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BID DOCUMENT SET

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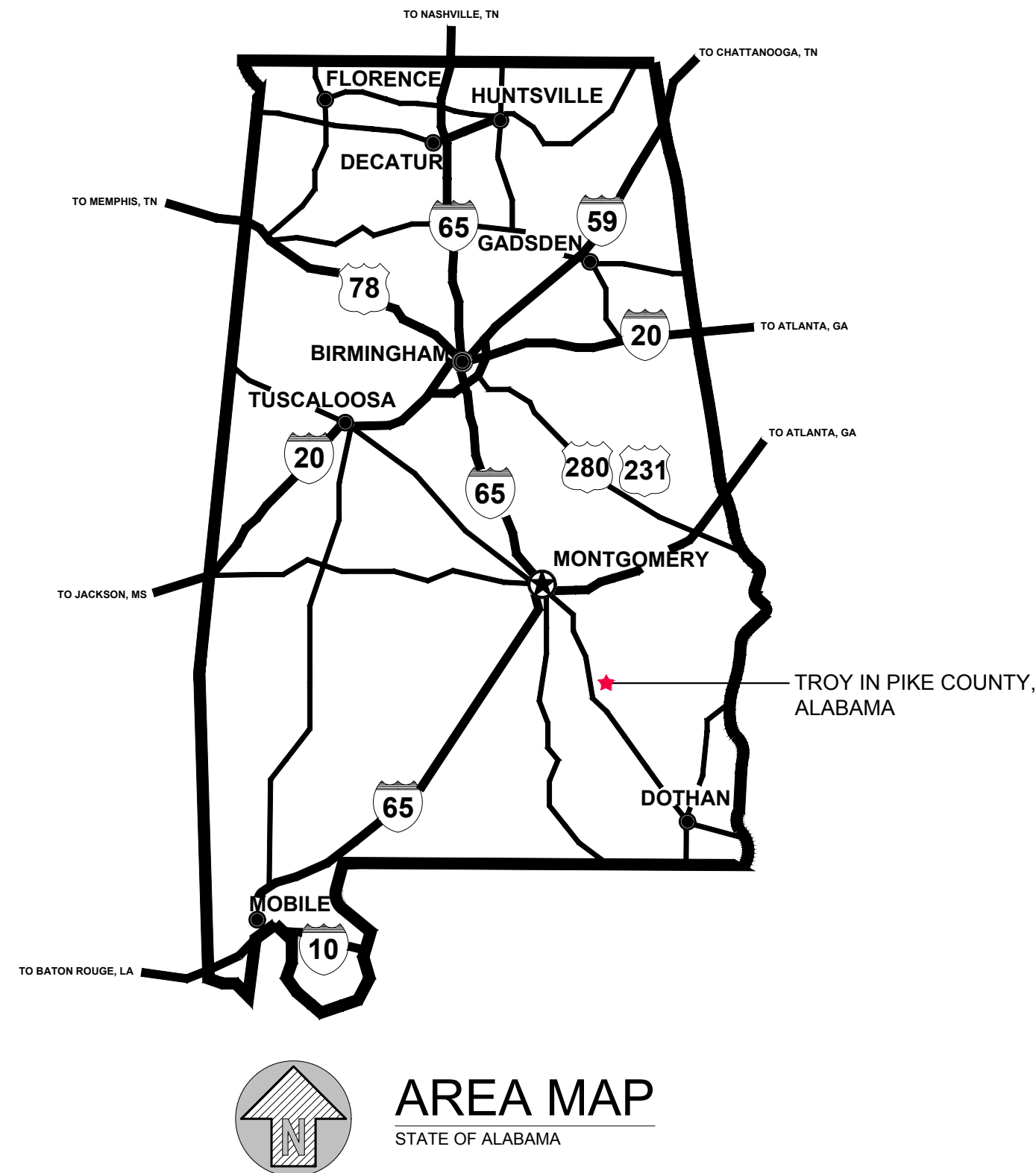
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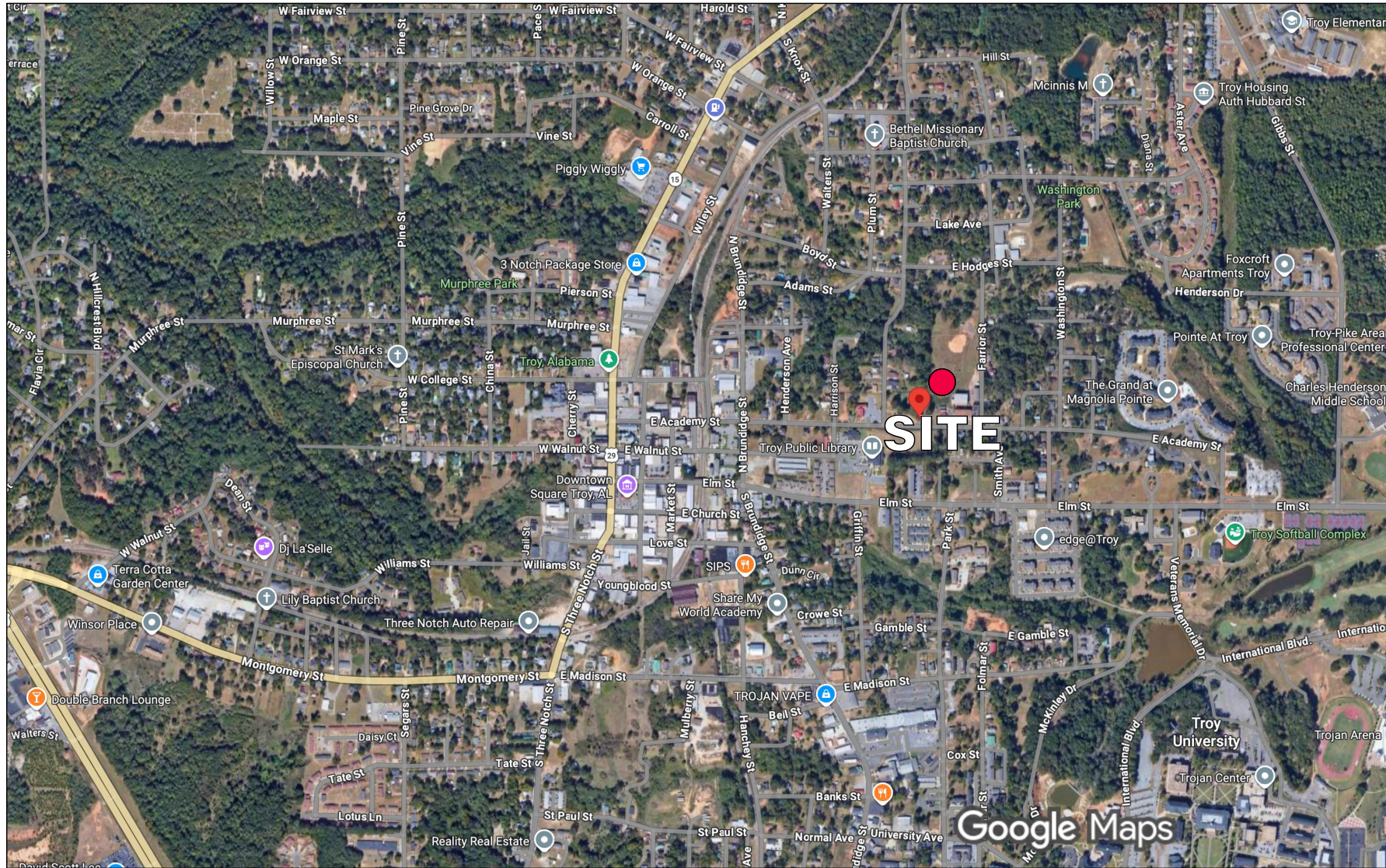
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AREA MAP
STATE OF ALABAMA



VICINITY MAP
TROY, AL

DRAWINGS ARE PENDING -
WILL BE SENT VIA
ADDENDUM.



PROJ. MGR.:	
DRAWN: JPM	
DATE: 10.9.26	
REVISIONS	

JOB NO.	25-249
SHEET NO.	
FP1.0	
0 1" 2"	

LEGEND	
F	NEW FIRE SPRINKLER PIPING
W	UG FIRE WATER SERVICE
Δ	WET PIPE SYSTEM CONTROL RISER
⋈	SHUT OFF VALVE
—	CHECK VALVE
---	SPRINKLER SYSTEM ZONE BOUNDARY
⑩	NOTE LEGEND NUMBER
FDC	FIRE DEPARTMENT CONNECTION
AHJ	AUTHORITY HAVING JURISDICTION
IBC	INTERNATIONAL BUILDING CODE
IFC	INTERNATIONAL FIRE CODE
NFPA	NATIONAL FIRE PROTECTION ASSOC.
DIP	DUCTILE IRON PIPE
MJ	MECHANICAL JOINT
UG	UNDERGROUND
GPM	GALLONS PER MINUTE
PSI	POUNDS PER SQUARE INCH
SF	SQUARE FEET
U.L.	UNDERWRITERS LABORATORY
FS	FLOW SWITCH
TS	TAMPER SWITCH

- GENERAL NOTES:**
- FIRE SPRINKLER CONTRACTOR SHALL BE LICENSED THROUGH THE OFFICE OF THE STATE OF ALABAMA FIRE MARSHAL.
 - THE FIRE SPRINKLER CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING BID.
 - FIRE PROTECTION SYSTEMS SHALL BE INSPECTED, TESTED, AND MAINTAINED IN ACCORDANCE WITH THE LATEST EDITION OF NFPA 25. A COPY OF THE LATEST EDITION OF NFPA 25 SHALL BE INCLUDED AS PART OF THE OPERATION AND MAINTENANCE DOCUMENTS PROVIDED TO THE OWNER.
 - MAINTAIN ACCURATE AS-BUILT DRAWINGS THROUGHOUT THE PROJECT AND DELIVER REQUIRED COPIES TO THE OWNER AS PART OF CLOSE OUT DOCUMENTS.
 - THESE DRAWINGS ARE FOR ENGINEERING INTENT ONLY. THE FIRE SPRINKLER CONTRACTOR SHALL PROVIDE FINAL DESIGN / INSTALLATION DOCUMENTS, AND HYDRAULIC CALCULATIONS, THE HYDRAULIC CALCULATIONS, AND THE FIRE SPRINKLER SHOP DRAWINGS, MUST BE PREPARED UNDER THE SUPERVISION OF AN ENGINEER LICENSED IN THE STATE OF ALABAMA, AND MUST BEAR HIS/HER LICENSURE SEAL, WITH SIGNATURE AND DATE, WHEN SUBMITTED FOR REVIEW.
 - THE FIRE SPRINKLER CONTRACTOR SHALL PROVIDE A STATEMENT OF COMPLIANCE TO THE AUTHORITY HAVING JURISDICTION (AHJ) BEFORE REQUESTING FINAL APPROVAL OF THE INSTALLATION, AS PER SECTION 901.2.1 IN THE INTERNATIONAL FIRE CODE, 2021 EDITION.
 - AREAS ABOVE CEILINGS THAT ARE CONSIDERED COMBUSTIBLE SHALL BE SPRINKLED AS REQUIRED.
 - AREAS ABOVE CEILINGS THAT ARE CONSIDERED NON-COMBUSTIBLE SHALL NOT BE USED FOR STORAGE. FIRE SPRINKLER PROTECTION IS NOT REQUIRED.

- NOTE LEGEND: (THIS SHEET ONLY)**
- WET FIRE RISER CONTROL SYSTEM SERVING BUILDING FROM 0'-6" UNDERGROUND SERVICE.
 - SPRINKLER CONTRACTOR SHALL MAKE CONNECTION TO THE NEW UNDERGROUND FIRE SERVICE AT APPROXIMATELY 5'-0" OUTSIDE THE BUILDING FOOTPRINT. COORDINATE WITH SITE UTILITIES CONTRACTOR. VERIFY THAT REQUIRED FLUSHING AND TESTING OF FIRE SERVICE HAS BEEN COMPLETED PRIOR TO CONNECTION.
 - TEMPERATURE IN THIS AREA MUST BE MAINTAINED AT A MINIMUM OF 40° F. SUPPLEMENTAL HEAT SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR.
 - LOCAL ELECTRIC HORN AND STROBE ALARM MOUNTED ON EXTERIOR WALL, OUTSIDE THE RISER ROOM DOOR. ALARM SHALL BE FURNISHED AND INSTALLED BY THE FIRE SPRINKLER CONTRACTOR. POWER AND FIRE ALARM CONNECTIONS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. COORDINATE WITH LOCAL FIRE DEPARTMENT FOR EXACT LOCATION.
 - PROVIDE A REMOTE FIRE DEPARTMENT CONNECTION, LOCATED AT THE DUAL CHECK BACKFLOW PREVENTER IN BELOW GRADE VAULT WITH AT-GRADE ACCESS. COORDINATE WITH CIVIL AND THE FIRE DEPARTMENT HAVING JURISDICTION FOR THE EXACT LOCATION OF THE FDC AND CONNECTION REQUIREMENTS.
 - WET SYSTEM MAIN ROUTED ABOVE CEILING OR BELOW EXPOSED STRUCTURE.
 - ROUTE WET SPRINKLER PIPING UP TO SERVE HIGH CEILING IN MECHANICS SHOP.
 - ROUTE WET SYSTEM MAIN UP TO SERVE SECOND FLOOR.
 - NONCOMBUSTIBLE HOISTWAYS ARE NOT REQUIRED TO BE PROTECTED BY THE FIRE ALARM SYSTEM PER NFPA-13 (2022) CODE 9.3.6.2 AND CODE 9.3.6.6.

CIVIL COORDINATION

SEE SITE UTILITIES DRAWING FOR THE LOCATION OF THE FIRE WATER SERVICE, REMOTE FDC, BACKFLOW PREVENTER, AND FIRE HYDRANTS. PROVIDE WATERPROOF SUPERVISORY SWITCHES (TAMPER SWITCHES) ON THE TWO ISOLATION VALVES AT THE BACKFLOW PREVENTER. TAMPER SWITCHES SHALL BE CONNECTED TO THE BUILDING FIRE ALARM SYSTEM. COORDINATE WITH THE SITE UTILITIES CONTRACTOR, ELECTRICAL CONTRACTOR, WATER AUTHORITY HAVING JURISDICTION, AND THE FIRE DEPARTMENT HAVING JURISDICTION.

SPRINKLER SYSTEMS SCHEDULE					
ROOM / AREA	SYSTEM TYPE	OCCUPANCY CLASSIFICATION	DENSITY GPM / SF	CALCULATED AREA / SF	GPM HOSE ALLOWANCE
OFFICE, TOILETS, CORRIDOR, LOBBY, CIRCULATION, LABS, CLOSETS	WET PIPE	LIGHT HAZARD	.10	1500	100
STORAGE, BUILDING SERVICES	WET PIPE	ORDINARY - I	.15	1500	250

NOTES:

- SPRINKLER COVERAGE SHALL BE PROVIDED THROUGHOUT ALL AREAS OF THE BUILDING.
- ALL SPRINKLERS AND DISTRIBUTION PIPING SHALL BE COORDINATED WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, AND OTHER TRADES AS APPROPRIATE.
- SIZES, NOT SHOWN, SHALL BE PER SPRINKLER CONTRACTOR'S HYDRAULIC CALCULATIONS.
- ALL PIPING SHALL BE CONCEALED ABOVE CEILINGS, IN WALLS, AND/OR IN PIPE CHASES UNLESS NOTED OTHERWISE. EXPOSED PIPING SHALL BE PERMITTED ONLY IN MECHANICAL ROOMS, ELECTRICAL ROOMS, AND AREAS WITHOUT SUSPENDED CEILINGS.
- PROVIDE CONCEALED, QUICK RESPONSE, PENDENT SPRINKLERS AT ALL AREAS WITH HARD CEILINGS.
- PROVIDE RECESSED, QUICK RESPONSE, PENDENT SPRINKLERS AT ALL AREAS WITH SUSPENDED CEILINGS.
- PROVIDE EXPOSED, QUICK RESPONSE, UPRIGHT SPRINKLERS AT ALL AREAS WITHOUT FINISHED CEILINGS.
- SPRINKLERS SHALL BE FACTORY COLORED OFF-WHITE. ESCUTCHEONS SHALL MATCH SPRINKLERS. SUBMIT COLOR CHARTS TO ARCHITECT FOR APPROVAL PRIOR TO PLACING ORDER.
- FIRE SPRINKLERS SHALL BE LOCATED IN A SYMMETRICAL PATTERN RELATIVE TO THE CEILINGS, AND TO ALL OTHER ITEMS LOCATED IN THE CEILINGS. SPRINKLERS LOCATED IN LAY-IN CEILINGS SHALL BE CENTERED IN THE CEILING TILES. THE SPRINKLER CONTRACTOR SHALL PROVIDE ANY AND ALL EXTRA SPRINKLERS TO MEET THIS REQUIREMENT. COORDINATE WITH ALL DISCIPLINES.
- SPRINKLERS SUBJECT TO MECHANICAL DAMAGE SHALL BE PROTECTED USING LISTED GUARDS.

SEE SITE UTILITY PLAN FOR 0'-6" FIRE SERVICE CONTINUATION

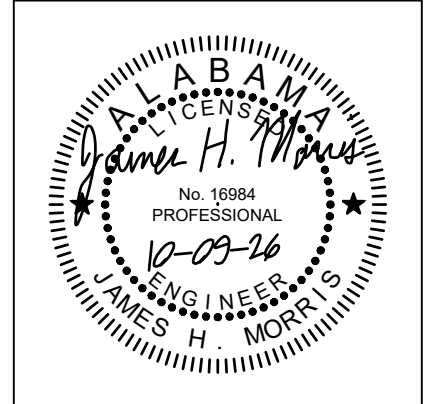
- INSPECTION AND TEST REQUIREMENTS BY LOCAL FIRE DEPARTMENT:**
- AN INSPECTION OF ALL PIPES SHALL BE COMPLETED BY THE LOCAL FIRE DEPARTMENT BEFORE ANY PIPE IS INSTALLED.
 - INSTALLATION INSPECTION: THE INSTALLATION OF ALL SPRINKLER PIPING, HANGARS, HEADS, AND RISERS, SHALL BE INSPECTED BY THE LOCAL FIRE DEPARTMENT BEFORE BEING COVERED.
 - A FUNCTIONAL TEST SHALL BE ACCOMPLISHED BY THE LOCAL FIRE DEPARTMENT, BY HAVING AN ENGINE COMPANY PUMP TO THE SYSTEM, AT 150 PSI, WITH WATER FLOWING OUT OF A TEST DRAIN OR OTHER ACCEPTABLE POINT. THIS CAN BE DONE AS PART OF THE "ACCEPTANCE TEST", WITH PROPER NOTICE.
 - A FINAL ACCEPTANCE TEST, OF ALL NEWLY INSTALLED FIRE SPRINKLER SYSTEMS, AND/OR WHERE PLANS WERE REQUIRED TO BE SUBMITTED, SHALL BE ACCOMPLISHED.
 - A COMPLETED COPY OF THE "CONTRACTORS MATERIAL AND TEST CERTIFICATE FOR ABOVE GROUND PIPING" SHALL BE PROVIDED TO OWNER.
 - A COMPLETED COPY OF THE "LOCAL FIRE DEPARTMENT FUNCTIONAL TEST" SHALL BE PROVIDED AT THE SYSTEM ACCEPTANCE.

NOTE: ALL AREAS WITH CEILINGS SHALL BE PROTECTED THROUGH CEILING MOUNTED PENDENT TYPE SPRINKLERS. ALL AREAS WITHOUT CEILINGS SHALL BE PROTECTED THROUGH EXPOSED UPRIGHT SPRINKLERS. LOCATE HIGH AT EXPOSED STRUCTURE. SPRINKLERS SHALL BE QUICK RESPONSE TYPE. COMPLY WITH THE LATEST EDITION OF NFPA 13.

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

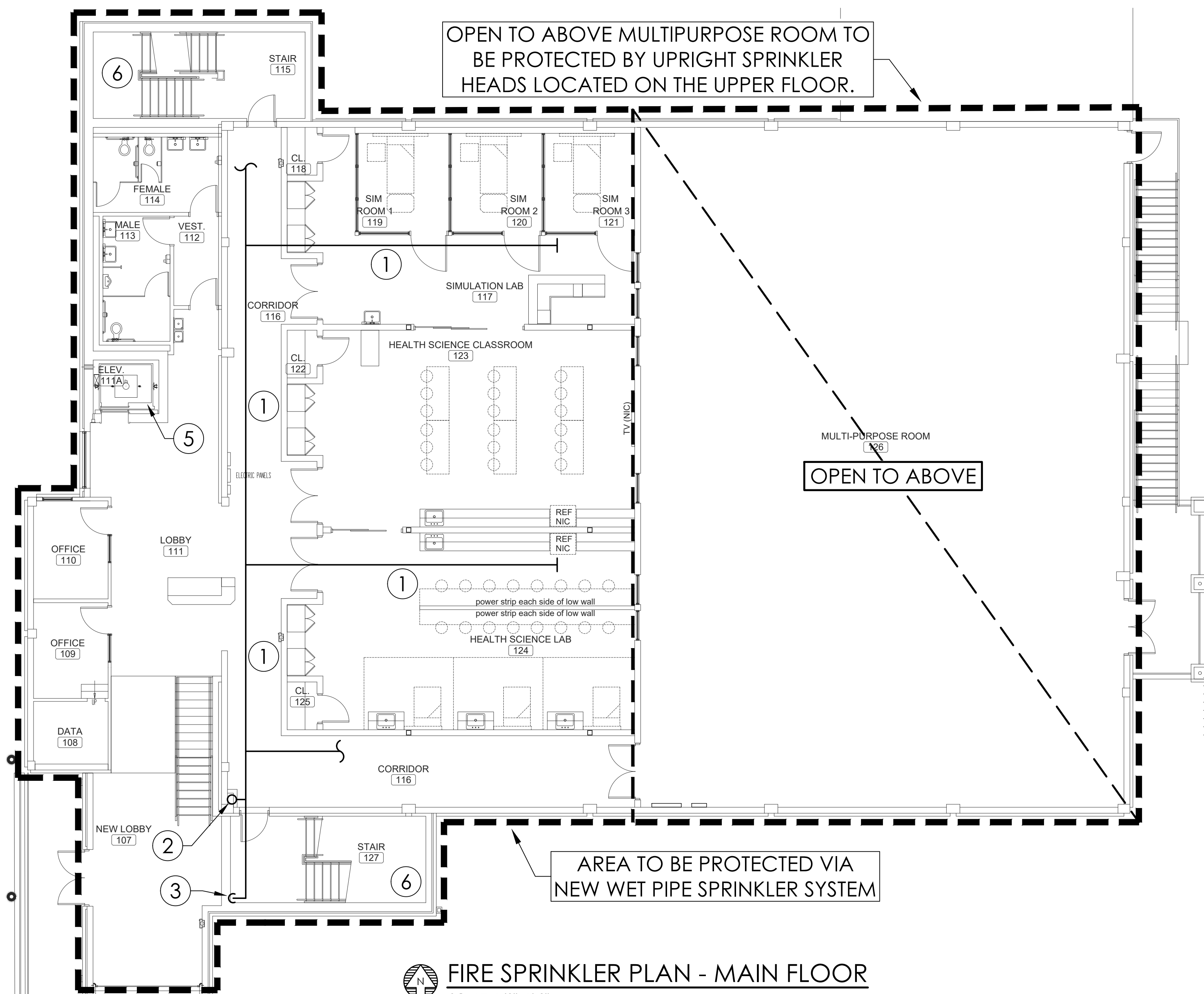
SPRINKLER SYSTEM NOTES

- FIRE PROTECTION SYSTEM SHALL BE WET PIPE AS INDICATED ON THE DRAWING. BUILDING AND OVERHANGS SHALL BE SPRINKLED PER (MOST STRINGENT) 2022 NFPA-13, 2021 INTERNATIONAL BUILDING CODE (IBC), AND 2021 INTERNATIONAL FIRE CODE (IFC).
- DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH (MOST STRINGENT) 2022 NFPA-13, 2021 INTERNATIONAL BUILDING CODE, 2021 INTERNATIONAL FIRE CODE, STATE AND LOCAL CODES, THE LOCAL FIRE DEPARTMENT, AND THE REQUIREMENTS OF THE OWNER'S INSURANCE UNDERWRITER.
- OCCUPANCY CLASSIFICATION SHALL BE PER 2022 NFPA-13.
- SYSTEMS SHALL BE INTERFACED WITH BUILDING ALARM SYSTEM.
- BUILDING SHALL BE SUPERVISED PER 2021 INTERNATIONAL BUILDING CODE, AND NFPA 71, 72, 73.
- THE SPRINKLER CONTRACTOR SHALL DESIGN AND INSTALL AN APPROVED, COMPLETE AND OPERATIONAL SPRINKLER SYSTEM. SYSTEM SHALL MEET ALL APPLICABLE CODES AND ORDINANCES. COORDINATE HEADS WITH LIGHTS, MECHANICAL EQUIPMENT, CEILING SYSTEMS, ETC.
- LOCATION AND SPACING OF SPRINKLERS SHALL COMPLY WITH 2022 NFPA 13.
- CUTTING OF STRUCTURAL AND / OR ARCHITECTURAL MEMBERS SHALL BE DONE ONLY WITH THE WRITTEN APPROVAL OF THE ARCHITECT.
- ALL WET SYSTEM FIRE SPRINKLER PIPING SHALL BE INSTALLED WITHIN THE BUILDING INSULATION ENVELOPE. SPRINKLER CONTRACTOR SHALL PROVIDE OFFSETS IN PIPE ROUTING AS REQUIRED TO COMPLY WITH THIS REQUIREMENT. SEE ARCHITECTURAL REFLECTED CEILING PLANS AND DETAILS AND COORDINATE WITH GENERAL CONTRACTOR.
- FIRE STOP ALL PENETRATIONS OF SMOKE / FIRE WALLS, CEILINGS, FLOORS, ROOTS, ETC.. SEE ARCHITECTURAL DRAWINGS FOR LOCATION OF FIRE RATED STRUCTURES.
- PROVIDE ACCESS PANELS FOR ALL VALVES LOCATED ABOVE NON-ACCESSIBLE CEILINGS AND IN CHASES.
- PROVIDE STOCK OF EXTRA SPRINKLERS IN ACCORDANCE WITH 2022 NFPA-13.
- METHODS OF HANGING PIPES, HEADERS AND BRANCHES SHALL BE COMPLY WITH 2022 NFPA-13.
- TEMPERATURE RATINGS, OF FUSIBLE ELEMENTS, IN AUTOMATIC SPRINKLERS SHALL BE IN ACCORDANCE WITH 2022 NFPA-13.
- ALL VALVES FOR FIRE SERVICE SHALL BE LISTED BY UNDERWRITER'S LABORATORIES, INC. AND THE FACTORY MUTUAL LABORATORIES. VALVES SHALL BE FACTORY MARKED "U.L." AND "F.M.". (175 WORKING PRESSURE.)
- ALL VALVES ON THE FIRE PROTECTION SYSTEM SHALL BE ELECTRICALLY SUPERVISED, UNLESS NOTED OTHERWISE. TYPE AND EXACT LOCATION OF FLOW, AND SUPERVISORY SWITCHES SHALL BE COORDINATED BETWEEN THE DIFFERENT RESPONSIBLE TRADES.
- ALL REQUIRED TAMPER SWITCHES, AND FLOW SWITCHES, SHALL BE FURNISHED AND INSTALLED BY THE SPRINKLER CONTRACTOR AND SHALL BE CONNECTED TO A CONSTANTLY MONITORED LOCATION. ALL POWER WIRING, CONTROL WIRING, AND INTERLOCK WIRING, SHALL BE ACCOMPLISHED UNDER THE ELECTRICAL DIVISION. COORDINATE ALL ELECTRICAL ITEMS WITH ELECTRICAL CONTRACTOR AND INSURE PROPER COORDINATION.
- PROVIDE A PERMANENTLY ATTACHED NAME TAG, STATING THE REQUIRED
- DESIGN CRITERIA. FOR EACH HYDRAULICALLY DESIGNED SYSTEM, SPRINKLERS SHALL COVER THE ENTIRE AREA OF EACH PROTECTED ROOM, INCLUDING ALCOVES. SPRAY SHALL NOT BE BLOCKED BY WALLS OR PARTITIONS. PROVIDE EXTRA SPRINKLERS AS REQUIRED TO AVOID ANY OBSTRUCTION OF SPRINKLER COVERAGE.
- ALL SPRINKLER HEADS MOUNTED IN CEILINGS SHALL BE LOCATED A MINIMUM OF 30.4" AWAY FROM ANY WALL, CEILING HEIGHT CHANGE, OR ANY OTHER VERTICAL INTERSECTING SURFACE.
- PIPE SHALL BE REAMED AND CLEANED BEFORE ASSEMBLY.
- MAINTAIN A MINIMUM OF 18 INCHES FROM THE BOTTOM OF THE SPRINKLER DEFLECTOR TO THE TOP OF STORAGE / FILE STORAGE.
- PROVIDE FLUSHING CONNECTIONS, TEST CONNECTIONS, AND AUXILIARY DRAINS AS NEEDED FOR COMPLETE DRAINAGE AND TESTING.
- PROVIDE SPRINKLERS ABOVE AND BELOW ANY OBSTRUCTION THAT IS 48" OR VIDER.
- NO PIPING SHALL BE INSTALLED ABOVE ELECTRICAL AND/OR DATA EQUIPMENT. MAINTAIN ALL REQUIRED CLEARANCES.
- ALL HYDROSTATIC TESTING AND / OR FLUSHING SHALL BE PERFORMED IN STRICT ACCORDANCE WITH 2022 NFPA STANDARDS 13 AND THE LATEST EDITION OF NFPA 24, AND SHALL BE WITNESSED BY A REPRESENTATIVE OF THE LOCAL AUTHORITY HAVING JURISDICTION.
- PROVIDE ALL SIGNAGE AS REQUIRED BY (MOST STRINGENT) 2022 NFPA 13, 2021 IBC, 2021 IFC, THE OWNER'S REPRESENTATIVES, INSURANCE UNDERWRITERS, AND LOCAL FIRE DEPARTMENT HAVING JURISDICTION.
- PROVIDE MAIN DRAINS AND AUXILIARY DRAINS AS REQUIRED FOR COMPLETE DRAINAGE OF THE ENTIRE SPRINKLER SYSTEM. ROUTE ALL DRAIN PIPING TO EXTERIOR AND SPILL ON GRADE AT OWNER APPROVED LOCATIONS.
- ALL LIGHT HAZARD AREAS SHALL BE PROTECTED WITH A DENSITY OF .10 / 1500 SF PLUS A MINIMUM HOSE ALLOWANCE OF 100 GPM AS PER NFPA-13.
- ALL ORDINARY-I HAZARD AREAS SHALL BE PROTECTED WITH A DENSITY OF .15 / 1500 SF PLUS A MINIMUM HOSE ALLOWANCE OF 250 GPM AS PER NFPA-13.
- PAINTING OF FIRE SPRINKLER PIPING IS NOT THE RESPONSIBILITY OF THE SPRINKLER CONTRACTOR. IF EXPOSED SPRINKLER PIPING IS TO BE PAINTED BY GENERAL CONTRACTOR, ALL SPRINKLERS MUST BE COVERED AND PROTECTED FROM PAINT. ANY SPRINKLER SHOWING PAINT, OTHER THAN FACTORY FINISHES, SHALL BE REMOVED, DISCARDED, AND REPLACED WITH NEW SPRINKLER.
- THE SPRINKLER CONTRACTOR SHALL MAKE OFFSETS AS REQUIRED TO ROUTE SPRINKLER PIPING THROUGH THE STRUCTURE AND TO AVOID CONFLICTS WITH OTHER DISCIPLINES.
- PROVIDE DRIP PANS BELOW SPRINKLER PIPING IN ALL ELECTRICAL ROOMS. PROVIDE SHIELDS TO PREVENT WATER FROM SPRAYING ON ELECTRICAL EQUIPMENT. DRIP PANS AND SHIELDS SHALL BE NON-COMBUSTIBLE.

