PLASTER GUARDRAIL WALL AND EXISTING METAL GUARD RAIL COMPLETE. (SEE SPECS)
	EXISTING PAINTED GLAZED TILE - PREP AND PAINT. (SEE SPECS)
	PAINT EXISTING FURRING REPAIR AS REQUIRED. (SEE SPECS)
	PAINT EXISTING HOLLOW METAL FRAMES AND DOORS. (SEE SPECS)
	SAID, PRIME, AND PAINT TWO COATS ON ALL EXISTING METAL GUARDRAILS AND HANDRAILS (SEE SPECS)



FLOOR PLAN - FIRST FLOOR

SCALE: 1/8" = 1'-0"

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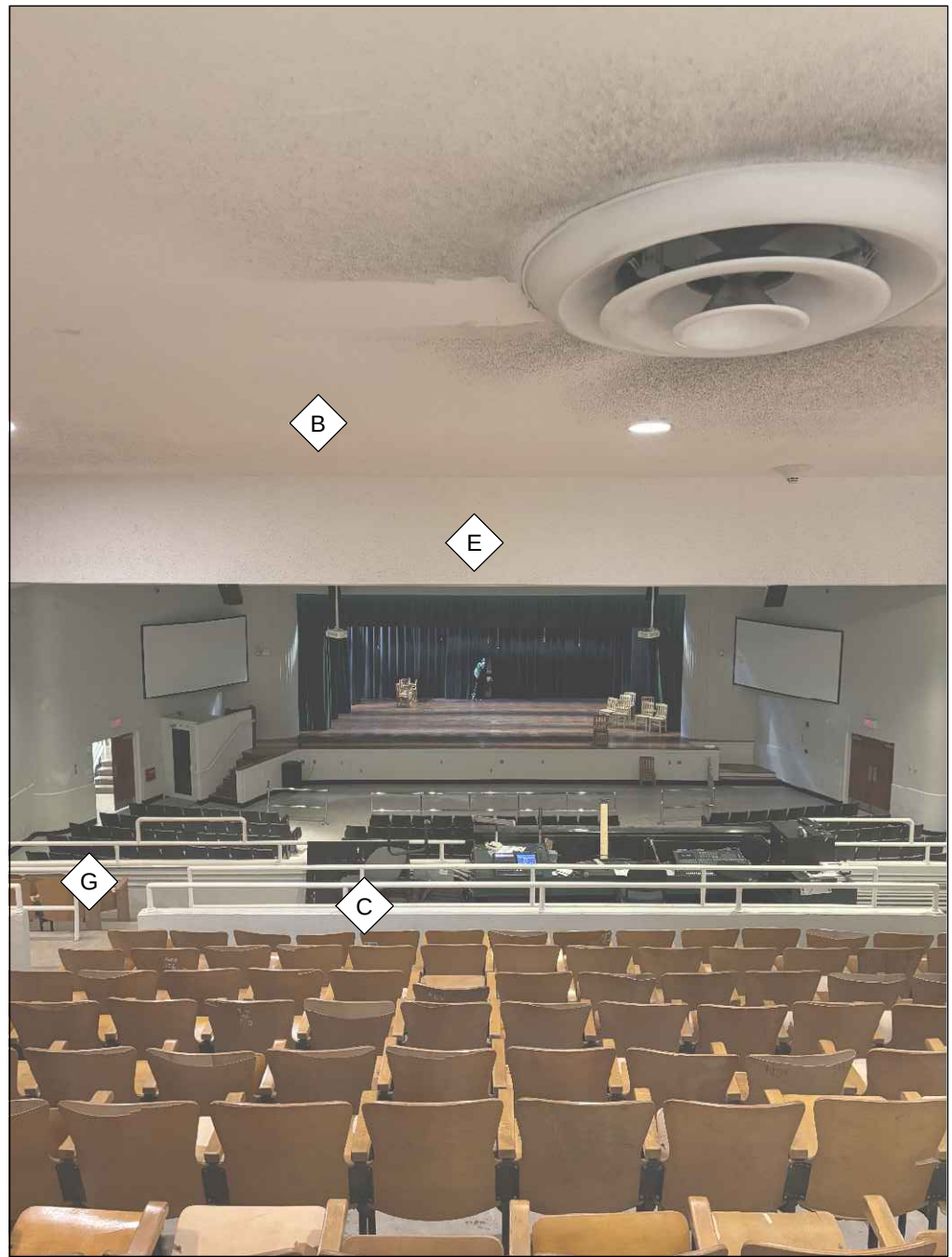


KEY LEGEND	
SYMBOL	DESCRIPTION
A	REPAIR AND PAINT EXISTING PLASTER WALLS COMPLETE. (SEE SPECS)
B	REPAIR AND PAINT EXISTING PLASTER CEILINGS COMPLETE. (SEE SPECS)
C	REPAIR AND PAINT EXISTING PLASTER GUARDRAIL WALL AND EXISTING METAL GUARD RAIL COMPLETE. (SEE SPECS)
D	EXISTING PAINTED GLAZED TILE - PREP AND PAINT. (SEE SPECS)
E	PAINT EXISTING FURRING REPAIR AS REQUIRED. (SEE SPECS)
F	PAINT EXISTING HOLLOW METAL FRAMES AND DOORS. (SEE SPECS)
G	SAND, PRIME, AND PAINT TWO COATS ON ALL EXISTING METAL GUARDRAILS AND HANDRAILS (SEE SPECS)

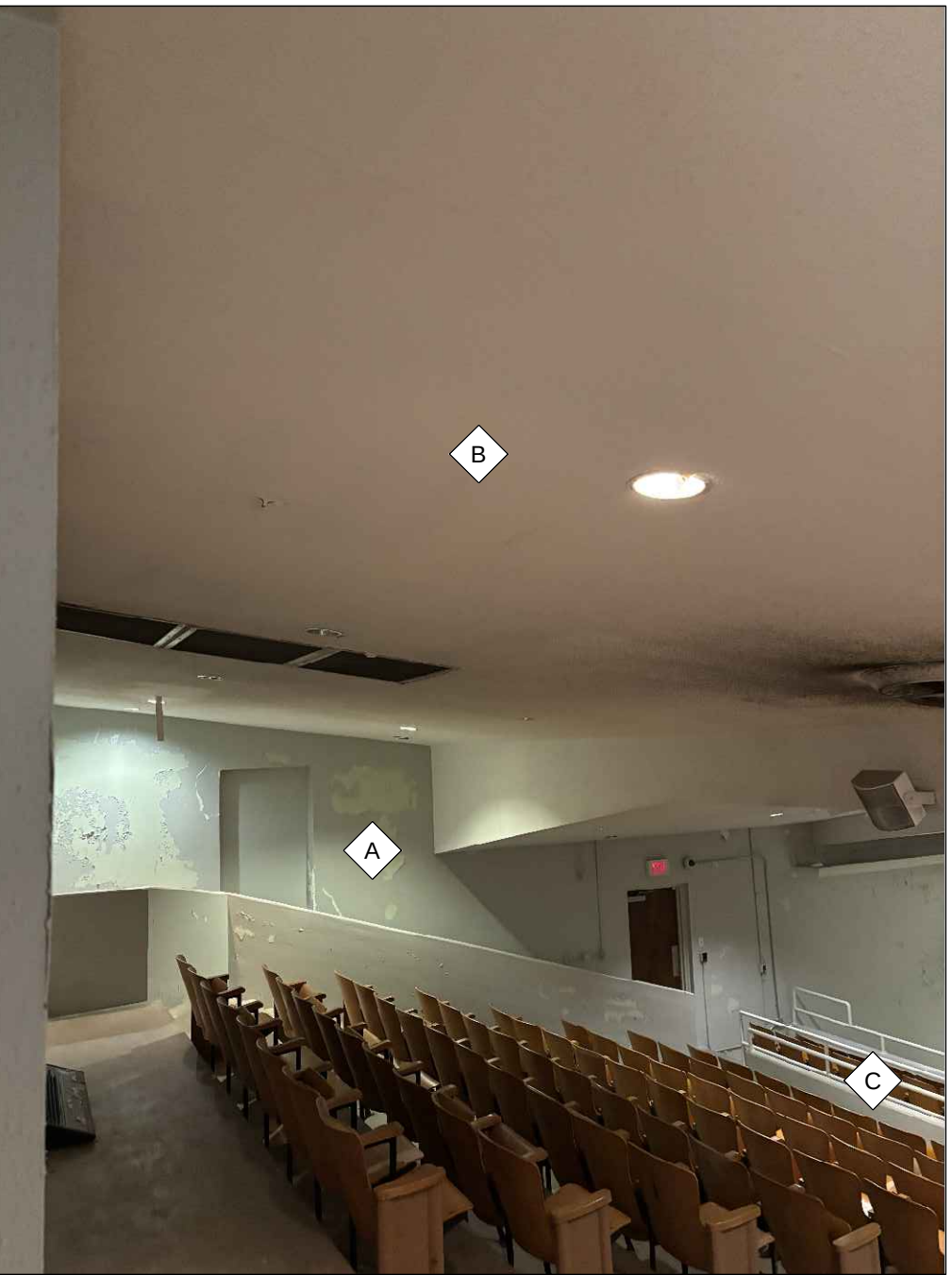
SITE OF WORK EXAMINATION
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FLOOR PLAN LEGEND	
SYMBOL	DESCRIPTION
CORRIDOR	SCHEDULED ROOM NAME AND NUMBER
X A X X	ELEVATION SYMBOL
...	REPAIR AND PAINT ALL EXISTING PAINTED SURFACES, RAILS AND KNEE WALLS AT BALCONY RAMPS

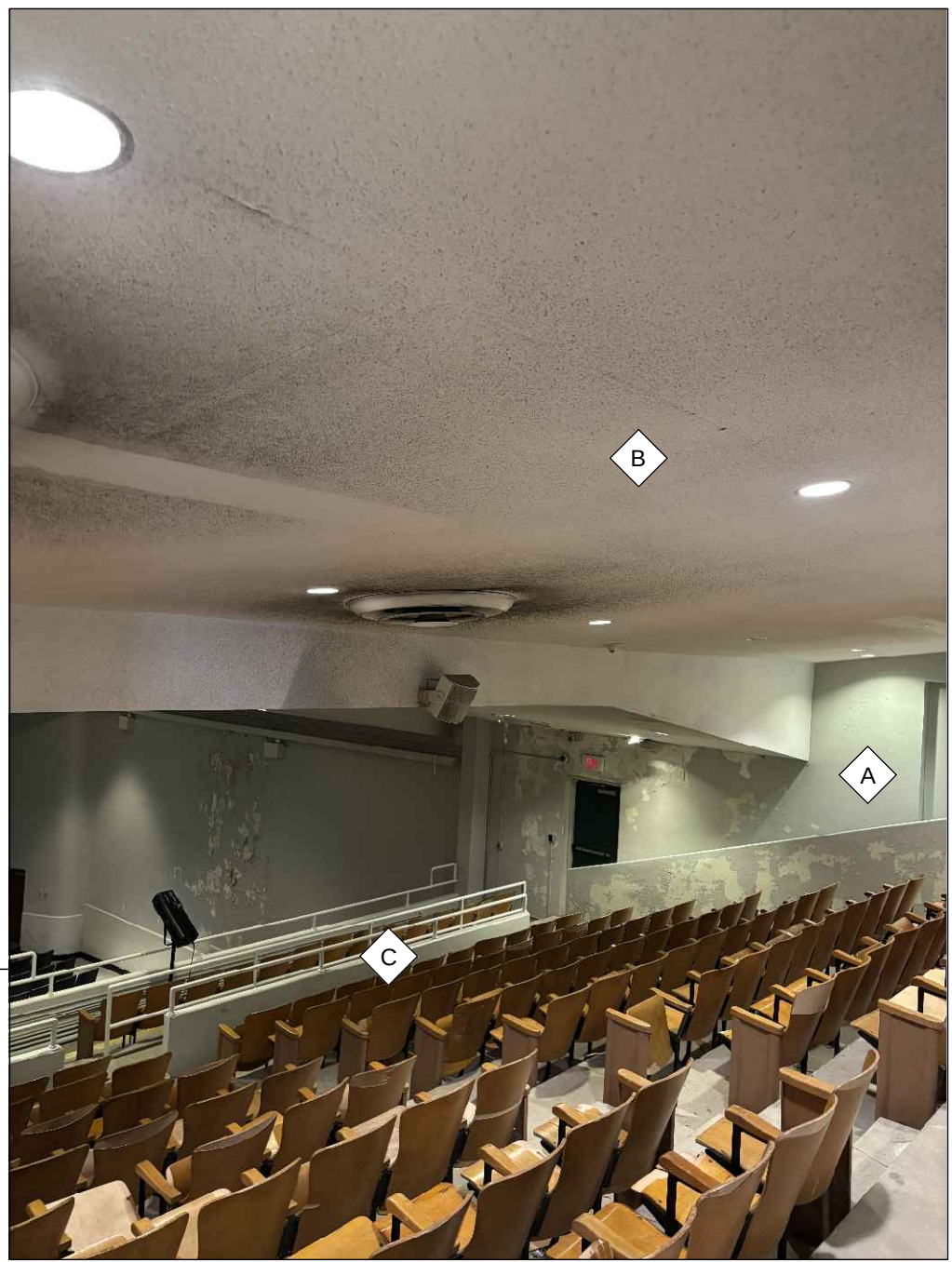
GENERAL NOTES
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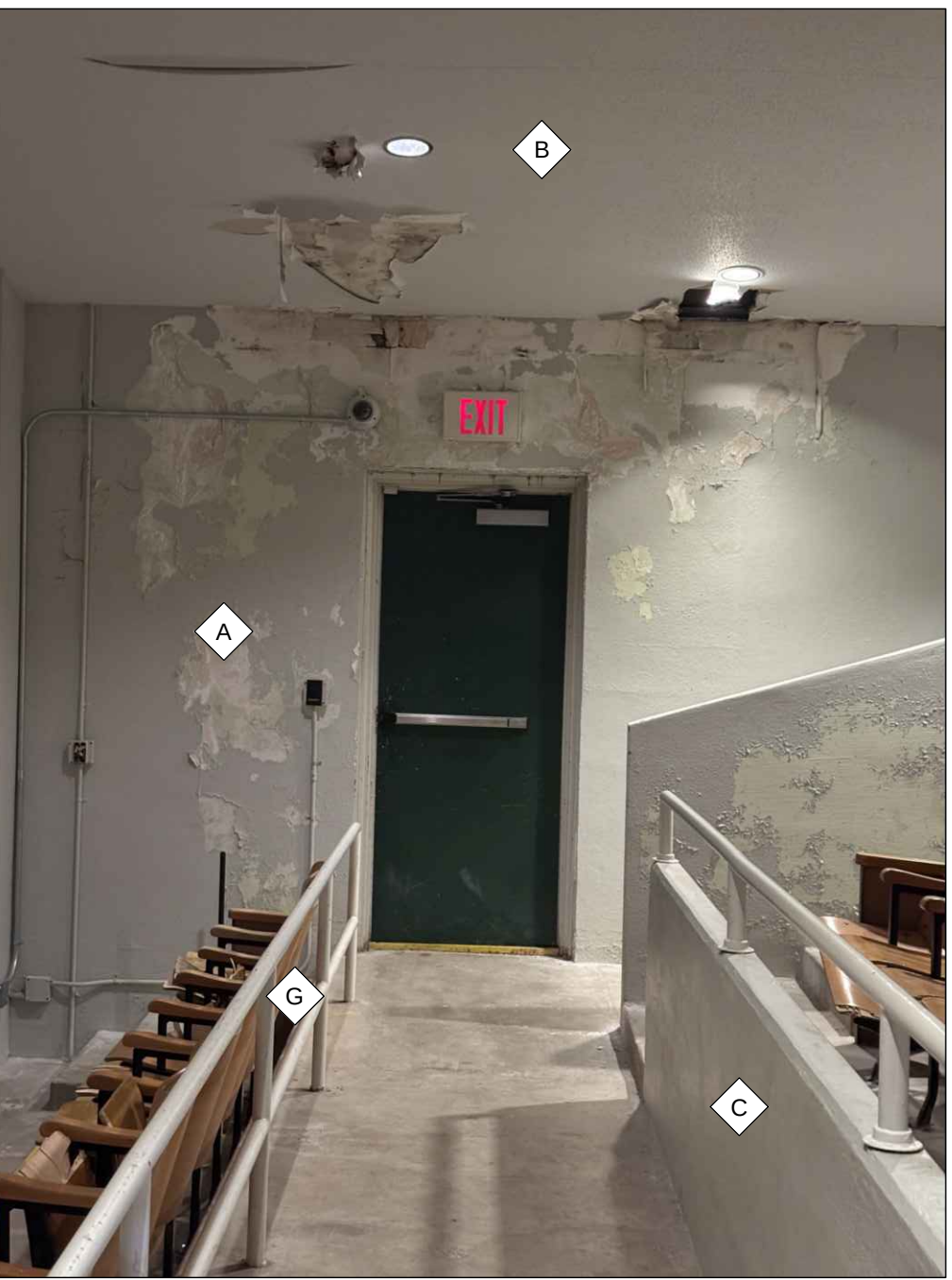
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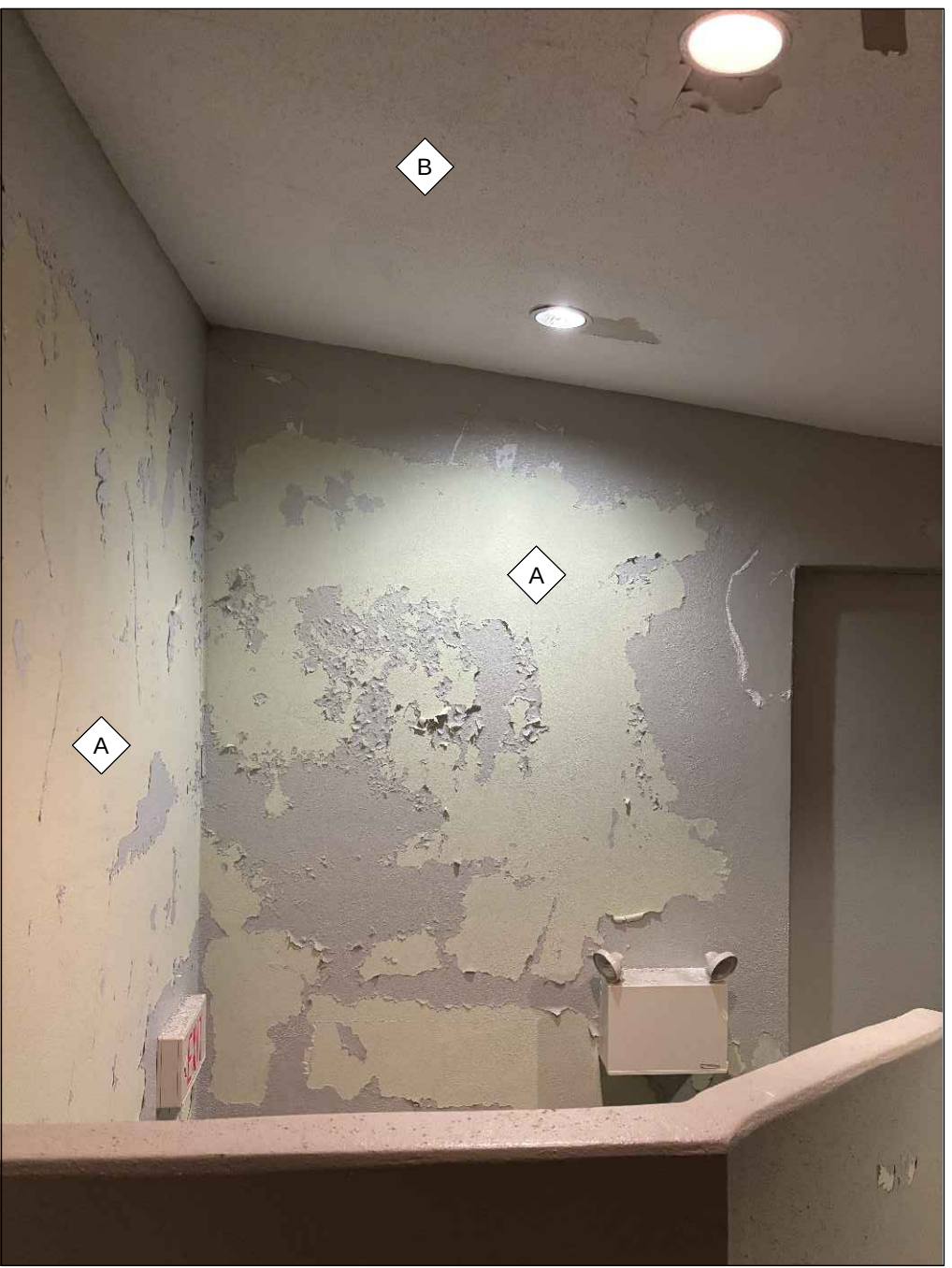
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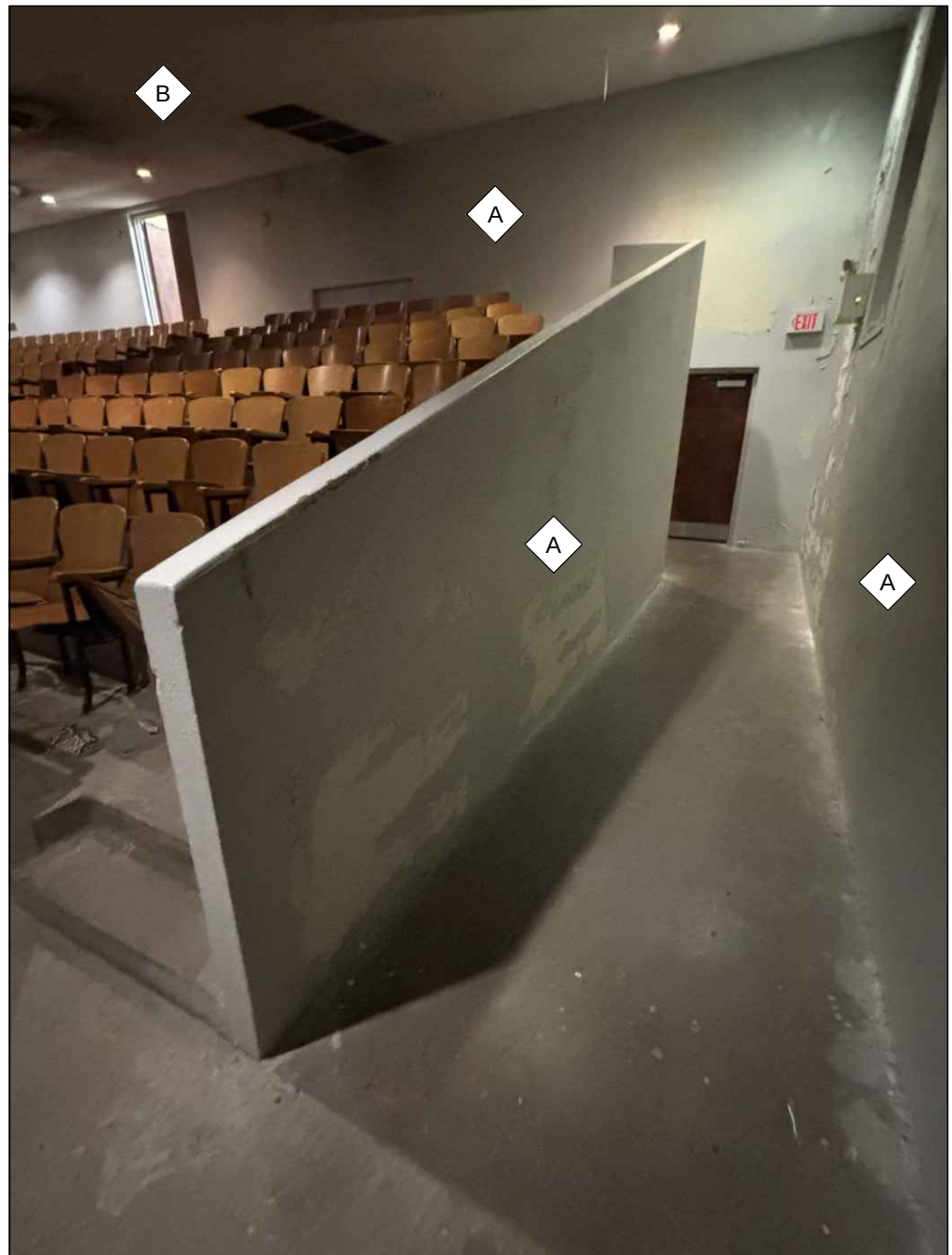
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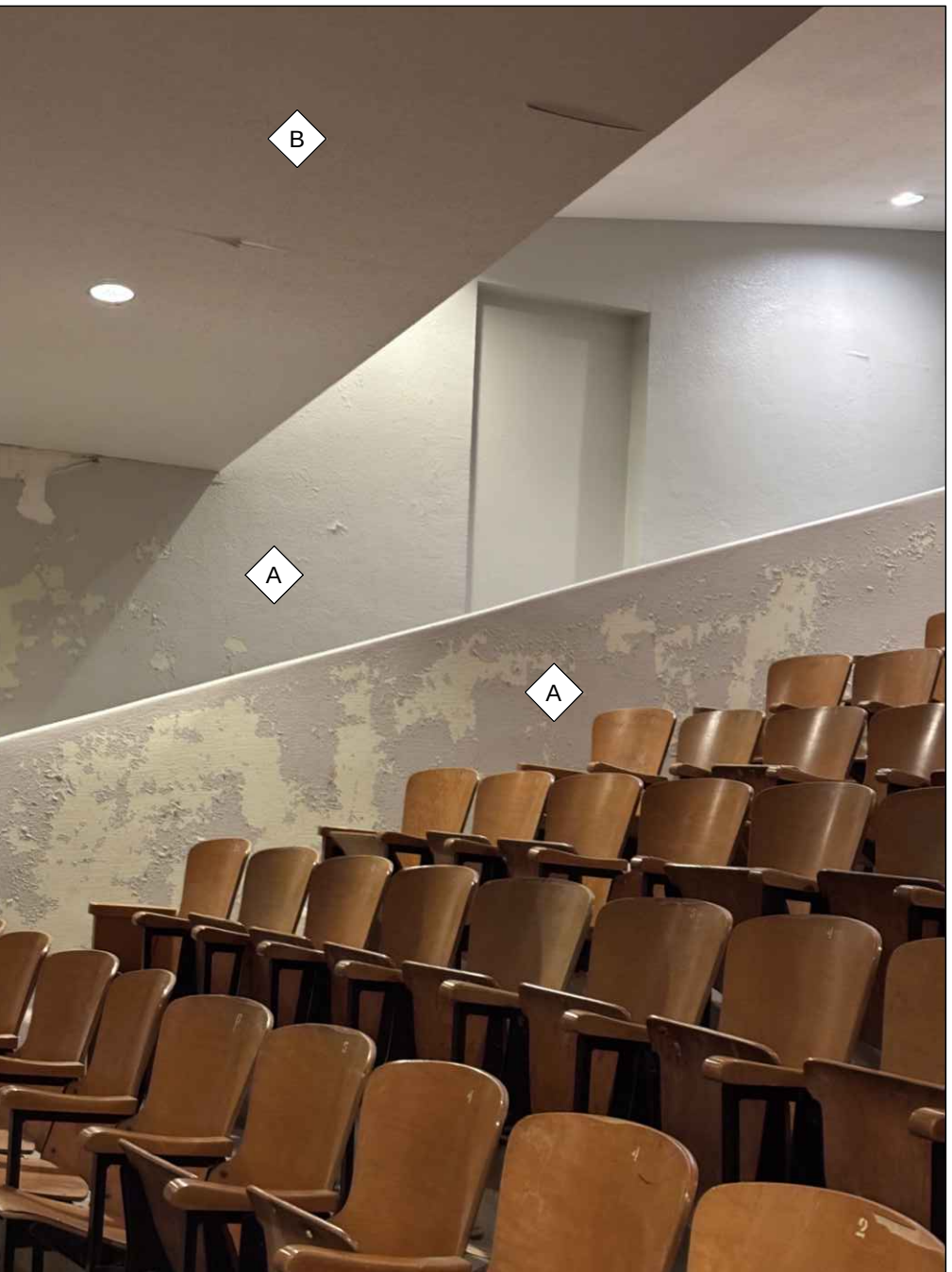
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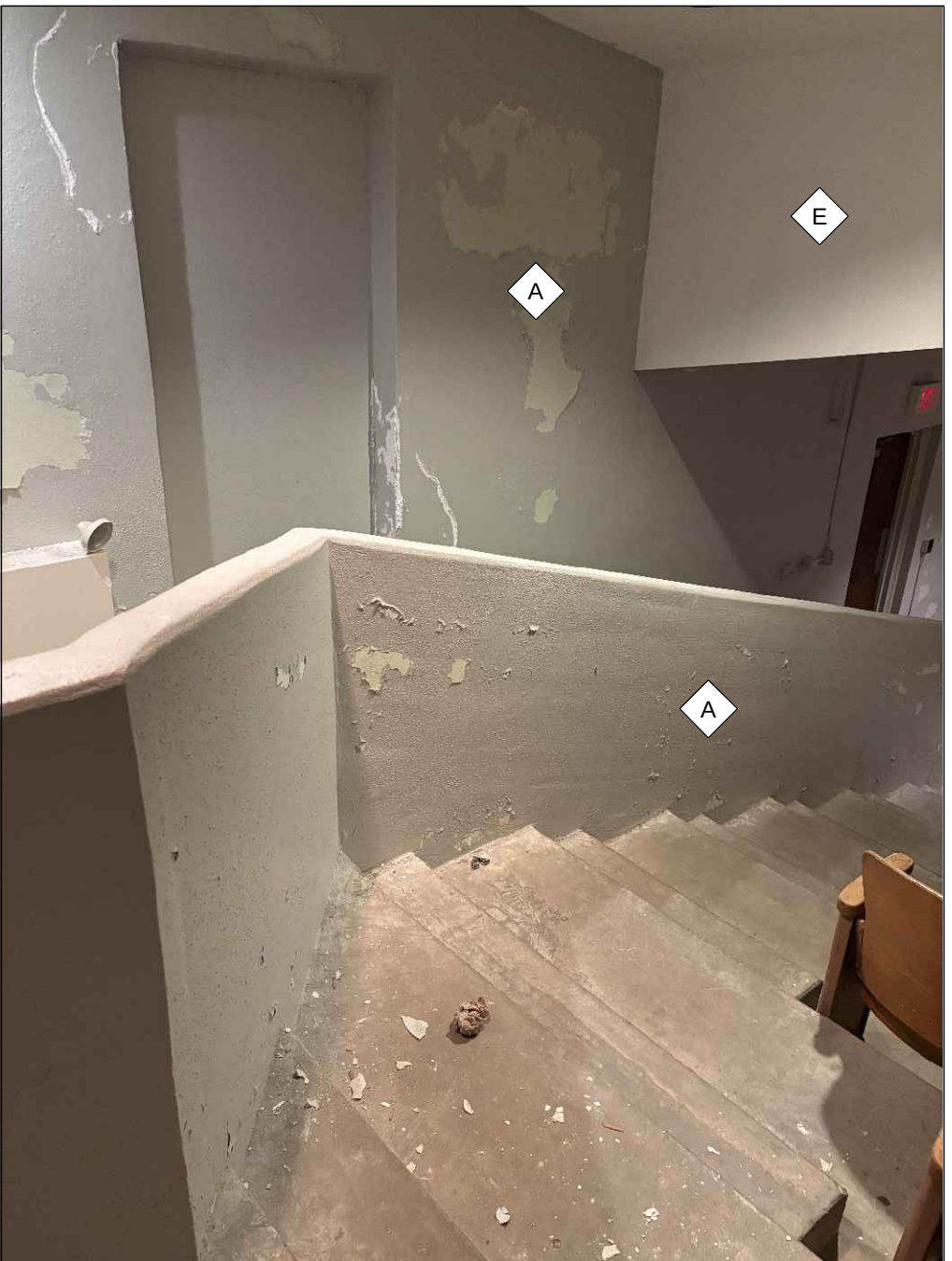
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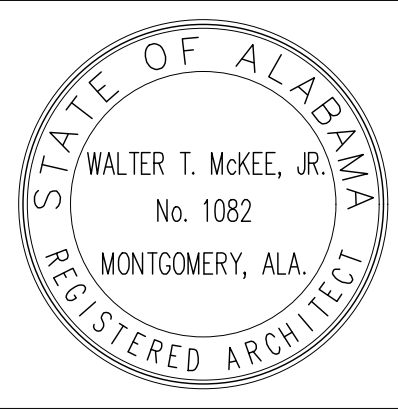
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LATHAN
McKEE
ARCHITECTS

RE-ROOFING AND RENOVATIONS VIGOR HIGH
SCHOOL AUDITORIUM BUILDING for the
Mobile County School System
913 North Wilson Avenue, Prichard AL 36610

SHEET TITLE: EXISTING INTERIOR ELEVATIONS



PROJ. MGR.: JWW
DRAWN: JL
DATE: 7-8-26
REVISIONS

JOB NO. 26-021
SHEET NO:

A4.1

SITE OF WORK EXAMINATION

THESE DRAWINGS WERE COMPILED BY THE ARCHITECT FROM THE OWNER'S RECORD DRAWINGS AND FROM ON-SITE OBSERVATIONS TO INDICATE THE BUILDING ARRANGEMENT.

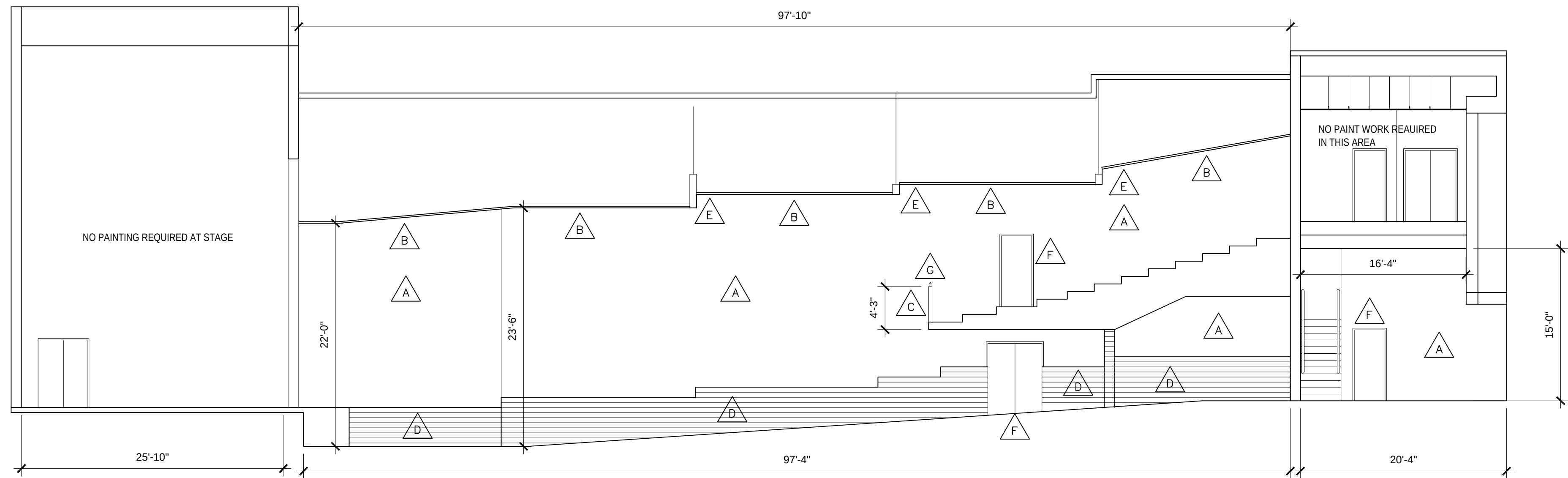
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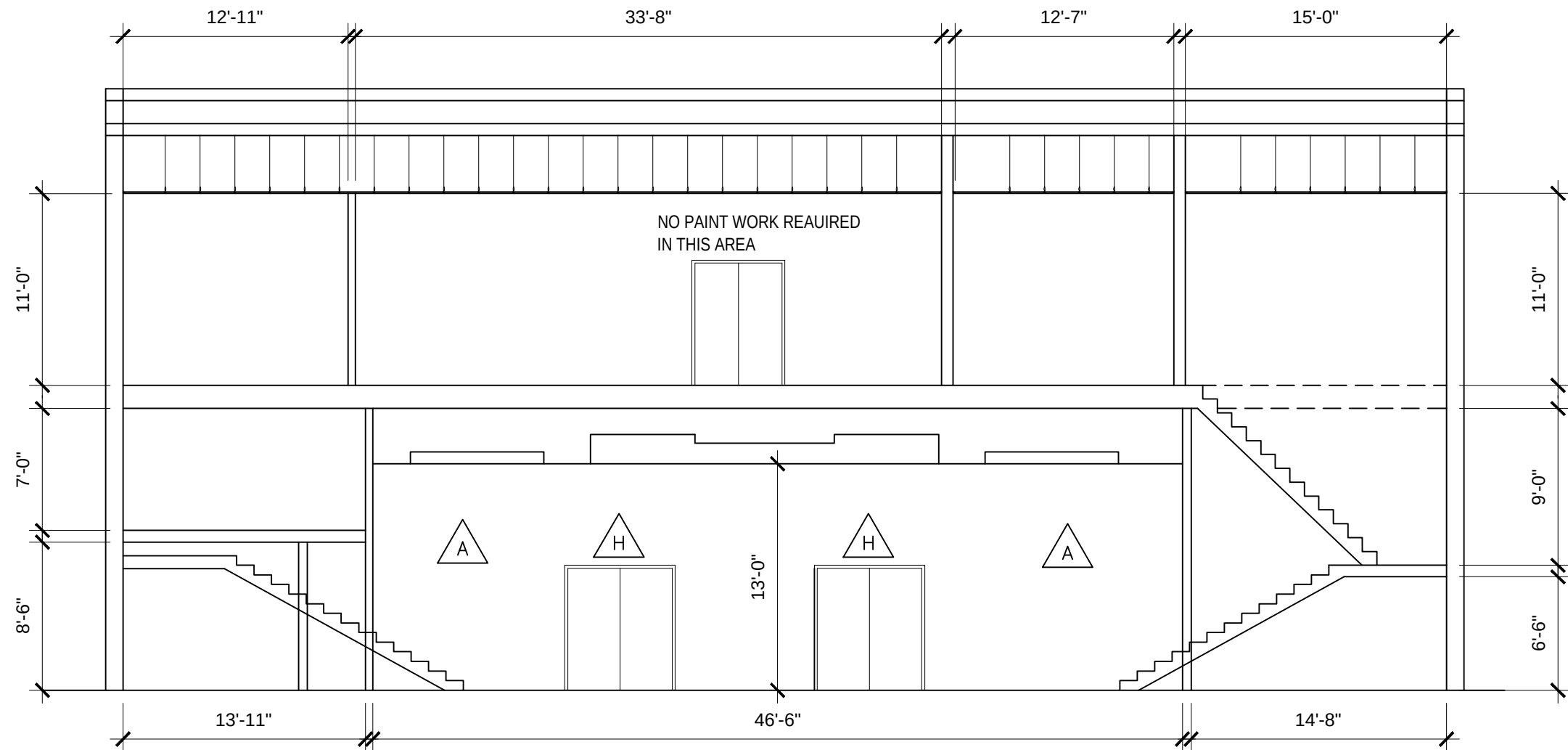
KEY LEGEND

SYMBOL	DESCRIPTION
	REPAIR AND PAINT EXISTING PLASTER WALLS COMPLETE. (SEE SPECS)
	REPAIR AND PAINT EXISTING PLASTER CEILINGS COMPLETE. (SEE SPECS)
	REPAIR AND PAINT EXISTING PLASTER GUARDRAIL WALL AND EXISTING METAL GUARD RAIL COMPLETE. (SEE SPECS)
	EXISTING PAINTED GLAZED TILE - PREP AND PAINT. (SEE SPECS)
	PAINT EXISTING FURRING REPAIR AS REQUIRED. (SEE SPECS)
	PAINT EXISTING HOLLOW METAL FRAMES AND DOORS. (SEE SPECS)
	SAND, PRIME, AND PAINT TWO COATS ON ALL EXISTING METAL GUARDRAILS AND HANDRAILS (SEE SPECS)
	SAND, FILL AND STAIN EXISTING WOOD DOORS, PAINT FRAME.

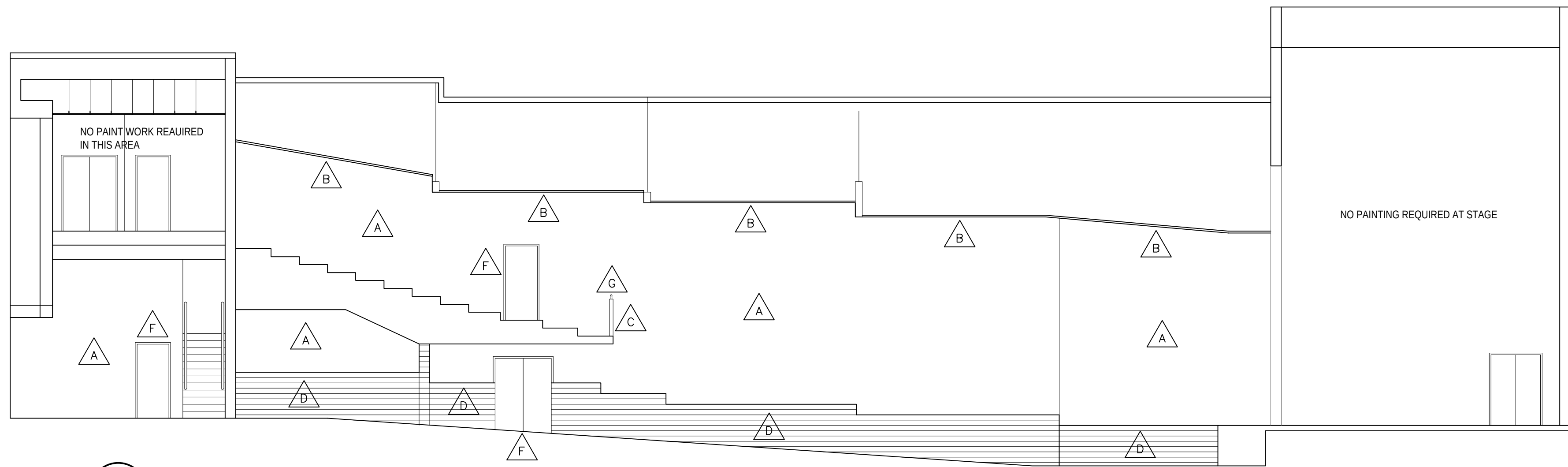
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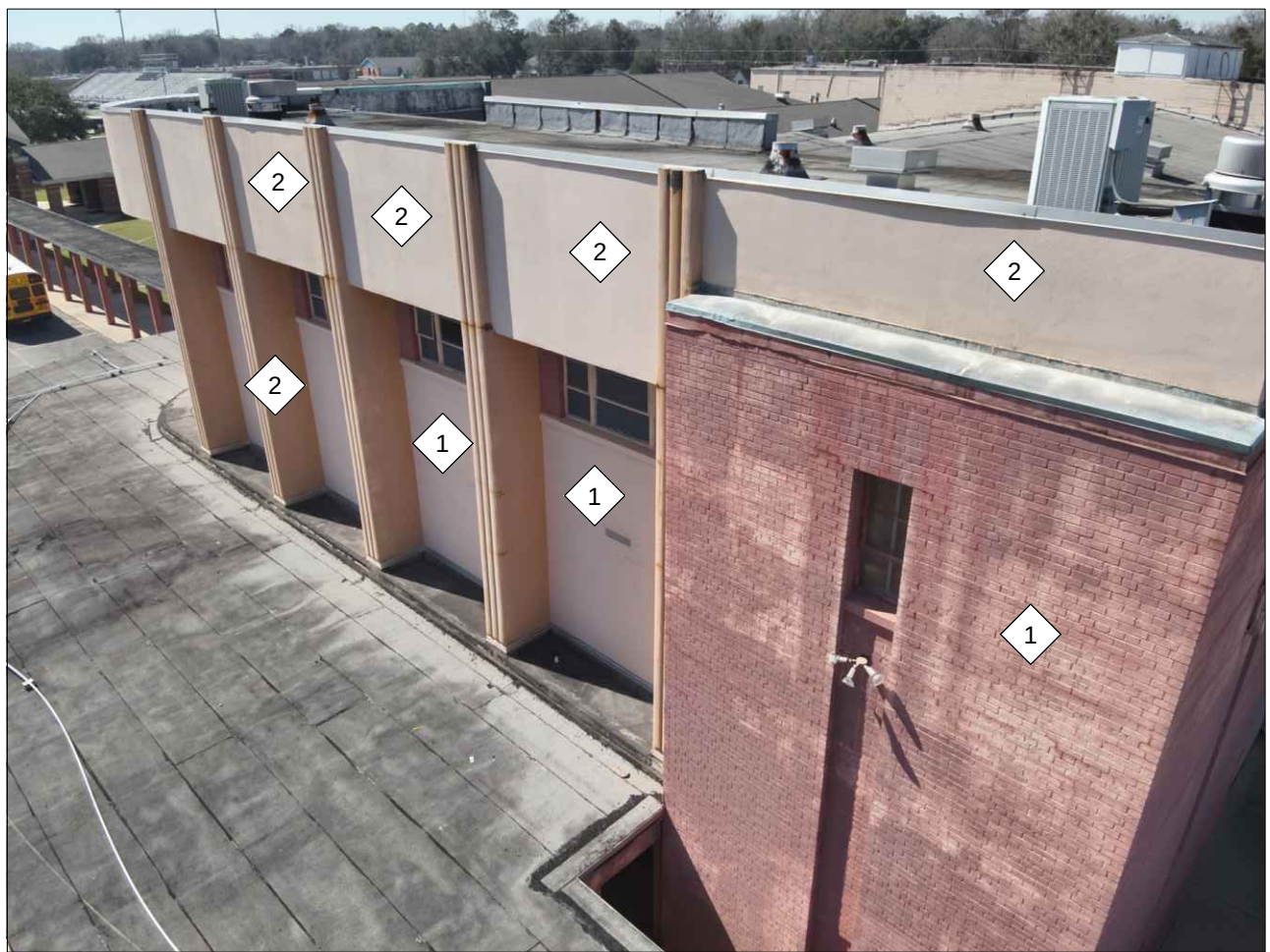
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SCALE: 1/8" = 1'-0"



