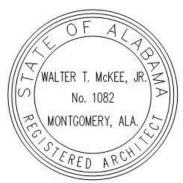


#### Addendum No. 4 Date: March 15, 2024

Project:

NEW FIELD HOUSE FOR THE JUNIOR VARSITY AT CENTRAL HIGH SCHOOL FOR THE CLAY COUNTY BOARD OF EDUCATION LINEVILLE, ALABAMA



#### MCKEE PROJECT NO. 22.304 ALABAMA DIVISION OF CONSTRUCTION MANAGEMENT NO. 2024009

The following changes and/or substitutions to the plans and specifications are hereby made a part of same and are incorporated in full force as part of the contract.

Bidders shall acknowledge receipt of this Addendum in writing on the Proposal Form.

#### **A4.1 GENERAL MODIFICATIONS:**

A. NONE.

#### A4.2 SPECIFICATION MODIFICATIONS:

A. NONE.

#### A4.3 DRAWING MODIFICATIONS:

- A. See the attached revised drawings as follows:
  - 1. Sheet(s) A1.1, A1.10, A2.1, A4.0, A6.1, & A6.2 (Revised 03.18.24), herein.
  - 2. Sheet S2.1 (Revised 03.18.24), herein.
  - 3. Sheet P2 (Revised 03.11.24), herein.
  - 4. Sheet(s) E2.1, E3.1, E4.1, & E6.1 (Revised 03.15.24), herein.

#### A4.4 CLARIFICATIONS & RESPONSES:

A. See the following responses to RFI questions received from Contractors.

**Question:** Contractor completion time form in the project manual list August 15, 2024 as the completion date. This date is not possible to meet. It will take 3-4 months to get a metal building.

Answer: Contractor to fill in completion time on proposal form.

**Question:** Is testing for a Bi-directional Amplifier (BDA) system required in the base bid and/or will an allowance be established for a system if required.

**Answer:** Testing shall be in the base bid. Contractor to include is bis an allowance of \$30,000.00 for an emergency responder two-way radio BDA system equipment.

Question: Can either HDPE or ProCorr pipe be used in lieu of RCP?

**Answer:** Yes but it needs to be bedded/encapsulated with stone per manufacturer's specifications.

- B. See the following clarifications as follows:
  - 1. Please disregard Question and answer in Addendum 3 referencing Metal Wall panels

Metal Wall Panels are to be;

- 1. Basis of Design: MBCI, FW-120-2 Panel. (Double Bead at 4" spacing).
- Aluminum-Zinc Alloy-Coated Steel Sheet: ASTM A792/A792M, structural quality, Grade 50, Coating Class AZ50 (Grade 340, Coating Class AZM150), prepainted by the coil-coating process per ASTM A755/A755M.
  - a. Nominal Thickness: 24 gauge (Standard) coated thickness, with smooth surface.
    - i. Exterior Finish: Fluoropolymer two-coat system.
    - Color: As selected by Architect from manufacturer's standard colors after Bid Date.
- 3. Panel Width: 12 inches (305 mm).
- 4. Panel Thickness: 1-1/2 inch (38 mm).
- 2. Brick at base to match existing;

#### 2.1 BRICK MADE FROM CLAY OR SHALE

- A. MANUFACTURERES: The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function:
  - 1. ACME Brick Company, Montgomery, AL
  - 2. Boral Bricks, Phenix City, Al
  - 3. Henry Brick Company, Selma, AL
  - 4. Equal products of other manufacturers may be used in the work provided such products have been approved by the Architect, not less than Ten (10) days prior to scheduled bid opening.
- B. General: Comply with referenced standards and other requirements indicated below applicable to each form of brick required.
- C. Provide special molded shapes where indicated and for application requiring brick of form, size and finish on exposed surfaces which cannot be produced from standard brick sizes by sawing.
- D. For sills, caps and similar applications resulting in exposure of brick surfaces which otherwise would be concealed from view, provide uncored or unfrogged units with all exposed surfaces finished.
- E. Facing Brick: Submit samples for approval of equals prior to bids. Eased edge brick shall not be allowed.
- F. BRICK ALLOWANCES
  - Face Brick shall have a valve of \$600.00 dollars per thousand (Allowances shall be for material only, based on actual number of bricks purchased for the project. Installation, profit, overhead, shipping and taxes shall be included in the Contractors Bid Proposal). If Architect chooses brick of lesser value after Bid Process, Contractor shall issue a deductive Change Order for the difference.

#### 2.2 MORTAR AND GROUT MATERIALS

- A. MANUFACTURERS: The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function:
  - 1. Atlas
  - 2. Citadel
  - 3. Lone Star
  - 4. Magnolia
  - 5. Equal products of other manufacturers may be used in the work provided such products have

been approved by the Architect, not less than Ten (10) days prior to scheduled bid opening.

- B. Masonry Cement: ASTM C 91.
  - 1. Type N for Exterior Face and Accent brick color pigment.

#### C. ALLOWANCES:

- Face and Accent Brick to have a valve of \$26.00 dollars per bag. (Allowances shall be for material only, based on actual number of bags purchased for the project. Installation, profit, overhead, shipping and taxes shall be included in the Contractors Bid Proposal). If Architect chooses mortar of lesser value after Bid Process, Contractor shall issue a deductive Change Order for the difference.
- D. Hydrated Lime: ASTM C 207, Type S.
- E. Aggregate for Mortar: ASTM C 144, except for joints less than 1/4" use aggregate graded with 100% passing the No. 16 sieve.
- F. Water: Clean and potable.

#### 2.3 JOINT REINFORCEMENT, TIES AND ANCHORING DEVICES

- A. MANUFACTURERS: The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function:
  - 1. Dur-O-Wall, Inc.
  - 2. Heckman Building Products, Inc.
  - 3. Masonry Reinforcing Corp. of America.
  - 4. National Wire Products Corp.
  - 5. Equal products of other manufacturers may be used in the work provided such products have been approved by the Architect, not less than Ten (10) days prior to scheduled bid opening.
- B. Materials: Comply with requirements indicated below for basic materials and with requirements indicated under each form of joint reinforcement, tie and anchor for size and other characteristics.
- C. Use individual galvanized steel metal ties installed in horizontal joints to bond wythes together
  - **only** where wood or metal stud backup occurs. Provide ties as shown, but not less than one metal tie for 4 sq. ft. of wall area spaced not to exceed 24" o.c. horizontally and vertically. Stagger ties in alternate courses. Provide additional ties within 1'-0" of all openings and space not more than 3'-0" apart around perimeter of openings. At intersecting and abutting walls, provide ties at no more than 24" o.c. vertically.
- D. Hot-Dip Galvanized Steel Wire: ASTM A 82 for uncoated wire and with ASTM A 123, Class B-2 (1.5 oz. per sq. ft. of wire surface) for zinc coating applied after prefabrication into units.
- E. Application: Use where indicated.
- F. Joint Reinforcement: Provide truss-type, welded-wire units prefabricated with deformed continuous side rods and plain cross rods into straight lengths of not less than 10', with prefabricated corner and tee units, and complying with requirements indicated below:
  - 1. Width: Fabricate joint reinforcement in units with widths of approximately 2" less than nominal width of walls and partitions as required to provide mortar coverage of not less than 5/8" on joint faces exposed to exterior and 1/2" else- where.

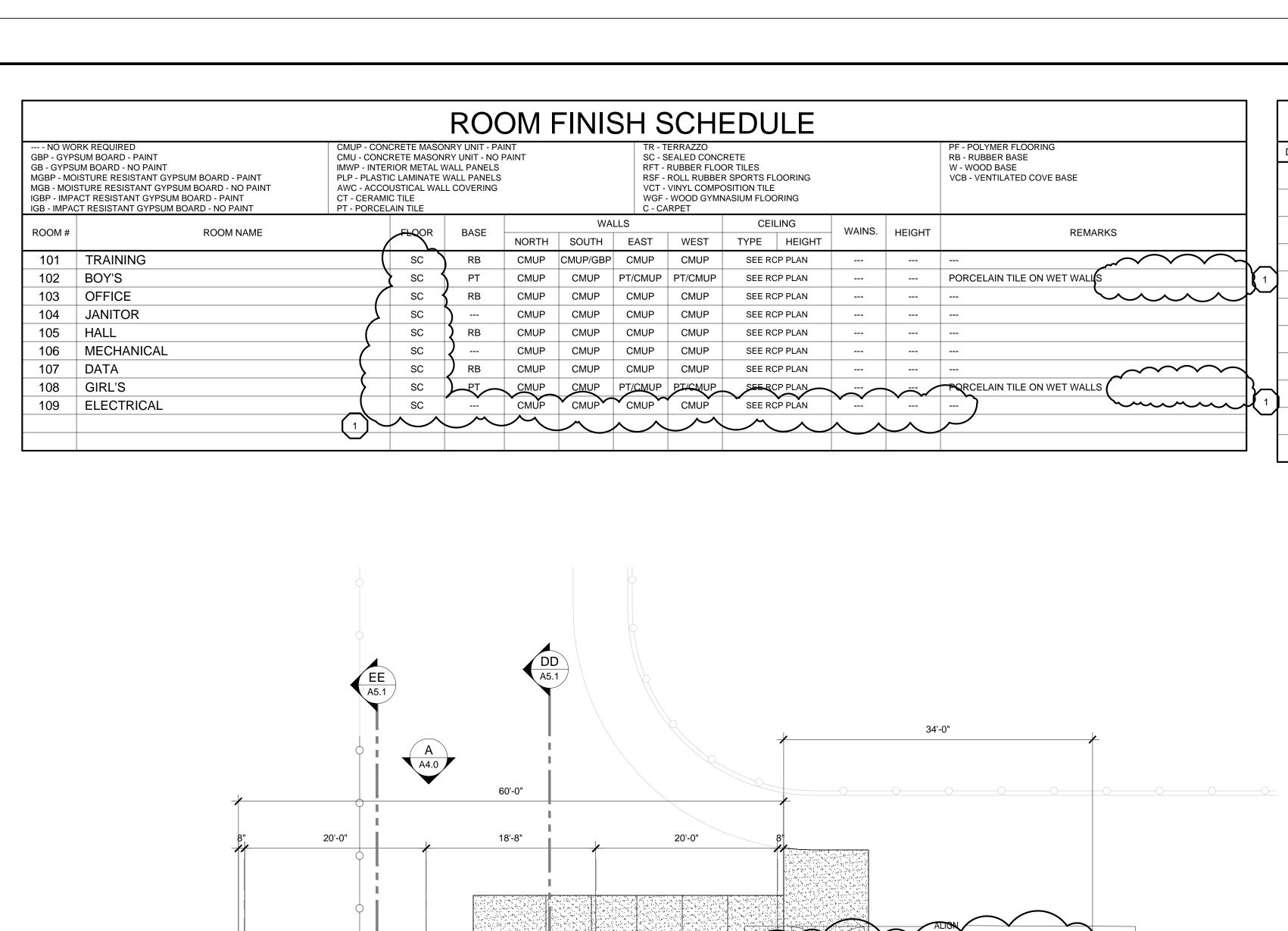
#### 2.4 EMBEDDED FLASHING MATERIALS

- A. Metal Flashing: Provide metal flashing, where flashing is exposed or partly exposed and where indicated, complying with SMACNA's "Architectural Sheet Metal Manual" and as follows:
  - Fabricate continuous flashings in sections 96 inches long minimum, but not exceeding 12 feet.
  - 2. Provide splice plates at joints of formed, smooth metal flashing.
  - 3. Fabricate through-wall metal flashing embedded in masonry from, with ribs at 3-inch intervals along length of flashing to provide an integral mortar bond.

- 4. Fabricate through-wall flashing with snaplock receiver on exterior face where indicated to receive counterflashing.
- 5. Fabricate through-wall flashing with drip edge where indicated. Fabricate by extending flashing 1/2 inch out from wall, with outer edge bent down 30 degrees.
- 6. Fabricate through-wall flashing with sealant stop unless otherwise indicated. Fabricate by bending metal back on itself 3/4 inch at exterior face of wall and down into joint 3/8 inch to form a stop for retaining sealant backer rod.
- 7. Fabricate metal drip edges and sealant stops for ribbed metal flashing from plain metal flashing of same metal as ribbed flashing and extending at least 3 inches into wall with hemmed inner edge to receive ribbed flashing and form a hooked seam. Form hem on upper surface of metal so that completed seam will shed water.
- 8. Metal Drip Edges: Fabricate from stainless steel. Extend at least 3 inches into wall and 1/2 inch out from wall, with outer edge bent down 30 degrees.
- 9. Metal Flashing Terminations: Fabricate from stainless steel. Extend at least 3 inches into wall and out to exterior face of wall. At exterior face of wall, bend metal back on itself for 3/4 inch and down into joint 3/8 inch to form a stop for retaining sealant backer rod.
- 10. Metal Expansion-Joint Strips: Fabricate from stainless steel to shapes indicated.

**END OF ADDENDUM** 

- S:\MCKEE\Central High School Junior Varsity Field House - Lineville A\\S-Central High School JV Fieldhouse - Sections.dwg



CP H DSB

SCREEN WALL

23'-0"

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

SCREEN WALL

\_ INSTALL NEW FENCE AND 8'-0" GATE

SCREEN WALL

**EXISTING** BUILDING

	DOOR SCHEDULE													
1	DOOR #	WIDTH	HEIGHT	THICKNESS	MATERIALS	DOOR TYPE	DOOR FINISH	FRAME TYPE	FRAME FINISH	LABEL	DET/ HEAD	AILS JAMB	SIGNAGE	REMARKS
	101a	(2)3'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	Α	FACTORY	AS1	FACTORY		5/A2.1	3&4/A2.1		
	101b	(2)3'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	Α	FACTORY	AS1	FACTORY		5/A2.1	3&4/A2.1		
	101c	(2)3'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	Α	FACTORY	AS1	FACTORY		5/A2.1	3&4/A2.1		
_	102	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	С	FACTORY	HM1	PAINT		2/A2.1	1/A2.1	BOY'S	
	103	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	В	FACTORY	HM1	PAINT		2/A2.1	1/A2.1	OFFICE	
	104	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	С	FACTORY	HM1	PAINT		2/A2.1	1/A2.1	JANITOR	
	105	(2)3'-0"	7'-0"	1 3/4"	ALUMINUM STOREFRONT	Α	FACTORY	AS1	FACTORY		5/A2.1	3&4/A2.1		
	106	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	С	FACTORY	HM1	PAINT		2/A2.1	1/A2.1	MECHANICAL	
1	107	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	С	FACTORY	HM1	PAINT		2/A2.1	1/A2.1	DATA	
	108	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	С	FACTORY	HM1	PAINT		2/A2.1	1/A2.1	GIRL'S	
	109	3'-0"	7'-0"	1 3/4"	FLUSH WOOD SOLID CORE	С	FACTORY	HM1	PAINT		2/A2.1	1/A2.1	ELECTRICAL	

#### SIGN MOUNTING HEIGHT

703.4.1 HEIGHT ABOVE FINISH FLOOR OF GROUND
TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48 INCHES (1220 mm) MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST TACTILE CHARACTER AND 60 INCHES (1525 mm) MAXIMUM ABOVE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST TACTILE CHARACTER.

EXCEPTION: BRAILLE PROVIDED ON ELEVATOR CAR CONTROLS SHALL BE SEPARATED ¾6 INCHES (4.8 mm) MINIMUM AND SHALL BE LOCATED EITHER DIRECTLY BELOW OR ADJACENT TO THE CORRESPONDING RAISED CHARACTERS OR SYMBOLS.

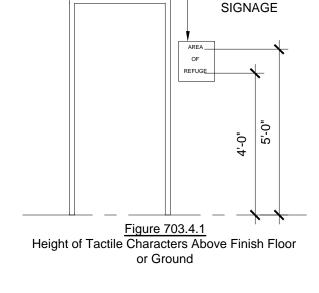
703.4.2 LOCATION
WHERE A TACTILE SIGN IS PROVIDED AT A DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT OF THE RIGHT HAND DOOR. WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGNS SHALL BE LOCATED ON THE NEAREST ADJACENT WALL. SIGNS CONTAINING TACTILE CHARACTERS SHALL BE LOCATED SO THAT THE CLEAR FLOOR SPACE OF 18 INCHES (455 mm) MINIMUM, CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSEST POSITION AND 45 DEGREE OPEN POSITION. EXCEPTION: SIGNS WITH TACTILE CHARACTERS SHALL BE PERMITTED ON THE PUSH SIDE OF DOORS WITH CLOSERS AND WITHOUT HOLD-OPEN DEVICES.