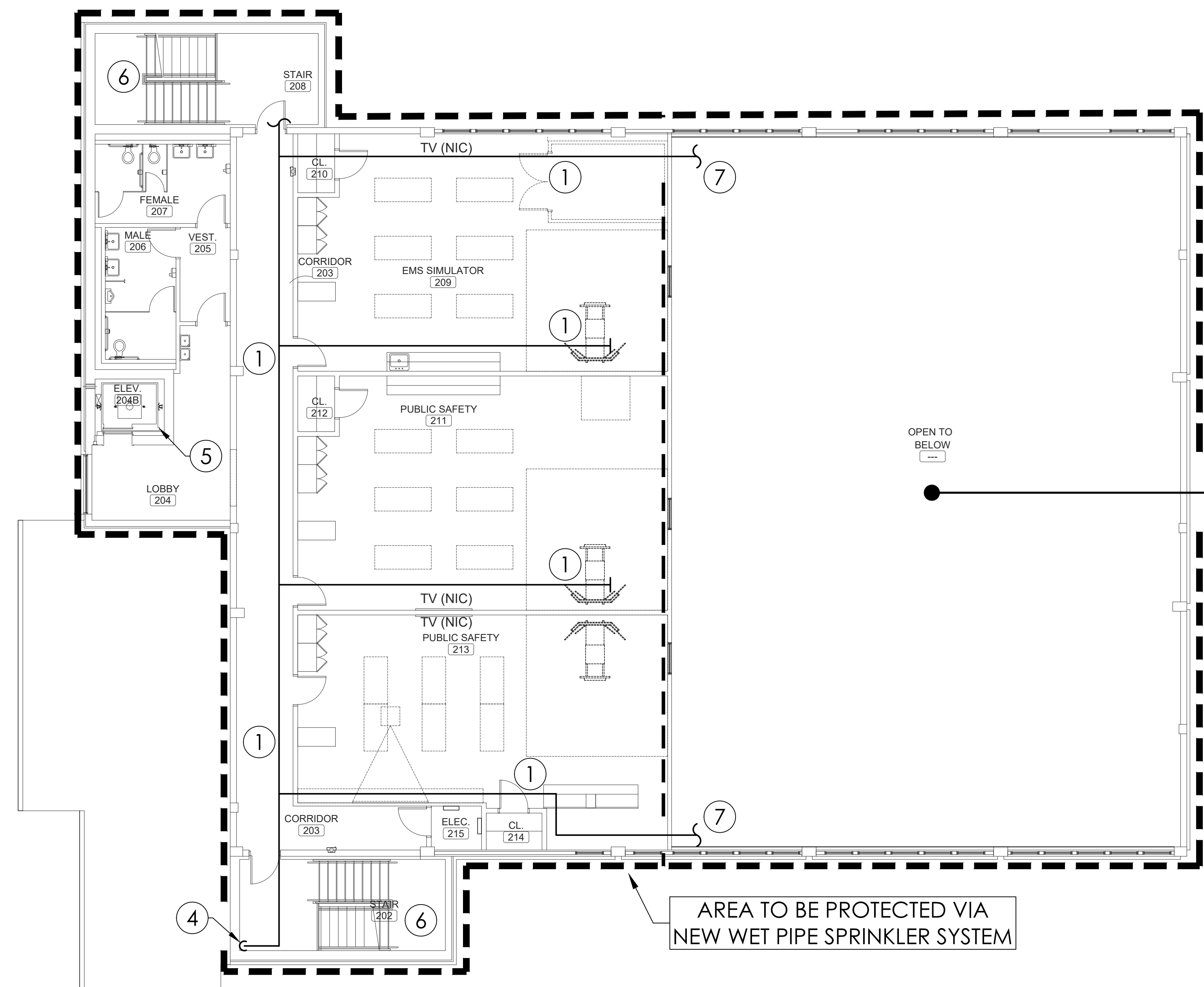


PROJ. MGR.:	
DRAWN:	JPM
DATE:	10.9.26
REVISIONS	

JOB NO.	25-249
SHEET NO.	FP1.1



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



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

SPRINKLER SYSTEMS SCHEDULE					
ROOM / AREA	SYSTEM TYPE	OCCUPANCY CLASSIFICATION	DENSITY GPM / SF	CALCULATED AREA / SF	GPM HOSE ALLOWANCE
OFFICE, TOILETS, CORRIDOR, LOBBY, CIRCULATION, LABS, CLOSETS	WET PIPE	LIGHT HAZARD	.10	1500	100
STORAGE, BUILDING SERVICES	WET PIPE	ORDINARY -1	.15	1500	250

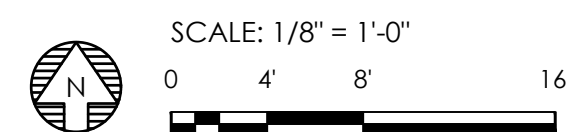
NOTES:

1. SPRINKLER COVERAGE SHALL BE PROVIDED THROUGHOUT ALL AREAS OF THE BUILDING.
2. ALL SPRINKLERS AND DISTRIBUTION PIPING SHALL BE COORDINATED WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, AND OTHER TRADES AS APPROPRIATE.
3. SIZES, NOT SHOWN, SHALL BE PER SPRINKLER CONTRACTOR'S HYDRAULIC CALCULATIONS.
4. ALL PIPING SHALL BE CONCEALED ABOVE CEILINGS, IN WALLS, AND/OR IN PIPE CHASES UNLESS NOTED OTHERWISE. EXPOSED PIPING SHALL BE PERMITTED ONLY IN MECHANICAL ROOMS, ELECTRICAL ROOMS, AND AREAS WITHOUT SUSPENDED CEILINGS.
5. PROVIDE CONCEALED, QUICK RESPONSE, PENDENT SPRINKLERS AT ALL AREAS WITH HARD CEILINGS.
6. PROVIDE RECESSED, QUICK RESPONSE, PENDENT SPRINKLERS AT ALL AREAS WITH SUSPENDED CEILINGS.
7. PROVIDE EXPOSED, QUICK RESPONSE, UPRIGHT SPRINKLERS AT ALL AREAS WITHOUT FINISHED CEILINGS.
8. SPRINKLERS SHALL BE FACTORY COLORED OFF-WHITE. ESCUTCHEONS SHALL MATCH SPRINKLERS. SUBMIT COLOR CHARTS TO ARCHITECT FOR APPROVAL PRIOR TO PLACING ORDER.
9. FIRE SPRINKLERS SHALL BE LOCATED IN A SYMMETRICAL PATTERN RELATIVE TO THE CEILINGS AND TO ALL OTHER ITEMS LOCATED IN THE CEILINGS. SPRINKLERS LOCATED IN LAY-IN CEILINGS SHALL BE CENTERED IN THE CEILING TILES. THE SPRINKLER CONTRACTOR SHALL PROVIDE ANY AND ALL EXTRA SPRINKLERS TO MEET THIS REQUIREMENT. COORDINATE WITH ALL DISCIPLINES.
10. SPRINKLERS SUBJECT TO MECHANICAL DAMAGE SHALL BE PROTECTED USING LISTED GUARDS.

- # NOTE LEGEND: (THIS SHEET ONLY)
1. WET SYSTEM MAIN ROUTED ABOVE CEILING OR BELOW EXPOSED STRUCTURE.
 2. WET SYSTEM MAIN ROUTED UP FROM FIRST FLOOR TO SERVE SECOND FLOOR.
 3. ROUTE WET SYSTEM MAIN UP FROM SECOND FLOOR TO SERVE THIRD FLOOR.
 4. WET SYSTEM MAIN ROUTED UP FROM SECOND FLOOR TO SERVE THIRD FLOOR & MULTIPURPOSE ROOM.
 5. NONCOMBUSTIBLE HOISTWAYS ARE NOT REQUIRED TO BE PROTECTED BY SPRINKLER HEADS IF PROTECTED BY THE FIRE ALARM SYSTEM PER NFPA-13 (2022) CODE 9.3.6.2 AND CODE 9.3.6.6.
 6. PROVIDE SPRINKLERS BENEATH STAIR LANDINGS AND AT THE TOP OF THE SHAFT TO PROTECT ENTIRE FOOTPRINT OF THE SHAFT. SEE NFPA-13 (2022) CODE 9.3.4.2.
 7. ROUTE SPRINKLER PIPING TO SERVE MULTIPURPOSE ROOM USING UPRIGHT SPRINKLING HEADS. PROVIDE GUARDS TO PREVENT SPRINKLER HEAD DAMAGE.

NOTE: ALL AREAS WITH CEILINGS SHALL BE PROTECTED THROUGH CEILING MOUNTED PENDENT TYPE SPRINKLERS. ALL AREAS WITHOUT CEILINGS SHALL BE PROTECTED THROUGH EXPOSED UPRIGHT SPRINKLERS. LOCATE HIGH AT EXPOSED STRUCTURE. SPRINKLERS SHALL BE QUICK RESPONSE TYPE. COMPLY WITH THE LATEST EDITION OF NFPA 13.

- GENERAL NOTES:
1. FIRE SPRINKLER CONTRACTOR SHALL BE LICENSED THROUGH THE OFFICE OF THE STATE OF ALABAMA FIRE MARSHAL.
 2. THE FIRE SPRINKLER CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING BID.
 3. FIRE PROTECTION SYSTEMS SHALL BE INSPECTED, TESTED, AND MAINTAINED IN ACCORDANCE WITH THE LATEST EDITION OF NFPA 25. A COPY OF THE LATEST EDITION OF NFPA 25 SHALL BE INCLUDED AS PART OF THE OPERATION AND MAINTENANCE DOCUMENTS PROVIDED TO THE OWNER.
 4. MAINTAIN ACCURATE AS-BUILT DRAWINGS THROUGHOUT THE PROJECT AND DELIVER REQUIRED COPIES TO THE OWNER AS PART OF CLOSE OUT DOCUMENTS.
 5. THESE DRAWINGS ARE FOR ENGINEERING INTENT ONLY. THE FIRE SPRINKLER CONTRACTOR SHALL PROVIDE FINAL DESIGN / INSTALLATION DOCUMENTS, AND HYDRAULIC CALCULATIONS. THE HYDRAULIC CALCULATIONS, AND THE FIRE SPRINKLER SHOP DRAWINGS, MUST BE PREPARED UNDER THE SUPERVISION OF AN ENGINEER LICENSED IN THE STATE OF ALABAMA, AND MUST BEAR HIS/HER LICENSE SEAL, WITH SIGNATURE AND DATE, WHEN SUBMITTED FOR REVIEW.
 6. THE FIRE SPRINKLER CONTRACTOR SHALL PROVIDE A "STATEMENT OF COMPLIANCE" TO THE AUTHORITY HAVING JURISDICTION (AHJ) BEFORE REQUESTING FINAL APPROVAL OF THE INSTALLATION, AS PER SECTION 901.2.1 IN THE INTERNATIONAL FIRE CODE, 2021 EDITION.
 7. AREAS ABOVE CEILINGS THAT ARE CONSIDERED COMBUSTIBLE SHALL BE SPRINKLED AS REQUIRED.
 8. AREAS ABOVE CEILINGS THAT ARE CONSIDERED NON-COMBUSTIBLE SHALL NOT BE USED FOR STORAGE. FIRE SPRINKLER PROTECTION IS NOT REQUIRED.



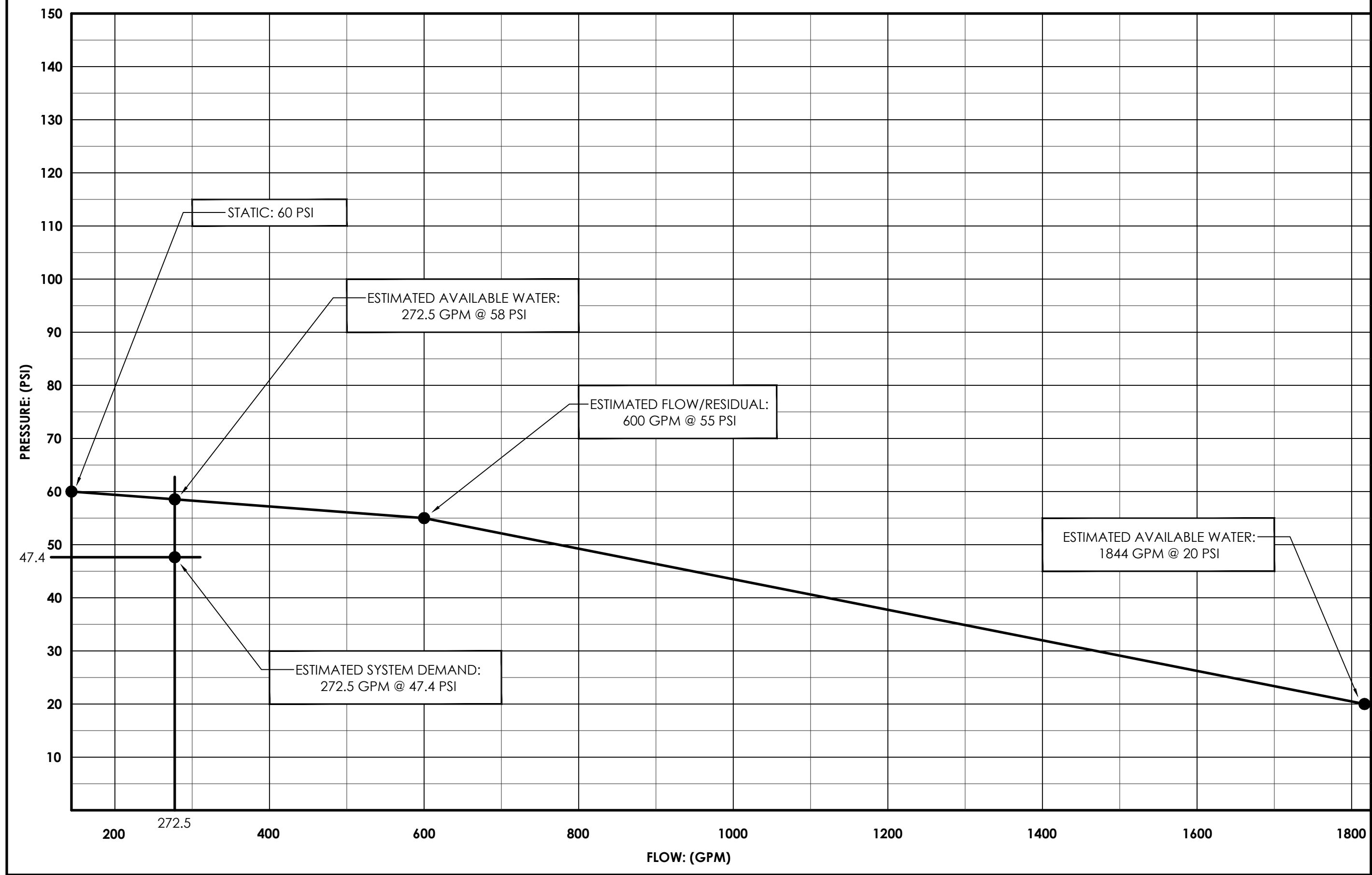
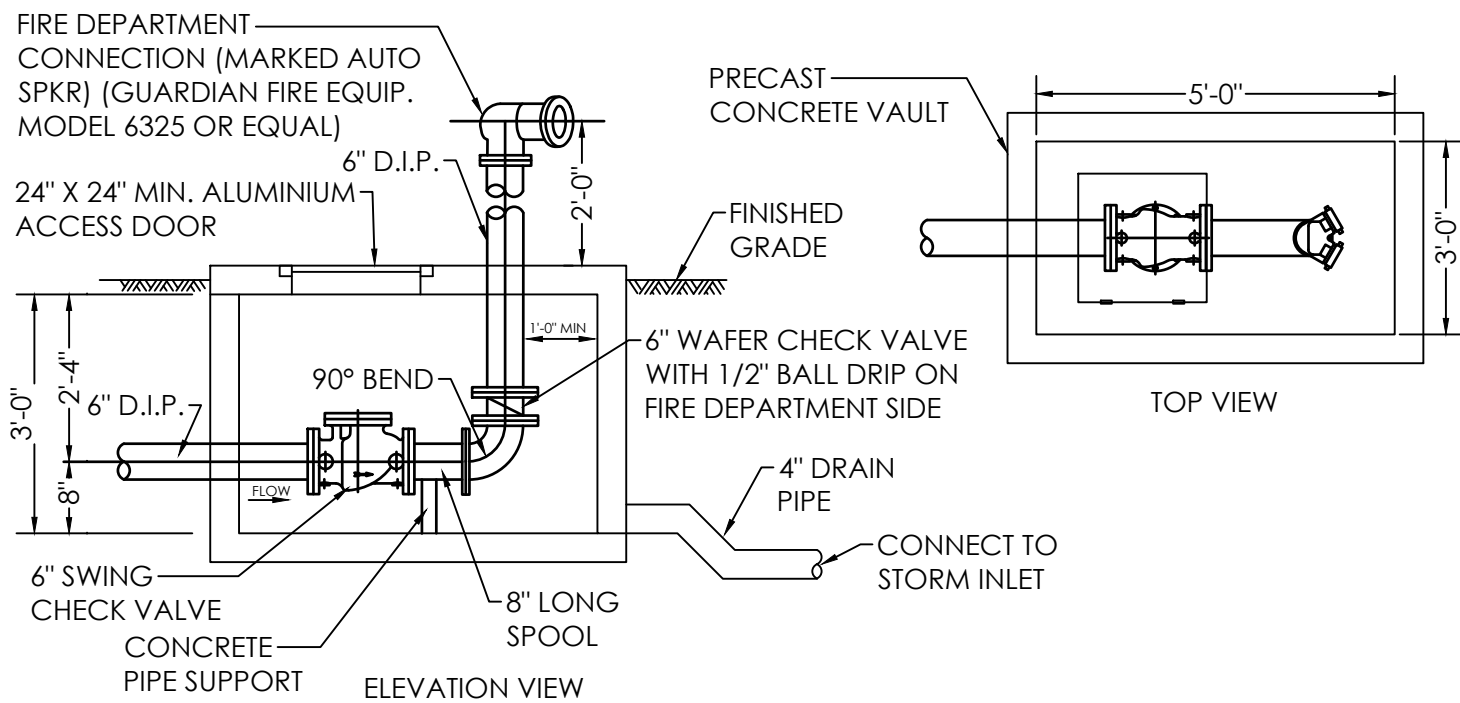
FIRE SPRINKLER WATER DEMAND CALCULATION
GYMNASIUM
NFPA-13 (2022 EDITION) (LIGHT HAZARD / WET)

ESTIMATED PSI REQUIREMENT		ESTIMATED WATER FLOW DEMAND (GPM)	
END HEAD HYDRAULIC DEMAND:	225 SF X .10 = 22.5 GAL	DEMAND: .10 (DENSITY) X 1,500 SF (REMOTE AREA) =	150 GPM
END HEAD PRESSURE:	$(\frac{22.5}{5.6})^2 = 16.2$ PSI	DEMAND PLUS 15% SAFETY:	150 GPM X 1.15 = 172.5 GPM
IN BLDG. ELEV. PRESSURE LOSS:	35' X .434 = 15.2 PS	TOTAL HOSE ALLOWANCE:	= 100 GPM
ON SITE ELEV. PRESSURE LOSS:	= 0.0 PSI		=
PIPING LOSS:	= 10.0 PSI		=
BACKFLOW LOSS:	= 6.0 PSI		=
SAFETY FACTOR:	= 0.0 PSI		=
MINIMUM PSI REQUIREMENT:	= 47.4 PSI	TOTAL ESTIMATED DEMAND:	= 272.5 GPM

WATER FLOW TEST #1

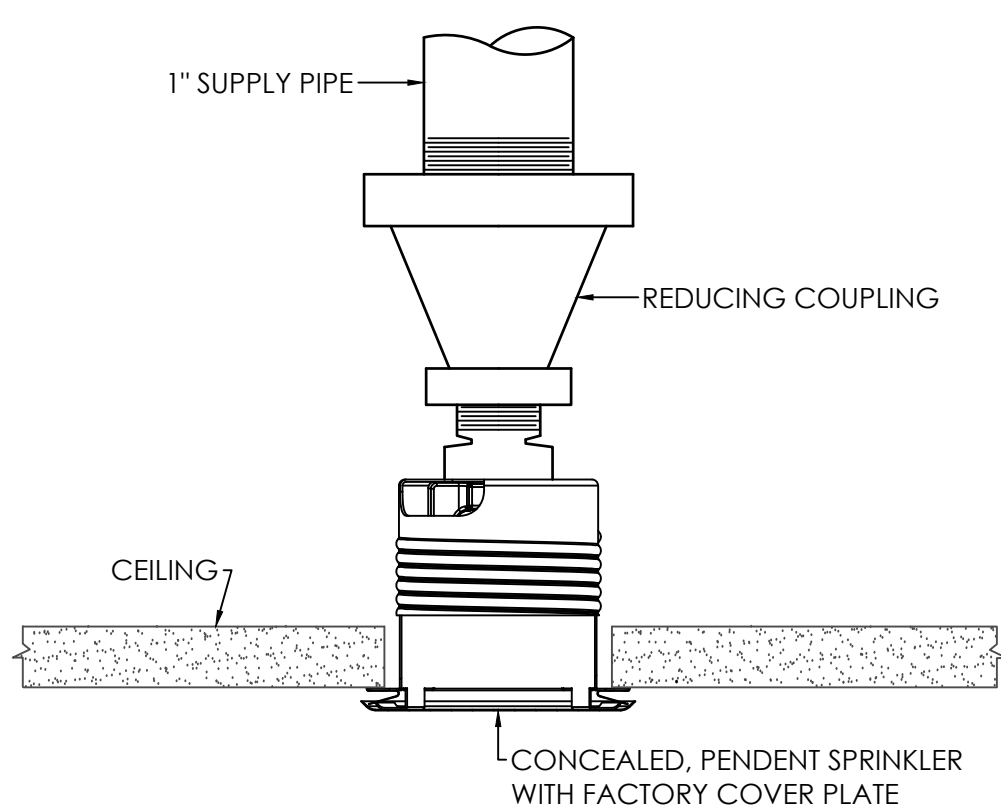
WATER FLOW TEST DATA
STATIC HYDRANT LOCATION: PUBLIC FIRE HYDRANT, SERVED BY 4" WATER MAIN, LOCATED ON ACADEMY STREET IN FRONT OF SCHOOL.
FLOW HYDRANT LOCATION: PUBLIC FIRE HYDRANT, SERVED BY 6" WATER MAIN, LOCATED ON ACADEMY STREET NEAR SCHOOL.
ESTIMATED STATIC: 60 PSI
ESTIMATED FLOW: 600 GPM
ESTIMATED RESIDUAL: 55 PSI
ESTIMATED FLOW @ 20 PSI: 1844 GPM
PITOT READING: 15 PSI
CONDUCTED BY: CITY OF TROY WATER AUTHORITY
DATE AND TIME TESTED: APRIL 4, 2023
NOTE: FIRE SPRINKLER CONTRACTOR SHALL CONDUCT THEIR OWN HYDRANT FLOW TEST IN ORDER TO HAVE UP TO DATE DATA FOR US IN HYDRAULIC CALCULATIONS.

SYSTEMS DEMAND GRAPH



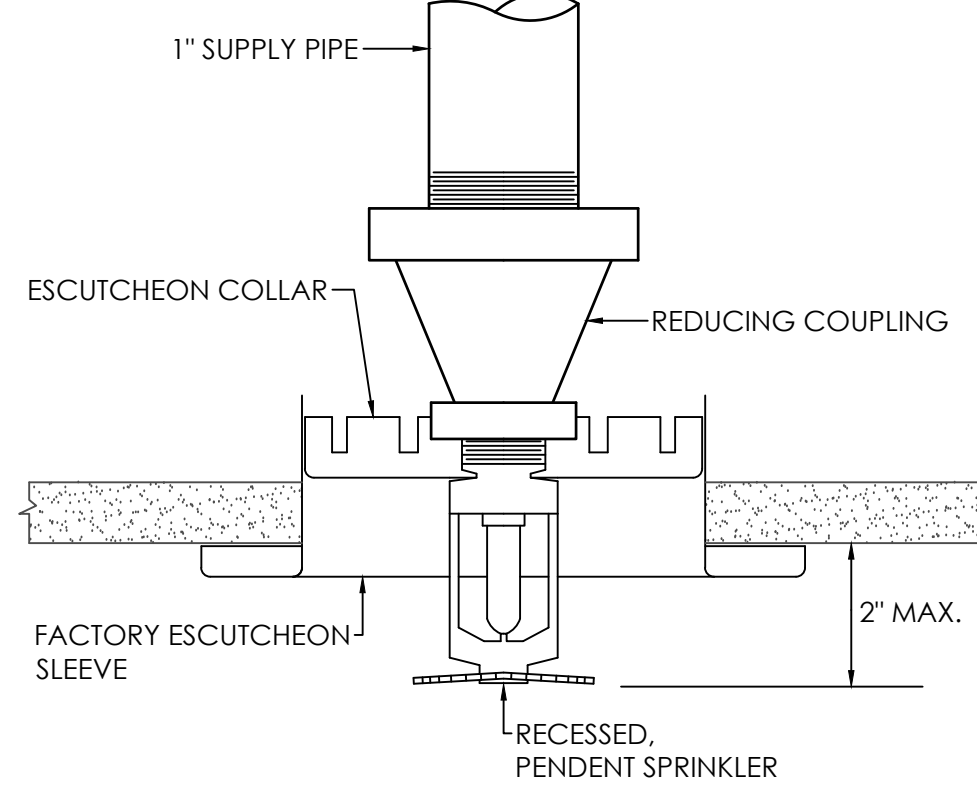
REMOTE FIRE DEPARTMENT CONNECTION DETAIL

NO SCALE



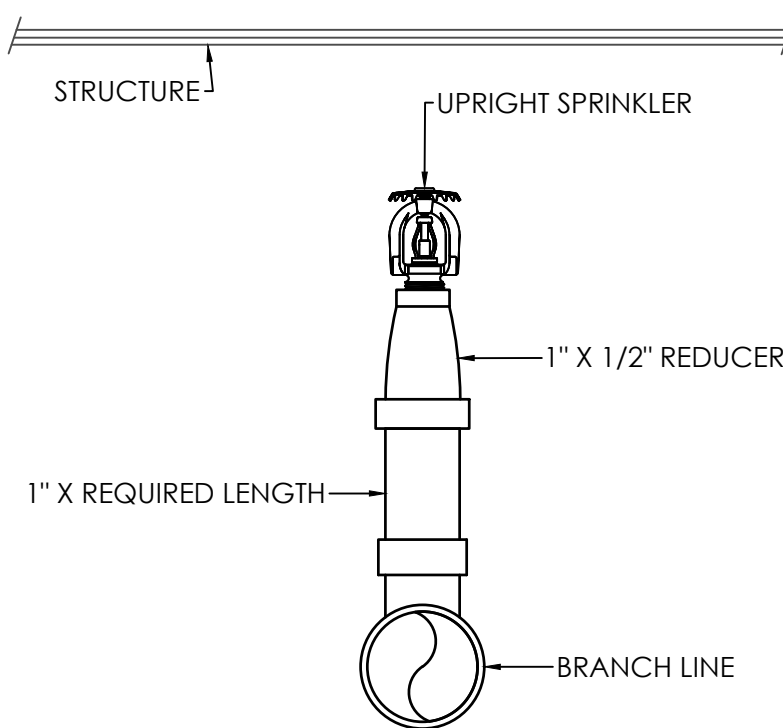
CONCEALED SPRINKLER DETAIL

NO SCALE (SEE SPRINKLER SYSTEM SCHEDULE)



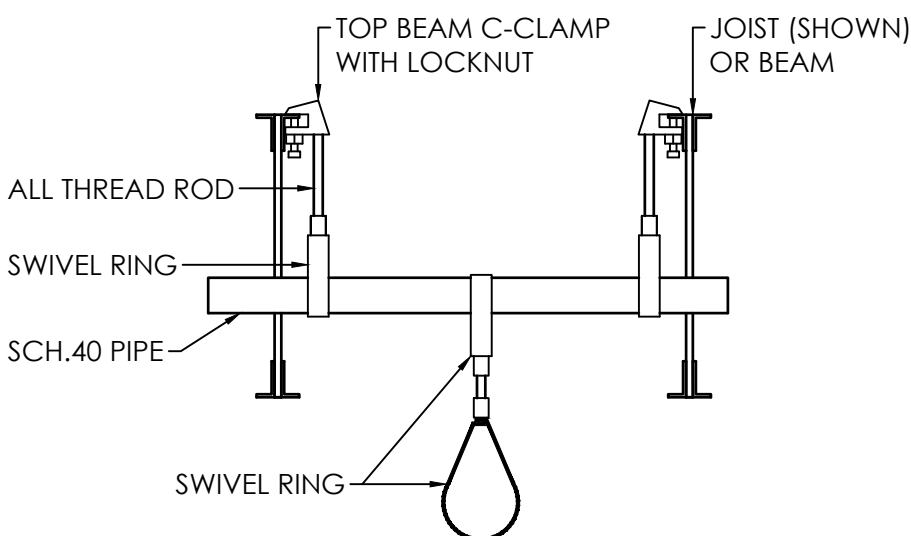
RECESSED SPRINKLER DETAIL

NO SCALE (SEE SPRINKLER SYSTEM SCHEDULE)