2 INTERIOR ELEVATION - NORTH
SCALE: 1/8" = 1'-0"



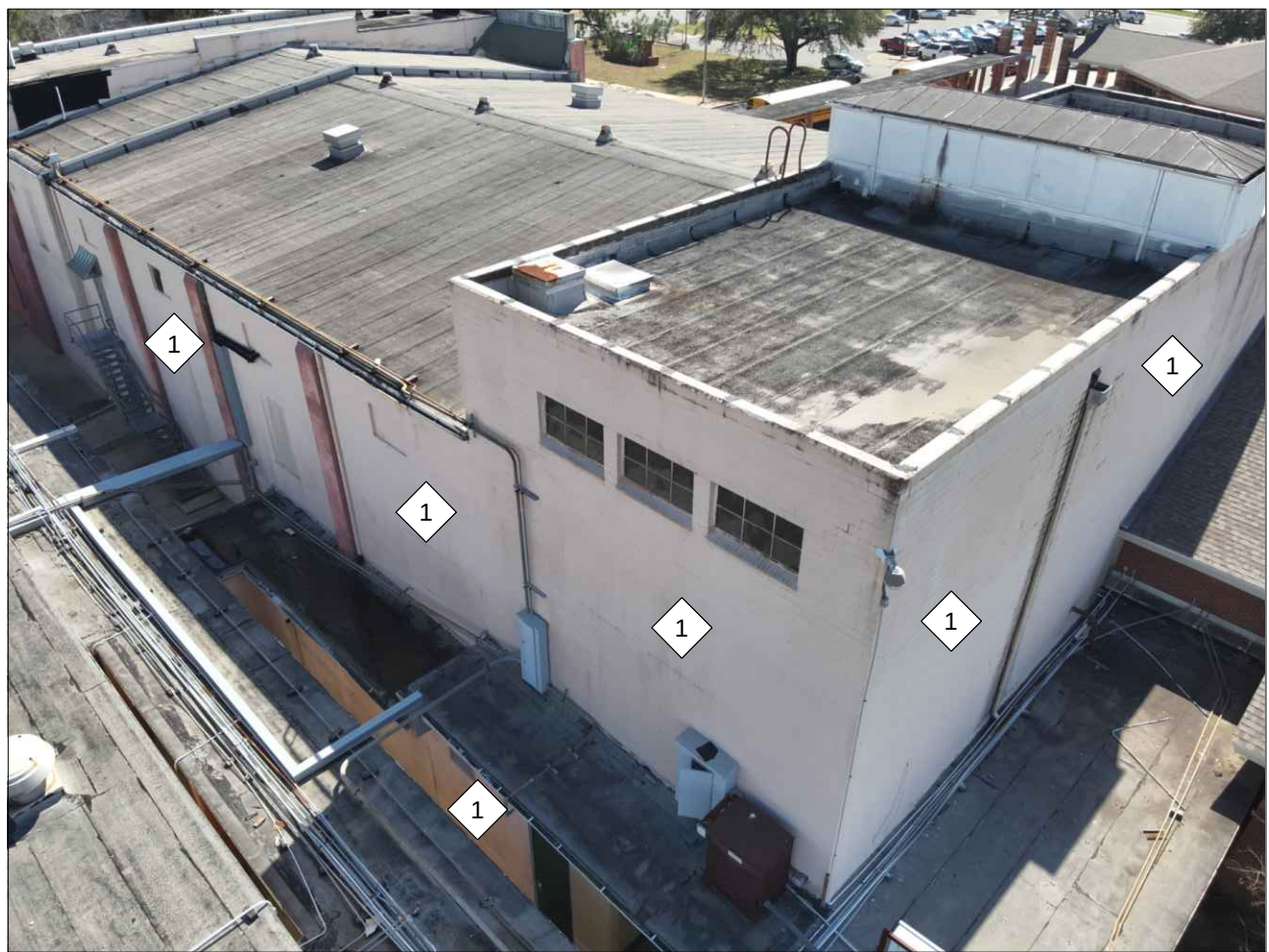
3 INTERIOR ELEVATION - WEST
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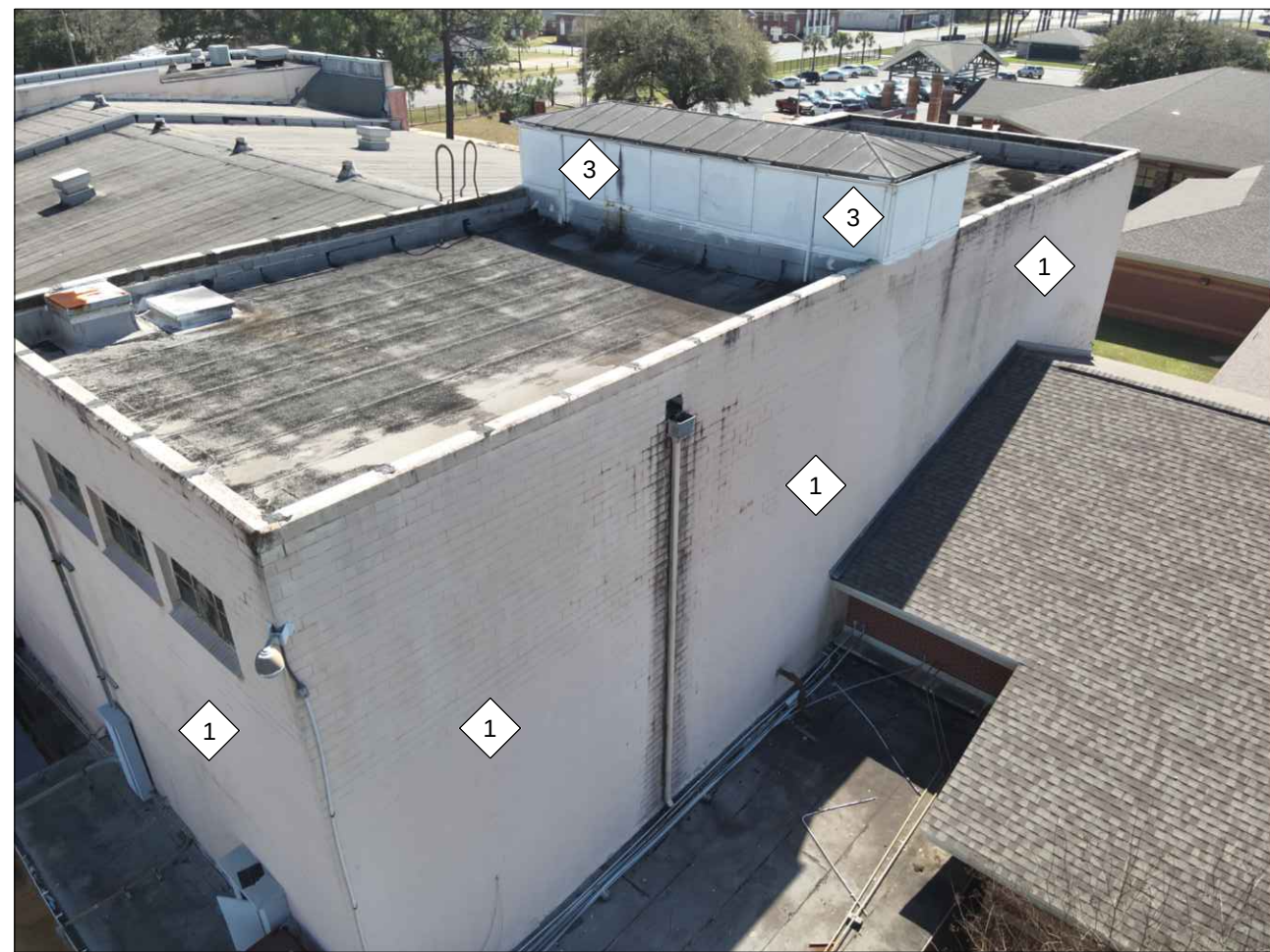
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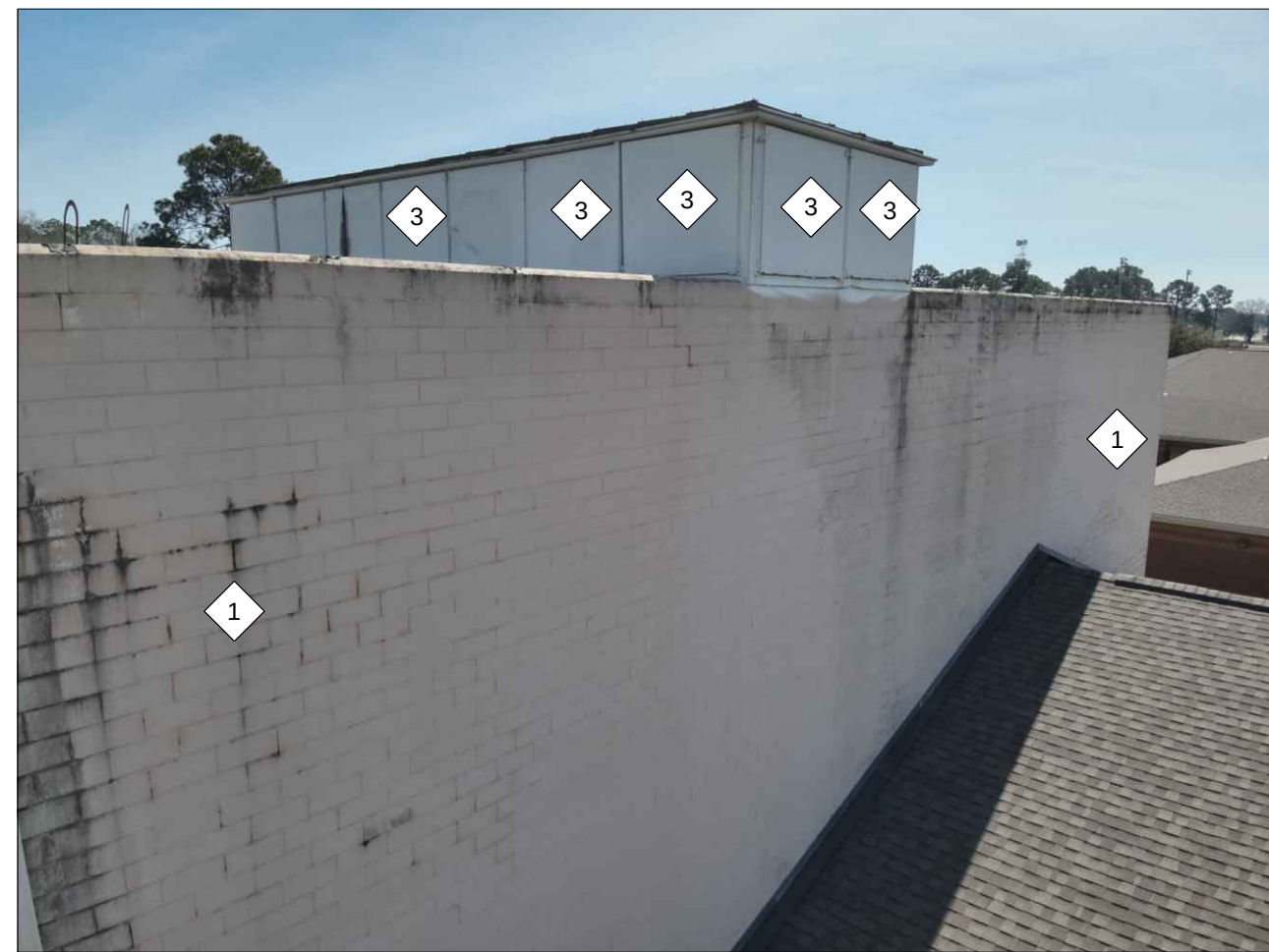
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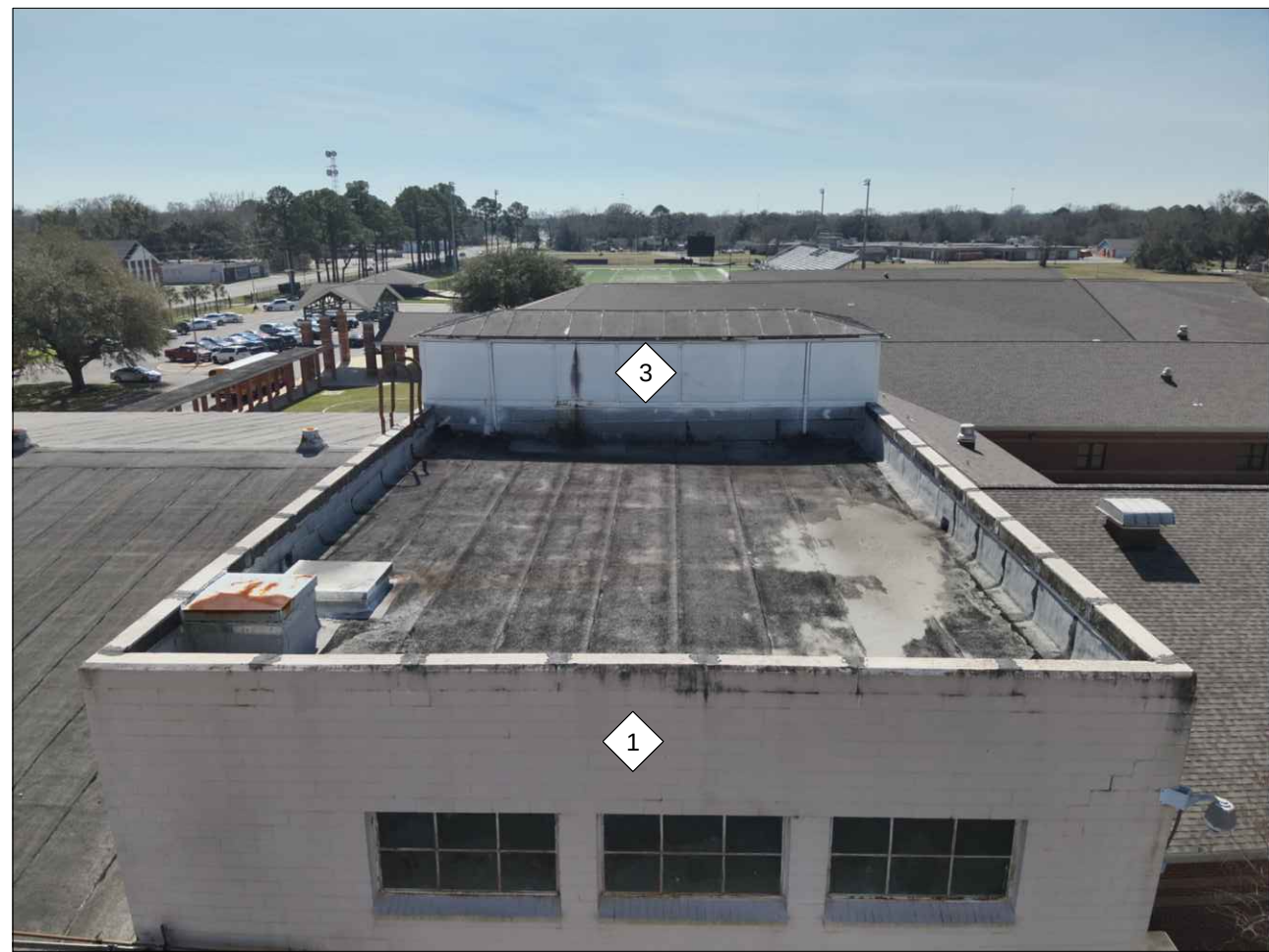
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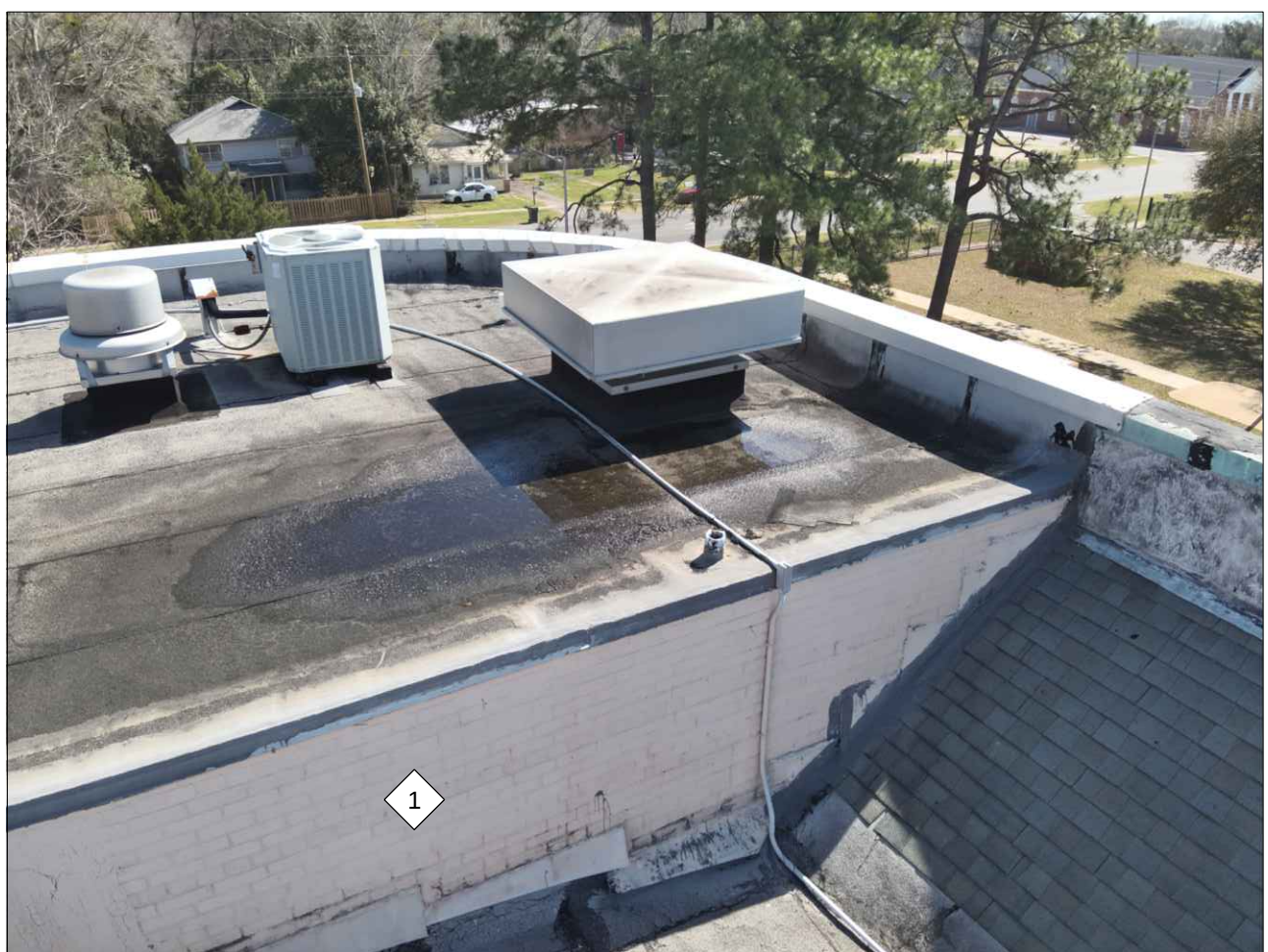
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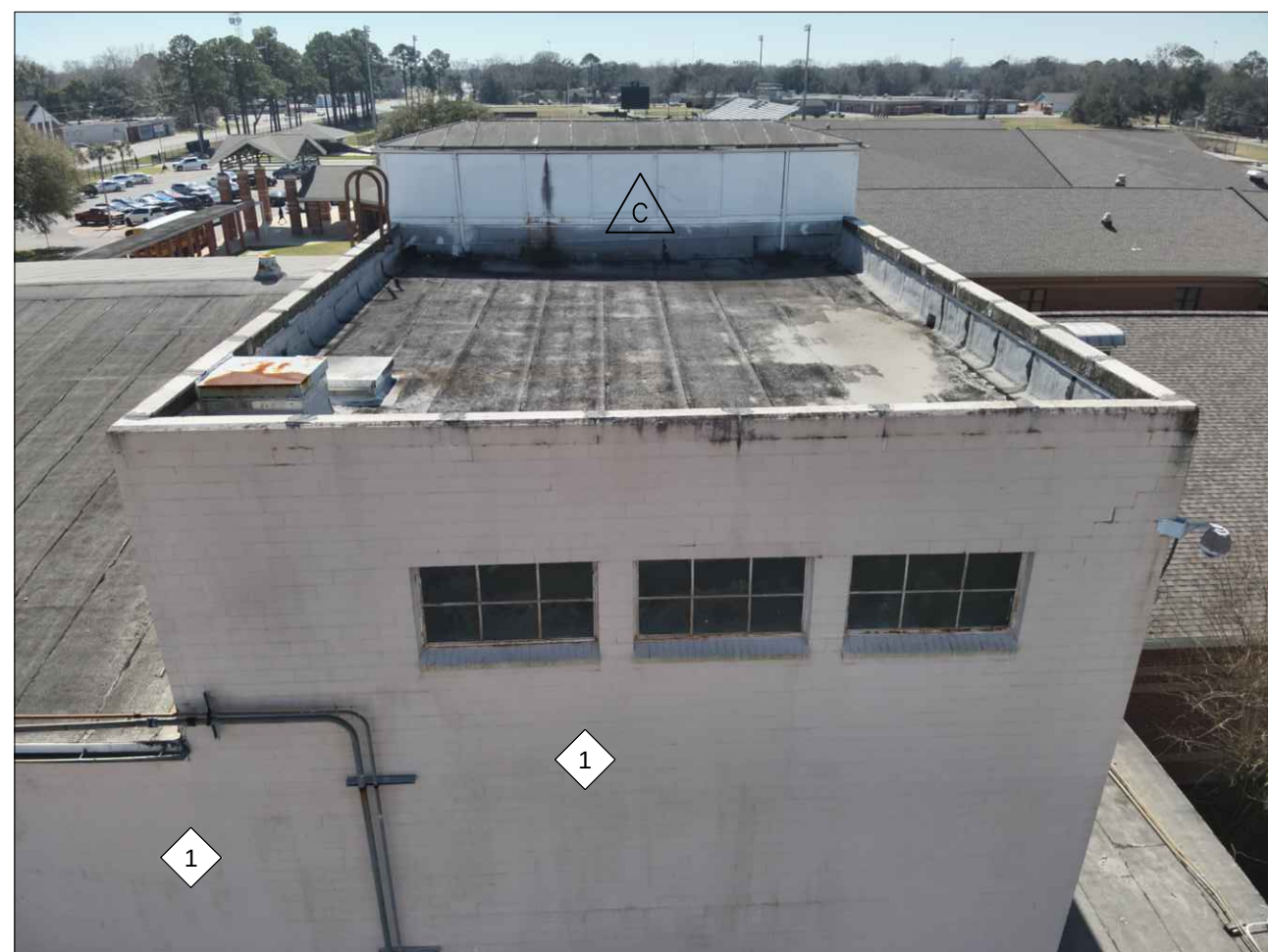
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ELASTOMETRIC KEY LEGEND	
SYMBOL	DESCRIPTION
1	APPLY ELASTOMETRIC COATING TO ALL EXISTING MASONRY INCLUDED BUT NOT TO EXISTING BRICK AND CMU.
2	APPLY ELASTOMETRIC TO EXISTING STUCCO & CONCRETE
3	APPLY ELASTOMETRIC COATING TO EXISTING METAL SURFACE.

PAINTING NOTE	
PRESSURE WASH ALL VERTICAL SURFACES AT AUDITORIUM, INCLUDING BUT NOT LIMITED TO, BRICK VENEER, CMU, STUCCO, CAST STONE, AND METAL PANELS. RE-PAINT ANY LOOSE HEAD AND BED JOINTS.	

GENERAL ROOFING NOTES (REPLACEMENT):

1. SEE SPECIFICATIONS FOR MATERIALS AND EXECUTION.
2. SEE NOTES RELATED TO SPECIFIC ROOF AREAS ON PLANS.
3. CONTRACTOR TO INSTALL NEW "REPLACEMENT" ROOFING SYSTEM. EXISTING ROOFING SYSTEM IS TO BE REMOVED and PREPPED AS REQUIRED FOR NEW REPLACEMENT ROOFING SYSTEM. SEE SPECIFICATION SECTION 07521 FOR ROOF DESCRIPTION and EXECUTION OF INSTALLATION.
4. REMOVE ALL LOOSE DEBRIS FROM EXISTING ROOF.
5. REPLACE ALL EXISTING NAILERS AND WOOD CURBS AS REQUIRED WITH P.T. MEMBERS.
6. TEMPORARILY DISCONNECT ALL EXISTING ELECTRICAL CONDUITS and GAS PIPING ON ROOF IF APPLICABLE. AFTER THE INSTALLATION OF THE NEW ROOFING SYSTEM OVER ROOF AREA, RE-CONNECT ALL ELECTRICAL and GAS PIPING AS REQUIRED. PREP, PRIME and PAINT GAS PIPING AFTER INSTALLATION. CONTRACTOR'S OPTION IS TO REPLACE ALL PIPING WITH NEW IN LIEU OF PAINTING. PROVIDE NEW PIPE and CONDUIT SUPPORTS AS SPECIFIED.
7. INSTALL NEW FLASHING SYSTEMS COMPLETE OR AS NOTED. FLASH ALL PENETRATIONS PASSING THROUGH THE SINGLE PLY MEMBRANE SYSTEM. THE FLASHING SEAL MUST BE MADE DIRECTLY TO THE PENETRATION. DO NOT CUT AND PATCH MOLDED FLASHING.
8. PRECAUTIONS MUST BE TAKEN THAT THE EXISTING ROOF AREAS REMAIN AS DRY AS POSSIBLE BEFORE APPLICATION OF NEW ROOFING. ADEQUATE DRYING TIME MUST BE ALLOWED BEFORE RE-ROOFING.
9. GENERAL CONTRACTOR IS RESPONSIBLE FOR ASSESSING AND CALCULATING ALL COSTS FOR WORK TO BE DONE PRIOR TO BIDDING THIS PROJECT.
10. THE DETAILS SHOULD SERVE AS A GUIDE FOR LAYING OUT THE WORK AND MUST BE MODIFIED AS NEEDED TO ADAPT THEM TO VARYING CONDITIONS THAT MAY BE ENCOUNTERED IN THE FIELD.
11. ELEVATE ALL HVAC UNITS AND MOTORIZED PENETRATIONS AS REQUIRED TO HEIGHT FOR NEW ROOFING SYSTEM MINIMUM OF 8" ABOVE THE FINISHED ROOF SYSTEM AS REQUIRED BY THE ROOFING MANUFACTURER. ALL WIRING, GAS, CONDENSING AND REFRIGERANT LINES TO BE RE-CONNECTED AS REQUIRED. ALL DUCTWORK IS TO BE EXTENDED TO UNITS. SUPPLY AIR AND RETURN AIR DUCTWORK (FORMALDEHYDE-FREE) WITH CERTIFIED GLASS FIBER DUCT INSULATION SHALL BE PROVIDED WITH 2" THICKNESS, 1.5 LB. DENSITY, DUCT WRAP WITH REINFORCED FOIL KRAFT LAMINATE JACKET AS A MINIMUM. CONTRACTOR TO INSTALL EXTENDER CURBS AT ALL ROOFTOP MECHANICAL UNITS TO ENSURE PROPER ROOF FLASHING HEIGHTS AND MEET THE REQUIREMENTS FOR WIND LOADING AS PER IBC 1609. NEW CURB EXTENDERS MAY BE SHOP FABRICATED USING 16-GAUGE GALVANIZED STEEL WITH 24-GAUGE GALVANIZED DIVIDERS. NEW CURB EXTENDERS SHALL BE FORMED TO PROPERLY SUPPORT THE WEIGHT OF THE EXISTING MECHANICAL UNITS AND SECURELY FIT THE EXISTING CONDITIONS WITH NEW ROOF FLASHINGS PROPERLY INSTALLED PER THE ROOFING MANUFACTURER'S REQUIREMENTS.
12. ALL EXISTING ELECTRICAL AND/OR MECHANICAL PENETRATIONS THROUGH THE SIDES OF EXISTING CURBS MUST BE RE-ROUTED THROUGH THE ROOF NO LESS THAN 18" AWAY FROM CURBS OR OTHER PENETRATIONS. ALL ROOF PENETRATIONS SHALL BE PROPERLY SEALED WITH PITCH PANS AND/OR MEMBRANE FLASHINGS AS RECOMMENDED BY ROOFING MANUFACTURER. THIS WORK SHALL BE INCLUDED IN THE CONTRACTOR'S BID AS THERE WILL BE NO ADDITIONAL FUNDS APPROVED FOR THESE CONDITIONS.
13. DISCONNECT EXISTING ELECTRICAL CONNECTIONS TO ROOF MOUNTED MECHANICAL EQUIPMENT AS REQUIRED TO PERFORM THE RE-ROOFING WORK. RECONNECT ALL ELECTRICAL CONNECTIONS TO ROOF MOUNTED MECHANICAL EQUIPMENT AS WORK IS COMPLETED. MAINTAIN EXISTING DISCONNECTS AND MAINTENANCE RECEPTACLES. INTERCEPT AND EXTEND EXISTING CIRCUITRY AS REQUIRED TO FACILITATE RECONNECTING THE EXISTING EQUIPMENT. ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE.
14. THE CONTRACTOR SHALL INSTALL NEW R26 TAPERED and NON-TAPERED INSULATION (AS SPECIFIED) OR GREATER TO PROVIDE A TOTAL (EXISTING and NEW) MINIMUM SLOPE OF 1/4" PER FOOT TO THE MANUFACTURER'S MOST CURRENT SPECIFICATIONS AND DETAILS. NO PERLITE IS ALLOWED.
15. CONTRACTOR IS TO VERIFY WITH OWNER IF ALL ROOF PENETRATIONS ARE ACTIVE BEFORE WORK COMMENCES. IF A PENETRATION IS DEEMED INACTIVE, SEAL OPENING WITH 1/8" (UP TO 12") and 3/4" (ABOVE 12") METAL FASTENED TO EXISTING DECK and PROVIDE ROOFING SYSTEM AS SPECIFIED.
16. PROVIDE NEW ROOF CRICKETS WITH MINIMUM SLOPE OF 1/4" PER FOOT USING NEW TAPERED POLYISO and RIGID COVER BOARD. SEE SPECS FOR EXECUTION.
17. REMOVE and REPLACE ALL EXISTING FLASHINGS, FASCIAS and TRIM TO ALLOW FOR THE INSTALLATION OF NEW ROOFING SYSTEM.
18. CONTRACTOR TO PREP, PRIME/ PAINT ALL EXISTING ROOFING PENETRATIONS WITH RUST INHIBITOR PRIME/ PAINT- TYPICAL.

NOTE:
Contractor is to provide positive drainage as required for all re-roofing work. "Positive drainage" means no standing water on the roof 48 hours after a rain.

Examination of the Site of the Work

These drawings were compiled by the Architect from the Roof Consultant's Record Drawings and from on-site observations to indicate the building arrangement and the new roof configuration required.

All Contractors submitting proposals for this work shall first examine the premises and all conditions therein. All proposals shall take into consideration all such conditions as may affect the work under this Contract.

Drawings are dimensioned and roof penetrations shown for bidding purpose only. Contractors shall measure all existing work at the premises and verify all dimensions needed to properly interface improvements with all existing elements which are to remain.

ROOF AREA 'A' , 'B' and 'C' NOTES:

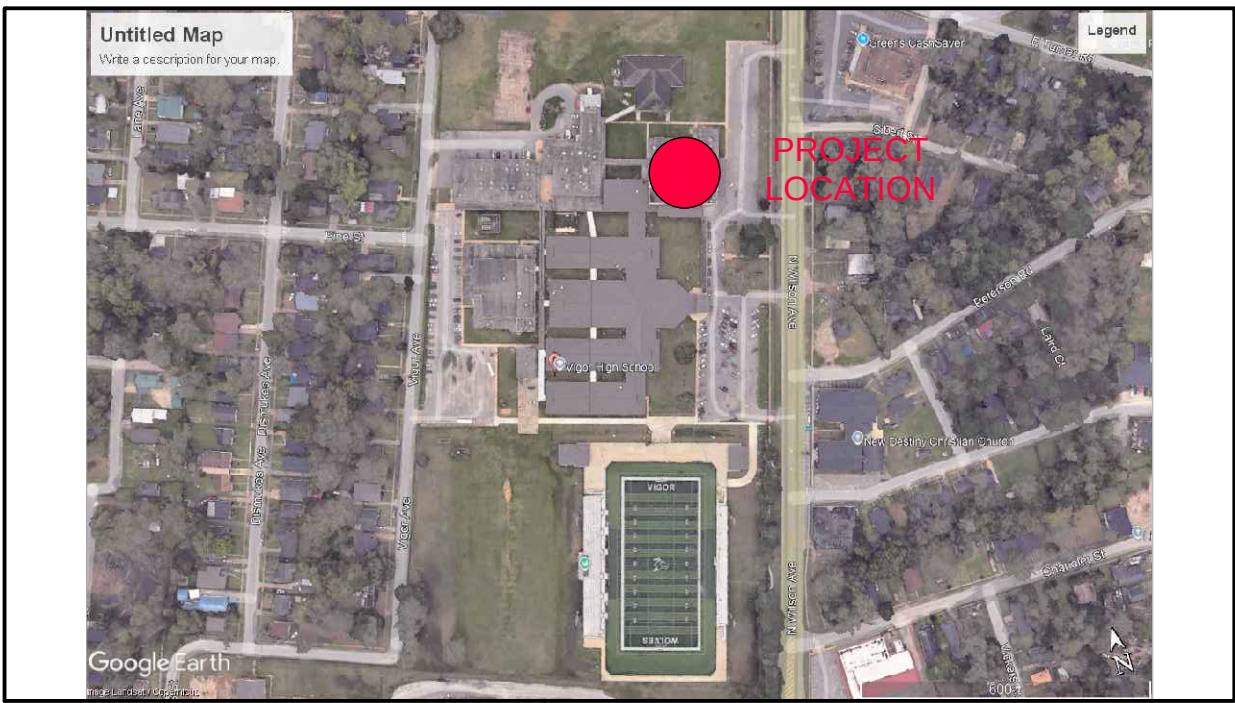
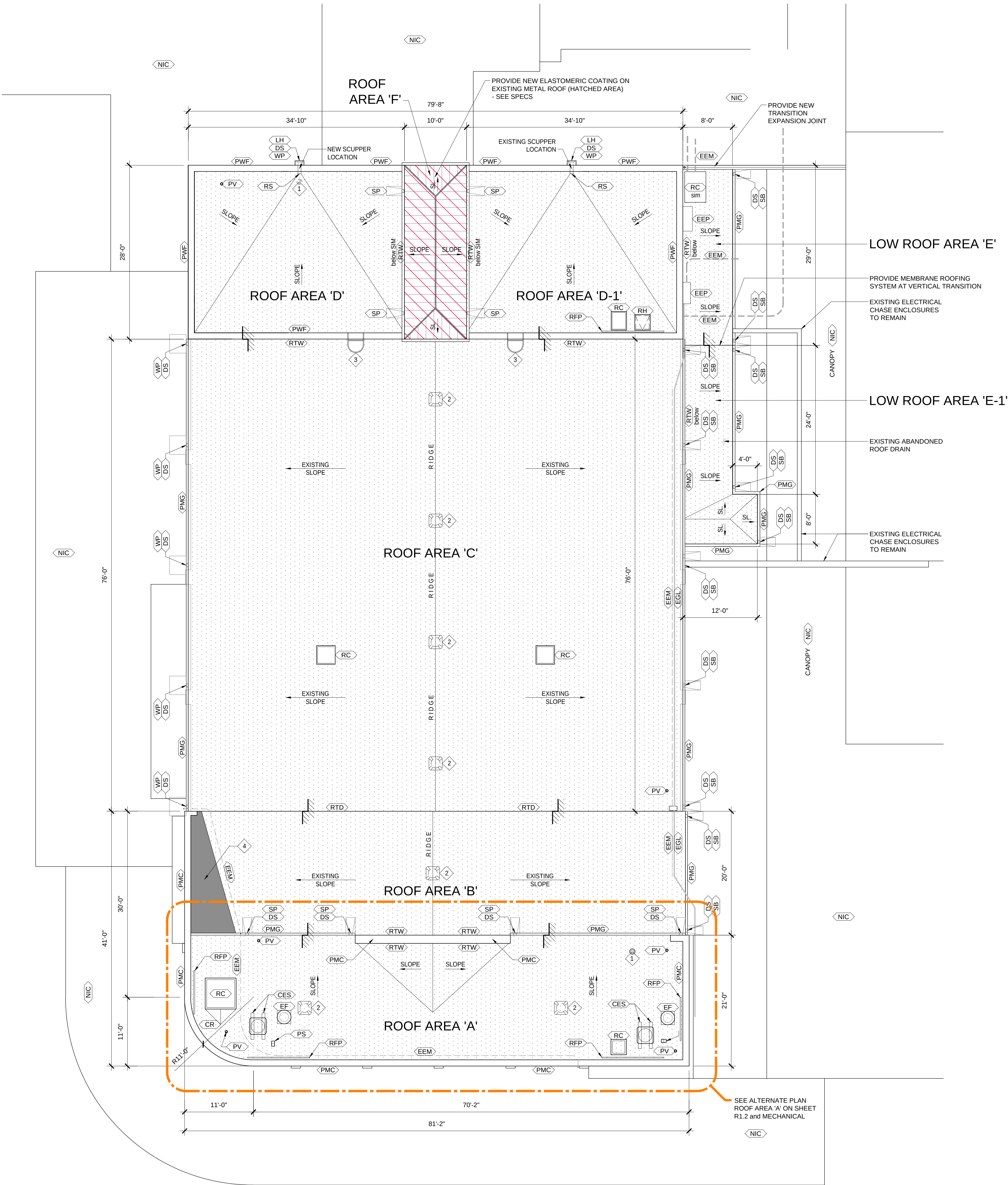
- THE EXISTING ROOF CONSTRUCTION IS:
-GRANULATED MODIFIED BITUMEN CAP SHEET ADHERED TO BASE SHEETS
-WOOD DECK SUBSTRATE
- THE EXISTING ROOF STRUCTURE HAS SLOPE
- CONTRACTOR IS TO REMOVE THE EXISTING ROOFING SYSTEM and TECTUM DECKING IN ENTIRETY. PROVIDE A NEW METAL DECK (SEE STRUCTURAL) and INSTALL A NEW MODIFIED BITUMEN ROOFING SYSTEM. SEE SPECIFICATION SECTION 07521 FOR ROOF DESCRIPTION and EXECUTION OF INSTALLATION.
- SEE GENERAL ROOFING NOTES SHEET A1.0 FOR ADDITIONAL INFORMATION.

ROOF AREA 'D' and 'D-1' NOTES:

- THE EXISTING ROOF CONSTRUCTION IS:
-GRANULATED MODIFIED BITUMEN CAP SHEET ADHERED TO BASE SHEETS
-STRUCTURAL CONCRETE DECK SUBSTRATE
- THE EXISTING ROOF STRUCTURE HAS SLOPE
- CONTRACTOR IS TO REMOVE THE EXISTING ROOFING SYSTEM and TECTUM DECKING IN ENTIRETY. PROVIDE A NEW METAL DECK (SEE STRUCTURAL) and INSTALL A NEW MODIFIED BITUMEN ROOFING SYSTEM. SEE SPECIFICATION SECTION 07521 FOR ROOF DESCRIPTION and EXECUTION OF INSTALLATION.
- SEE GENERAL ROOFING NOTES SHEET A1.0 FOR ADDITIONAL INFORMATION.

LOW ROOF AREAS 'E' and 'E-1' NOTES:

- THE EXISTING ROOF CONSTRUCTION IS:
-GRANULATED MODIFIED BITUMEN CAP SHEET ADHERED TO BASE SHEETS
-STRUCTURAL CONCRETE DECK SUBSTRATE
- THE EXISTING ROOF STRUCTURE HAS SLOPE
- CONTRACTOR IS TO REMOVE THE EXISTING ROOFING SYSTEM and TECTUM DECKING IN ENTIRETY. PROVIDE A NEW METAL DECK (SEE STRUCTURAL) and INSTALL A NEW MODIFIED BITUMEN ROOFING SYSTEM. SEE SPECIFICATION SECTION 07521 FOR ROOF DESCRIPTION and EXECUTION OF INSTALLATION.
- SEE GENERAL ROOFING NOTES SHEET A1.0 FOR ADDITIONAL INFORMATION.

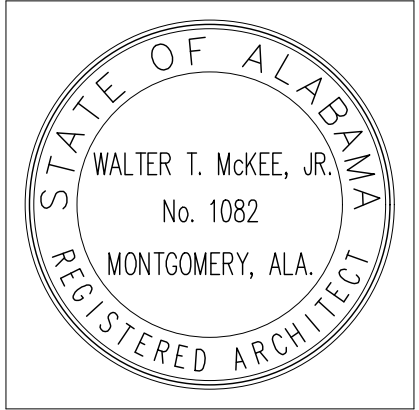


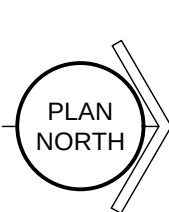
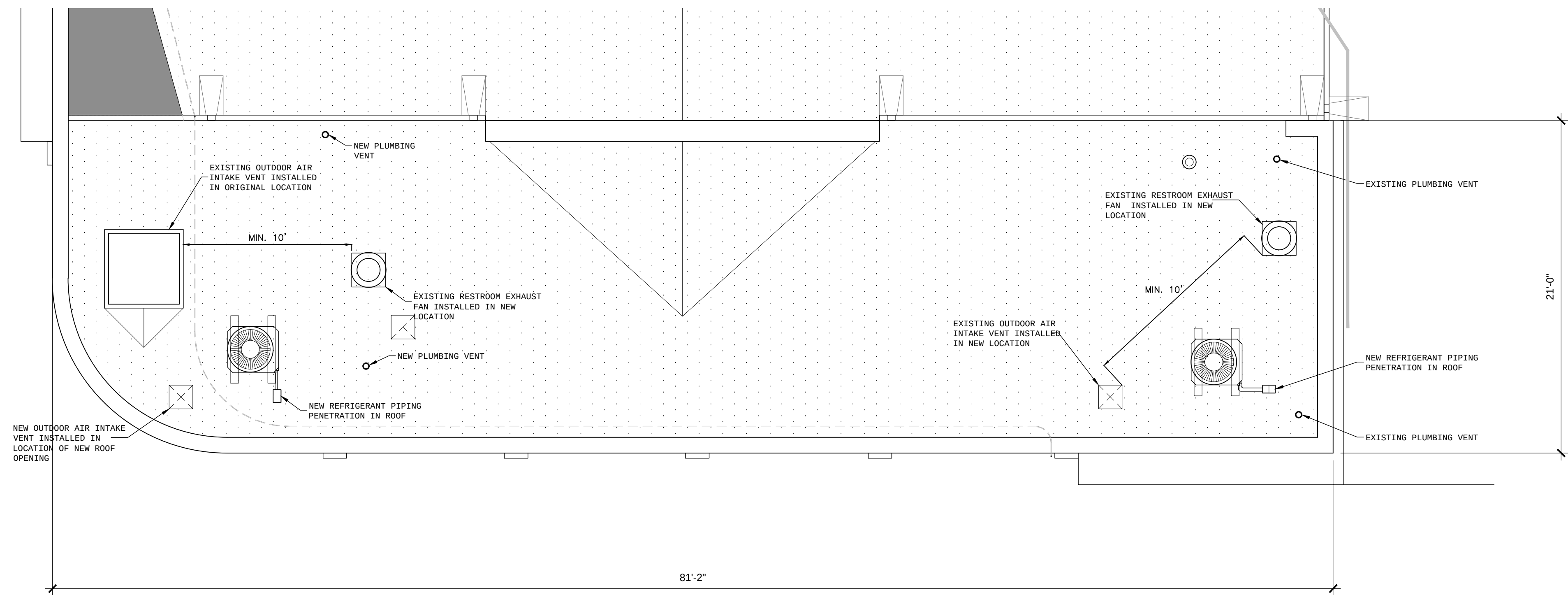
Vigor High School Auditorium Building
LOCATION MAP
SCALE: NTS

ROOF KEYNOTES	
SYMBOL	DESCRIPTION
1	REMOVE EXISTING ROOF DRAIN and BOWL IN ENTIRETY- INFILL OPENING and PREP FOR NEW ROOFING SYSTEM- REMOVE ALL PIPING EXPOSED TO EXTERIOR and SEAL OPENING
2	REMOVE EXISTING VENT IN ENTIRETY- INFILL OPENING and PREP FOR NEW ROOFING SYSTEM
3	PREP and RE-PAINT THE EXISTING ACCESS STAIR UNIT
4	REMOVE EXISTING SHINGLES and UNDERLAYMENT THIS AREA. PROVIDE NEW COVER BOARD ON EXISTING DECK with NEW ROOFING AS SPECIFIED.

ROOF PLAN LEGEND	
SYMBOL	DESCRIPTION
[Pattern]	NEW MODIFIED BITUMEN ROOFING SYSTEM - SEE SPECS
[Hatched]	EXISTING ROOF ELEVATION CHANGE -FIELD VERIFY
<CR>	PROVIDE NEW CRICKET
<DS>	PRE-FINISHED METAL DOWNSPOUT
<EF>	EXHAUST/ DISCHARGE FAN SUPPORT CURB DETAIL
<PS>	PEDESTAL STANDS FOR ELECTRICAL- PROVIDE NEW FLASHING AS PER MANUFACTURER
<PV>	PLUMBING VENT FLASHING THRU ROOF
<RC>	ROOF CURB
<RH>	ROOF HATCH
<RS>	ROOF SCUPPER
<SB>	CONCRETE SPLASHBLOCK
<WP>	WALKWAY PAD (TO BE USED FOR SPLASHPAD)- BY ROOFING MANUFACTURER
<CES>	CURB EQUIPMENT SUPPORT
<EEM>	EXISTING ELECTRICAL LINE- PROVIDE NEW SUPPORTS AS SPECIFIED
<EEP>	EXISTING ELECTRICAL PANEL LOCATION
<EGL>	EXISTING GAS LINE- PROVIDE NEW SUPPORTS AS SPECIFIED
<PMC>	PRE-FINISHED METAL COPING
<PMG>	PRE-FINISHED METAL GUTTER
<PWF>	PARAPET WALL FLASHING
<RFP>	RESTRAINT FALL PROTECTION- SEE SPECS
<RTD>	EXISTING ROOF TRANSITION LOCATION- PROVIDE NEW TRANSITION AS PER MANUFACTURER'S STANDARDS
<NIC>	NOT IN CONTRACT

NOTE: SEE SHEETS R2.1, R2.2, R2.3 and R2.4 FOR DETAILS



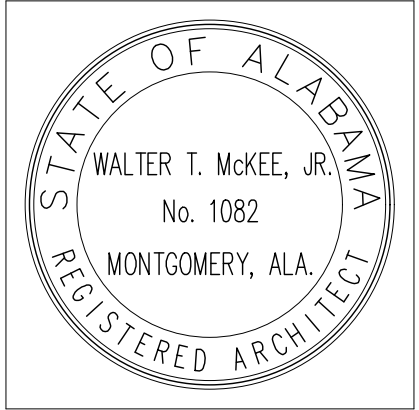


Vigor High School Auditorium
ROOF PLAN AREA 'A': ALTERNATE
SCALE: 1/4" = 1'-0"

NOTES:

1. REFER TO SHEET R1.1 FOR DETAIL INFORMATION RELATED TO THE ROOFING WORK THIS AREA THAT IS IN THE BASE BID
2. REFER TO MECHANICAL DRAWINGS FOR **ALTERNATE** WORK RELATED TO THIS AREA THAT INVOLVES COORDINATION WITH NEW MECHANICAL WORK and COORDINATION WITH EXISTING ROOF ITEMS / PENETRATIONS AS SHOWN ON DRAWINGS

SHEET TITLE:
VIGOR HS AUDITORIUM
ROOF PLAN: ALTERNATE



PROJ. MGR.:	JWW
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REVISIONS	

JOB NO. 26-021

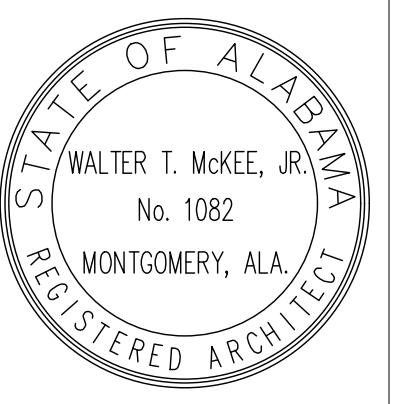
SHEET NO:

R1.2



913 North Wilson Avenue, Prichard AL 36610

SHEET TITLE:
MODIFIED BITUMEN
ROOF DETAILS

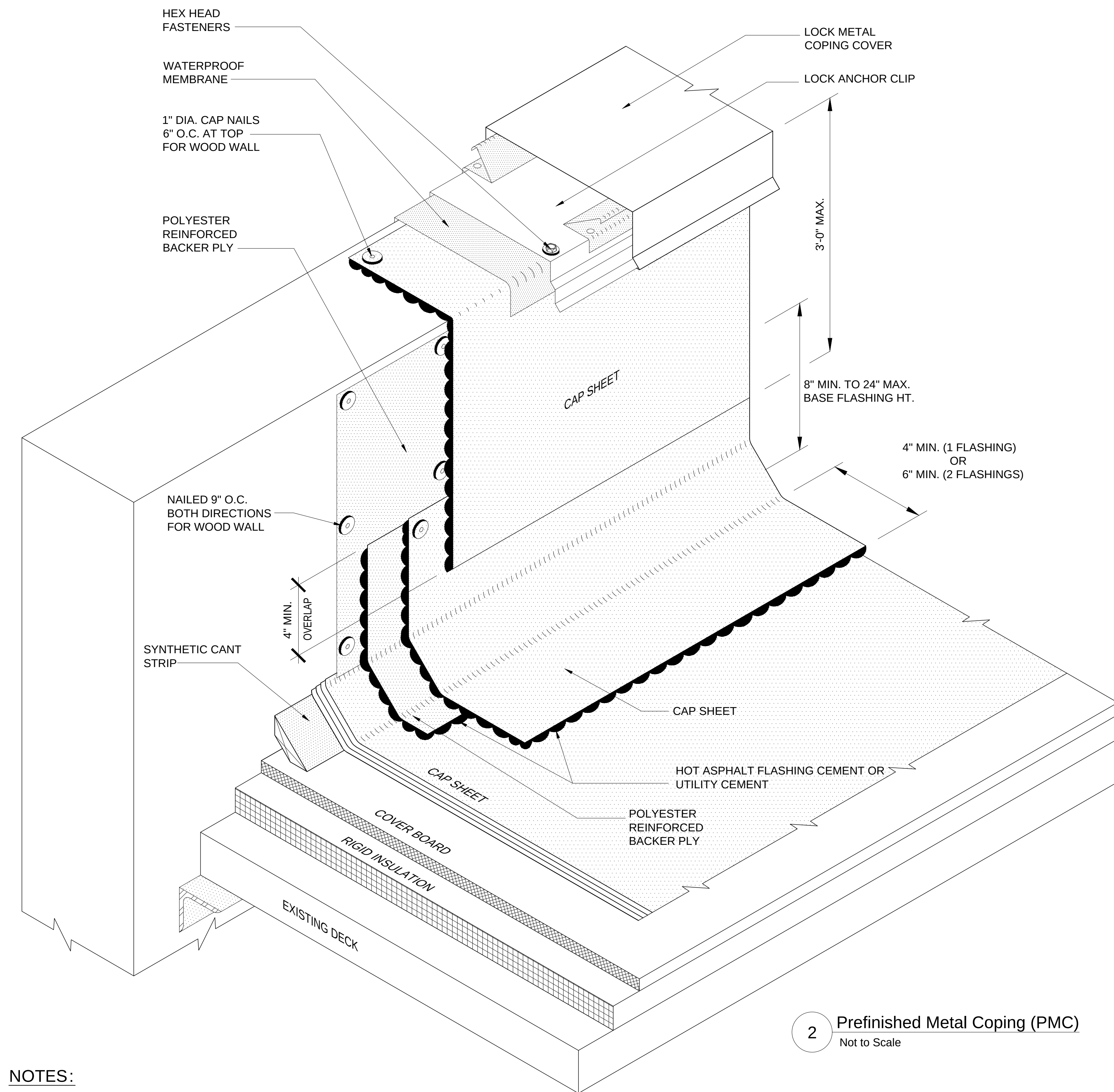


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DRAWN: KS
DATE: 7-8-26
REVISIONS

JOB NO. 26-021

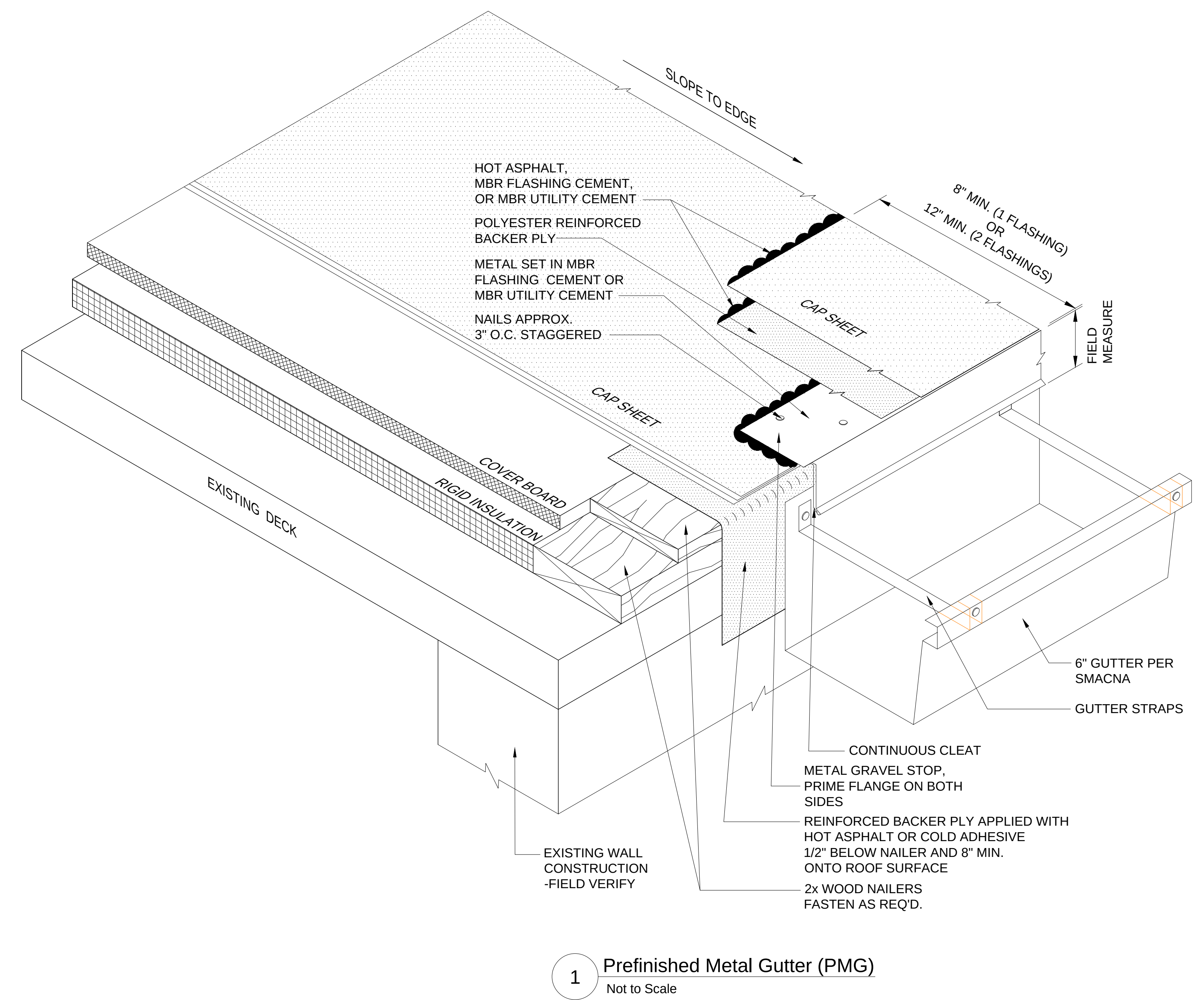
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R2.1

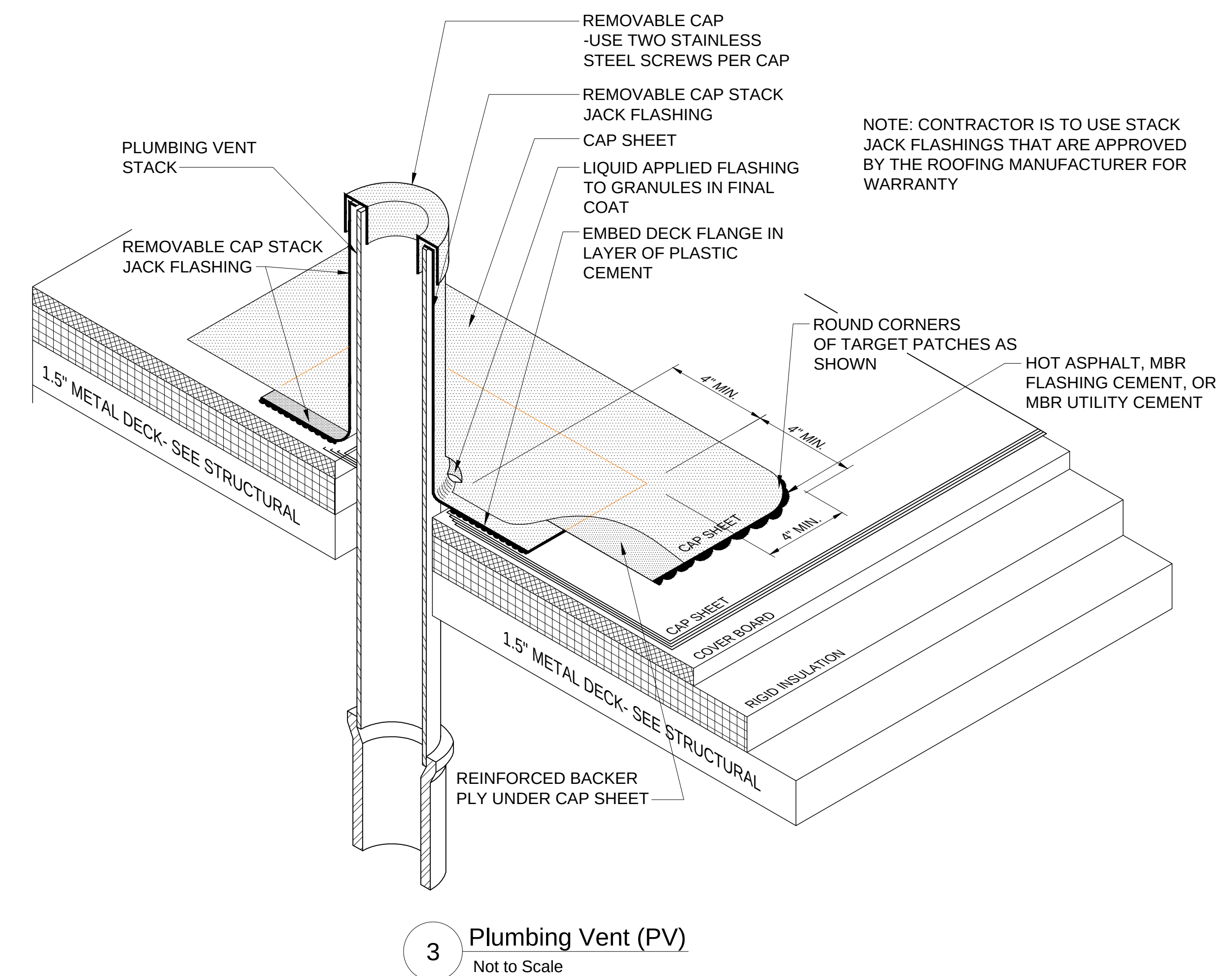


NOTES:

1. INSTALL A LOCK COPING IN ACCORDANCE WITH INSTALLATION INSTRUCTIONS INCLUDED WITH THE PRODUCT. PREFABRICATED INSIDE/OUTSIDE CORNERS AND END CAPS ARE AVAILABLE TO COMPLETE THE INSTALLATION. SHOP FABRICATED COPINGS SHOULD BE INSTALLED IN ACCORDANCE WITH SMACNA GUIDELINES.
2. VERTICAL JOINTS ARE TO BE OVERLAPPED 4" MINIMUM FOR ALL APPLICATIONS. 3 COURSING WITH UTILITY CEMENT AND FABRIC OR MBR FLASHING CEMENT IS RECOMMENDED ON ALL VERTICAL FLASHING LAPs AND INSIDE/OUTSIDE CORNERS EXTENDING PAST LEADING EDGE OF CANT STRIP.
3. ANY CARPENTRY, METAL WORK, OR MASONRY CONSTRUCTION SHOULD BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS AND/OR PROJECT SPECIFICATIONS. THESE COMPONENTS SHOULD BE REVIEWED AND APPROVED BY THE CONTRACTOR AND ROOFING MANUFACTURER.
4. PROVIDE BITUMINOUS FLASHING AS REQUIRED FOR THE INSTALLATION OF THE SPECIFIED ROOFING SYSTEM.
5. MASONRY SUBSTRATES REQUIRE PRIMING WITH ASPHALT PRIMER PRIOR TO BACKER PLY INSTALLATION. WOOD SUBSTRATES REQUIRE A MECHANICALLY FASTENED BACKER PLY FASTENED 9" O.C. IN BOTH DIRECTIONS.