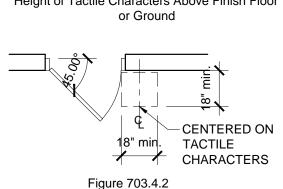
#### SIGNAGE NOTES:

FURNISH INDIVIDUAL PLASTIC LAMINATE SIGNAGE SYSTEM WITH ROOM OR OCCUPANT'S NAME AND ROOM NUMBER. FINAL WORDING TO BE FURNISHED WHEN SHOP DRAWINGS FOR SIGNAGE SYSTEM ARE SUBMITTED. FURNISH INDIVIDUAL PLASTIC LAMINATE RESTROOM SIGNS FOR DOOR(S) AND HANDICAPED ACCESS SIGN TO BE PLACED ON WALL BESIDE RESTROOM DOOR(S) -SEE DIAGRAM.

## LABELED DOOR AND FRAME NOTE:

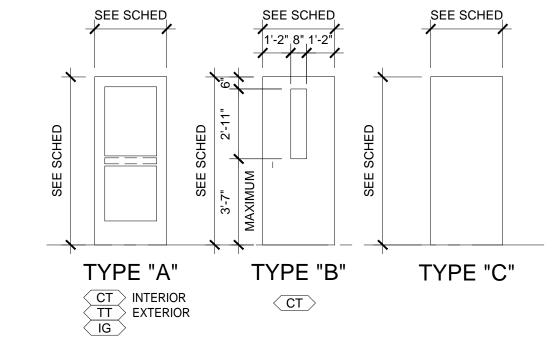
HOURLY RATING DESIGNATIONS AND / OR ALPHABETICAL LETTER DESIGNATIONS ARE GIVEN WHERE PROTECTED OPENINGS ARE REQUIRED IN RATED PARTITIONS. THESE OPENING PROTECTIVE ASSEMBLIES SHALL INCLUDE THE FRAME, DOOR, HARDWARE, CLOSING DEVICE, SILL AND ANCHORAGE. CONTRACTOR SHALL SEE THAT NO COMPONENT IS OMITTED OR SUBSTANDARD QUALITY USED SUCH THAT THE EFFECTIVENESS OF THE ENTIRE OPENING AS A FIRE OR SMOKE BARRIER MIGHT BE JEOPARDIZED. DOORS AND FRAMES SHALL BE FURNISHED WITH UNDERWRITER'S LABORATORIES OR WARNOCKHERSEY LABELS WITH APPROPRIATE FIRE RESISTANCE RATINGS FOR THE CLASS OF OPENING SCHEDULED. SUBJECT TO DOOR MANUFACTURER'S PROCEDURAL LIMITATIONS, LABELS SHOULD BEAR THE FOLLOWING NOTATION: "FIRE DOOR, TO BE EQUIPPED WITH FIRE EXIT HARDWARE"



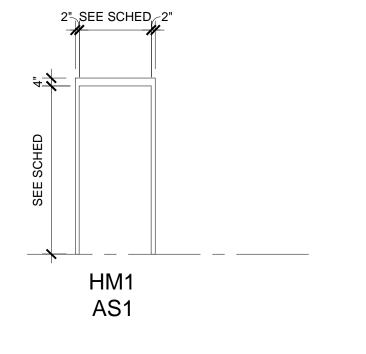


Location of Tactile Signs at Doors

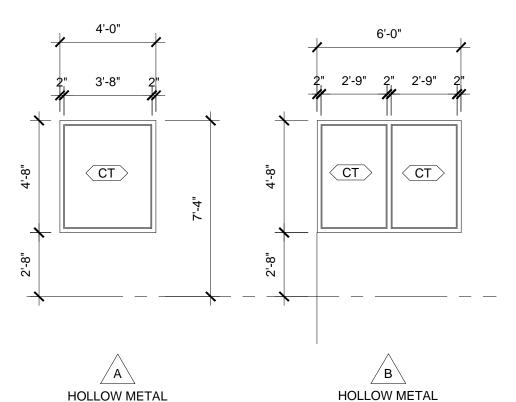
HOUS



TYPICAL DOOR TYPES SCALE: 1/4" - 1'-0"



TYPICAL FRAME TYPES

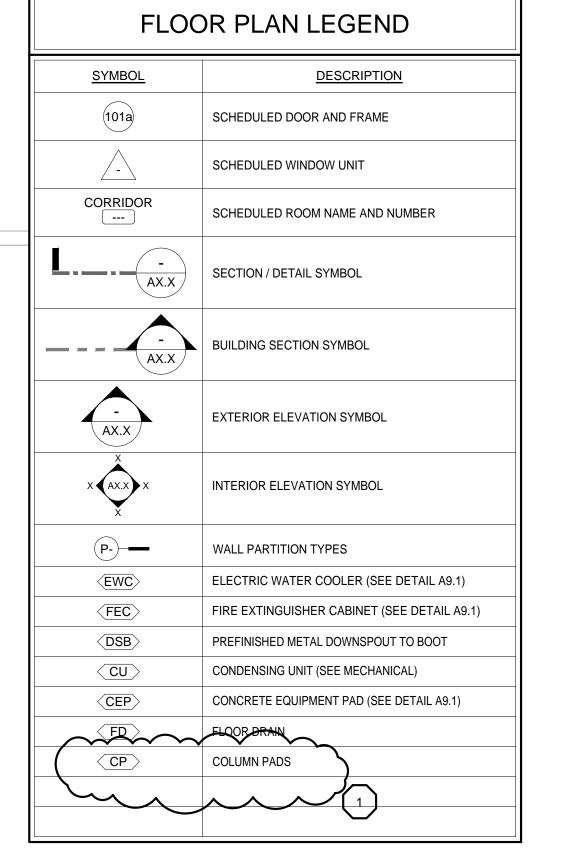


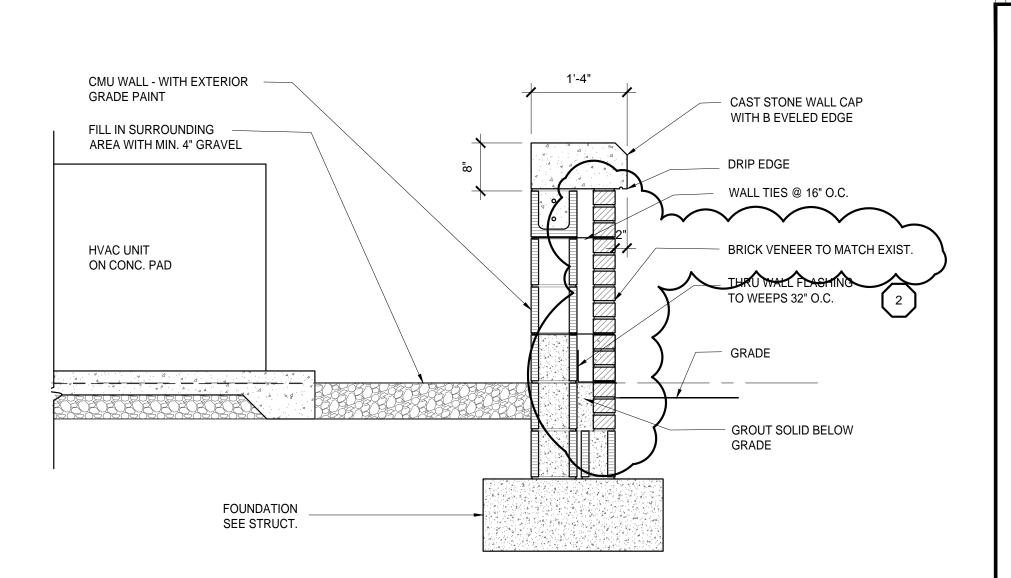
GLAZING SCHEDULE						
SYMBOL	DESCRIPTION					
CT	CLEAR TEMPERED					

INSULATING GLASS

TINTED TEMPERED

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





SCREEN WALL DETAIL

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

SHEET TITLE: FLOOR PLAN - PART "X"

TION

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MCKEE JOB #: 22-304

DRAWN BY: DATE: 02.15.2024

REVISED DATE: 1 03.08.24 REVISED DATE: 2 03.18.24

REVISED DATE:

SHEET NO.: A1.1

- DSB

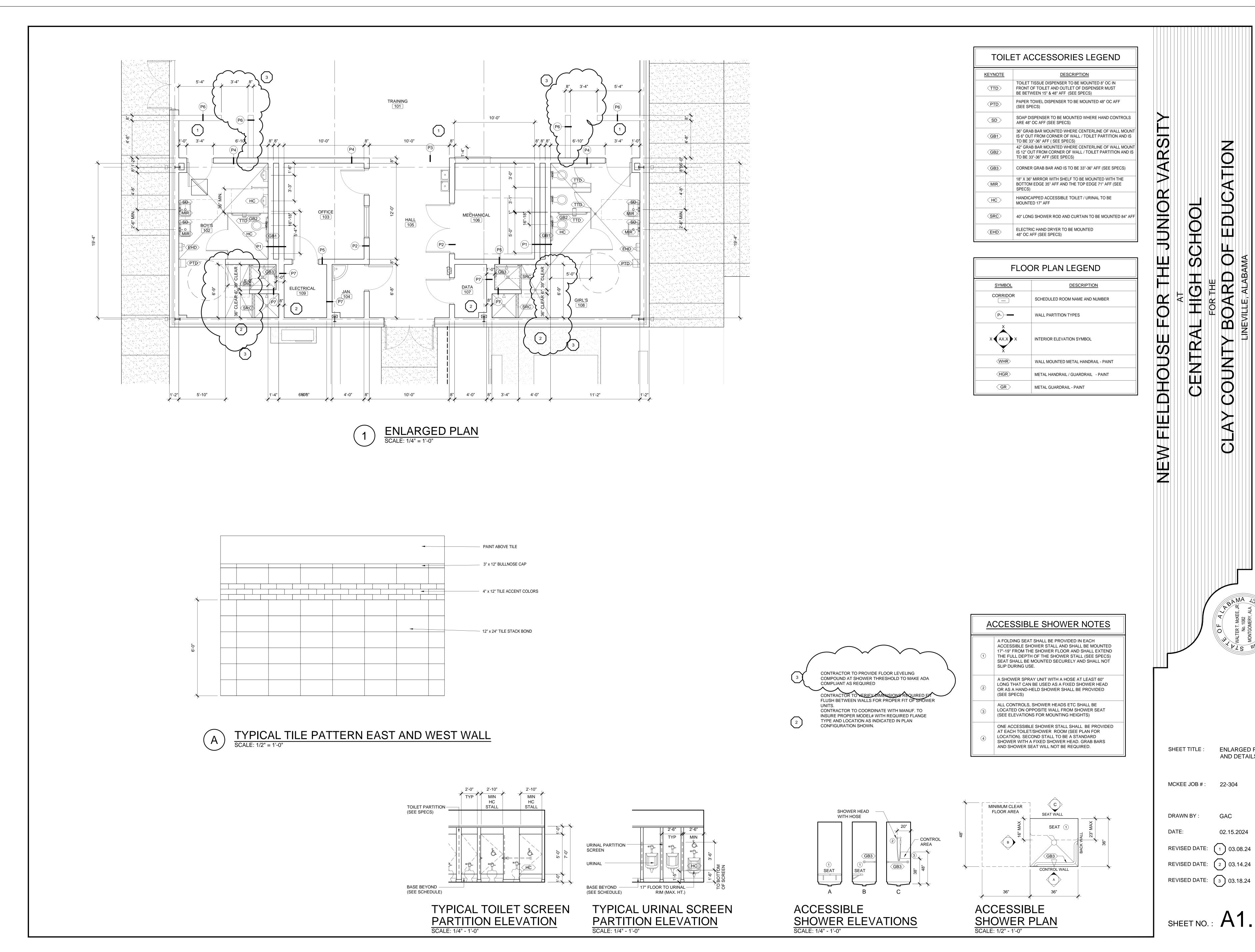
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DSB H CP

SCREEN WALL

BB

A5.1



SHEET NO.: **A1.10** 

02.15.2024

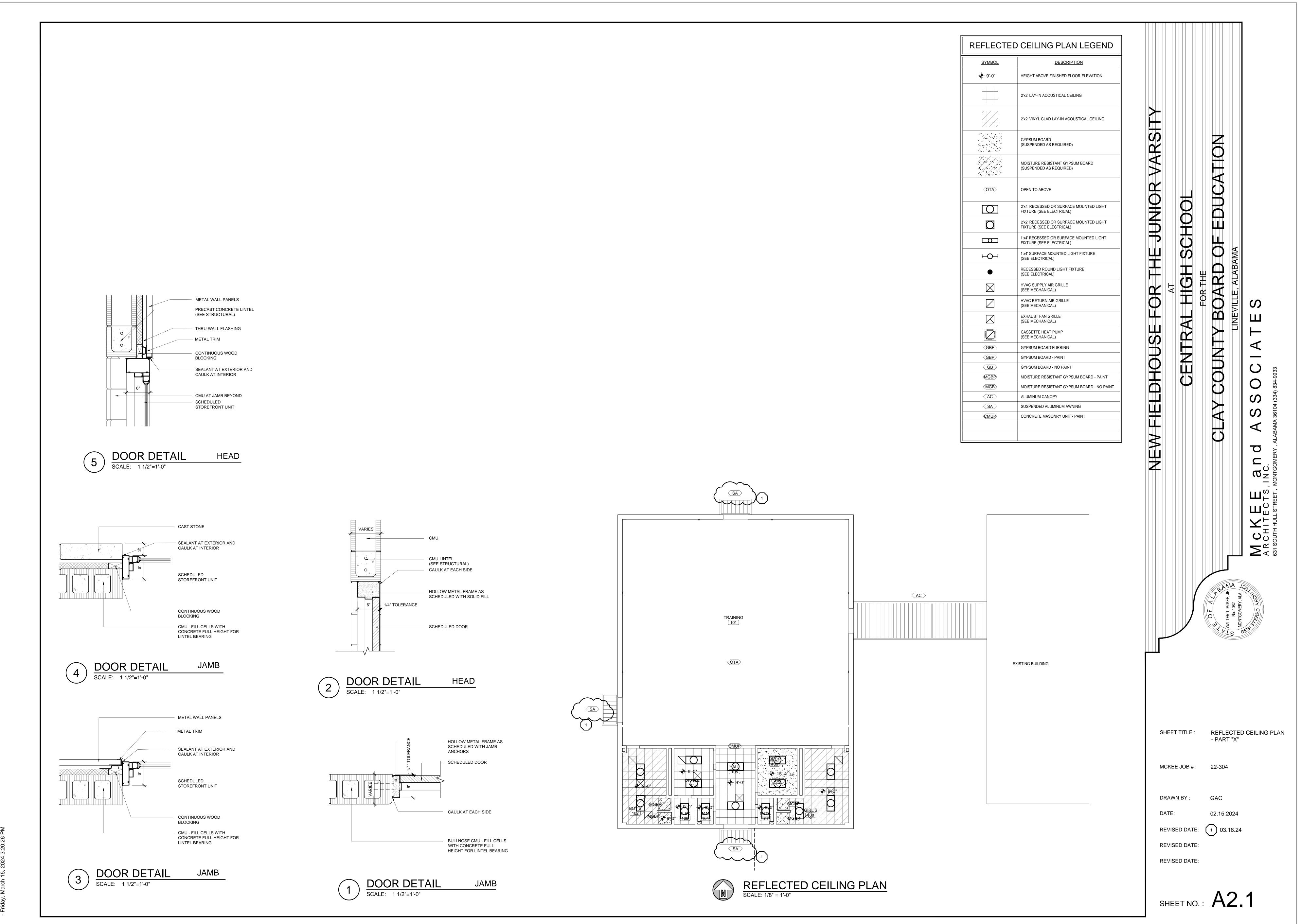
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ENLARGED PLANS AND DETAILS