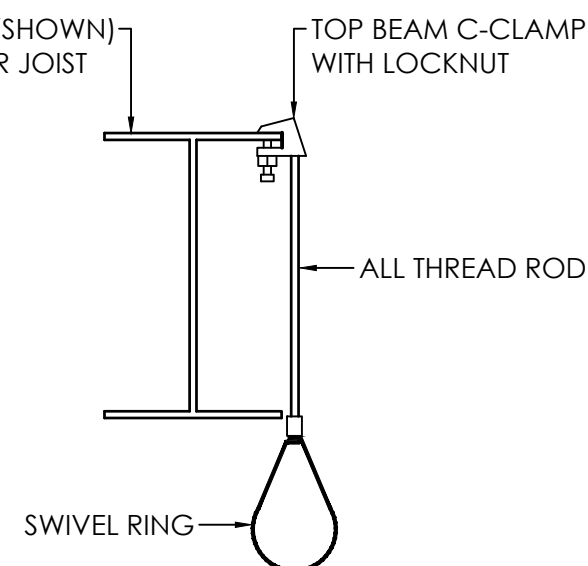
UPRIGHT SPRINKLER DETAIL

NO SCALE (SEE SPRINKLER SYSTEM SCHEDULE)



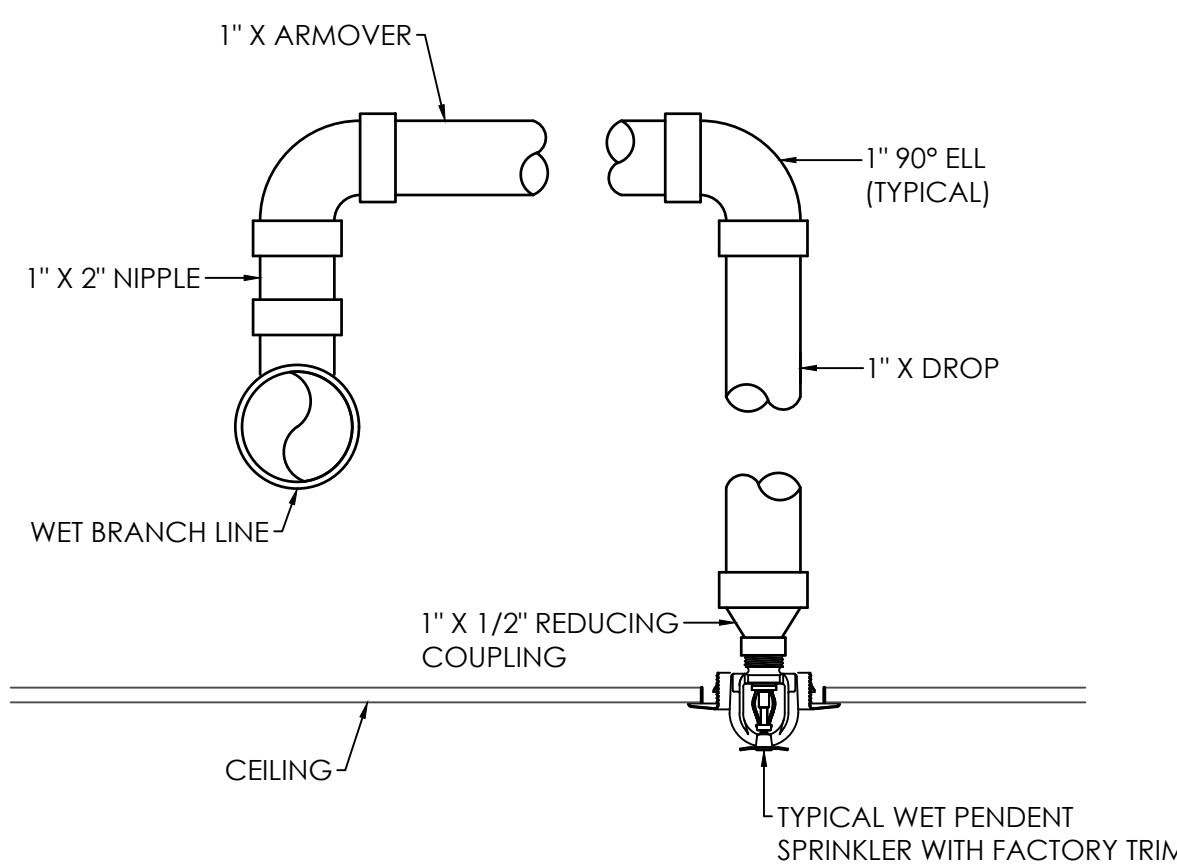
MID SPAN HANGER DETAIL

NO SCALE



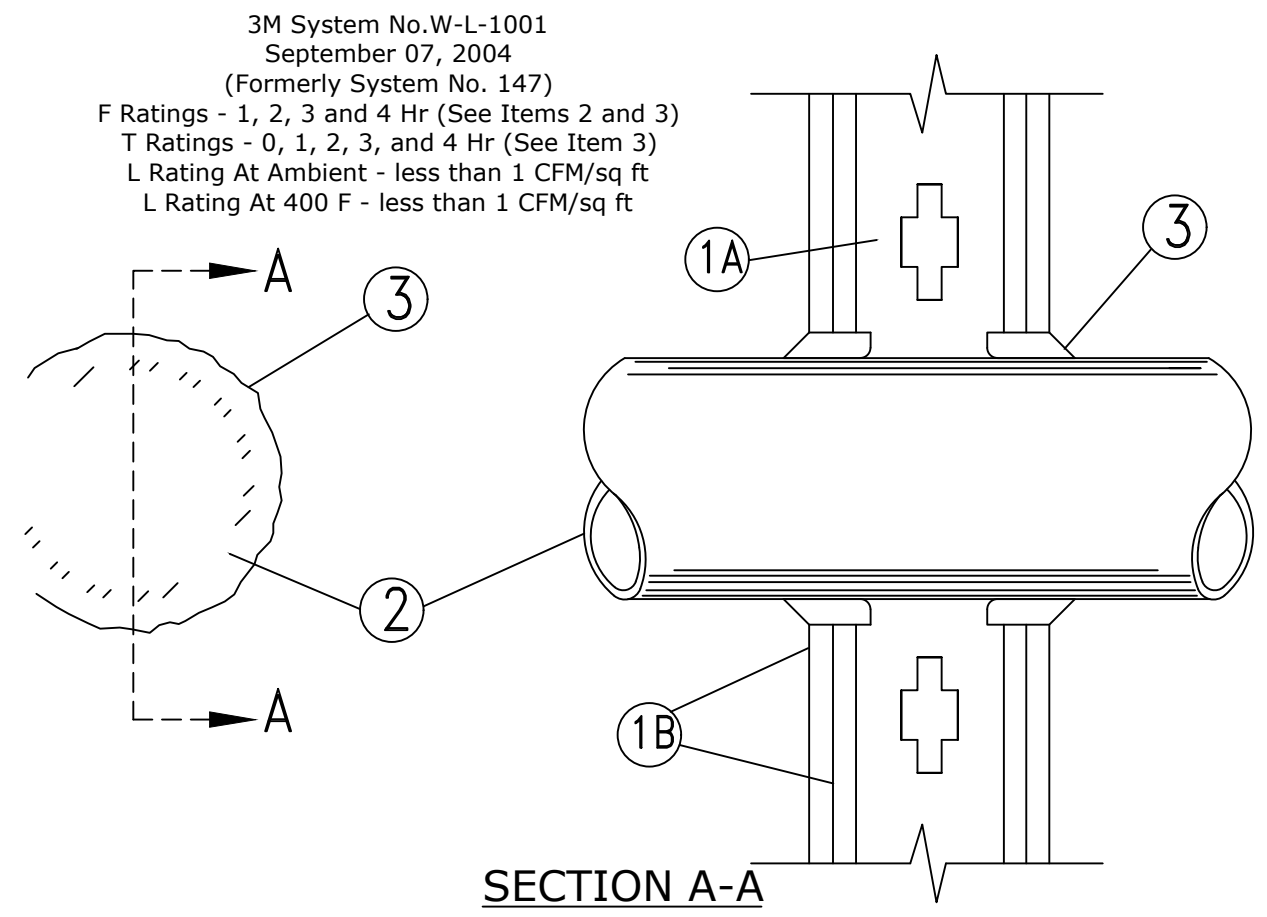
TOP BEAM HANGER DETAIL

NO SCALE



RETURN BEND PIPING DETAIL

NO SCALE:



SECTION A-A

NO SCALE

1. Wall Assembly - The 1, 2, 3, 3 or 4 for fire-rated gypsum wallboard/steel wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs - Wall framing may consist of either wood studs (max 2 in fire rated assemblies) or steel channel studs. Wood studs to consist of nominal 2 by 4 in. lumber spaced 16 in. OC with nominal 2 by 4 in. lumber and plates and cross bracing. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.

Gypsum Board - Nom 1/2 or 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 26 in.

2. Through Penetration - One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in. (space correct) to max 2 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. Steel Pipe - Nom 24 in. diam (or smaller) Schedule 20 (or heavier) steel pipe.

B. Iron Pipe - Nom 24 in. diam (or smaller) service weight (or heavier) cast iron pipe, nom 12 in diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.

C. Conduit - Nom 6 in. diam (or smaller) steel conduit or nom 4 in diam (or smaller) steel electrical metallic tubing.

D. Copper Tubing - Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.

E. Copper Pipe - Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.

F. Through Penetrating Product - Flexible Metal Piping - The following types of steel flexible metal gas piping may be used:

1. Nom 2 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

2. Nom 1 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

3. Nom 1 in. diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

4. When copper pipe is used, T-Rating is 0 hr.

3M COMPANY - CP 25WB+ caulk or FB-3000 WT sealant.

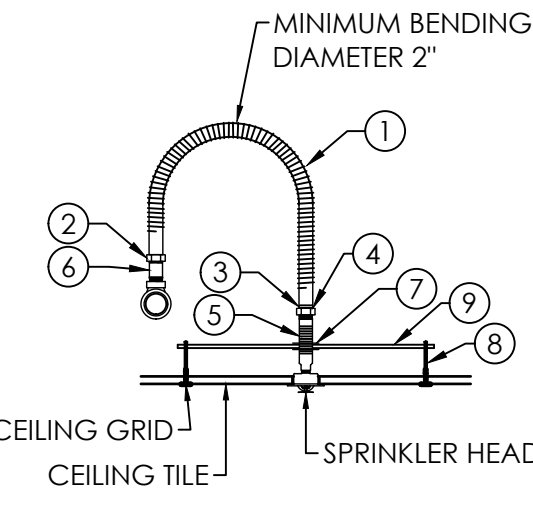
*Bearing the UL Classification Marking

PIPE PENETRATION THRU RATED GYP. BOARD WALL DETAIL

NO SCALE

FLEXIBLE DROP ASSEMBLY

#	Part Name	Material	Q'ty	Spec.
1	Flexible Tube	ANSI 316L	1	0.31
2	Nut	SS41	2	Zinc Plated
3	Isolation Ring	nylon66	2	
4	Gasket	N.B.R.	2	
5	Reducer	SPP	1	Zinc Plated
6	Nipple	SPP	1	Zinc Plated
7	Bracket-A (Rounded)	SS41	1	Zinc Plated
8	Bracket-B (Rectangular)	SS41	2	Zinc Plated
9	Square Bar	SS41	1	Zinc Plated



ARM OVER / HEAD CONNECTION

NO SCALE:

NOTE: TO BE USED ONLY IN CEILING APPLICATIONS. SPRINKLER CONTRACTOR HAS THE OPTION OF USING FLEXIBLE ARMOVERS IN LIEU OF RIGID PIPING.

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LATHAN
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Academy St. Career Innovation Academy
The Troy City & Pike County Board of Education

708 E. Academy St., Troy, AL 36081

FIRE SPRINKLER DETAILS &
CALCULATIONS

SHEET TITLE:



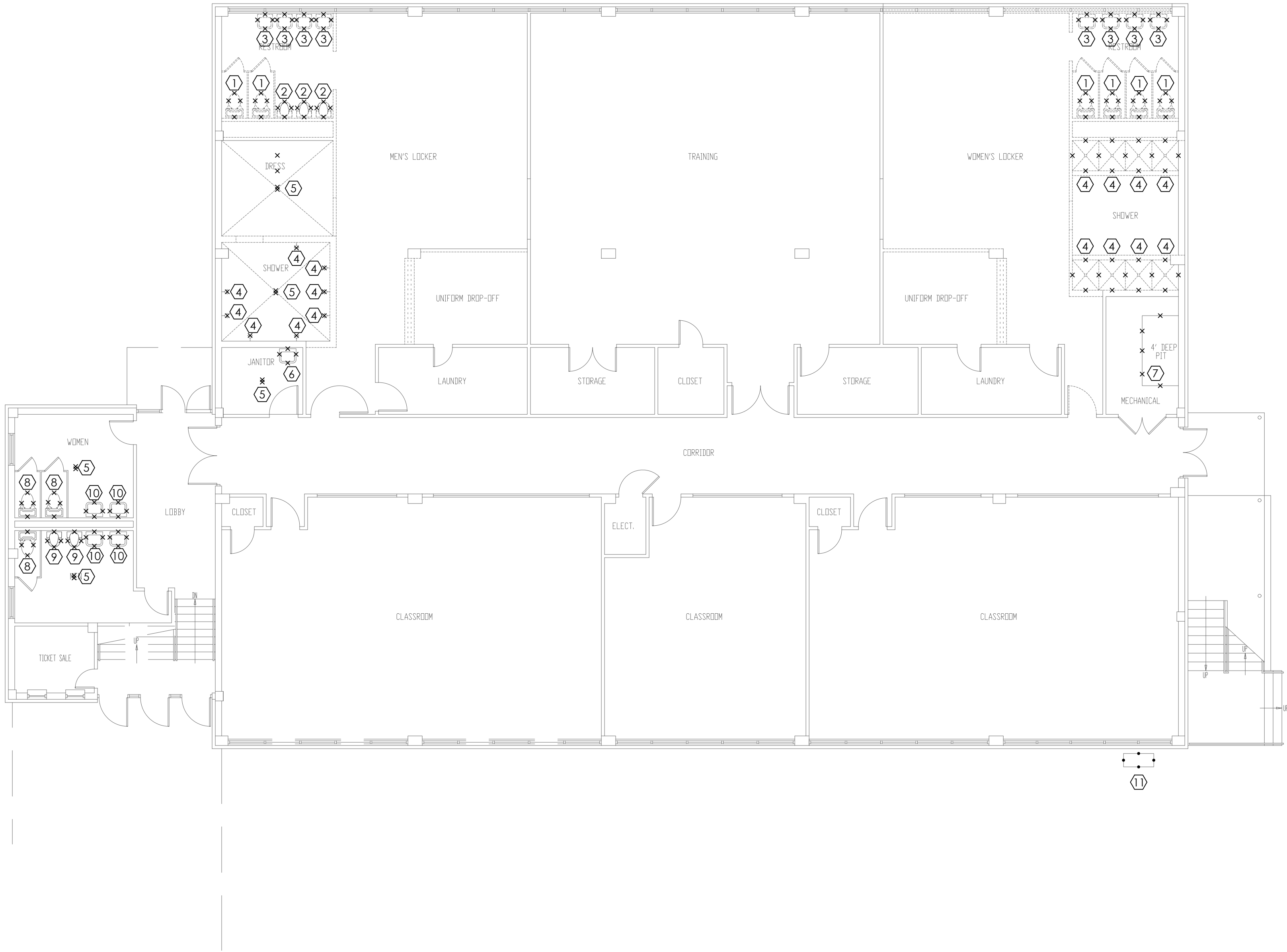
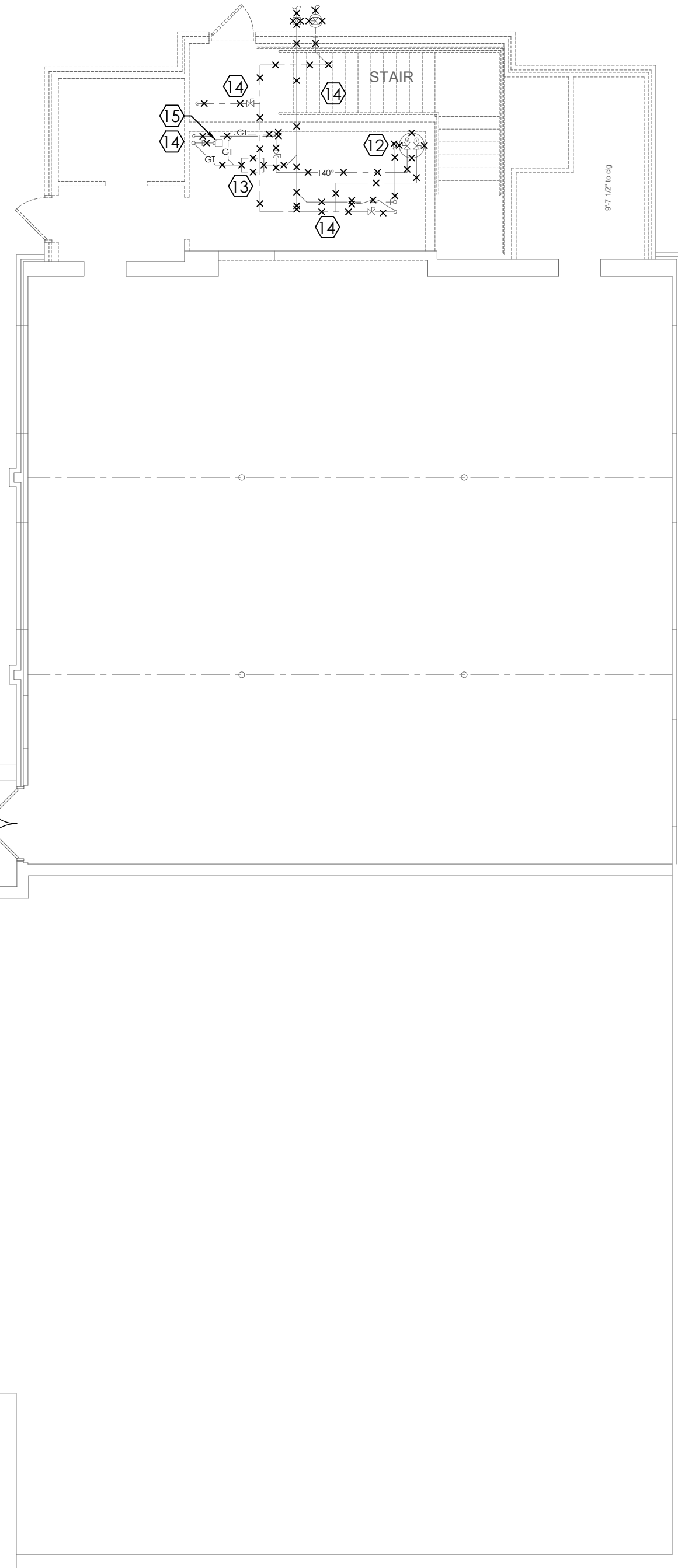
PROJ. MGR.:
DRAWN: JPM
DATE: 10.9.26
REVISIONS

JOB NO. 25-249

SHEET NO:

FP2.0

0 1" 2"



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

EXISTING WASTE AND WATER LINES ARE SHOWN FOR DRAWING CLARITY. PLUMBER SHALL VERIFY ALL EXISTING CONDITIONS AND LOCATIONS OF WASTE AND WATER IN ALL PLUMBING WALLS.

GENERAL DEMOLITION NOTES

1. CONTRACTOR SHALL REMOVE ALL EXISTING PLUMBING, AND EXISTING UTILITIES AS NOTED ON THIS DRAWING AND AS REQUIRED FOR INSTALLATION AND PROPER OPERATION OF NEW PLUMBING AND EQUIPMENT.
2. CONTRACTOR SHALL VISIT THE SITE AND NOTIFY THE ARCHITECT IN WRITING OF ANY PROBLEMS OR DISCREPANCIES IN THE DRAWING BEFORE SUBMITTING A BID.
3. PATCH AND PAINT ALL HOLES IN WALLS, FLOORS, CEILINGS AND ROOF DUE TO DEMOLITION OF CONSTRUCTION.

NOTE LEGEND: (THIS SHEET ONLY)

1. REMOVE EXISTING WATER CLOSET. CAP WASTE IN FLOOR, CAP WATER IN FLOOR OR ABOVE CEILING AREA. PATCH WALL, FLOOR, AND CEILING AS REQUIRED.
2. REMOVE EXISTING URINAL. CAP WASTE IN FLOOR. CAP WATER IN FLOOR OR ABOVE CEILING AREA. PATCH WALL, FLOOR, AND CEILING AS REQUIRED.
3. REMOVE EXISTING LAVATORY. CAP WASTE AND WATER IN WALL, FLOOR, OR ABOVE CEILING AREA. PATCH FLOOR, WALL, AND CEILING AS REQUIRED.
4. REMOVE EXISTING SHOWER. CAP WASTE IN FLOOR. CAP WATER IN FLOOR OR ABOVE CEILING AREA. PATCH WALL, FLOOR, AND CEILING AS REQUIRED.
5. REMOVE AND REPLACE EXISTING SERVICE SINK. REUSE EXISTING WASTE IN FLOOR. REUSE EXISTING WATER IN FLOOR OR ABOVE CEILING AREA. PATCH WALL, FLOOR, AND CEILING AS REQUIRED.
6. REMOVE AND REPLACE EXISTING FLOOR DRAIN. REUSE EXISTING WASTE IN FLOOR PATCH FLOOR AS REQUIRED.
7. REMOVE EXISTING SUMP PUMP AND RELATED PIPING. BACK FILL PIT AND PROVIDE NEW CONCRETE FLOOR.
8. REMOVE AND REPLACE EXISTING WATER CLOSET REUSE EXISTING WASTE IN FLOOR AND WATER IN WALL. PATCH FLOOR AND WALL AS REQUIRED.
9. REMOVE AND REPLACE EXISTING URINAL REUSE EXISTING WASTE AND WATER IN WALL. PATCH WALL AS REQUIRED.
10. REMOVE AND REPLACE EXISTING LAVATORY REUSE EXISTING WASTE AND WATER IN WALL. PATCH WALL AS REQUIRED.
11. EXISTING GAS METERS
12. REMOVE EXISTING WATER HEATER AND ALL RELATED PIPING. TO BE RELOCATED TO DIFFERENT SITE FOR INSTALLATION.
13. REMOVE EXISTING GREASE INTERCEPTOR AND ALL RELATED PIPING. TO BE RELOCATED TO DIFFERENT SITE FOR INSTALLATION.
14. REMOVE ALL RELATED WASTE AND WATER PIPING
15. REMOVE EXISTING FLOOR SINK AND ALL RELATED WASTE PIPING



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PLUMBING DEMOLITION
BASEMENT FLOOR PLAN
SHEET TITLE:

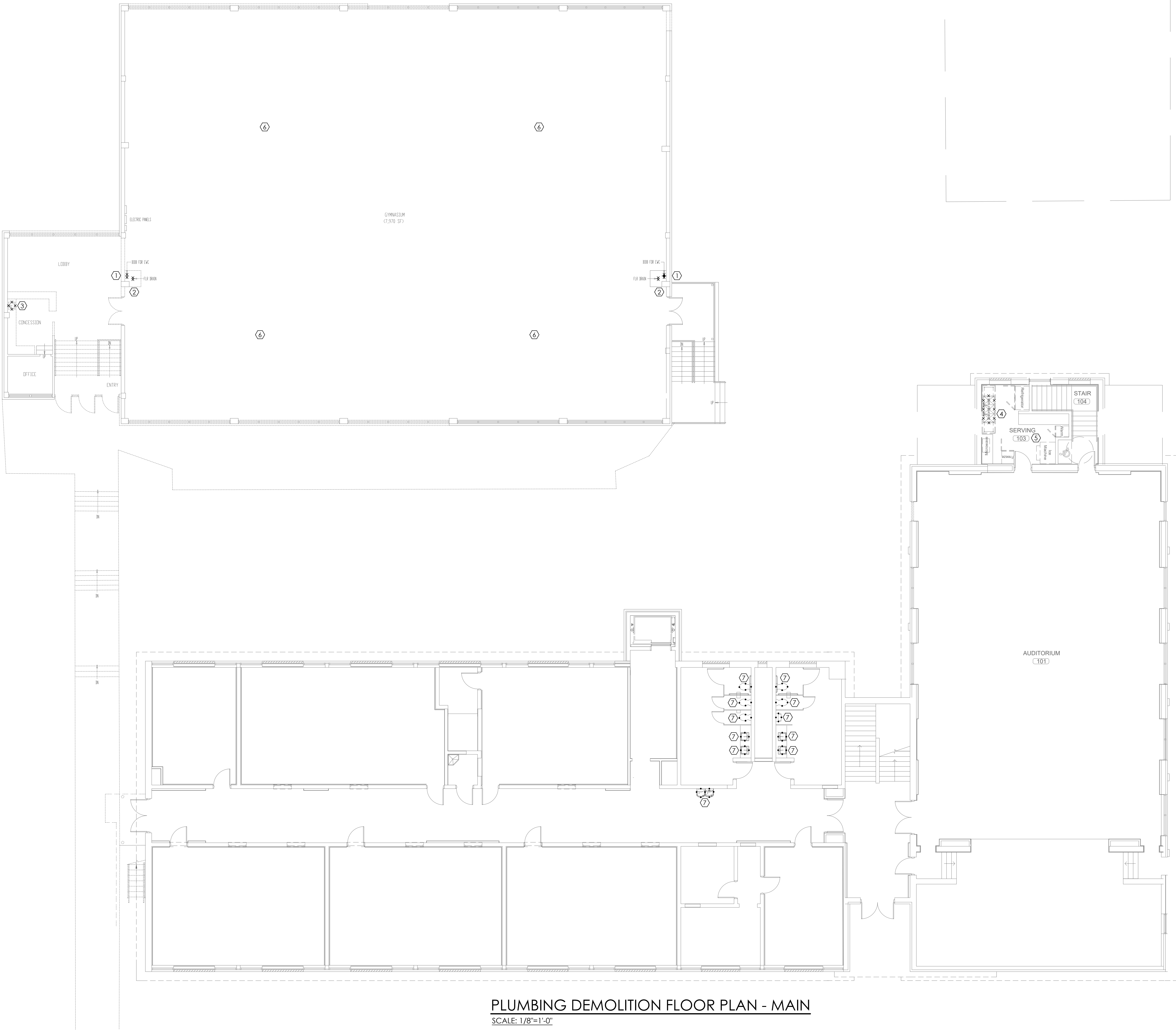


PROJ. MGR.:	RLB
DRAWN:	BMP
DATE:	10.9.26
REVISIONS	

JOB NO.	25-249
SHEET NO:	P0.1

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

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www.jmorriseng.com PROJECT NO: 26-044



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

EXISTING WASTE AND WATER LINES ARE SHOWN FOR DRAWING CLARITY. PLUMBER SHALL VERIFY ALL EXISTING CONDITIONS AND LOCATIONS OF WASTE AND WATER IN ALL PLUMBING WALLS.

GENERAL DEMOLITION NOTES

1. CONTRACTOR SHALL REMOVE ALL EXISTING PLUMBING, AND EXISTING UTILITIES AS NOTED ON THIS DRAWING AND AS REQUIRED FOR INSTALLATION AND PROPER OPERATION OF NEW PLUMBING AND EQUIPMENT.
2. CONTRACTOR SHALL VISIT THE SITE AND NOTIFY THE ARCHITECT IN WRITING OF ANY PROBLEMS OR DISCREPANCIES IN THE DRAWING BEFORE SUBMITTING A BID.
3. PATCH AND PAINT ALL HOLES IN WALLS, FLOORS, CEILINGS AND ROOF DUE TO DEMOLITION OF CONSTRUCTION.

NOTE LEGEND: (THIS SHEET ONLY)

1. REMOVE AND CAP EXISTING WASTE AND WATER LINES FOR EWC. PATCH WALL AS REQUIRED.
2. REMOVE AND CAP EXISTING F.D. IN FLOOR. PATCH WALL AS REQUIRED.
3. REMOVE EXISTING SINK. CAP WASTE AND WATER IN WALL. PATCH WALL AS REQUIRED.
4. REMOVE EXISTING 3 COMPARTMENT SINK AND ALL RELATED PIPING. REMOVE ALL FOR FULL DEMO OF AREA. TO BE RELOCATED TO DIFFERENT SITE FOR INSTALLATION.
5. REMOVE EXISTING F.D. AND TRAP PRIMER REMOVE ALL RELATED PIPING FOR FULL DEMO OF AREA
6. REMOVE AND CAP ALL EXISTING GAS PIPING.
7. EXISTING FIXTURES TO REMAIN



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PLUMBING DEMOLITION
MAIN FLOOR PLAN

SHEET TITLE:



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DRAWN:	BMP
DATE:	10.9.26
REVISIONS	

JOB NO.
25-249

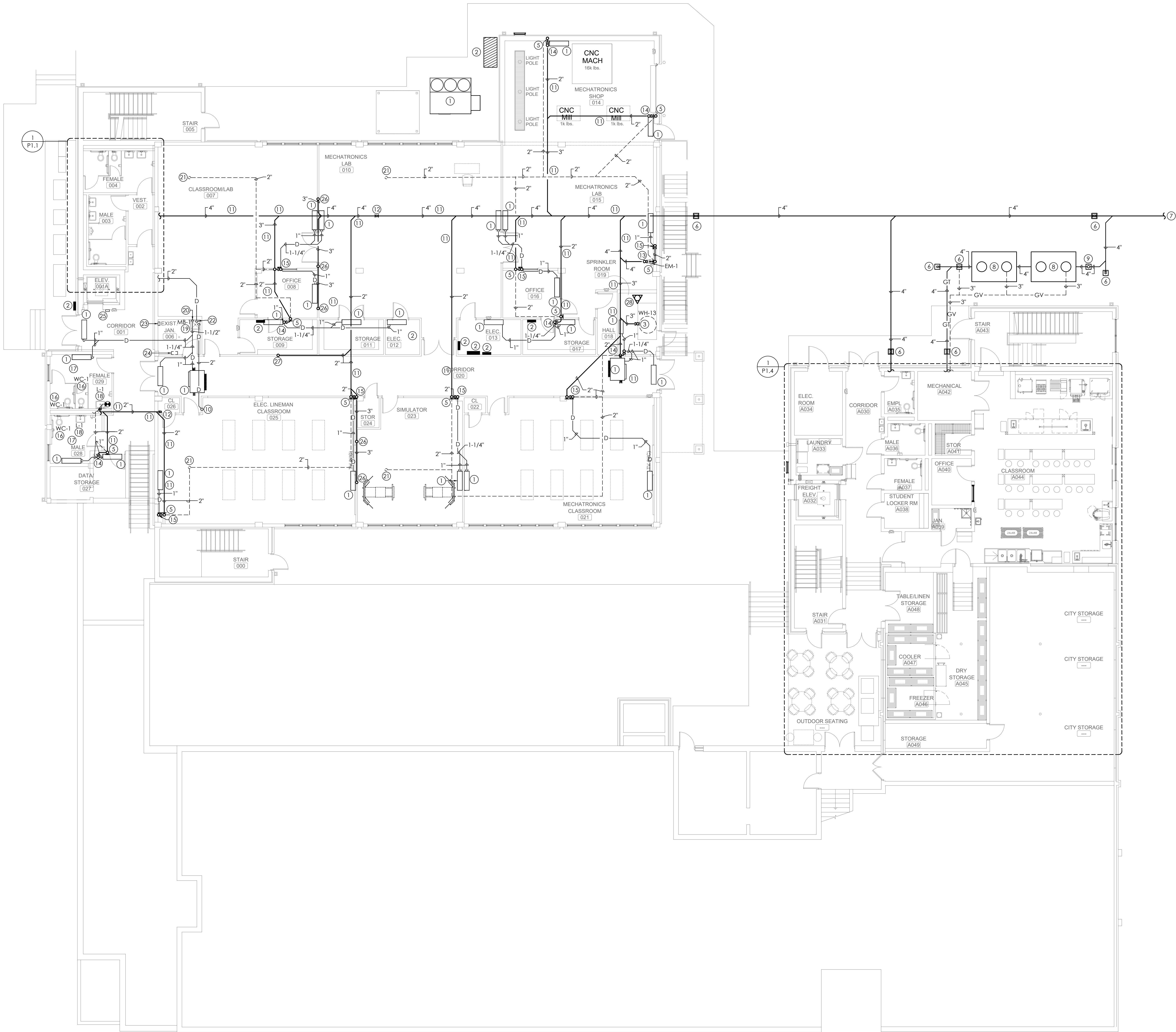
SHEET NO:

P0.2

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

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PLUMBING WASTE AND VENT FLOOR PLAN - LOWER
SCALE: 1/8"=1'-0"

VENTS THROUGH ROOF MUST BE LOCATED MINIMUM OF 10'-0" FROM ANY OUTSIDE AIR INTAKE. COORDINATE WITH MECHANICAL CONTRACTOR AND WITH ROOFING CONTRACTOR. 3'-0" MINIMUM CAST IRON. PROVIDE SUPPORT AT ELBOW BELOW V.T.R.