1 Prefinished Metal Gutter (PMG)
Not to Scale

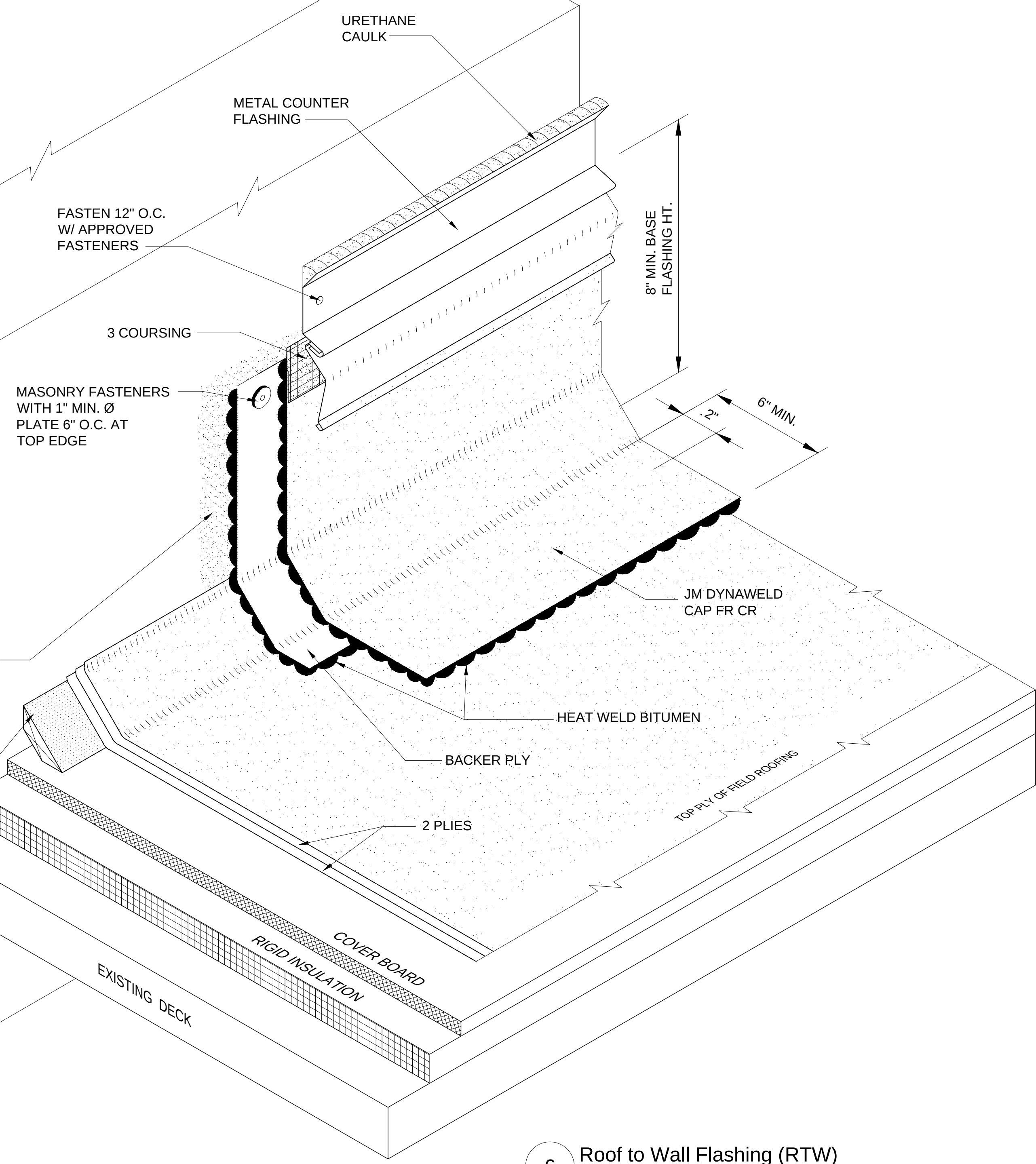


3 Plumbing Vent (PV)
Not to Scale

GENERAL DETAIL NOTES:

1. $\frac{1}{4}$ " MINIMUM SLOPE IS TO BE PROVIDED
3. A **R26 MINIMUM** INSULATION SYSTEM IS TO BE USED FOR THE ENTIRE ROOF ASSEMBLY (INCLUDING AT EDGES AS A STARTER)
4. NO PERLITE INSULATION IS TO BE USED- ONLY USE POLYISO WITH NO EXCEPTIONS.
5. SYNTHETIC CANT STRIPS ARE REQUIRED FOR MOD BIT SYSTEMS
6. CONTRACTOR IS TO USE .040 KYNAR FINISHED METAL FOR ALL TRIM AND COMPONENTS
7. CONTINUOUS CLEATS FOR ALL FACE METALS
8. NP-1 and/or NP-2 URETHANE SEALANTS ARE REQUIRED
9. 2-PIECE ALUMINUM PIPE BOOTS ARE REQUIRED
10. CRICKETS REQUIRED ON ALL CURBS OF 12" OR HIGHER

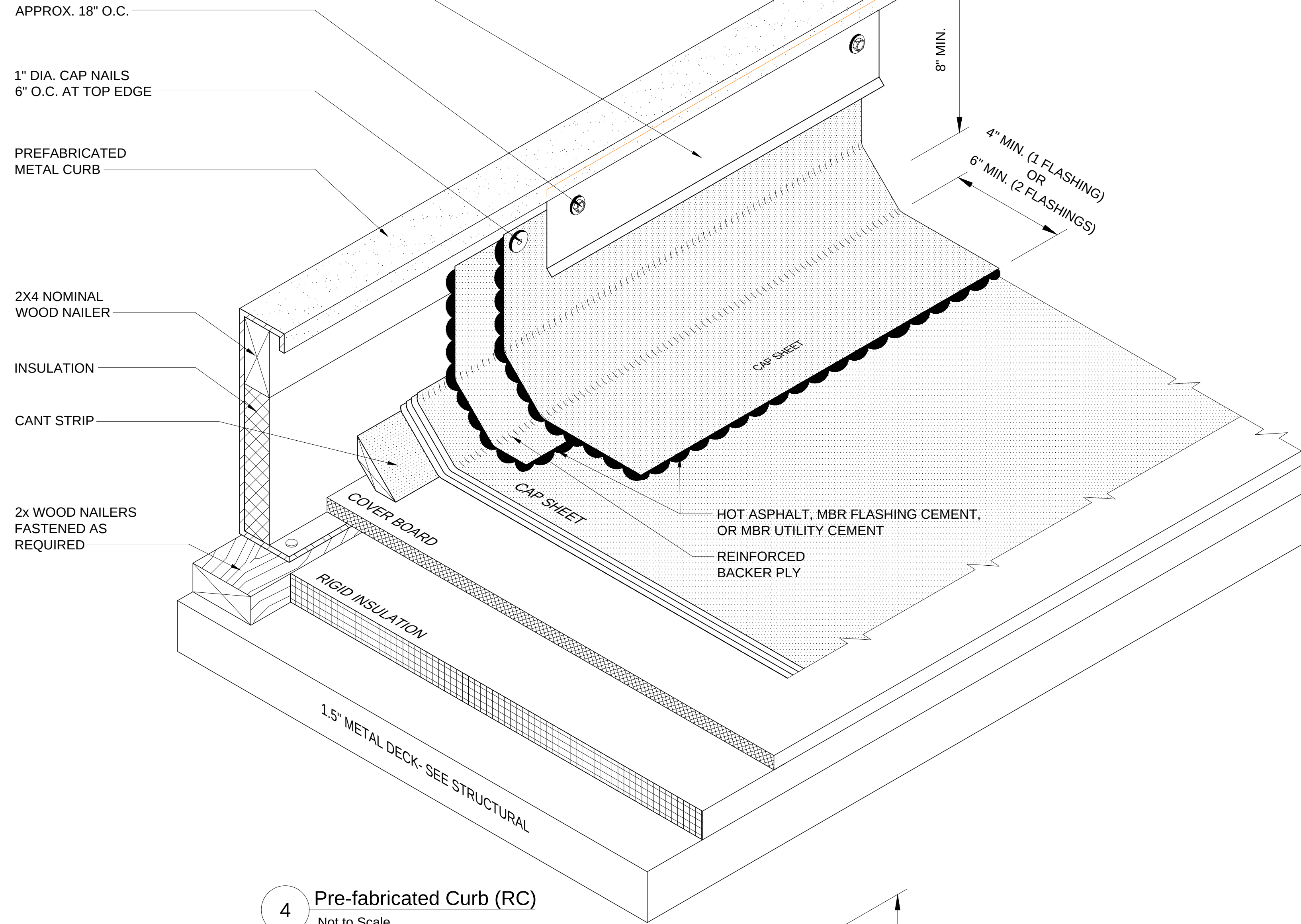
NOTE:
ROOF DETAILS ARE INTENDED TO SERVE AS A GUIDE FOR PROPERLY
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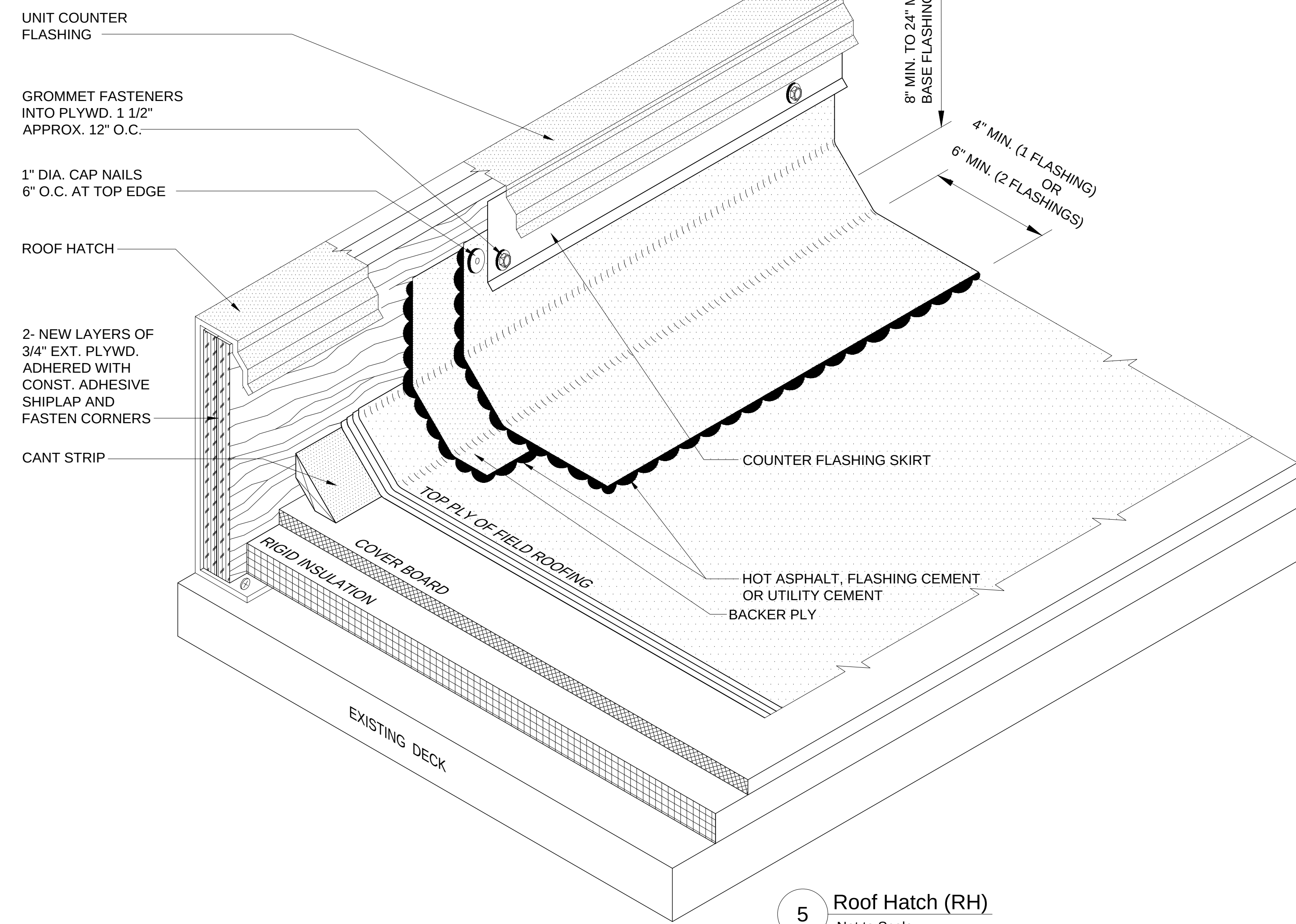
6 Roof to Wall Flashing (RTW)
Not to Scale

FOR ALL APPLICATIONS. 3 COURSING WITH MBR UTILITY CEMENT AND FABRIC OR JM MBR FLASHING CEMENT IS RECOMMENDED ON ALL VERTICAL JOINTS EXTENDING PAST LEADING EDGE OF CANT STRIP.

CONSTRUCTION SHOULD BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS AND/OR PROJECT SPECIFICATIONS. APPROVED BY THE CONTRACTOR AND ROOFING MANUFACTURER.



4 Pre-fabricated Curb (RC)
Not to Scale



5 Roof Hatch (RH)
Not to Scale

NOTES:

- HEIGHT OF CURB TO BE ADJUSTED WITH NAILERS. IT IS PREFERRED TO RAISE ROOF HATCH ONTO NAILERS TO EXTEND FLASHING HEIGHT.
- CURB INSULATION MUST BE MECHANICALLY ATTACHED OR ADHERED SOLIDLY TO METAL CURB.
- CURB MUST BE SET SO AS TO PROVIDE 8" MIN FLASHING HEIGHT.
- METAL COUNTER FLASHING IS REQUIRED FOR ALL INSTALLATIONS.
- ANY CARPENTRY, METAL WORK, OR MASONRY CONSTRUCTION SHOULD BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS AND/OR PROJECT SPECIFICATIONS. THESE COMPONENTS SHOULD BE REVIEWED AND APPROVED BY THE CONTRACTOR AND ROOFING MANUFACTURER.
- VERTICAL JOINTS ARE TO BE OVERLAPPED 4" MINIMUM FOR ALL APPLICATIONS. 3 COURSING WITH UTILITY CEMENT AND FABRIC OR FLASHING CEMENT IS RECOMMENDED ON ALL VERTICAL FLASHING LAPS AND INSIDE/OUTSIDE CORNERS EXTENDING PAST LEADING EDGE OF CANT STRIP.

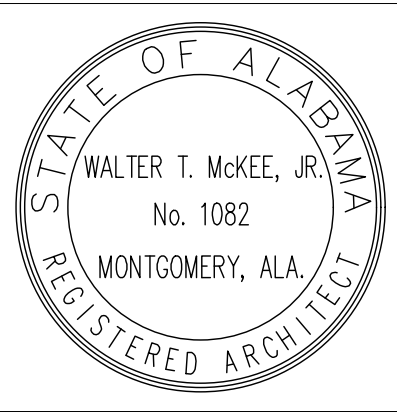
GENERAL DETAIL NOTES:

- 3/4" MINIMUM SLOPE IS TO BE PROVIDED
- A R26 MINIMUM INSULATION SYSTEM IS TO BE USED FOR THE ENTIRE ROOF ASSEMBLY (INCLUDING AT EDGES AS A STARTER)
- NO PERLITE INSULATION IS TO BE USED- ONLY USE POLYISO WITH NO EXCEPTIONS.
- SYNTHETIC CANT STRIPS ARE REQUIRED FOR MOD BIT SYSTEMS
- CONTRACTOR IS TO USE .040 KYNAR FINISHED METAL FOR ALL TRIM and COMPONENTS
- CONTINUOUS CLEATS FOR ALL FACE METALS
- NP-1 and/or NP-2 URETHANE SEALANTS ARE REQUIRED
- 2-PIECE ALUMINUM PIPE BOOTS ARE REQUIRED
- CRICKETS REQUIRED ON ALL CURBS OF 12" OR HIGHER

LATHAN
McKEE
ARCHITECTS

RE-ROOFING AND RENOVATIONS VIGOR HIGH
SCHOOL AUDITORIUM BUILDING for the
Mobile County School System
913 North Wilson Avenue, Prichard AL 36610

SHEET TITLE:
SINGLE PLY
ROOF DETAILS



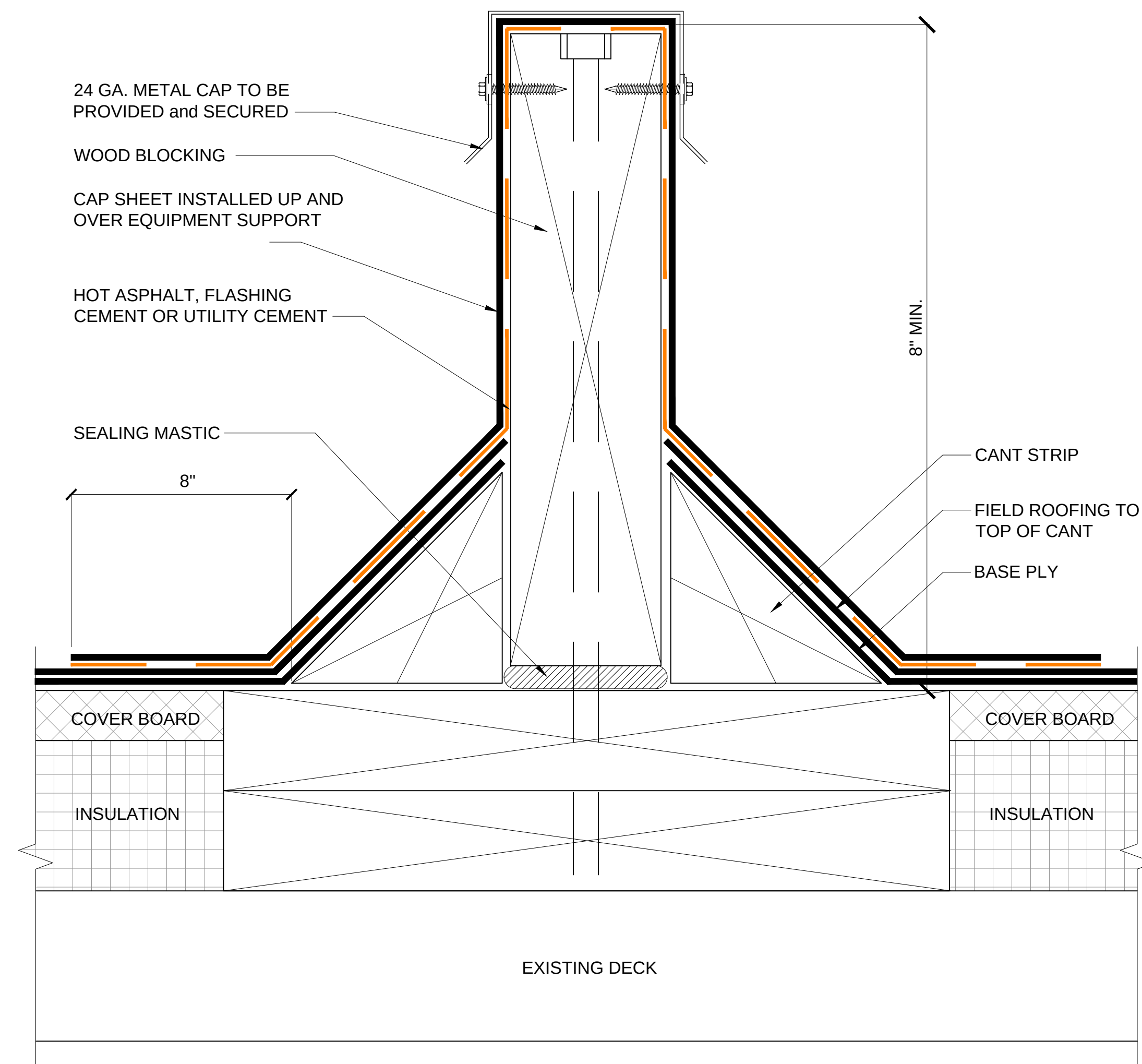
PROJ. MGR.:	JWW
DRAWN:	KS
DATE:	7-8-26
REVISIONS	

JOB NO.	26-021
SHEET NO.:	
	R2.2

OWNER REVIEW

- Z:\2026MKA-26-021-00 Vigor Auditorium Renooding MPS\CAD Drawings\Architectural\R2.1 Roof Details_Typical_Single Ply_Vigor.dwg
- Wednesday, July 8, 2026 2:51:07 PM

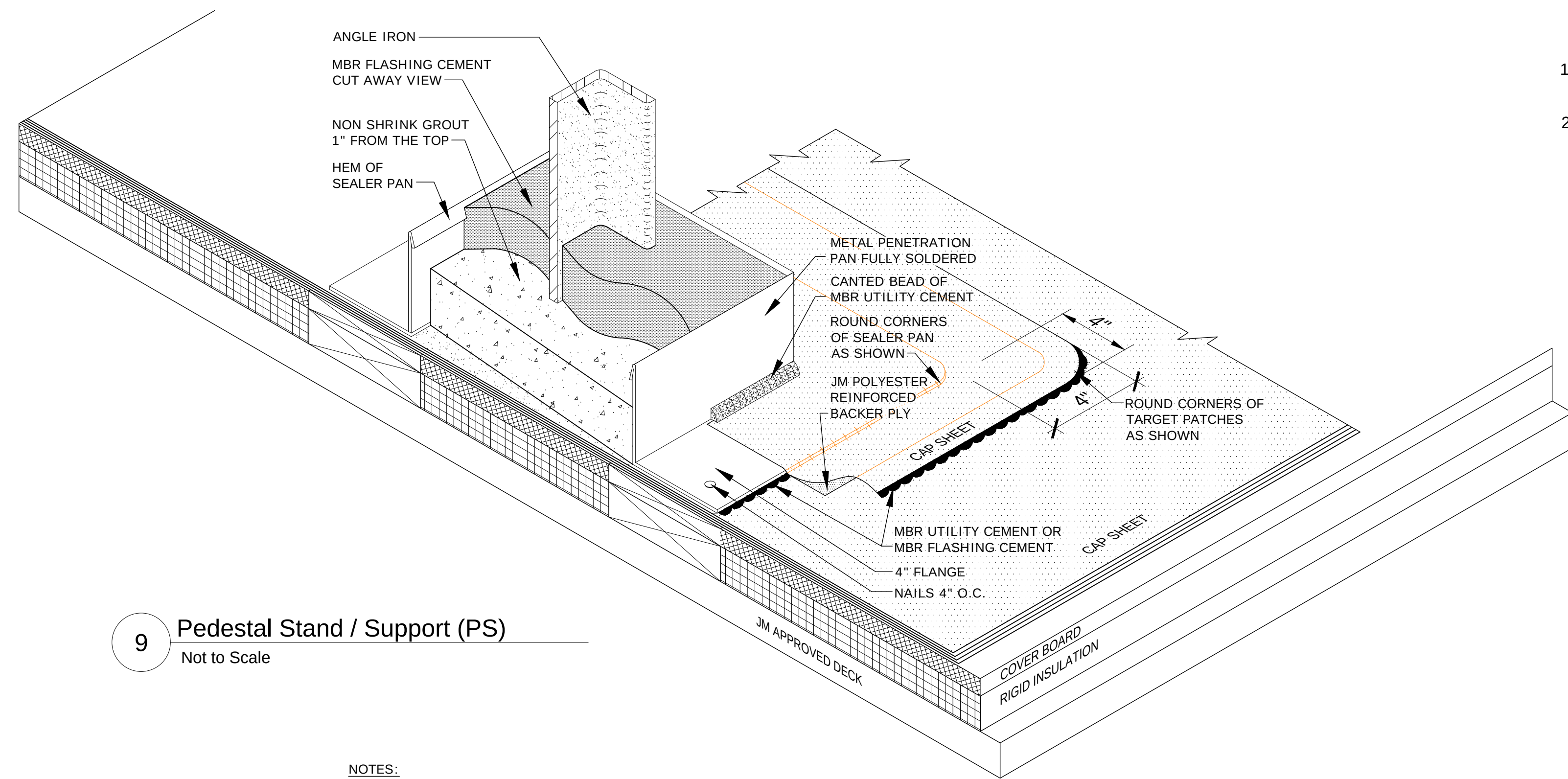
FINAL REVIEW



NOTES:

1. ANY CARPENTRY, METAL WORK, OR MASONRY CONSTRUCTION SHOULD BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS AND/OR PROJECT SPECIFICATIONS. THESE COMPONENTS SHOULD BE REVIEWED AND APPROVED BY THE CONTRACTOR AND ROOFING MANUFACTURER.

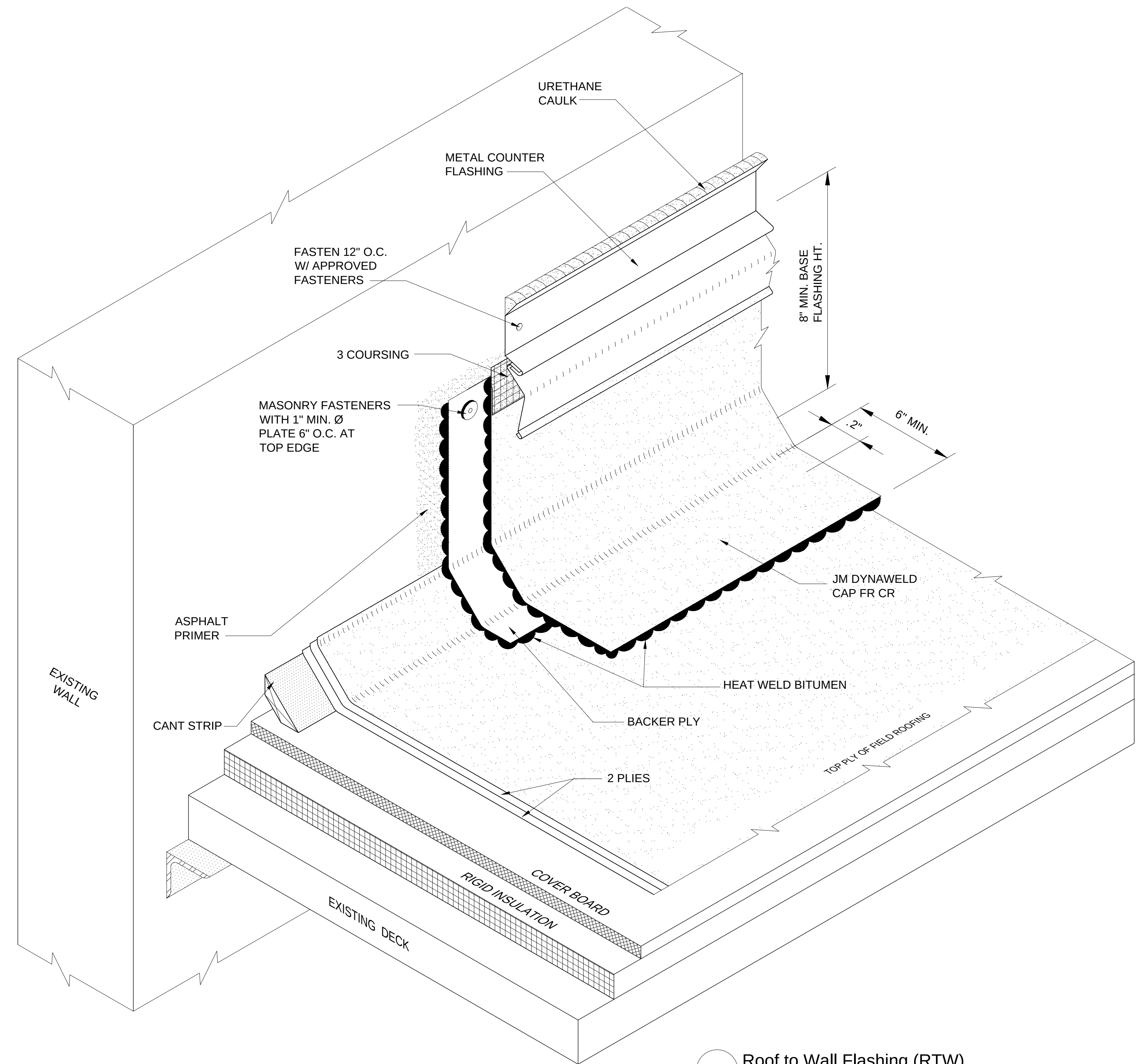
8 Concealed Equipment Support (CES)
Not to Scale



NOTES:

1. REFER TO JOHNS MANVILLE WEBSITE (www.jm.com) FOR MOST UP-TO-DATE INFORMATION.
2. MAINTAIN 2" MIN. CLEARANCE FROM PENETRATION TO EDGE OF METAL PAN.
3. ROUND FLANGE CORNERS ON METAL PAN.
4. PRIME INSIDE OF METAL PAN WITH PERMAFLASH PRIMER WHERE MBR FLASHING CEMENT WILL BE PLACED.
5. PENETRATION PANS ARE CONSIDERED MAINTENANCE ITEMS AND ARE NOT GUARANTEED BY JOHNS MANVILLE.
6. USE ASPHALT PRIMER ON FLANGES WHEN USING MBR UTILITY CEMENT. USE PERMAFLASH PRIMER ON FLANGES WHEN USING MBR FLASHING CEMENT.
7. ANY CARPENTRY, METAL WORK, OR MASONRY CONSTRUCTION SHOULD BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS AND/OR PROJECT SPECIFICATIONS. THESE COMPONENTS SHOULD BE REVIEWED AND APPROVED BY A LICENSED DESIGN PROFESSIONAL.
8. PLEASE SEE BITUMINOUS FLASHING SPECIFICATIONS FOR A FULL DESCRIPTION OF INSTALLATION INSTRUCTIONS AND REQUIREMENTS WHICH ARE CONSIDERED A PART OF THIS DETAIL.
9. JM POLYESTER REINFORCED BACKER PLY INCLUDES DYNABASE PR OR DYNALASTIC 180 S.

9 Pedestal Stand / Support (PS)
Not to Scale



NOTES:

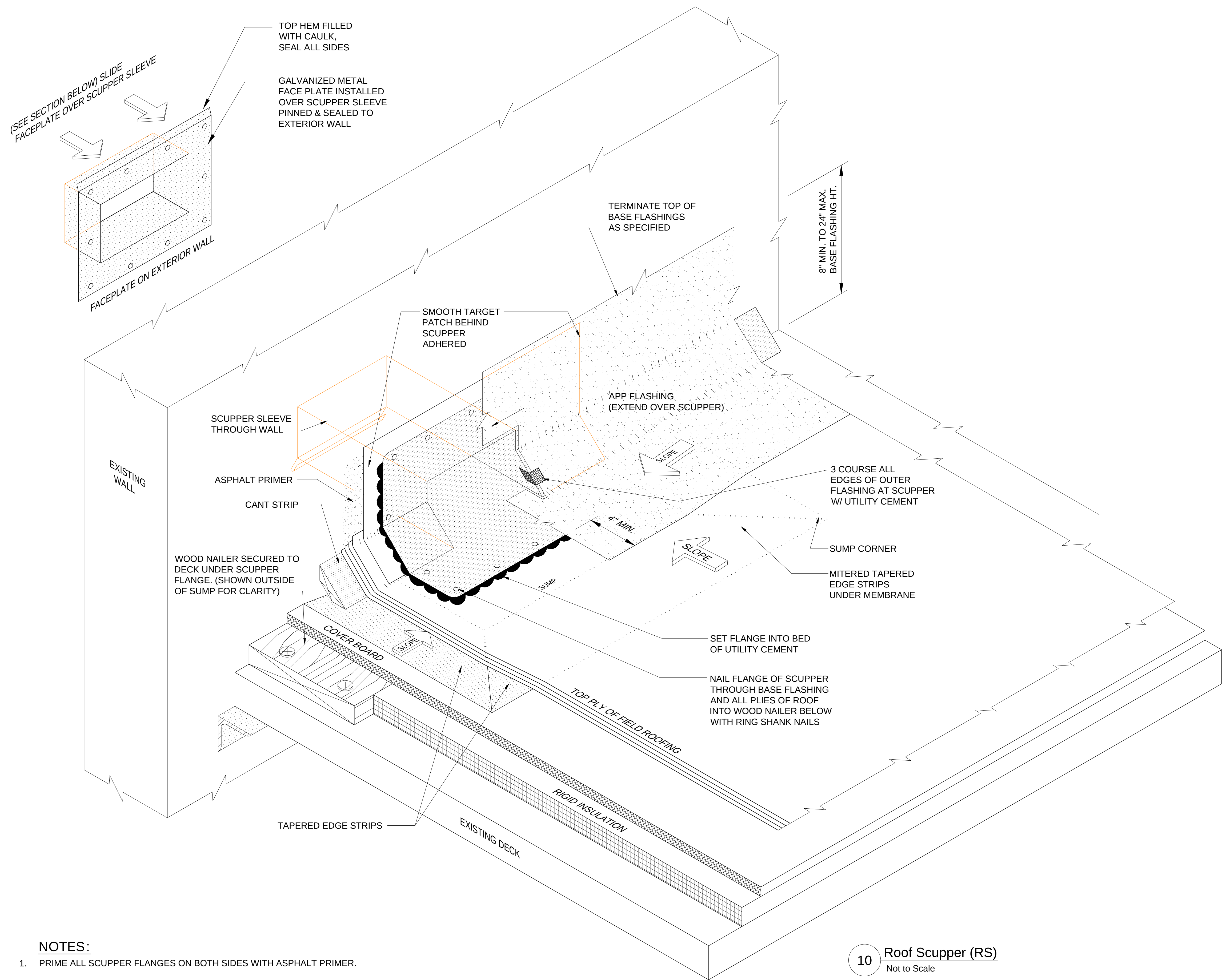
1. VERTICAL JOINTS ARE TO BE OVERLAPPED 4" MINIMUM FOR ALL APPLICATIONS. 3 COURSING WITH MBR UTILITY CEMENT AND FABRIC OR JM MBR FLASHING CEMENT IS RECOMMENDED ON ALL VERTICAL FLASHING LAPS AND INSIDE/OUTSIDE CORNERS EXTENDING PAST LEADING EDGE OF CANT STRIP.
2. ANY CARPENTRY, METAL WORK, OR MASONRY CONSTRUCTION SHOULD BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS AND/OR PROJECT SPECIFICATIONS. THESE COMPONENTS SHOULD BE REVIEWED AND APPROVED BY THE CONTRACTOR AND ROOFING MANUFACTURER.

7 Roof to Wall Flashing (RTW)
Not to Scale

NOTE:
ROOF DETAILS ARE INTENDED TO SERVE AS A GUIDE FOR PROPERLY INTERFACING THE REROOF WITH EXISTING CONSTRUCTION. THEY MUST BE MODIFIED AS NEEDED TO ADAPT THEM TO VARYING CONDITIONS THAT MAY BE ENCOUNTERED IN THE FIELD.

GENERAL DETAIL NOTES:

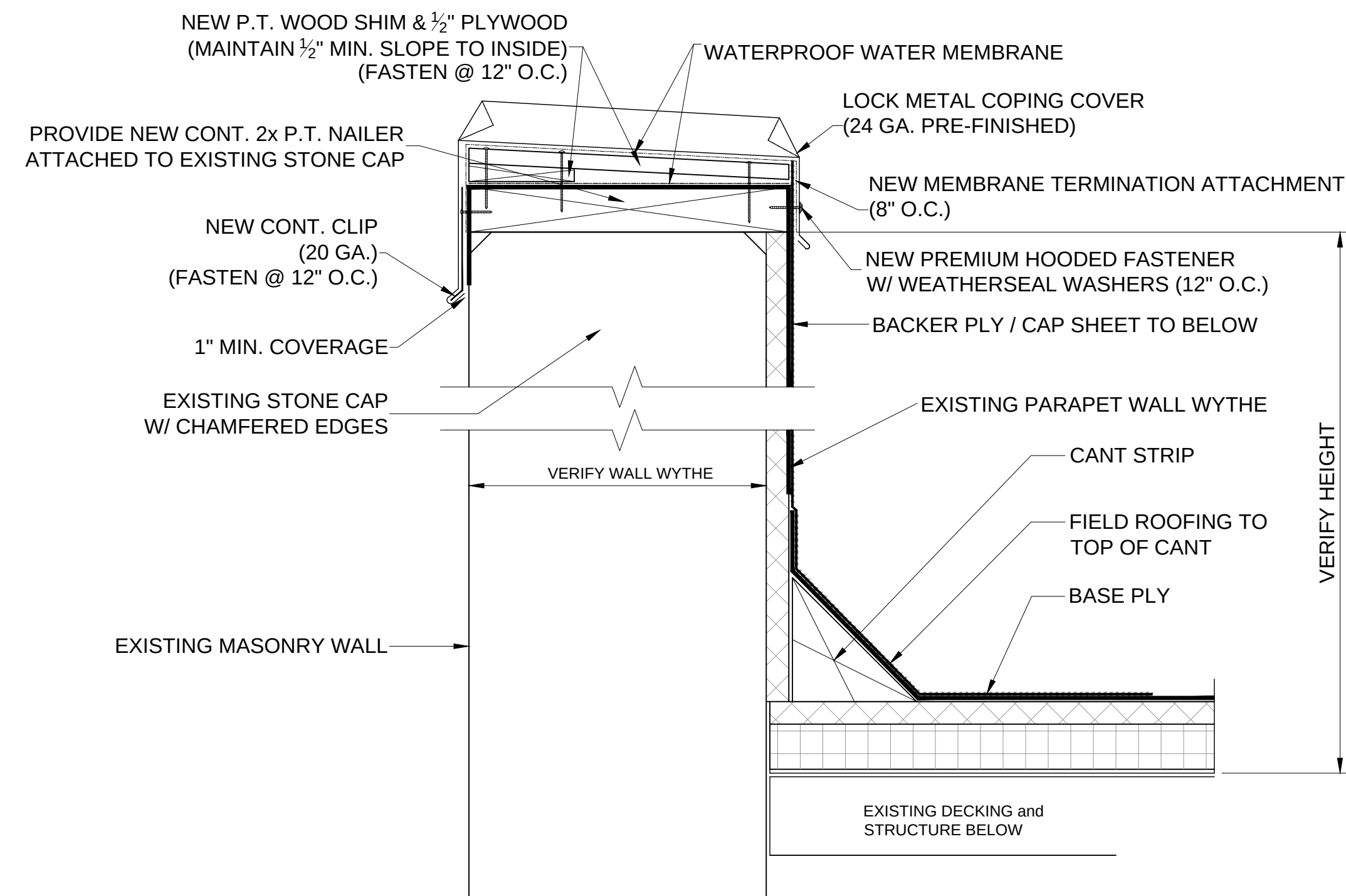
1. $\frac{1}{2}$ " MINIMUM SLOPE IS TO BE PROVIDED
2. A **R26 MINIMUM** INSULATION SYSTEM IS TO BE USED FOR THE ENTIRE ROOF ASSEMBLY (INCLUDING AT EDGES AS A STARTER)
3. NO PERLITE INSULATION IS TO BE USED. ONLY USE POLYISO WITH NO EXCEPTIONS.
4. SYNTHETIC CANT STRIPS ARE REQUIRED FOR MOD BIT SYSTEMS
5. CONTRACTOR IS TO USE .040 KYNAR FINISHED METAL FOR ALL TRIM AND COMPONENTS
6. CONTINUOUS CLEATS FOR ALL FACE METALS
7. NP-1 and/or NP-2 URETHANE SEALANTS ARE REQUIRED
8. 2-PIECE ALUMINUM PIPE BOOTS ARE REQUIRED
9. CRICKETS REQUIRED ON ALL CURBS OF 12" OR HIGHER



10 Roof Scupper (RS)
Not to Scale

NOTES:

1. PRIME ALL SCUPPER FLANGES ON BOTH SIDES WITH ASPHALT PRIMER.
2. ADHESIVE NOT SHOWN UNDER PLIES FOR CLARITY.
3. ALL SCUPPER FLANGES SHALL BE 4" WIDE. PLEASE REFER TO LOCAL CODES AND SMACNA FOR METAL SCUPPER AND CONDUCTOR HEAD FABRICATION REQUIREMENTS.
4. ANY CARPENTRY, METAL WORK, OR MASONRY CONSTRUCTION SHOULD BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS AND/OR PROJECT SPECIFICATIONS. THESE COMPONENTS SHOULD BE REVIEWED AND APPROVED BY A LICENSED DESIGN PROFESSIONAL.

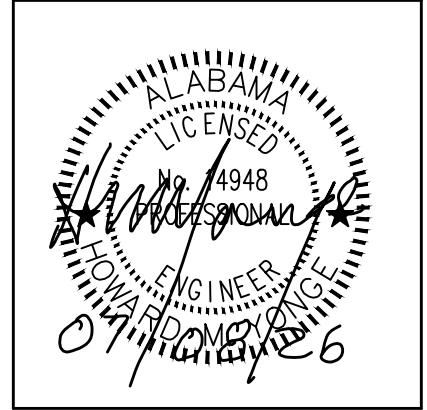


11 Parapet Wall Flashing (PWF)
Scale: 3" = 1'-0"

NOTE:
ROOF DETAILS ARE INTENDED TO SERVE AS A GUIDE FOR PROPERLY INTERFACING THE REROOF WITH EXISTING CONSTRUCTION. THEY MUST BE MODIFIED AS NEEDED TO ADAPT THEM TO VARYING CONDITIONS THAT MAY BE ENCOUNTERED IN THE FIELD.

GENERAL DETAIL NOTES:

1. $\frac{1}{2}$ " MINIMUM SLOPE IS TO BE PROVIDED
3. A **R26 MINIMUM** INSULATION SYSTEM IS TO BE USED FOR THE ENTIRE ROOF ASSEMBLY (INCLUDING AT EDGES AS A STARTER)
4. NO PERLITE INSULATION IS TO BE USED. ONLY USE POLYISO WITH NO EXCEPTIONS.
5. SYNTHETIC CANT STRIPS ARE REQUIRED FOR MOD BIT SYSTEMS
6. CONTRACTOR IS TO USE .040 KYNAR FINISHED METAL FOR ALL TRIM and COMPONENTS
7. CONTINUOUS CLEATS FOR ALL FACE METALS
8. NP-1 and/or NP-2 URETHANE SEALANTS ARE REQUIRED
9. 2-PIECE ALUMINUM PIPE BOOTS ARE REQUIRED
10. CRICKETS REQUIRED ON ALL CURBS OF 12" OR HIGHER

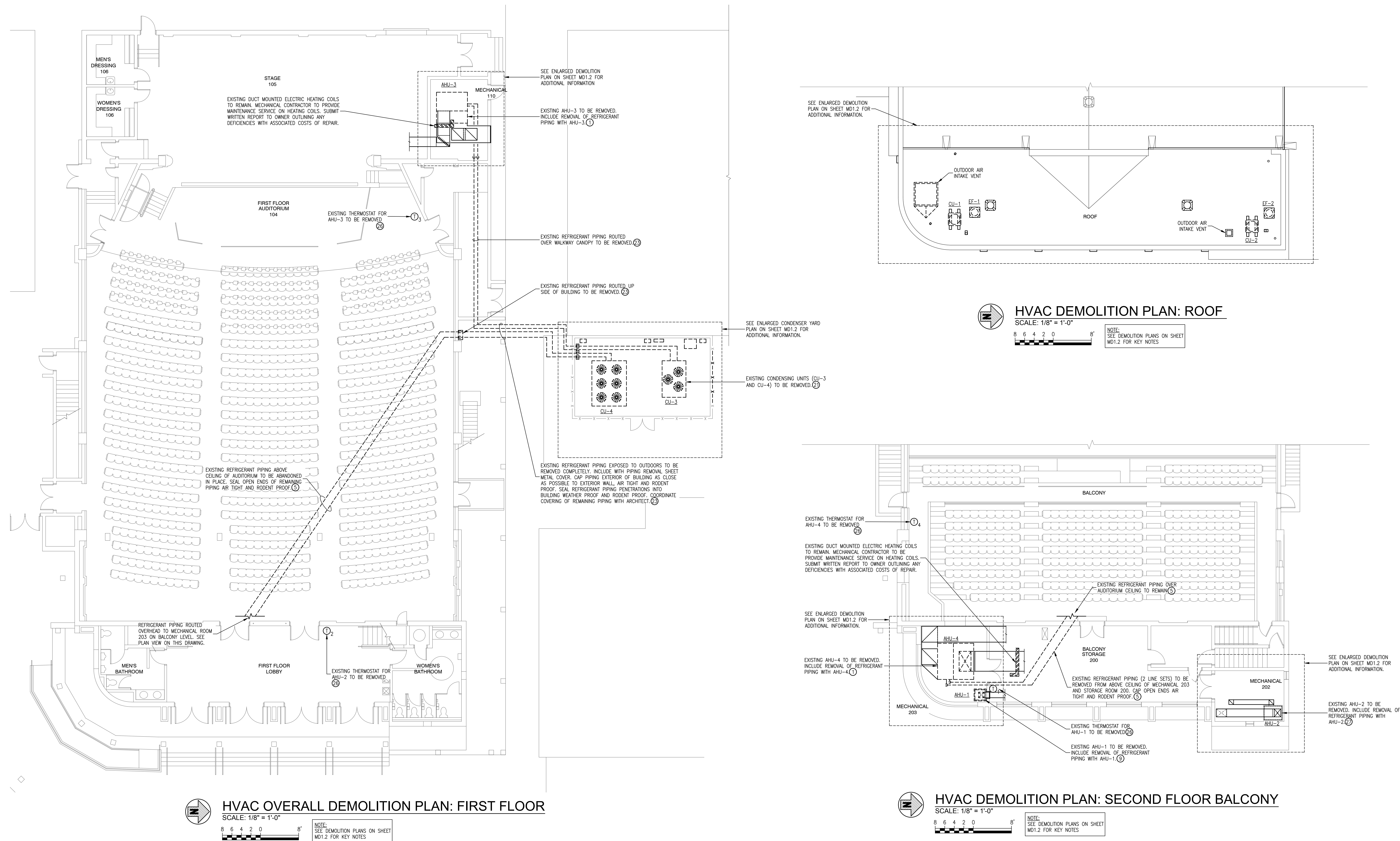


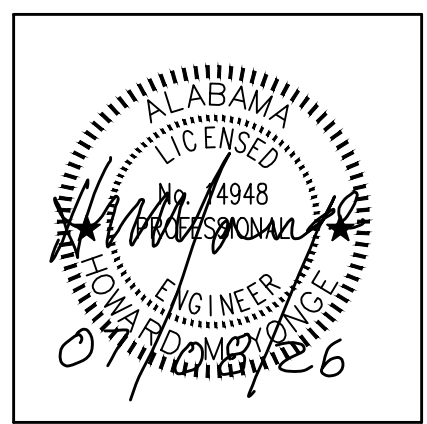
PROJ. MGR.:
DRAWN:
DATE: 07-08-26
REVISIONS

JOB NO. 26-021

SHEET NO:

MD1.1



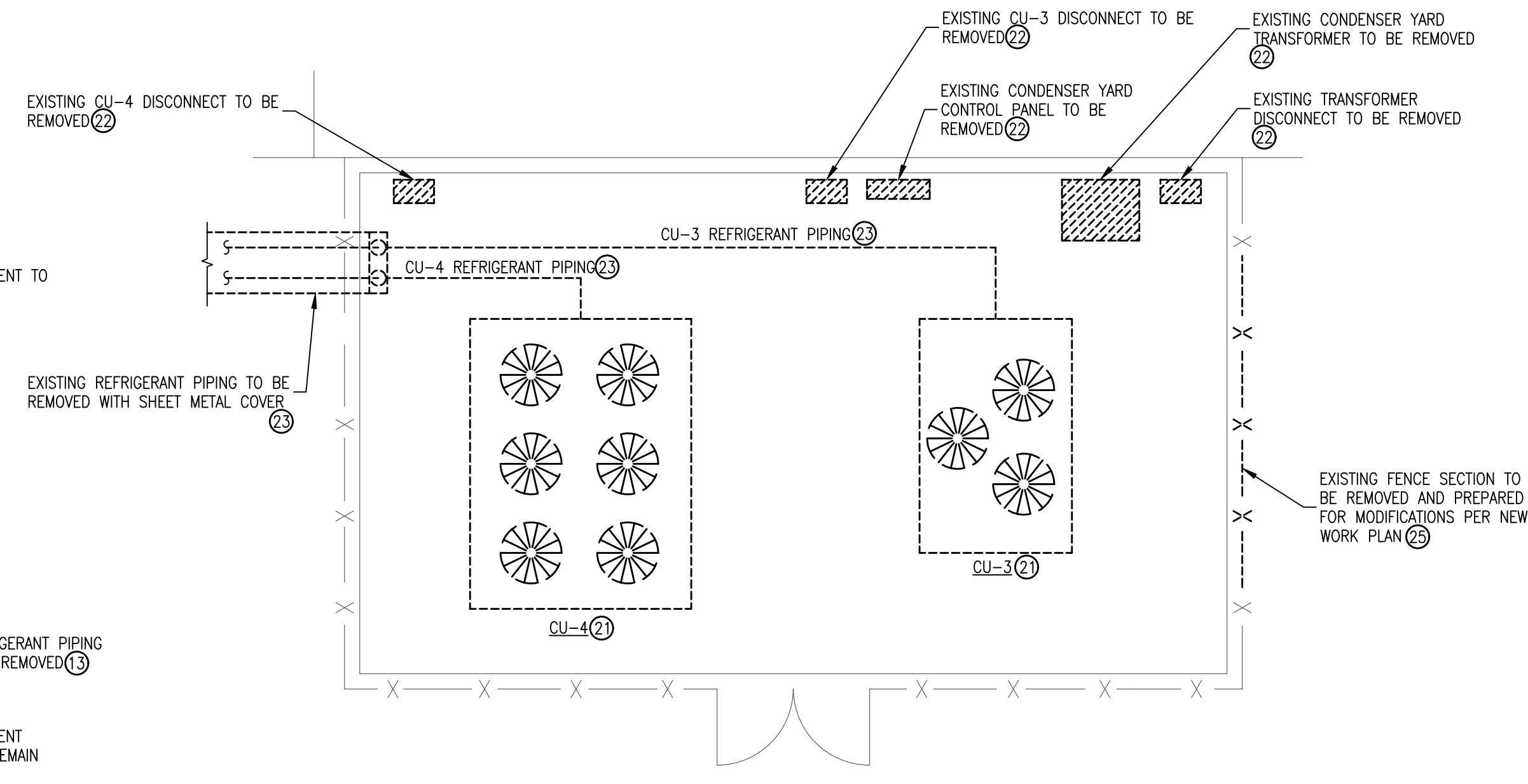


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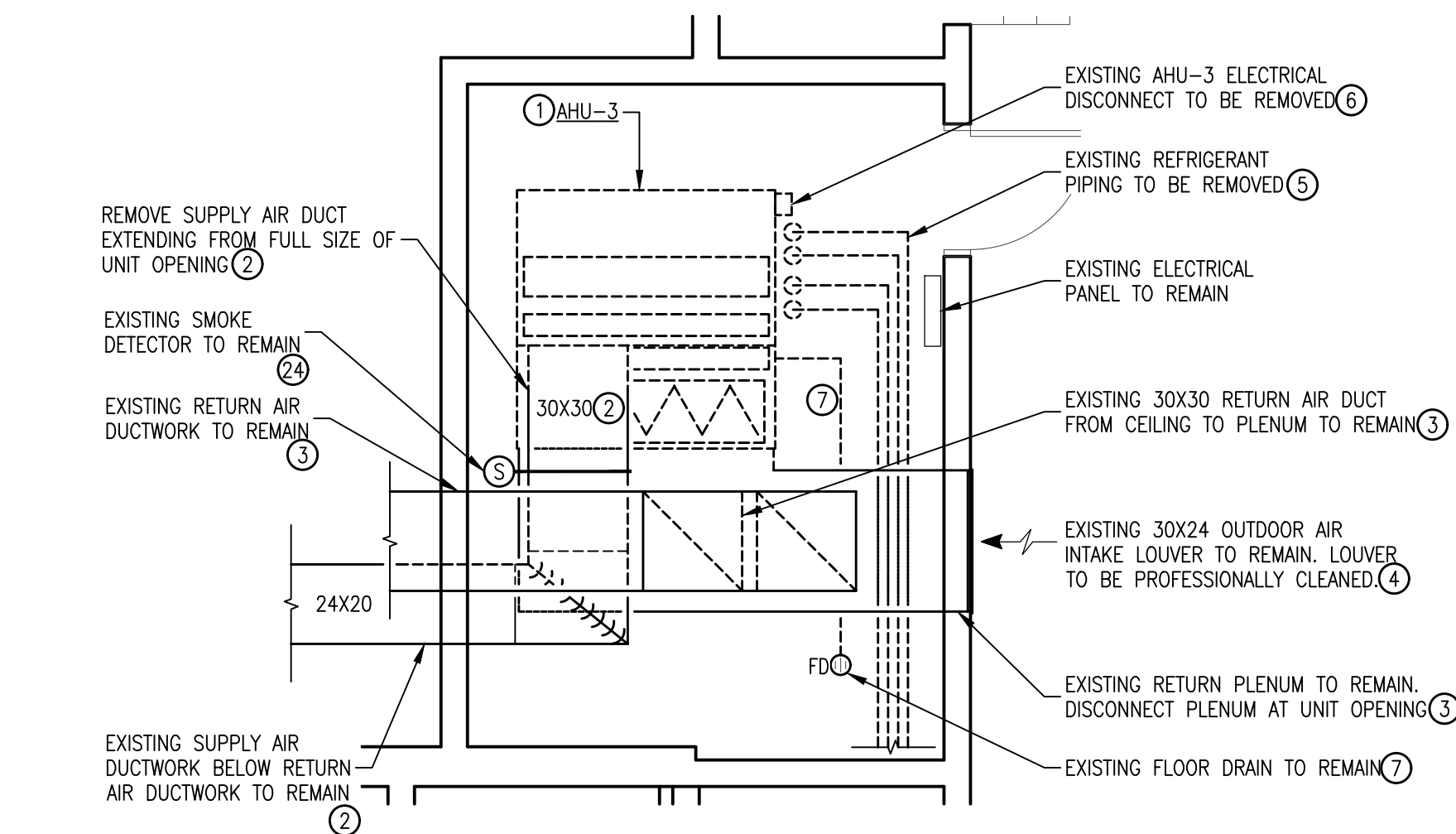
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H.M. YONGE & ASSOCIATES, INC.
CONSULTING ENGINEERS • EST. 1988
51 EAST GREGORY STREET
PENSACOLA, FLORIDA 32502
PHONE (904)34-3551
293 ST. ANTHONY STREET
MOBILE, ALABAMA 36603
PHONE (251)650-7446