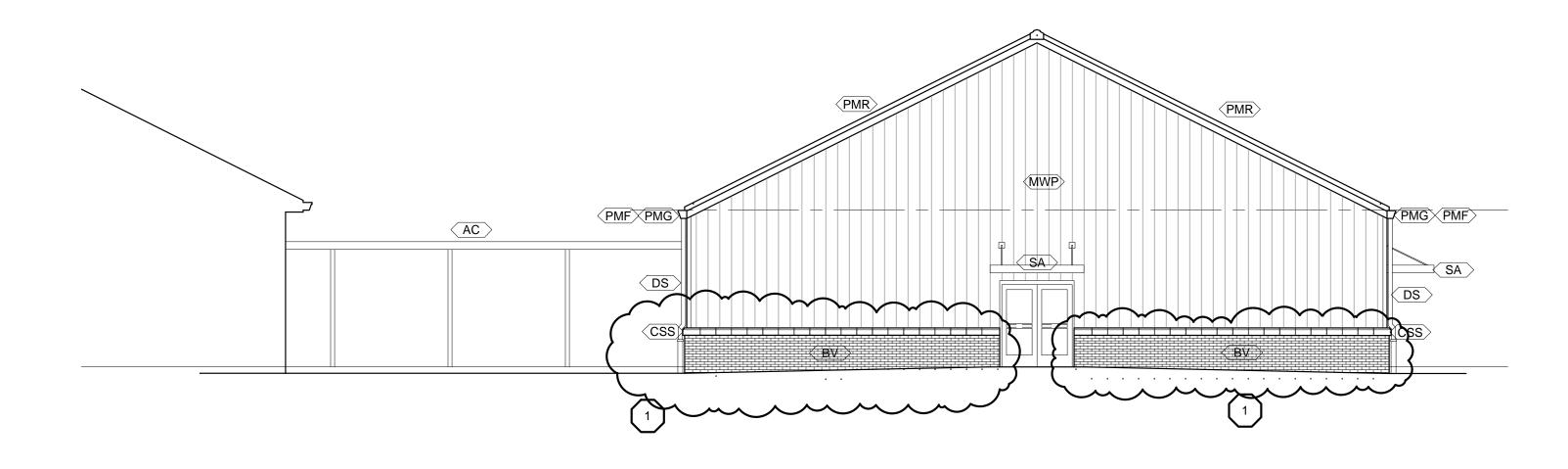
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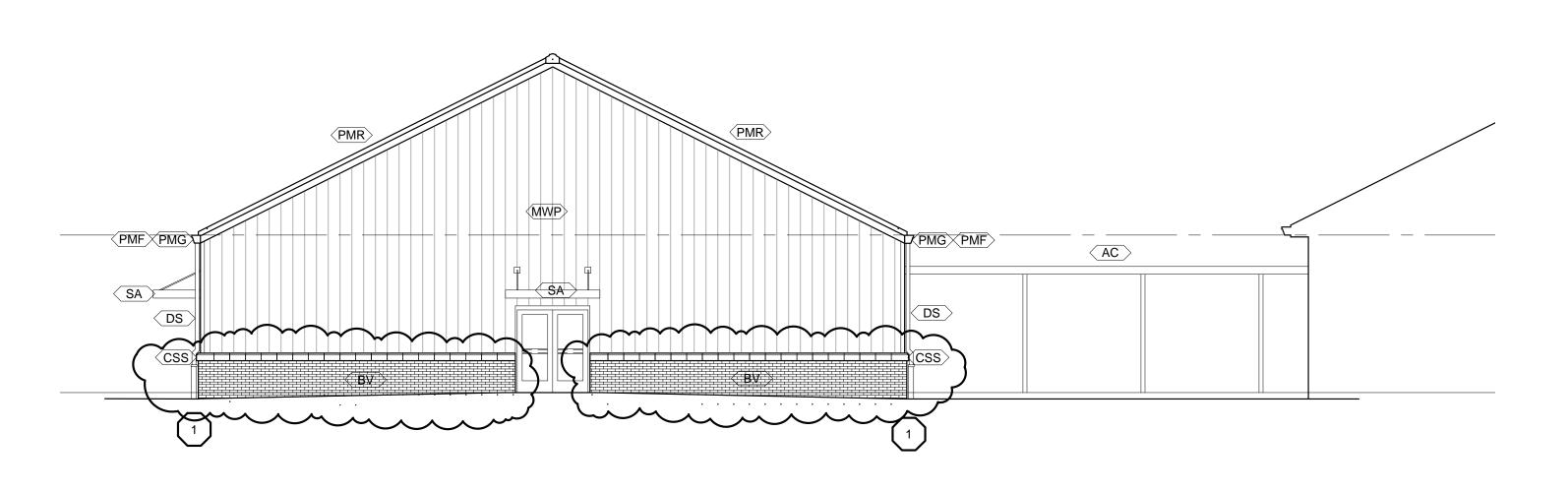
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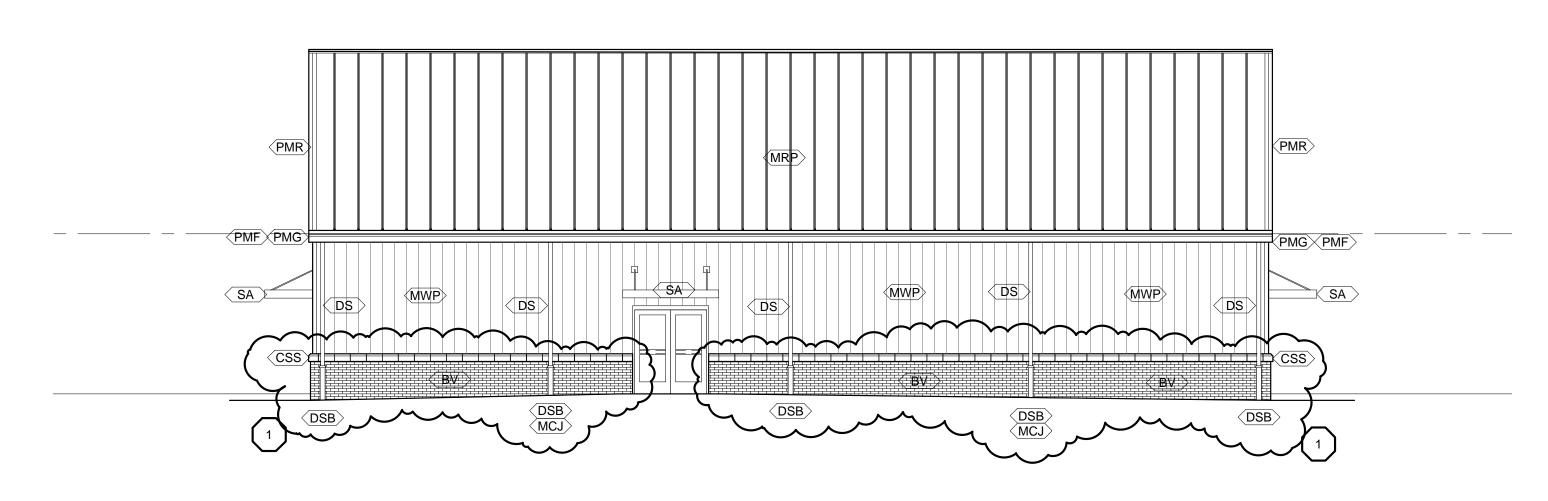
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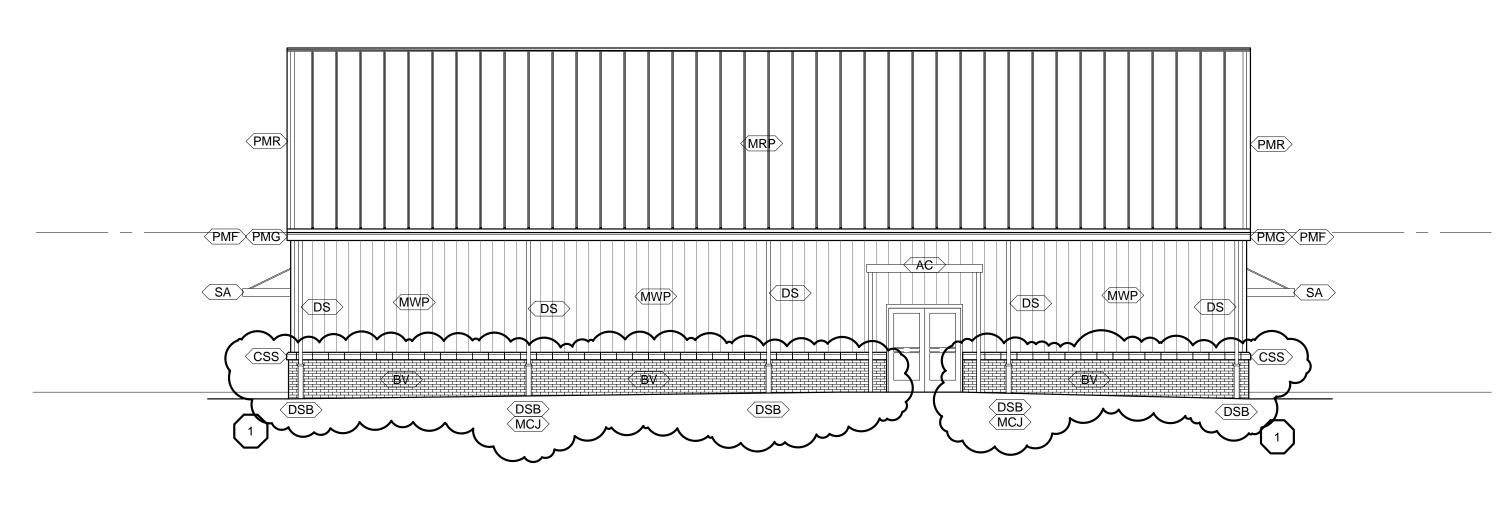
## A EXTERIOR ELEVATION SCALE: 1/16" = 1'-0"



# EXTERIOR ELEVATION SCALE: 1/16" = 1'-0"

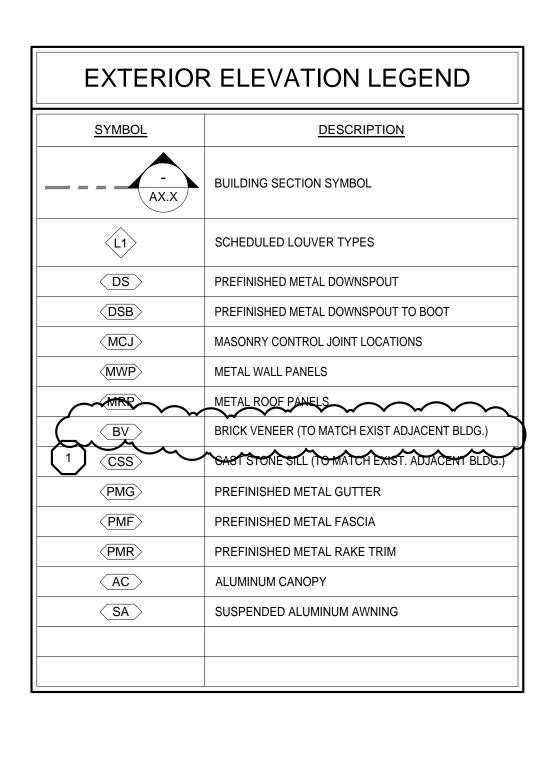


# C EXTERIOR ELEVATION SCALE: 1/16" = 1'-0"



D EXTERIOR ELEVATION

SCALE: 1/16" = 1'-0"