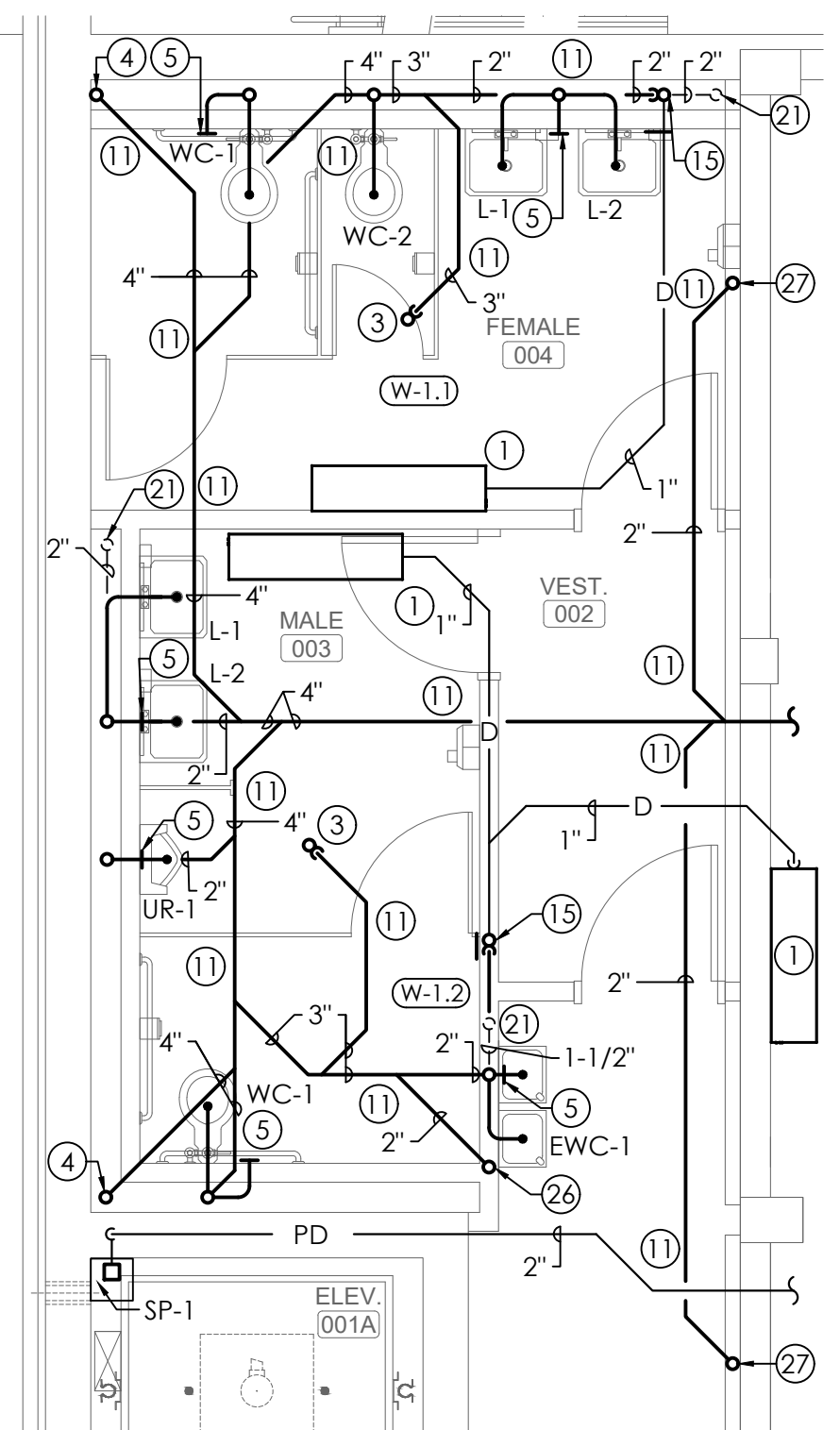
PLUMBER SHALL COORDINATE WITH GENERAL CONTRACTOR ALL OPENINGS REQUIRED FOR PLUMBING SYSTEMS TO EXTEND FLOOR TO ROOF.

SLEEVE ALL PENETRATIONS OF STRUCTURE BELOW GRADE. PROVIDE CLEARANCE AROUND PIPES FOR BUILDING EXPANSION AND CONTRACTION. COORDINATE WITH STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR.

CONDENSATE PIPING TO BE TYPE "L" HARD COPPER PIPE WITH 1" THICK FIBERGLASS INSULATION. LABEL ALL CONDENSATE PIPING.

NOTE LEGEND: (THIS SHEET ONLY)

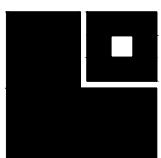
- MECHANICAL UNIT. (SEE MECHANICAL DRAWINGS) COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
- ELECTRICAL PANEL. MAINTAIN MINIMUM 42" CLEARANCE IN FRONT OF PANELS. PIPING SHALL NOT RUN ABOVE PANEL. COORDINATE WITH ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS.
- 3" FLOOR DRAIN. (PROVIDE TRAP GUARD.)
- 4" WASTE FROM ABOVE
- W.C.O.
- C.O.T.G. (SET IN 18"X18"X6" CONCRETE PAD WITH TOOLED EDGES. PROVIDE BRASS PLUG.) PROVIDE COVER AND FRAME.
- SEE SITE UTILITY PLAN FOR CONTINUATION.
- 1500 GALLON GREASE TRAP (SEE DETAIL)
- SAMPLING WELL. (SEE DETAIL)
- 2" CONDENSATE LINE (1" THICK FIBERGLASS INSULATION WITH LABEL) FROM ABOVE
- SAWCUT AND PATCH SLAB AS REQUIRED.
- F.C.O.
- 4" F.D. (PROVIDE TRAP GUARD)
- 2X3" HUB DRAIN WITH INSULATED DEEP SEAL P-TRAP (1" FIBERGLASS INSULATION, LABELED) PROVIDE TRAP PRIMER.
- 2X3" HUB DRAIN WITH INSULATED DEEP SEAL P-TRAP (1" FIBERGLASS INSULATION, LABELED) PROVIDE QX BOX DRAIN BOX MODEL 696-3F. PROVIDE TRAP PRIMER. PROVIDE ACCESS PANEL.
- INSTALL NEW WATER CLOSET CONNECT TO EXISTING WASTE IN FLOOR PATCH FLOOR AS REQUIRED
- EXISTING WASTE LINES TO BE SCOPED AND CAMERAED. PRIOR TO INSTALLATION OF NEW FIXTURES. REPAIR OR REPLACE LINES AS REQUIRED.
- INSTALL NEW LAVATORY CONNECT TO EXISTING WASTE IN WALL. PATCH WALL AS REQUIRED.
- INSTALL NEW MOP BASIN CONNECT TO EXISTING WASTE IN WALL. PATCH WALL AS REQUIRED.
- 2" CONDENSATE LINE TO MOP BASIN. STRAP TO WALL WITH UNISTRUT SUPPORT
- 2" VENT UP
- 2" PUMPED DRAIN FROM SUMP PUMP TO SPILL INTO MOP BASIN. STRAP TO WALL WITH UNISTRUT SUPPORT.
- SUMP PUMP #1 CONTROL PANEL
- SUMP PUMP #1 ALARM PANEL
- SUMP PUMP #1 REMOTE ALARM
- 3" WASTE FROM ABOVE
- 2" WASTE FROM ABOVE
- FIRE RISER (SEE FIRE PROTECTION)



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

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

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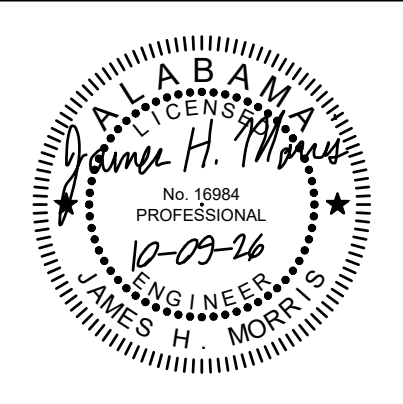
LATHAN
McKEE
ARCHITECTS

Academy St. Career Innovation Academy
The Troy City & Pike County Board of Education

708 E. Academy St., Troy, AL 36081

PLUMBING WASTE AND VENT
MAIN PIPING FLOOR PLAN

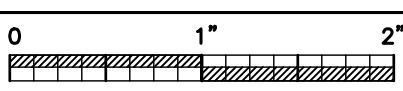
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PROJ. MGR.: RLB
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SHEET NO:

P1.2



VENTS THROUGH ROOF MUST BE LOCATED MINIMUM OF 10'-0" FROM ANY OUTSIDE AIR INTAKE. COORDINATE WITH MECHANICAL CONTRACTOR AND WITH ROOFING CONTRACTOR. 3'-0" MINIMUM CAST IRON. PROVIDE SUPPORT AT ELBOW BELOW V.T.R.

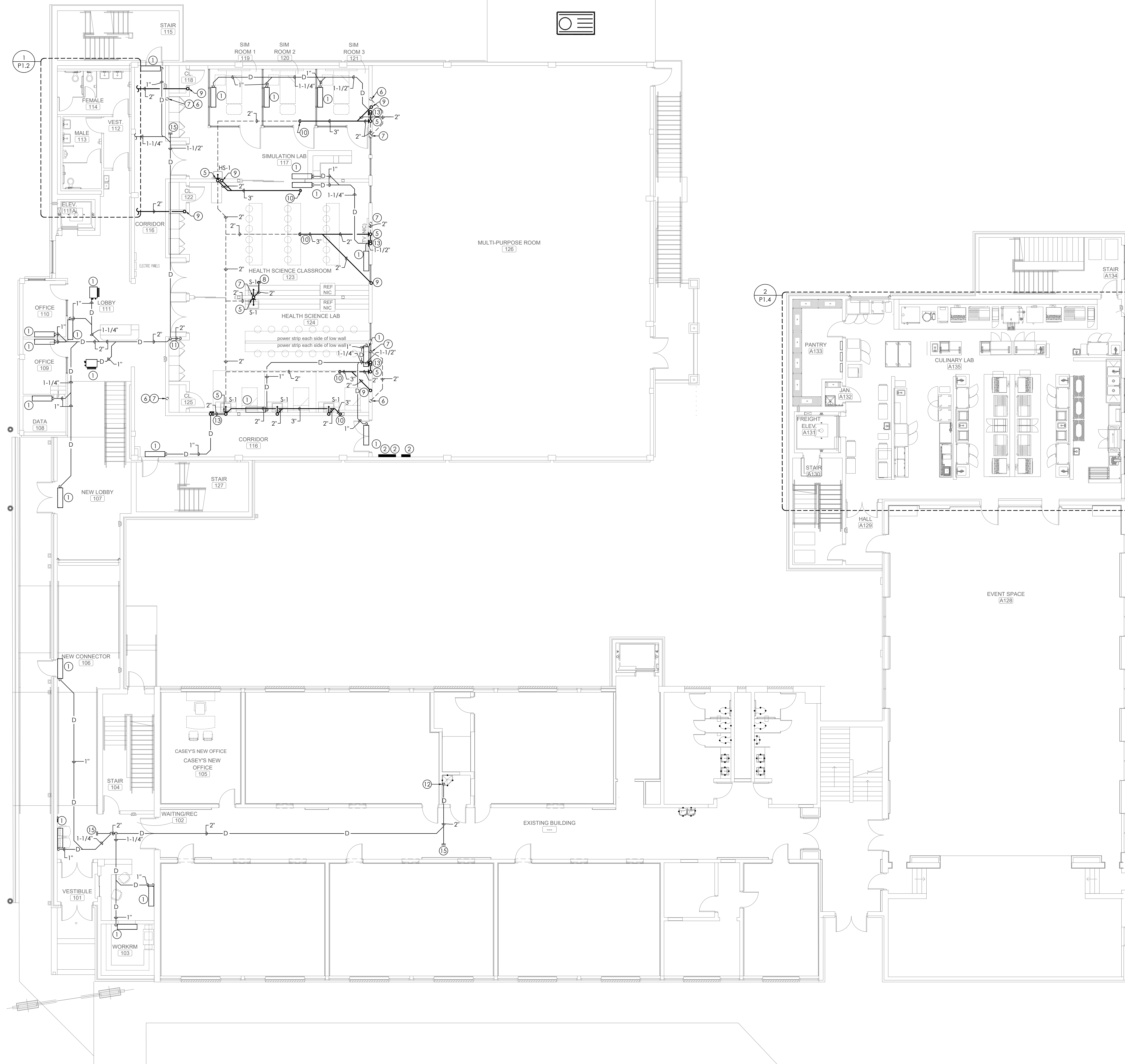
PLUMBER SHALL COORDINATE WITH GENERAL CONTRACTOR ALL OPENINGS REQUIRED FOR PLUMBING SYSTEMS TO EXTEND FLOOR TO ROOF.

SLEEVE ALL PENETRATIONS OF STRUCTURE BELOW GRADE. PROVIDE CLEARANCE AROUND PIPES FOR BUILDING EXPANSION AND CONTRACTION. COORDINATE WITH STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR.

CONDENSATE PIPING TO BE TYPE "L" HARD COPPER PIPE WITH 1" THICK FIBERGLASS INSULATION. LABEL ALL CONDENSATE PIPING.

NOTE LEGEND: (THIS SHEET ONLY)

- MECHANICAL UNIT. (SEE MECHANICAL DRAWINGS) COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
- ELECTRICAL PANEL. MAINTAIN MINIMUM 42" CLEARANCE IN FRONT OF PANELS. PIPING SHALL NOT RUN ABOVE PANEL. COORDINATE WITH ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS.
- 3" FLOOR DRAIN. (PROVIDE TRAP GUARD.)
- 4" WASTE DOWN
- W.C.O.
- 2" VENT FROM BELOW
- 2" VENT UP
- 2" WASTE DOWN
- 2" WASTE FROM ABOVE
- 3" WASTE DOWN
- ROUTE CONDENSATE (TYPE "L" COPPER WITH 1" THICK FIBERGLASS INSULATION AND LABELED) OFFSET AND DOWN IN WALL
- 2" CONDENSATE LINE (TYPE "L" COPPER WITH 1" THICK FIBERGLASS INSULATION AND LABELED) DOWN IN WALL AND SPILL INTO MOP BASIN BELOW. STRAP LINE TO WALL WITH UNISTRUT SUPPORTS
- 2"X3" HUB DRAIN WITH INSULATED DEEP SEAL P-TRAP (1" THICK FIBERGLASS INSULATION) MOUNT IN WALL SIUX CHIEF OX BOX 696-3F PROVIDE VENTED ACCESS PANEL AND TRAP PRIMER
- 2" WASTE FROM ABOVE AND DOWN
- INLINE C.O.
- 1-1/2" VENT FROM BELOW AND 2" VENT UP
- 4" WASTE FROM ABOVE



PLUMBING WASTE AND VENT FLOOR PLAN - MAIN

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

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

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

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VENTS THROUGH ROOF MUST BE LOCATED MINIMUM OF 10'-0" FROM ANY OUTSIDE AIR INTAKE. COORDINATE WITH MECHANICAL CONTRACTOR AND WITH ROOFING CONTRACTOR. 3'-0" MINIMUM CAST IRON. PROVIDE SUPPORT AT ELBOW BELOW V.T.R.

PLUMBER SHALL COORDINATE WITH GENERAL CONTRACTOR ALL OPENINGS REQUIRED FOR PLUMBING SYSTEMS TO EXTEND FLOOR TO ROOF.

SLEEVE ALL PENETRATIONS OF STRUCTURE BELOW GRADE. PROVIDE CLEARANCE AROUND PIPES FOR BUILDING EXPANSION AND CONTRACTION. COORDINATE WITH STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR.

CONDENSATE PIPING TO BE TYPE "L" HARD COPPER PIPE WITH 1" THICK FIBERGLASS INSULATION. LABEL ALL CONDENSATE PIPING.

NOTE LEGEND: (THIS SHEET ONLY)

- MECHANICAL UNIT. (SEE MECHANICAL DRAWINGS) COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
- ELECTRICAL PANEL. MAINTAIN MINIMUM 42" CLEARANCE IN FRONT OF PANELS. PIPING SHALL NOT RUN ABOVE PANEL. COORDINATE WITH ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS.
- W.C.O.
- 2" VENT FROM BELOW - 2" V.T.R. (3'-0" MIN. CAST IRON)(PROVIDE HANGER AT ELBOW BELOW V.T.R.)
- 2" VENT FROM BELOW - 4" V.T.R. (3'-0" MIN. CAST IRON)(PROVIDE HANGER AT ELBOW BELOW V.T.R.)
- 3" FLOOR DRAIN. (PROVIDE TRAP GUARD.)
- 4" WASTE DOWN
- 2" WASTE DOWN
- 2X3" HUB DRAIN WITH INSULATED DEEP SEAL P-TRAP (1" THICK FIBERGLASS INSULATION)
- 2" VENT FROM BELOW
- 2"X3" HUB DRAIN WITH INSULATED DEEP SEAL P-TRAP (1" THICK FIBERGLASS INSULATION) MOUNT IN WALL SILOX CHIEF OX BOX 696-3P PROVIDE VENTED ACCESS PANEL AND TRAP PRIMER
- 2" V.T.R. (3'-0" MIN. CAST IRON)(PROVIDE HANGER AT ELBOW BELOW V.T.R.)



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PLUMBING WASTE AND VENT
UPPER PIPING FLOOR PLAN

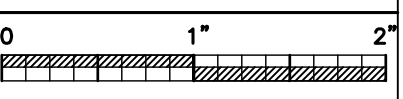
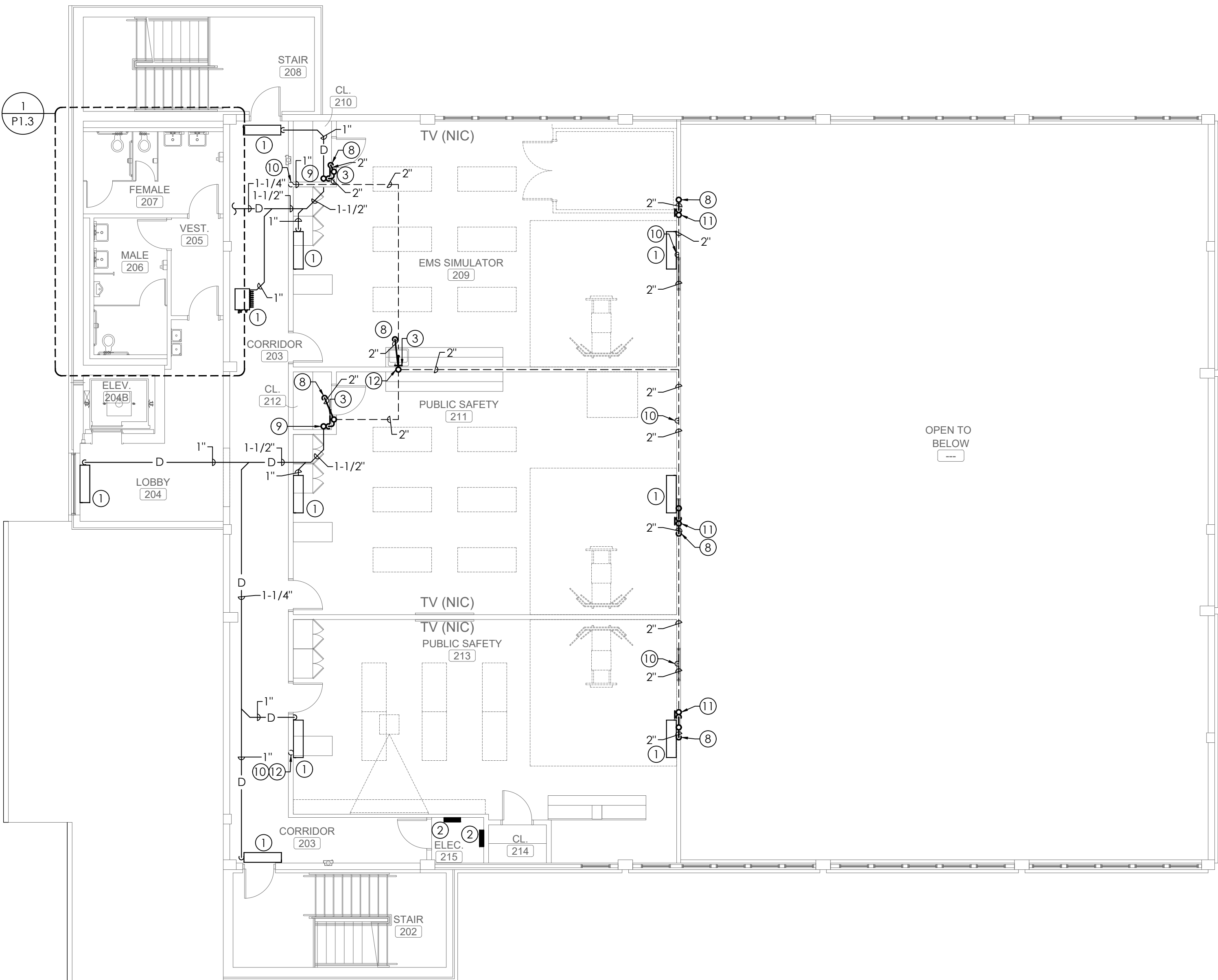
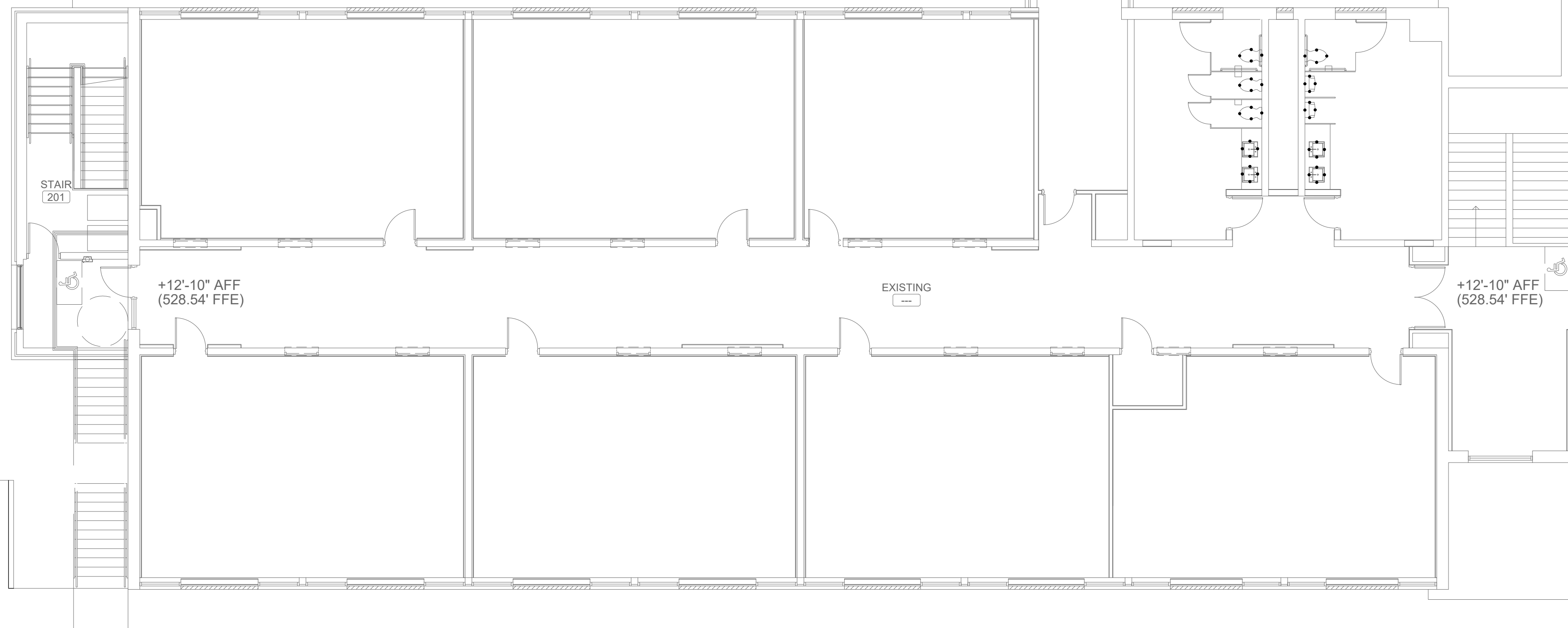
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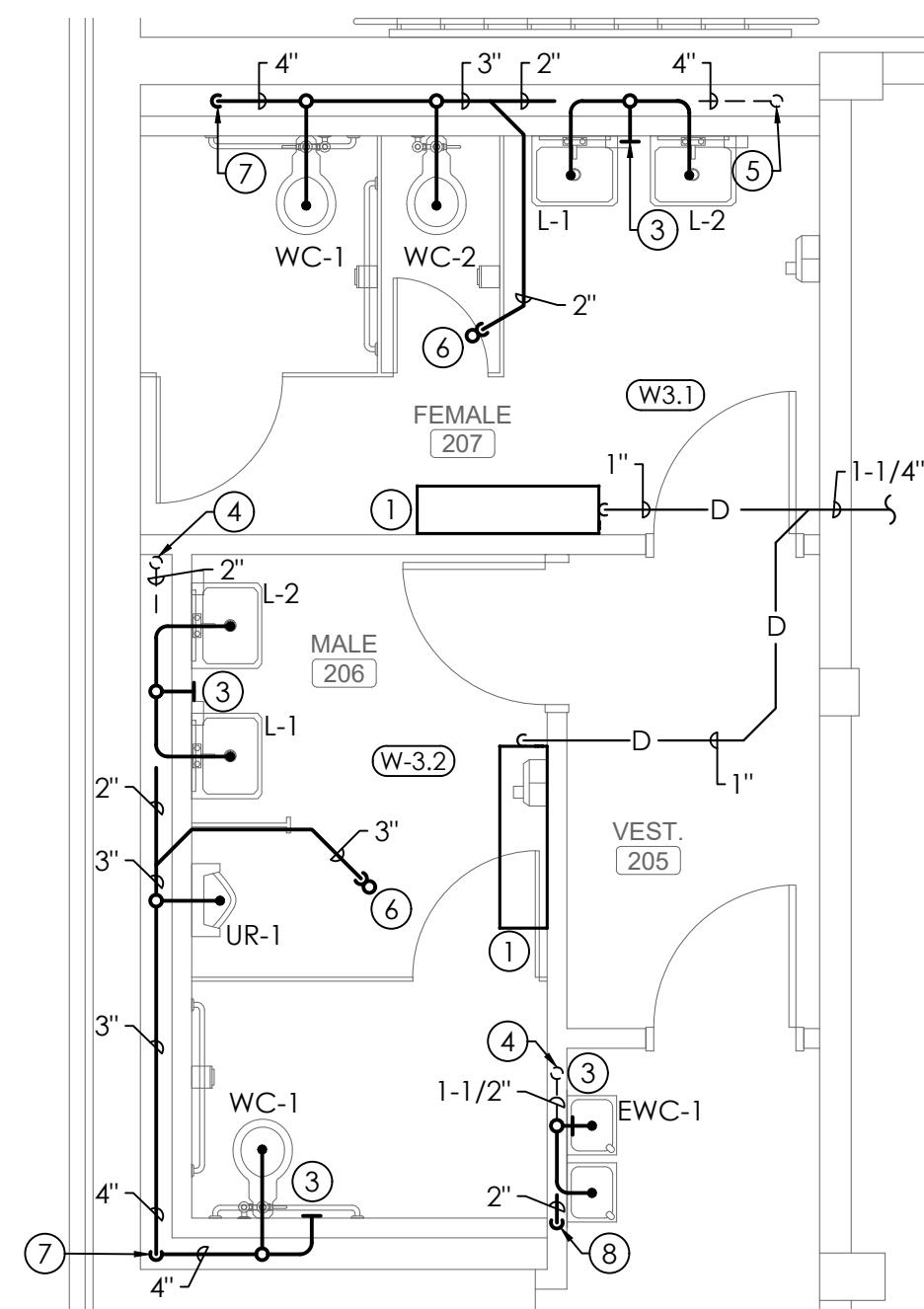
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SHEET NO:

P1.3



PLUMBING WASTE AND VENT FLOOR PLAN - UPPER
SCALE: 1/8"=1'-0"

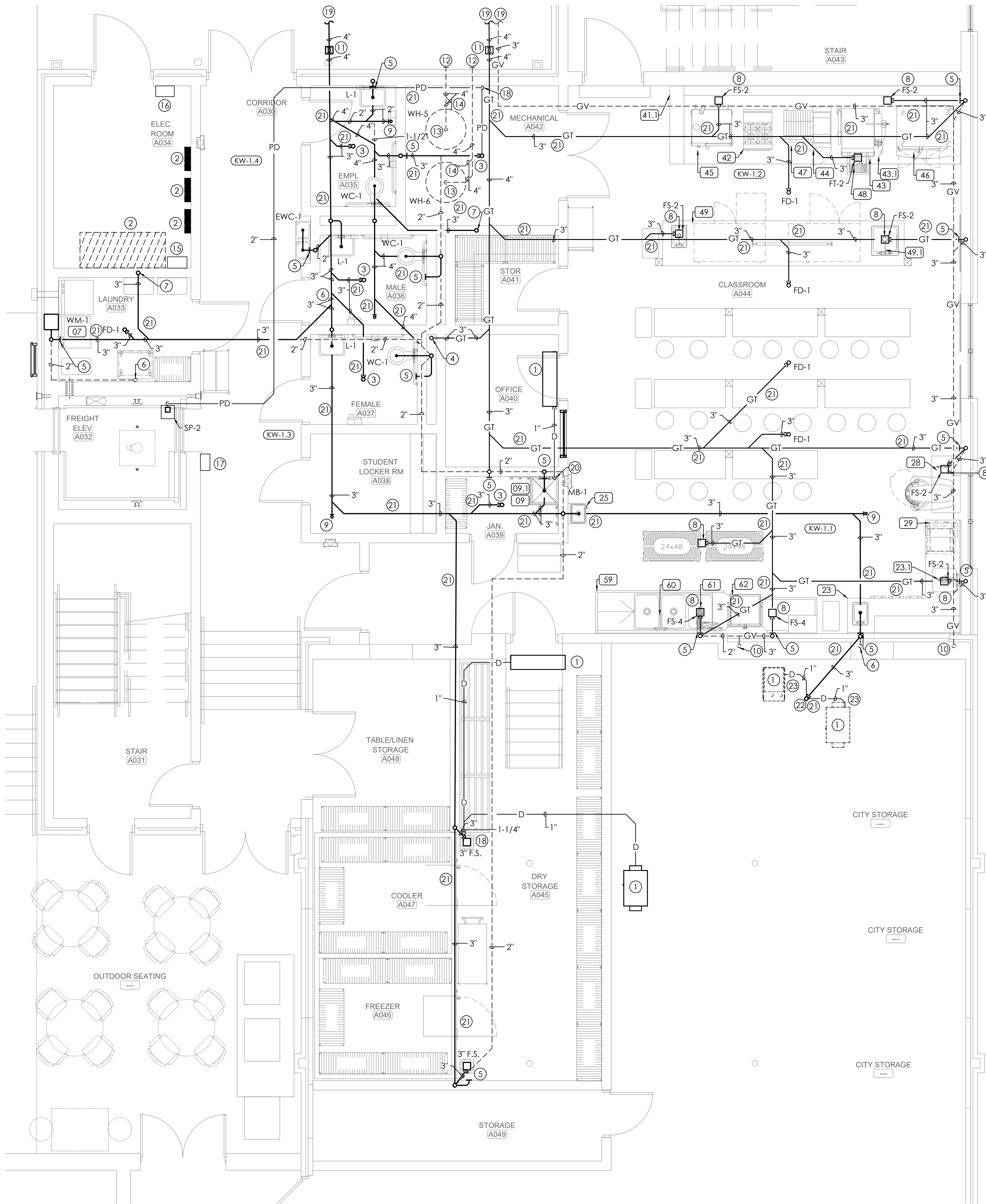


ENLARGED WASTE AND
VENT PLAN
SCALE: 1/4"=1'-0"

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

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

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1
P1.0

PLUMBING WASTE AND VENT ENLARGED KITCHEN PLAN - LOWER

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

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

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VENTS THROUGH ROOF MUST BE LOCATED MINIMUM OF 10'-0" FROM ANY OUTSIDE AIR INTAKE. COORDINATE WITH MECHANICAL CONTRACTOR AND WITH ROOFING CONTRACTOR. 3'-0" MINIMUM CAST IRON. PROVIDE SUPPORT AT ELBOW BELOW V.T.R.