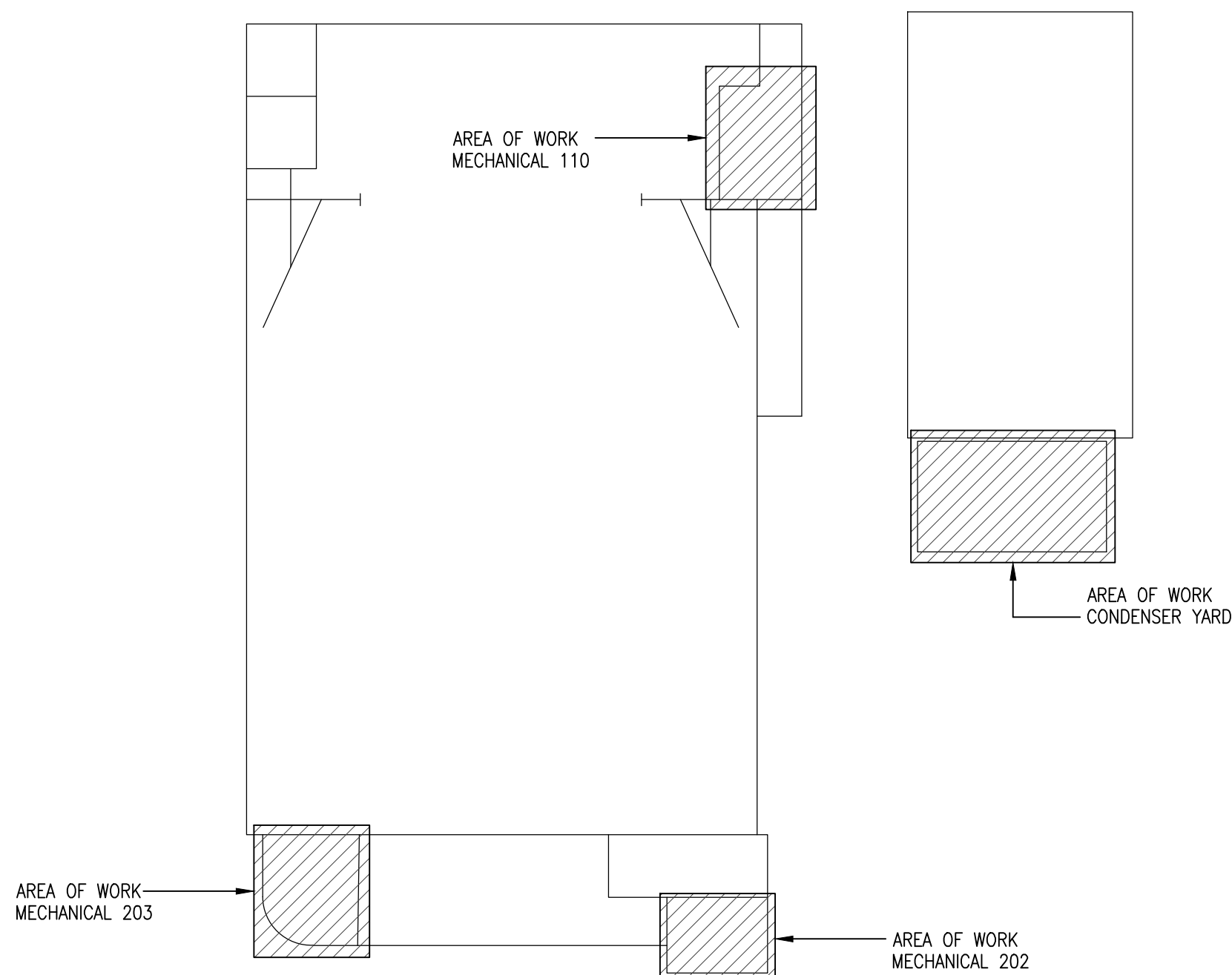
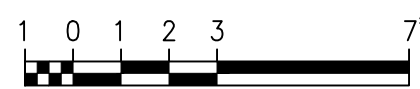
HVAC ENLARGED DEMOLITION PLAN: CONDENSER YARD

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

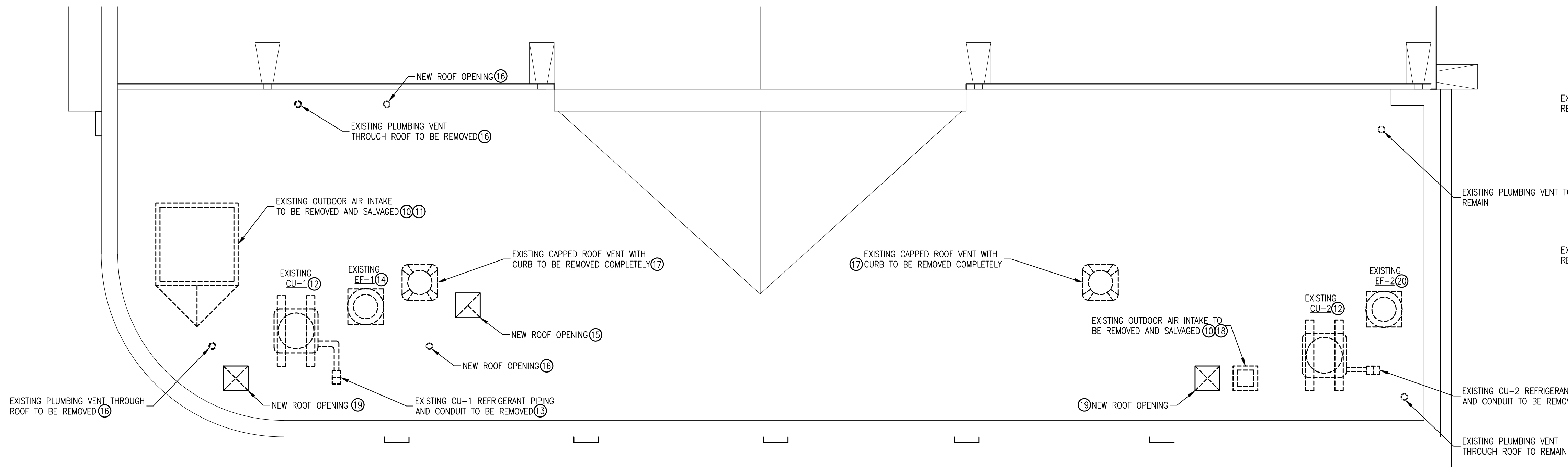


HVAC ENLARGED DEMOLITION PLAN: MECHANICAL 110

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

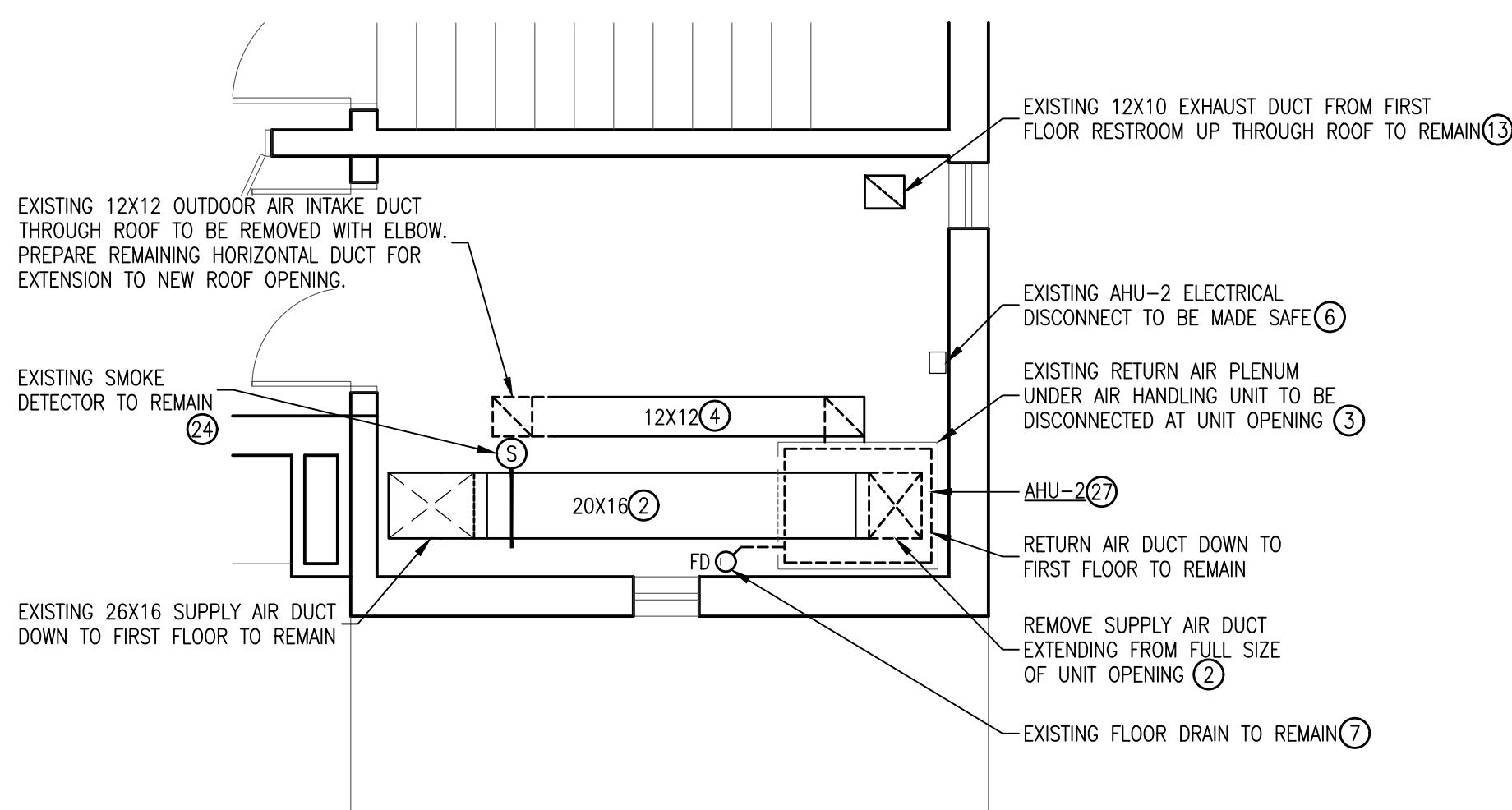


KEY PLAN
SCALE: N.T.S.



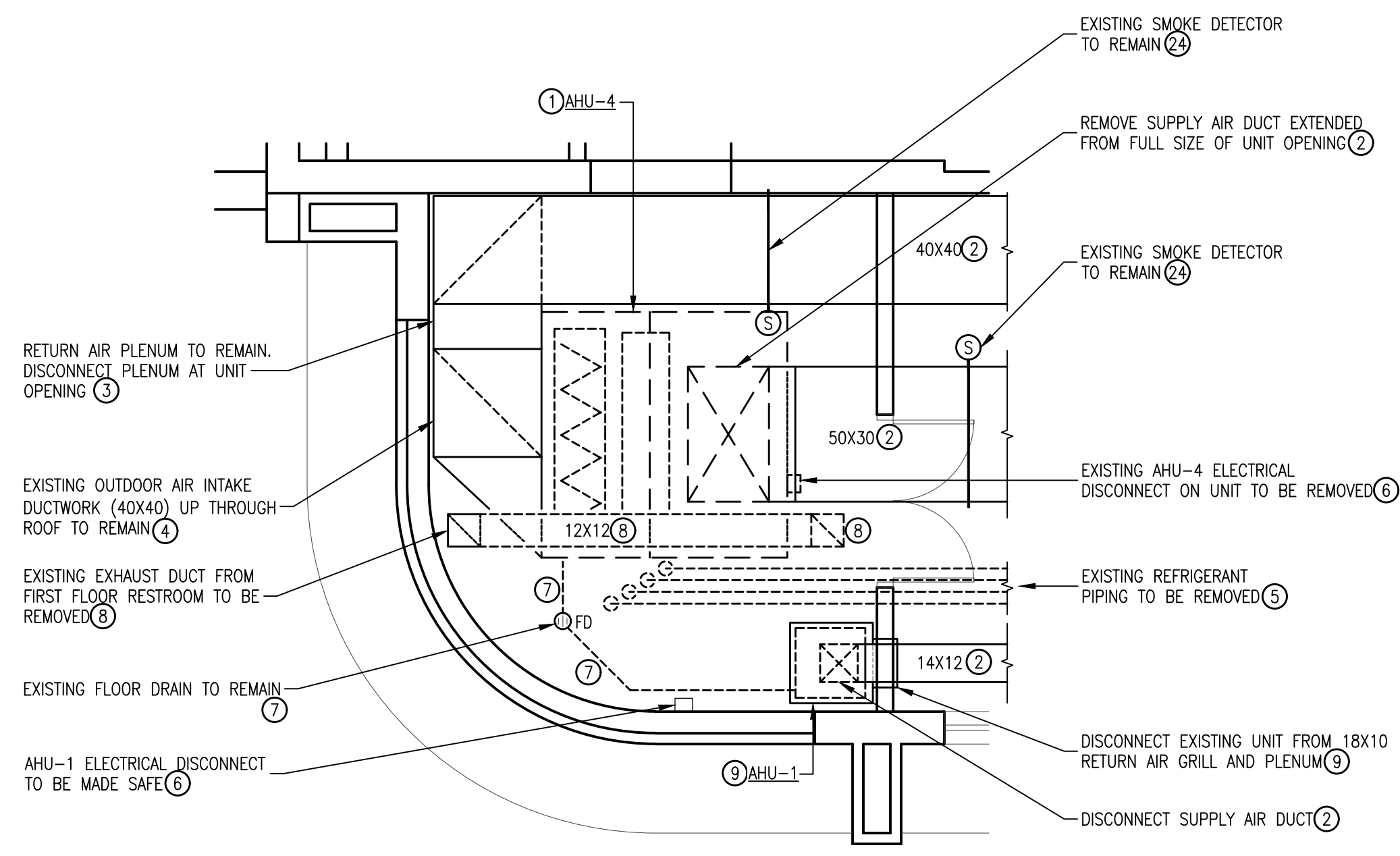
HVAC ENLARGED DEMOLITION PLAN: ROOF

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



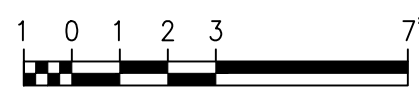
HVAC ENLARGED DEMOLITION PLAN: MECHANICAL 202

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



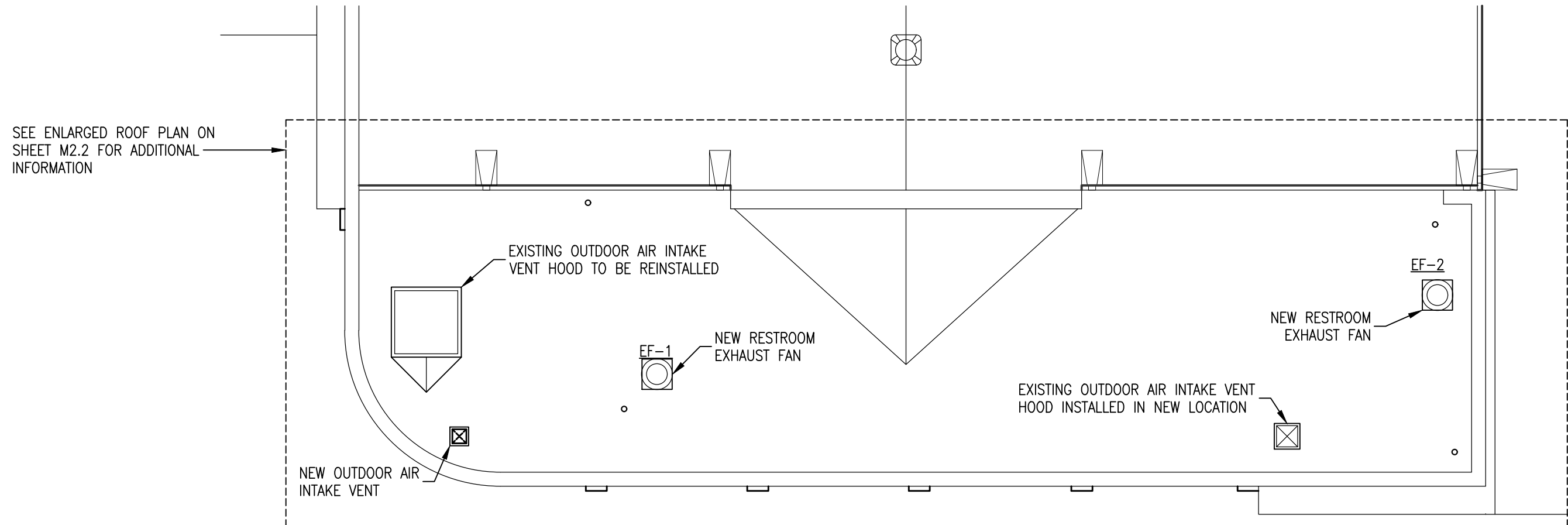
HVAC ENLARGED DEMOLITION PLAN: MECHANICAL 203

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



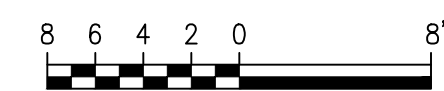
HVAC DEMOLITION KEY NOTES:

- EXISTING AIR HANDLING UNIT (EVAPORATOR SECTION OF SPLIT SYSTEM AIR CONDITIONING UNIT) TO BE REMOVED COMPLETELY. INCLUDE WITH UNIT REMOVAL EXISTING WOODEN (TIMBERS) SUPPORTS. DISCONNECT SUPPLY, RETURN AND OUTDOOR AIR INTAKE DUCTWORK TO ACCOMMODATE UNIT REMOVAL AND INSTALLATION OF NEW AIR HANDLING UNIT. COORDINATE LIMITS OF DEMOLITION WITH NEW WORK PLAN. PREPARE DISCONNECTED UTILITY SYSTEMS FOR CONNECTION TO NEW UNIT.
- EXISTING SUPPLY AIR DUCTWORK TO BE DISCONNECTED FROM UNIT AND PREPARED FOR MODIFICATION TO ACCOMMODATE INSTALLATION OF NEW UNIT. COORDINATE LIMITS OF DEMOLITION WITH NEW WORK PLAN.
- EXISTING RETURN AIR DUCTWORK TO BE DISCONNECTED FROM UNIT AND PREPARED FOR MODIFICATION TO ACCOMMODATE INSTALLATION OF NEW UNIT. COORDINATE LIMITS OF DEMOLITION WITH NEW WORK PLAN.
- EXISTING OUTDOOR AIR DUCTWORK TO REMAIN AS CONNECTED TO RETURN AIR DUCTWORK. THIS DUCT IS TO BE MODIFIED ONLY TO ACCOMMODATE MODIFICATION TO THE RETURN AIR DUCT. VERIFY OUTDOOR AIR INTAKE DUCT SIZE TO BE AS INDICATED PRIOR TO BEGINNING ANY WORK.
- EXISTING REFRIGERANT PIPING TO BE DISCONNECTED FROM UNIT AND REMOVED TO BEYOND AREA OF WORK. REMAINING PIPING TO BE CAPPED AND SEALED AIR TIGHT.
- ELECTRICAL POWER WIRING TO BE DISCONNECTED FROM UNIT AND MADE SAFE PER NEC. REFERENCE ELECTRICAL DRAWING FOR ADDITIONAL INFORMATION.
- EXISTING CONDENSATE DRAIN PIPING TO BE REMOVED COMPLETELY. EXISTING FLOOR DRAIN TO REMAIN. CLEAN DRAIN COVER OF ALL DEBRIS.
- EXISTING EXHAUST DUCT SERVING GANG BATHROOM ON FIRST FLOOR TO BE REMOVED TO ACCOMMODATE INSTALLATION OF NEW AIR HANDLING UNIT. REMOVE HORIZONTAL PORTION OF DUCT WITH ELBOW FROM BENEATH ROOF MOUNTED EXHAUST FAN OVER TO ELBOW TURNING DUCT TO VERTICAL POSITION. PREPARE OPEN END OF ELBOW FOR CONNECTION OF NEW EXHAUST DUCT.
- EXISTING PLENUM MOUNTED AIR HANDLING UNIT (EVAPORATOR SECTION OF SPLIT SYSTEM AIR CONDITIONING UNIT) TO BE REMOVED. DISCONNECT ALL UTILITIES FOR ELECTRICAL POWER, SUPPLY, RETURN AND OUTDOOR AIR INTAKE DUCTWORK FROM UNIT TO ACCOMMODATE REMOVAL. PREPARE EACH DISCONNECTED UTILITY FOR CONNECTION TO NEW UNIT PER NEW WORK PLANS. INCLUDE WITH REMOVAL OF UNIT THE WALL MOUNTED RETURN AIR GRILLE. REFERENCE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON POWER WIRING REQUIREMENTS.
- EXISTING ROOF MOUNTED OUTDOOR AIR INTAKE HOOD TO BE REMOVED AND SALVAGED FOR REUSE. MECHANICAL CONTRACTOR SHALL REPAIR VENT HOOD TO A LIKE NEW CONDITION AND HAVE HOOD PROFESSIONALLY PAINTED PRIOR TO REINSTALLATION. AT CONTRACTOR'S OPTION A NEW HOOD MAY BE INSTALLED DUPLICATING THE EXISTING HOOD.
- EXISTING OUTDOOR AIR INTAKE HOOD ROOF CURB SHALL BE REMOVED COMPLETELY. PREPARE ROOF SURFACE FOR INSTALLATION OF NEW CURB. INSTALL NEW CURB PER NEW WORK PLANS.
- EXISTING ROOF MOUNTED OUTDOOR CONDENSING UNIT (FOR SPLIT SYSTEM AIR CONDITIONING SYSTEM) TO BE REMOVED COMPLETELY. INCLUDE WITH UNIT REMOVAL EQUIPMENT SUPPORT CURBS, REFRIGERANT PIPING AND POWER WIRING.
- EXISTING REFRIGERANT PIPING ROOF CURB WITH HOOD TO BE REMOVED COMPLETELY. INCLUDE WITH HOOD REMOVAL ALL ASSOCIATED REFRIGERANT PIPING AND WIRING.
- EXISTING ROOF MOUNTED EXHAUST FAN AND ROOF CURB TO BE REMOVED COMPLETELY. REMAINING OPENING IN ROOF TO BE FILLED PER ARCHITECTURAL PLANS. INCLUDE WITH FAN REMOVAL EXHAUST AIR DUCTWORK. ELECTRICAL WIRING TO BE MADE SAFE PER ELECTRICAL PLANS.
- NEW LOCATION OF BATHROOM EXHAUST FAN. MECHANICAL CONTRACTOR TO COORDINATE WITH GENERAL CONTRACTOR FOR CUTTING AND FILLING OF THE ROOF DECK. ADJUST FINAL LOCATION OF ROOF OPENING TO ACCOMMODATE EXISTING STRUCTURE AND BE MORE THAN 10FT FROM OUTDOOR AIR INTAKE HOOD. SIZE OF ROOF OPENING SHALL DUPLICATE SIZE OF EXISTING ROOF OPENING.
- MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND RELOCATING EXISTING PLUMBING WASTE VENT. EXISTING WASTE VENT TO BE REMOVED DOWN THROUGH ROOF. PREPARE EXISTING VENT TO BE EXTENDED FULL SIZE BELOW ROOF STRUCTURE TO A LOCATION A MINIMUM OF 10FT FROM OUTDOOR AIR INTAKE HOOD. MECHANICAL CONTRACTOR TO COORDINATE WITH GENERAL CONTRACTOR FOR CUTTING AND FILLING THE ROOF DECK. INSTALLATION OF NEW VENT THROUGH THE ROOF SHALL BE COORDINATED WITH NEW WORK PLAN.
- EXISTING CAPPED ROOF VENT WITH CURB TO BE REMOVED COMPLETELY. REMAINING OPENING IN ROOF TO BE INFILLED PER ARCHITECTURAL PLANS.
- EXISTING OUTDOOR AIR INTAKE HOOD CURB SHALL BE REMOVED COMPLETELY. MECHANICAL CONTRACTOR TO COORDINATE WITH GENERAL CONTRACTOR TO HAVE REMAINING ROOF OPENING INFILLED.
- MECHANICAL CONTRACTOR TO COORDINATE WITH GENERAL CONTRACTOR FOR A NEW OPENING TO BE CUT INTO ROOF FOR NEW LOCATION OF OUTDOOR AIR INTAKE HOOD. COORDINATE FINAL LOCATION OF ROOF OPENING TO BE MORE THAN 10FT FROM NEAREST PLUMBING WASTE VENT UP THROUGH ROOF AND NEAREST EXHAUST FAN.
- EXISTING ROOF MOUNTED EXHAUST FAN TO BE REMOVED COMPLETELY. ELECTRICAL WIRING SHALL BE MADE SAFE. PREPARE ROOF DECK FOR INSTALLATION OF NEW ROOF CURB. NEW CURB SHALL DUPLICATE EXISTING CURB. COORDINATE CURB INSTALLATION WITH NEW WORK PLAN.
- EXISTING OUTDOOR CONDENSING UNIT (FOR SPLIT SYSTEM AIR CONDITIONING SYSTEM) TO BE REMOVED COMPLETELY. INCLUDE WITH UNIT REMOVAL THE DISCONNECT OF ELECTRICAL POWER WIRING, CONTROL WIRING, EQUIPMENT SUPPORT BAILS AND REFRIGERANT PIPING. EXISTING HOUSEKEEPING PAD SHALL REMAIN FOR REUSE. COORDINATE REMOVAL OF ELECTRICAL POWER WITH ELECTRICAL DRAWINGS.
- ELECTRICAL POWER EQUIPMENT IN CONDENSER YARD TO BE REMOVED. VACATED SPACE TO BE PREPARED FOR NEW EQUIPMENT PANELS FOR NEW AIR COOLED WATER CHILLER PER NEW WORK ELECTRICAL PLANS.
- EXISTING REFRIGERANT PIPING TO BE REMOVED COMPLETELY WITH PROTECTIVE SHEET METAL COVER. REMOVAL OF PIPING AND COVER SHALL BE FROM CONDENSER YARD TO POINT OF ENTRY INTO BUILDING THROUGH EXTERIOR WALL, UNLESS NOTED OTHERWISE.
- EXISTING DUCT MOUNTED SMOKE DETECTOR TO REMAIN. MECHANICAL CONTRACTOR TO VERIFY UNIT IS COMPLETELY FUNCTIONAL. SUBMIT A WRITTEN REPORT TO ARCHITECT/OWNER IDENTIFYING ANY DEFICIENCIES WITH ASSOCIATED COSTS OF REPAIR.
- EXISTING FENCE SECTION TO BE DEMOLISHED AND REMOVED. PREPARE REMAINING FENCE FOR MODIFICATIONS THAT WILL INCLUDE EXTENDING THE LENGTH OF GATE PAGES. COORDINATE EXTENT OF DEMOLITION WITH NEW WORK PLAN.
- EXISTING WALL MOUNTED TEMPERATURE CONTROLLER TO BE REMOVED. INCLUDE WITH REMOVAL OF THERMOSTAT ALL POWER AND CONTROL WIRING. VACATED SPACE SHALL BE REUSED FOR NEW TEMPERATURE CONTROLLER.
- EXISTING PLENUM MOUNTED AIR HANDLING UNIT (EVAPORATOR SECTION OF SPLIT SYSTEM AIR CONDITIONING UNIT) TO BE REMOVED. DISCONNECT ALL UTILITIES FOR ELECTRICAL POWER, SUPPLY, RETURN AND OUTDOOR AIR INTAKE DUCTWORK FROM UNIT TO ACCOMMODATE REMOVAL. PREPARE EACH DISCONNECTED UTILITY FOR CONNECTION TO NEW UNIT PER NEW WORK PLANS. REFERENCE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION ON POWER WIRING REQUIREMENTS.

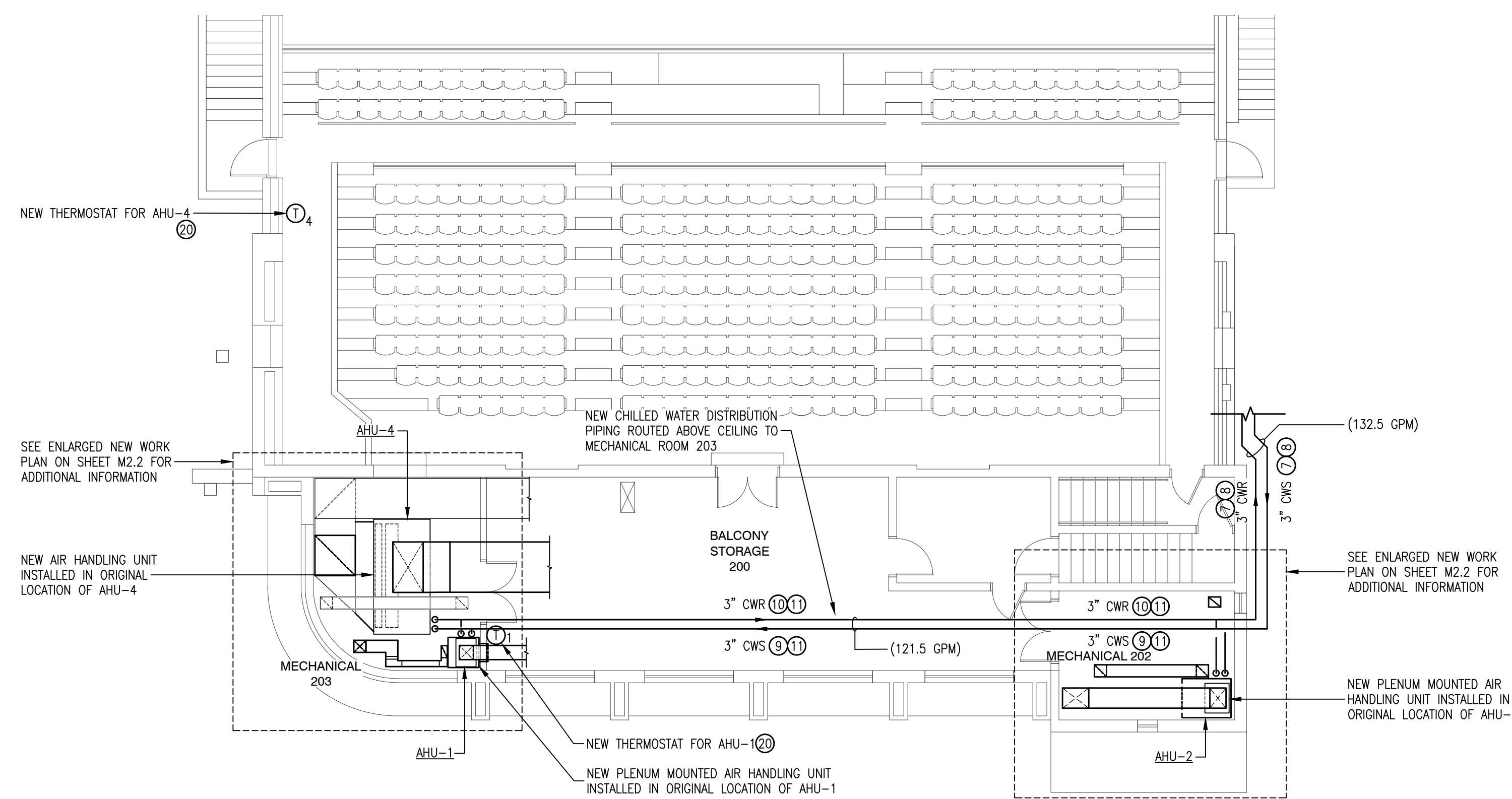


HVAC NEW WORK PLAN: ROOF

SCALE: 1/8" = 1'-0"



NOTE:
SEE NEW WORK PLANS ON SHEET
M2.2 FOR KEY NOTES

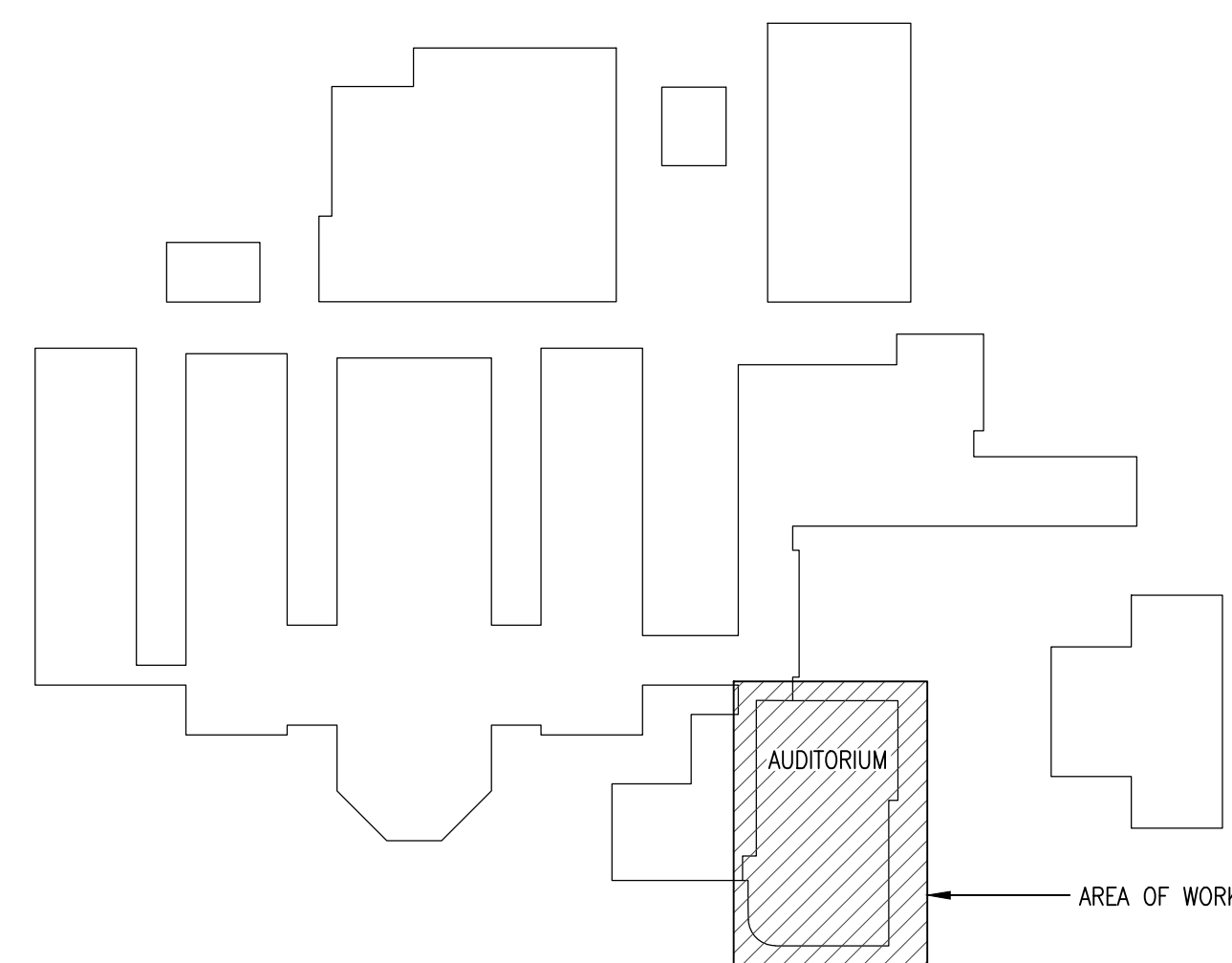


HVAC NEW WORK PLAN: SECOND FLOOR BALCONY

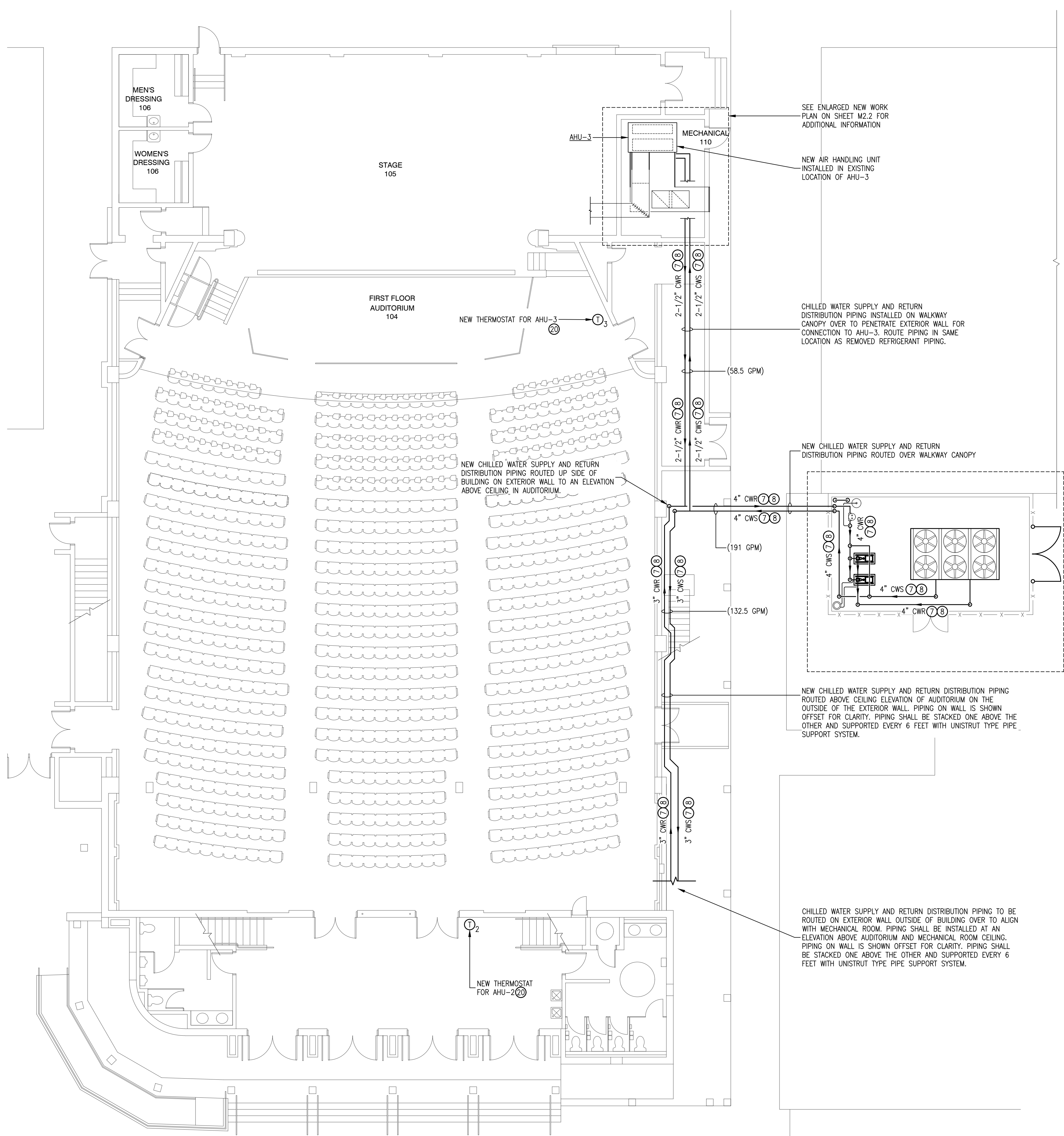
SCALE: 1/8" = 1'-0"



NOTE:
SEE NEW WORK PLANS ON SHEET
M2.2 FOR KEY NOTES

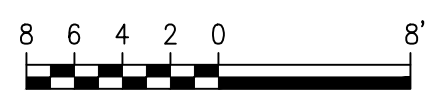


KEY PLAN
SCALE: N.T.S.

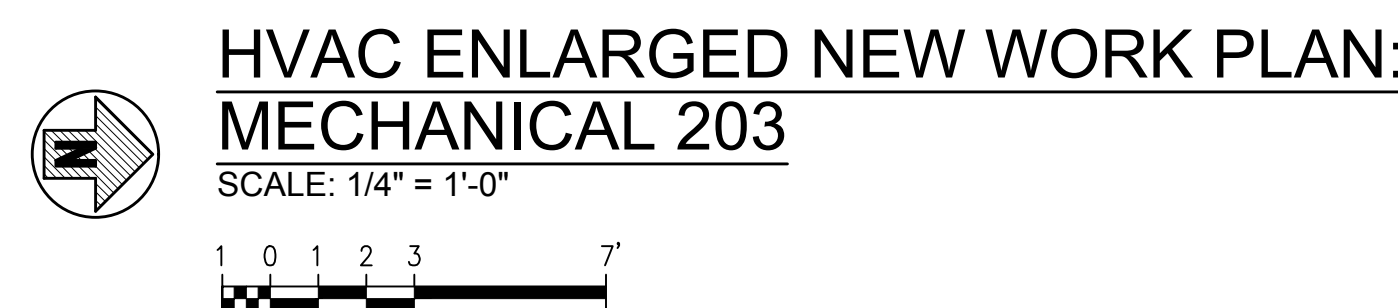
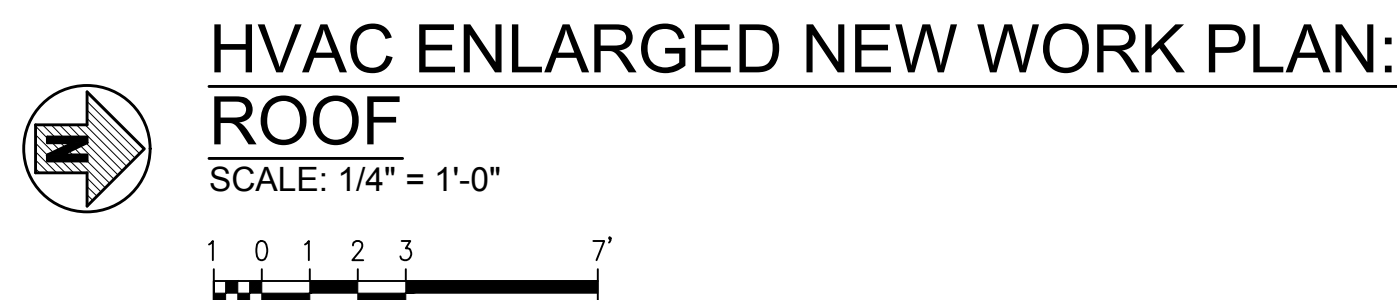


HVAC NEW WORK PLAN

SCALE: 1/8" = 1'-0"

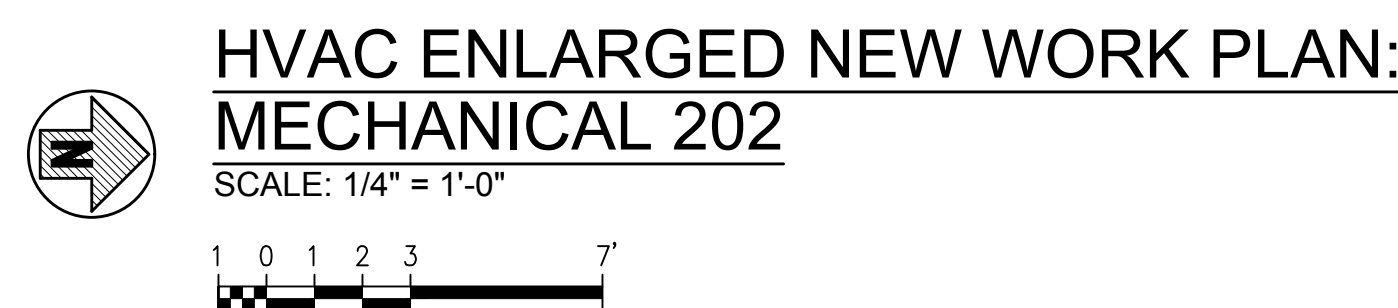


NOTE:
SEE NEW WORK PLANS ON SHEET
M2.2 FOR KEY NOTES

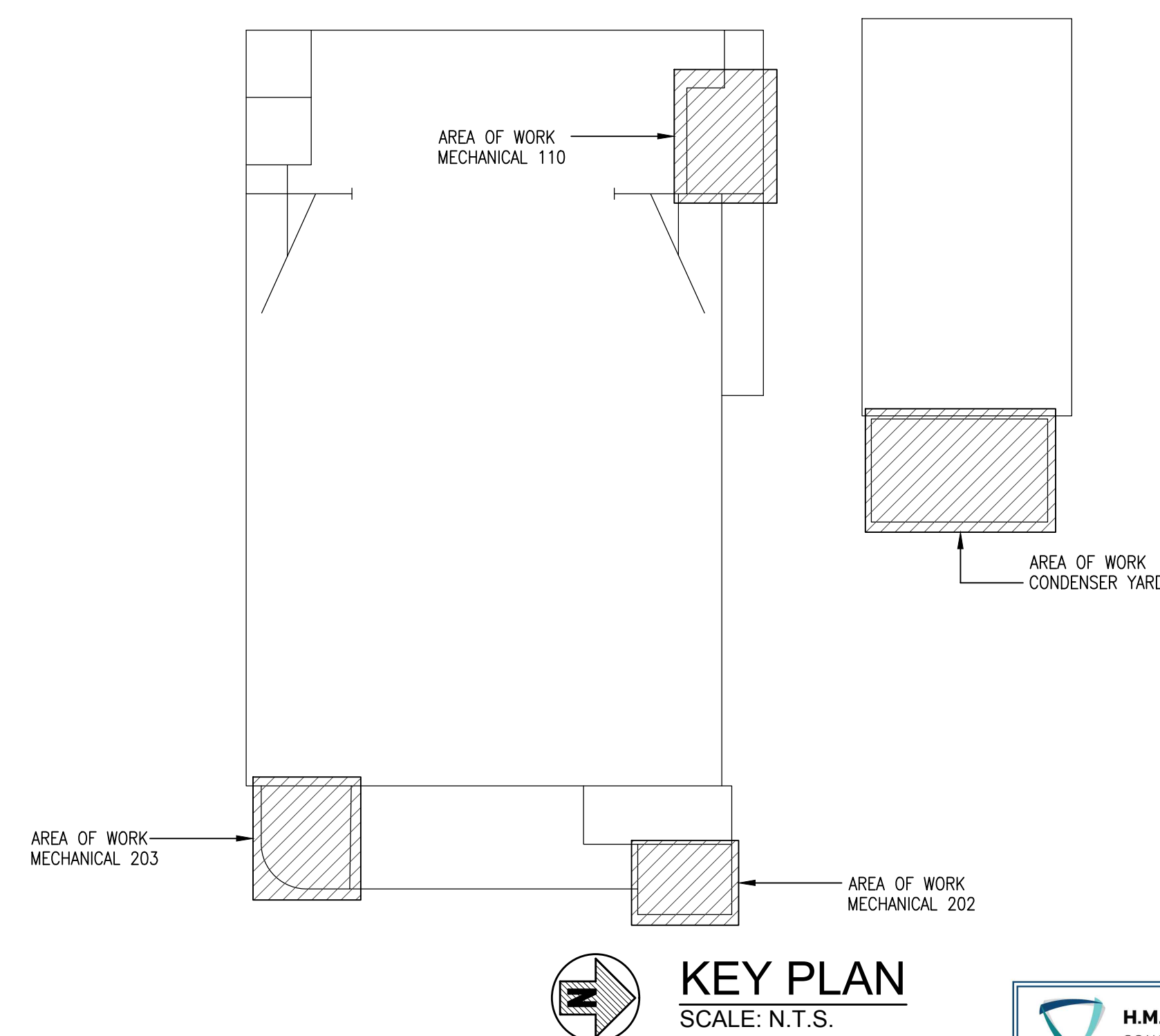
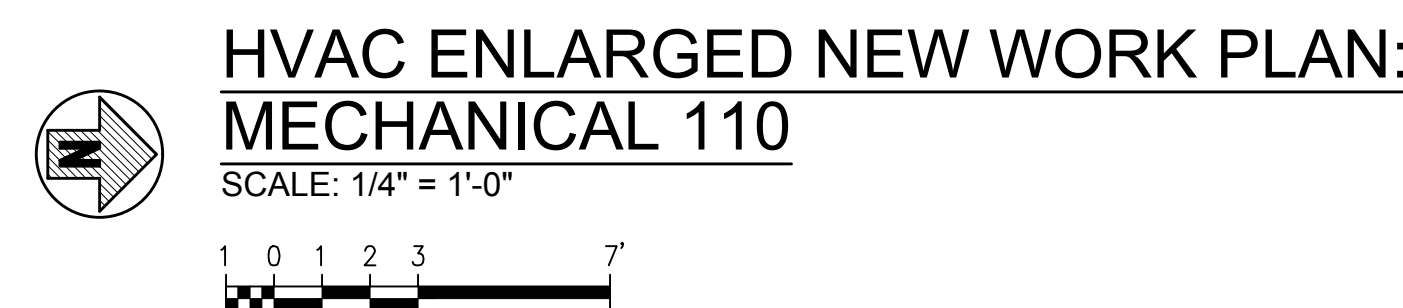
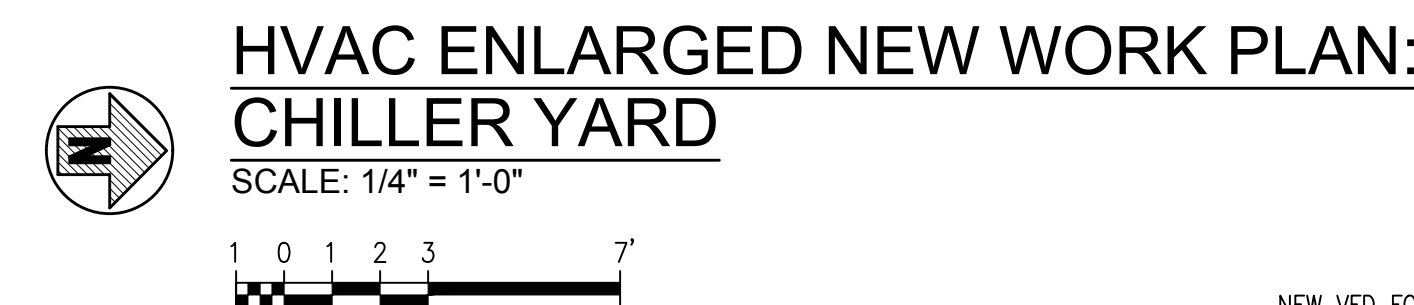


- ① NEW AIR HANDLING UNIT MOUNTED ON NEW EQUIPMENT SUPPORT RAILS IN SAME POSITION AS REMOVED AIR HANDLING UNIT. INCLUDE WITH UNIT INSTALLATION AN AUXILIARY DRAIN PAN THAT IS 2 INCHES LARGER THAN UNIT IN ALL DIRECTIONS. EQUIPMENT SUPPORT RAILS SHALL BE 6 INCHES HIGH TO ACCOMMODATE INSTALLATION OF CONDENSATE DRAIN. EXISTING EQUIPMENT RETAIL AND RAIL SHALL BE REMOVED AND NEW EQUIPMENT SUPPORT RAIL SHALL BE INSTALLED WITH NEW UNIT. CONDENSATE DRAIN PIPING SHALL BE INSTALLED WITH NEW UNIT. ADJUST FINAL POSITION OF UNIT FOR MAINTENANCE ACCESS. EXTEND FROM FULL SIZE OF UNIT OPENING A CONDENSATE DRAIN OVER FOR TERMINATION ABOVE FLOOR DRAIN. CONDENSATE DRAIN PIPING SHALL BE INSTALLED WITH DRAINING CODED WITH SLOPED JOINTS. INCLUDE A FLOAT SWITCH IN P-TAP OF DRAIN LINE AND AN AUXILIARY DRAIN PAN SUCH THAT AS EITHER SWITCH IS ACTIVATED, THE UNIT SHALL AUTOMATICALLY SHUT DOWN. SUPPORT CONDENSATE DRAIN PIPING EVERY 48 INCHES WITH UNSTRUT TYPE PIPE SUPPORT SYSTEM. COMPLETELY INSULATE CONDENSATE PIPING FROM UNIT TO FLOOR DRAIN.
- ② NEW AIR HANDLING UNIT MOUNTED ON EXISTING RETURN AIR PLENUM. MECHANICAL CONTRACTOR SHALL RECONNECT EXISTING SUPPLY AIR OUTWORK TO NEW UNIT. EXTEND NEW CONDENSATE DRAIN PIPING WITH P-TAP TO THE NEAREST FLOOR DRAIN. A FLOAT SWITCH IS TO BE INSTALLED IN THE P-TAP OF DRAIN PIPING. AS FLOAT SWITCH IS ACTIVATED, THE UNIT SHALL AUTOMATICALLY SHUT DOWN. SUPPORT CONDENSATE DRAIN EVERY 48 INCHES WITH UNSTRUT TYPE PIPE SUPPORT SYSTEM. DRAINING CODED WITH SLOPED JOINTS. INCLUDE A FLOAT SWITCH IN P-TAP OF DRAIN LINE AND AN AUXILIARY DRAIN PIPING. MECHANICAL CONTRACTOR SHALL ADJUST FINAL POSITION OF UNIT TO ALLOW FOR MAINTENANCE ACCESS.
- ③ NEW AIR COOLED WATER CHILLER MOUNTED ON EXISTING CONCRETE PAD IN CHILLER YARD. INSTALLATION OF CHILLER ON CONCRETE PAD SHALL BE WITH THE USE OF SPRING VIBRATION ISOLATORS. SECURE VIBRATION ISOLATORS TO CONCRETE PAD AND CHILLER TO VIBRATION ISOLATORS WITH MECHANICAL FASTENERS PER MANUFACTURER'S INSTRUCTIONS. CHILLER TO CONCRETE PAD SHALL BE INSTALLED WITH SLOPED JOINTS. CHILLER TO CONCRETE PAD TO ACCOMMODATE MAINTENANCE ACCESS REQUIRED PER MANUFACTURER'S INSTRUCTION.
- ④ NEW CHILLED WATER PUMP TO BE INSTALLED ON EXISTING CONCRETE PAD IN CHILLER YARD. MECHANICAL CONTRACTOR SHALL ADJUST PUMP POSITION TO ACCOMMODATE CONNECTIONS TO NEW CHILLED WATER DISTRIBUTION PIPING. ACCESS SHALL BE PROVIDED TO THESE UTILITY SYSTEMS FOR MAINTENANCE PURPOSES. NEW PUMP DRIVES SHALL BE RATED FOR VARIABLE FREQUENCY USE. SECURE PUMP TO CONCRETE PAD.
- ⑤ VARIABLE FREQUENCY DRIVES TO BE PROVIDED FOR CHILLED WATER PUMPS INSIDE OF A STAINLESS STEEL WEATHERPROOF ENCLOSURE (48" X 48" X 60") DESIGNATED FOR MECHANICAL VENTILATION FAN. DEDICATED TEMPERATURE CONTROLLER. INSTALLATION OF PANEL SHALL BE WITH A UNISTRUT FRAME, SECURED TO MASONRY WALL.
- ⑥ LABEL AIR HANDLING UNITS, CHILLERS, PUMPS, DISCONNECTS, BREAKERS, AND ETC. ALL LABELS SHALL BE ENGRAVED PHENOLIC WITH WHITE LETTERS ON A BLACK BACKGROUND. SECURE LABELS FOR ALL EQUIPMENT WITH SCREWS.
- ⑦ NEW CHILLED WATER SUPPLY AND RETURN PIPING ON EXTERIOR OF BUILDING. EXTENDING PIPING FROM NEW AIR COOLED CHILLER YARD TO ELOW UP AND OVER INTO EXISTING WALKWAY CANOPY. ROUTE PIPING OVER WALKWAY CANOPY TO EXTERIOR WALL AND ELOW UP TO AN ELEVATION ABOVE CEILING IN THE AUDITORIUM AND EXTEND TO ALIGN WITH MECHANICAL ROOM Z02. EXTEND BRANCH PIPING ON WALKWAY CANOPY OVER TO PENETRATE THE EXTERIOR WALL OF MECHANICAL ROOM FROM WALKWAY CANOPY TO PENETRATE THE EXTERIOR WALL OF MECHANICAL ROOM. PENETRATION SHALL BE 6 FEET ABOVE FINISH FLOOR. PENETRATION SHALL BE 6 FEET ABOVE FINISH FLOOR AND A CHANGE IN DIRECTION WITH UNSTRUT TYPE PIPE SUPPORT SYSTEM. REFERENCE CHILLED WATER WORK PIPING DIAGRAM FOR ADDITIONAL INFORMATION.
- ⑧ ALL NEW CHILLED WATER SUPPLY AND RETURN PIPING OUTSIDE OF AUDITORIUM BUILDING SHALL BE HEAT TRACED, INSULATED AND HAVE AN 18 GAUGE ALUMINUM JACKET. AN 18 GAUGE ALUMINUM JACKET SHALL BE PROVIDED OVER ALL PIPING INSULATION INCLUDING FITTINGS AND VALVES. RUBBERTECH, PAPER AND PLASTIC PROTECTIVE COVERINGS ARE PROHIBITED.
- ⑨ NEW CHILLED WATER SUPPLY PIPING TO BE EXTENDED FROM EXTERIOR WALL PENETRATION ABOVE GLASS TO PASS THROUGH MECHANICAL ROOM FROM MECHANICAL ROOM TO PENETRATE THE EXTERIOR WALL OF MECHANICAL ROOM. SUPPLY PIPING SHALL PENETRATE INTO MECHANICAL ROOM 110. ROUTE PIPING GENERALLY AS INDICATED TO NEW AIR HANDLING UNITS. INCLUDE IN PIPING INSTALLATION A TEMPERATURE SENSOR, PRESSURE GAUGE, AND PETE'S PLUGS AT CONNECTION TO MECHANICAL ROOM. SUPPLY PIPING SHALL BE HEAT TRACED AND AT A CHANGE IN DIRECTION, REFERENCE CHILLED WATER PIPING COIL CONNECTION DETAIL FOR ADDITIONAL INFORMATION.