NEW FIELDHOUSE FOR THE JUNIOR VARSIT

AT

CENTRAL HIGH SCHOOL

OKEE, JR, ZY, ALA, CY, ALA, CY

EDUCATION

SHEET TITLE : EXTERIOR ELEVATIONS

MCKEE JOB # : 22-304

DRAWN BY: GAC

DATE: 02.15.2024

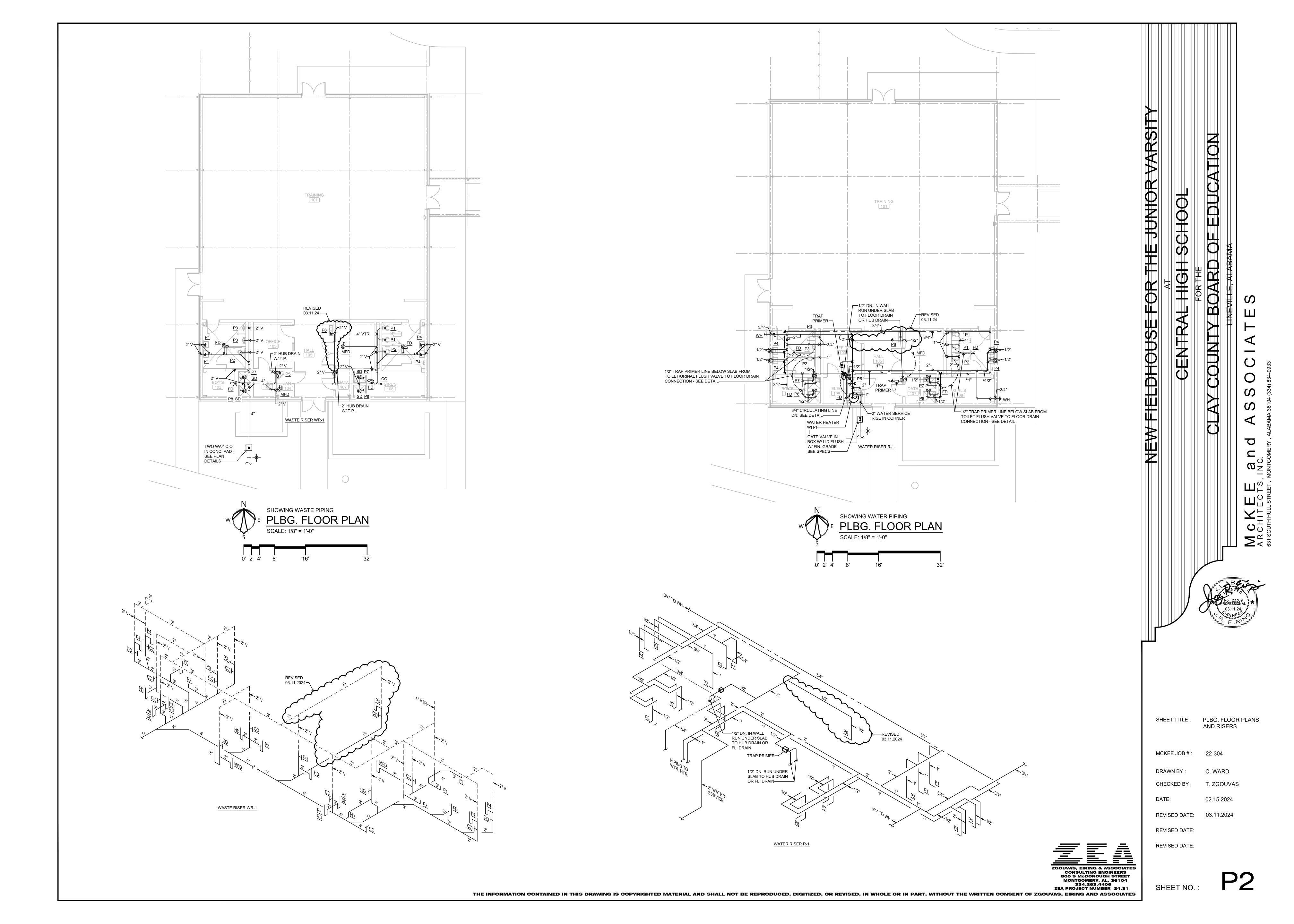
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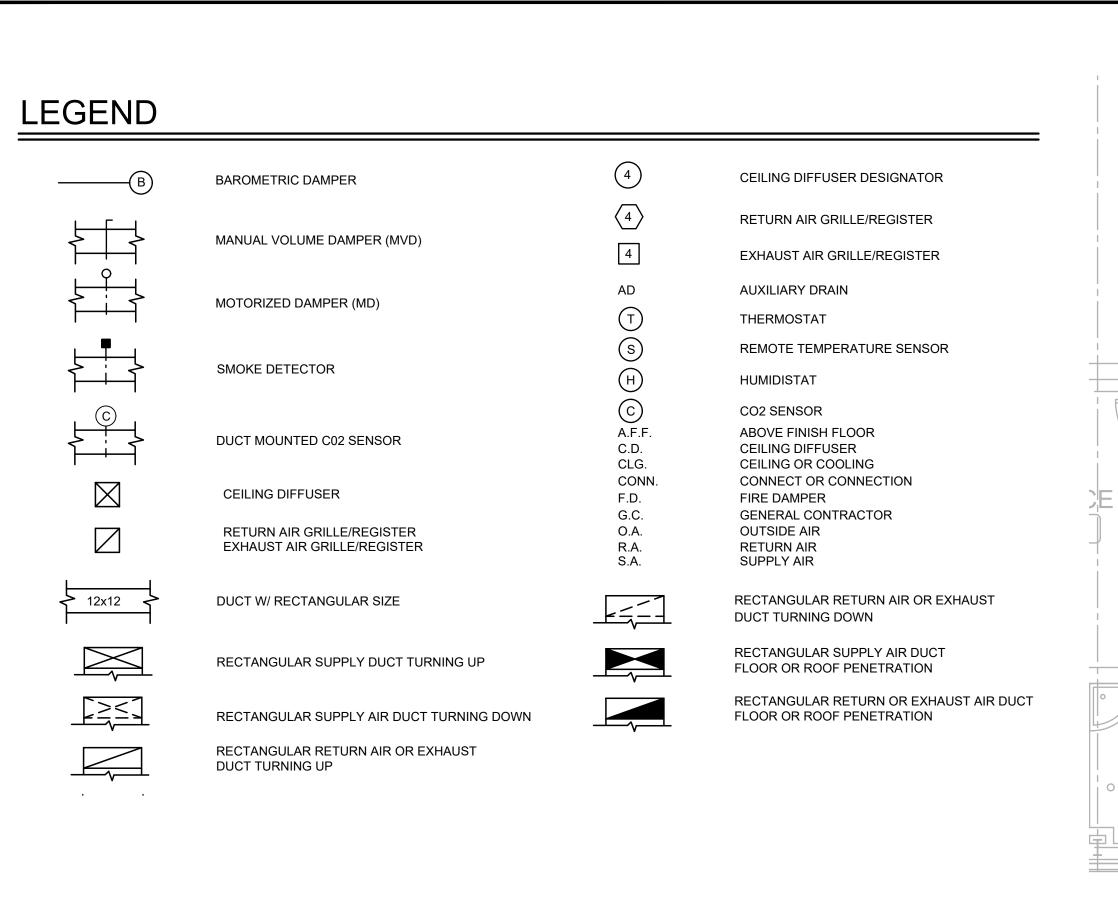
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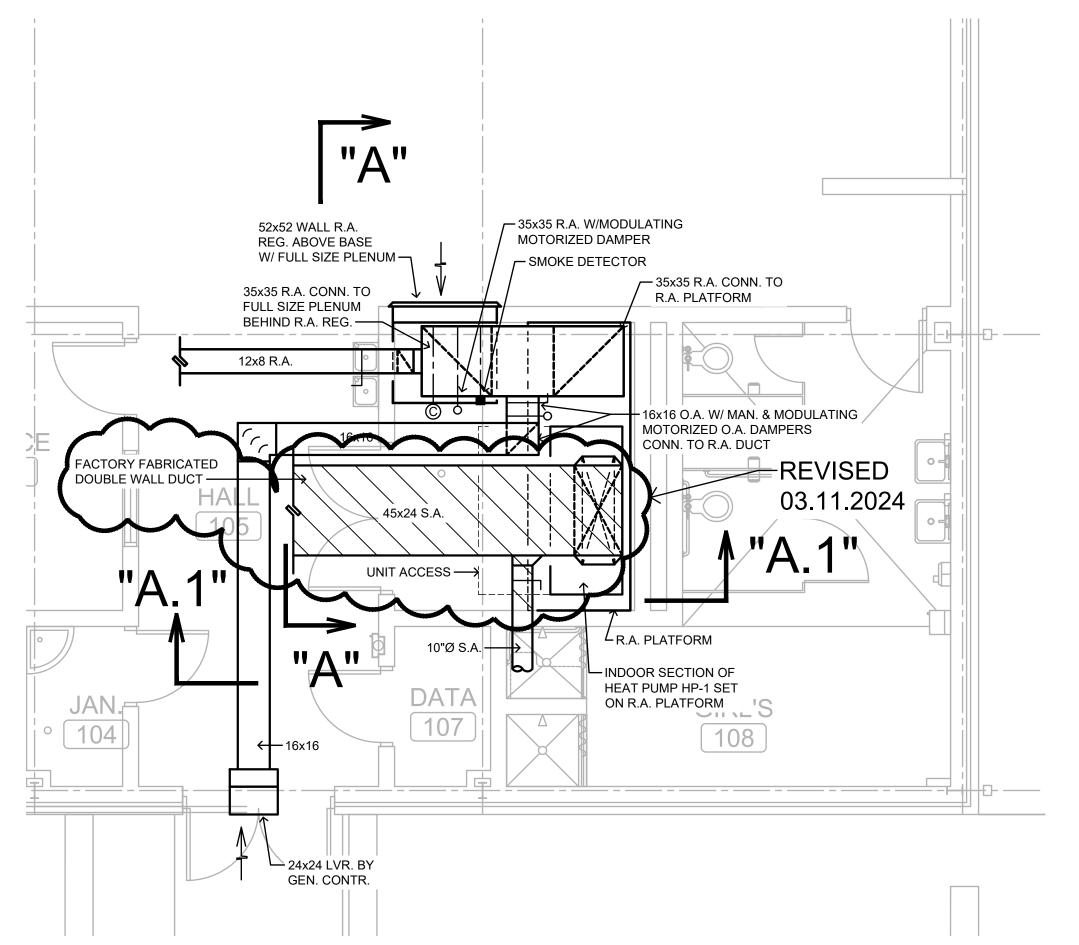
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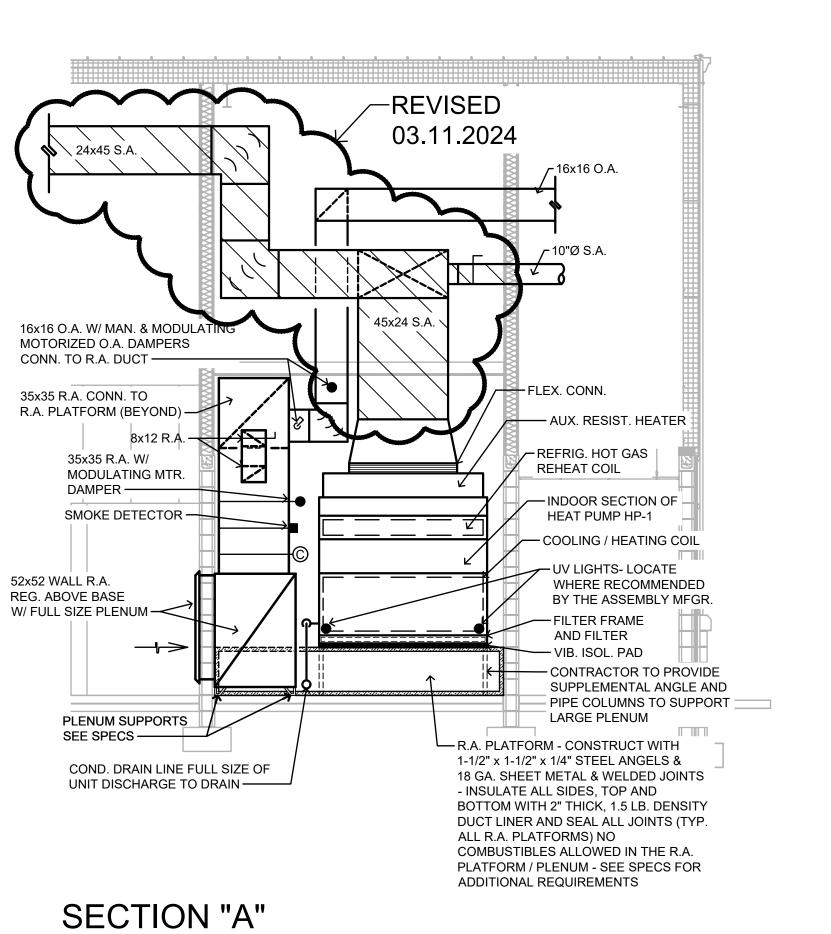
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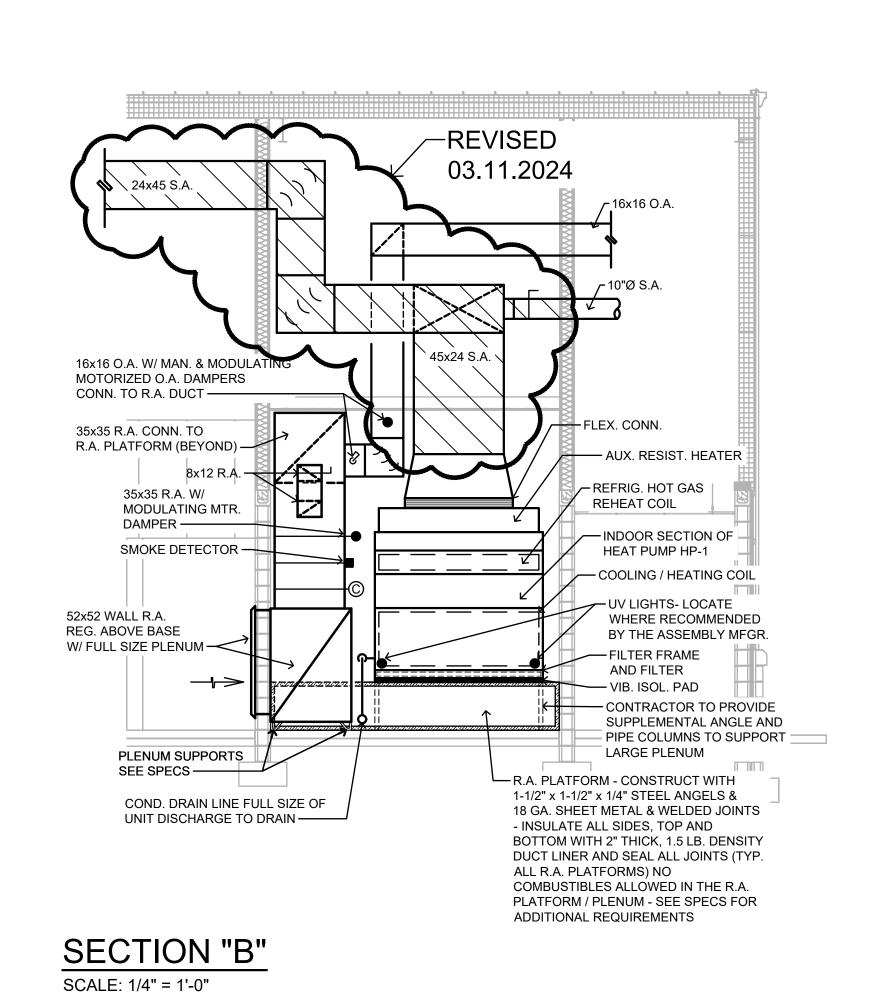


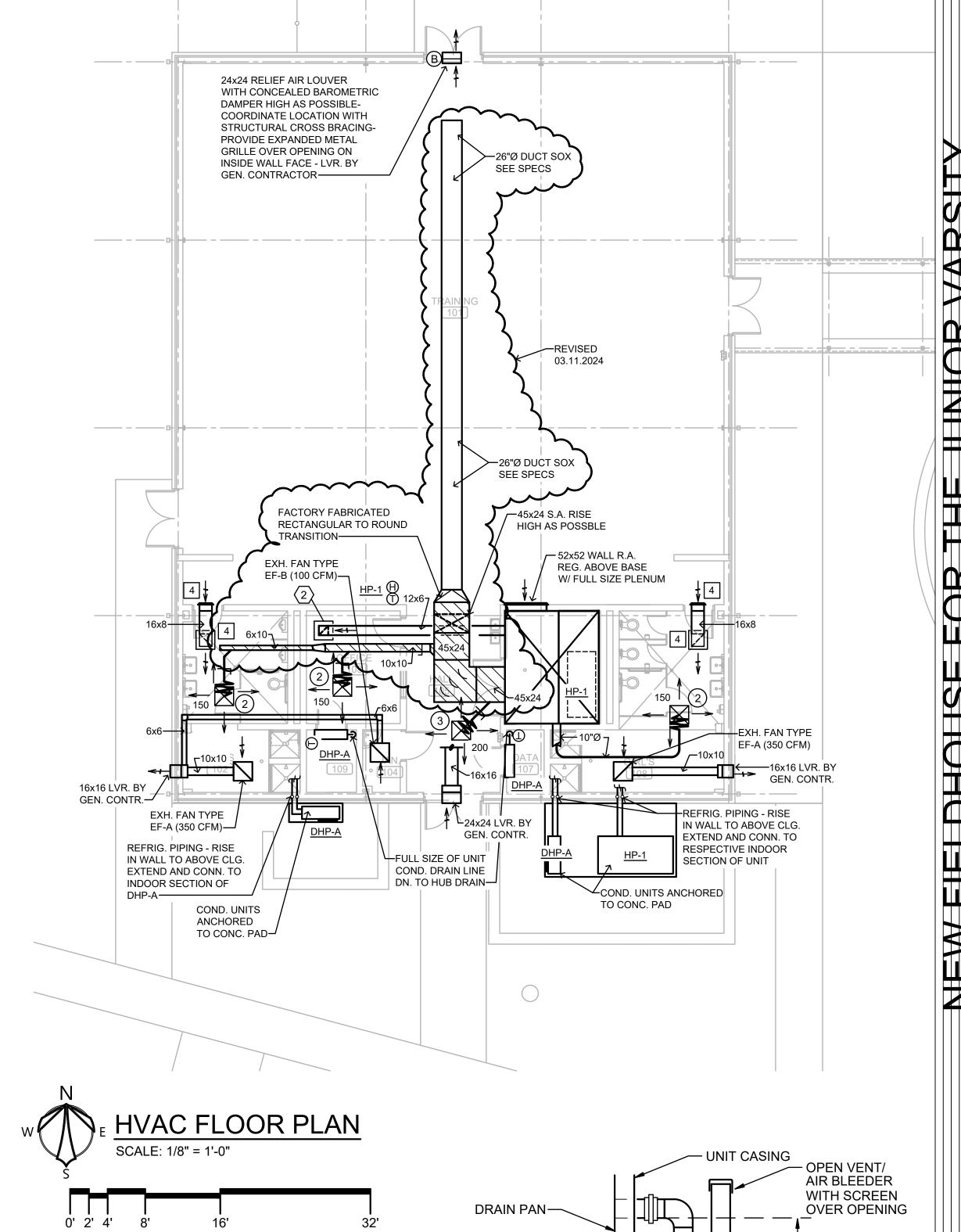


# LARGE SCALE MECH. ROOM 106



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





DRAIN PAN		OPEN VENT/ AIR BLEEDER WITH SCREEN OVER OPENING
FULL SIZE OF DRAIN CONNECTION (MIN.) EXTEND TO FLOOR DRAIN.		A UNION B B
P-Ti	RAP	THREADED PLUG (TYPICAL)————————————————————————————————————

UNIT TYPE	А	В
DRAW-THRU	2" PLUS "X"	"X" PLUS 1"
BLOW-THRU	1" MINIMUM	2X PLUS 1"

WHERE "X" = UNIT STATIC PRESSURE

## TYPICAL AIR HANDLING UNIT

## CONDENSATE DRAIN DETAIL

NOT TO SCALE

1. CONTRACTOR SHALL PROVIDE DRAIN ARRANGEMENT AS REQUIRED BY THE UNIT MANUFACTURER. IN ABSENCE OF THOSE REQUIREMENTS, CONTRACTOR SHALL PROVIDE DRAIN AS DETAILED ABOVE

2. CONTRACTOR SHALL RAISE THE RESPECTIVE UNIT AS REQUIRED TO ALLOW FOR INSTALLATION OF THE DRAIN AS DETAILED ABOVE

3. PROVIDE AN ELECTRIC SWITCH IN THE AUXILIARY CONDENSATE DRAIN LINE ON THE UNIT, THAT CONFORMS TO UL 508, TO SHUT DOWN THE UNIT SHOULD THE LINE BECOME OBSTRUCTED



REVISED DATE: REVISED DATE:

SHEET NO.