PLUMBER SHALL COORDINATE WITH GENERAL CONTRACTOR ALL OPENINGS REQUIRED FOR PLUMBING SYSTEMS TO EXTEND FLOOR TO ROOF.

SLEEVE ALL PENETRATIONS OF STRUCTURE BELOW GRADE. PROVIDE CLEARANCE AROUND PIPES FOR BUILDING EXPANSION AND CONTRACTION. COORDINATE WITH STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR.

CONDENSATE PIPING TO BE TYPE "1" HARD COPPER PIPE WITH 1" THICK FIBERGLASS INSULATION. LABEL ALL CONDENSATE PIPING.

ALL PIPING FROM KITCHEN EQUIPMENT, FLOOR SINK AND FLOOR DRAIN CONNECTIONS TO GREASE TRAP SHALL BE COATED CAST IRON (CHARLOTTE EDGE HP) OR EQUAL. GREASE VENT SHALL BE SCH. 40 SOLID WALL PVC.

(#) NOTE LEGEND; (THIS SHEET ONLY)

- MECHANICAL UNIT. [SEE MECHANICAL DRAWINGS] COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
- ELECTRICAL PANEL. MAINTAIN MINIMUM 42" CLEARANCE IN FRONT OF PANELS. PIPING SHALL NOT RUN ABOVE PANEL. COORDINATE WITH ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS.
- FLOOR DRAIN. (PROVIDE TRAP GUARD.)
- GREASE WASTE FROM ABOVE
- W.C.O.
- VENT UP
- WASTE FROM ABOVE
- FLOOR SINK COORDINATE WITH KITCHEN EQUIPMENT FOR SIZE, DEPTH, AND TYPE GRADE
- F.C.O. (PROVIDE FRAME AND COVER)
- GREASE VENT UP
- C.O.T.G. (SET IN 18"x18"x6" CONCRETE PAD WITH TOOLED EDGES. PROVIDE BRASS PLUG.) PROVIDE COVER AND FRAME.
- CONCENTRIC GAS VENT TO EXTERIOR WALL. PROVIDE SUPPORT AS REQUIRED (IPEX 636 PIPING OR EQUAL)
- 4"R INTAKE VENT (IPEX 636 OR EQUAL)
- 4"R EXHAUST VENT (IPEX 636 OR EQUAL)
- SUMP PUMP #2 CONTROL PANEL
- SUMP PUMP #2 ALARM PANEL
- SUMP PUMP #2 REMOTE ALARM
- ROUTE DOWN INTERIOR WALL AND ON FLOOR TO FLOOR DRAIN OR FLOOR SINK. PROVIDE UNISTRUT SUPPORT ON WALL AND FLOOR.
- SEE SHEET P1.1 FOR CONTINUATION
- ROUTE 1" CONDENSATE LINE DOWN TO MOP BASIN. ATTACHED TO WALL WITH UNISTRUT SUPPORT
- SAWCUT AND PATCH SLAB
- 3" F.D. (PROVIDE TRAP PRIMER)
- ROUTE 1" CONDENSATE LINE TO F.D. STRAP TO FLOOR WITH UNISTRUT SUPPORT

CULINARY CLASSROOM FOOD SERVICE EQUIPMENT SCHEDULE

ITEM ##	DESCRIPTION	C.W. SIZE (IN)	C.W. AFF (IN)	H.W. SIZE (IN)	H.W. AFF (IN)	DIRECT DRAIN SIZE (IN)	DIRECT DRAIN AFF (IN)	INDIRECT DRAIN SIZE (IN)	MBTUH	GAS SIZE (IN)	GAS AFF (IN)	REMARKS
07	WASHER	3"	36"	3"	36"	---	---	2"	---	---	---	EXTEND I.W. TO WASHING MACHINE BOX
09	MOP SINK	---	---	---	---	---	---	3"	---	---	---	---
09.1	SERVICE FAUCET	3/4"	24"	3/4"	24"	---	---	---	---	---	---	CONNECT WATER THRU WATER FILTER, EXTEND I.W. TO NEAREST F.S.
23	BAKERY TABLE W/ HAND SINK, ONE COMPARTMENT SINK	---	---	---	---	1-1/2"	20"	1-1/2"	---	---	---	EXTEND I.W. TO NEAREST F.S.
23.1	FAUCET, PRE-RINSE FAUCET WITH ADD FAUCET	1/2"	24"	1/2"	24"	---	---	---	---	---	---	---
25	HAND SINK	1/2"	24"	1/2"	24"	1-1/2"	20"	---	---	---	---	---
28	POT FILLER	1/2"	24"	1/2"	24"	---	---	---	---	---	---	---
29	HOT WATER DISPENSER	1/4"	24"	---	---	---	---	---	---	---	---	---
41.1	UTILITY DISTRIBUTION SYSTEM	3/4"	---	3/4"	---	---	---	---	1700.0	---	---	---
42	6 EYE RANGE	---	---	---	---	---	---	---	215.0	3/4"	---	CONNECT TO UDS.
42A	RANGE MOUNTED SALAMANDER	---	---	---	---	---	---	---	66.0	3/4"	---	CONNECT TO UDS.
43	30 GALLON BRAISING PAN	---	---	---	---	---	---	---	125.0	3/4"	---	CONNECT TO UDS.
43.1	DOUBLE PANTRY FAUCET WITH SPRAY HOSE	1/2"	---	1/2"	---	---	---	---	---	---	---	CONNECT TO UDS.
44	FRYER	---	---	---	---	---	---	---	75.0	3/4"	---	CONNECT TO UDS.
45	10 PAN COMBINATION OVEN ON STAND	3/4"	---	---	---	---	---	1"	---	---	---	CONNECT TO UDS. WATER THRU FILTER, EXTEND I.W. TO NEAREST F.S.
46	ROTATING CONVECTION OVEN WITH PROOFER	1/2"	---	---	---	---	---	3/4"	---	---	---	CONNECT TO UDS. WATER THRU FILTER, EXTEND I.W. TO NEAREST F.S.
47	CHARBROILER ON STAND	---	---	---	---	---	---	---	68.0	3/4"	---	CONNECT TO UDS.
48	FLOOR TROUGH	---	---	---	4"	---	---	---	---	---	---	---
49	INSTRUCTORS TABLE W/ HAND SINK, LARGE SINK	---	---	---	---	---	---	(2) 1-1/2"	---	---	---	EXTEND I.W. TO NEAREST F.S.
49.1	FAUCET	1/2"	14"	1/2"	14"	---	---	---	---	---	---	---
59	3-COMPARTMENT SINK/ SOILED DISHTABLE	---	---	---	---	---	---	(3) 1-1/2"	---	---	---	EXTEND I.W. TO NEAREST F.S.
60	FAUCET	1/2"	14"	1/2"	14"	---	---	---	---	---	---	---
61	PRE-RINSE WITH FAUCET	1/2"	14"	1/2"	14"	---	---	---	---	---	---	---
62	DISHMACHINE	1/2"	24"	1/2"	24"	---	---	1"	---	---	---	EXTEND I.W. TO NEAREST F.S.

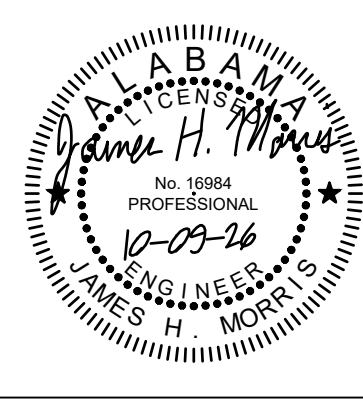


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PLUMBING WASTE AND VENT MAIN
KITCHEN PIPING FLOOR PLAN

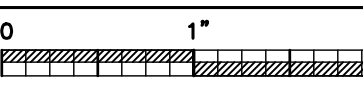
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25-249
SHEET NO:

P1.5



VENTS THROUGH ROOF MUST BE LOCATED MINIMUM OF 10'-0" FROM ANY OUTSIDE AIR INTAKE. COORDINATE WITH MECHANICAL CONTRACTOR AND WITH ROOFING CONTRACTOR. 3'-0" MINIMUM CAST IRON. PROVIDE SUPPORT AT ELBOW BELOW V.T.R.

PLUMBER SHALL COORDINATE WITH GENERAL CONTRACTOR ALL OPENINGS REQUIRED FOR PLUMBING SYSTEMS TO EXTEND FLOOR TO ROOF.

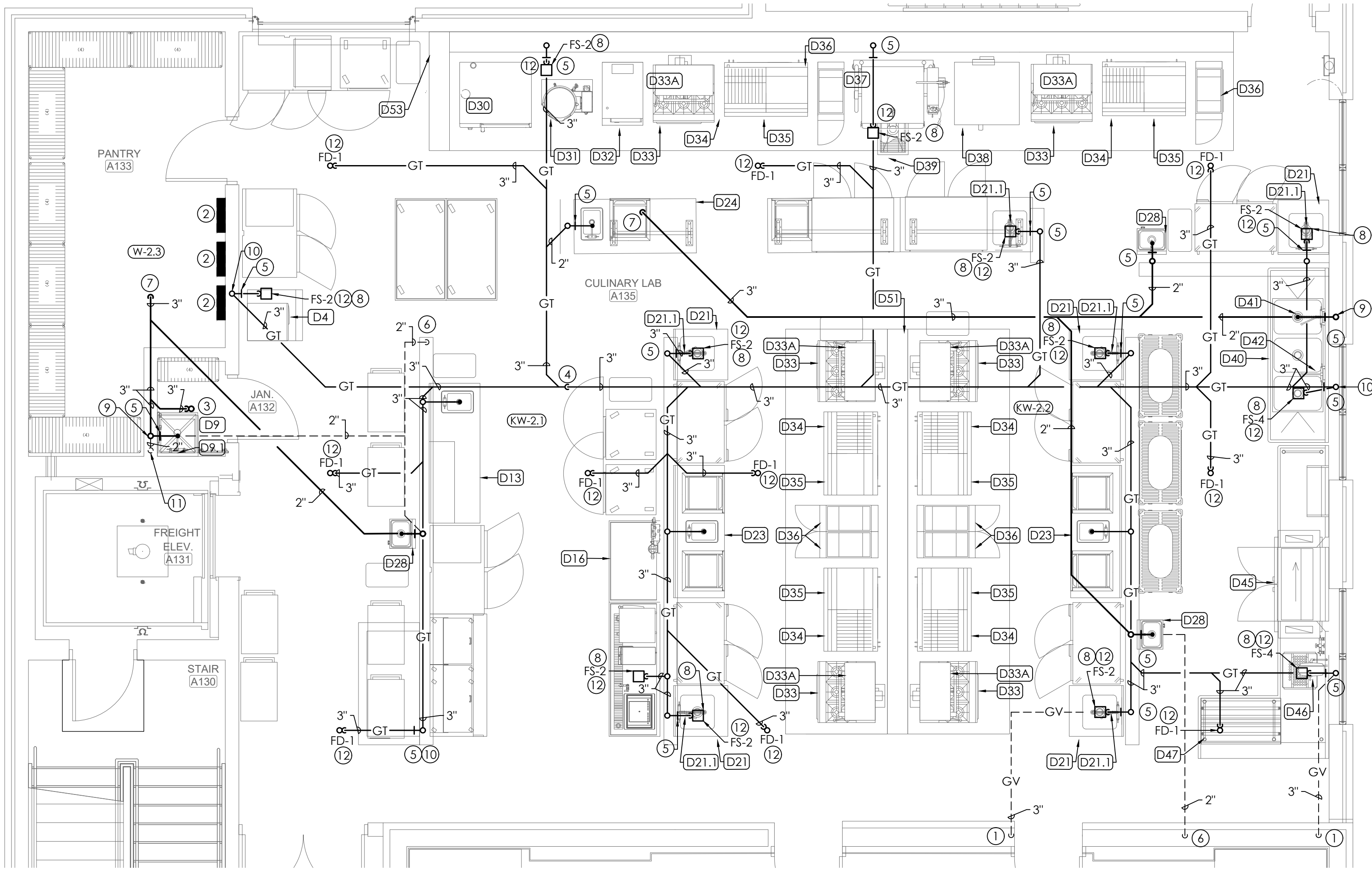
SLEEVE ALL PENETRATIONS OF STRUCTURE BELOW GRADE. PROVIDE CLEARANCE AROUND PIPES FOR BUILDING EXPANSION AND CONTRACTION. COORDINATE WITH STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR.

CONDENSATE PIPING TO BE TYPE "L" HARD COPPER PIPE WITH 1" THICK FIBERGLASS INSULATION. LABEL ALL CONDENSATE PIPING.

ALL PIPING FROM KITCHEN EQUIPMENT, FLOOR SINK AND FLOOR DRAIN CONNECTIONS TO GREASE TRAP SHALL BE COATED CAST IRON (CHARLOTTE EDGE HP OR EQUAL. GREASE VENT SHALL BE SCH. 40 SOLID WALL PVC.

(P) NOTE LEGEND: (THIS SHEET ONLY)

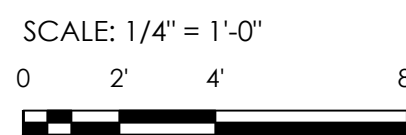
- 3" GREASE VENT FROM BELOW.
- ELECTRICAL PANEL. MAINTAIN MINIMUM 42" CLEARANCE IN FRONT OF PANELS. PIPING SHALL NOT RUN ABOVE PANEL. COORDINATE WITH ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS.
- 3" F.D. (PROVIDE TRAP GUARD)
- 3" GREASE WASTE DOWN
- W.C.O.
- 2" VENT FROM BELOW
- 3" WASTE DOWN
- FLOOR SINK - COORDINATE WITH KITCHEN EQUIPMENT FOR SIZE, DEPTH, AND TYPE GRATE.
- 2" V.T.R. (3'-0" MIN. CAST IRON)(PROVIDE HANGER AT ELBOW BELOW V.T.R.)
- 3" V.T.R. (3'-0" MIN. CAST IRON)(PROVIDE HANGER AT ELBOW BELOW V.T.R.)
- 2" VENT FROM BELOW
- FD-1, FT-2, FS-2, AND FS-4 SEE FOOD SERVICE DRAWINGS



1 P1.0 PLUMBING WASTE AND VENT ENLARGED KITCHEN PLAN - MAIN
SCALE: 1/4"=1'-0"

CULINARY LAB FOOD SERVICE EQUIPMENT SCHEDULE

ITEM #	DESCRIPTION	C.W. SIZE (IN)	C.W. AFF (IN)	H.W. SIZE (IN)	H.W. AFF (IN)	DIRECT DRAIN SIZE (IN)	DIRECT DRAIN AFF (IN)	INDIRECT DRAIN SIZE (IN)	MBTUH	GAS SIZE (IN)	GAS AFF (IN)	REMARKS
D4	ICE MACHINE WITH BIN	3/8"	78"	---	---	---	---	3/4"	---	---	---	CONNECT THRU WATER FILTER, EXTEND L.W. TO NEAREST F.S.
D9	MOP SINK	---	---	---	---	---	---	3"	---	---	---	---
D9.1	SERVICE FAUCET	3/4"	24"	3/4"	24"	---	---	---	---	---	---	---
D13	PREP TABLE WITH HAND SINK	1/2"	24"	1/2"	24"	1-1/2"	20"	---	---	---	---	---
D16	BEVERAGE TABLE	---	---	---	---	---	---	1-1/2"	---	---	---	EXTEND L.W. TO NEAREST F.S.
D21	PREP TABLE WITH SINK	---	---	---	---	---	---	1-1/2"	---	---	---	EXTEND L.W. TO NEAREST F.S.
D21.1	PREP TABLE FAUCET	1/2"	12"	1/2"	12"	---	---	---	---	---	---	---
D23	PREP TABLE WITH HAND SINK	1/2"	24"	1/2"	24"	1-1/2"	20"	---	---	---	---	---
D24	PREP TABLE WITH HAND SINK	1/2"	24"	1/2"	24"	1-1/2"	20"	---	---	---	---	---
D28	HAND SINK	1/2"	24"	1/2"	24"	1-1/2"	20"	---	---	---	---	---
D30	10 PAN COMBINATION OVEN ON STAND	3/4"	---	---	---	---	---	2"	---	---	---	CONNECT TO UDS. WATER THRU FILTER, EXTEND L.W. TO NEAREST F.S.
D31	12 QT KETTLE	1/2"	---	1/2"	---	---	---	---	---	---	---	CONNECT TO UDS.
D32	5 PAN STEAMER	(2) 3/8"	---	---	---	---	---	---	45.0	3/4"	---	CONNECT TO UDS. WATER THRU FILTER, EXTEND L.W. TO NEAREST F.S.
D33	RANGE	---	---	---	---	---	---	---	215.0	3/4"	---	CONNECT TO UDS.
D33A	RANGE MOUNTED SALAMDER	---	---	---	---	---	---	---	66.0	3/4"	---	CONNECT TO UDS.
D34	CHARBROILER ON STAND	---	---	---	---	---	---	---	68.0	3/4"	---	CONNECT TO UDS.
D35	GRIDDLE ON STAND	---	---	---	---	---	---	---	54.0	3/4"	---	CONNECT TO UDS.
D36	FRYER	---	---	---	---	---	---	---	120.0	1/2"	---	CONNECT TO UDS.
D37	30 GALLON BRAISING PAN	1/2"	---	1/2"	---	---	---	---	---	---	---	CONNECT TO UDS.
D38	DOUBLE STACK CONVECTION OVEN	---	---	---	---	---	---	---	---	---	---	CONNECT TO UDS.
D39	FLOOR TROUGH	---	---	---	---	4"	---	---	---	---	---	---
D40	3-COMPARTMENT SINK	---	---	---	---	---	---	(3) 1-1/2"	---	---	---	EXTEND L.W. TO NEAREST F.S.
D41	PRE-RINSE FAUCET	1/2"	24"	1/2"	24"	---	---	---	---	---	---	PLUMBER TO PROVIDE PRE-RINSE FAUCET T&S BRASS SPR-2500 OR EQUAL
D42	FAUCET	1/2"	24"	1/2"	24"	---	---	---	---	---	---	---
D45	DISHMACHINE	1/2"	24"	1/2"	24"	---	---	1"	---	---	---	EXTEND L.W. TO NEAREST F.S.
D46	HOSE REEL WITH CONTROLS	1/2"	12"	1/2"	12"	---	---	---	---	---	---	---
D47	SOILED DISHTABLE	---	---	---	---	---	---	1-1/2"	---	---	---	EXTEND L.W. TO NEAREST F.S.
DS1	UTILITY DISTRIBUTION SYSTEM	3/4"	DFA	3/4"	DFA	---	---	---	1980.0	---	---	DOWN FROM ABOVE (DFA)
DS3	UTILITY DISTRIBUTION SYSTEM	3/4"	DFA	3/4"	DFA	---	---	---	2900.0	---	---	DOWN FROM ABOVE (DFA)



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PLUMBING WASTE AND VENT
RISERS

SHEET TITLE:



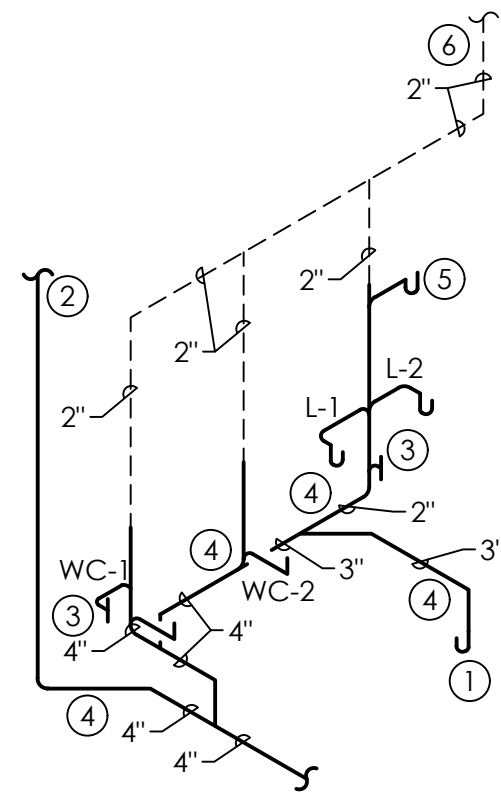
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REVISIONS	

JOB NO.	25-249
SHEET NO.	P1.6

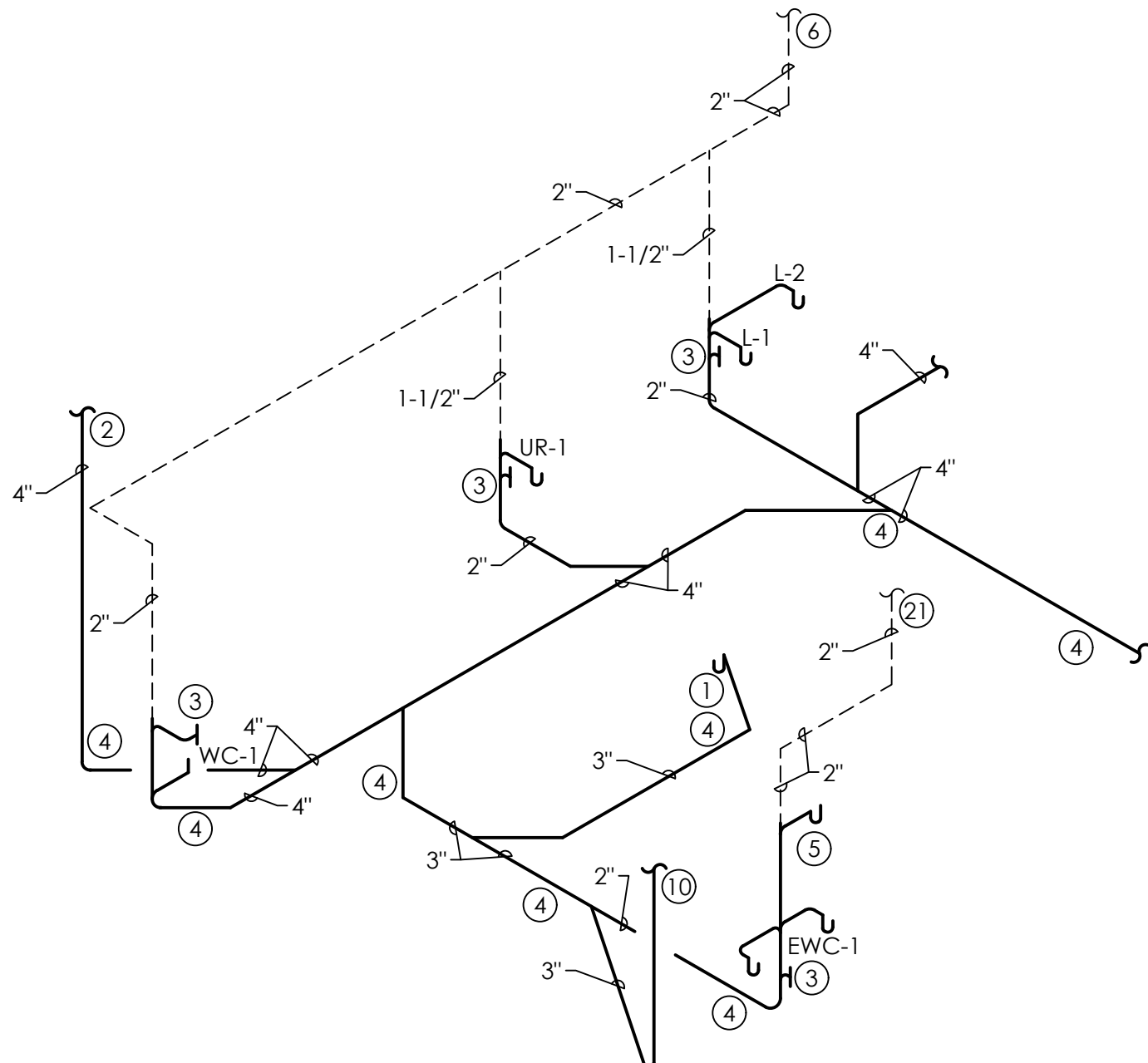
MORRIS DAVIS
ENGINEERING LLC

903 SOUTH PERRY STREET
MONTGOMERY, AL 36104
T: (334) 269-0209
www.jmorriseng.com PROJECT NO: 26-044

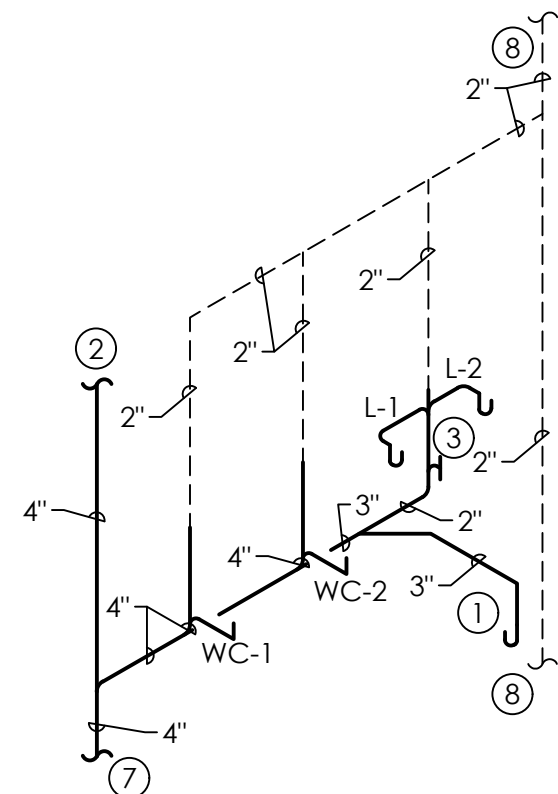
- NOTE LEGEND: (THIS SHEET ONLY)
- 3" FLOOR DRAIN, (PROVIDE TRAP GUARD.)
 - 4" WASTE FROM ABOVE
 - W.C.O.
 - SAWCUT AND PATCH SLAB AS REQUIRED.
 - 2X3" HUB DRAIN WITH INSULATED DEEP SEAL P-TRAP (1" FIBERGLASS INSULATION, LABELED) PROVIDE GX BOX DRAIN BOX MODEL 696-3F. PROVIDE TRAP PRIMER, PROVIDE ACCESS PANEL.
 - 2" VENT UP
 - 4" WASTE DOWN
 - 2" VENT FROM BELOW
 - 2" VENT FROM BELOW - 4" V.T.R. (3'-0" MIN. CAST IRON)(PROVIDE HANGER AT ELBOW BELOW V.T.R.)
 - 3" WASTE FROM ABOVE
 - 3" WASTE DOWN
 - FLOOR SINK COORDINATE WITH KITCHEN EQUIPMENT FOR SIZE, DEPTH, AND TYPE GRATE
 - 3" GREASE VENT UP
 - C.O.T.G. (SET IN 18"X18"X6" CONCRETE PAD WITH TOOLED EDGES, PROVIDE BRASS PLUG.) PROVIDE COVER AND FRAME.
 - 3" GREASE WASTE DOWN
 - 3" V.T.R. (3'-0" MIN. CAST IRON)(PROVIDE HANGER AT ELBOW BELOW V.T.R.)
 - 2" V.T.R. (3'-0" MIN. CAST IRON)(PROVIDE HANGER AT ELBOW BELOW V.T.R.)
 - F.C.O. (PROVIDE FRAME AND COVER)
 - 2" WASTE DOWN