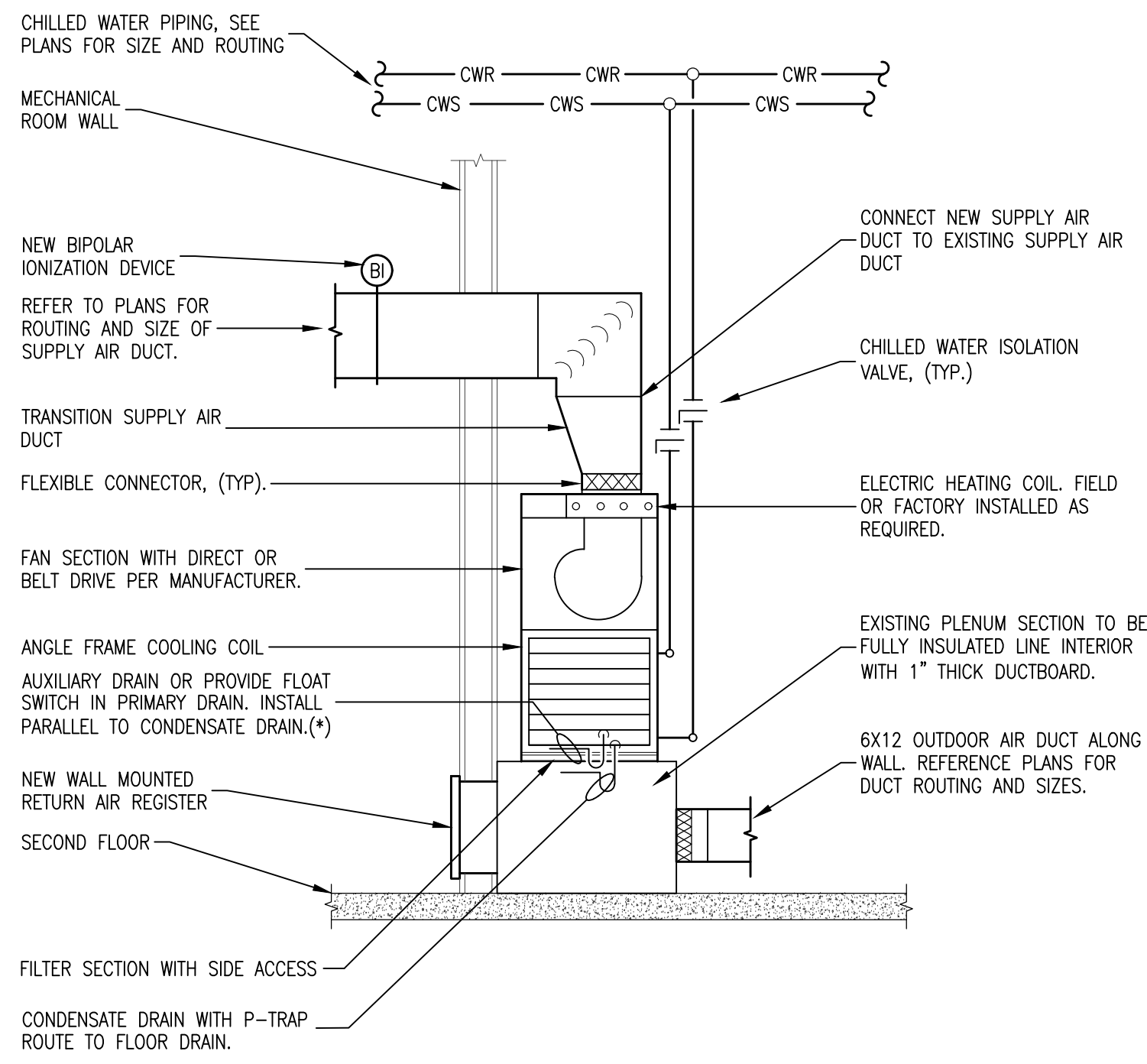
- NEW CHILLED WATER RETURN PIPING TO BE EXTENDED FROM EXISTING RETURN PIPING ABOVE CEILING TO PASS THROUGH MECHANICAL ROOM 202 AND OVER INTO MECHANICAL ROOM 203. RETURN PIPING EXTENDING OVER CANYON WALKWAY SHALL PENETRATE INTO MECHANICAL ROOM 110. ROUTE PIPING GENERALLY AS INDICATED TO NEW AIR HANDLING UNITS. INCLUDE IN THIS INSTALLATION THE INSTALLATION OF PRESSURE GAUGES AND PETE'S PLUGS AT CONNECTIONS TO AIR HANDLING UNITS. SUPPORT PIPING EVERY 6 FEET AND AT A CHANGE IN DIRECTION. REFERENCE PUMP CHILLED WATER PIPING COIL CONNECTION DETAIL FOR ADDITIONAL INFORMATION.
- 1) NEW INSULATION SHALL BE INSTALLED ON CHILLED WATER SUPPLY AND RETURN PIPING LOCATED INSIDE BUILDING. NEW INSULATION SHALL COVER ALL VALVES, FITTINGS, GAUGES, PORTS, ETC., FOR A COMPLETELY INSULATED CHILLED WATER CIRCULATION SYSTEM. INCLUDE WITH INSTALLATION OF NEW INSULATION AN ALL SERVICE PVC JACKET.
- 2) NEW AIR SEPARATOR INSTALLED IN CHILLED WATER RETURN PIPING IN CHILLER YARD.
- 3) NEW CHILLED WATER EXPANSION TANK INSTALLED IN CHILLER YARD.
- 4) NEW MAKE UP WATER PIPING INSTALLED IN CHILLER YARD.
- 5) NEW CHEMICAL SOD FEEDER INSTALLED IN CHILLER YARD.
- 6) NEW SUPPLY AIR DUCTWORK SHALL BE EXTENDED FROM FULL SIZE OF OPENING WITH TRANSITION AND CONNECTION TO EXISTING SUPPLY AIR DUCTWORK (VERIFY DUCT SIZE AS INDICATED PRIOR TO BEGINNING ANY WORK). INCLUDE IN DUCT INSTALLATION NEW W-BAR IONIZATION PURIFICATION DEVICE. INTERLOCK AIR PURIFICATION DEVICE WITH AIR HANDLING UNIT. PROVIDE THAT THE AIR HANDLING UNIT OPERATES THE PURIFICATION DEVICE AND AS THE AIR HANDLING UNIT IS NOT OPERATING THE AIR PURIFICATION DEVICE SHALL NOT BE OPERATING.
- 7) NEW 18X10 MANUAL MOUNTED RETURN AIR REGISTER SHALL BE INSTALLED IN EXISTING WALL OPENING INTO RETURN AIR PLENUM. A MANUAL VOLUME REGISTER SHALL BE INCLUDED WITH REGISTER. VERIFY WALL OPENING SIZE PRIOR TO BEGINNING ANY WORK IN ORDER FOR REGISTER TO BE FULL SIZE OF OPENING. BALANCE REGISTER TO INDICATED AIR FLOW.
- 8) NEW MANUAL VOLUME DAMPER AND 3-POSITION MOTORIZED DAMPER TO BE INSTALLED IN EXISTING RETURN AIR DUCTWORK. ADJUST FINAL POSITION TO ACCOMMODATE AN EFFICIENT INSTALLATION. BALANCE MANUAL VOLUME DAMPER TO MAXIMUM INDICATED AIR FLOW. MOTORIZED DAMPER SHALL RESET POSITION SUBJECT TO CO2 LEVELS.
- 9) NEW MANUAL VOLUME DAMPER AND 3-POSITION MOTORIZED DAMPER TO BE INSTALLED IN EXISTING OUTDOOR AIR INTAKE DUCTWORK. ADJUST FINAL POSITION TO ACCOMMODATE MAXIMUM INDICATED AIR FLOW. INTERLOCK MOTORIZED DAMPER WITH NEW TEMPERATURE CONTROLLER OF AIR HANDLING UNIT. PROGRAM CONTROLLER FOR MOTORIZED DAMPER TO BE OPEN DURING OCCUPIED HOURS AND CLOSED OTHERWISE. DURING OCCUPIED HOURS THE MOTORIZED DAMPER SHALL RESET BETWEEN MAXIMUM AND MINIMUM SUBJECT TO CO2 LEVELS. REFERENCE SEQUENCE OF OPERATIONS FOR ADDITIONAL INFORMATION.
- 10) NEW WALL MOUNTED ELECTRIC/ELECTRONIC TEMPERATURE CONTROLLER WITH DIGITAL DISPLAY. CONTROLLER SHALL BE SEVEN DAY PROGRAMMABLE. HAVE MODE SELECTION, AUTOMATIC CHANGE OVER AND HAVE CO2 AND HUMIDITY CONTROL CAPABILITIES. PROGRAM CONTROLLER TO CONTROL EXHAUST FAN PLUMBING CONTACTS FOR CONTROL OF MOTORIZED DAMPER. NEW CONTROL INTERLOCK WIRING SHALL BE PROVIDED WITH INSTALLATION OF NEW TEMPERATURE CONTROLLER. (SEE SHEET M2.1 FOR LOCATIONS OF NEW TEMPERATURE CONTROLLERS)
- 11) EXISTING OUTDOOR AIR INTAKE VENT HOOD TO BE REINSTALLED IN ORIGINAL LOCATION ON NEW ROOF CURB. INSTALLATION SHALL DUPLICATE ORIGINAL INSTALLATION. EXISTING VENT HOOD TO BE PREPARED FOR REINSTALLATION PER DEMOLITION PLAN. COORDINATE INSTALLATION OF VENT HOOD WITH REINSTALLATION OF EXISTING OUTDOOR AIR INTAKE DUCTWORK.
- 12) EXISTING OUTDOOR AIR INTAKE VENT HOOD TO BE INSTALLED IN NEW LOCATION ON NEW PERIMETER CURB. COORDINATE INSTALLATION OF VENT HOOD WITH INSTALLATION OF NEW OUTDOOR AIR INTAKE DUCTWORK. ENSURE LOCATION OF VENT HOOD IS A MINIMUM OF 10 FEET FROM ROOF MOUNTED EXHAUST FANS AND PLUMBING VENT STACKS.
- 13) NEW OUTDOOR AIR INTAKE VENT HOOD WITH NEW PERIMETER CURB INSTALLED ON ROOF. VENT HOOD SHALL BE INSTALLED NO



24. NEW ROOF MOUNTED EXHAUST FAN WITH NEW CURB TO BE INSTALLED IN LOCATION AS INDICATED ON ROOF. MECHANICAL CONTRACTOR SHALL ENSURE THE EXHAUST FAN IS NO LESS THAN 10 FEET FROM THE OUTDOOR AIR INTAKE VENT HOOD.
25. NEW 12X12 OUTDOOR AIR PLENUM EXTENDED DOWN FROM ROOF MOUNTED OUTDOOR AIR INTAKE VENT HOOD. CONNECT NEW 12X6 DUCT TO PLENUM HIGH AS POSSIBLE AND ROUTE GENERALLY AS INDICATED WITH OFFSETS TO AVOID INTERFERENCES. DUCTWORK SHALL BE EXTENDED OVER TO EXTERIOR WALL AND ELBOW DOWN AS 12X6 TO FLOOR. ELBOW DUCT AS 6X12 TO PARALLEL WALL OVER FOR CONNECTION TO RETURN AIR PLENUM. INCLUDE 1" HORIZONTAL DUCT NEAR PLENUM THROUGH ROOF A MANUAL VOLUME DAMPER AND 3-POSITION MOTORIZED DAMPER. BALANCE MANUAL VOLUME DAMPER FOR SCHEDULED OUTDOOR AIR FLOW AND INTERLOCK MOTORIZED DAMPER WITH TEMPERATURE CONTROLLER FOR MOTORIZED DAMPER TO BE OPEN DURING OCCUPANCY AND CLOSED OTHERWISE.
26. NEW PLUMBING VENT INSTALLED IN NEW LOCATION ON ROOF. MECHANICAL CONTRACTOR SHALL ENSURE VENT IS NO LESS THAN 10 FEET FROM THE NEAREST OUTDOOR AIR INTAKE VENT HOOD.
27. NEW RESTROOM EXHAUST DUCTWORK TO BE INSTALLED ONCE INSTALLATION OF NEW AIR HANDLING UNIT #1 AND #4#4 HAS BEEN COMPLETED. EXTEND DUCTWORK FROM EXISTING ELBOW TURNING DUCT TO HORIZONTAL POSITION ABOVE AHU#4 OVER TO ALIGN WITH NEW ROOF OPENING FOR NEW EXHAUST FAN. TURN DUCT UP THROUGH ROOF FOR CONNECTION TO NEW EXHAUST FAN ROOF CURB.
28. EXISTING DUCT MOUNTED SMOKE DETECTOR TO BE VERIFIED AS BEING FULLY OPERATIONAL PER DEMOLITION REQUIREMENTS.
29. ROOF MOUNTED EQUIPMENT SHALL BE PROVIDED WITH SUPPORT CURBS. EXHAUST FANS AND VENT HOODS SHALL HAVE NEW FULL PERIMETER CURBS. SUPPORT CURBS SHALL BE MECHANICALLY FASTENED TO ROOF DECK AND EQUIPMENT FASTENED TO CURBS. MECHANICAL FASTENERS SHALL BE SPACED 24 INCHES ON CENTER SUBJECT TO AVAILABLE SIZE WITH A MINIMUM OF ONE FASTER PER SIDE. MECHANICAL FASTENERS SHALL BE 3/16 INCH IN DIAMETER.
30. EXISTING OUTDOOR AIR INTAKE DUCTWORK TO BE EXTENDED TO PENETRATE ROOF IN NEW LOCATION. NEW ROOF PENETRATION SHALL BE 10 FEET MINIMUM FROM BATHROOM EXHAUST FAN AND PLUMBING VENTS EXTENDING THROUGH ROOF. INCLUDE A NEW VENT HOOD WITH ROOF CURB OVER NEW ROOF PENETRATION.
31. NEW 48" WIDE GATES (2) ON EXISTING FENCE SHALL FOR CHILLER MAINTENANCE ACCESS. GATES SHALL SWING OPEN TO ALLOW A MINIMUM OF 8 FEET CLEARANCE.
32. NEW TWO-WAY CONTROL VALVE INSTALLED ON CHILLED WATER DISTRIBUTION PIPING AT THE CONNECTION TO NEW AIR HANDLING UNIT. REFERENCE CHILLED WATER COIL CONNECTION PIPING DETAIL FOR ADDITIONAL INFORMATION.
33. NEW VARIABLE FREQUENCY DRIVE FOR CONTROL OF DESIGNATED AIR HANDLING UNIT. VFD SHALL BE INTERLOCKED WITH NEW TEMPERATURE CONTROLS. REFERENCE SEQUENCE OF OPERATIONS FOR ADDITIONAL INFORMATION.
34. MAKE-UP WATER PIPING (1" COPPER) FOR THE CHILLED WATER SYSTEM SHALL BE EXTENDED FROM AIR SEPARATOR OVER TO EXTERIOR WALL AND TURNED UP TO ABOVE CEILING ELEVATION OF ADJACENT RESTROOM. PIPING SHALL SUPPLY EXTERIOR WATER ABOVE CEILING OF PIPING AND ROUTE OVER FOR CONNECTION TO NEAREST 1" DOMESTIC WATER EXISTING PIPING. WATER PIPING SHALL BE ROUTED FOR 10 FT AND BE COMPLETELY INSULATED. INCLUDE CONNECTION FITTINGS AND VALVE FOR CONNECTION OF NEW PIPING TO EXISTING PIPING. HEAT TRACE ALL EXPOSED MAKE-UP WATER PIPING AND INCLUDE AN 18 GAUGE ALUMINUM JACKET OVER INSULATION.

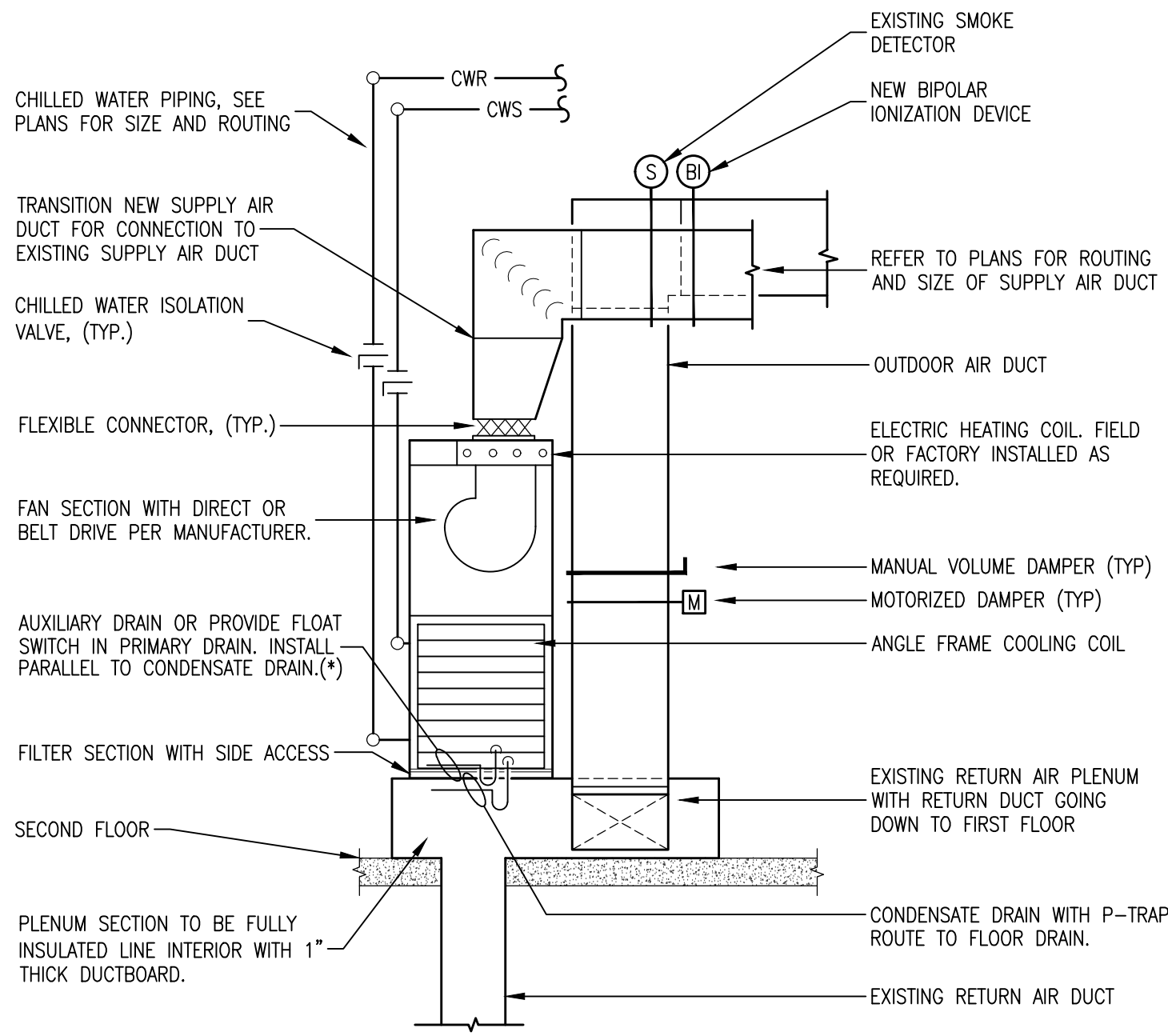


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- Wednesday, July 8, 2026 8:17:17 AM



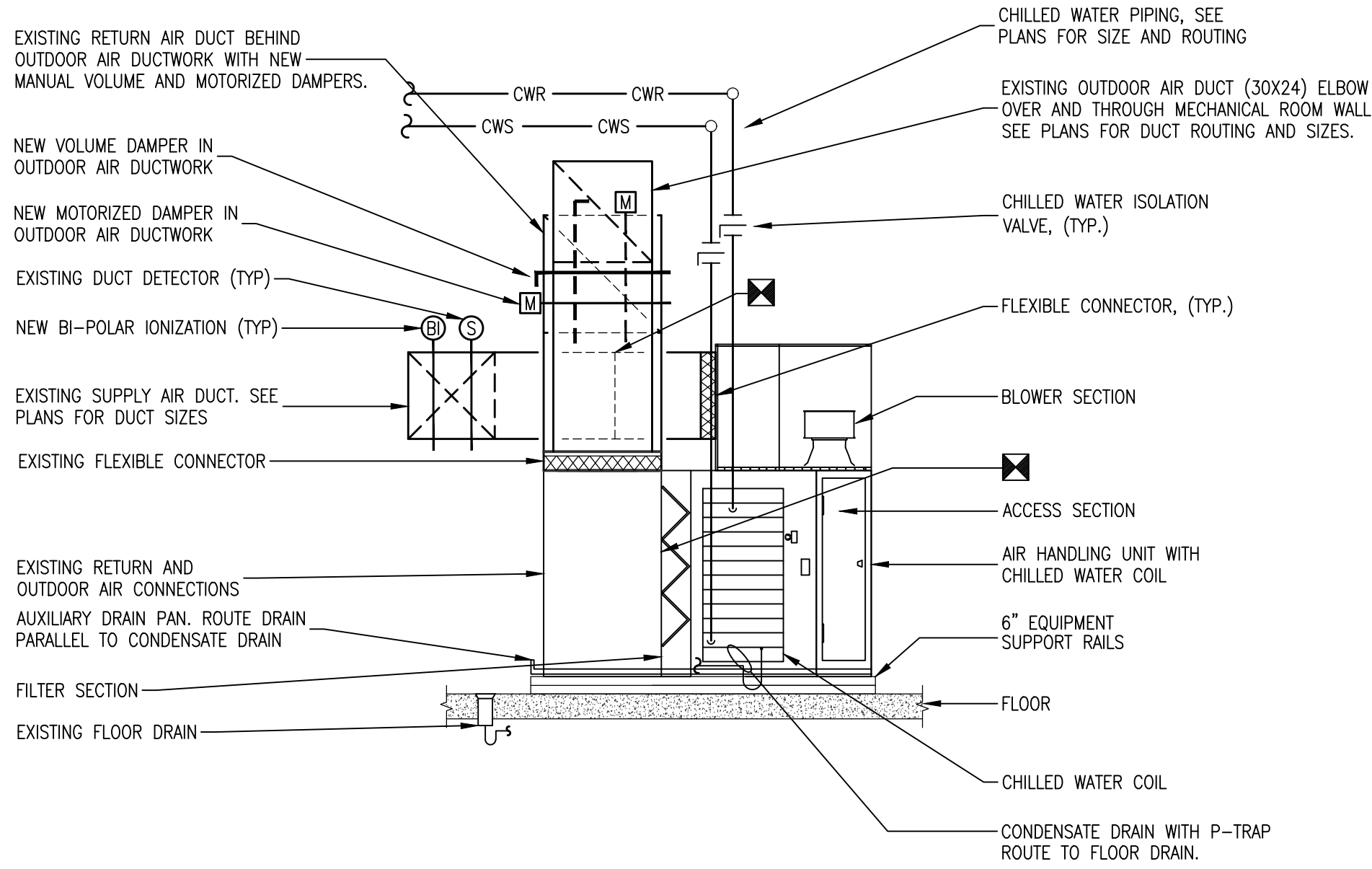
AIR HANDLING UNIT #1 ELEVATION DETAIL
NOT TO SCALE

* NOTE: FLOAT SWITCH IN PRIMARY DRAIN LINE SHALL BE LOCATED AT A POINT HIGHER THAN THE PRIMARY DRAIN LINE CONNECTION AND BELOW THE OVERFLOW RIM OF SUCH PAN.

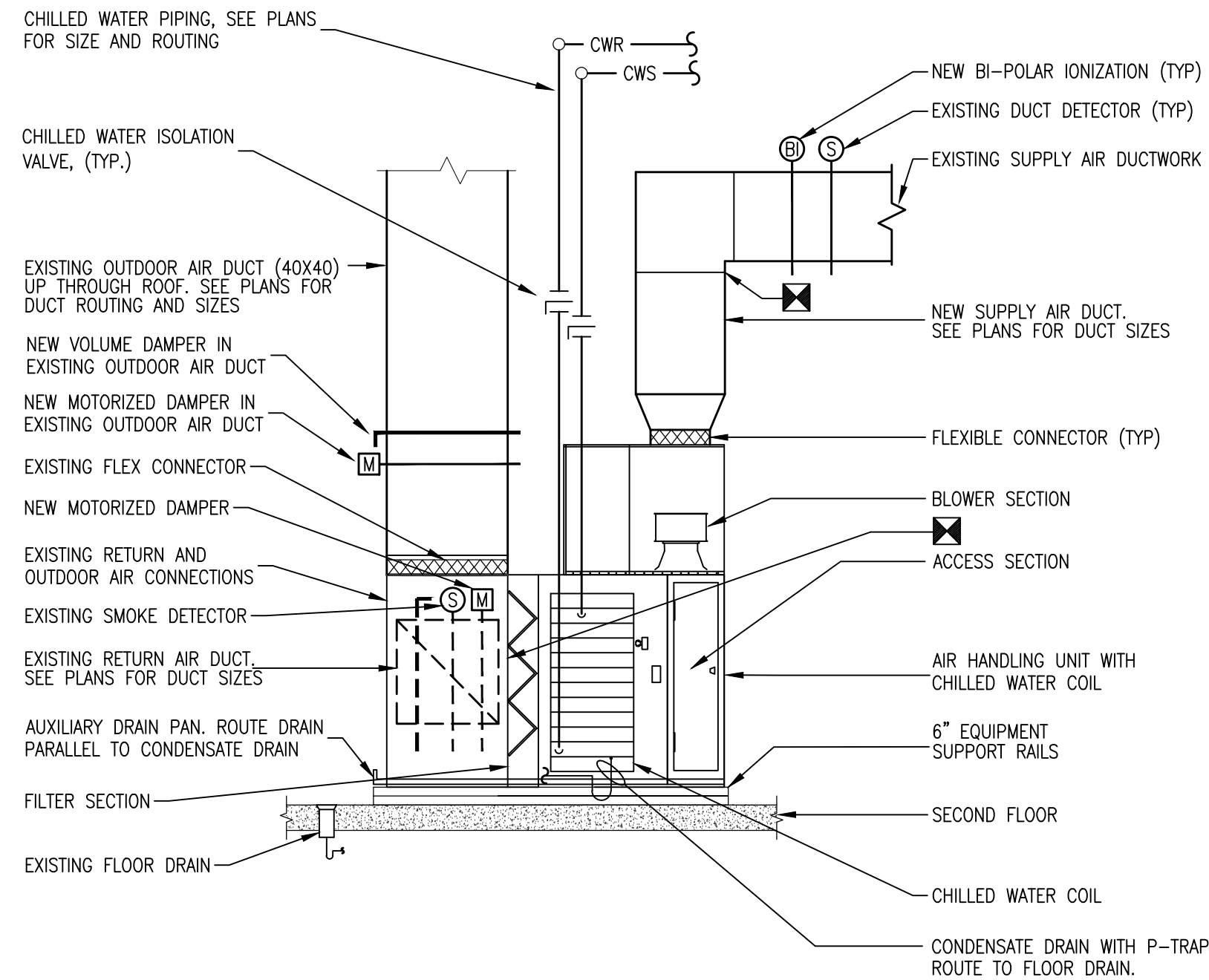


AIR HANDLING UNIT #2 ELEVATION DETAIL
NOT TO SCALE

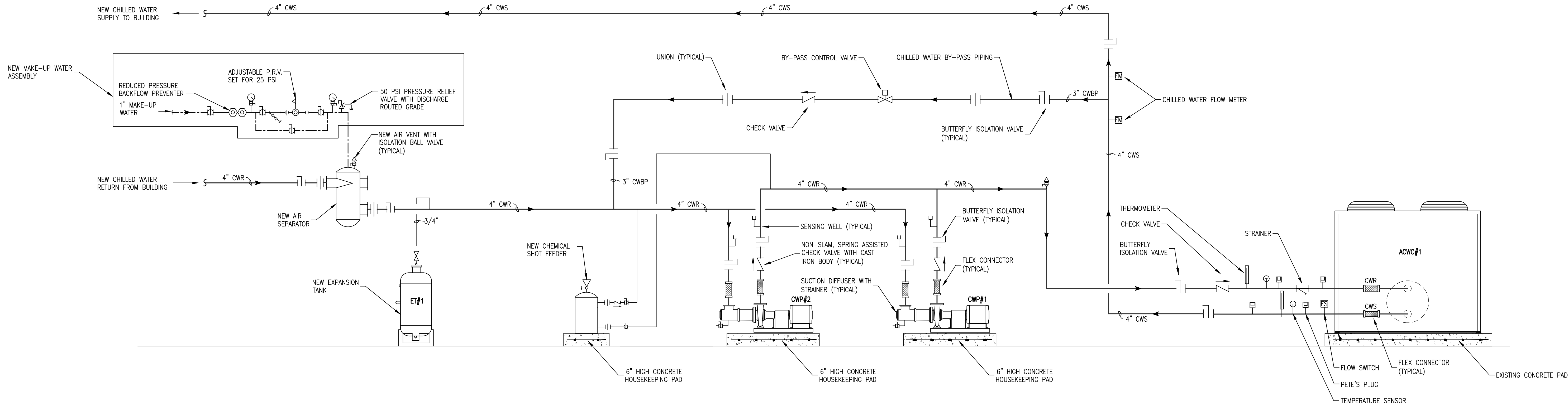
* NOTE: FLOAT SWITCH IN PRIMARY DRAIN LINE SHALL BE LOCATED AT A POINT HIGHER THAN THE PRIMARY DRAIN LINE CONNECTION AND BELOW THE OVERFLOW RIM OF SUCH PAN.



AIR HANDING UNIT #3 ELEVATION DETAIL
NOT TO SCALE

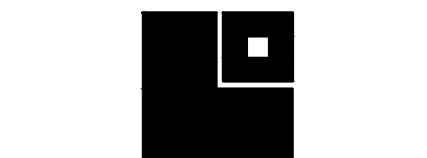


AIR HANDING UNIT #4 ELEVATION DETAIL
NOT TO SCALE



CHILLED WATER PIPING FLOW DIAGRAM
NOT TO SCALE

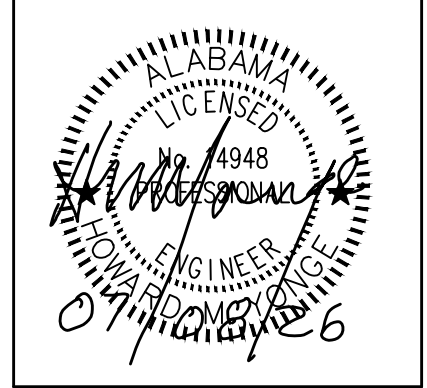
* NOTE: REFERENCE PIPING PLAN ON SHEET M2.2 FOR ACTUAL ROUTING, OFFSETS, AND ELEVATIONS.



LATHAN
McKEE
ARCHITECTS

RE-ROOFING AND RENOVATIONS VIGOR HIGH
SCHOOL AUDITORIUM BUILDING for the
Mobile County School System
913 North Wilson Avenue, Prichard AL 36610

SHEET TITLE: HVAC DETAILS AND PIPING DIAGRAMS -
ADDITIVE ALTERNATE #1



PROJ. MGR.:
DRAWN:
DATE: 07-08-26
REVISIONS

JOB NO. 26-021

SHEET NO:

M3



CHILLED WATER AIR HANDLING UNIT SCHEDULE																										
MARK	AREA SERVED	AIRSIDE DATA ①②							COOLING CAPACITY					CHILLED WATER COIL DATA				FILTER TYPE	MAXIMUM VELOCITY (FPM)	ELECTRICAL DATA					REMARKS	
		NOMINAL CFM	OA CFM	ESP (in. w.g.)	TSP (in. w.g.)	MOTOR HP	FAN TYPE	HEAT KW	EDB °F	EWB °F	LDB °F	LWB °F	TOTAL MBH	SENSIBLE MBH	ENT °F	LVG °F	GPM		MAX WPD	COIL VELOCITY	VOLTS	Hz	PHASE	MCA		MOCP
AHU#1	SECOND FLOOR STORAGE	825	100	0.2	0.42	1/2	PF	4.0	80.0	67.0	57.5	57.0	25.6	20.1	44	56	4.5	2.0'	30%	500	208	60	1	31.88	35	①②③④⑤⑥⑦⑧⑨
AHU#2	FIRST FLOOR LOBBY	2000	200	0.6	1.5	3/4	PF	9.9	80.0	67.0	56.8	56.1	65.0	50.1	44	56	11.0	4.1'	30%	450	460	60	3	16.75	20	①②③④⑤⑥⑦⑧⑨
AHU#3	STAGE	8500	1100	2.0	3.32	7.5	PF	--	80.0	67.0	54.0	53.4	350.8	238.7	44	56	58.5	1.5'	30%	500	460	60	3	16.4	20	①②③④⑤⑥⑦⑧⑨⑩
AHU#4	SEATING AREA	17,000	2125	2.0	2.28	15.0	PF	--	80.0	67.0	54.0	53.4	700.0	477.4	44	56	117.0	20.0'	30%	500	460	60	3	26.0	30	①②③④⑤⑥⑦⑧⑨⑩

- NOTES:
- EXTERNAL STATIC PRESSURE INDICATED DOES NOT INCLUDE PRESSURE DROP THRU CASING, COILS, FILTERS, OR ELECTRIC HEATER.
 - PF - PLENUM FAN
 - SZ - SINGLE ZONE
 - VAV - VARIABLE AIR VOLUME
 - DT - DRAW-THRU SUPPLY
 - EXISTING DUCT MOUNTED SMOKE DETECTORS IN THE SUPPLY AND RETURN AIR DUCTWORK TO REMAIN.
 - TRAP CONDENSATE AT UNIT AND ROUTE FULLY INSULATED CONDENSATE DRAIN LINE TO FLOOR DRAIN. SEE CONDENSATE DRAIN DETAIL. PROVIDE PADS, BASE RAILS, AND/OR CURBS OF SUFFICIENT HEIGHT TO ENABLE CORRECT TRAP DEPTH. COORDINATE FLOOR DRAIN LOCATION PRIOR TO BEGINNING WORK.
 - BASIS OF DESIGN - CARRIER AERO INDOOR AIR HANDLER (460V, 60Hz, 3ø), CARRIER BV (460V, 60Hz, 3ø), AND CARRIER DVA (208V, 60Hz, 1ø)
 - PROVIDE SINGLE POINT CONNECTION FOR AIR HANDLING UNIT BLOWER AND HEAT STRIP.
 - EXISTING DUCT MOUNTED ELECTRIC HEATING COIL TO REMAIN FOR REUSE
 - MAXIMUM OUTDOOR AIR FLOW = 1100 CFM, MINIMUM OUTDOOR AIR FLOW = 400 CFM (REFERENCE SEQUENCE OF OPERATION FOR CONTROL OF OUTDOOR AIR FLOW)
 - MAXIMUM OUTDOOR AIR FLOW = 2125 CFM, MINIMUM OUTDOOR AIR FLOW = 800 CFM (REFERENCE SEQUENCE OF OPERATION FOR CONTROL OF OUTDOOR AIR FLOW)

AIR COOLED WATER CHILLER SCHEDULE																			
MARK	NOMINAL CAPACITY TONS	GPM	WATER TEMP.		AMBIENT TEMP. °F	EVAPORATOR	COMPRESSOR		COND. FANS		MIN. CAPACITY REDUCTION STEPS	MIN. CEE (100%)	MIN. IPLV	ELECTRICAL DATA					REMARKS
			ENT °F	LVG °F		MAX. WPD	NO.	RLA (EA)	NO.	FLA (EA)				VOLTS	Hz	PHASE	MCA	MOCP	
ACWC-1	100	200	56	44	95	10.9'	4	32	6	4.8	25-50-75-100	10.81	16.91	460	60	3	188.8	225	①②③④⑤⑥

- NOTES:
- CHILL WATER SYSTEM IS TO BE SET UP FOR SINGLE POINT POWER.
 - BACNET MS/TP CONTROL INTERFACE.
 - PROVIDE WITH SPRING VIBRATION ISOLATION EQUIPMENT SUPPORTS.
 - PROVIDE MINIMUM 10,000A AIC RATING OPTION.
 - BASIS OF DESIGN - CARRIER AIR COOLED SCROLL CHILLER MODEL 30RC (460V, 60Hz, 3ø). MINIMUM CAPACITY OF CHILLER SHALL BE 1,140,000 BTUH.
 - MAXIMUM FLOW THROUGH CHILLER = 230 GPM, MINIMUM FLOW THROUGH CHILLER = 185 GPM

SEQUENCE OF CONTROLS:

SINGLE ZONE VAV AIR HANDLING UNIT

THE AIR HANDLING UNIT SUPPLY FAN SHALL START AND STOPPED THROUGH THE VFD HAND-OFF-AUTO SWITCH. WHEN IN THE "AUTO" POSITION, THE DDC CONTROL SHALL START THE AHU ON OCCUPANCY SCHEDULE. THE AHU SHALL BE STARTED MANUALLY IN THE "HAND" POSITION. THE AHU SHALL NOT ENERGIZE IN THE "OFF" POSITION.

FOR UNITS WITH A CAPACITY OF 2,000 CFM OR GREATER (OR AS INDICATED ON AHU SCHEDULE) AND SERVE MORE THAN ONE AREA, PROVIDE AUTOMATIC FAN SHUTDOWN BY MEANS OF A UL APPROVED SMOKE DETECTOR LOCATED IN THE RETURN AIR DUCT (PRIOR TO OUTSIDE AIR MIXING). PROVIDE SMOKE ALARM PANEL FOR UNIT SHUTDOWN. DUCT SMOKE DETECTORS SHALL BE PROVIDED BY DIVISION 16. SMOKE DETECTOR MUST BE COMPATIBLE WITH EXISTING FIRE ALARM SYSTEM IN BUILDING. SMOKE DETECTORS AND FIRE ALARM PANEL SHALL BE COMPATIBLE WITH EXISTING FIRE ALARM SYSTEM.

CONTRACTOR SHALL PROVIDE FIRE STATS AT UNIT TO SHUT DOWN UNIT UPON DETECTION OF EXCESSIVE HEAT IN THE SUPPLY SIDE DISCHARGE OF THE UNIT.

AN AIRFLOW MEASURING STATION IN THE OUTDOOR AIR INTAKE DUCT SHALL CONTINUOUSLY MONITOR (THRU THE DDC SYSTEM) THE OUTSIDE AIR VOLUME (MEASURED IN CFM) AT THE AIR HANDLER AND SEND OUTPUT TO THE DDC SYSTEM TO MAINTAIN OUTDOOR AIRFLOW SETPOINT AS THE SYSTEM FAN MODULATES. DDC PANEL SHALL MODULATE THE OUTSIDE AIR DAMPER TOWARDS THE OPEN POSITION AND SHALL MODULATE THE RETURN AIR DAMPER TO MAINTAIN A CONSTANT VOLUME OF OUTSIDE AIR. AIR QUANTITY SETPOINT SHALL BE FIELD ADJUSTABLE. MINIMUM POSITION OF THE RETURN AIR DAMPER SHALL BE LIMITED BY THE DDC CONTROLLER TO MAINTAIN ADEQUATE SUPPLY DUCT STATIC PRESSURE. PROVIDE COORDINATION WITH THE TAB CONTRACTOR.

WHEN THE AHU STOPS, OUTSIDE AIR DAMPER SHALL CLOSE, RETURN AIR DAMPER SHALL OPEN AND CONTROL VALVES SHALL CLOSE FULLY TO THE COILS.

PROVIDE MANUAL-RESET FREEZESTAT TO SHUT DOWN UNIT UPON SENSING 35°F MIXED AIR. MANUAL-RESET FREEZESTAT SHALL HAVE SERPENTINE SENSING ELEMENT FOR MOUNTING ON COIL INSIDE OF UNIT.

PROVIDE MANUAL-RESET, HIGH PRESSURE, LIMIT SWITCH IN THE SUPPLY AIR DUCT TO SHUT DOWN UNIT IN THE EVENT OF OVER PRESSURE.

UNIT SHALL RUN SUBJECT TO BUILDING FIRE ALARM RELAY BY DIVISION 16.

FOR UNITS WITH DEMAND CONTROLLED VENTILATION (REFERENCE AHU SCHEDULE), THE CO2 SENSOR IN THE RETURN AIR SHALL MONITOR CARBON DIOXIDE (CO2) CONCENTRATION AND CONTROL PER NOTES ON AIR HANDLING UNIT SCHEDULE.

OCCUPIED MODE:
WHEN THE "HQA" SWITCH IS IN THE "AUTO" POSITION AND THE DDC SYSTEM HAS THE BUILDING "OCCUPIED", THE AUTOMATIC OUTSIDE AIR DAMPER SHALL OPEN TO ITS MINIMUM POSITION AND THE RETURN AIR DAMPER SHALL OPEN FULLY AND THE AHU SUPPLY FAN SHALL ENERGIZE. THE AHU SUPPLY AIR FAN SHALL OPERATE AT ALL TIMES, SUBJECT TO THE MIXED AIR TEMPERATURE LOW LIMIT SENSOR, FIRE ALARM RELAY, DUCT MOUNTED SMOKE DETECTORS, HIGH STATIC LIMIT SENSOR, AND STARTER OVERLOADS. THE CHILLED WATER CONTROL VALVE SHALL MODULATE TO MAINTAIN A CONSTANT LEAVING AIR TEMPERATURE AS INDICATED ON THE AHU SCHEDULE. THE AUTOMATIC OUTSIDE AIR DAMPER SHALL MODULATE (BASED ON A SIGNAL FROM THE OUTSIDE AIR THERMAL DISPERSION AIRFLOW MEASURING STATION) TO MAINTAIN A MAXIMUM CO2 CONCENTRATION IN THE RETURN AIR AS SENSIED BY A CO2 SENSOR LOCATED IN THE SPACE. IF THE OUTSIDE AIR DAMPER REACHES FULL OPEN AND THE OUTSIDE AIR VOLUME IS NOT SATISFIED, THEN THE AUTOMATIC CONTROL DAMPER IN THE RETURN AIR DUCT SHALL MODULATE CLOSED UNTIL THE MAXIMUM CO2 CONCENTRATION OR MAXIMUM OUTSIDE AIR VOLUME SETPOINT IS REACHED. THE VARIABLE FREQUENCY DRIVE (VFD) SHALL MODULATE THE SUPPLY FAN SPEED IN ORDER TO MAINTAIN SPACE TEMPERATURE SETPOINT. IF THE STATIC PRESSURE ACROSS THE FAN SHOULD REACH THE HIGH STATIC LIMIT, THEN THE CONTROLS SHALL BE OVERRIDDEN AND THE VFD SHALL SLOW THE FAN SPEED.

UNOCCUPIED:
WHEN THE "HQA" SWITCH IS IN THE "AUTO" POSITION AND THE DDC SYSTEM HAS THE BUILDING "UNOCCUPIED", THE AUTOMATIC OUTSIDE AIR DAMPER SHALL CLOSE FULLY AND THE AUTOMATIC RETURN AIR DAMPER SHALL OPEN FULLY. THE AHU SUPPLY AIR FAN SHALL NORMALLY BE OFF AND SHALL BE ENABLED AS NECESSARY TO SATISFY THE SPACE HEATING OR COOLING DEMANDS AS DETERMINED BY THE "UNOCCUPIED" TEMPERATURE AND HUMIDITY SETPOINTS. IF THE TEMPERATURE IN ANY SPACE SHALL RISE ABOVE 80°F (FIELD ADJ.), THEN THE CONTROLS SHALL BE OVERRIDDEN AND THE SUPPLY AIR FAN SHALL BE ENERGIZED AND THE COOLING COIL CHILLED WATER CONTROL VALVE SHALL MODULATE TO MAINTAIN SPACE SETBACK TEMPERATURE. AS THE TEMPERATURE IN ANY SPACE FALLS BELOW 55°F (FIELD ADJ.), THEN THE CONTROLS SHALL BE OVERRIDDEN AND THE SUPPLY AIR FAN AND ELECTRIC REHEAT COIL SHALL MODULATE TO MAINTAIN SPACE SETBACK TEMPERATURE. THE AHU SHALL CONDITION THE SPACE UNTIL THE SENSOR IS SATISFIED. PROVIDE SCR CONTROL FOR THE ELECTRIC REHEATING COIL.

DEHUMIDIFICATION:
WHEN THE "HQA" SWITCH IS IN THE "AUTO" POSITION AND THE DDC SYSTEM BUILDING EITHER "OCCUPIED" OR "UNOCCUPIED", AND THE RELATIVE HUMIDITY IN ANY ZONE OR IN THE RETURN AIRSTREAM RISES ABOVE SETPOINT (FIELD ADJ.), THEN THE CONTROLS SHALL BE OVERRIDDEN AND THE SUPPLY AIR FAN SHALL BE ENERGIZED. THE CHILLED WATER CONTROL VALVE SHALL MODULATE TO MAINTAIN A CONSTANT LEAVING AIR TEMPERATURE AS INDICATED IN THE AHU SCHEDULE AND THE ELECTRIC REHEAT COIL SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE SETPOINT UNTIL THE SPACE RELATIVE HUMIDITY IS SATISFIED. THE AHU VFD SHALL REDUCE THE AHU SUPPLY FAN SPEED TO 50% AIRFLOW PRIOR TO INITIATING DEHUMIDIFICATION SEQUENCE. PROVIDE SCR CONTROL FOR MODULATION OF THE REHEAT COIL.

A RELATIVE HUMIDITY (RH) SENSOR SHALL BE INSTALLED IN THE AHU RETURN DUCT (PRIOR TO MIXING WITH OUTSIDE AIR) FOR OCCUPIED MODE.

ZONE RH SENSORS (MAXIMUM OF 2 PER AHU) SHALL BE INSTALLED IN THE SPACES AS INDICATED ON THE PLANS FOR UNOCCUPIED MODE.

COOLING PLANT SYSTEM:

SYSTEM GENERAL DESCRIPTION:

THE CHILLED WATER SYSTEM CONSISTS OF THE FOLLOWING: ONE (1) AIR COOLED WATER CHILLER. TWO (2) MANIPULATED CHILLED WATER PUMPS, CONFIGURED AS LEAD / LAG / STANDBY CONTROL.

THE CHILLED WATER SYSTEM CONTROLLER PROVIDES STAND-ALONE CONTROL OR CONTROL FROM A TOP TIER BAS AND PROVIDES LEAD/LAG/STANDBY CONTROL FOR THE CHILLED WATER PUMPS AND CONTROLS THE CHILLED WATER BYPASS VALVE TO MAINTAIN MINIMUM FLOW THROUGH THE CHILLER.