MCKEE JOB #: 22-304

CHECKED BY:

REVISED DATE:

**HVAC FLOOR PLANS** 

AND SECTIONS

T. ZGOUVAS

02.15.2024

03.11.2024

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334.263.4406 ZEA PROJECT NUMBER 24.31 THE INFORMATION CONTAINED IN THIS DRAWING IS COPYRIGHTED MATERIAL AND SHALL NOT BE REPRODUCED, DIGITIZED, OR REVISED, IN WHOLE OR IN PART, WITHOUT THE WRITTEN CONSENT OF ZGOUVAS, EIRING AND ASSOCIATES

#### SPLIT SYSTEM HEAT PUMP UNITS SCHEDULE

UNIT NUMBER OR TYPE ————————————————————————————————————	HP-1
MINIMUM TOTAL AIR CFM ———————————————————————————————————	<del></del> 6000
MINIMUM OUTSIDE AIR SETPOINT/MAX. CO2 SETPOINT/MAX. O.A. (ECONOMIZER) CFM —————	770 / 1110 / N/A
APPROXIMATE EXTERNAL STATIC PRESSURE - IN. WATER COLUMN ————————————————————————————————————	60
APPROXIMATE INDOOR FAN MOTOR HP-POWER	——— 3.0HP - 480V., 3PH., 60HZ.
MINIMUM TOTAL COOLING CAPACITY AT A.R.I. CONDITIONS-BTU/HR	180,000
MINIMUM HEATING CAPACITY (COMPRESSOR ONLY) AT 70°F	,
INDOOR TEMPERATURE AND 22°F OUTDOOR TEMPÉRATURE-BTU/HR ————————————————————————————————————	<del></del> 121,000
MINIMUM AUXILIARY ELECTRIC RESISTANCE HEAT - KW ——————————————————————————————————	48.0
NUMBER OF CONTROL STEPS ————————————————————————————————————	—— TWO
POWER ————————————————————————————————————	480V., 3PH., 60HZ.
APPROXIMATE COMPRESSOR MOTOR(S) F.L.A POWER ————————————————————————————————————	——— 26.0 - 480V, 3PH., 60HZ.
APPROXIMATE OUTDOOR SECTION FAN MOTOR(S) F.L.A POWER ————————————————————————————————————	——— 7.0 - 480V., 1PH., 60HZ.
MINIMUM ENERGY EFFICIENCY RATING AT A.H.R.I. CONDITIONS	10.6 EER
MINIMUM COP ———————————————————————————————————	3.2

- ALL INDOOR UNITS SHALL BE FACTORY WIRED FOR SINGLE POINT POWER CONNECTIONS (FAN AND HEATER)
- 480 VOLT, 3 PHASE POWER IS BEING PROVIDED BY ELECTRICAL TO THE INDOOR HEAT PUMP UNIT SECTIONS. UNIT MANUFACTURER SHALL PROVIDE FACTORY INSTALLED RELAYS, TRANSFORMERS, ETC., AS REQUIRED TO OPERATE EQUIPMENT AT POWER REQUIREMENTS SPECIFIED ABOVE
- EER RATINGS BASED ON AHRI 340/360

ADDITIONAL REQUIREMENTS

- COP RATING BASED ON AHRI 340/360 AT 47°F DB/43°F WB
- UNIT SHALL BE PROVIDED WITH A REFRIGERANT HOT GAS REHEAT COIL COMPLETE WITH REFRIGERANT PIPING, PIPE INSULATION, VALVES, CONTROLS, ETC. REQUIRED FOR HUMIDITY CONTROL - PROVIDE MANUAL REFRIGERANT ISOLATION VALVES FOR HOT GAS AND LIQUID LINES - FURNISH FOR APPROVAL DETAILED REFRIGERANT
- 6. UNIT WITH SCHEDULED COOLING CAPACITY GREATER THAN 60 MBH SHALL HAVE MINIMUM OF TWO COMPRESSORS OR 2-STAGES OF COOLING AS REQUIRED BY
- 7. UNIT WITH SCHEDULED COOLING CAPACITIES GREATER THAN 60 MBH SHALL BE PROVIDED WITH TWO SPEED CONTROL OF THE SUPPLY FAN SUCH THAT THE FAN AIRFLOW WILL VARY AS A FUNCTION OF LOAD AS REQUIRED BY ASHRAE 90.1

**OUTDOOR AIR AND EXHAUST CALCULATIONS** 

	Area	Peo/1000SF	#People	CFM/SF	Area CFM	CFM/Person	People CFM	Voz	Ez	#Fixtures	CFM/Fixt	CFM/SF	Min Exhaust	Supply Air	Zp EQ4-
													_		
TRAINING 101	3300	10	33	0.06	198	20	660	858	1				0	3250	0.264
OFFICE103	120	5	1	0.06	8	5	5	16.25	8.0				0	150	0.10833
HALL 105	200	0	0	0.06	12	0	0	12	1				0	200	0.06
BOYS102										5	70		350	200	0
GIRLS108										5	70		350	200	0
Total			34		218		665								
							Cumulative CFM	886.25							
Max"Zp"	0.264														
"Ev"	0.8														
"Vou" Total OSA EQ 4-6	886.25														
Total Building Occupancy	34														
Zone Occupancy	34														
"D" from EQ 4-7	1														
"Vot" Equation 4-8	1107.813														
TOTAL OSA	1107.813														

FLEX. DUCT SADDLE & SUPPORT ASSEMBLY-

INSULATION -

NOT TO SCALE

STAINLESS STEEL

ASSEMBLY -

WORM GEAR CLAMP

TYPICAL DIFFUSER RUN-OUT CONN.

DIFFUSER BOOT/PLENUM CONNECTION DETAIL

1. DIFFUSERS PANELS SHALL BE INSULATED PRIOR TO INSTALLING INTO THE CEILING

2. DO NOT COVER STAINLESS STEEL BAND AND WORM GEAR OPERATOR UNTIL

ENGINEER HAS INSPECTED THE INSTALLATION.

SEE SPECS —

RIGID ROUND METAL

MANUAL VOLUME DAMPER -

2" THICKNESS EXTERNAL

LONG RADIUS METAL ELBOW -

DUCT GAGE AS SPECIFIED FOR

THE ASSOCIATED BRANCH—

MINIMUM 12 GA. GALVANIZED

WIRE - CONN. TO DIFFUSER

TO CONCRETE ABOVE

DIFFUSERS ONLY-

DIFFUSER BOOT—

FOIL BACKED

FSK TAPE---

**HURRICANE TAB AND ATTACH** 

APPLIES TO STORM SHELTER

LAY-IN CLG. TILE & CEILING

SUPPORT SYSTEM - HARD

CEILINGS SIMILAR—

NOT TO SCALE

**CEILING SUSPENSION SYSTEM** 

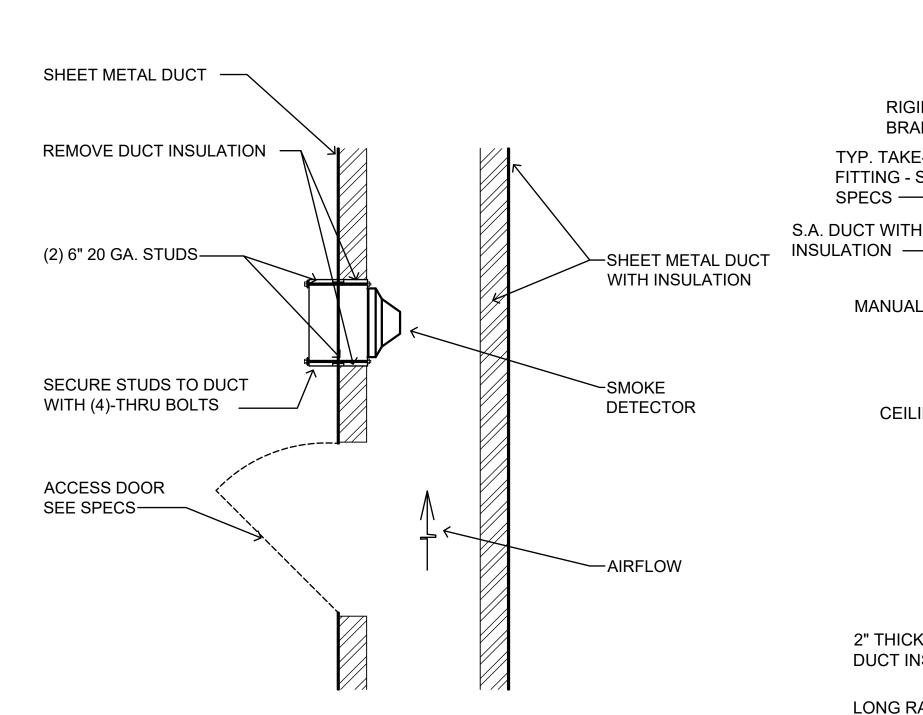
DUCT INSULATION—

BRANCH DUCT —

TYP. TAKE-OFF

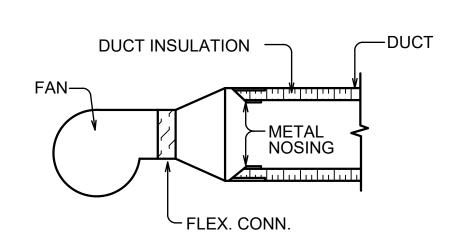
FITTING - SEE

CEILING -



## SMOKE DETECTOR MOUNTING DETAIL

NOT TO SCALE



## TYPICAL DUCT LINER INTERRUPTION DETAIL

#### NOT TO SCALE

NOTE!! THIS DETAIL APPLIES TO FIRE DAMPER INSTALLATION, WHERE DUCTS CONNECT TO FAN SECTION. ANYWHERE BARE DUCT LINER PROTRUDES INTO THE AIRSTREAM, ANY POINT WHERE LINED DUCT IS PRECEDED BY UNLINED DUCT, BARE DUCT INSULATION EDGES THAT ARE EXPOSED IN THE RETURN AIR PLENUM. ETC. - SEE SPECS FOR ADDITIONAL REQUIREMENTS

### FANS SCHEDULE

FAN TYPE —	— EF-A ————————————————————————————————————	— EF-B
C.F.M.	<del></del>	<del></del>
MINIMUM FAN SIZE - INCHES	<u> </u>	<b>—</b> 8.0
APPROX. FAN ROOF/WALL OPENING - INCHES	— N/A —	— N/A
MAXIMUM FAN SPEED - RPM	— 1050 ———————————————————————————————————	<b>—</b> 1050
APPROX. EXTERNAL STATIC PRESSURE - IN. OF WATER	<u> </u>	<b>—</b> .38
MINIMUM FAN MOTOR H.P - POWER	— 235 WATTS - 120V, 1PH., 60 HZ. ———————————————————————————————————	— 84 WATTS - 120V, 1PH., 60HZ.
CONTROL INTERLOCK ————————————————————————————————————	— LIGHTING CIRCUIT ————————————————————————————————————	<ul> <li>LIGHTING CIRCUIT</li> </ul>
DESCRIPTION —	— CEILING MOUNTED, CENTRIFUGAL, DIRECT DRIVEN —	<ul> <li>CEILING MOUNTED, CENTRIFUGAL, DIRECT DRIVEN</li> </ul>

#### WALL MOUNTED DUCTLESS HEAT PUMP UNIT SCHEDULE

UNIT TYPE -	——— DHP-A
MINIMUM TOTAL COOLING CAP. AT A.R.I. CONDITIONS - BTU/HR	9,000
MINIMUM HEATING CAP. (COMPRESSOR ONLY) AT 70°F INDOOR & 47°F AMBIENT - BTU/HR ————	9,600
INDOOR FAN CFM AT HIGH SPEED (WET COIL)	325
INDOOR UNIT MCA - POWER	1.5 A - 208 V., 1 PH., 60 HZ.
OUTDOOR UNIT MCA (COMPRESSOR AND COND. FAN) - POWER	10.0 A - 208 V., 1 PH., 60 HZ.
OUTDOOR UNIT MOP (COMPRESSOR AND COND. FAN) - POWER	· · · · · · · · · · · · · · · · · · ·
MINIMUM HSPF AT AHRI 210/240 CONDS.	13.5
MINIMUM S.E.E.R. AT AHRI 210/240 CONDS ————————————————————————————————————	<del></del> 27.5
BASIS OF DESIGN ————————————————————————————————————	MITSUBISHI MSZ / MUZ

EX	HA	UST/RE	TURN	AIR REGISTER SCH	EDULE	
SYM	BOL	CFM	SIZE -	DESCRIPTION	MUMIXAM	BRANCH
EXH.	R.A.	RANGE	IN. x IN.		NC RATING	DUCT SIZE
1	1	0 - 140	9x9	CEILING EXH. OR RETURN REG.	20	9x6
2	2	141 - 240	12x12	CEILING EXH. OR RETURN REG.	20	12x7
3	3	241 - 340	14x14	CEILING EXH. OR RETURN REG.	20	14x7
4	4	341 - 460	16x16	CEILING EXH. OR RETURN REG.	20	16x9

- 6'-0" MAX. FLEX. DUCT

SEE SPECS

-RIGID DUCT, SADDLE &

LONG RADIUS METAL ELBOW

- CEILING/GRID ASSEMBLY

-SECURE FLEX DUCT TO

**GEAR OPERATOR** 

**ELBOW WITH 3/8" STAINLESS** 

SPECIFIED

**DUCT INSULATION WITH FOIL** 

VAPOR BARRIER ON BACK

OF DIFFUSER FACE

-CEILING DIFFUSER

-FLEXIBLE DUCT - MAX.

LENGTH SHALL BE AS

STEEL CLAMP WITH WORM

WITH INSULATION - SEE

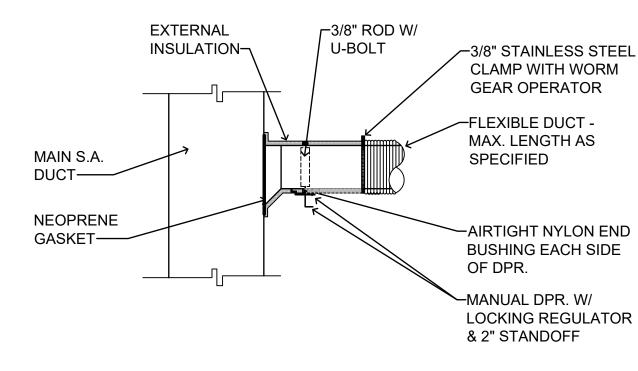
DIFFUSER BOOT/PLENUM

**CONNECTION DETAIL** 

CEILING DIFFUSER

SUPPORT ASSEMBLY-

- 1.) RUNOUTS/BRANCH DUCTS SHALL BE AS SCHEDULED ABOVE UNLESS NOTED OTHERWISE ON THE
- 2.) 8 8 & 9 9 SHALL BE IN INTEGRAL 48x24 METAL CEILING PANEL AS SPECIFIED. ALL OTHERS
- SHALL BE IN INTEGRAL 24x24 METAL CEILING PANEL AS SPECIFIED.
- GRILLES/REGISTERS WITH 1" THICKNESS EXTERNAL DUCT INSULATION WITH CHARACTERISTICS SPECIFIED FOR EXTERNAL DUCT INSULATION