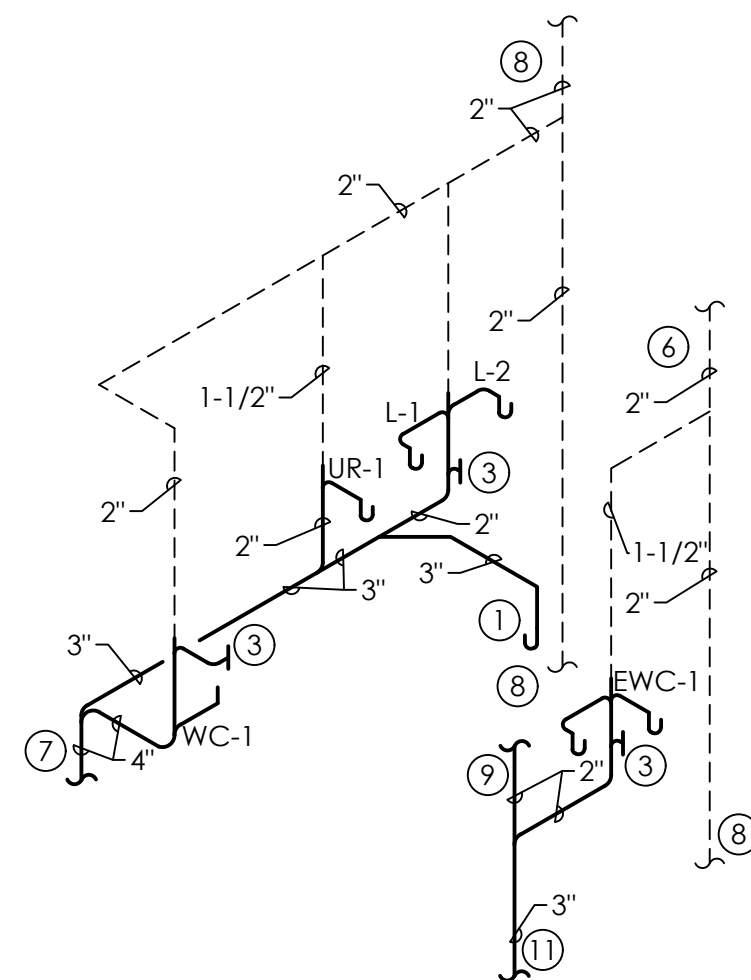
WASTE AND VENT RISER (W-1.1)
NO SCALE



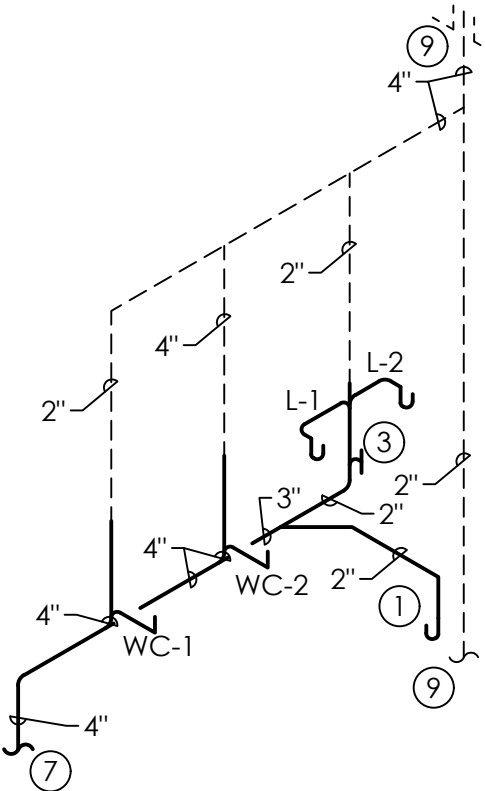
WASTE AND VENT RISER (W-1.2)
NO SCALE



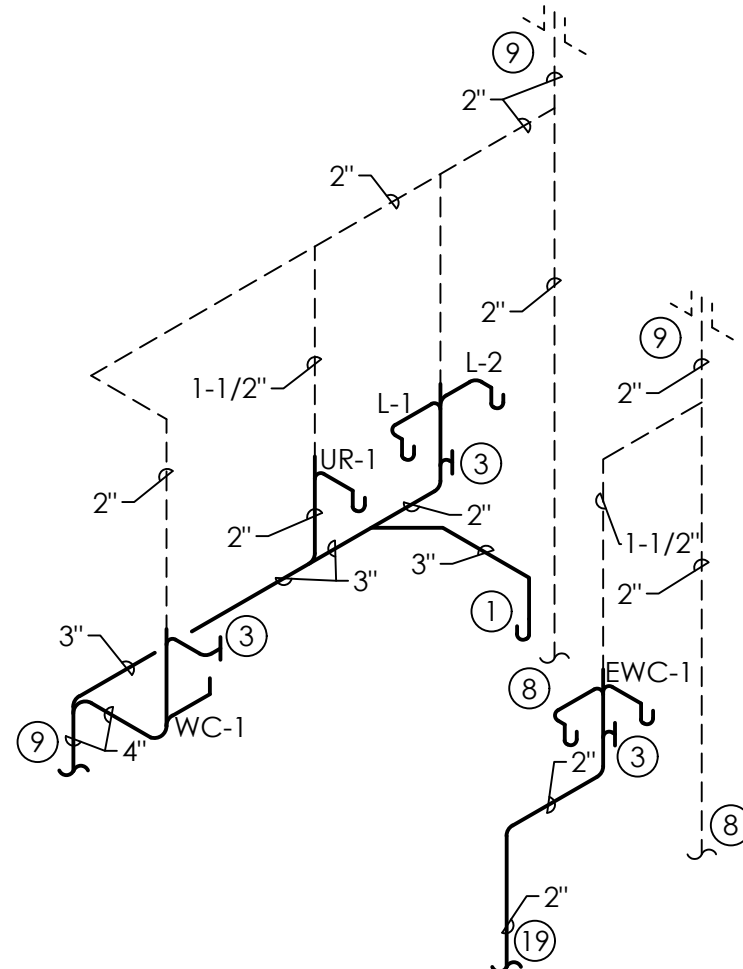
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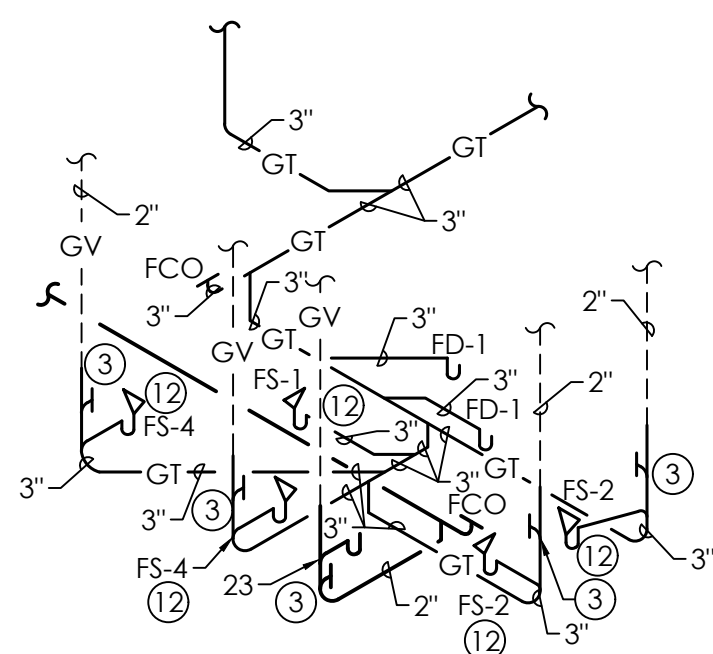
WASTE AND VENT RISER (W-2.2)
NO SCALE



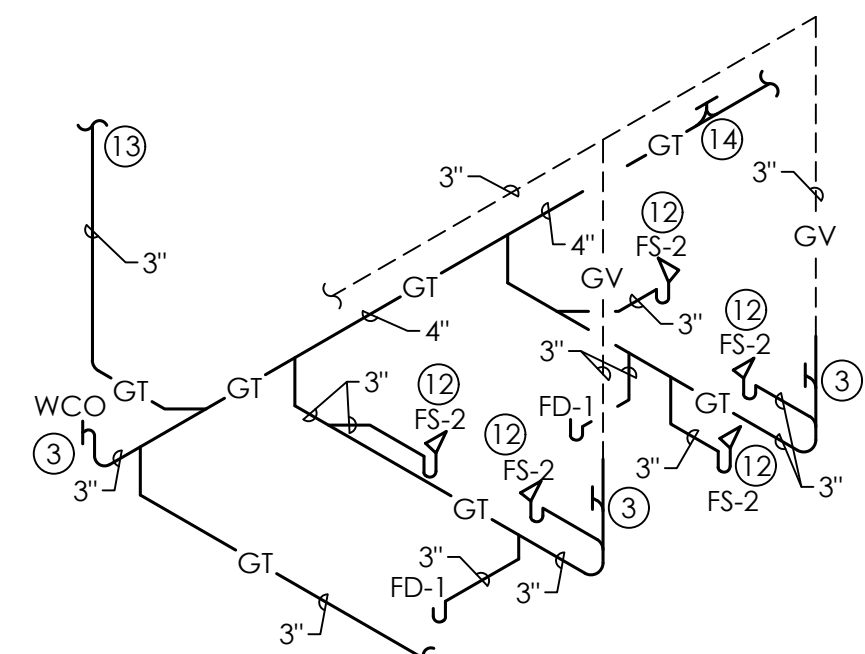
WASTE AND VENT RISER (W-3.1)
NO SCALE



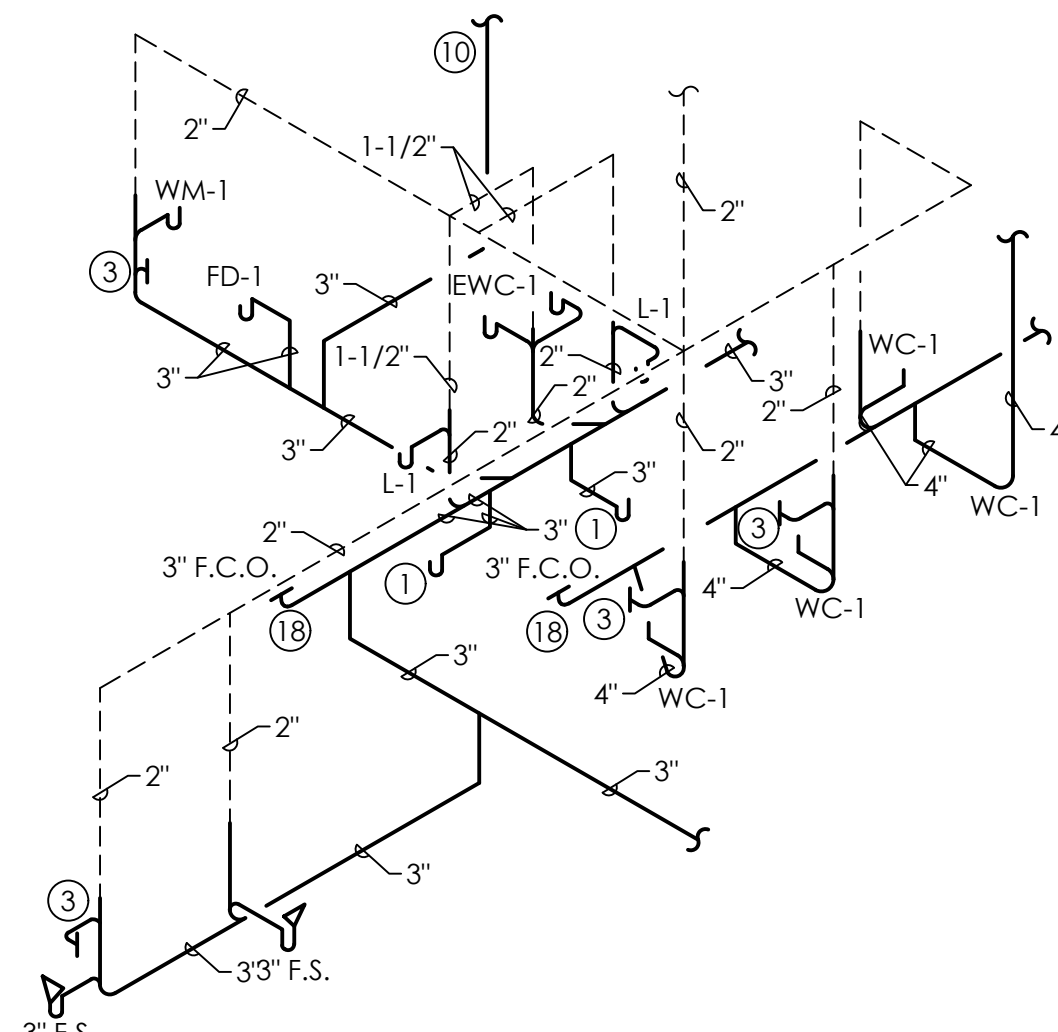
WASTE AND VENT RISER (W-3.2)
NO SCALE



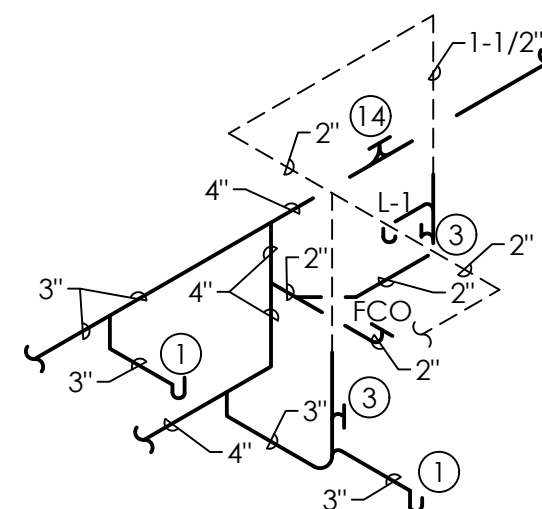
WASTE AND VENT RISER (KW-1.1)
NO SCALE



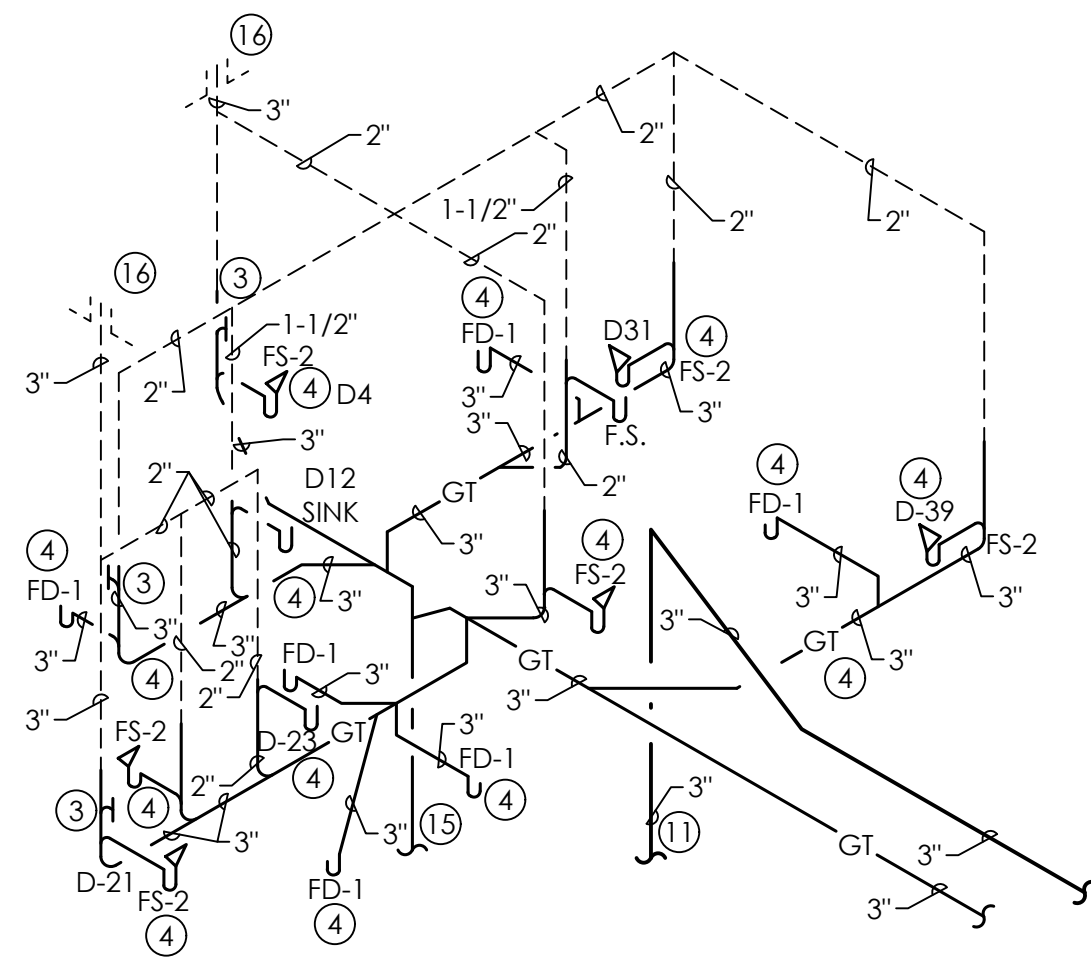
WASTE AND VENT RISER (KW-1.2)
NO SCALE



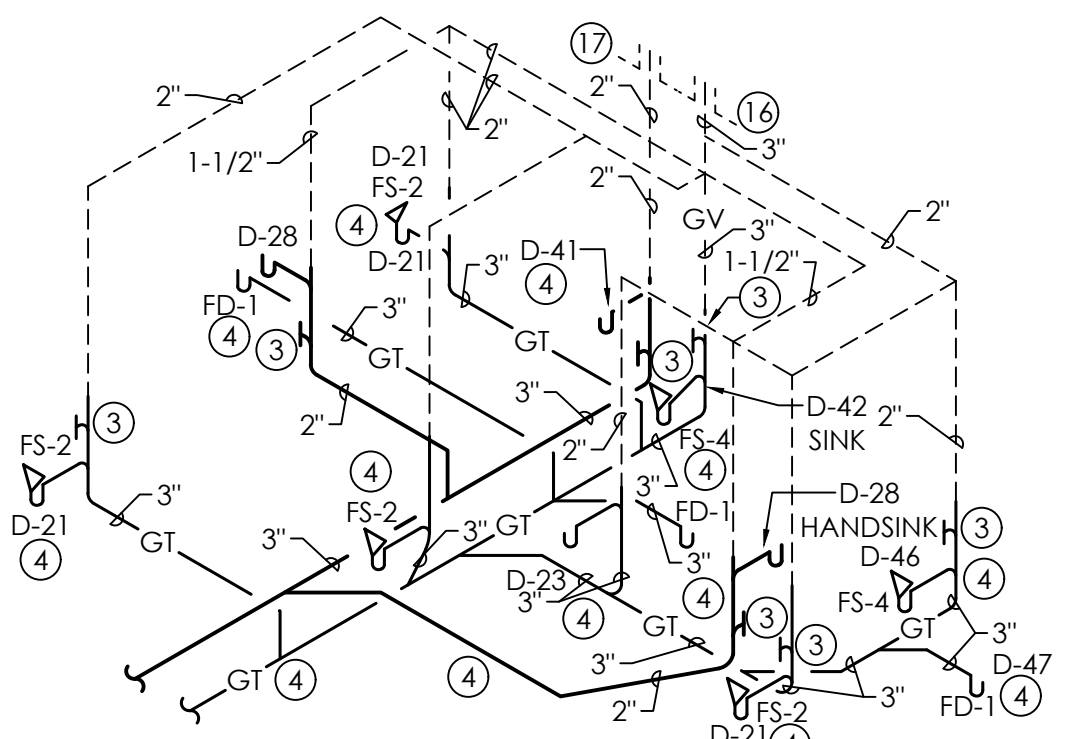
WASTE AND VENT RISER (KW-1.3)
NO SCALE



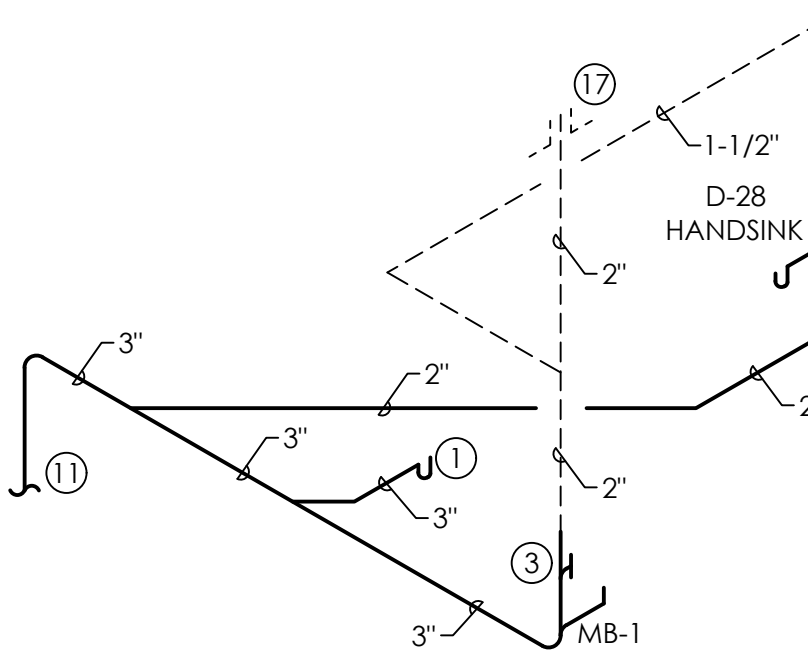
WASTE AND VENT RISER (KW-1.4)
NO SCALE



WASTE AND VENT RISER (KW-2.1)
NO SCALE



WASTE AND VENT RISER (KW-2.2)
NO SCALE



WASTE AND VENT RISER (KW-2.3)
NO SCALE

GAS PIPING IS SIZED USING TABLE 402.4(5)(2PSI) & 402.4(4) (1/4"WC) FROM THE 2021 INTERNATIONAL FUEL GAS CODE (SCH. 40 STEEL PIPING AT 2PSI INLET PRESSURE). THE LENGTH OF PIPING FROM THE BUILDING METER TO THE FURTHEST EQUIPMENT CONNECTION IS APPROXIMATELY 400'-0" (EXISTING GYM BUILDING) 400'-0" (CULINARY ADDITION). ANY CHANGE IN MATERIALS OR ROUTING WILL REQUIRE RECALCULATION OF REQUIRED PIPE SIZES. FOR A TOTAL/ FUTURE LOAD = 690 MBH LOAD (EXISTING GYM BUILDING) 8,645 ADDITIONAL MBH LOAD (CULINARY ADDITION)

GAS SYSTEM SHALL BE INSTALLED BY A LICENSED GAS TECHNICIAN.

ALL GAS PIPING BELOW GRADE AND SLAB SHALL BE SLEEVED AND VENTED. TRACPIPE P-II, BLACK STEEL OR EQUAL. ALL GAS PIPING ABOVE GRADE SHALL BE TRAC PIPE COUNTER STRIKE, BLACK STEEL OR EQUAL. LABEL ALL GAS PIPING INDICATING PRESSURE.

GAS PIPING EXPOSED (AREAS WITHOUT CEILINGS) SHALL BE PAINTED FLAT BLACK WITH ONE COAT OF PRIMER AND ONE COAT OF ENAMEL PAINT. LABEL ALL GAS PIPING INDICATING PRESSURE.

EXTEND RELIEF VENT CONNECTIONS FOR SERVICE REGULATORS, LINE REGULATORS, AND OVERPRESSURE PROTECTION DEVICES TO OUTDOORS AND TERMINATE WITH WEATHER PROOF VENT CAP. ALL REGULATORS TO BE TAGGED INDICATING PRESSURE.

FIRE STOP ALL PENETRATIONS OF FIRE RATED WALLS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RATED WALLS AND FLOORS.

ANY EXPOSED (AREAS WITHOUT CEILINGS) WATER PIPING TO BE INSULATED AND LABELED PER SPECIFICATION. PROVIDE ALUMINUM JACKET AND LABELS ON ALL EXPOSED LINES.

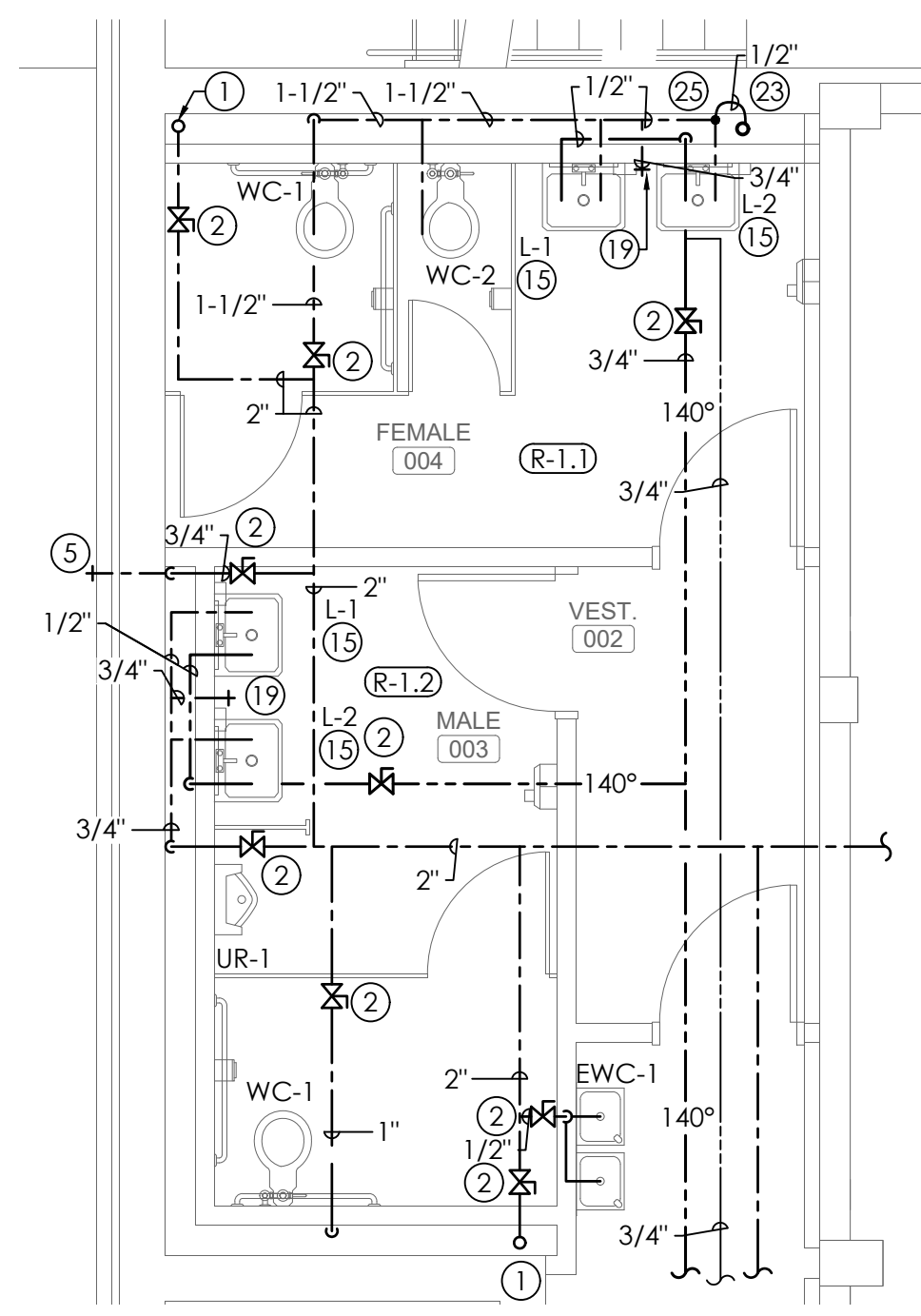
VALVES LOCATED ABOVE CEILING SHALL BE MADE EASILY ACCESSIBLE. LOCATE 24" MAX ABOVE CEILING. PLUMBER SHALL PROVIDE ACCESS PANELS IN GYP. BOARD CEILINGS MARK LOCATION OF VALVES ABOVE USING PLASTIC ENGRAVED LABEL WITH ADHESIVE BACKING LOCATED ON THE CEILING GRID COORDINATE WITH GENERAL CONTRACTOR.

SLEEVE ALL PENETRATIONS OF STRUCTURE BELOW GRADE. PROVIDE CLEARANCE AROUND PIPES FOR BUILDING EXPANSION AND CONTRACTION. COORDINATE WITH STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR.

ALL WATER PIPING SHALL BE INSTALLED WITH 1" THICK FIBERGLASS INSULATION. LABEL ALL LINES AT EACH CHANGE OF DIRECTION. TAG ALL VALVES AND PROVIDE VALVE TAG CHART.