CHILLED WATER SYSTEM ENABLE/DISABLE:

THE CHILLED WATER SYSTEM SHALL BE ENABLED/DISABLED BY A BUILDING AUTOMATION SYSTEM (BAS). WHEN ENABLED, THE CHILLED WATER SYSTEM SHALL RESPOND TO A CONTACT CLOSURE FROM SYSTEM CHILLER. WHEN ENABLED, THE SYSTEM SHALL COMMAND THE ISOLATION VALVE OPEN AND START THE LEAD CHILLED WATER PUMP.

WHEN THE CHILLED WATER SYSTEM IS DISABLED, THE CHILLER SHALL BE DISABLED AND SHUT DOWN 10 MINUTES PRIOR TO SHUT DOWN OF PUMPS AND CLOSING OF ISOLATION VALVE. THIS SAME SEQUENCE SHALL APPLY PRIOR TO INITIATING THE UNOCCUPIED SCHEDULE.

CHILLED WATER PUMP START/STOP:

THE SYSTEM SHALL START A CHILLED WATER PUMP THROUGH A CONTACT CLOSURE OF THE PUMPS DRIVE RUN-ENABLE CONTACTS.

CHILLED WATER PUMP LEAD/LAG/STANDBY:

THE CHILLED WATER PUMP(S) LEAD/LAG/STANDBY SEQUENCE SHALL BE ROTATED ON A WEEKLY SCHEDULE. THE SEQUENCE SHALL BE BASED ON CALCULATED RUN TIME WITH THE PUMP HAVING THE LEAST RUN TIME DESIGNATED AS LEAD, THE PUMP WITH THE NEXT LOWEST RUN TIME WILL BE THE SECOND IN THE SEQUENCE (OR LAG PUMP). FROM THE SYSTEM HUMAN-INTERFACE PANEL OR A BAS OPERATOR INTERFACE, AN OPERATOR SHALL BE ABLE TO MANUALLY CHANGE THE LEAD/LAG/STANDBY SEQUENCE.

IF THE PUMP SPEED CONTROL OUTPUT IS BELOW 40% (ADJ.) FOR MORE THAN 5 MINUTES (ADJ.), THE LAST OPERATING PUMP IN THE SEQUENCE SHALL BE DISABLED.

CHILLED WATER PUMP SPEED:

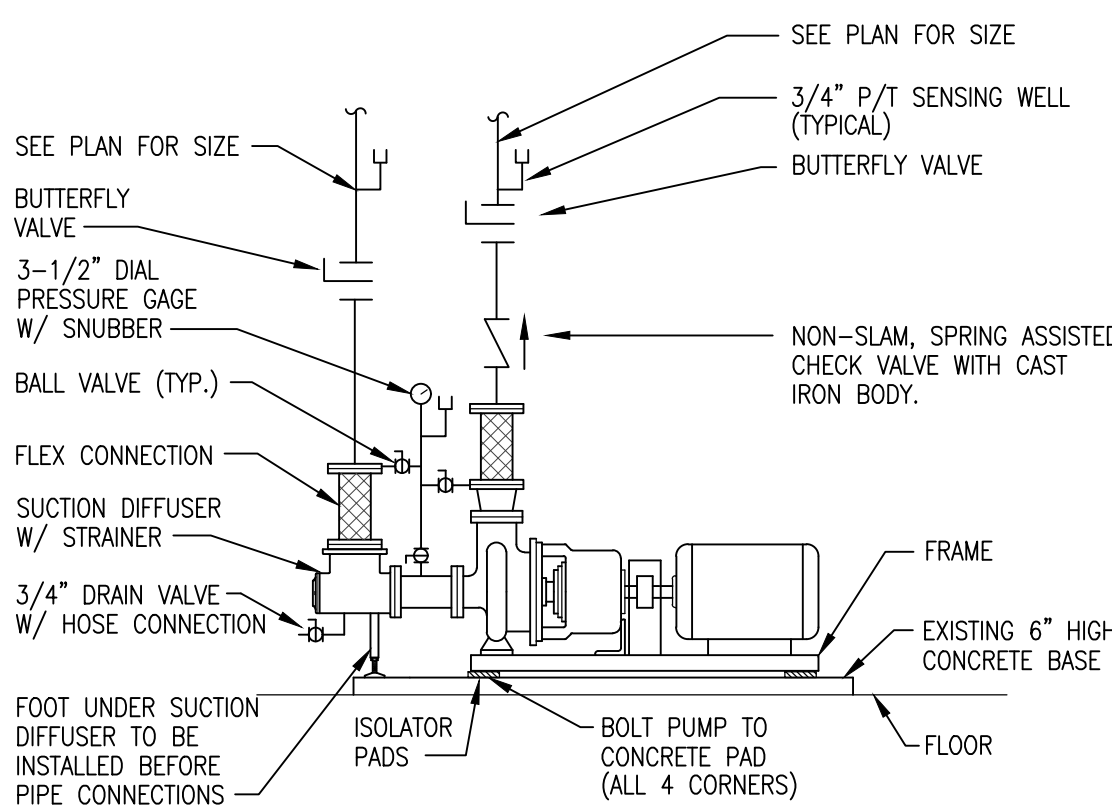
THE SYSTEM SHALL MONITOR THE CHILLED WATER SYSTEM DIFFERENTIAL PRESSURE SENSOR. WHEN THE PUMP DRIVE IS ENABLED, THE SYSTEM SHALL MAINTAIN THE CHILLED WATER DIFFERENTIAL PRESSURE SETPOINT OF 15 PSID (ADJ.).

CHILLED WATER PUMP FAILURE:

IF THE LEAD START/STOP RELAY IS ENABLED AND THE CURRENT SWITCH STATUS IS OFF FOR MORE THAN 30 SECONDS (ADJ.), THE SYSTEM SHALL ANNUNCIATE A CHILLED WATER PUMP FAILURE ALARM TO THE BAS AND START THE NEXT PUMP IN THE SEQUENCE. ONCE THE PROBLEM HAS BEEN CORRECTED, THE OPERATOR SHALL BE ABLE TO CLEAR THE ALARM FAILURE FROM THE BAS OPERATOR INTERFACE OR BY MANUALLY OVERRIDING THE PUMP ON. THIS SHALL RE-ENABLE THE LEAD/STANDBY SEQUENCE.

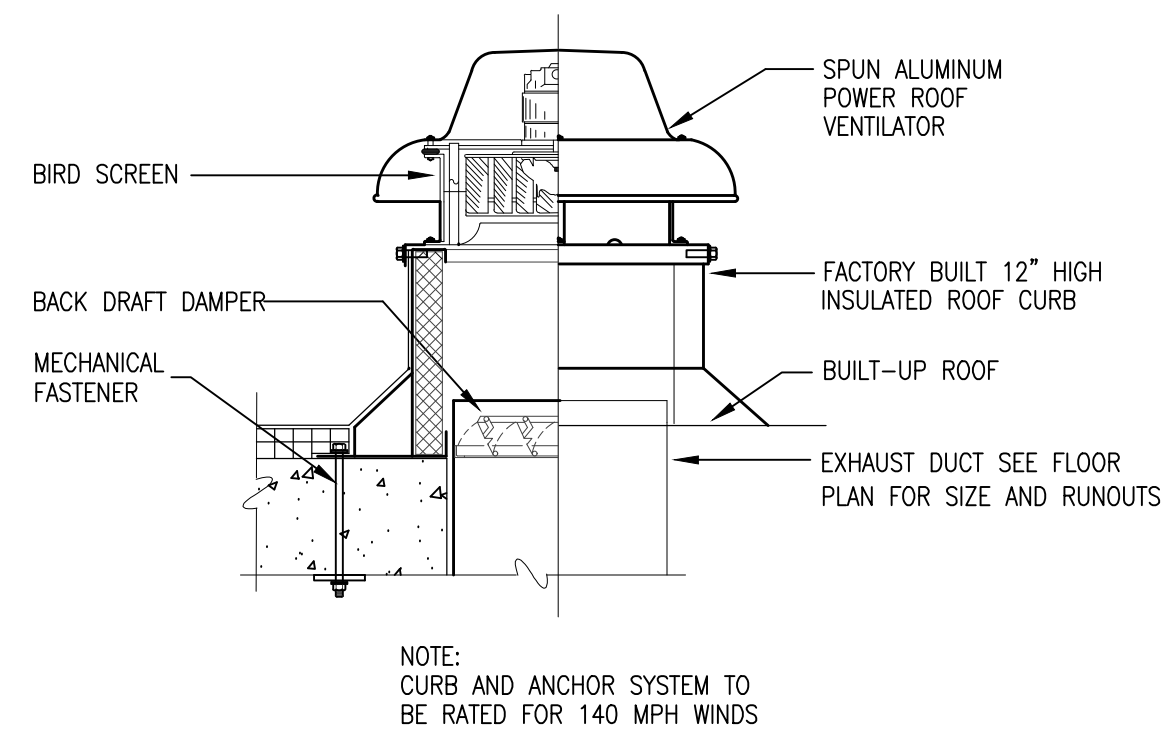
PRIMARY CHILLED WATER PUMP START/STOP:

THE SYSTEM SHALL DETECT CHILLED WATER PUMP RUN STATUS BY A CURRENT SWITCH.



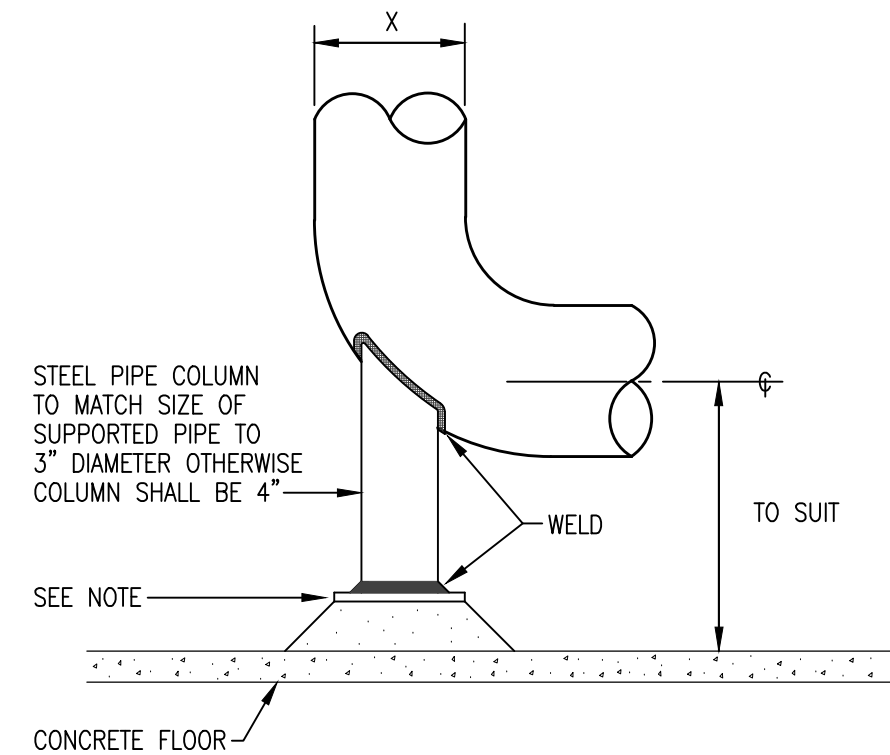
TYPICAL END SUCTION PUMP DETAIL

NOT TO SCALE



TYPICAL ROOF MOUNTED EXHAUST FAN DETAIL

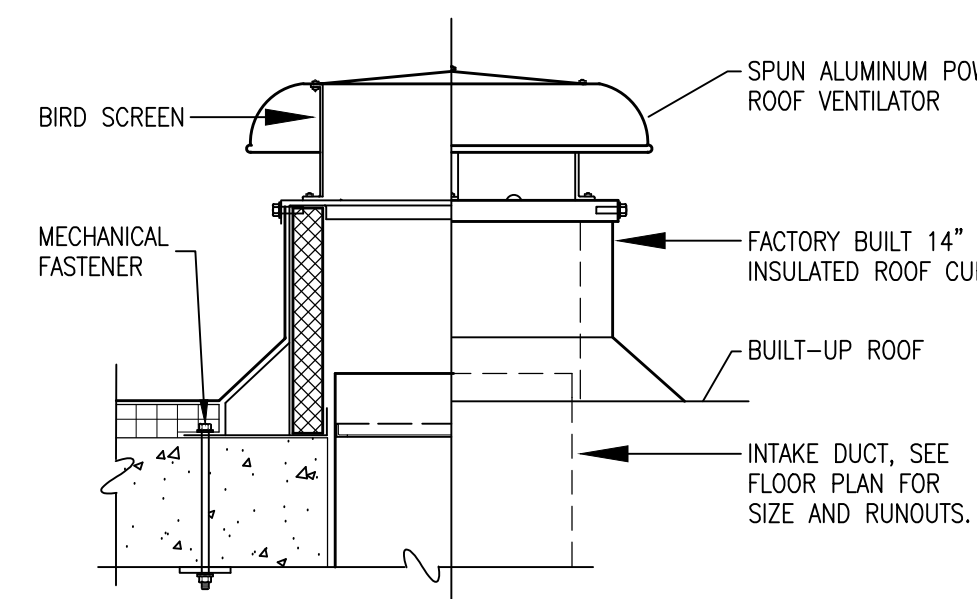
NOT TO SCALE



- NOTES:
- PROVIDE 3/4" PLATE FOR PIPE SIZES 3" AND LARGER
 - PROVIDE 1/2" PLATE FOR PIPE SIZES UNDER 3"
 - TYPICAL AT EQUIPMENT-PIPING DISTRIBUTION-PIPING ELBOWS

FLOOR MOUNTED PIPE SUPPORT DETAIL

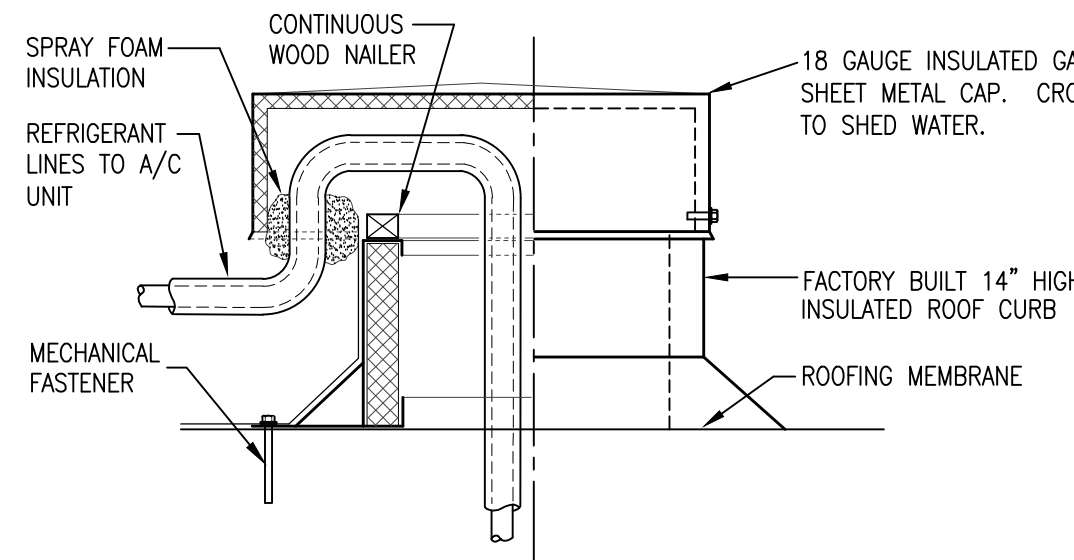
NOT TO SCALE



TYPICAL ROOF MOUNTED INTAKE HOOD DETAIL

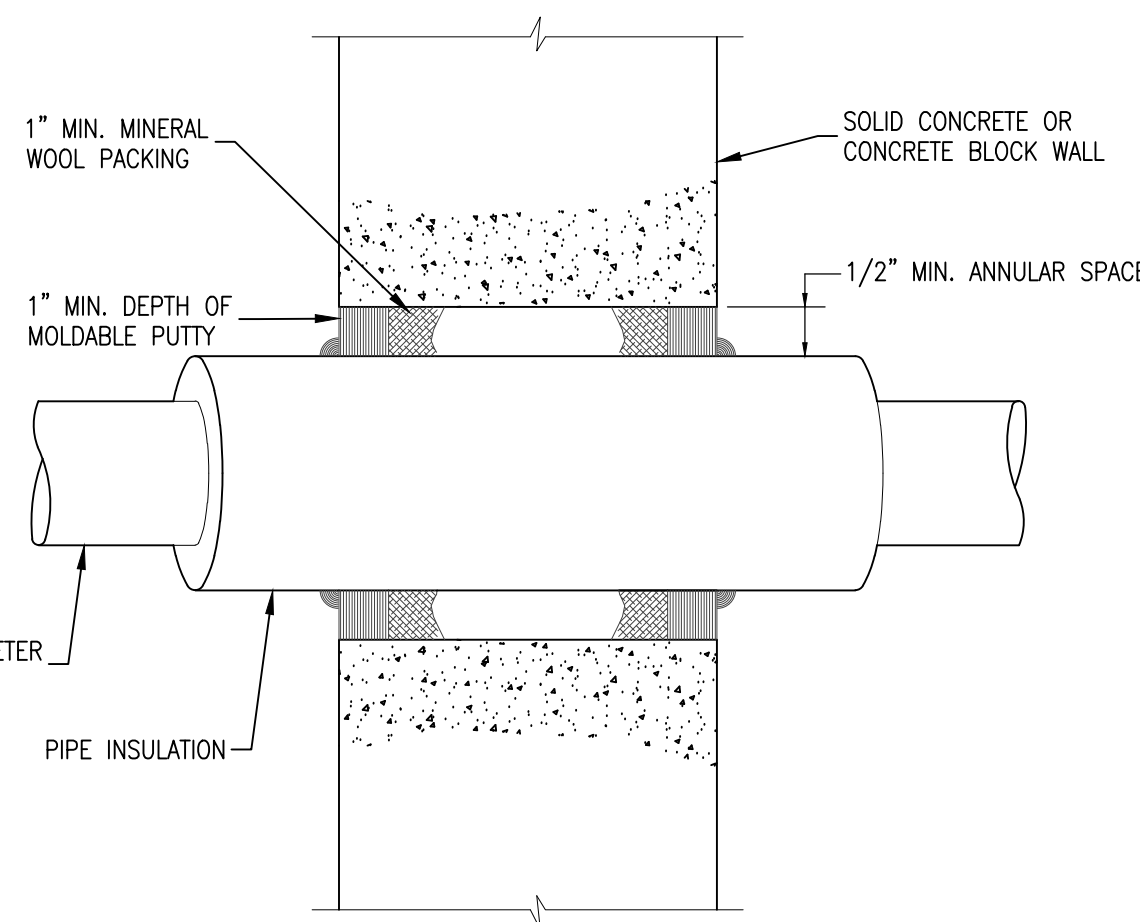
NOT TO SCALE

MECHANICAL LEGEND			
ACWC	AIR COOLED WATER CHILLER		
CWR	CHILLED WATER RETURN		
CWS	CHILLED WATER SUPPLY		
AHU	AIR HANDLING UNIT		
VFD	VARIABLE FREQUENCY DRIVE		
CWP	CHILLED WATER PUMP		
ET	EXPANSION TANK		
CWBP	CHILLED WATER BY-PASS PIPING		
TYP.	TYPICAL		
EX.	EXISTING		
	2-WAY CONTROL VALVE AT AHU		
	CHECK VALVE		
	BUTTERFLY ISOLATION VALVE		
	FLEXIBLE CONNECTION		
	FLOW SWITCH		
	GATE COCK		
	GATE COCK WITH GATE		
	ISOLATION VALVE (GATE OR BALL)		
	PETE'S PLUG		
	STRAINER WITH BLOWDOWN VALVE		
	UNION		
	BY-PASS CONTROL VALVE		
	FLOW METER		



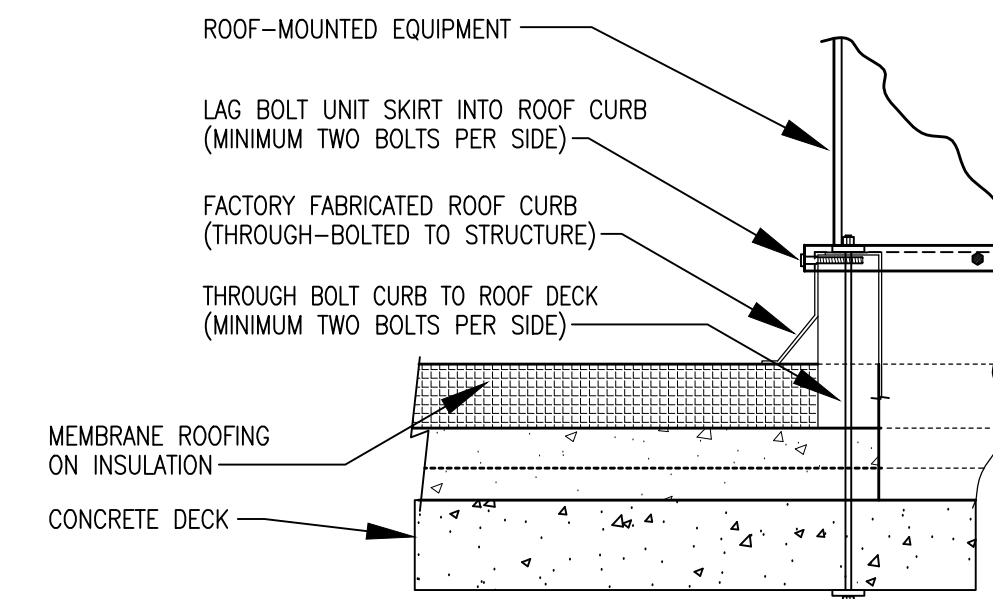
TYPICAL PIPE CURB DETAIL

SCALE: AS NOTED



TYPICAL PIPING PENETRATION DETAILS

NOT TO SCALE:



TYPICAL ROOF CURB EQUIPMENT DETAIL

NOT TO SCALE



LATHAN
McKEE
ARCHITECTS

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SHEET TITLE: HVAC SCHEDULES AND DETAILS -
ADDITIVE ALTERNATE #1

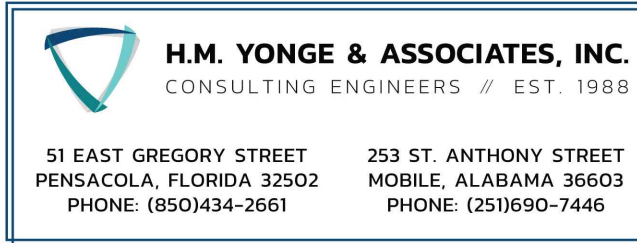


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DATE: 07-08-26
REVISIONS

JOB NO. 26-021

SHEET NO:

M4



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- Wednesday, July 8, 2026 8:19:08 AM

OUTSIDE AIR VENTILATION RATES IAQ PROCEDURE – 2021 IMC										
ZONE TAG	FACILITY TYPE	ZONE USE	ZONE FLOOR AREA (SF) Az	ZONE MAX OCCUPANCY Rp	TABLE 6.1 OA/person (Rp)	TABLE 6.1 cfm/f12 (R0)	Pz*Rp	Az*Ro	TABLE 6.2 VENTILATION EFF. (Ez)	ZONE OA (CFM)
FIRST FLOOR LOBBY	PUBLIC ASSEMBLY	LOBBY	1200 ④	180	5.0	0.06	900	72	1.0	972 ③
ZONE HEIGHT (FT)	10		AIR CHANGES/HOUR			10.0				
DESIRED OA (Vo) IAQ	200		OA PER VRP			972 CFM	VRP OA CFM/PERSON			5.4
MAX/MIN SA (Vs)	2000		OA PER IAQ			200 CFM	IAQ OA CFM/PERSON			1.1
RETURN AIR (Vr)	1800		OA SAVINGS			772 CFM				
RECIRC. FLOW FACTOR(R)	0.90		OA DRY BULB			95 °F				
VENT. EFF. (Ez)	1.0		OA WET BULB			80 °F				
PHYSICAL ACTIVITY	SEDENTARY		COIL LVG. DRY BULB			55 °F				
FILTER LOCATION	B		COIL LVG. WET BULB			55 °F				
HVAC FLOW TYPE	CONSTANT									
OA FLOW TYPE	CONSTANT									
CONTAMINANT OF CONCERN	CONTAMINANT SOURCE	MAXIMUM THRESHOLD VALUE (PPM)	STEADY STATE USING VRP	STEADY STATE USING IAQ	STEADY STATE LEVEL OK @ REDUCED OA?					
ACETALDEHYDE	PEOPLE	100	0.01112	0.00015	YES					
ACETONE	PEOPLE	250	0.00167	0.00013	YES					
AMMONIA	PEOPLE	25	0.01523	0.00373	YES					
BENZENE	PEOPLE	1	0.00252	0.00004	YES					
2-BUTANONE (MEK)	PEOPLE	200	0.00019	0.00002	YES					
CARBON DIOXIDE	PEOPLE	5000	990	1034	YES					
CHLOROFORM	PEOPLE	2	0.00011	0.00002	YES					
DIOXANE	PEOPLE	100	0	0	YES					
HYDROGEN SULFIDE	PEOPLE	10	0	0	YES					
METHANE	PEOPLE	N/A	1.68094	1.68094	YES					
METHANOL	PEOPLE	200	0	0	YES					
METHYLENE CHLORIDE	PEOPLE	25	0.00077	0.00003	YES					
PROPANE	PEOPLE	1000	0.00998	0.00998	YES					
TETRACHLOROETHANE	PEOPLE	5	0	0	YES					
TETRACHLOROETHYLENE	PEOPLE	100	0.00037	0.00001	YES					
TOLUENE	PEOPLE	100	0.00533	0.00007	YES					
TRICHLOROETHANE	PEOPLE	350	0.00077	0.02	YES					
XYLENE	PEOPLE	100	0.00230	0.00003	YES					
			IS IAQ ACCEPTABLE AT REDUCED OA LEVELS?			YES				

(1 - R) Vr

E1

A

R0R

E2

B

Fr (W + Vo)

NOTES:

① IAQ PROCEDURE IN ACCORDANCE WITH THE EXISTING EXCEPTION FOUND IN IMC, SECTION 403.2 AND IN ACCORDANCE WITH ASHRAE 62.1-SECTION 6.1.2 & 6.3 BY UTILIZING BI-POLAR IONIZATION TECHNOLOGY.

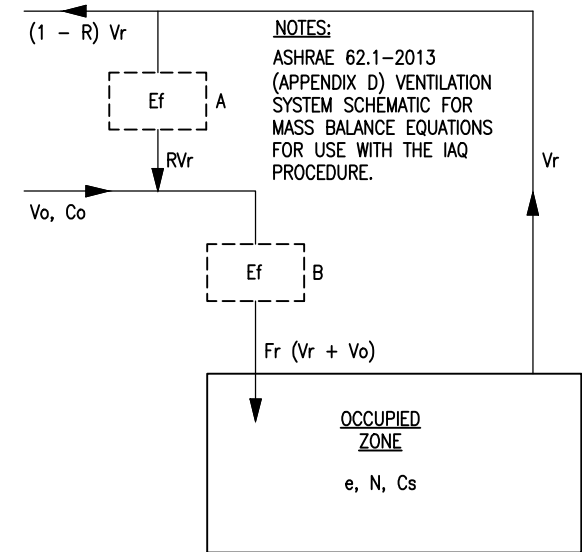
② ALL VALUES LISTED IN PARTS PER MILLION (PPM) UNLESS OTHERWISE NOTED.

③ OUTSIDE AIR REQUIRED PER VENTILATION RATE PROCEDURE (VRP).

④ OUTSIDE AIR IAQ CALCULATION FOR TOTAL SEATING AREA.

ASHRAE 62.1-2013 (PERFECT) VENTILATION SYSTEM SCHEMATIC FOR MASS BALANCE EQUATIONS FOR USE WITH THE IAQ PROCEDURE.

OCCUPIED ZONE
e.g. N, CO



- NOTES:
- ① IAQ PROCEDURE IN ACCORDANCE WITH THE ENGINEERED EXCEPTION FOUND IN IMC, SECTION 403.2 AND IN ACCORDANCE WITH ASHRAE 62.1-2013, SECTION 6.1.2 & 6.3 BY UTILIZING BIPOLAR IONIZATION TECHNOLOGY.
 - ② ALL VALUES LISTED IN PARTS PER MILLION (PPM), UNLESS OTHERWISE NOTED.
 - ③ OUTSIDE AIR REQUIRED PER VENTILATION RATE PROCEDURE (VRP).
 - ④ OUTSIDE AIR IAQ CALCULATION FOR TOTAL SEATING AREA.

OUTSIDE AIR VENTILATION RATES IAQ PROCEDURE – 2021 IMC										
ZONE TAG	FACILITY TYPE	ZONE USE	ZONE FLOOR AREA (SF) Az	ZONE MAX OCCUPANCY Rp	TABLE 6.1 OA/person (Rp)	TABLE 6.1 cfm/f12 (R0)	Pz*Rp	Az*Ro	TABLE 6.2 VENTILATION EFF. (Ez)	ZONE OA (CFM)
STAGE	PUBLIC ASSEMBLY	STAGE	2600 ④	182	10.0	0.06	1820	156	1.0	1976 ③
ZONE HEIGHT (FT)	30		AIR CHANGES/HOUR		6.5					
DESIRED OA (Vo) IAQ	1100		OA PER VRP		1976 CFM		VRP OA CFM/PERSON			10.9
MAX/MIN SA (Vs)	8500		OA PER IAQ		1100 CFM		IAQ OA CFM/PERSON			6.0
RETURN AIR (Vr)	7400		OA SAVINGS		876 CFM					
RECIRC. FLOW FACTOR(R)	0.87		OA DRY BULB		95 °F					
VENT. EFF. (Ez)	1.0		OA WET BULB		80 °F					
PHYSICAL ACTIVITY	MODERATE EXERCISE		COIL LVG. DRY BULB		55 °F					
FILTER LOCATION	B		COIL LVG. WET BULB		55 °F					
HVAC FLOW TYPE	CONSTANT									
OA FLOW TYPE	CONSTANT									
CONTAMINANT OF CONCERN	CONTAMINANT SOURCE	MAXIMUM THRESHOLD VALUE (PPM)	STEADY STATE USING VRP	STEADY STATE USING IAQ	STEADY STATE LEVEL OK @ REDUCED OA?					
ACETALDEHYDE	PEOPLE	100	0.01112	0.00015	YES					
ACETONE	PEOPLE	250	0.00167	0.00013	YES					
AMMONIA	PEOPLE	25	0.01523	0.00373	YES					
BENZENE	PEOPLE	1	0.00252	0.00004	YES					
2-BUTANONE (MEK)	PEOPLE	200	0.00019	0.00002	YES					
CARBON DIOXIDE	PEOPLE	5000	990	1034	YES					
CHLOROFORM	PEOPLE	2	0.00011	0.00002	YES					
DIOXANE	PEOPLE	100	0	0	YES					
HYDROGEN SULFIDE	PEOPLE	10	0	0	YES					
METHANE	PEOPLE	N/A	1.68094	1.68094	YES					
METHANOL	PEOPLE	200	0	0	YES					
METHYLENE CHLORIDE	PEOPLE	25	0.00077	0.00003	YES					
PROPANE	PEOPLE	1000	0.00998	0.00998	YES					
TETRACHLOROETHANE	PEOPLE	5	0	0	YES					
TETRACHLOROETHYLENE	PEOPLE	100	0.00037	0.00001	YES					
TOLUENE	PEOPLE	100	0.00533	0.00007	YES					
TRICHLOROETHANE	PEOPLE	350	0.00077	0.02	YES					
XYLENE	PEOPLE	100	0.00230	0.00003	YES					
IS IAQ ACCEPTABLE AT REDUCED OA LEVELS?			YES							

NOTES:

① IAQ PROCEDURE IN ACCORDANCE WITH THE ENGINEERING EXCEPTION FOUND IN IMC, SECTION 403.2 AND IN ACCORDANCE WITH ASHRAE 62.1-2 SECTION 6.1.2 & 6.5 BY UTILIZING BI-POLAR IONIZATION TECHNOLOGY.

② ALL VALUES LISTED IN PARTS PER MILLION (PPM) UNLESS OTHERWISE NOTED.

③ OUTSIDE AIR REQUIRED PER VENTILATION RATE PROCEDURE (VRP).

④ OUTSIDE AIR IAQ CALCULATION FOR TOTAL SEATING AREA.

NOTES:

ASHRAE 62.1-2012 (APPENDIX D) VENTILATION SYSTEM SCHEMATIC FOR MASS DRAWING COORDINATES FOR USE WITH THE IAQ PROCEDURE.

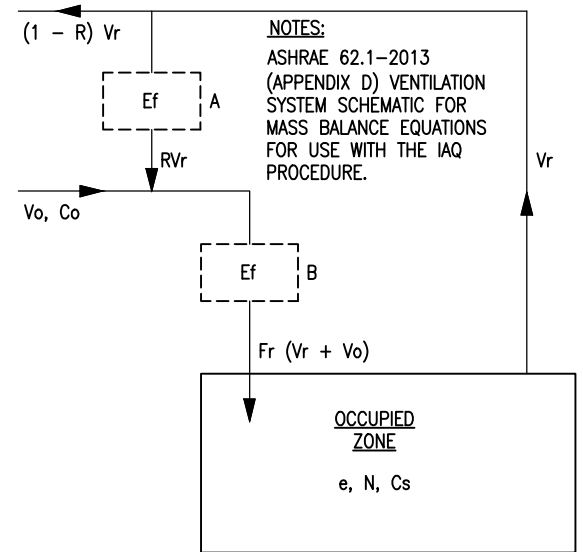
Vo, Co

VR

Fr (Vr + Vo)

Occupied Zone

n, N, Cs



- NOTES:
- ① IAQ PROCEDURE IN ACCORDANCE WITH THE ENGINEERED EXCEPTION FOUND IN IMC, SECTION 403.2 AND IN ACCORDANCE WITH ASHRAE 62.1-2013, SECTION 6.1.2 & 6.3 BY UTILIZING BIPOLAR IONIZATION TECHNOLOGY.
 - ② ALL VALUES LISTED IN PARTS PER MILLION (PPM), UNLESS OTHERWISE NOTED.
 - ③ OUTSIDE AIR REQUIRED PER VENTILATION RATE PROCEDURE (VRP).
 - ④ OUTSIDE AIR IAQ CALCULATION FOR TOTAL SEATING AREA.

OUTSIDE AIR VENTILATION RATES IAQ PROCEDURE – 2021 IMC										
ZONE TAG	FACILITY TYPE	ZONE USE	ZONE FLOOR AREA (SF) Az	ZONE MAX OCCUPANCY Rp	TABLE 6.1 OA/person (Rp)	TABLE 6.1 cfm/f12 (R0)	Pz*Rp	Az*Ro	TABLE 6.2 VENTILATION EFF. (Ez)	ZONE OA (CFM)
SEATING AREA	PUBLIC ASSEMBLY	SEATING AREA	6900 ④	1035	5.0	0.06	5175	414	1.0	5589 ③
ZONE HEIGHT (FT)	40		AIR CHANGES/HOUR			3.7				
DESIRED OA (Vo) IAQ	2125		OA PER VRP			5589 CFM	VRP OA CFM/PERSON			5.4
MAX/MIN SA (Vs)	17,000		OA PER IAQ			2125 CFM	IAQ OA CFM/PERSON			2.1
RETURN AIR (Vr)	14,875		OA SAVINGS			3464 CFM				
RECIRC. FLOW FACTOR(R)	0.88		OA DRY BULB			95 °F				
VENT. EFF. (Ez)	1.0		OA WET BULB			80 °F				
PHYSICAL ACTIVITY	SEDENTARY		COIL LVG. DRY BULB			55 °F				
FILTER LOCATION	B		COIL LVG. WET BULB			55 °F				
HVAC FLOW TYPE	CONSTANT									
OA FLOW TYPE	CONSTANT									
CONTAMINANT OF CONCERN	CONTAMINANT SOURCE	MAXIMUM THRESHOLD VALUE (PPM)	STEADY STATE USING VRP	STEADY STATE USING IAQ	STEADY STATE LEVEL OK @ REDUCED OA?					
ACETALDEHYDE	PEOPLE	100	0.01112	0.00015	YES					
ACETONE	PEOPLE	250	0.00167	0.00013	YES					
AMMONIA	PEOPLE	25	0.01523	0.00373	YES					
BENZENE	PEOPLE	1	0.00252	0.00004	YES					
2-BUTANONE (MEK)	PEOPLE	200	0.00019	0.00002	YES					
CARBON DIOXIDE	PEOPLE	5000	990	1034	YES					
CHLOROFORM	PEOPLE	2	0.00011	0.00002	YES					
DIOXANE	PEOPLE	100	0	0	YES					
HYDROGEN SULFIDE	PEOPLE	10	0	0	YES					
METHANE	PEOPLE	N/A	1.68094	1.68094	YES					
METHANOL	PEOPLE	200	0	0	YES					
METHYLENE CHLORIDE	PEOPLE	25	0.00077	0.00003	YES					
PROPANE	PEOPLE	1000	0.00998	0.00998	YES					
TETRACHLOROETHANE	PEOPLE	5	0	0	YES					
TETRACHLOROETHYLENE	PEOPLE	100	0.00037	0.00001	YES					
TOLUENE	PEOPLE	100	0.00533	0.00007	YES					
TRICHLOROETHANE	PEOPLE	350	0.00077	0.02	YES					
XYLENE	PEOPLE	100	0.00230	0.00003	YES					
			IS IAQ ACCEPTABLE AT REDUCED OA LEVELS?			YES				

(1 – R) Vr

NOTES:
APPENDIX 62.1-2013 (APPENDIX D) VENTILATION SYSTEM SCHEMATIC FOR MASS BALANCE EQUATIONS FOR USE WITH THE IAQ PROCEDURE.

Vo, Go

Rv

EF A

EF B

Fv (Vr + Vo)

OCCUPIED ZONE
e, N, Oa

Vr

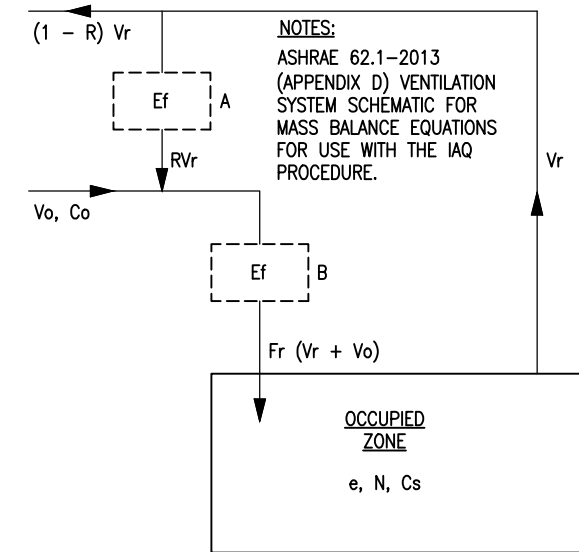
NOTES:

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② ALL VALUES LISTED IN PARTS PER MILLION (PPM) UNLESS OTHERWISE NOTED.

③ OUTSIDE AIR REQUIRED PER VENTILATION RATE PROCEDURE (VRP).

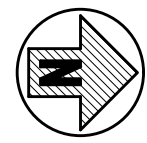
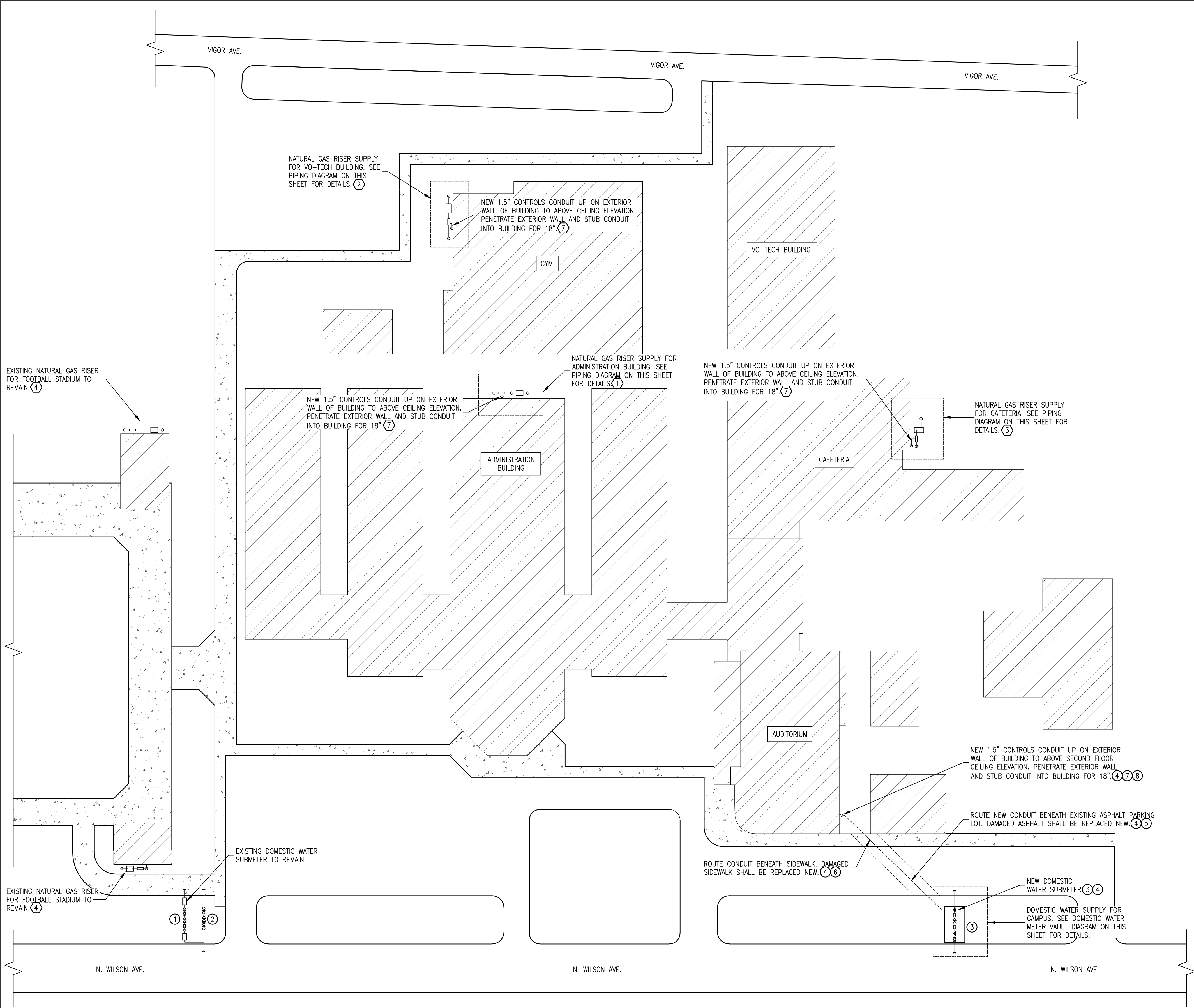
④ OUTSIDE AIR IAQ CALCULATION FOR TOTAL SEATING AREA.



- NOTES:
- ① IAQ PROCEDURE IN ACCORDANCE WITH THE ENGINEERED EXCEPTION FOUND IN IMC, SECTION 403.2 AND IN ACCORDANCE WITH ASHRAE 62.1-2013, SECTION 6.1.2 & 6.3 BY UTILIZING BIPOLAR IONIZATION TECHNOLOGY.



PROJ. MGR.:	
DRAWN:	
DATE:	07-08-26
REVISIONS	



SUBMETERING PLAN - ADDITIVE ALTERNATE #2

SCALE: 1" = 50'-0"

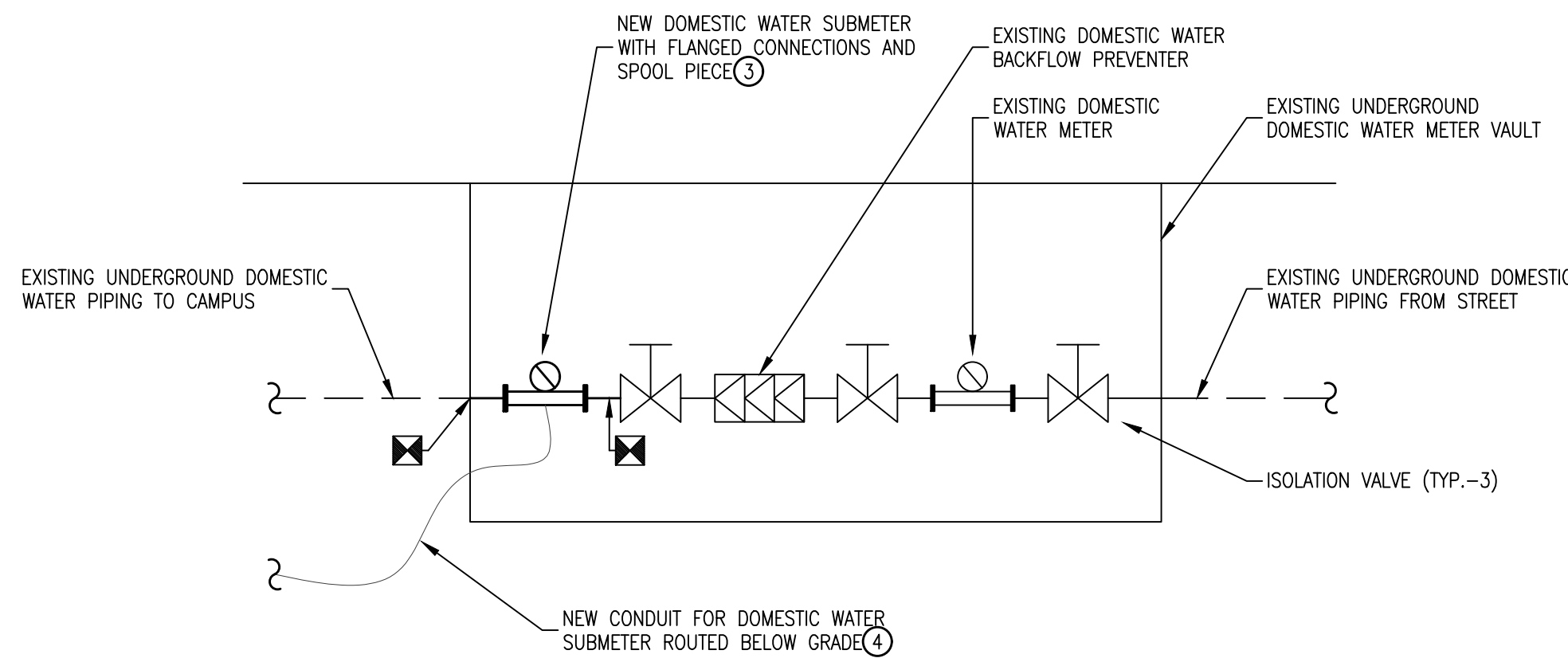
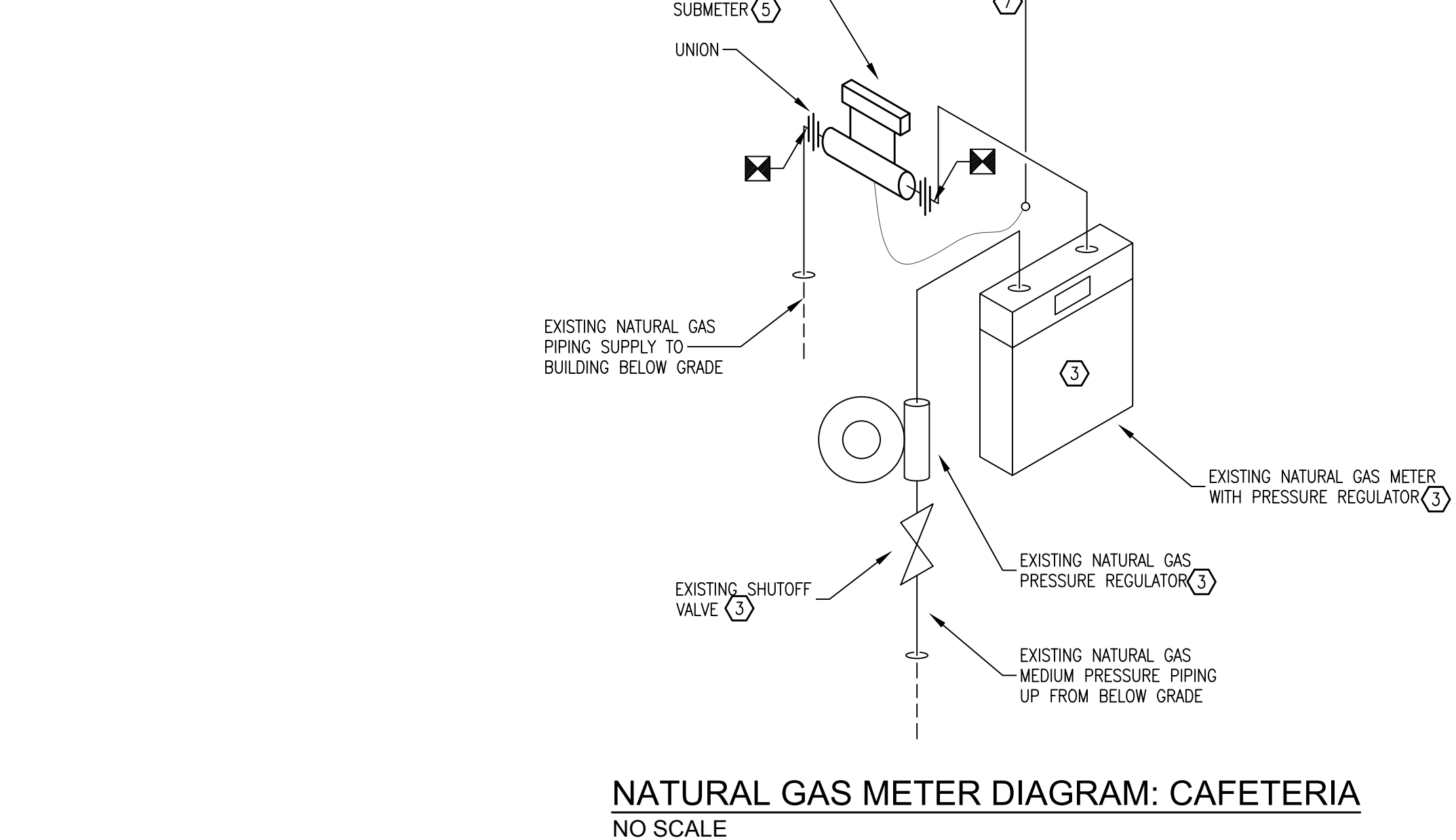
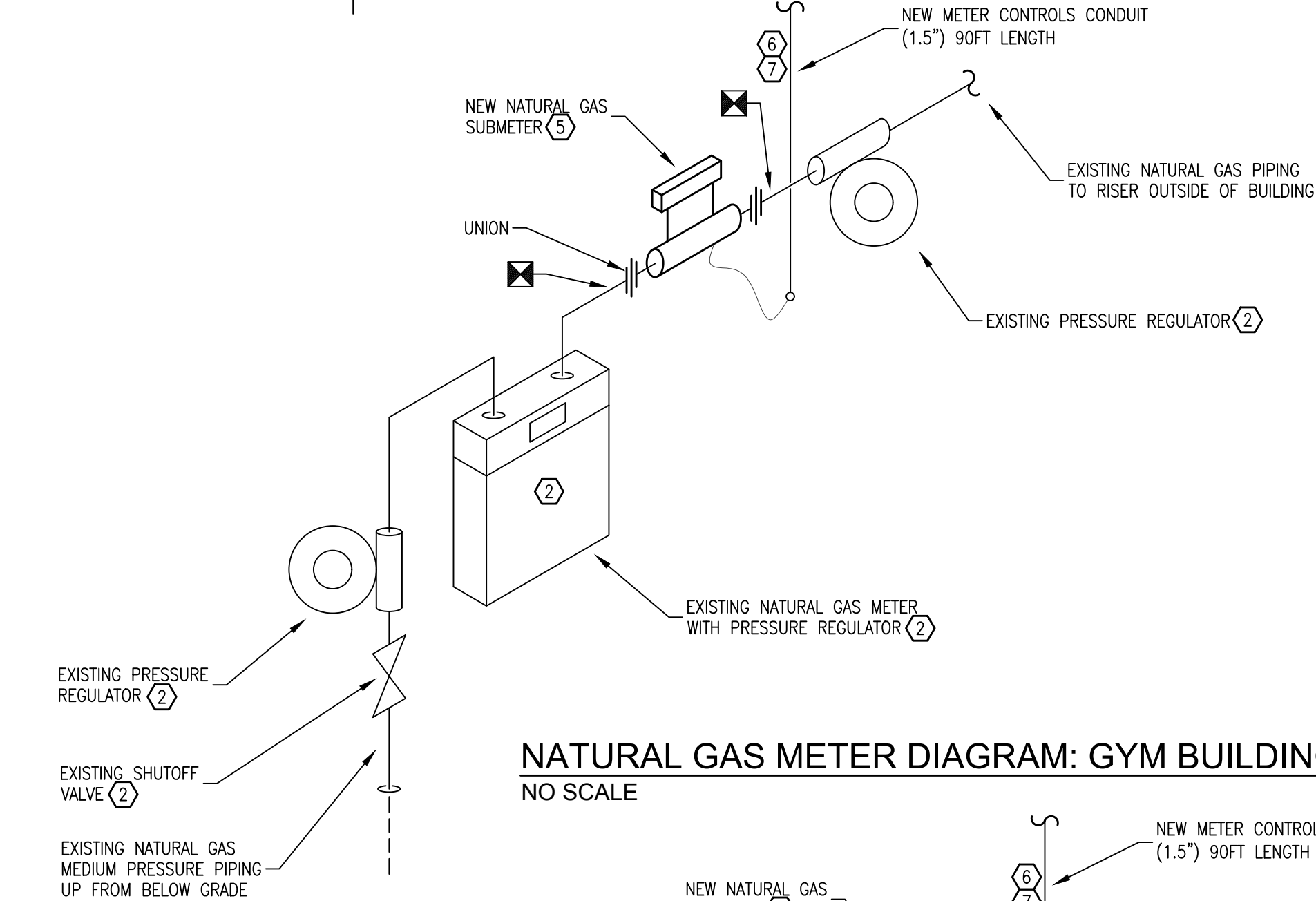
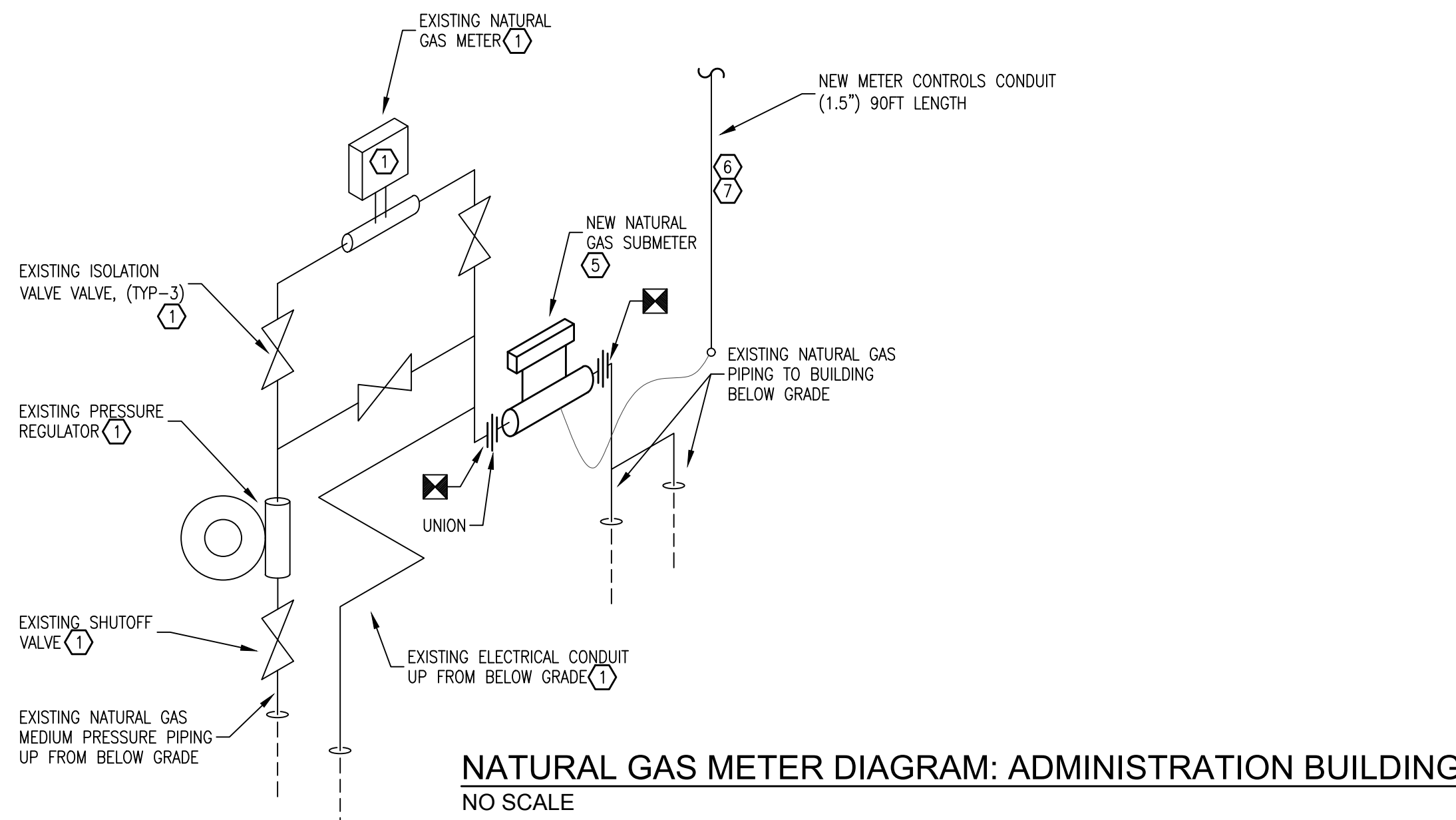


DOMESTIC WATER SUBMETERING NEW WORK KEY NOTES

- EXISTING ABOVE GROUND DOMESTIC WATER BACKFLOW PREVENTER ASSEMBLY TO REMAIN. DO NOT DISTURB UNLESS OTHERWISE NOTED.
- EXISTING FIRE WATER BACKFLOW PREVENTER TO REMAIN. DO NOT DISTURB UNLESS OTHERWISE NOTED.
- EXISTING DOMESTIC WATER VAULT WITH METER, BACKFLOW PREVENTER, AND ISOLATION VALVES TO REMAIN. EXISTING PIPING BEYOND LAST ISOLATION VALVE TO BE MODIFIED. REMOVE EXISTING SEGMENT OF PIPING ON DOWN STREAM SIDE OF LAST ISOLATION VALVE INSIDE OF VAULT. REPLACE PIPING WITH NEW DOMESTIC WATER SUBMETER WITH FLANGED CONNECTIONS AND SPOOL PIECE. NEW SUBMETER AND SPOOL PIECE ASSEMBLY SHALL EQUAL THE OVERALL LENGTH OF REMOVED PIPING. INSTALLATION OF PIPING SHALL BE AS FLANGED FITTINGS.
- INCLUDE WITH INSTALLATION OF NEW DOMESTIC WATER SUBMETER A 1.5 INCH CONDUIT INSTALLED 36 INCHES BELOW GRADE. EXTEND CONDUIT FROM TOP OF METER ELEVATION DOWN TO BELOW GRADE AND OVER TO CORNER OF EXTERIOR WALL AS INDICATED. CONDUIT SHALL PENETRATE WALL INTO MECHANICAL ROOM ON SECOND FLOOR ABOVE CEILING ELEVATION BY 18 INCHES. A PULL STRING SHALL BE INSIDE OF CONDUIT AND EXPOSED BY 18 INCHES ON BOTH ENDS. PROVIDE NEW LB(S) ON EXTERIOR WALL FOR NEW CONDUIT AND CONDUIT BUSHINGS. INSTALLATION OF CONDUIT SHALL BE BY MECHANICAL CONTRACTOR.
- DEMOLISH AND REMOVE EXISTING ASPHALT IN THE PROPOSED PATH FOR NEW 1.5 INCH SUBMETER CONDUIT. ONCE CONDUIT IS INSTALLED, CONTRACTOR SHALL PATCH ASPHALT TO MATCH EXISTING CONSTRUCTION.
- DEMOLISH AND REMOVE EXISTING CONCRETE WALKWAY IN THE PROPOSED PATH FOR NEW 1.5 INCH SUBMETER CONDUIT. ONCE CONDUIT IS INSTALLED, CONTRACTOR SHALL REPAIR CONCRETE TO MATCH EXISTING WALKWAY.
- INCORPORATE ALL ENERGY METERS INTO THE ENERGY ANALYTICS DASHBOARD SOFTWARE FOR THE MOBILE COUNTY PUBLIC SCHOOLS ENERGY DEPARTMENT. ALL ENERGY METERS SHALL HAVE TRENDING, HISTORICAL DATA AND DATA EXPORT CAPABILITY.
- CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUATION OF CONDUIT FROM EXTERIOR WALL PENETRATION OVER TO NEAREST BUILDING AUTOMATION CONTROL PANEL.