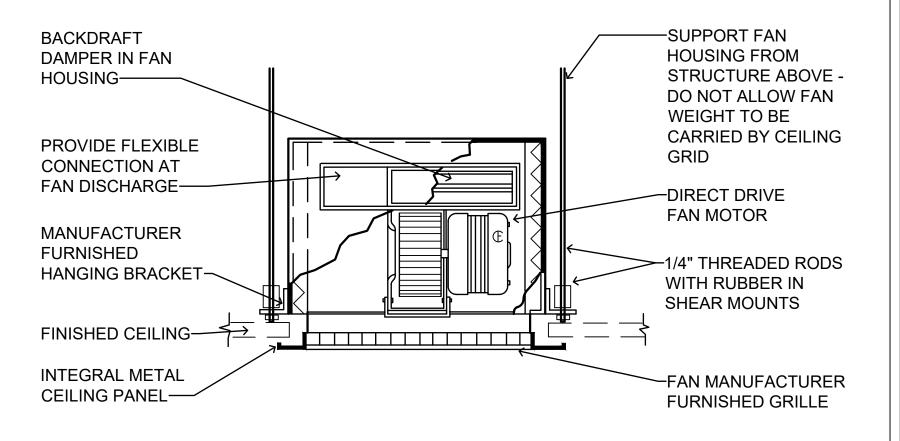


## ROUND BRANCH DUCT TAKE-OFF DETAIL

NOT TO SCALE

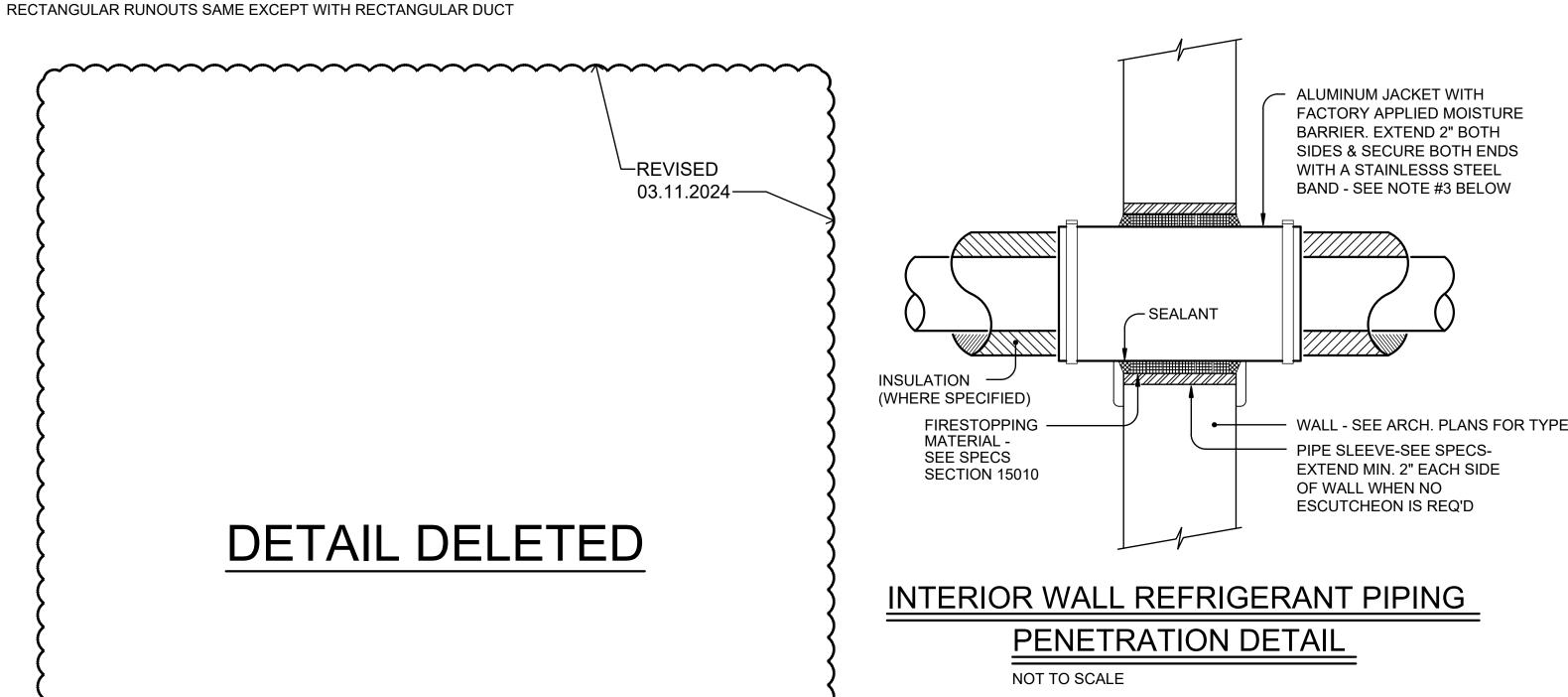
	CEILING DIFFUSER SCHEDULE												
SYMBOL	CFM RANGE	NECK SIZE INCHES	FACE SIZE INCHES	BRANCH DUCT SIZE	MAXIMUM NC VALUE	BASIS OF DESIGN							
1	10 - 95	6" ROUND	24x24	6"Ø	20	TITUS TMS							
2	100 - 180	8" ROUND	24x24	8"Ø	20	TITUS TMS							
3	185 - 270	10" ROUND	24x24	10"Ø	20	TITUS TMS							

2.) CONTRACTOR SHALL INSULATE THE EXTERIOR (BACK SIDE OF DIFFUSER PANEL) WITH 1" THICKNESS EXTERNAL DUCT INSULATION WITH CHARACTERISTICS SPECIFIED FOR EXTERNAL DUCT INSULATION



## CEILING MOUNTED EXHAUST FAN CONN. DETAIL

NO SCALE



REQUIRED.

- NOTES: 1. DETAIL APPLIES TO ALL REFRIGERANT PIPING.
- 2. SEE SPECS FOR SLEEVE REQUIREMENTS 3. OMIT ALUMINUM JACKET IF PIPING IS UNINSULATED
- 4. ONLY ONE PIPE PER SLEEVE ALLOWED. 5. WHERE PIPING IS EXPOSED IN FINISHED AREAS,
- PROVIDE ESCUTCHEONS OVER PENETRATIONS AND DELETE REQUIREMENT FOR EXTENDING SLEEVE 2" ON EACH SIDE. ALUMINUM JACKET IS STILL



**HVAC SCHEDULES AND** 

**DETAILS** 

22-304

T. ZGOUVAS

02.15.2024

MCKEE JOB #:

CHECKED BY:

**REVISED DATE:** 

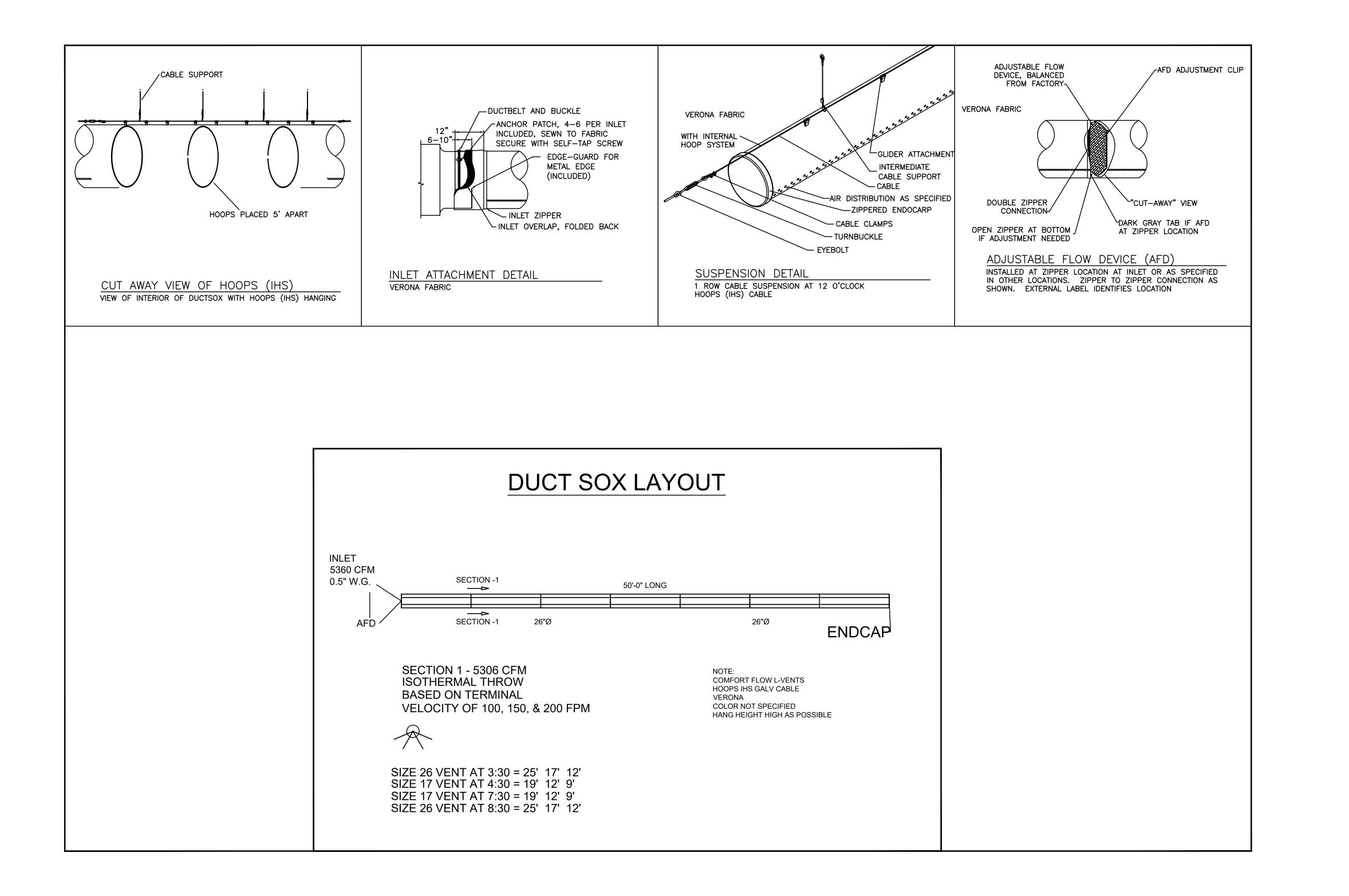
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NEW FIELDHOUSE FOR THE JUNIOR VARSIT

ATION

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SHEET TITLE : HVAC - DUCTSOX DETAILS & DIAGRAM

MCKEE JOB # : 22-304

DRAWN BY: C. WARD

CHECKED BY: T. ZGOUVAS

DATE: 02.15.2024

REVISED DATE: 03.11.2024

REVISED DATE:

REVISED 03.11.2024——

REVISED DATE:

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## 3 DETAIL - TYPICAL OPERATION OF TIME SWITCH/PHOTO-CELL/CONTACTOR E2.1 NO SCALE

## KEYED NOTES

- 1\ POWER SUPPLY 120V, 1PH, 60HZ
- TIME SWITCH ENCLOSURE NEMA 1 UNLESS NOTED OTHERWISE
- CONTACTOR ENCLOSURE NEMA 1 UNLESS NOTED OTHERWISE
- POWER TAP TO PHOTO-CELL IN GRC
- TURN-LOCK PHOTO-CELL, SEE DETAIL

POWER TO CONTACTOR COIL

- SWITCH LEG RETURN IN GRC
- /8 LIGHTING CONTACTOR  $\square$  NL &  $\square$  OL AS FOLLOWS:
- -NEMA ICS 2-211B INDUSTRIAL DUTY TYPE -ELECTRICALLY OPERATED-ELECTRICALLY HELD -RATING AND NUMBER OF POLES INDICATED -CONTACTS SHALL BE SILVER ALLOY, DOUBLE-BREAK, SUITABLE FOR TUNGSTEN, BALLAST LIGHTING, RESISTANCE AND MOTOR LOADS -FUSING FOR CONTROL CIRCUIT
- 9\ GROUND CONDUCTOR BOND TO EACH ENCLOSURE AND INSTALL IN EACH CONDUIT SYSTEM
- 10 DIGITAL TIME SWITCH AS FOLLOWS: -ONE CHANNEL WITH 24 HOUR, SEVEN DAY PROGRAMMING AND SKIP-A-DAY FEATURE -INPUT: 120 VAC, 60HZ -OUTPUT: DPST DRY CONTACTS (UNPOWERED) -HEAVY DUTY CONTACTS RATED 20 AMPERE RESISTIVE AT 120 VAC -TEMPERATURE RANGE: -20 TO +60 DEGREES CELSIUS -RELATIVE HUMIDITY: 0 TO 90% RH -CLOCK ACCURACY: ±2 MINUTES PER YEAR -LED INDICATION OF TIME AND LOAD STATUS -FULL WEEK'S RESERVE POWER (BATTERY BACK-UP)
- PROVIDE NUMBER OF POLES REQUIRED.

## **ROOM CONTROLLER NOTES:**

1. CONTRACTOR SHALL LOCATE ALL ROOM CONTROLLERS ABOVE DOORS IN EACH ROOM 6" ABOVE CEILING GRID. PROVIDE ACCESS PANELS WHERE LOCATED ABOVE HARD CEILINGS OR MOUNT IN UTILITY TYPE ROOMS WHENEVER POSSIBLE. ROOM CONTROLLERS SHOWN ON THIS PLAN IS DIAGRAMMATIC FOR CIRCUITRY. DO NOT USE THESE FOR ACTUAL LOCATIONS. PROVIDE A WHITE PHENOLIC LABLEL WITH 1" BLACK TEXT THAT READS "RC" GLUED ON CEILING GRID UNDER POWER PACK FOR EACH LOCATION FOR FUTURE MAINTENANCE.

## PHOTOCONTROL OF LIGHTING:

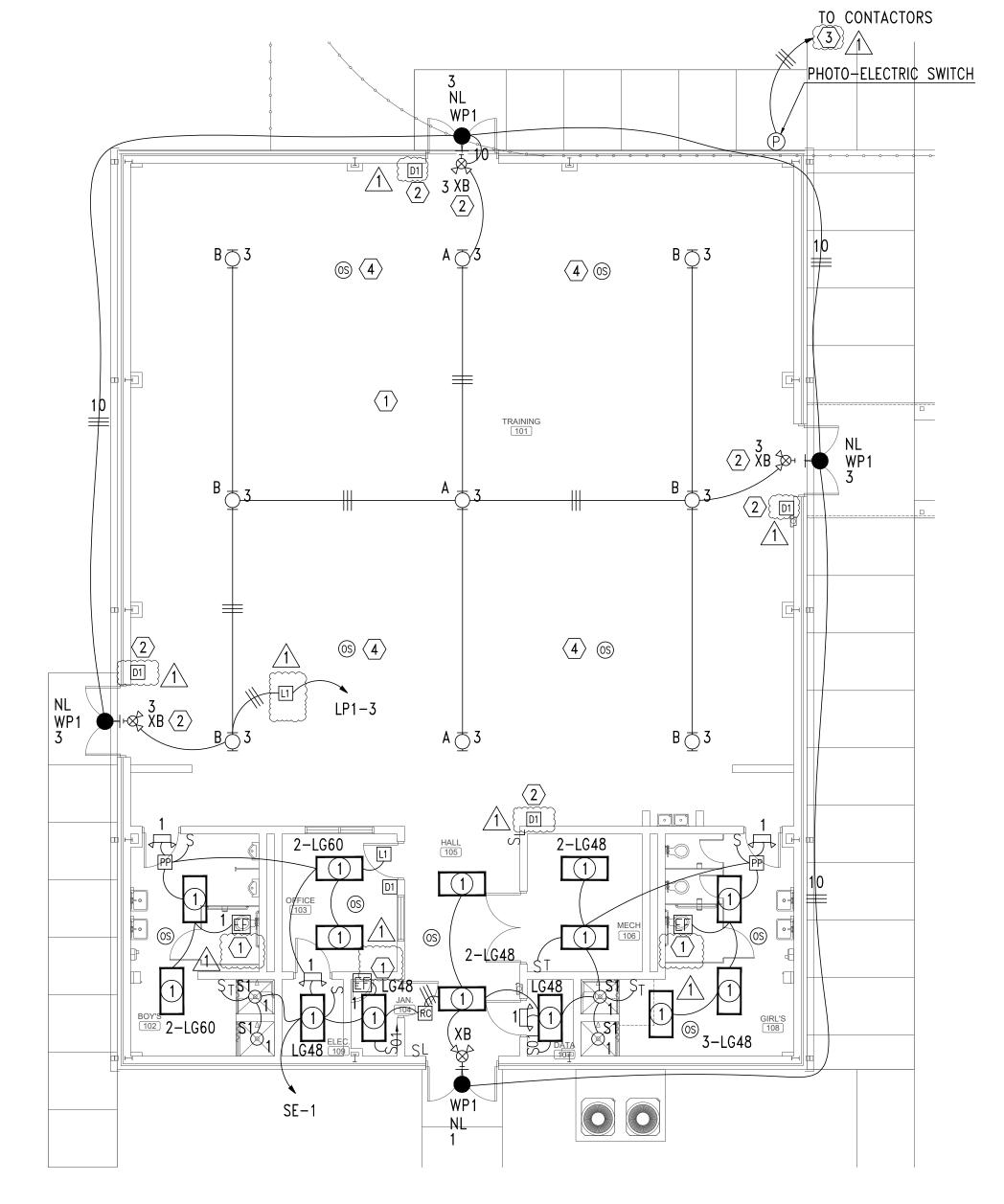
1. PHOTOCONTROL OF LIGHT FIXTURES WILL NOT BE REQUIRED FOR THE AREAS ON THIS PAGE. THE PRIMARY SIDELIGHTED AREA WILL NOT HAVE WATTAGES EXCEEDING 150W.