NOTE LEGEND: (THIS SHEET ONLY)

- 2" C.W. UP
- BALL VALVE. LOCATE 24" MAX ABOVE CEILING. PROVIDE 12"X12" ACCESS PANEL TO MATCH CEILING IF LOCATED IN NON-TILE CEILING AREA. (TYPICAL)
- SEE SITE PLAN FOR CONTINUATION.
- BALL VALVE IN 24"X24"X6" CONCRETE VALVE BOX AND PRV. (PRV SET AT 60 PSI MAX. PRV SHALL BE WATTS SERIES 2300 OR APPROVED EQUAL.)
- WALL HYDRANT (FREEZE PROOF) IN BOX WITH LOOSE TEE KEY.
- EXISTING GAS METER (8,645 MBH ADDITIONAL GAS LOAD)
- CONNECT TO EXISTING 216 GAS LINE OF REGULATOR
- ROUTED ABOVE EXISTING DOOR
- EXISTING GAS METER (FIELD VERIFY EXACT LOCATION) COORDINATE WITH NEW GAS LOAD (450 MBH)
- EXISTING WATER PIPING IN THIS AREA TO REMAIN
- 3/4" (2 PSI) GAS LINE FROM ROOF AREA. SECURE TO WALL WITH UNISTRUT SUPPORTS.
- GAS REGULATOR (2 PSI TO 14" W.C.)
- GAS VALVE
- SLEEVE AND VENT GAS LINE
- PROVIDE TEMPERATURE LIMITING VALVE BELOW FIXTURE. PROVIDE IN RECESSED ACCESS BOX WITH FINISHED FRAME. (SEE DETAIL) VALVE SHALL BE EQUAL TO ZURN ZW8370X1, LEONARD 1700-LF-BRKT OR SIOUX CHIEF MODEL 696 UNDER SINK. (SHALL COMPLY WITH A.S.S.E. 1070)
- 1" (2 PSI) GAS LINE UP TO ROOF. SLEEVED AND VENTED IN WALL
- 3/4" C.W. UP
- 1" C.W. UP
- HOSE BIBB. PROVIDE IN WALL BOX WITH LOOSE TEE KEY
- EMERGENCY SHOWER/EYEWASH STINGRAY MODEL
- 55515-EP-NFT-ABAB COMBINATION
- SVI25 EMERGENCY MIXING VALVE
- WH-13 STINGRAY MODEL 9300 EMERGENCY WATER HEATER 118 GALLON 120V/25 AMP
- 2X3" HUB DRAIN WITH INSULATED DEEP SEAL P-TRAP 11" FIBERGLASS INSULATION (LABELED) PROVIDE TRAP PRIMER.
- 2X3" HUB DRAIN WITH INSULATED DEEP SEAL P-TRAP 11" FIBERGLASS INSULATION (LABELED) PROVIDE QX BOX DRAIN BOX MODEL 696-3F. PROVIDE TRAP PRIMER. PROVIDE ACCESS PANEL. MOUNT HIGH ON WALL. COORDINATE HEIGHT WITH HUB DRAINS.
- 1/2" C.W. UP TO TRAP PRIMERS ABOVE
- EXISTING LOW PRESSURE GAS LINE UP FROM EXISTING METER TO REMAIN.
- ELECTRICAL PANEL. MAINTAIN MINIMUM 42" CLEARANCE IN FRONT OF PANELS. PIPING SHALL NOT RUN ABOVE PANEL. COORDINATE WITH ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS.
- BALANCING VALVE. LOCATE 24" MAX ABOVE CEILING. PROVIDE 12"X12" ACCESS PANEL TO MATCH CEILING IF LOCATED IN NON-TILE CEILING AREA. (TYPICAL)
- RECIRCULATING PUMP (SEE SPECS.)
- COORDINATE GAS LINE ROUTING WITH DUCTWORK.
- FIRE RISER (SEE FIRE PROTECTION)



ENLARGED WATER PLAN
SCALE: 1/4"=1'-0"

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

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

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PLUMBING WATER/GAS FLOOR PLAN - LOWER
SCALE: 1/8"=1'-0"



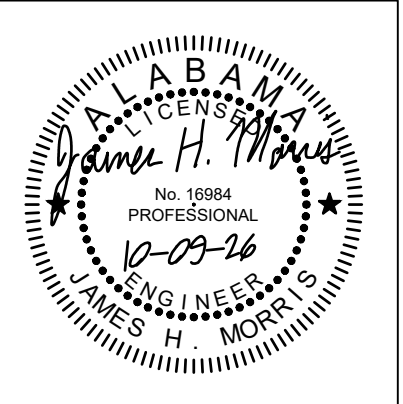
LATHAN
McKEE
ARCHITECTS

Academy St. Career Innovation Academy
The Troy City & Pike County Board of Education

708 E. Academy St., Troy, AL 36081

PLUMBING WATER MAIN
PIPING FLOOR PLAN

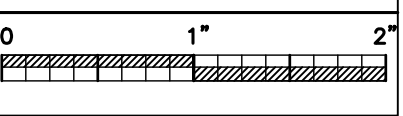
SHEET TITLE:



PROJ. MGR.: RLB
DRAWN: BMP
DATE: 10.9.26
REVISIONS

JOB NO. 25-249
SHEET NO:

P2.2



GAS PIPING IS SIZED USING TABLE 402.4(5)(2PSI) & 402.4(4) (1/4"WC) FROM THE 2021 INTERNATIONAL FUEL GAS CODE (SCH. 40 STEEL PIPING AT 2PSI INLET PRESSURE). THE LENGTH OF PIPING FROM THE BUILDING METER TO THE FURTHEST EQUIPMENT CONNECTION IS APPROXIMATELY 400'-0" (EXISTING GYM BUILDING) 400'-0" (CULINARY ADDITION). ANY CHANGE IN MATERIALS OR ROUTING WILL REQUIRE RECALCULATION OF REQUIRED PIPE SIZES. FOR A TOTAL/ FUTURE LOAD = 690 MBH LOAD (EXISTING GYM BUILDING) 8,645 ADDITIONAL MBH LOAD (CULINARY ADDITION)

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GAS PIPING EXPOSED (AREAS WITHOUT CEILINGS) SHALL BE PAINTED FLAT BLACK WITH ONE COAT OF PRIMER AND ONE COAT OF ENAMEL PAINT. LABEL ALL GAS PIPING INDICATING PRESSURE.

EXTEND RELIEF VENT CONNECTIONS FOR SERVICE REGULATORS, LINE REGULATORS, AND OVERPRESSURE PROTECTION DEVICES TO OUTDOORS AND TERMINATE WITH WEATHER PROOF VENT CAP. ALL REGULATORS TO BE TAGGED INDICATING PRESSURE.

FIRE STOP ALL PENETRATIONS OF FIRE RATED WALLS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RATED WALLS AND FLOORS.

ANY EXPOSED (AREAS WITHOUT CEILINGS) WATER PIPING TO BE INSULATED AND LABELED PER SPECIFICATION. PROVIDE ALUMINUM JACKET AND LABELS ON ALL EXPOSED LINES.

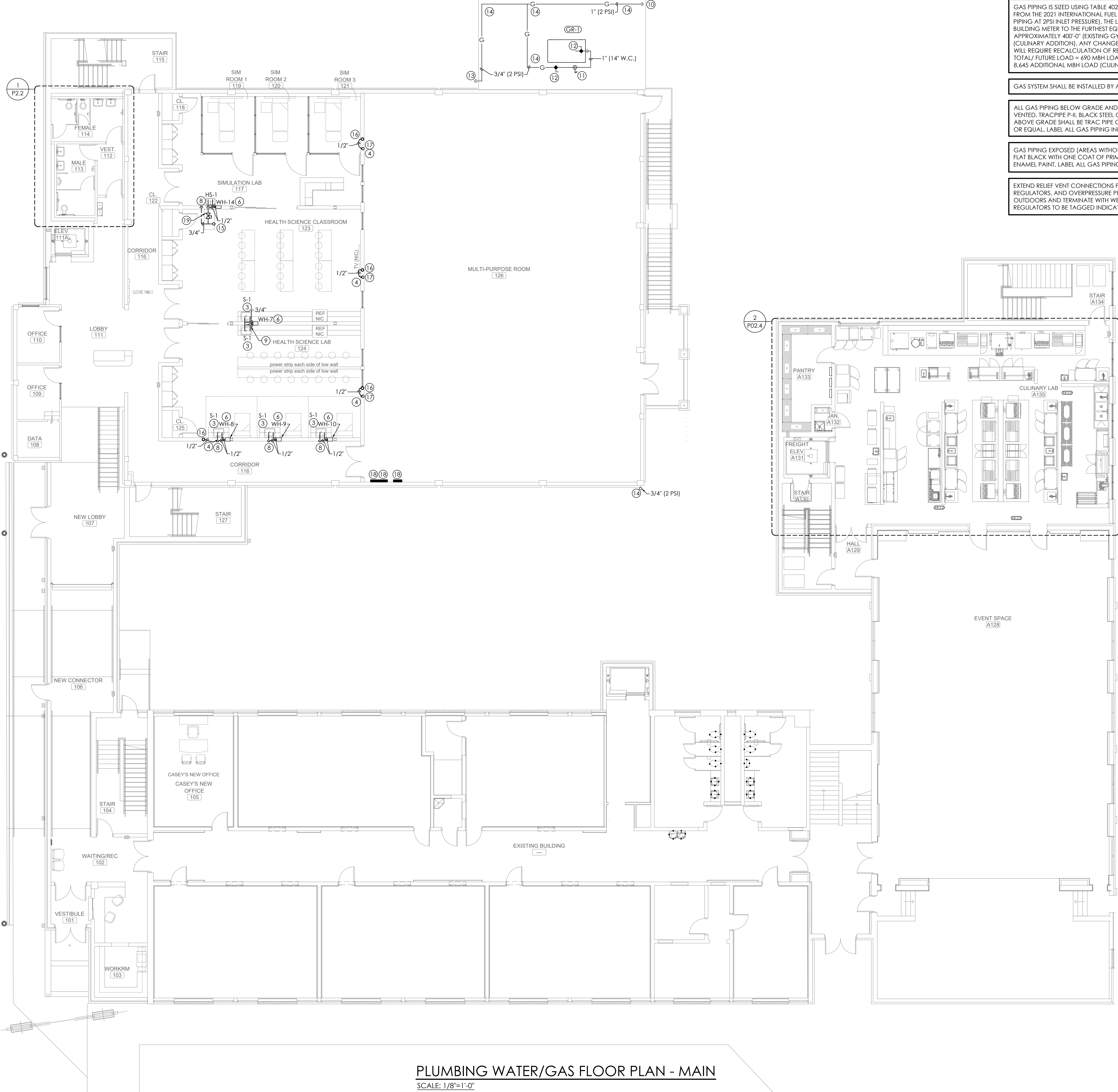
VALVES LOCATED ABOVE CEILING SHALL BE MADE EASILY ACCESSIBLE. LOCATE 24" MAX ABOVE CEILING. PLUMBER SHALL PROVIDE ACCESS PANELS IN GYP. BOARD CEILINGS MARK LOCATION OF VALVES ABOVE LAY-IN CEILINGS USING PLASTIC ENGRAVED LABEL WITH ADHESIVE BACKING LOCATED ON THE CEILING GRID COORDINATE WITH GENERAL CONTRACTOR.

SLEEVE ALL PENETRATIONS OF STRUCTURE BELOW GRADE. PROVIDE CLEARANCE AROUND PIPES FOR BUILDING EXPANSION AND CONTRACTION. COORDINATE WITH STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR.

ALL WATER PIPING SHALL BE INSTALLED WITH 1" THICK FIBERGLASS INSULATION. LABEL ALL LINES AT EACH CHANGE OF DIRECTION. TAG ALL VALVES AND PROVIDE VALVE TAG CHART.

NOTE LEGEND: (THIS SHEET ONLY)

- 2' C.W. FROM BELOW AND 1-1/2" UP
- 2' C.W. FROM BELOW AND 3/4" UP
- PROVIDE TEMPERATURE LIMITING VALVE BELOW FIXTURE. PROVIDE IN RECESSED ACCESS BOX WITH FINISHED FRAME. (SEE DETAIL) VALVE SHALL BE EQUAL TO ZURN ZW3870KIT, LEONARD 170D-LF-BRKT OR SIOUX CHIEF MODEL 696 UNDER SINK. (SHALL COMPLY WITH A.S.S.E. 1070)
- TRAP PRIMER: PROVIDE 12"X12" STAINLESS STEEL ACCESS PANEL. MOUNT HIGH ON WALL. COORDINATE HEIGHT WITH HUB DRAIN.
- BALL VALVE. LOCATE IN CHASE. PROVIDE 12"X12" ACCESS PANEL TO MATCH WALL. (TYPICAL)
- WATER HEATER INSTANTANEOUS ELECTRIC. WALL SLEEVE (INVISIBLE) WITH ACCESS DOOR AND BUILT IN DISCONNECT SWITCH
- H.B. (HOSE BIBB)
- 3/4" C.W. FROM BELOW
- 1" C.W. FROM BELOW
- 1" (2 PSI) FROM BELOW
- GAS REGULATOR (2 PSI TO 14" W.C.)
- GAS VALVE
- 3/4" (2 PSI) DOWN SECURE TO WALL WITH UNISTRUT SUPPORT.
- ROUTE GAS PIPING ON ROOF. PROVIDE 'ROOF TOP BLOX' FOR SUPPORT.
- 3/4" C.W. UP
- 2"X3" HUB DRAIN WITH INSULATED DEEP SEAL P-TRAP (1" THICK FIBERGLASS INSULATION) MOUNT IN WALL SIOUX CHIEF OX BOX 696-9F PROVIDE VENTED ACCESS PANEL AND TRAP PRIMER
- 1/2" C.W. FROM BELOW AND 1/2" C.W. UP
- ELECTRICAL PANEL. MAINTAIN MINIMUM 42" CLEARANCE IN FRONT OF PANELS. PIPING SHALL NOT RUN ABOVE PANEL. COORDINATE WITH ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS.
- BALL VALVE. LOCATE 24" MAX ABOVE CEILING. PROVIDE 12"X12" ACCESS PANEL TO MATCH CEILING IF LOCATED IN NON-TILE CEILING AREA. (TYPICAL)



PLUMBING WATER/GAS FLOOR PLAN - MAIN
SCALE: 1/8"=1'-0"

ENLARGED WATER PLAN
SCALE: 1/4"=1'-0"

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

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

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903 SOUTH PERRY STREET
MONTGOMERY, AL 36104
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LATHAN
McKEE
ARCHITECTS

Academy St. Career Innovation Academy
The Troy City & Pike County Board of Education

708 E. Academy St., Troy, AL 36081

PLUMBING WATER UPPER
PIPING FLOOR PLAN

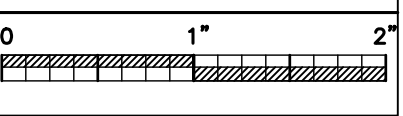
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PROJ. MGR.: RLB
DRAWN: BMP
DATE: 10.9.26
REVISIONS

JOB NO. 25-249
SHEET NO:

P2.3



GAS PIPING IS SIZED USING TABLE 402.4(5)(2PSI) & 402.4(4) (1/4"W.C.) FROM THE 2021 INTERNATIONAL FUEL GAS CODE (SCH. 40 STEEL PIPING AT 2PSI INLET PRESSURE). THE LENGTH OF PIPING FROM THE BUILDING METER TO THE FURTHEST EQUIPMENT CONNECTION IS APPROXIMATELY 400'-0" (EXISTING GYM BUILDING) 400'-0" (CULINARY ADDITION). ANY CHANGE IN MATERIALS OR ROUTING WILL REQUIRE RECALCULATION OF REQUIRED PIPE SIZES. FOR A TOTAL/FUTURE LOAD = 690 MBH LOAD (EXISTING GYM BUILDING) 8,645 ADDITIONAL MBH LOAD (CULINARY ADDITION)

GAS SYSTEM SHALL BE INSTALLED BY A LICENSED GAS TECHNICIAN.

ALL GAS PIPING BELOW GRADE AND SLAB SHALL BE SLEEVED AND VENTED, TRACPIPE P-H, BLACK STEEL OR EQUAL. ALL GAS PIPING ABOVE GRADE SHALL BE TRAC PIPE COUNTER STRIKE, BLACK STEEL OR EQUAL. LABEL ALL GAS PIPING INDICATING PRESSURE.

GAS PIPING EXPOSED (AREAS WITHOUT CEILINGS) SHALL BE PAINTED FLAT BLACK WITH ONE COAT OF PRIMER AND ONE COAT OF ENAMEL PAINT. LABEL ALL GAS PIPING INDICATING PRESSURE.

EXTEND RELIEF VENT CONNECTIONS FOR SERVICE REGULATORS, LINE REGULATORS, AND OVERPRESSURE PROTECTION DEVICES TO OUTDOORS AND TERMINATE WITH WEATHER PROOF VENT CAP. ALL REGULATORS TO BE TAGGED INDICATING PRESSURE.

FIRE STOP ALL PENETRATIONS OF FIRE RATED WALLS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RATED WALLS AND FLOORS.

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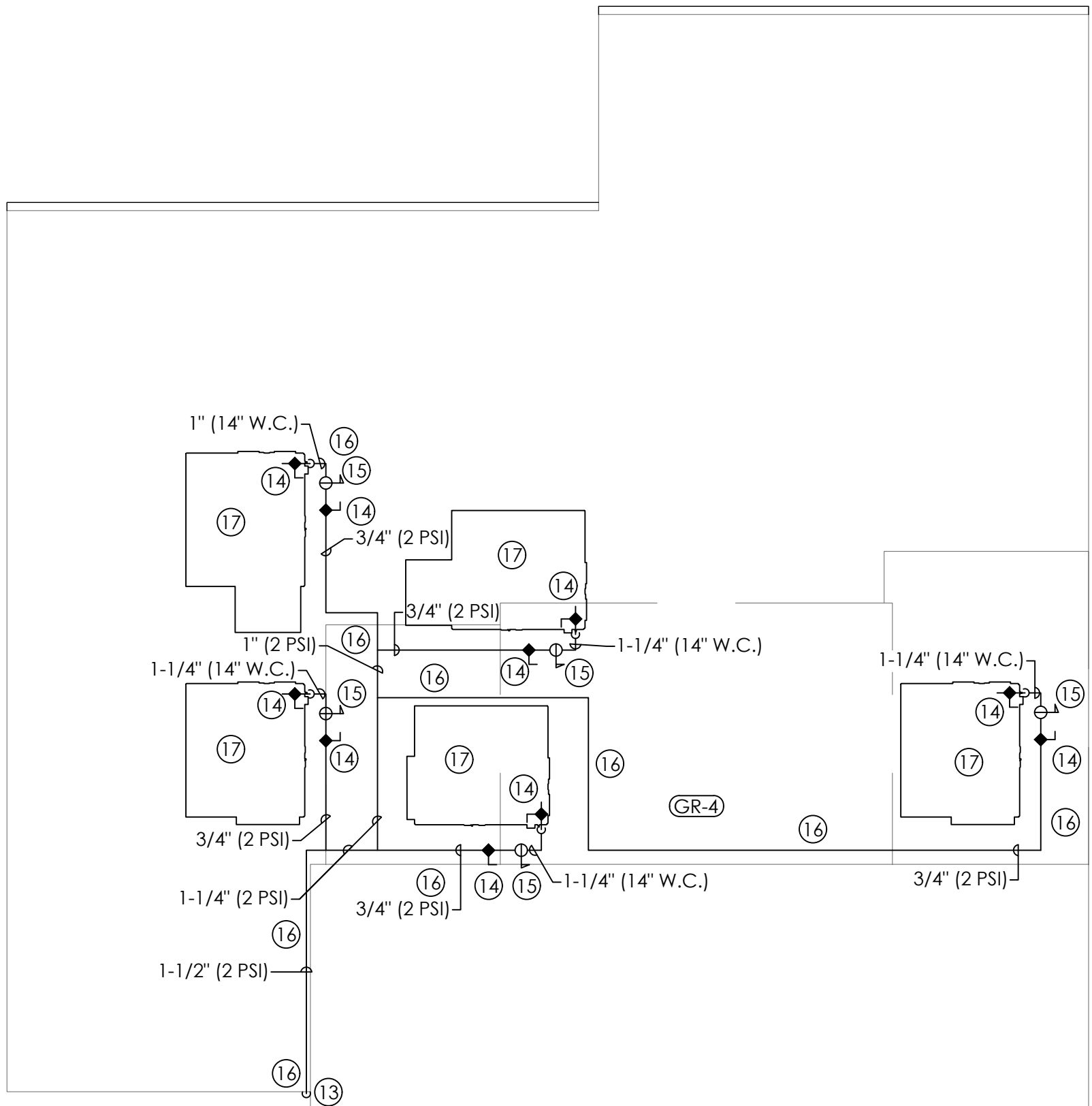
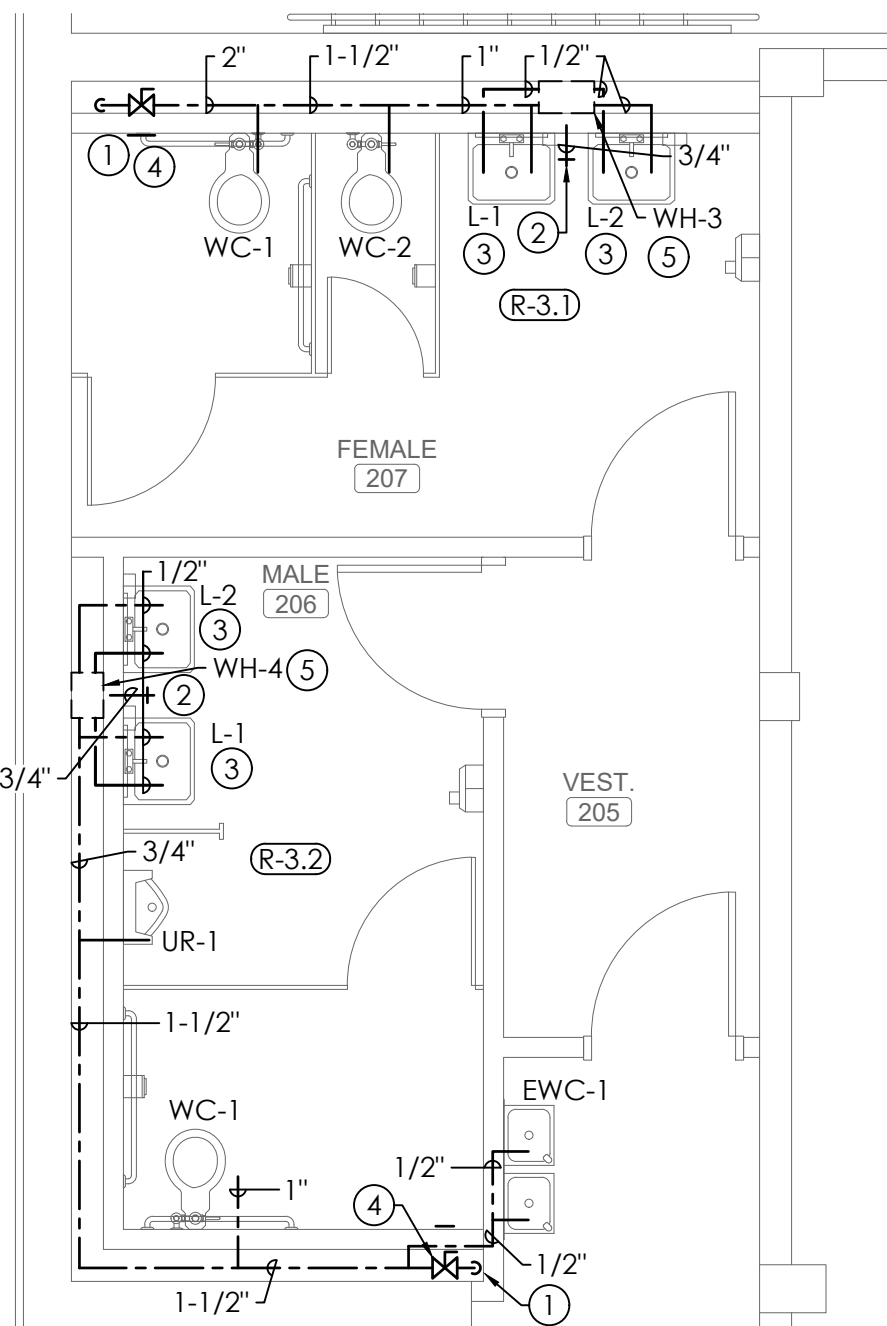
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SLEEVE ALL PENETRATIONS OF STRUCTURE BELOW GRADE. PROVIDE CLEARANCE AROUND PIPES FOR BUILDING EXPANSION AND CONTRACTION. COORDINATE WITH STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR.

ALL WATER PIPING SHALL BE INSTALLED WITH 1" THICK FIBERGLASS INSULATION. LABEL ALL LINES AT EACH CHANGE OF DIRECTION. TAG ALL VALVES AND PROVIDE VALVE TAG CHART.

(#) NOTE LEGEND: (THIS SHEET ONLY)

- 1-1/2" C.W. FROM BELOW
- H.B. (HOSE BIBB) (LOCATED IN RECESSED WALL BOX WITH WASTE KEY)
- PROVIDE TEMPERATURE LIMITING VALVE BELOW FIXTURE. PROVIDE IN RECESSED ACCESS BOX WITH FINISHED FRAME. (SEE DETAIL) VALVE SHALL BE EQUAL TO ZURN ZW3870KLT, LEONARD 170D-LF-BRKT OR SIOUX CHIEF MODEL 696 UNDER SINK. (SHALL COMPLY WITH A.S.S.E. 1070)
- BALL VALVE. LOCATED IN CHASE. PROVIDE 12"X12" ACCESS PANEL TO MATCH WALL. (TYPICAL)
- WATER HEATER INSTANTANEOUS ELECTRIC WALL SLEEVE (INVISIBLE) WITH ACCESS DOOR AND BUILT IN DISCONNECT SWITCH.
- 3/4" C.W. FROM BELOW AND 1/2" UP
- ELECTRICAL PANEL. MAINTAIN MINIMUM 42" CLEARANCE IN FRONT OF PANELS. PIPING SHALL NOT RUN ABOVE PANEL. COORDINATE WITH ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS.
- 2'X3" HUB DRAIN WITH INSULATED DEEP SEAL P-TRAP (1" FIBERGLASS INSULATION. LABELED) PROVIDE TRAP PRIMER.
- 2'X3" HUB DRAIN WITH INSULATED DEEP SEAL P-TRAP (1" THICK FIBERGLASS INSULATION) MOUNT IN WALL SIOUX CHIEF OX BOX 696-3F PROVIDE VENTED ACCESS PANEL AND TRAP PRIMER
- 1/2" C.W. FROM BELOW
- BALL VALVE. LOCATE 24" MAX ABOVE CEILING. PROVIDE 12"X12" ACCESS PANEL TO MATCH CEILING IF LOCATED IN NON-TILE CEILING AREA. (TYPICAL)
- TRAP PRIMER. PROVIDE 12"X12" STAINLESS STEEL ACCESS PANEL. MOUNT HIGH ON WALL. COORDINATE HEIGHT WITH HUB DRAIN/S.
- 1-1/2" GAS LINE FROM BELOW (SECURE TO WALL WITH UNISTRUT SUPPORT)
- GAS VALVE
- GAS REGULATOR (2 PSI TO 14" W.C.)
- GAS LINE ROUTED ON ROOF. PROVIDE "ROOF TOP BLOX" FOR SUPPORT
- MECHANICAL UNIT. (SEE MECHANICAL DRAWINGS) COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.



ENLARGED WATER PLAN
SCALE: 1/4"=1'-0"

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

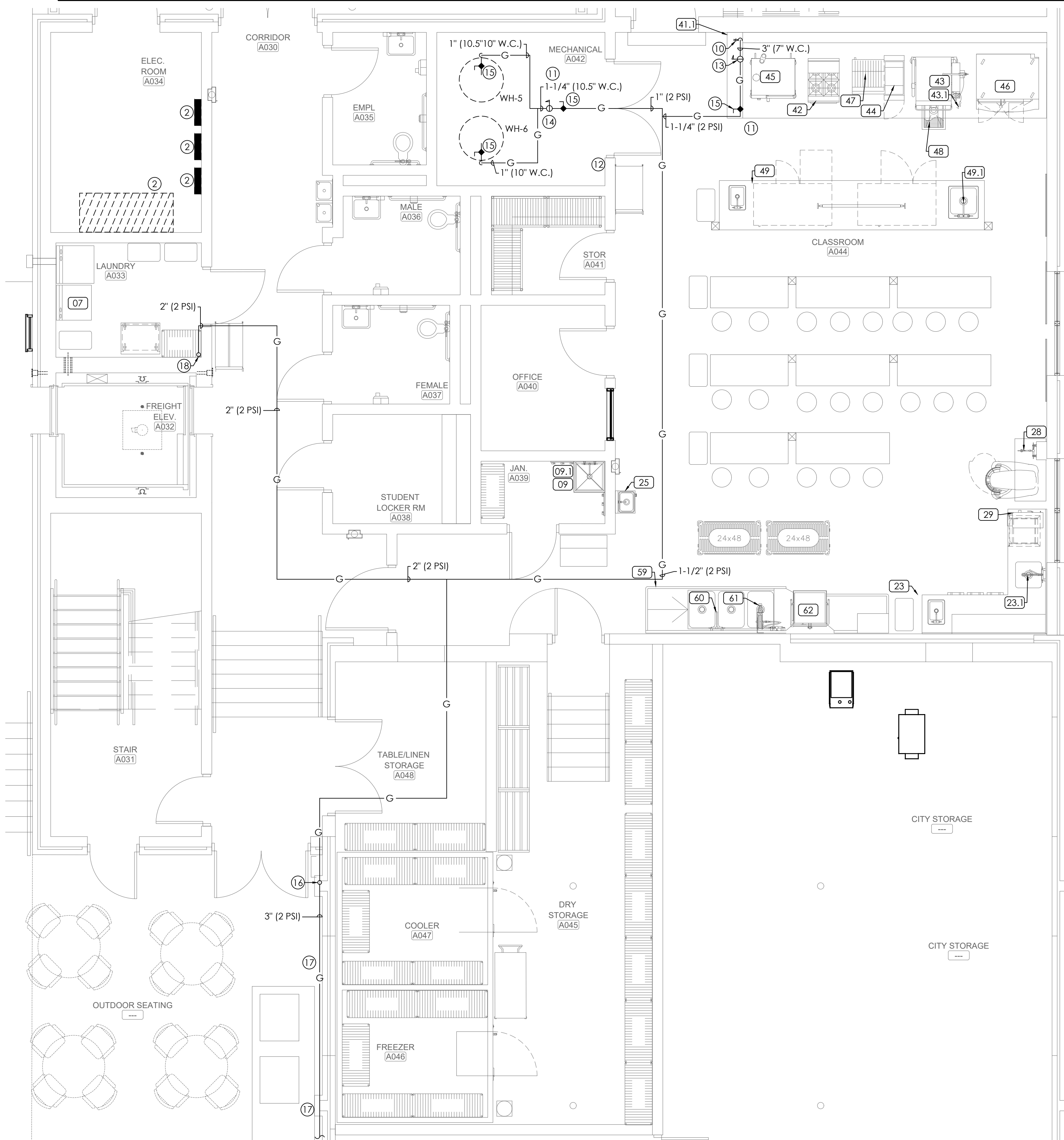
SCALE: 1/8" = 1'-0"
0 4 8 16

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www.jmorriseng.com PROJECT NO: 26-044

PLUMBING WATER/GAS FLOOR PLAN - UPPER
SCALE: 1/8"=1'-0"

CULINARY CLASSROOM FOOD SERVICE EQUIPMENT SCHEDULE

ITEM ##	DESCRIPTION	C.W. SIZE (IN)	C.W. AFF (IN)	H.W. SIZE (IN)	H.W. AFF (IN)	DIRECT DRAIN SIZE (IN)	DIRECT DRAIN AFF (IN)	INDIRECT DRAIN SIZE (IN)	MBTUH	GAS SIZE (IN)	GAS AFF (IN)	REMARKS
07	WASHER	3"	36"	3"	36"	---	---	---	---	---	---	EXTEND I.W. TO WASHING MACHINE BOX
09	MOP SINK	---	---	---	---	---	---	3"	---	---	---	---
09.1	SERVICE FAUCET	3/4"	24"	3/4"	24"	---	---	---	---	---	---	CONNECT WATER THRU WATER FILTER, EXTEND I.W. TO NEAREST F.S.
23	BAKERY TABLE W/ HAND SINK, ONE COMPARTMENT SINK	---	---	---	---	1-1/2"	20"	1-1/2"	---	---	---	EXTEND I.W. TO NEAREST F.S.
23.1	FAUCET, PRE-RINSE FAUCET WITH ADD FAUCET	1/2"	24"	1/2"	24"	---	---	---	---	---	---	---
25	HAND SINK	1/2"	24"	1/2"	24"	1-1/2"	20"	---	---	---	---	---
28	POT FILLER	1/2"	24"	1/2"	24"	---	---	---	---	---	---	---
29	HOT WATER DISPENSER	1/4"	24"	---	---	---	---	---	---	---	---	---
41.1	UTILITY DISTRIBUTION SYSTEM	3/4"	---	3/4"	---	---	---	---	1700.0	---	---	---
42	6 EYE RANGE	---	---	---	---	---	---	---	215.0	3/4"	---	CONNECT TO UDS.
42A	RANGE MOUNTED SALAMANDER	---	---	---	---	---	---	---	66.0	3/4"	---	CONNECT TO UDS.
43	30 GALLON BRAISING PAN	---	---	---	---	---	---	---	125.0	3/4"	---	CONNECT TO UDS.
43.1	DOUBLE PANTRY FAUCET WITH SPRAY HOSE	1/2"	---	1/2"	---	---	---	---	---	---	---	CONNECT TO UDS.
44	FRYER	---	---	---	---	---	---	---	75.0	3/4"	---	CONNECT TO UDS.
45	10 PAN COMBINATION OVEN ON STAND	3/4"	---	---	---	---	---	1"	---	---	---	CONNECT TO UDS, WATER THRU FILTER, EXTEND I.W. TO NEAREST F.S.
46	ROTATING CONVECTION OVEN WITH PROOFER	1/2"	---	---	---	---	---	3/4"	---	---	---	CONNECT TO UDS, WATER THRU FILTER, EXTEND I.W. TO NEAREST F.S.
47	CHARBROILER ON STAND	---	---	---	---	---	---	---	68.0	3/4"	---	CONNECT TO UDS.
48	FLOOR TROUGH	---	---	---	---	4"	---	---	---	---	---	---
49	INSTRUCTORS TABLE W/ HAND SINK, LARGE SINK	---	---	---	---	---	---	(2) 1-1/2"	---	---	---	EXTEND I.W. TO NEAREST F.S.
49.1	FAUCET	1/2"	14"	1/2"	14"	---	---	---	---	---	---	---
59	3-COMPARTMENT SINK/ SOILED DISHTABLE	---	---	---	---	---	---	(3) 1-1/2"	---	---	---	EXTEND I.W. TO NEAREST F.S.
60	FAUCET	1/2"	14"	1/2"	14"	---	---	---	---	---	---	---
61	PRE-RINSE WITH FAUCET	1/2"	14"	1/2"	14"	---	---	---	---	---	---	---
62	DISHMACHINE	1/2"	24"	1/2"	24"	---	---	1"	---	---	---	EXTEND I.W. TO NEAREST F.S.