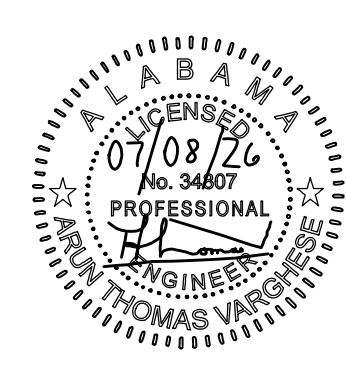
NATURAL GAS SUBMETERING NEW WORK KEY NOTES

- EXISTING NATURAL GAS METER SERVING ADMINISTRATION BUILDING TO REMAIN WITH PRESSURE REGULATOR, SHUT OFF VALVE, ISOLATION VALVES, AND EXISTING ELECTRICAL CONDUIT. MODIFY DISTRIBUTION GAS PIPING TO ACCOMMODATE INSTALLATION OF NEW SUBMETER.
- EXISTING NATURAL GAS METER SERVING GYM BUILDING TO REMAIN WITH PRESSURE REGULATORS AND SHUT OFF VALVE. MODIFY DISTRIBUTION GAS PIPING TO ACCOMMODATE INSTALLATION OF NEW SUBMETER.
- EXISTING NATURAL GAS METER SERVING CAFETERIA TO REMAIN WITH PRESSURE REGULATOR AND SHUT OFF VALVE. MODIFY DISTRIBUTION GAS PIPING TO ACCOMMODATE INSTALLATION OF NEW SUBMETER.
- EXISTING NATURAL GAS METER WITH SUBMETER SERVING NEW STADIUM ADDITION TO REMAIN WITH ALL PIPING, FITTINGS, AND VALVES. DO NOT DISTURB.
- NEW NATURAL GAS SUBMETER TO BE INSTALLED IN HORIZONTAL POSITION IN DESIGNATED LOCATION OF EACH PIPING ASSEMBLY. THE EXISTING HORIZONTAL SPOOL PIECE SHALL BE REMOVED AND REPLACED NEW WITH THE SUBMETER ASSEMBLY. CONNECT NEW SPOOL PIECE TO EXISTING PIPING WITH THREAD FITTINGS. UNIONS SHALL BE INSTALLED FOR MAINTENANCE ACCESSIBILITY FOR REMOVAL OF SUBMETER.
- NEW METAL CONDUIT (1.5") TO BE INSTALLED ON EXTERIOR WALL. CONDUIT SHALL BE INSTALLED ADJACENT TO NEW SUBMETER, ROUTED UP ON WALL TO ABOVE CEILING ELEVATION AND OVER TO HORIZONTAL POSITION. EXTEND PIPING ALONG EACH BUILDING TO PENETRATE THROUGH THE EXTERIOR WALL AND TERMINATE 18" FROM WALL. INCLUDE A PULL STRING INSIDE OF CONDUIT WITH EACH END TERMINATING 18" BEYOND END OF CONDUIT. CONDUIT BUSHINGS AND LB(S) SHALL BE INSTALLED WITH CONDUIT. MECHANICAL CONTRACTOR TO BE RESPONSIBLE FOR CONDUIT INSTALLATION IN COORDINATION WITH CONTROLS CONTRACTOR.
- CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUATION OF CONDUIT FROM EXTERIOR WALL TERMINATION OVER TO NEAREST BUILDING AUTOMATION CONTROL PANEL.



DOMESTIC WATER METER VAULT DIAGRAM

NO SCALE



PROJ. MGR.:	ATV
DRAWN:	CBP
DATE:	07-08-26
REVISIONS	

JOB NO.	26-021
SHEET NO:	

E0.1

ELECTRICAL SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	PANELBOARD – SEE RESPECTIVE PANELBOARD SCHEDULE.
	BRANCH CIRCUIT CONDUIT RUN CONCEALED IN WALL OR ABOVE CEILING. ARROWS INDICATE CIRCUIT HOMERUN. HASHMARKS INDICATE NUMBER OF CONDUCTORS. ABSENCE OF HASHMARKS INDICATES TWO CONDUCTORS PLUS GROUND. "K" DENOTES PANELBOARD SERVING CIRCUIT. "1" INDICATES CIRCUIT BREAKER SPACE IN PANELBOARD. SEE RESPECTIVE PANEL CIRCUIT SCHEDULE. MINIMUM CONDUCTOR SIZE = #12 AWG.
	INDICATES CONDUIT RUN UNDERGROUND.
	NON-FUSED HEAVY DUTY SAFETY SWITCH – SIZE AND TYPE AS NOTED. TOP OF SWITCH 6'-6" A.F.F. MAX.
	20 AMP, 125 VAC, 2-POLE, 3-WIRE, GROUNDING TYPE, DUPLEX RECEPTACLE. FLUSH WALL MOUNTED 18" A.F.F. UNLESS NOTED OTHERWISE.
	INDICATES GROUND FAULT INTERRUPTING RECEPTACLE. FLUSH WALL MOUNTED 18" A.F.F. WITH GROUND PIN FACING UP UNLESS NOTED OTHERWISE.
	JUNCTION BOX MOUNTED AT EQUIPMENT. SIZE AND TYPE AS REQUIRED. ENSURE JUNCTION BOX REMAINS ACCESSIBLE.
	INDICATES EXTRA DUTY WEATHER RESISTANT WIRING DEVICE WITH WEATHER PROOF IN-USE COVER PLATE. HUBBELL MM420C OR EQUAL.
	ADDRESSABLE INTELLIGENT FIRE ALARM SYSTEM DUCT MOUNTED PHOTOELECTRIC SMOKE DETECTOR. COMPLETE WITH HOUSING AND AIR SAMPLING TUBES. "S" DENOTES DETECTOR IN SUPPLY DUCT; "R" DENOTES DETECTOR IN RETURN DUCT.
	FIRE ALARM SYSTEM INTERFACE MODULE – MOUNTED AT EQUIPMENT.
SYMBOLS NOTES: 1. ALL OUTLETS ARE TO BE FLUSH MOUNTED. 2. MOUNTING HEIGHTS ARE FROM THE CENTER LINE OF THE DEVICE. 3. ALL SINGLE GANG AND TWO GANG DEVICES SHALL USE A 4" SQ. BOX WITH EXTENSION RING. 4. ALL MULTI – GANG DEVICES SHALL USE A COMMON COVER PLATE. 5. A.F.F. INDICATES MOUNTING HEIGHT ABOVE FINISHED FLOOR.	

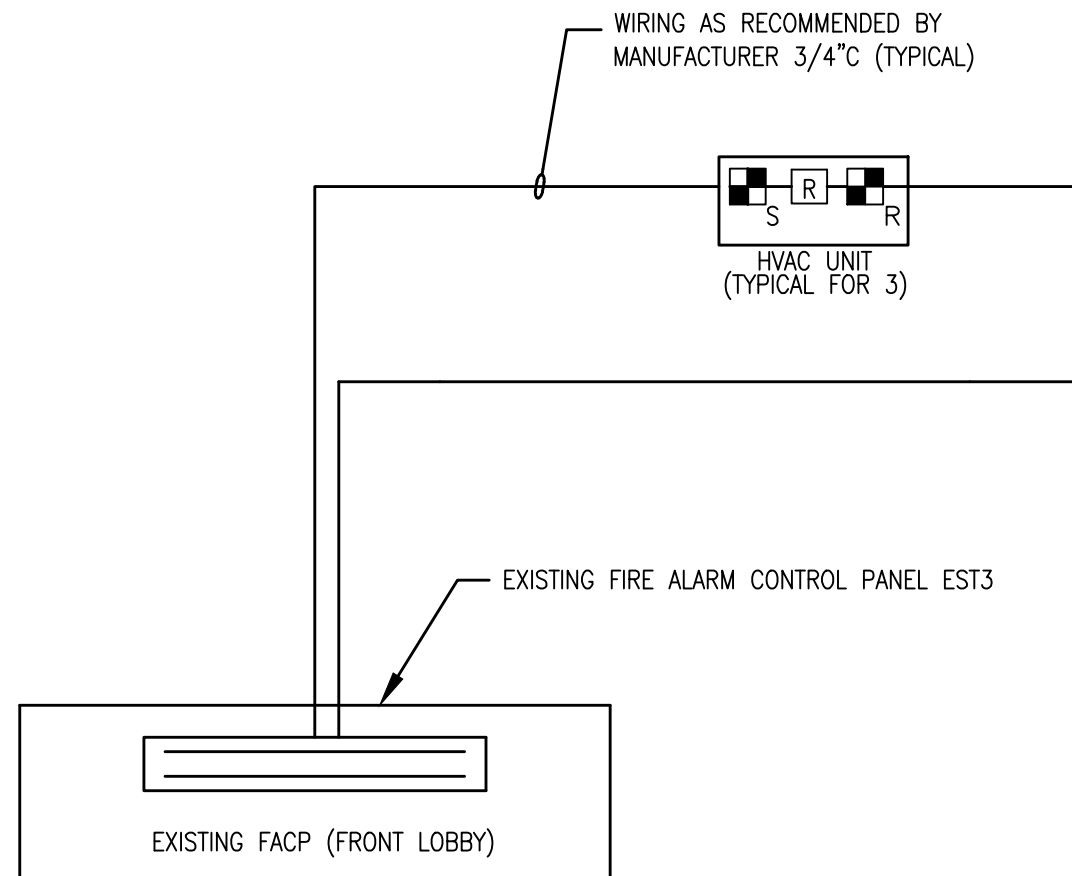
ELECTRICAL SPECIFICATIONS:

- ALL ELECTRICAL WORK SHALL BE IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES AND ORDINANCES.
- ALL WIRING SHALL BE COPPER CONDUCTORS WITH TYPE THHN OR TYPE THW INSULATION RUN IN CONDUIT. PROVIDE INDIVIDUAL NEUTRAL CONDUCTORS FOR ALL SINGLE-POLE BRANCH CIRCUITS. TIED BREAKER HANDLES ARE NOT ACCEPTABLE.
- ALL MATERIALS SHALL BE NEW AND UL LISTED FOR THE APPLICATION.
- PROVIDE TYPED PANELBOARD SCHEDULES IN ALL PANELBOARDS.
- RACEWAY AND FITTINGS
 - RIGID METAL CONDUIT – SHALL HAVE THREADED FITTINGS, GALVANIZED STEEL OR THREADLESS COMPRESSION GALVANIZED STEEL OR THREADLESS COMPRESSION CADMIUM PLATED MALLEABLE IRON. FITTINGS SHALL BE RAIN TIGHT/CONCRETE TIGHT. ELECTRICAL METALLIC TUBING (EMT) – MATERIAL OF STEEL OR MALLEABLE IRON IS ACCEPTABLE. COUPLINGS AND CONNECTORS SHALL BE CONCRETE AND RAIN TIGHT, WITH CONNECTORS HAVING INSULATED THROATS. USE GLAND AND RING COMPRESSION TYPE COUPLINGS AND CONNECTORS FOR CONDUIT SIZES 2" AND SMALLER. USE SET SCREW TYPE COUPLINGS WITH FOUR SET SCREWS EACH FOR CONDUIT SIZES OVER 2". USE SET SCREWS OF CASEHARDENED STEEL WITH HEX HEAD AND CUP POINT TO FIRMLY SEAT IN WALL OF CONDUIT FOR POSITIVE GROUNDING. INDENT TYPE CONNECTORS OR COUPLINGS ARE PROHIBITED. DIE-CAST OR PRESSURE-CAST ZINC-ALLOY FITTINGS OR FITTINGS MADE OF "POT METAL" ARE PROHIBITED.
 - RIGID NON-METALLIC CONDUIT – SHALL HAVE POLYVINYL CHLORIDE (PVC) FITTINGS SUITED FOR THE PURPOSE AND JOINED TOGETHER BY A METHOD APPROVED FOR THE PURPOSE. SCHEDULE 80 CONDUIT SECTIONS MAY BE JOINED TOGETHER WITH THREADED FITTING CONNECTORS.
 - FLEXIBLE METAL CONDUIT – FITTINGS SHALL BE ZINC PLATED STEEL OR CADMIUM PLATED MALLEABLE IRON SCREW TYPE WITH INSULATED THROAT AND ANGULAR WEDGE FITTING BETWEEN CONVOLUTIONS OF CONDUIT.
 - LIQUIDTIGHT FLEXIBLE METAL CONDUIT – FITTINGS SHALL BE CADMIUM PLATED, MALLEABLE IRON OR STEEL WITH COMPRESSION TYPE STEEL FERRULE AND NEOPRENE GASKET SEALING RINGS, WITH INSULATED THROAT.
 - CONDUITS INSTALLED CONCEALED IN EARTH FILL, CONCRETE OR, SOLID MASONRY STRUCTURES SHALL BE PVC 40. PVC SHALL NOT BE INSTALLED IN ANY EXPOSED LOCATIONS. ALL EXPOSED EXTERIOR CONDUITS SHALL BE GRS. ANY GRS INSTALLED BELOW GRADE OR IN CONCRETE SHALL HAVE BITUMASTIC APPLIED PRIOR TO INSTALLATION.
 - CONDUITS USED FOR CONNECTION TO RECESSED LIGHTING FIXTURES SHALL BE FLEX. CONDUITS FOR CONNECTION TO MOTORS OR VIBRATING EQUIPMENT SHALL BE LIQFLEX NOT LESS THAN 18" LONG AND NOT OVER 60" LONG. ALL FLEXIBLE CONDUITS ARE TO BE SECURED AT A MINIMUM OF EVERY THREE FEET USING APPROVED METHODS.
 - CONDUITS RUN CONCEALED IN THE HOLLOW SPACE OF NON-MASONRY WALLS OR, ABOVE SUSPENDED/HARD CEILINGS SHALL BE EMT. EXPOSED CONDUITS SHALL BE RUN AT RIGHT ANGLES TO OR PARALLEL WITH BUILDING LINES AND EXPOSED STRUCTURE. IN ALL CASES, CONDUIT RUNS SHALL BE GROUPED TOGETHER WHERE POSSIBLE AND SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE, NOT FROM ANY SUSPENDED CEILING SUPPORT SYSTEM.
 - PVC 80 SHALL BE USED ONLY AS INDICATED ON THE DRAWINGS AND SHALL BE UL LISTED AS SUNLIGHT RESISTANT. INSTALL CONDUITS PASSING THROUGH BUILDING SIDEWALLS OR THROUGH BEAMS BELOW GRADE WITH EXPANSION/DEFLECTION FITTINGS. INSTALL EXPANSION FITTINGS WHERE CONDUIT CROSSES AN EXPANSION JOINT. WHERE CONDUIT PENETRATES DAMP-PROOFING MEMBRANES, CUT THE MEMBRANE CAREFULLY AROUND THE CONDUIT AND SEAL THE JOINT WITH PRESSURE SENSITIVE TAPE.
 - ALL CONDUIT BENDS ARE TO BE MADE WITH A DEVICE MADE FOR THE APPLICATION. ALL CONDUIT RUNS ARE TO BE PARALLEL OR PERPENDICULAR TO THE BUILDING STRUCTURE. CONDUIT OFFSETS ARE TO BE UTILIZED AT JUNCTION BOXES AND DEVICE BOXES AND A STRAP PLACED ON CONDUIT AT THE POINT NEAREST THE BOX FOR SUPPORT.
 - SUPPORT RACEWAYS SECURELY WITH PIPE STRAPS, WALL BRACKETS, CONDUIT HANGERS OR CEILING TRAPEZE. FASTENINGS SHALL BE BY WOOD SCREWS OR SCREW TYPE NAILS TO WOOD, BY TOGGLE BOLTS TO CONCRETE BLOCK, EXPANSION BOLTS ON CONCRETE OR BRICK, AND BEAM CLAMP TYPES ON STEEL OR BAR JOISTS. RACEWAYS SHALL NOT BE FASTENED TO SUSPENDED CEILING SUPPORTS BUT MUST HAVE INDEPENDENT SUPPORT FROM THE STRUCTURE. SUPPORTING DEVICES SHALL BE OF MATERIALS HAVING CORROSION PROTECTION AT LEAST EQUAL TO THE RACEWAY. A SUPPORT SHALL BE PROVIDED AS CLOSE AS PRACTICAL TO, AND NOT EXCEEDING 18" FROM AN UNSUPPORTED BOX OR FROM CHANGE OF DIRECTION. IN HORIZONTAL RUNS, THIS SUPPORT MAY BE OMITTED IF THE BOX IS INDEPENDENTLY SUPPORTED AND THE BOX CONNECTION IS NOT MADE WITH CHASE NIPPLE OR THREADLESS BOX CONNECTOR. IN VERTICAL RUNS, LOAD PRODUCED BY WEIGHT OF THE RACEWAY AND CONDUCTORS SHALL NOT BE CARRIED BY THE RACEWAY TERMINAL, BUT MUST BE CARRIED ENTIRELY BY CONDUIT SUPPORTS. INSTALL CONDUIT SUPPORTS IN STRICT ACCORDANCE WITH THE FOLLOWING TABLE, EXCEPT AS REQUIRED BY SUPPORT FOR BOXES AND CHANGES IN DIRECTION:

MAXIMUM SUPPORT TRADE SIZE	LOCATION OF RUNS	SPACING
1/2, 3/4	EXPOSED, HORIZONTAL	7 FEET
1 AND LARGER	EXPOSED, HORIZONTAL	10 FEET
ALL SIZES	CONCEALED, HORIZONTAL	10 FEET
1/2, 3/4	EXPOSED, VERTICAL	7 FEET
1, 1-1/4	EXPOSED, VERTICAL	8 FEET
1-1/2 AND LARGER	EXPOSED, VERTICAL	10 FEET
ALL SIZES	CONCEALED, VERTICAL	10 FEET
 - FOR CONDUIT RUNS THAT ARE NOT SIZED ON DRAWINGS, THE MAXIMUM CONDUIT FILL SHALL BE COMPUTED USING THE REQUIREMENTS FOR TYPE THW CONDUCTORS ALTHOUGH THE ACTUAL WIRING IS WITH TYPE THHN OR OTHER TYPE OF CONDUCTORS HAVING SMALLER CROSS-SECTIONS. THIS REQUIREMENT IS MADE TO PROVIDE SPARE CONDUIT CAPACITY.

- INSTALL ALL REQUIRED SLEEVES FOR CONDUITS PASSING THROUGH CONCRETE SLABS. FIRE PROOF SPACE BETWEEN CONDUIT AND SLEEVE AFTER INSTALLATION USING OF MINERAL WOOL AS REQUIRED. ALL FIRE WALL PENETRATIONS ARE TO BE SEALED WITH A U.L. APPROVED METHOD. ANY PENETRATIONS OF THE ROOF MEMBRANE MUST BE SEALED BY A CERTIFIED ROOFING CONTRACTOR USING AN APPROVED METHOD.
- EXPANSION JOINTS:
 - CONDUITS 3" AND LARGER, THAT ARE SECURED TO THE BUILDING STRUCTURE ON OPPOSITE SIDES OF A BUILDING EXPANSION JOINT, REQUIRED EXPANSION AND DEFLECTION COUPLINGS. INSTALL COUPLINGS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
 - PROVIDE CONDUITS SMALLER THAN 3" WITH JUNCTION BOXES ON BOTH SIDES OF THE EXPANSIONS JOINT. CONNECT CONDUITS TO JUNCTION BOXES WITH SUFFICIENT SLACK OF FLEXIBLE CONDUIT TO PRODUCE 5" VERTICAL DROP MIDWAY BETWEEN ENDS. FLEXIBLE CONDUIT SHALL HAVE A GREEN COPPER GROUND-BONDING JUMPER INSTALLED, IN LIEU OF THIS FLEXIBLE CONDUIT, EXPANSION AND DEFLECTION COUPLINGS AS SPECIFIED ABOVE FOR THREE INCHES AND LARGER CONDUITS ARE ACCEPTABLE.
 - EXPANSION FITTINGS SHALL BE PROVIDED FOR RACEWAYS TO COMPENSATE FOR THERMAL EXPANSION AND CONTRACTION IN CONDUIT RUNS 200FT OR GREATER AND AT BUILDING EXPANSION JOINTS. BONDING JUMPERS SHALL BE PROVIDED FOR ELECTRICAL CONTINUITY OF THE RACEWAY SYSTEM AT THE EXPANSION FITTINGS.
- CONDUCTORS:
 - ALL CONDUCTORS SHALL BE INSTALLED IN CONDUIT. CONDUCTORS FOR BUILDING WIRING SHALL HAVE THHN/THWN, 600-VOLT INSULATION AND SHALL BE SOFT-DRAWN COPPER OF STANDARD AMERICAN WIRE GAUGE (AWG) SIZE. MINIMUM SIZE SHALL BE NO. 12. 20-AMP BRANCH CIRCUITS MORE THAN 100 FEET IN LENGTH SHALL BE UPSIZED TO NO. 10. PROVIDE INDIVIDUAL NEUTRAL CONDUCTORS FOR ALL SINGLE-POLE BRANCH CIRCUITS. TIED BREAKER HANDLES ARE NOT ACCEPTABLE. ALL WIRE NO. 8 AND LARGER SHALL BE STRANDED. ALL BRANCH CIRCUITS NO. 10 AND SMALLER SHALL BE WIRED WITH COLOR-CODED WIRE WITH THE SAME COLOR USED FOR A SYSTEM THROUGHOUT THE BUILDING. POWER FEEDERS AND BRANCH CIRCUITS LARGER THAN NO. 10 SHALL EITHER BE FULLY COLOR CODED OR SHALL HAVE BLACK INSULATION AND BE SIMILARLY COLOR CODED WITH TAPE OR PAINT IN ALL JUNCTION BOXES AND PANELS. WHERE TAPE OR PAINT IS USED TO IDENTIFY CONDUCTORS, APPLY AT ALL TERMINATIONS, JUNCTION BOXES, PULL BOXES AND WIRERUNS. APPLY TAPE, BUTT LAPPED, OR PAINT FOR A MINIMUM DISTANCE OF 2" AND, WHERE APPLIED TO ENDS OF CONDUCTORS, START AT CUT END OF THE CONDUCTOR INSULATION. TAPE SHALL NOT COVER MANUFACTURERS CONDUCTORS SHALL BE COLOR CODED OR LABELED AS NECESSARY FOR CLEAR IDENTIFICATION. COLOR CODING OF ALL CONDUCTORS SHALL BE AS FOLLOWS:

GROUNDING	BARE OR GREEN
120/208 VOLT THREE PHASE (WYE)	
PHASE CONDUCTORS:	A-BLACK, B-RED, C-BLUE
NEUTRAL:	WHITE
277/480 VOLT THREE PHASE (WYE)	
PHASE CONDUCTORS:	A-BROWN, B-ORANGE, C-YELLOW
NEUTRAL:	NATURAL GREY
 - ALL CIRCUITS ARE TO BE RUN WITH A NEUTRAL CONDUCTOR. NO SHARED NEUTRAL CONDUCTORS ARE ALLOWED.
 - SUITABLE BUSHINGS, SHIELDS OR FITTINGS HAVING SMOOTH ROUNDED EDGES SHALL BE PROVIDED WHERE CONDUCTORS PASS BETWEEN WIRE WAYS, THROUGH PARTITIONS, AROUND BENDS, BETWEEN WIRE WAYS AND CABINETS OR JUNCTION BOXES, AND AT OTHER LOCATIONS WHERE NECESSARY TO PREVENT ABRASION OF THE INSULATION OF THE CONDUCTORS. AS A CLARIFICATION, THIS ALSO APPLIES TO CONDUITS STUBBED INTO THE CEILING.
- JUNCTION AND PULL BOXES
 - JUNCTION AND PULL BOXES SHALL MEET REQUIREMENTS OF NATIONAL ELECTRICAL CODE. STANDARD MANUFACTURED BOXES SHALL BE LISTED BY UNDERWRITERS' LABORATORIES, INC. WHERE CUSTOM DESIGNED AND FABRICATED BOXES ARE NEEDED, THEY SHALL MEET THE CONSTRUCTION STANDARDS OF UNDERWRITERS' LABORATORIES, INC. AND THE N.E.C.
 - JUNCTION AND PULL BOXES SHALL BE INSTALLED WHERE REQUIRED BY NATIONAL ELECTRICAL CODE AND WHERE NECESSARY TO FACILITATE PULLING OF WIRE OR CABLE. CONSIDERATIONS ARE SIZES OF WIRE AND CABLE, NUMBER OF BENDS IN RACEWAY, AND CONDUCTOR SUPPORT REQUIREMENTS IN VERTICAL RACEWAYS. MAXIMUM DISTANCE BETWEEN TERMINATIONS AT JUNCTION OR PULL BOXES, CABINETS, OR OTHER POINTS OF TERMINATION SHALL NOT EXCEED 250 FEET FOR STRAIGHT HORIZONTAL RUNS. THIS LENGTH SHALL BE DECREASED 50 FEET FOR EACH 90 DEGREE BEND. ALL JUNCTION BOXES SHALL BE INDEPENDENTLY AND ROBUSTLY SUPPORTED FROM THE BUILDING STRUCTURE. JUNCTION BOX TYPE SHALL CONFORM TO THE AREA IN WHICH IT IS INSTALLED (I.E. WET LOCATION AREAS SHALL BE MOISTURE RESISTANT TYPE JUNCTION BOXES).
 - JUNCTION BOXES AND ASSOCIATED CONDUIT FOR FIRE ALARM SHALL BE PAINTED RED. JUNCTION BOXES FOR LOW VOLTAGE CONTROLS, COMMUNICATION, TECHNOLOGY, ETC. SHALL BE PERMANENTLY MARKED INDICATING USE.



FIRE ALARM SYSTEM RISER DIAGRAM

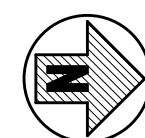
NOT TO SCALE

FIRE ALARM SYSTEM GENERAL NOTES:

- VERIFY EXACT NUMBER OF DEVICES FROM FLOOR PLAN, NOT RISER DIAGRAM.
- THE NAC CIRCUITS ARE SHOWN DIAGRAMATIC. MAXIMUM NUMBER OF DEVICES ON ANY CIRCUIT IS LIMITED. PROVIDE ADDITIONAL HARDWARE AS REQUIRED.
- SLC LOOP TO CONNECT ALL FIRE ALARM SYSTEM DEVICES FROM FLOOR PLANS. PROVIDE ADDITIONAL LOOP(S) AS REQUIRED.
- BATTERY CABINETS AND NAC EXPANDERS SHALL BE LOCATED BELOW OR ADJACENT TO FIRE ALARM CONTROL PANEL.
- ALL FIRE ALARM WORK SHALL BE PERFORMED BY QUALIFIED PERSONNEL AS DEFINED IN NFPA 72 (LATEST EDITION) SECTION(5) 4.3.3 AND 4.4.4.2. SHOP DRAWINGS SHALL COMPLY WITH NFPA 72 SECTION 4.5.1.1.
- SPLICING OF FIRE ALARM WIRING IS STRICTLY PROHIBITED.
- UPON PROJECT COMPLETION THE CAMPUS WIDE FIRE ALARM SYSTEM SHALL BE RECERTIFIED AND TESTED. PROVIDE WITH A RECORD OF COMPLETION AS REQUIRED IN NFPA 72 SECTION 4.5.2.
- THE FIRE ALARM INSTALLER SHALL BE LICENSED AS A CERTIFIED FIRE ALARM CONTRACTOR. THE CONTRACTOR MUST HAVE A NICET LEVEL III TECHNICIAN IN A POSITION OF RESPONSIBILITY, AND THE LICENSE SHALL BE ISSUED IN THE NAME OF THE CERTIFICATE HOLDER AND THE CONTRACTOR. TECHNICIANS WORKING FOR THE CERTIFIED CONTRACTOR MUST HOLD A CURRENT NICET LEVEL I, OR EQUIVALENT, CERTIFICATION. CONTRACTORS WISHING TO BID ON FIRE ALARM WORK SHALL SHOW EVIDENCE AT THE PRE-BID CONFERENCE THAT HE/SHE MEETS THE CERTIFICATION REQUIREMENTS AND HOLD A PERMIT ISSUED BY THE STATE OF ALABAMA FIRE MARSHAL.
- THE FIRE ALARM SYSTEM SHALL BE MONITORED BY AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72. AUTOMATIC TELEPHONE DIALING DEVICES USED TO TRANSMIT AN EMERGENCY ALARM SHALL NOT BE CONNECTED TO ANY FIRE DEPARTMENT TELEPHONE NUMBER UNLESS APPROVED BY THE FIRE CHIEF.

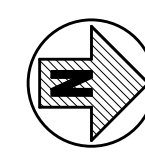
EQUIPMENT ELECTRICAL SCHEDULE						
MARK	ITEM	VOLTAGE/Ø	DISCONNECT SWITCH	FEEDER		
				CONDUCTORS	GROUND	CONDUIT
AHU#1	AIR HANDLING UNIT	208/1	60/2 N1	2#8	#10	0.75"Ø
AHU#2	AIR HANDLING UNIT	480/3	30/3 N1	3#12	#12	0.75"Ø
AHU#3	AIR HANDLING UNIT	480/3	30/3 N1	3#12	#12	0.75"Ø
AHU#4	AIR HANDLING UNIT	480/3	30/3 N1	3#10	#10	0.75"Ø
ACWC#1	AIR COOLED WATER CHILLER	480/3	400/3 N3R	4#4/Ø	#4	2.50"Ø
CWP#1	CIRCULATING WATER PUMP	480/3	30/3 N3R	3#12	#12	0.75"Ø
CWP#2	CIRCULATING WATER PUMP	480/3	30/3 N3R	3#12	#12	0.75"Ø
EF#1	EXHAUST FAN	120/1	MECH SWITCH	2#12	#12	0.75"Ø
EF#2	EXHAUST FAN	120/1	MECH SWITCH	2#12	#12	0.75"Ø

GENERAL NOTE: VERIFY ALL POWER REQUIREMENTS FOR ALL MECHANICAL EQUIPMENT WITH EQUIPMENT MANUFACTURER PRIOR TO ORDERING.



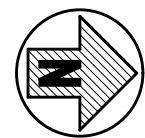
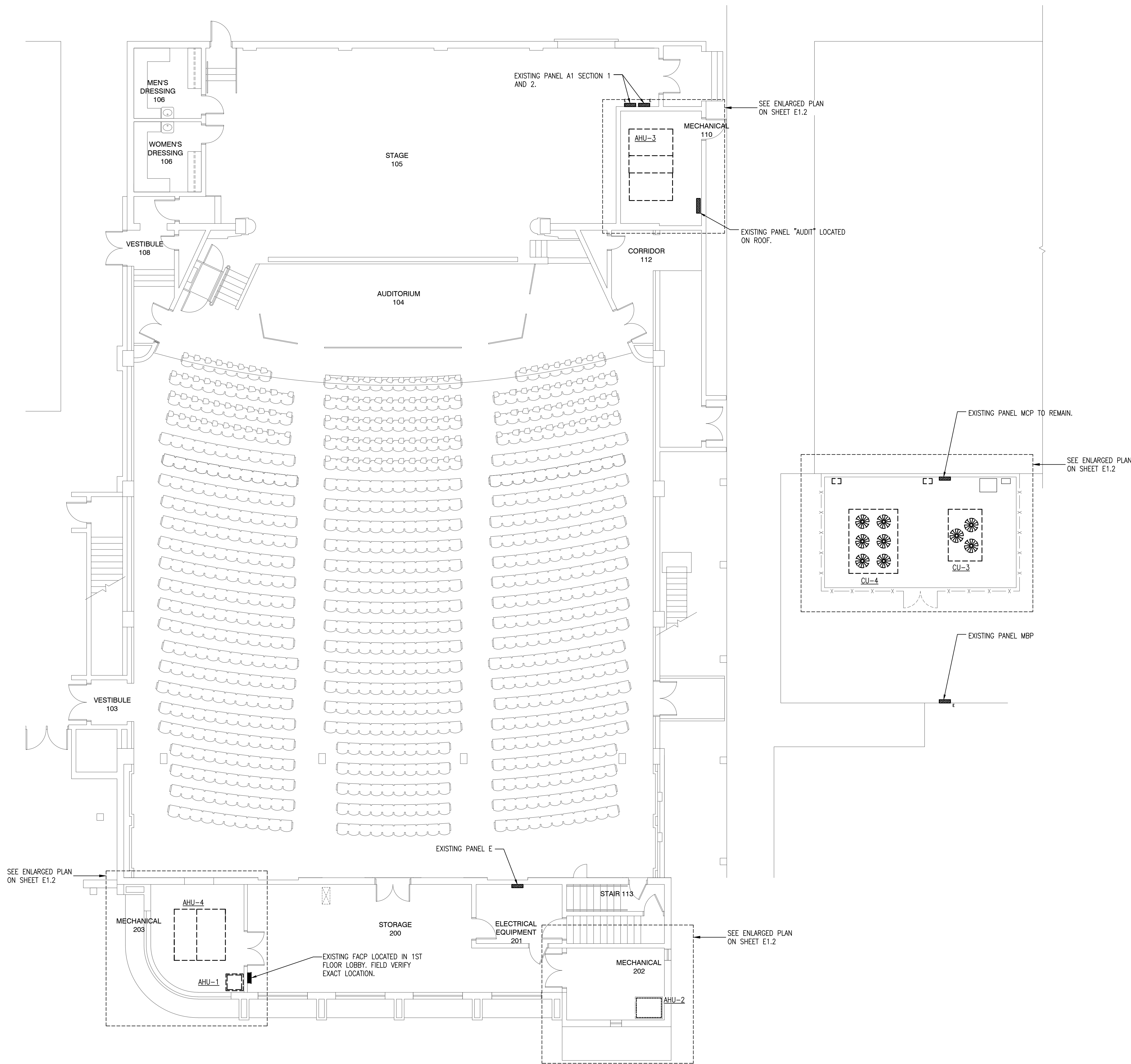
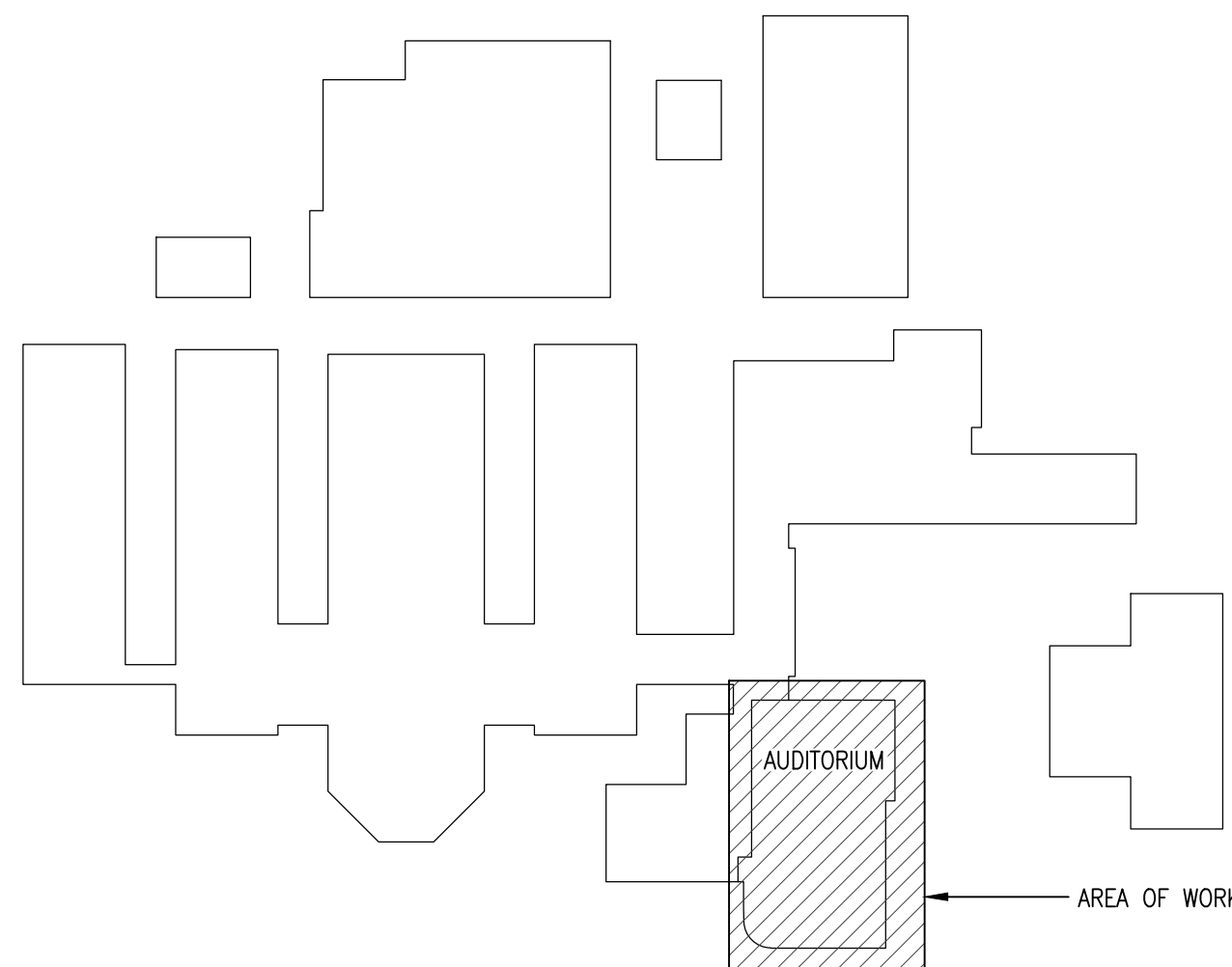
KEY PLAN
SCALE: N.T.S.

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PENSACOLA, FLORIDA 32502
PHONE: (904) 341-3661
293 ST. ANTHONY STREET
MOBILE, ALABAMA 36603
PHONE: (251) 690-7446



ELECTRICAL DEMOLITION PLAN: ROOF

SCALE: 1/8" = 1'-0"



ELECTRICAL DEMOLITION PLAN

SCALE: 1/8" = 1'-0"



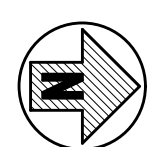
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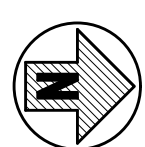


SCALE: 1/4" = 1'-0"



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

- ① EXISTING AIR HANDLING UNIT SHALL BE REMOVED COMPLETELY. INCLUDE WITH REMOVAL THE DEMOLITION OF ANY ASSOCIATED CONDUIT, WIRING, JUNCTION BOXES, AND DISCONNECTS ASSOCIATED WITH UNIT. EXISTING BREAKER IN SERVING PANEL SHALL BE REMOVED. SEE ELECTRICAL NEW WORK PLANS FOR MORE INFORMATION.
- ② EXISTING CONDENSING UNIT SHALL BE REMOVED COMPLETELY. INCLUDE WITH REMOVAL THE DEMOLITION OF ANY ASSOCIATED CONDUIT, WIRING, JUNCTION BOXES, AND DISCONNECTS ASSOCIATED WITH UNIT. EXISTING BREAKER IN SERVING PANEL SHALL BE REMOVED. SEE ELECTRICAL NEW WORK PLANS FOR MORE INFORMATION.
- ③ EXISTING RESTROOM EXHAUST FAN TO BE REMOVED AND RELOCATED. DISCONNECT EXISTING ELECTRICAL POWER CONNECTIONS AND PREPARE FOR EXTENSION TO NEW EXHAUST FAN LOCATION. EXISTING ELECTRICAL POWER CONNECTIONS SHALL BE PROTECTED DURING DEMOLITION. SEE ELECTRICAL NEW WORK PLANS FOR MORE INFORMATION.
- ④ EXISTING RECEPTACLE SHALL BE REPLACED WITH A NEW GFI RECEPTACLE. DISCONNECT EXISTING CONDUIT AND WIRING AND PREPARE FOR RECONNECTION TO NEW RECEPTACLE. SEE ELECTRICAL NEW WORK PLAN FOR MORE INFORMATION.



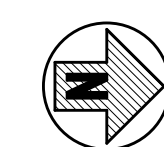
SCALE: 1/4" = 1'-0"

1. ALL DASHED SHOWN MECHANICAL UNITS AND CORRESPONDING DISCONNECTS ARE TO BE REMOVED ALONG WITH ASSOCIATED CONDUIT AND WIRING AND BREAKERS, TO BE RE-INDICATED AS PER NEW WORK PLANS, UNLESS OTHERWISE NOTED.
 2. 'E' INDICATES EXISTING DEVICE TO REMAIN. PROTECT DURING CONSTRUCTION.
 3. ALL HOLES LEFT BY REMOVED MECHANICAL UNITS, DISCONNECTS ETC. IN EXISTING AREA TO REMAIN ARE TO BE FILLED AND FINISHED TO MATCH NEW/EXISTING CONDITIONS.
 4. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR SECURING ALL DEVICES, FIXTURES, WIRES, CONDUIT, ETC. ABOVE THE CEILING PRIOR TO CEILING DEMOLITION. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED TO SUCH MATERIALS DURING THE CEILING DEMOLITION PHASE.
 5. EXACT LOCATIONS FOR EXISTING MECHANICAL UNITS, DEVICES AND BOXES ARE TO BE FIELD VERIFIED.
 6. ALL PENETRATIONS (NEW AND EXISTING) OF THE FIRE RATED BARRIERS SHALL BE FIRE STOPPED USING UL APPROVED METHODS AND MATERIALS.
 7. COORDINATE ITEMS TO BE SALVAGED WITH THE OWNER PRIOR TO COMMENCEMENT OF WORK. ALL UNUSED WALL BOXES (LEFT FROM SWITCHES REMOVED, THERMOSTATS, ETC.) ARE TO BE COVERED WITH A BLANK PLATE (TO MATCH EXISTING).
 8. ALL EXISTING PANELS ARE TO REMAIN (UNLESS OTHERWISE NOTED). THE ELECTRICAL CONTRACTOR IS TO VERIFY THE BREAKER SIZES, WIRE SIZES, PANEL SIZES, AND PANEL LOADS IN THE FIELD. ALL PANELS ARE TO BE COMPLETELY LABELED AND ALL DISCONNECTS, THERMOSTATS, ETC. AND ALL PANELS ARE TO BE PROPERLY GROUND PER THE NATIONAL ELECTRIC CODE.
 9. TERMINATED CIRCUITS THAT ARE NOT USED ON THE NEW WORK PLANS SHALL BE LABELED WITH THE SERVING PANEL AND CIRCUIT NUMBER CLEARLY MARKED ON THE TERMINATING JUNCTION BOX.
 10. THE PHASING OF ALL WORK IS TO BE COORDINATED WITH OTHER CONTRACTORS (GENERAL, MECHANICAL, ETC.) PRIOR TO PROJECT COMMENCEMENT.
 11. THE ELECTRICAL CONTRACTOR IS TO PROVIDE AND INSTALL JUNCTION BOX COVERS AS REQUIRED. ALL WIRE IN THE AREA OF WORK IS TO BE INSTALLED PROPERLY UPON COMPLETION OF THE PROJECT.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL DEVICES, LIGHT FIXTURES AND OTHER EQUIPMENT TO REMAIN ACTIVE – CIRCUITS ASSOCIATED WITH BOTH REMOVED ELECTRICAL WORK AND ELECTRICAL WORK TO REMAIN ARE TO BE KEPT WITH THE WIRE, CONDUIT, BOXES, ETC. (SIZE TO MATCH EXISTING) TO KEEP THE WORK TO REMAIN ACTIVE.

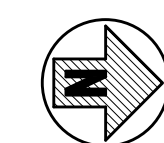
THE CONTRACTOR SHOULD MAINTAIN THE INTEGRITY OF THE FIRE ALARM SYSTEM IN THE FACILITY AND IN THE CONSTRUCTION AREA AT ALL TIMES.



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



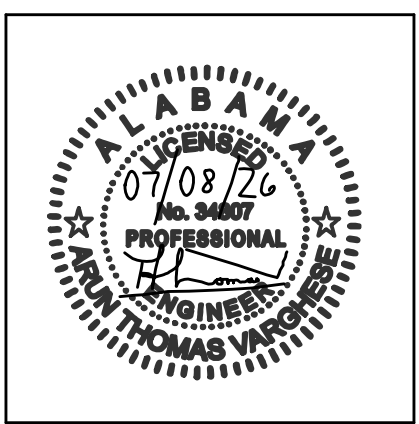
SCALE: 1/4" = 1'-0"



SCALE: N.T.S.