## **GENERAL NOTES:**

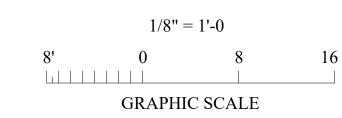
- OCCUPANCY SENSORS SHALL BE VACANCY TYPE WITH DUAL TECHNOLOGY DETECTION AND 20-MINUTE CUTOFF TIME. SPACE. PROVIDE THIS SIZING TO THE ENGINEER DURING SUBMITTAL PHASE FOR APPROVAL. PROVIDE ADDITIONAL OCCUPANCY SENSORS AS REQUIRED TO FULLY COVER ALL SPACES. IF ADDITIONAL OCCUPANCY SENSORS OR ANY WILL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THIS WITH LIGHTING MANUFACTURER PRIOR TO BIDS AND COVER THE COST OF ALL MATERIAL AND LABOR FOR ANY ADDITIONAL OCCUPANCY SENSORS.
- 3. ALL OCCUPANCY SENSORS LOCATIONS ARE APPROXIMATE, REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR EXACT MOUNTING AND SPACING REQUIREMENTS PRIOR TO INSTALLATION.
- 4. ULTRASONIC CEILING MOUNTED OCCUPANCY SENSORS SHALL BE LOCATED A MINIMUM OF SIX (6) FEET FROM HVAC SUPPLY/RETURN VENTS. 5. CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS FOR OCCUPANCY SENSORS,
- FOLLOWING THE MANUFACTURER'S RECOMMENDED PLACEMENT, AND FIELD VERIFICATION OF CIRCUITS WITH RESPECT TO POWER PACK PLACEMENT.
- 6. OCCUPANCY SENSORS MOUNTED OVER DOORWAYS SHALL BE PLACED ONE (1) FOOT INSIDE THRESHOLD. LIGHTING CONTROL SYSTEM IS SPECIFIED AROUND THE HUBBELL AUTOMATION SYSTEM. CONTRACTOR SHALL PROVIDE ALL
- MATERIALS, DEVICES, WIRING, CONNECTIONS, AND PROGRAMMING NEEDED IF ANY OTHER LIGHTING CONTROL SYSTEM SUBMITS FOR APPROVAL AND IS PROVIDED. HUBBELL, COOPER, CRESTON, AND N-LIGHT ARE APPROVED MANUFACTURERS.
- CONTRACTOR SHALL GROUND ALL JUNCTION BOXES CONTAINING LOW VOLTAGE SWITCHES OR ANY OTHER TYPE LIGHTING
- CONTROL DEVICE WITH #12 GRD. 10. SEE POWER PLANS FOR PANEL LOCATIONS.
- 11. PROVIDE DEDICATED NEUTRALS FOR EACH MULTIWIRE HOMERUN PER NEC.
- 12. COORDINATE WITH LIGHTING CONTROL DETAILS FOR ADDITIONAL REQUIREMENTS.

## SHEET NOTES:

- 1 PROVIDE INTERCONNECTING RELAY TRANSFORMER TO CONTROL 120V EXHAUST FAN ON/OFF BY THE 277 VOLT LIGHTING CIRCUIT IN THIS ROOM. TRANSFORMER SHALL BE 277V INPUT, 120V OUTPUT, 1,000 VA.
- (2) PROVIDE WIREGUARD FOR ALL LIGHTS, EXIT SIGNS, EMERGENCY WALL PACKS, AND SWITCHES IN THIS AREA.
- 3 ROUTE THRU CONTACTOR ARRANGEMENT. "NL" DESIGNATES LIGHTS THAT SHALL BE TURNED ON FROM DUSK TO DAWN. "OL" DESIGNATES LIGHTS ON TURNED ON AT DUCK AND TURNED OFF BY TIMECLOCK AT 12 MIDNIGHT.
- 4 PROVIDE HIGH BAY TYPE OCCUPANCY SENSOR AS NEEDED.









NEW

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SHEET TITLE: FLOOR PLAN - LIGHTING

MCKEE JOB #: 22-304

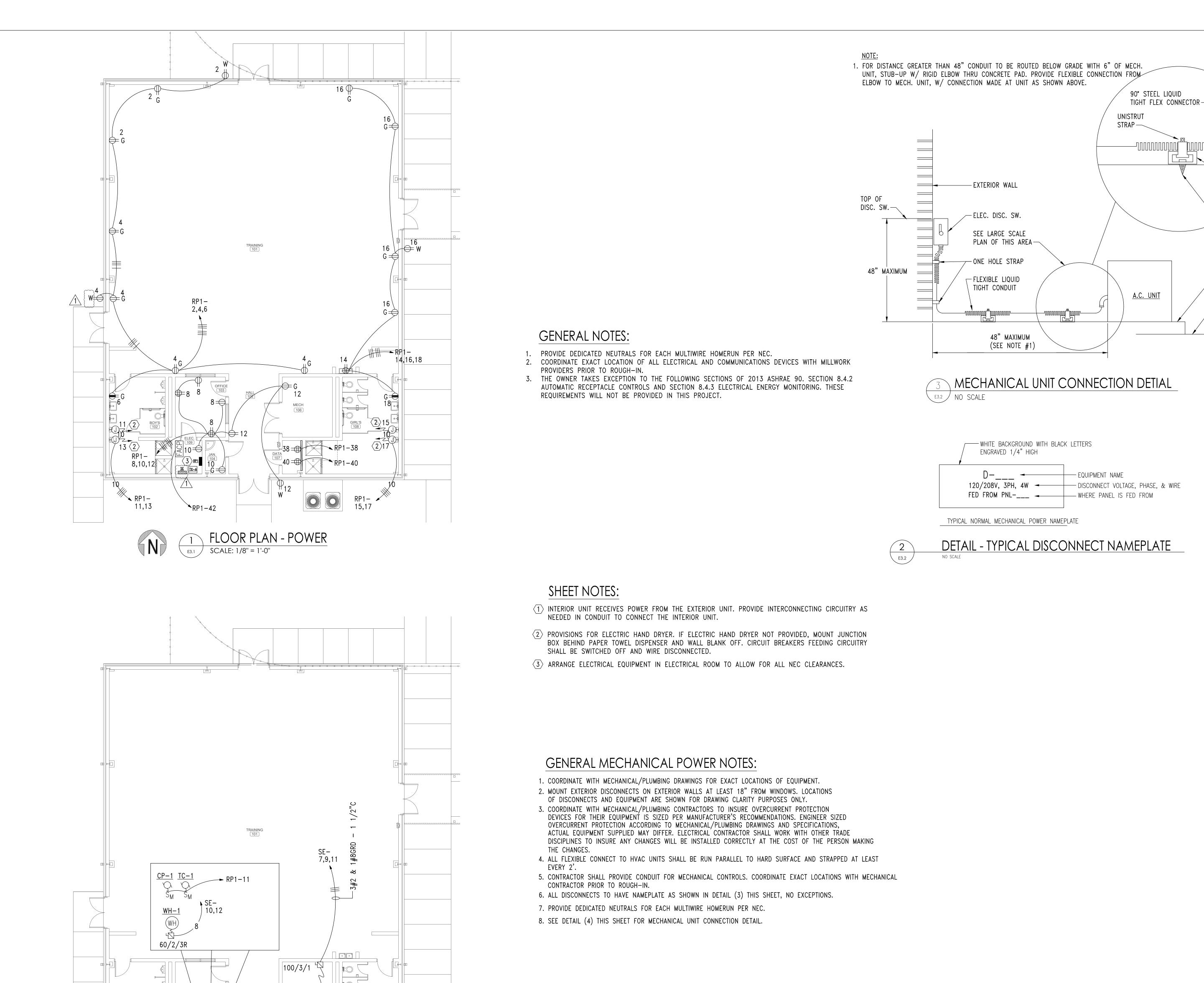
J. TILLERY DRAWN BY 02.15.2024

REVISED DATE: \ 03-15-2024

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**REVISED DATE:** 

SHEET NO.: E2.



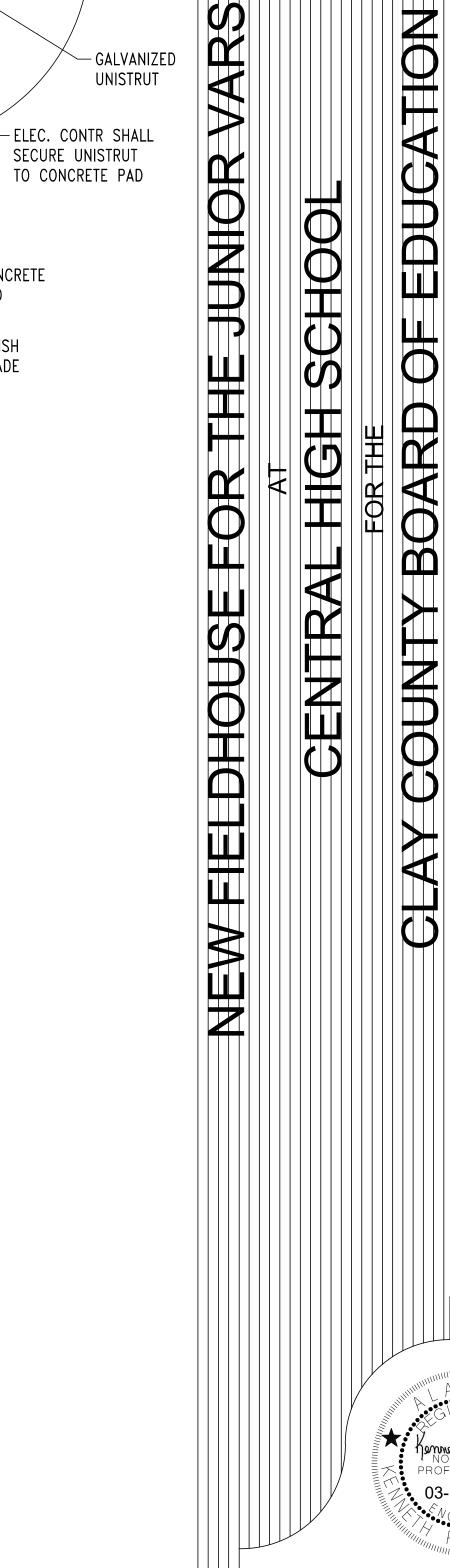
GIRL'S

<sup>|</sup> 3#4 & 1#8GRD − 1 1/4"C

30/2/3R U.L.S.E. ODHP-A1 200/3/3R

FLOOR PLAN - MECHANICAL POWER

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



D

UNIT

CONCRETE

PAD

– FINISH GRADE UNISTRUT

SHEET TITLE: FLOOR PLAN - POWER

MCKEE JOB #: 22-304

J. TILLERY DRAWN BY 02.15.2024

REVISED DATE: \( \) 03-15-2024 \( \frac{1}{1} \) REVISED DATE:

REVISED DATE:

1/8" = 1'-0

**GRAPHIC SCALE** 

GM Gunn & Associates, P.C.
Consulting Engineers

3102 Highway 14 Millbrook, AL 36054 Tel: 334.285.1273

1200 Providence Park, Suite 200 Birmingham, AL 35242 GA#24-034

SHEET NO.: E3.

## COMMUNICATIONS RISER DIAGRAM SHEET NOTES:

- (1) CONTRACTOR SHALL PROVIDE A 6 STRAND LOOSE TUBE GEL FILLED OUTSIDE PLANT RATED OS2 SINGLE MODE FIBER OPTIC CABLE INTERCONNECTING THE EXISTING COMM RACK TO THE NEW IDF-FH. PROVIDE FIBER OPTIC PATCH EQUIPMENT IN EXISTING COMMUNICATIONS RACK TO INTERCONNECT THE TWO BUILDINGS BY FIBER. PROVIDE "LC" TYPE FIBER CONNECTIONS. VISIT SITE PRIOR TO BIDS AND ADJUST ROUTING AND CABLING LENGTHS ACCORDINGLY.
- $\langle 2 \rangle$  CONTRACTOR SHALL ROUTE FIBER IN CONDUIT AND J-HOOK SYSTEM AS REQUIRED.
- 3 PROVIDE FIBER OPTIC PATCH PANEL AS NEEDED AT EXISTING RACK.
- $\langle 4 \rangle$  PROVIDE SINGLE GANG JUNCTION BOX WITH CAT6-RJ45 MALE.

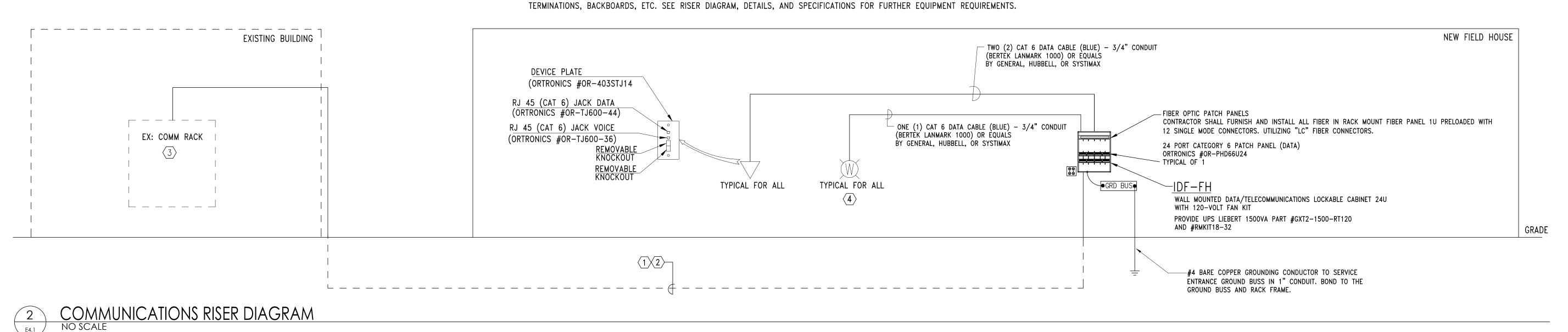
#### COMMUNICATION NOTES:

- 1. PROVIDE 5/8" STRUT ASSEMBLY AT TOP AND BOTTOM OF TBB TO SUPPORT ALL CONDUITS TERMINATING AT BACKBOARD.
- 2. TBB SHALL BE 3/4" PLYWOOD EXTERIOR RATED AND CUT TO COVER ALL WALLS OR AS INDICATED. PAINT WITH TWO COATS OF FIRE RETARDENT PAINT. MOUNT 2' AFF.
- 3. PROVIDE A PLASTIC BUSHING OR PROTECTIVE COLLAR AT EACH CONDUIT TERMINATION, INCLUDING TERMINATIONS ABOVE THE CEILING, AT CABLE TRAY, OR AT TBB.
- 4. ALL CONDUIT TERMINATIONS SHOULD BE DONE EVENLY AT THE TOP AND BOTTOM OF TBB. TERMINATIONS SHALL BE MADE WITHIN THE FIRST FEW INCHES OF THE TBB.
- 5. SEAL ALL CONDUITS FROM THE EXTERIOR WITH A SEALING COMPOUND, ONCE ALL CABLING HAS BEEN INSTALLED.
- 6. PROVIDE GROUND BUS FOR EACH TBB. SEE GROUND BUS INSTALLATION DETAIL.
- 7. PROVIDE ALL CONDUITS WITH PULLWIRES. 8. STENCIL ALL JUNCTION BOX COVERS ABOVE THE CEILING WITH 2" LETTERS THAT READ "COMM".
- 9. ELECTRICAL CONTRACTOR WILL BE RESPONSIABLE FOR ALL RACEWAYS, CONDUIT, LB'S, CABLING, PATCH PANELS,

- 1. CONTRACTOR SHALL PROVIDE ONE (1) CAT 6 PATCH CORD IN CBB FOR EACH HORIZONTAL COPPER CABLE
- INSTALLED IN CONTRACT. PROVIDE 100% OF THE PATCH CORDS AS ONE FOOT IN LENGTH. 2. IN ADDITION TO THE CABLES IN NOTE 1, PROVIDE AN EXTRA STOCK OF TEN (10) CAT 6 PATCH CORDS OF TWO
- FEET IN LENGTH. 3. IN ADDITION TO THE CABLES IN NOTE 1, PROVIDE AN EXTRA STOCK OF TEN (10) CAT 6 PATCH CORDS OF FOUR
- FEET IN LENGTH. 4. HUBBELL AND ORTRONIX WILL BE ACCEPTED EQUALS ON ALL COMMUNICATIONS EQUIPMENT. OTHERS MAY BE
- \*ALL WIRELESS ACCESS CABLES SHALL BE TERMINATED ON WIRELESS ACCESS PATCH PANELS

\*ALL DATA CABLES SHALL BE TERMINATED ON DATA PATCH PANELS \*ALL FIBER OPTIC CONNECTIONS SHALL BE "LC" TYPE

ACCEPTED PENDING PRIOR APPROVAL



### GENERAL NOTES:

. COORDINATE AND MOUNT COMMUNICATIONS OUTLETS WITHIN 6" OF CORRESPONDING POWER RECEPTACLE. 2. COORDINATE WITH RISER DIAGRAMS FOR ADDITIONAL REQUIREMENTS FOR COMMUNICATIONS AND FIRE ALARM SYSTEMS.