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PENSACOLA, FLORIDA 32502
PHONE: (850)434-2661

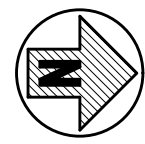
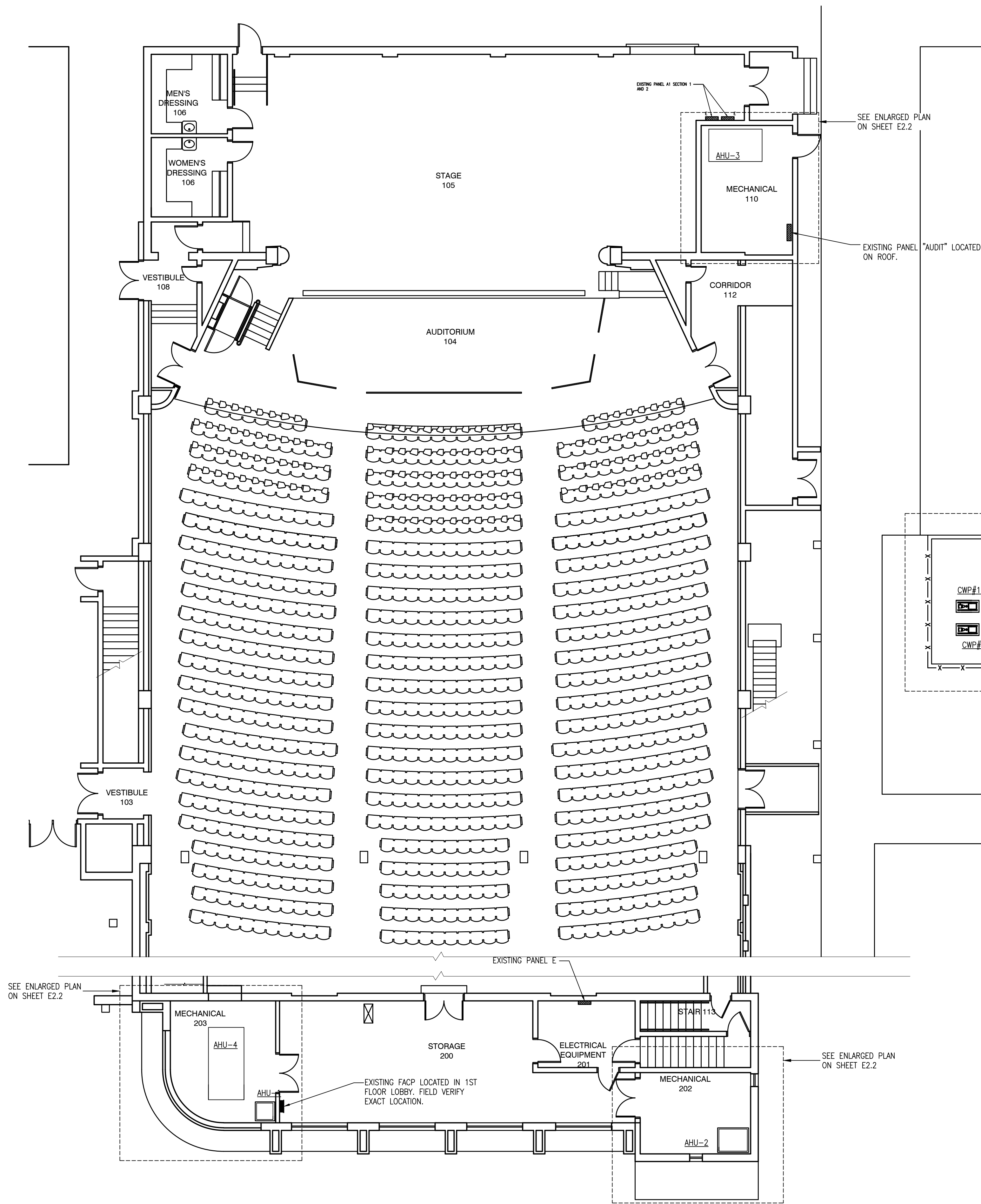
253 ST. ANTHONY STREET
MOBILE, ALABAMA 36603
PHONE: (251)690-7446



PROJ. MGR.:	ATV
DRAWN:	CBP
DATE:	07-08-26
REVISIONS	

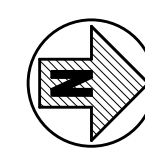
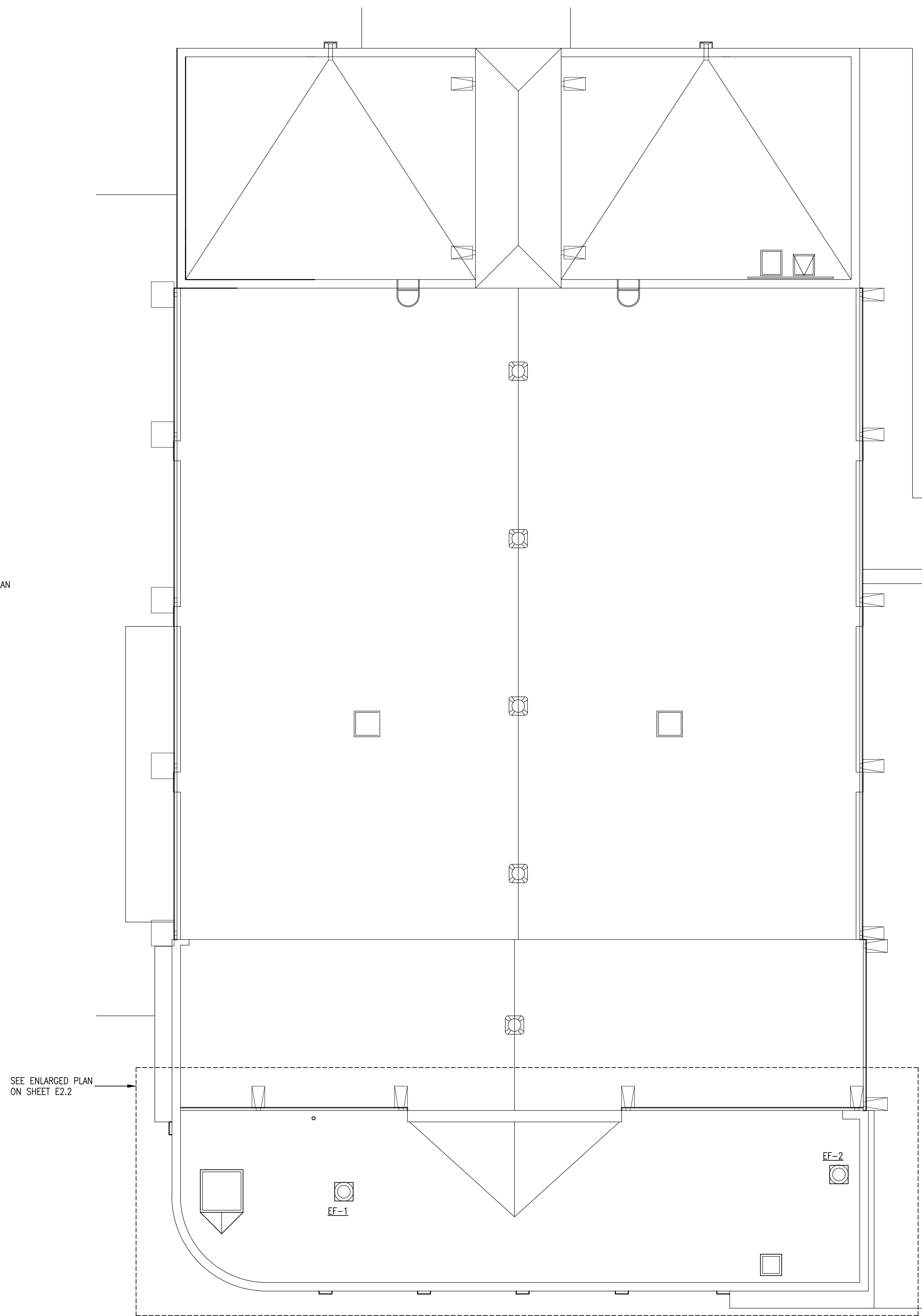
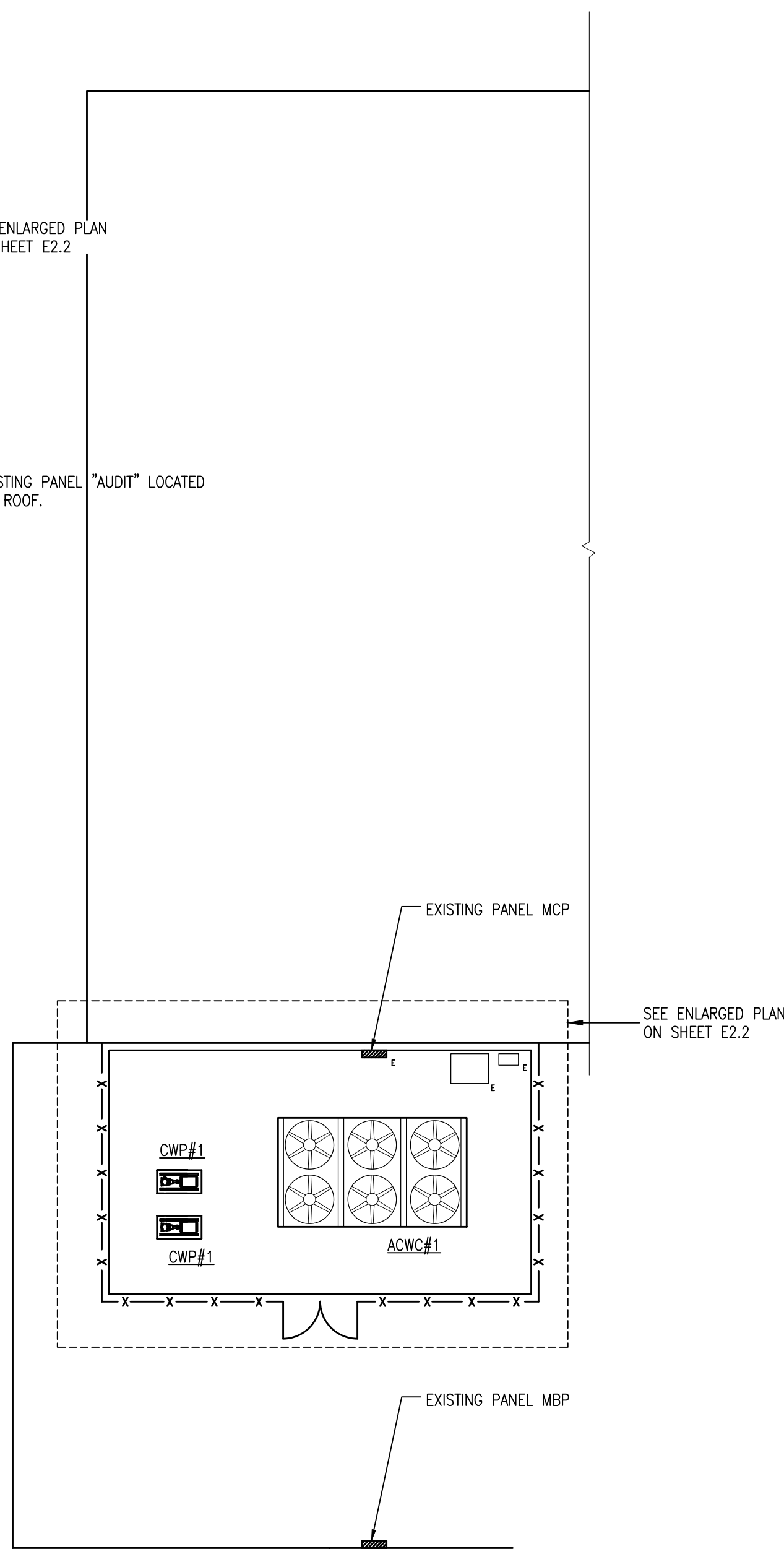
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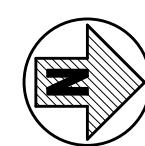
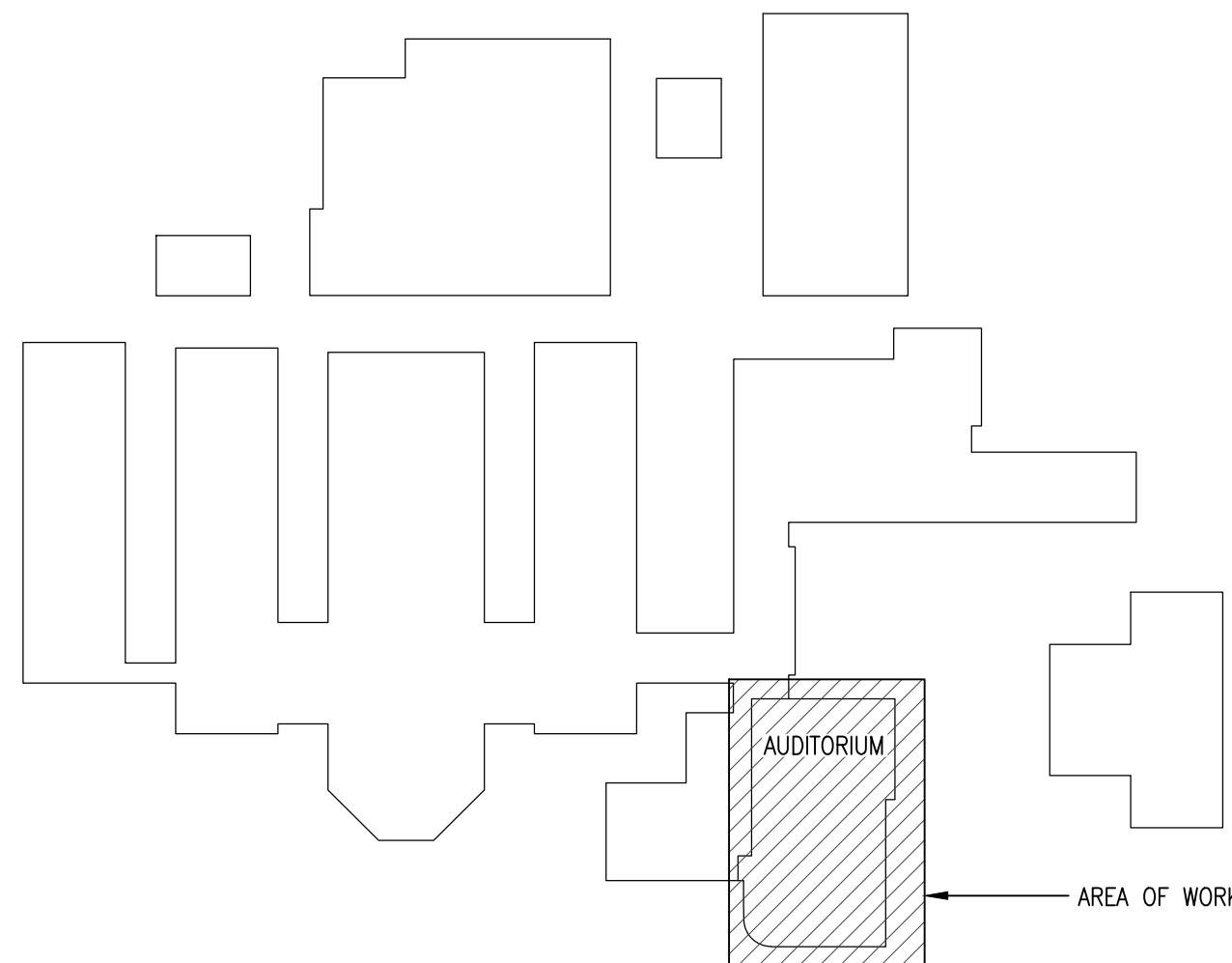
ELECTRICAL NEW WORK PLAN

SCALE: 1/8" = 1'-0"



ELECTRICAL NEW WORK PLAN: ROOF

SCALE: 1/8" = 1'-0"



KEY PLAN

SCALE: N.T.S.

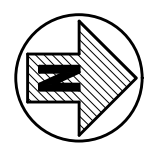
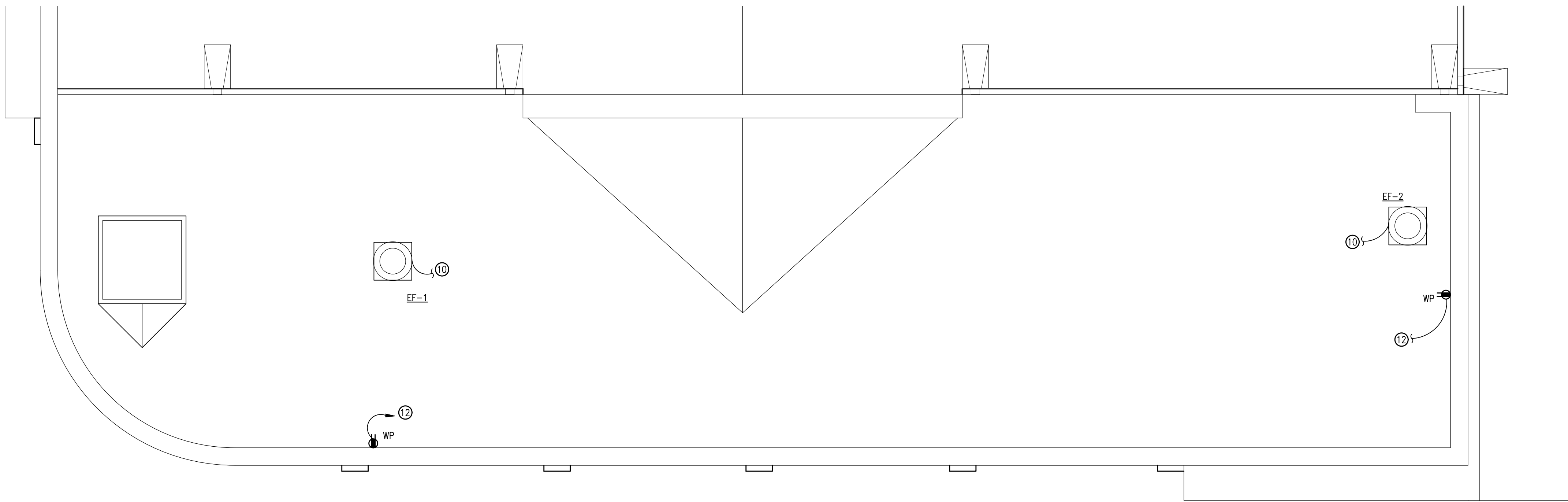
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293 ST. ANTHONY STREET
MOBILE, ALABAMA 36603
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PROJ. MGR.:	ATV
DRAWN:	CBP
DATE:	07-08-26
REVISIONS	
1	DCM COMMENT RESP. 04/22/26

JOB NO. 26-021
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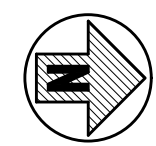
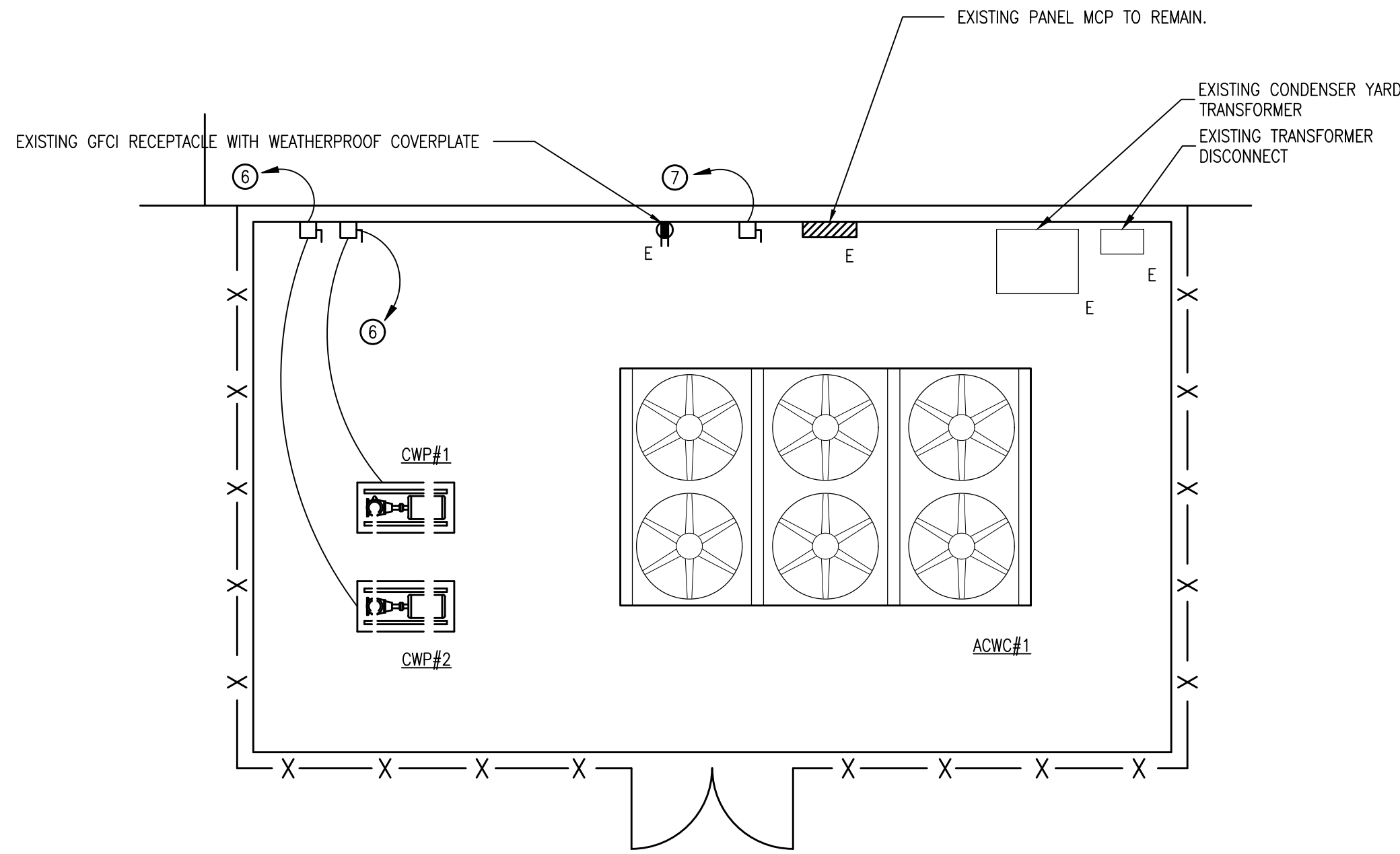
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ELECTRICAL ENLARGED NEW WORK PLAN:

ROOF

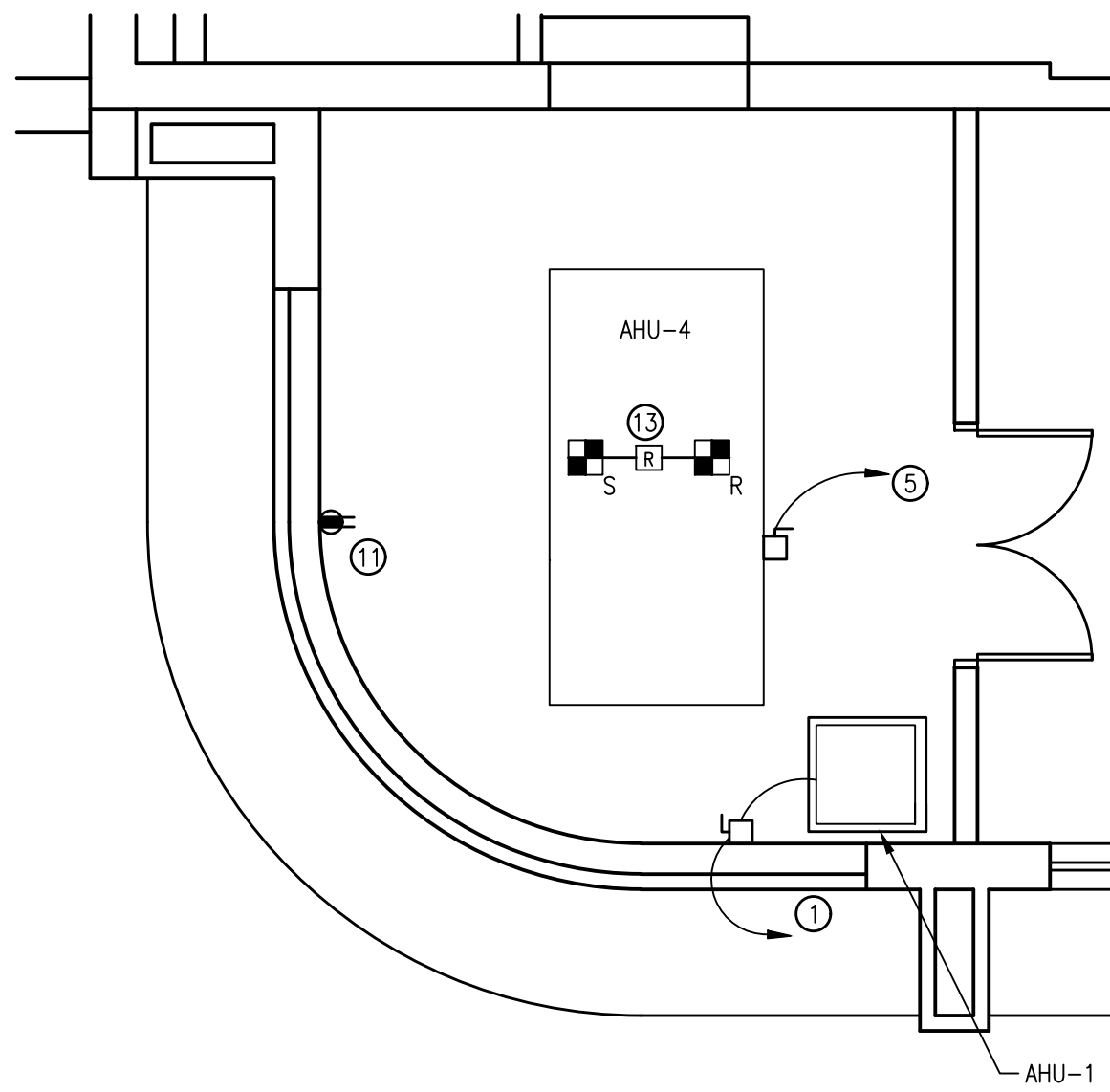
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ELECTRICAL ENLARGED NEW WORK PLAN:

CONDENSOR YARD

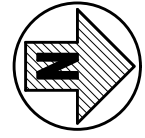
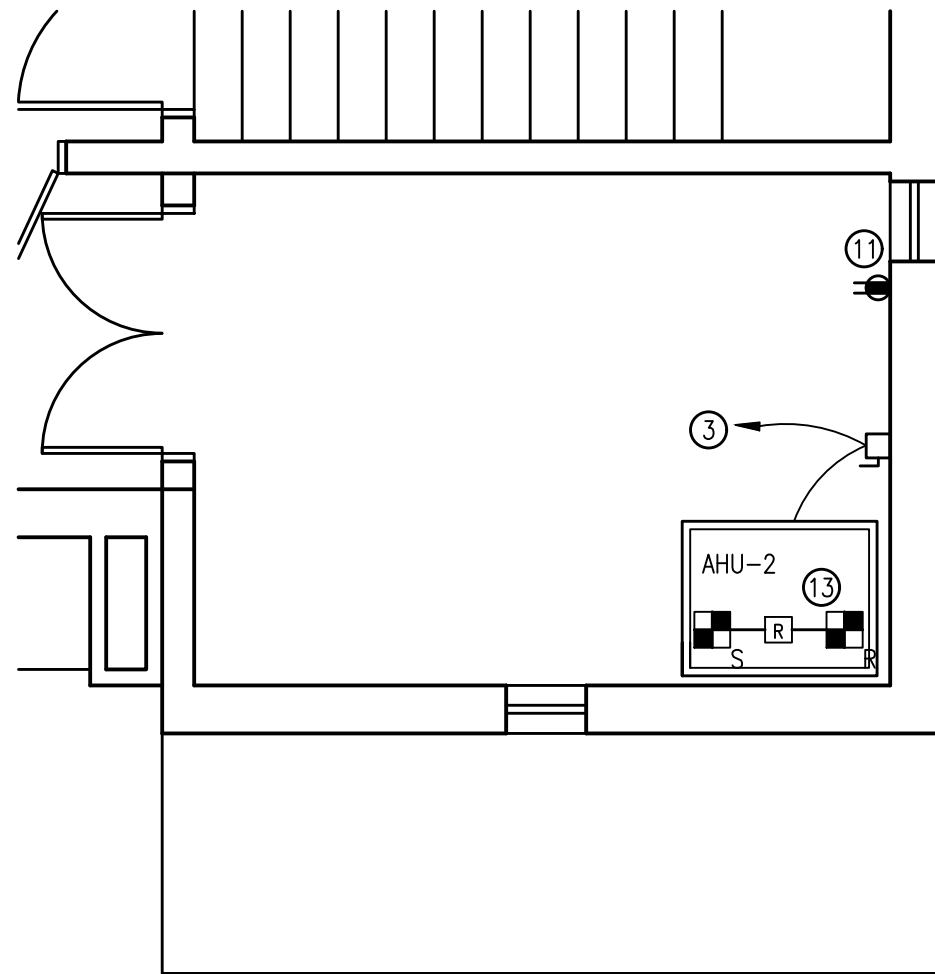
SCALE: 1/4" = 1'-0"



ELECTRICAL ENLARGED NEW WORK PLAN:

MECHANICAL 203

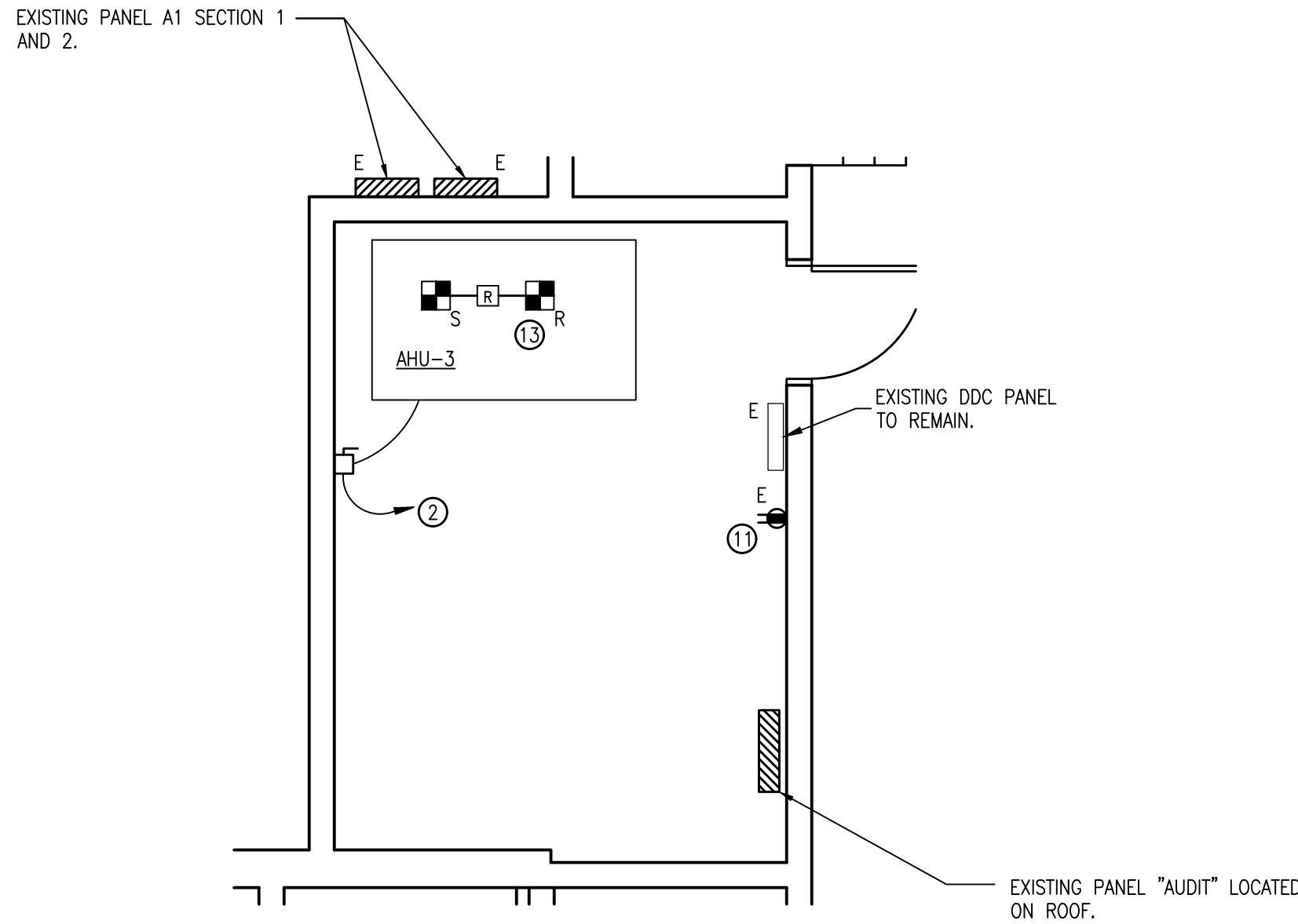
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ELECTRICAL ENLARGED NEW WORK PLAN:

MECHANICAL 202

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



ELECTRICAL ENLARGED NEW WORK PLAN:

MECHANICAL 110

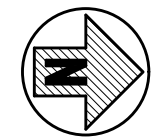
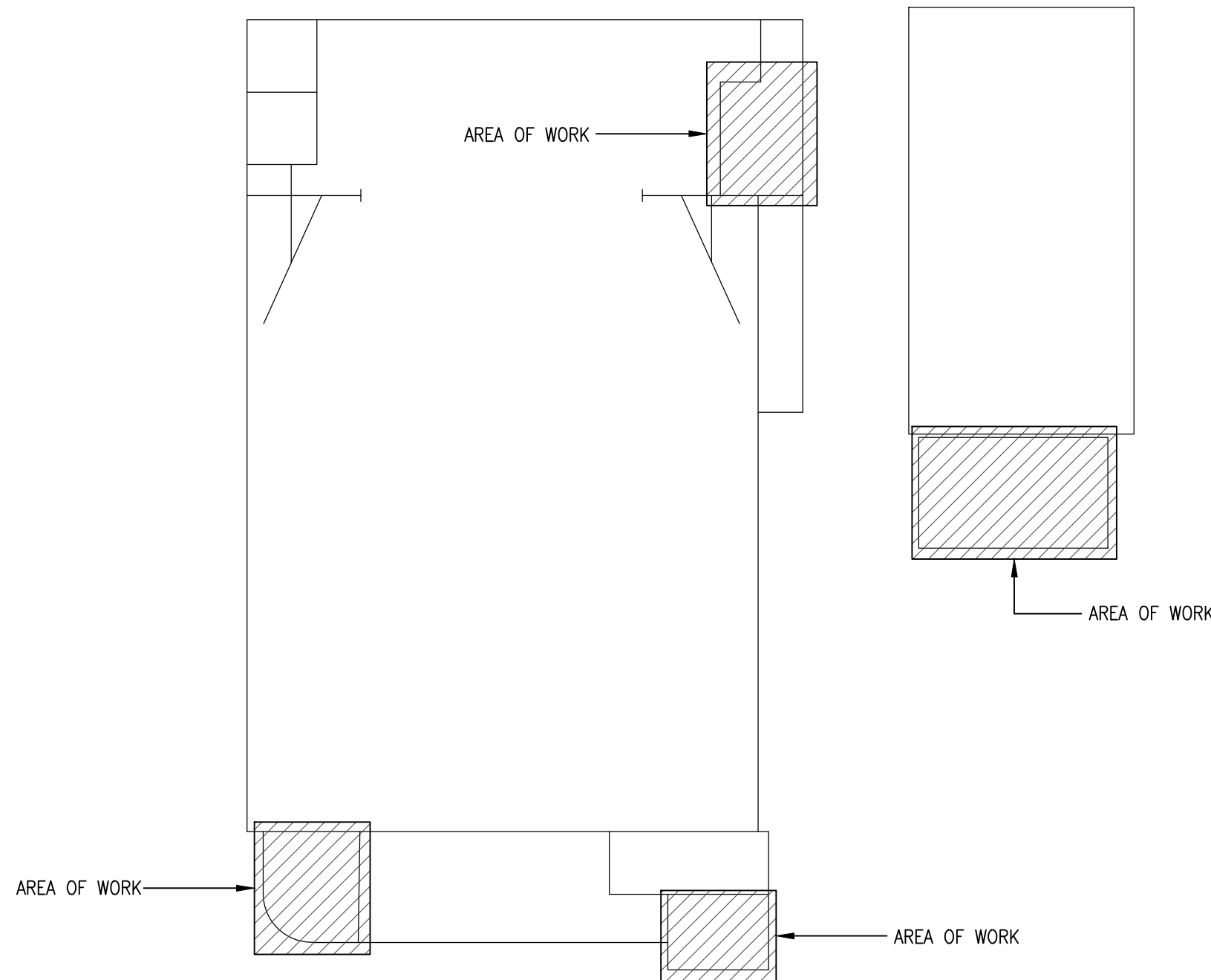
SCALE: 1/4" = 1'-0"

ELECTRICAL NEW WORK KEY NOTES:

1. PROVIDE AND INSTALL A NEW CIRCUIT AND DISCONNECT TO SERVE NEW AIR HANDLING UNIT. SEE EQUIPMENT ELECTRICAL SCHEDULE FOR WIRE AND CONDUIT SIZE, AS WELL AS DISCONNECT SIZE AND TYPE. PROVIDE AND INSTALL A NEW 208V, 35A, 2 POLE BREAKER IN EXISTING PANEL 'E' WHICH SERVED PREVIOUSLY REMOVED AIR HANDLING UNIT. A.I.C. RATING OF NEW BREAKER SHALL BE 10,000 AMPS. FIELD VERIFY A.I.C. RATING WITH SERVING PANEL.
2. PROVIDE AND INSTALL A NEW CIRCUIT AND DISCONNECT TO SERVE NEW AIR HANDLING UNIT. SEE EQUIPMENT ELECTRICAL SCHEDULE FOR WIRE AND CONDUIT SIZE, AS WELL AS DISCONNECT SIZE AND TYPE. PROVIDE AND INSTALL A NEW 480V, 20A, 3 POLE BREAKER IN EXISTING PANEL 'AUDIT' WHICH SERVED PREVIOUSLY REMOVED AIR HANDLING UNIT. A.I.C. RATING OF NEW BREAKER SHALL BE 42,000 AMPS. FIELD VERIFY A.I.C. RATING WITH SERVING PANEL.
3. PROVIDE AND INSTALL A NEW CIRCUIT AND DISCONNECT TO SERVE NEW AIR HANDLING UNIT. SEE EQUIPMENT ELECTRICAL SCHEDULE FOR WIRE AND CONDUIT SIZE, AS WELL AS DISCONNECT SIZE AND TYPE. PROVIDE AND INSTALL A NEW 480V, 20A, 3 POLE BREAKER IN EXISTING PANEL 'AUDIT' WHICH SERVED PREVIOUSLY REMOVED AIR HANDLING UNIT. A.I.C. RATING OF NEW BREAKERS SHALL BE 42,000 AMPS. FIELD VERIFY A.I.C. RATING WITH SERVING PANEL.
4. NOT USED.
5. PROVIDE AND INSTALL A NEW CIRCUIT AND DISCONNECT TO SERVE NEW AIR HANDLING UNIT. SEE EQUIPMENT ELECTRICAL SCHEDULE FOR WIRE AND CONDUIT SIZE, AS WELL AS DISCONNECT SIZE AND TYPE. PROVIDE AND INSTALL A NEW 480V, 30A, 3 POLE BREAKER IN EXISTING PANEL 'AUDIT' WHICH SERVED PREVIOUSLY REMOVED HEAT PUMP UNIT. A.I.C. RATING OF NEW BREAKER SHALL BE 42,000 AMPS.
6. PROVIDE AND INSTALL A NEW CIRCUIT AND DISCONNECT TO SERVE NEW CIRCULATING WATER PUMP. SEE EQUIPMENT ELECTRICAL SCHEDULE FOR WIRE AND CONDUIT SIZE, AS WELL AS DISCONNECT SIZE AND TYPE. PROVIDE AND INSTALL A NEW 480V, 20A, 3 POLE BREAKER IN EXISTING PANEL 'AUDIT' WHICH SERVED PREVIOUSLY REMOVED HEAT PUMP UNIT. A.I.C. RATING OF NEW BREAKER SHALL BE 42,000 AMPS. FIELD VERIFY A.I.C. RATING WITH SERVING PANEL.
7. NOT USED.
8. PROVIDE AND INSTALL A NEW CIRCUIT AND DISCONNECT TO SERVE NEW AIR COOLED WATER CHILLER. SEE EQUIPMENT ELECTRICAL SCHEDULE FOR WIRE AND CONDUIT SIZE, AS WELL AS DISCONNECT SIZE AND TYPE. PROVIDE AND INSTALL A NEW 480V, 225A, 3 POLE BREAKER IN EXISTING PANEL 'AUDIT' WHICH SERVED PREVIOUSLY REMOVED CONDENSING UNIT. A.I.C. RATING OF NEW BREAKER SHALL BE 42,000 AMPS. FIELD VERIFY A.I.C. RATING WITH SERVING PANEL.
9. NEW HEAT PUMP UNIT. SEE EQUIPMENT ELECTRICAL SCHEDULE FOR WIRE AND CONDUIT SIZE, AS WELL AS DISCONNECT SIZE AND TYPE. PROVIDE AND INSTALL A NEW 480V, 15A, 3 POLE BREAKER IN EXISTING PANEL 'AUDIT' WHICH SERVED PREVIOUSLY REMOVED HEAT PUMP UNIT. A.I.C. RATING OF NEW BREAKER SHALL BE 42,000 AMPS. FIELD VERIFY A.I.C. RATING WITH SERVING PANEL.
10. NEW LOCATION FOR EXISTING EXHAUST FAN. EXISTING DISCONNECT SHALL BE MOVED TO NEW LOCATION. EXISTING CONDUIT AND WIRING SHALL BE EXTENDED TO NEW LOCATION. PROVIDE AND INSTALL ANY ADDITIONAL JUNCTION BOXES, CONDUIT, AND WIRING AS REQUIRED FOR CIRCUIT EXTENSION.
11. EXISTING RECEPTACLE SHALL BE REPLACED WITH A NEW GFCI RECEPTACLE. RECONNECT EXISTING CONDUIT AND WIRING LEFT VACANT DURING DEMOLITION OF EXISTING RECEPTACLE.
12. NEW RECEPTACLES SHALL BE FED FROM A NEW CIRCUIT FROM EXISTING PANEL 'E'. PROVIDE A NEW 20A BREAKER IN EXISTING PANEL 'E' TO SERVE NEW CIRCUIT. A.I.C. RATING OF NEW BREAKER SHALL BE 10,000 AMPS. FIELD VERIFY A.I.C. RATING WITH SERVING PANEL.
13. PROVIDE AND INSTALL NEW SUPPLY AND RETURN AIR DUCT DETECTORS FOR USE WITH NEW AIR HANDLING UNIT. NEW DUCT DETECTORS SHALL TIE INTO EXISTING FIRE ALARM CONTROL SYSTEM. SEE ELECTRICAL NEW WORK OVERALL PLAN FOR APPROXIMATE LOCATION OF EXISTING FIRE ALARM CONTROL PANEL IN EXISTING FRONT LOBBY.

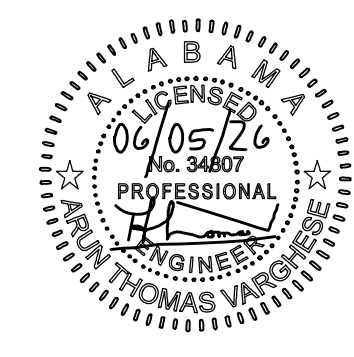
EQUIPMENT COORDINATION GENERAL NOTES:

1. COORDINATE WITH THE MECHANICAL CONTRACTOR TO ENSURE ALL DISCONNECTS AND/OR VFD'S ARE PROVIDED AS REQUIRED.
2. THE ELECTRICAL CONTRACTOR SHALL PROVIDE INTERLOCKING CONNECTIONS FOR ALL HVAC EQUIPMENT AS REQUIRED. REFER TO THE MECHANICAL SCHEDULES FOR EXACT INTERLOCKING INFORMATION.
3. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE EXACT LOCATION, WIRING AND CONNECTION OF ALL EQUIPMENT WITH THE EQUIPMENT INSTALLER PRIOR TO INSTALLATION.
4. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL A 4" SQUARE OUTLET BOX WITH SINGLE GANG PLASTER RING FOR EACH THERMOSTAT. PLASTER RING SHALL BE MOUNTED IN A VERTICAL ORIENTATION. 56" A.F.F. TO CENTER UNLESS NOTED OTHERWISE. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL A 3/4" CONDUIT FROM THERMOSTAT OUTLET BOX UP IN WALL TO 6" ABOVE CEILING HEIGHT AND OUT OF WALL. EXTEND CONDUIT TO AREA WITH ACCESSIBLE CEILING. LABEL CONDUIT ABOVE ACCESSIBLE CEILING WITH SERVED THERMOSTAT LOCATION. CONDUIT SHALL HAVE NYLON INSULATING BUSHING ON EACH END. PROVIDE PULL STRING IN CONDUIT. REFER TO MECHANICAL DRAWINGS FOR THERMOSTAT LOCATIONS. MOUNT UNIT HEATER THERMOSTATS AS REQUIRED.
5. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL A DEDICATED, 20 AMP, 120 VOLT CIRCUIT FOR EACH HVAC CONTROL PANEL. REFER TO MECHANICAL DRAWINGS FOR HVAC CONTROL PANEL LOCATIONS.
6. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF ALL EQUIPMENT SITE SWITCHES PRIOR TO INSTALLATION.
7. ALL DISCONNECTS FOR EQUIPMENT SHALL BE MOUNTED SECURELY TO THE FLOOR OR STRUCTURE. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL UNISTRUT AND MOUNTING HARDWARE AS REQUIRED TO MOUNT THE DISCONNECTS. ALL EXTERIOR DISCONNECTS SHALL BE NEMA-3R.
8. CIRCUIT BREAKERS SERVING EQUIPMENT ARE BASIS OF DESIGN ONLY. EXACT CIRCUIT BREAKER, A.I.C. RATING, AND CONDUCTOR SIZES SHALL BE COORDINATED WITH ACTUAL EQUIPMENT BEING INSTALLED PRIOR TO ORDERING OF PANELBOARD. ANY COST INCREASE ASSOCIATED WITH INCREASED CIRCUIT REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE EQUIPMENT INSTALLER. ELECTRICIAN SHALL SIZE CIRCUIT BREAKERS, CONDUCTORS, CONDUITS, AND DISCONNECTS IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND INDICATE THE APPROPRIATE CHANGES ON AS-BUILT DOCUMENTS.
9. IN ALL MECHANICAL ROOMS, COORDINATE WITH THE MECHANICAL CONTRACTOR TO ENSURE CODE REQUIRED CLEARANCES AND WORKING SPACES ARE MAINTAINED AT ALL ELECTRICAL EQUIPMENT.
10. 'E' - DENOTES AN EXISTING DEVICE TO REMAIN. PROTECT DURING DEMOLITION AND CONSTRUCTION. SEE GENERAL DEMOLITION NOTES FOR REQUIREMENTS.



KEY PLAN
SCALE: N.T.S.

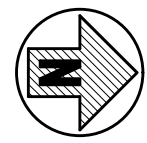
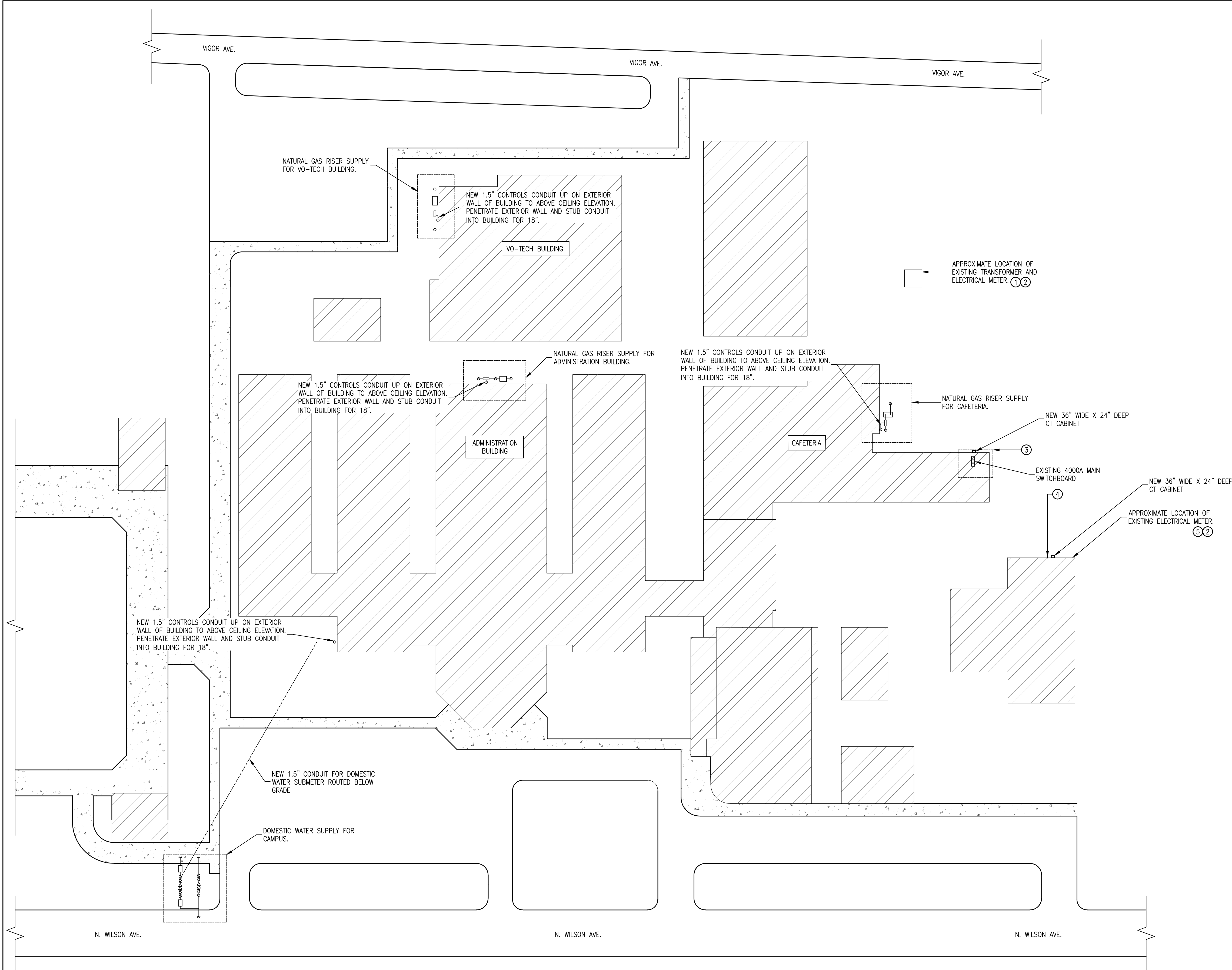




PROJ. MGR.:	
DRAWN:	
DATE:	07-08-26
REVISIONS	

JOB NO. 26-021
SHEET NO:

E2.3



SUBMETERING PLAN - ADDITIVE ALTERNATE #2

SCALE: 1" = 50'-0"



ADDITIVE ALTERNATE ELECTRICAL: SUBMETERING NEW WORK KEY NOTES

- APPROXIMATE LOCATION OF EXISTING MAIN ELECTRICAL UTILITY METER. FIELD VERIFY EXACT LOCATION.
- SEE EQUIPMENT COORDINATION GENERAL NOTES FOR MORE INFORMATION ON SUBMETERING REQUIREMENTS.
- APPROXIMATE LOCATION OF EXISTING MAIN DISTRIBUTION SWITCHBOARD MDP. FIELD VERIFY EXACT LOCATION. EXISTING SERVICE IS A 4000A, 3PH, 4W SERVICE. FIELD VERIFY EXISTING WIRE SIZE PRIOR TO ORDERING OF NEW SUBMETERING CT CABINET.
- APPROXIMATE LOCATION OF EXISTING MAIN PANEL FOR NORTHERN BUILDING. FIELD VERIFY EXACT LOCATION.
- APPROXIMATE LOCATION OF EXISTING ELECTRICAL UTILITY METER FOR NORTHERN BUILDING. FIELD VERIFY EXACT LOCATION. EXISTING SERVICE IS A 600A, 3PH, 4W SERVICE. FIELD VERIFY EXISTING WIRE SIZE PRIOR TO ORDERING OF NEW SUBMETERING CT CABINET.

EQUIPMENT COORDINATION GENERAL NOTES:

- THIS SCOPE OF WORK SHALL BE PROVIDED AS A SEPARATE LINE ITEM COST IN THE BID PRICE. EXISTING SECONDARY CONDUCTORS SHALL BE INTERCEPTED AND REROUTED THROUGH NEW C/T CABINET. PROVIDE ANY NEW CONDUIT AND WIRE AS REQUIRED, SIZE AND TYPE TO MATCH EXISTING. PROVIDE NEW 3/4" C WITH PULL STRING FROM C/T CABINET TO NEW NET METER. NET METER PROVIDED BY CONTROLS CONTRACTOR. NEW C/T AND METER SHALL BE MOUNTED ON THE WALL ADJACENT TO THE EXISTING SERVICE SWITCHBOARD.
- CONTROLS CONTRACTOR TO PROVIDE NEW EQUIPMENT AND WIRING FOR SUBMETERING. FOR MORE INFORMATION CONTACT SKIPPER WALTERS AT WALTERS CONTROLS, INC. (251) 661-4416 (W) (251) 422-4931 (C).
- DEDUCTIVE ALTERNATE: CONTRACTOR SHALL CONDUCT A FIELD SURVEY OF THE EXISTING ELECTRICAL SERVICE PANEL. IF THE C/T'S CAN BE INSTALLED INSIDE THE EXISTING ELECTRICAL SERVICE PANEL, THEN THE SCOPE OF WORK AS DESCRIBED IN GENERAL NOTE #1 SHALL BE DELETED, AND A CREDIT ISSUED BACK TO THE OWNER. CONTRACTOR SHALL PROVIDE 3/4" C FROM EXISTING SERVICE PANEL TO THE EXISTING METER LOCATION, METER BY CONTROLS CONTRACTOR, COORDINATE METER LOCATION PRIOR TO ANY ROUGH-IN.