### SHEET NOTES:

- 1> PROVIDE WIREGUARDS FOR FOR ALL FIRE ALARM, SPEAKERS AND WIRELESS ACCESS POINTS IN THIS AREA
- $\langle 2 \rangle$  MOUNT OUTLET AT 12' AFF FOR WALL MOUNTED WIRELESS ACCESS POINTS.

1/8" = 1'-0

GM Gunn & Associates, P.C.
Consulting Engineers 3102 Highway 14 Millbrook, AL 36054 Tel: 334.285.1273

1200 Providence Park, Suite 200 Birmingham, AL 35242

GA#24-034

**GRAPHIC SCALE** 

SHEET NO.: E4.

REVISED DATE: \( \) 03-15-2024

SHEET TITLE: FLOOR PLAN - POWER

J. TILLERY

02.15.2024

MCKEE JOB #: 22-304

DRAWN BY

REVISED DATE:

REVISED DATE:

NOIL

FLOOR PLAN - AUXILIARY

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

- 1. THE FIRE ALARM SYSTEM SHALL BE A COMPLETE SUPERVISED DETECTION AND ALARM SYSTEM. PROVIDE PRIMARY POWER CIRCUITS AND ALARM NOTIFICATION AND INITIATING CIRCUITS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
- 2. INSTALLATION SHALL COMPLY WITH THE ADA, NEC, NFPA, AND UL.
- 3. ALL SYSTEM COMPONENTS, ENCLOSURES, FRAMES, SURGE ARRESTORS, ETC., SHALL BE GROUNDED.
- 4. THE FIRE ALARM WIRING SYSTEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS FOR CLASS "B" SYSTEM AND AS FOLLOWS:

  PRIMARY POWER 120V AC
  - NOTIFICATION APPLIANCE CIRCUITS (NAC) 24V DC SIGNALING LINE CIRCUIT (SLC) 24V DC
- 5. ALL EQUIPMENT AND DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, APPLICABLE STANDARDS AND ACCESSIBLE FOR VISUAL INSPECTION AND MAINTENANCE. WIRING DIAGRAMS SHALL BE SECURED FROM THE SYSTEM MANUFACTURER AND INSTALLED ACCORDINGLY TO MEET THE SPECIFIED TYPES.
- 6. A "CERTIFICATE OF COMPLETION" IN ACCORDANCE WITH NFPA 72 SHALL BE FURNISHED PRIOR TO FINAL ACCEPTANCE.
- 7. CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND PROVIDING ALL FIRE ALARM DEVICE QUANTITIES FROM AUXILIARY DRAWINGS. DO NOT USE THIS RISER FOR DEVICE COUNTS.
- 8. THE CONTRACTOR OR THEIR FIRE ALARM SYSTEM VENDOR SHALL PROVIDE AUDIBILITY CALCULATIONS INDICATING COMPLIANCE WITH ALL APPLICABLE PROVISIONS OF NFPA 72 AND THE IBC. THE CONTRACT DRAWINGS INDICATE A MINIMUM DESIGN REQUIRED TO COMPLY WITH APPLICABLE CODES. HOWEVER, SINCE DEVICES VARY FROM MANUFACTURER TO MANUFACTURER THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ANY/ALL ADDITIONAL DEVICES AS REQUIRED TO PROVIDE AUDIBILITY AND VISIBILITY LEVELS THAT COMPLY WITH APPLICABLE SECTIONS OF NFPA 72 AND IBC.

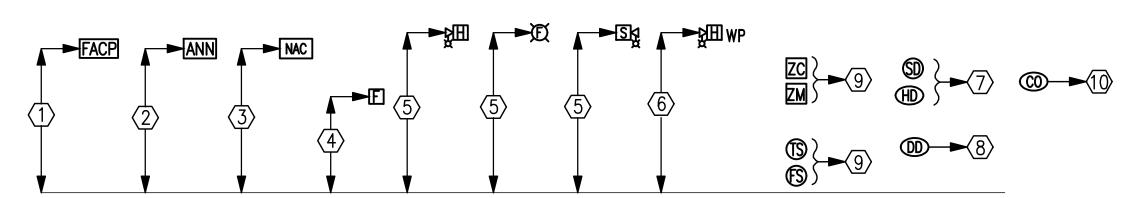
- 9. PROVIDE ADDITIONAL 100% SPARE CAPACITY IN FIRE ALARM CONTROL PANEL FOR FUTURE USE.
- 10. PROVIDE EMERGENCY BATTERIES CAPABLE OF RUNNING THE COMPLETE FIRE ALARM SYSTEM IN ALARM MODE, PER NFPA GUIDELINES AT A MINUMUM. BATTERIES SHALL BE SIZED TO HANDLE THE FUTURE CAPACITY.
- 11. THE FIRE ALARM SYSTEM SHALL BE MONITORED BY AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72. PROVIDE IP DIALER FOR MONITORING OF THE FIRE ALARM SYSTEM.
- 12. ALL WIRING TO BE IN CONDUIT SIZED IN ACCORDANCE WITH NEC WITH A MINIMUM SIZE OF 3/4".
  PROVIDE ALL FIRE ALARM CONDUIT WITH 3" WIDE RED STRIPE EVERY 10' FOR LENGTH OF RUN.
- 13. PROVIDE ALL FIRE ALARM JUNCTION BOXES WITH RED COVER, STENCIL THE LETTERS "FA" IN 2" HIGH LETTERS ON EACH BOX COVER.
- 14. FIRE ALARM SYSTEM PROVIDER IS RESPONSIBLE FOR PROVIDING SIGNAL LINE BOOSTERS
- AS REQUIRED FOR SYSTEM TO FUNCTION PROPERLY.

  15. IN ADDITION TO THE DEVICES INDICATED ON THE PLANS THE CONTRACTOR SHALL PROVIDE A SMOKE DETECTOR LOCATED WITHIN 5 FEET OF EACH FIRE ALARM NOTIFICATION APPLIANCE PANEL.
- 16. CONTRACTOR SHALL PROVIDE ALL ADDITIONAL 120 VOLT CIRCUITS NEEDED TO MAKE THE FIRE ALARM SYSTEM A COMPLETE FUNCTIONAL SYSTEM.
- 17. PROVIDE VOICE EVACUATION PER IBC SECTION 907 AND ALL SECTIONS OF THE
- INTERNATIONAL FIRE CODE.

  18. "CLG" DENOTES A CEILING MOUNTED DEVICE AND "WP' DENOTES WEATHERPROOF DEVICE..
- 19. SEE STANDARD MOUNTING HEIGHT INSTRUCTIONS ON DETAILS (2) THIS SHEET.
- 20. CONTRACTOR OR THEIR FIRE ALARM SYSTEM VENDOR SHALL PROVIDE SMOKE DETECTOR REPORTS AT THE FINAL TESTING OF THE FIRE ALARM SYSTEM TO SHOW THAT ALL SMOKE DETECTORS ARE LESS THAN 10% DIRTY. ANY SMOKE DETECTOR GREATER THAN 10% DIRTY SHALL BE CLEANED OR REPLACED UNTIL VALUE IS LESS THAN 10%.

- FIRE ALARM MOUNTING HEIGHTS/INSTRUCTIONS NOTES:
- 1 MOUNT FIRE ALARM ENCLOSURE WITH THE TOP OF THE CABINET 72" ABOVE THE FINISHED FLOOR OR CENTER THE CABINET AT 63", WHICHEVER IS LOWER.
- 2 MOUNT ANNUNCIATOR WITH THE TOP OF THE PANEL 72" ABOVE THE FINISHED FLOOR OR CENTER OF THE PANEL AT 63", WHICHEVER IS LOWER. FLUSH MOUNT ANNUNCIATOR UNLESS OTHERWISE NOTED.
- REMOTE POWER SUPPLIES AND AUXILIARY FIRE ALARM PANELS. LOCATE THE PANEL OR CABINET WITH THE TOP OF THE PANEL 72" ABOVE THE FINISHED FLOOR OR CENTER THE PANEL AT 63", WHICHEVER IS LOWER. DO NOT LOCATE THESE PANELS ABOVE CEILINGS OR WHERE INACCESSIBLE BY A PERSON STANDING ON THE FINISHED FLOOR OF THE SPACE.
- 4 MOUNT STATIONS SO THAT THEIR OPERATING HANDLES ARE BETWEEN 42" AND 48" ABOVE THE FINISHED FLOOR. DO NOT USE BRICK OR BLOCK COURSES AS YOUR ONLY GUIDE. CUT BRICK OR BLOCK TO ACHIEVE PROPER HANDLE HEIGHT.
- ALL WALL MOUNTED AUDIO/VISUAL DEVICES SHALL BE MOUNTED SO THE ENTIRE LENS IS BETWEEN 80" AND 96" ABOVE THE FINISHED FLOOR. WHERE LOW CEILING HEIGHTS DO NOT PERMIT MOUNTING AT A MINIMUM OF 80" AFF, VISIBLE APPLIANCES SHALL BE MOUNTED WITHIN 6" OF THE CEILING. DO NOT USE BRICK OR BLOCK COURSES AS YOUR ONLY GUIDE. CUT BRICK OR BLOCK TO ACHIEVE PROPER LENS HEIGHT.
- WEATHER PROOF APPLIANCES INSTALLED OUTDOORS SHALL BE UL LISTED FOR OUTDOOR USE. MOUNT SO THE ENTIRE LENS IS BETWEEN 80" AND 96" ABOVE FINISHED FLOOR. FOR WEATHERPROOF APPLIANCES MOUNTED AT FIRE DEPARTMENT CONNECTION (FDC), COORDINATE WITH LOCAL AUTHORITY HAVING JURISDICTION PRIOR TO ROUGH—IN FOR MOUNTING HEIGHT.
- SMOKE AND HEAT DETECTOR HEADS SHALL NOT BE INSTALLED UNTIL AFTER CONSTRUCTION CLEAN-UP IS COMPLETED. IF DETECTOR HEADS ARE INSTALLED PRIOR TO CONSTRUCTION CLEAN-UP, PROTECTIVE COVERS MUST BE IN PLACE TO PROTECT DETECTOR HEADS FROM PARTICULATE DAMAGE. DETECTORS LOCATED ON THE WALL SHALL HAVE THE TOP OF THE DETECTOR AT LEAST 4" AND NOT MORE THAN 12" BELOW THE CEILING. INSTALL SMOKE DETECTORS NO CLOSER THAN 3 FEET FROM AIR HANDLING SUPPLY AIR DIFFUSERS OR RETURN AIR OPENINGS. LOCATE DETECTORS NO CLOSER THAN 12" FROM ANY PART OF A LIGHTING FIXTURE.
- DUCT SMOKE DETECTOR HEADS SHALL NOT BE INSTALLED UNTIL AFTER CONSTRUCTION CLEAN—UP IS COMPLETED. DETECTOR HEADS INSTALLED PRIOR TO CONSTRUCTION CLEAN—UP SHALL BE REPLACED. DUCT DETECTORS ARE TO BE PROVIDED BY THE FIRE ALARM CONTRACTOR AND INSTALLED BY THE MECHANICAL CONTRACTOR.
- ADDRESSABLE MODULES SHALL BE INSTALLED LESS THAN 3-FEET FROM THE DEVICE BEING CONTROLLED OR MONITORED. ORIENT THE DEVICE MOUNTING FOR BEST MAINTENANCE ACCESS. LABEL ALL ADDRESSABLE MODULES AS TO THEIR FUNCTION.

  (10) MOUNT WITHIN 5'-0" OF FURNACE DISCHARGE REGISTER.



2 STANDARD MOUNTING HEIGHTS/INSTRUCTIONS

E6.1 NO

## SHEET NOTES:

- 1 PROVIDE NETWORKING CARDS AND ALL OTHER LABOR/MATERIAL TO HAVE BOTH FIRE ALARM SYSTEMS FUNCTION AS ONE SYSTEM.
- PROVIDE 2" CONDUIT AND FIBER OPTIC CONNECTION BETWEEN EXISTING NOTIFIER FIRE ALARM CONTROL PANEL AND NEW FIRE ALARM CONTROL PANEL IN NEW BUILDING. PROVIDE ALL CONNECTORS, JUNCTION FIBER CABLES, TERMINATIONS, NETWORK CARDS, ETC. REQUIRED FOR FULL DUPLEX FIBER COMMUNICATIONS BETWEEN PANELS.
- PROVIDE SURGE SUPPRESSION ON ON ALL INCOMING AND OUTGOING CABLES WHERE THEY ENTER OR EXIT THE FACILITY. SURGE SUPPRESSION WILL BE REQUIRED FOR EACH CABLE.

EMERGENCY RADIO SYSTEM

PROVIDE EMERGENCY RESPONDER RADIO SYSTEM TO MEET 2021 INTERNATIONAL FIRE CODE WITHIN THE BUILDING. SYSTEM SHALL MEET UL2524 AND COMPLY WITH IBC 2021 510.

SHALL BE PROVIDED TO THE FIRE MARSHALL FOR ACCEPTANCE.

ASE BID:

. ELECTRICAL CONTRACTOR SHALL PROVIDE (1) SIGNAL STRENGTH TEST AT (4) LOCATIONS ON SITE WITHIN PROPOSED BUILDING FOOTPRINT. THE RESULTS SHALL BE SUBMITTED TO THE FIRE MARSHAL FOR ACCEPTANCE.

2. PROVIDE SHOP DRAWING FOR A DISTRIBUTION ANTENNA SYSTEM WITH AMPLIFIER TO COVER THE ENTIRE STRUCTURE TO MEET 510.4. SHOP DRAWINGS SHALL INCLUDE AMPLIFIER INFORMATION, ANTENNA LOCATIONS/COVERAGE, BATTERY

3. ELECTRICAL CONTRACTOR SHALL PROVIDE EMPTY CONDUIT WITH NYLON PULL STRINGS AS REFLECTED ON DRAWINGS.
CONDUIT SHALL BE INSTALLED AS BASED BID AND ARE NOT ALLOWED FOR USE WITH ANY OTHER SYSTEM.
ALL EMERGENCY RESPONDER RADIO SYSTEM CONDUIT SHALL BE MARKED WITH 'BDA'.

I. ELECTRICAL CONTRACTOR SHALL PROVIDE (1) SIGNAL STRENGTH TEST WITHIN THE BUILDING AT 80% COMPLETION OF CONSTRUCTION. THE RESULTS SHALL BE SUBMITTED TO THE FIRE MARSHAL FOR ACCEPTANCE. IF SIGNAL STRENGTH AT ANY PORTION OF THE BUILDING FALLS BELOW REQUIREMENTS OF IFC 510 AN EMERGENCY RESPONDER RADIO SYSTEM SHALL BE PROVIDED. SEE ALLOWANCE FOR ADDITIONAL INFORMATION.

ALLOWANCE:

1. IF THE TEST SIGNAL IS DEEMED NOT TO BE ACCEPTABLE THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE FOLLOWING BY ALLOWANCE. PROVIDE AMPLIFIER, ANTENNA AND ALL ADDITIONAL REQUIRED SYSTEM PARTS IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS (SEE ITEM 2 UNDER BASE BID ABOVE) AND IFC 2021 510.5. THIS INCLUDES OBTAINING PERMIT PER SECTION 510.3. THE SYSTEM SHALL BE RETESTED BY THE TESTING AGENCY PER 510.5.3 AND TEST RECORDS

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SEE PLANS FOR QUANTITIES

SEE PLANS FOR QUAN

1 FIRE ALARM RISER DIAGRAM

Gunn & Associates, P.C.

Consulting Engineers

3102 Highway 14
Millbrook, AL 36054
Tel: 334.285.1273

GA#24-034

Gunn & Associates, P.C.

1200 Providence Park, Suite 200
Birmingham, AL 35242
GA#24-034

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SHEET TITLE: COMMUNICATION & FIRE ALARM RISER, DETAILS & NOTES

MCKEE JOB # : 22-304

DRAWN BY: J. TILLERY

REVISED DATE: (03-15-2024)

02.15.2024

REVISED DATE:

REVISED DATE:

SHEET NO.: **E6.1**