PLUMBING GAS ENLARGED KITCHEN PLAN - LOWER
SCALE: 1/4"=1'-0"

NOTE LEGEND: (THIS SHEET ONLY)

- MECHANICAL UNIT. (SEE MECHANICAL DRAWINGS) COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
- ELECTRICAL PANEL. MAINTAIN MINIMUM 42" CLEARANCE IN FRONT OF PANELS. PIPING SHALL NOT RUN ABOVE PANEL. COORDINATE WITH ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS.
- BALL VALVE IN CONCRETE VALVE BOX.
- SEE SITE UTILITY PLAN FOR CONTINUATION.
- BALL VALVE. LOCATE 24" MAX ABOVE CEILING. PROVIDE 12"X12" ACCESS PANEL TO MATCH CEILING IF LOCATED IN NON-TILE CEILING AREA. (TYPICAL)
- BALANCING VALVE. LOCATE 24" MAX ABOVE CEILING. PROVIDE 12"X12" ACCESS PANEL TO MATCH CEILING IF LOCATED IN NON-TILE CEILING AREA. (TYPICAL)
- RECIRCULATING PUMP
- PROVIDE TEMPERATURE LIMITING VALVE BELOW FIXTURE. PROVIDE IN RECESSED ACCESS BOX WITH FINISHED FRAME. (SEE DETAIL) VALVE SHALL BE EQUAL TO ZURN ZW3870XL, LEONARD 170D-LF-BRKT OR SIOUX CHIEF MODEL 696 UNDER SINK. (SHALL COMPLY WITH A.S.S.E. 1070)
- WALL HYDRANT (FREEZE PROOF) IN BOX WITH LOOSE TEE KEY.
- AUTO GAS SHUTOFF
- CARBON MONOXIDE SENSOR
- EMERGENCY GAS SHUT OFF
- GAS REGULATOR (2 PSI TO 7" W.C.)
- GAS REGULATOR (2 PSI TO 10.5" W.C.)
- GAS VALVE
- 1-1/2" (2 PSI) GAS LINE UP TO ROOF AREA. PROVIDE UNISTRUT SUPPORT AT WALL
- PROVIDE UNISTRUT SUPPORT ALONG WALL FOR SUPPORT
- 2" (2 PSI) UP
- TRAP PRIMER. PROVIDE 12"X12" STAINLESS STEEL ACCESS PANEL. MOUNT HIGH ON WALL. COORDINATE HEIGHT WITH HUB DRAINS.
- 3" F.S.
- 1-1/2" C.W. AND H.W. UP 3/4" H.W.R. FROM ABOVE
- 3" F.D. (PROVIDE TRAP PRIMER)

GAS PIPING IS SIZED USING TABLE 402.4(5)(2PSI) & 402.4(4) (1/4"WC) FROM THE 2021 INTERNATIONAL FUEL GAS CODE (SCH. 40 STEEL PIPING AT 2PSI INLET PRESSURE). THE LENGTH OF PIPING FROM THE BUILDING METER TO THE FURTHEST EQUIPMENT CONNECTION IS APPROXIMATELY 400'-0" (EXISTING GYM BUILDING) 400'-0" (CULINARY ADDITION). ANY CHANGE IN MATERIALS OR ROUTING WILL REQUIRE RECALCULATION OF REQUIRED PIPE SIZES. FOR A TOTAL/ FUTURE LOAD = 690 MBH LOAD (EXISTING GYM BUILDING) 8,645 ADDITIONAL MBH LOAD (CULINARY ADDITION)

GAS SYSTEM SHALL BE INSTALLED BY A LICENSED GAS TECHNICIAN.

ALL GAS PIPING BELOW GRADE AND SLAB SHALL BE SLEEVED AND VENTED. TRACPIPE P-II, BLACK STEEL OR EQUAL. ALL GAS PIPING ABOVE GRADE SHALL BE TRAC PIPE COUNTER STRIKE, BLACK STEEL OR EQUAL. LABEL ALL GAS PIPING INDICATING PRESSURE.

GAS PIPING EXPOSED (AREAS WITHOUT CEILINGS) SHALL BE PAINTED FLAT BLACK WITH ONE COAT OF PRIMER AND ONE COAT OF ENAMEL PAINT. LABEL ALL GAS PIPING INDICATING PRESSURE.

EXTEND RELIEF VENT CONNECTIONS FOR SERVICE REGULATORS, LINE REGULATORS, AND OVERPRESSURE PROTECTION DEVICES TO OUTDOORS AND TERMINATE WITH WEATHER PROOF VENT CAP. ALL REGULATORS TO BE TAGGED INDICATING PRESSURE.

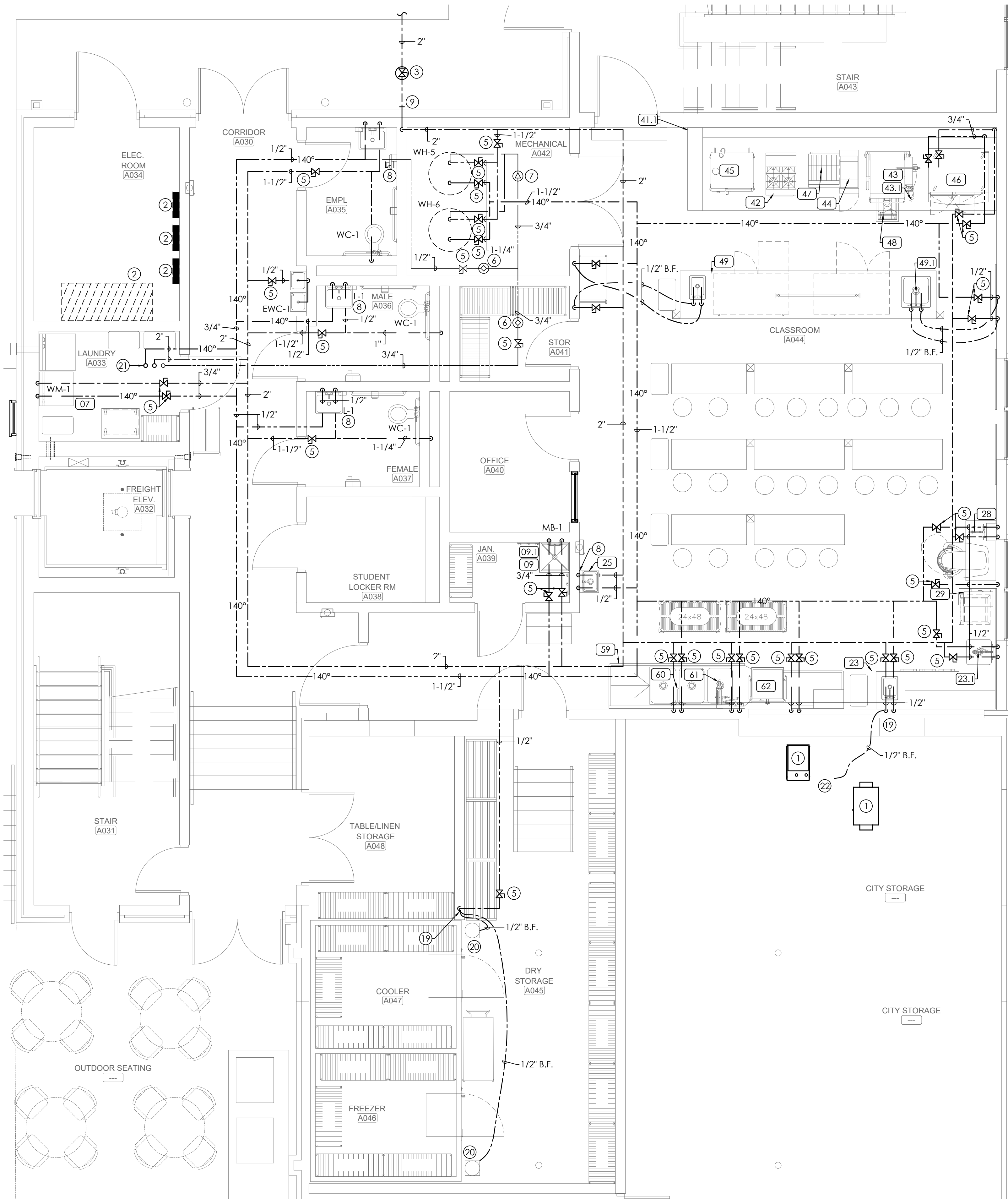
FIRE STOP ALL PENETRATIONS OF FIRE RATED WALLS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RATED WALLS AND FLOORS.

ANY EXPOSED (AREAS WITHOUT CEILINGS) WATER PIPING TO BE INSULATED AND LABELED PER SPECIFICATION. PROVIDE ALUMINUM JACKET AND LABELS ON ALL EXPOSED LINES.

VALVES LOCATED ABOVE CEILING SHALL BE MADE EASILY ACCESSIBLE. LOCATE 24" MAX ABOVE CEILING. PLUMBER SHALL PROVIDE ACCESS PANELS IN GYP. BOARD CEILINGS MARK LOCATION OF VALVES ABOVE LAY-IN CEILINGS USING PLASTIC ENGRAVED LABEL WITH ADHESIVE BACKING LOCATED ON THE CEILING GRID. COORDINATE WITH GENERAL CONTRACTOR.

SLEEVE ALL PENETRATIONS OF STRUCTURE BELOW GRADE. PROVIDE CLEARANCE AROUND PIPES FOR BUILDING EXPANSION AND CONTRACTION. COORDINATE WITH STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR.

ALL WATER PIPING SHALL BE INSTALLED WITH 1" THICK FIBERGLASS INSULATION. LABEL ALL LINES AT EACH CHANGE OF DIRECTION. TAG ALL VALVES AND PROVIDE VALVE TAG CHART.



PLUMBING WATER ENLARGED KITCHEN PLAN - LOWER
SCALE: 1/4"=1'-0"

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

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The Troy City & Pike County Board of Education
708 E. Academy St., Troy, AL 36081

SHEET TITLE:
PLUMBING WATER LOWER
KITCHEN PIPING FLOOR PLAN

PROJ. MGR.: RLB

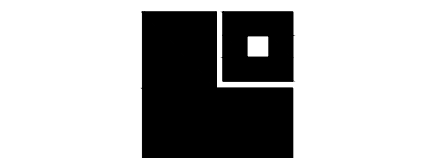
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DATE: 10.9.26

REVISIONS

JOB NO.
25-249

SHEET NO:
P2.4



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The Troy City & Pike County Board of Education

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PLUMBING WATER MAIN KITCHEN
PIPING FLOOR PLAN

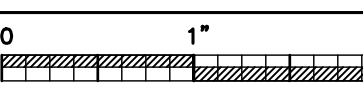
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PROJ. MGR.: RLB
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JOB NO.
25-249
SHEET NO:

P2.5



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

GAS PIPING IS SIZED USING TABLE 402.4(5) (2PSI) & 402.4(4) (1/4"WC) FROM THE 2021 INTERNATIONAL FUEL GAS CODE (SCH. 40 STEEL PIPING AT 2PSI INLET PRESSURE). THE LENGTH OF PIPING FROM THE BUILDING METER TO THE FURTHEST EQUIPMENT CONNECTION IS APPROXIMATELY 400'-0" (EXISTING GYM BUILDING) 400'-0" (CULINARY ADDITION). ANY CHANGE IN MATERIALS OR ROUTING WILL REQUIRE RECALCULATION OF REQUIRED PIPE SIZES. FOR A TOTAL/ FUTURE LOAD = 690 MBH LOAD (EXISTING GYM BUILDING) 8,645 ADDITIONAL MBH LOAD (CULINARY ADDITION)

GAS SYSTEM SHALL BE INSTALLED BY A LICENSED GAS TECHNICIAN.

ALL GAS PIPING BELOW GRADE AND SLAB SHALL BE SLEEVED AND VENTED. TRACPIPE P-HI, BLACK STEEL OR EQUAL. ALL GAS PIPING ABOVE GRADE SHALL BE TRAC PIPE COUNTER STRIKE, BLACK STEEL OR EQUAL. LABEL ALL GAS PIPING INDICATING PRESSURE.

GAS PIPING EXPOSED (AREAS WITHOUT CEILINGS) SHALL BE PAINTED FLAT BLACK WITH ONE COAT OF PRIMER AND ONE COAT OF ENAMEL PAINT. LABEL ALL GAS PIPING INDICATING PRESSURE.

EXTEND RELIEF VENT CONNECTIONS FOR SERVICE REGULATORS. LINE REGULATORS, AND OVERPRESSURE PROTECTION DEVICES TO OUTDOORS AND TERMINATE WITH WEATHER PROOF VENT CAP. ALL REGULATORS TO BE TAGGED INDICATING PRESSURE.

FIRE STOP ALL PENETRATIONS OF FIRE RATED WALLS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF RATED WALLS AND FLOORS.

ANY EXPOSED (AREAS WITHOUT CEILINGS) WATER PIPING TO BE INSULATED AND LABELED PER SPECIFICATION. PROVIDE ALUMINUM JACKET AND LABELS ON ALL EXPOSED LINES.

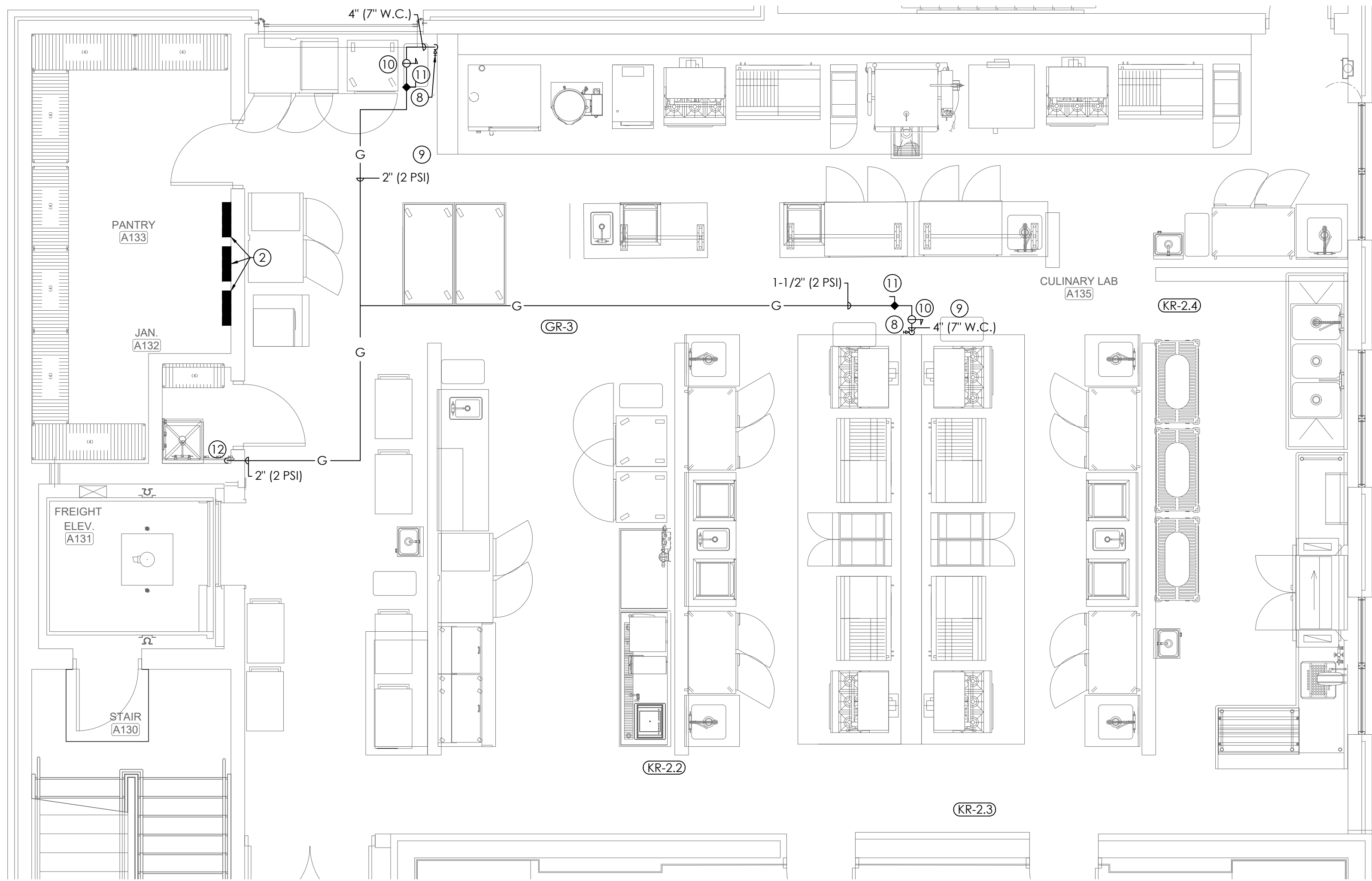
VALVES LOCATED ABOVE CEILING SHALL BE MADE EASILY ACCESSIBLE. LOCATE 24" MAX ABOVE CEILING. PLUMBER SHALL PROVIDE ACCESS PANELS IN GYP. BOARD CEILINGS MARK LOCATION OF VALVES ABOVE LAY-IN CEILINGS USING PLASTIC ENGRAVED LABEL WITH ADHESIVE BACKING LOCATED ON THE CEILING GRID COORDINATE WITH GENERAL CONTRACTOR.

SLEEVE ALL PENETRATIONS OF STRUCTURE BELOW GRADE. PROVIDE CLEARANCE AROUND PIPES FOR BUILDING EXPANSION AND CONTRACTION. COORDINATE WITH STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR.

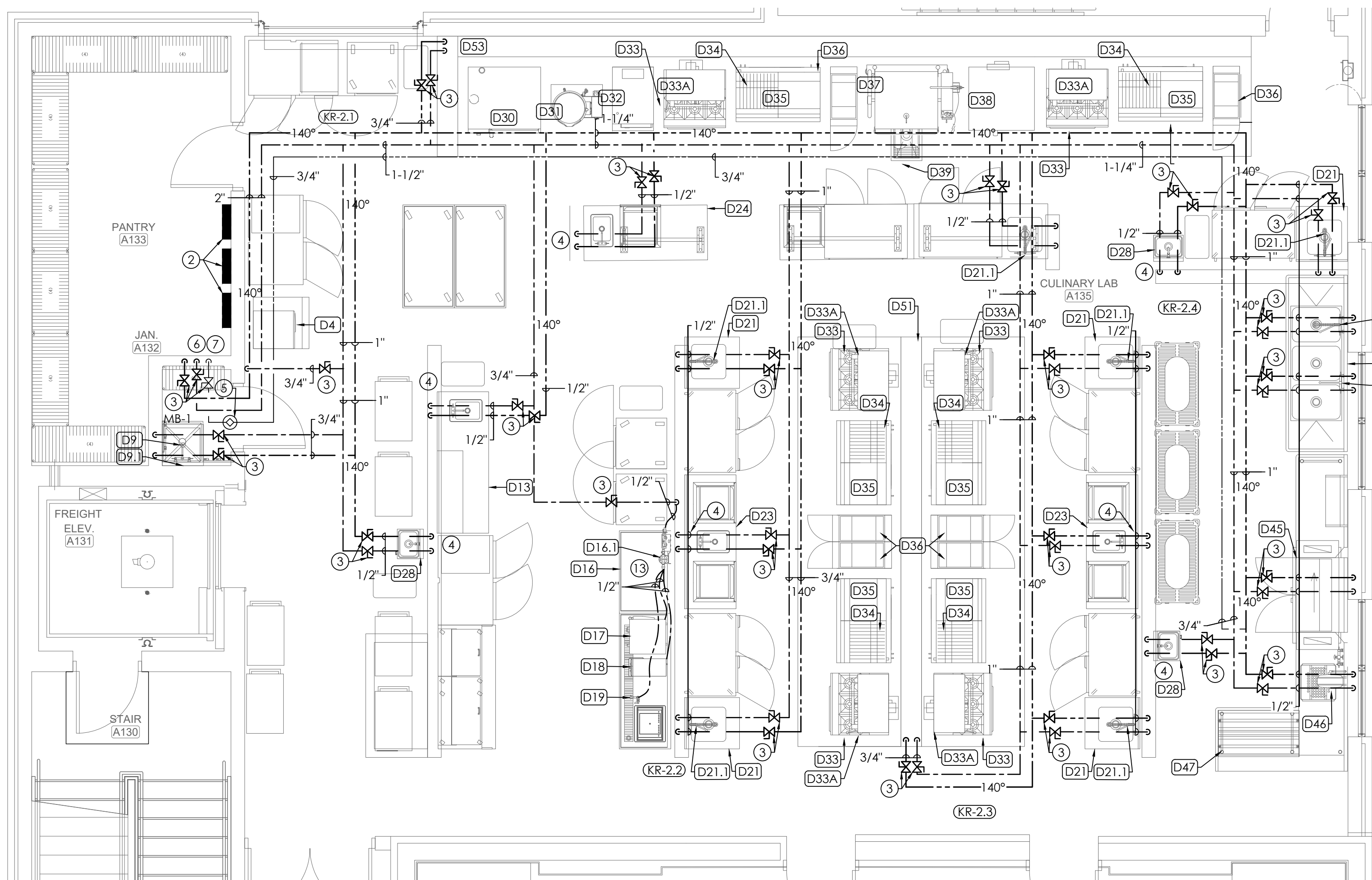
ALL WATER PIPING SHALL BE INSTALLED WITH 1" THICK FIBERGLASS INSULATION. LABEL ALL LINES AT EACH CHANGE OF DIRECTION. TAG ALL VALVES AND PROVIDE VALVE TAG CHART.

NOTE LEGEND: (THIS SHEET ONLY)

- MECHANICAL UNIT. (SEE MECHANICAL DRAWINGS) COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
- ELECTRICAL PANEL. MAINTAIN MINIMUM 42" CLEARANCE IN FRONT OF PANELS. PIPING SHALL NOT RUN ABOVE PANEL. COORDINATE WITH ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS.
- BALL VALVE. LOCATE 24" MAX ABOVE CEILING. PROVIDE 12"X12" ACCESS PANEL TO MATCH CEILING IF LOCATED IN NON-TILE CEILING AREA. (TYPICAL)
- PROVIDE TEMPERATURE LIMITING VALVE BELOW FIXTURE. PROVIDE IN RECESSED ACCESS BOX WITH FINISHED FRAME AND ACCESS PANEL. (SEE DETAIL) VALVE SHALL BE EQUAL TO ZURN TW3870XLT, LEONARD 1700-LF-BRKT OR SIOUX CHIEF MODEL 696 UNDER SINK. (SHALL COMPLY WITH A.S.S.E. 1070)
- BALANCING VALVE. LOCATE 24" MAX ABOVE CEILING. PROVIDE 12"X12" ACCESS PANEL TO MATCH CEILING IF LOCATED IN NON-TILE CEILING AREA. (TYPICAL)
- 1-1/2" C.W. AND H.W. FROM BELOW
- 3/4" H.W.R. DOWN
- AUTO GAS SHUT OFF
- CARBON MONOXIDE SENSOR
- GAS REGULATOR (2 PSI TO 7" W.C.)
- GAS VALVE
- 2" (2 PSI) GAS LINE FROM BELOW
- 1/2" LINE TO WATER FILTER TO PROVIDE 1/2" WATER LINES TO COFFEE BREWER, TEA BREWER, AND POT FILLER.



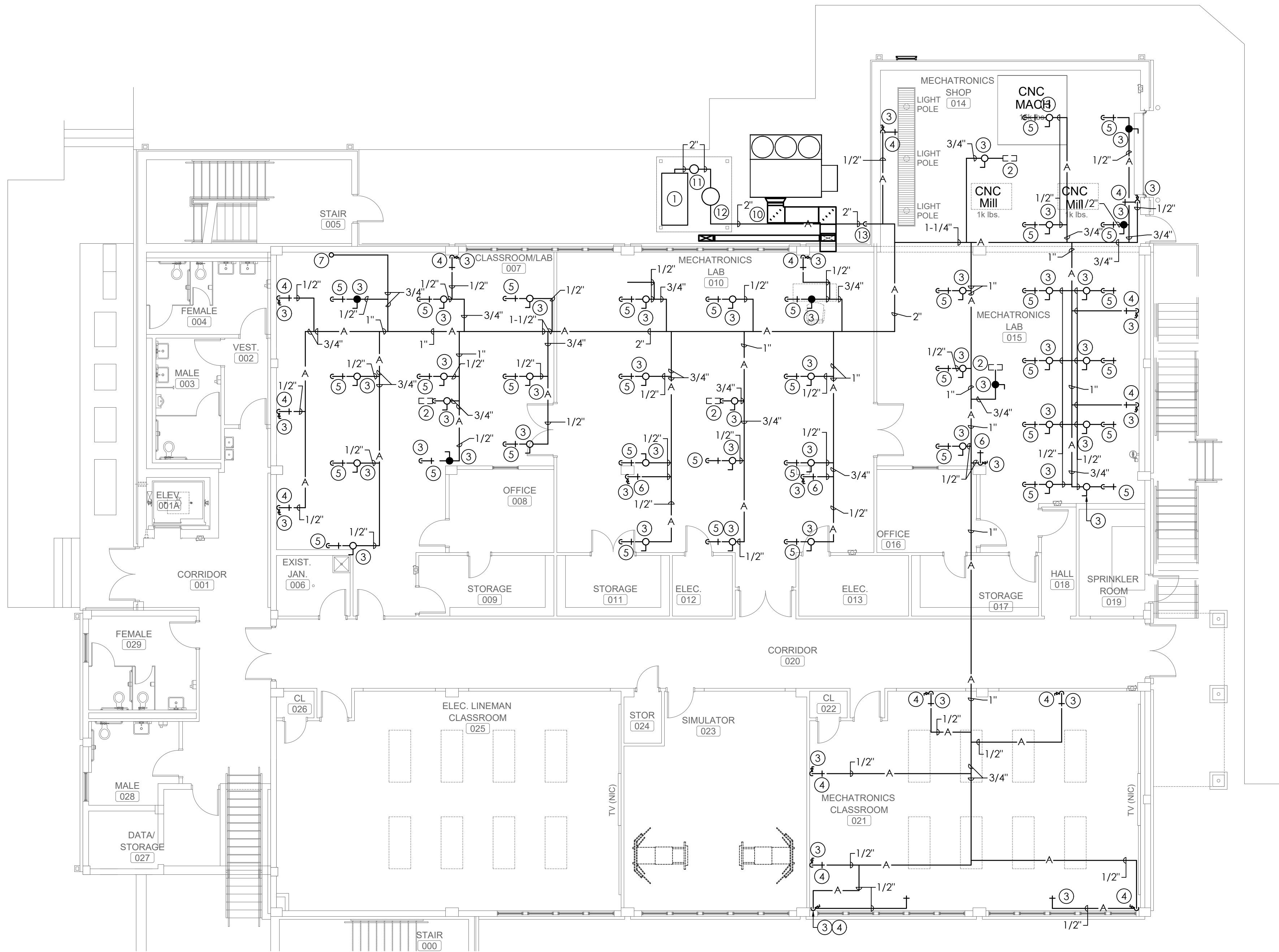
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P1.0 PLUMBING WATER ENLARGED KITCHEN PLAN - MAIN
SCALE: 1/4"=1'-0"



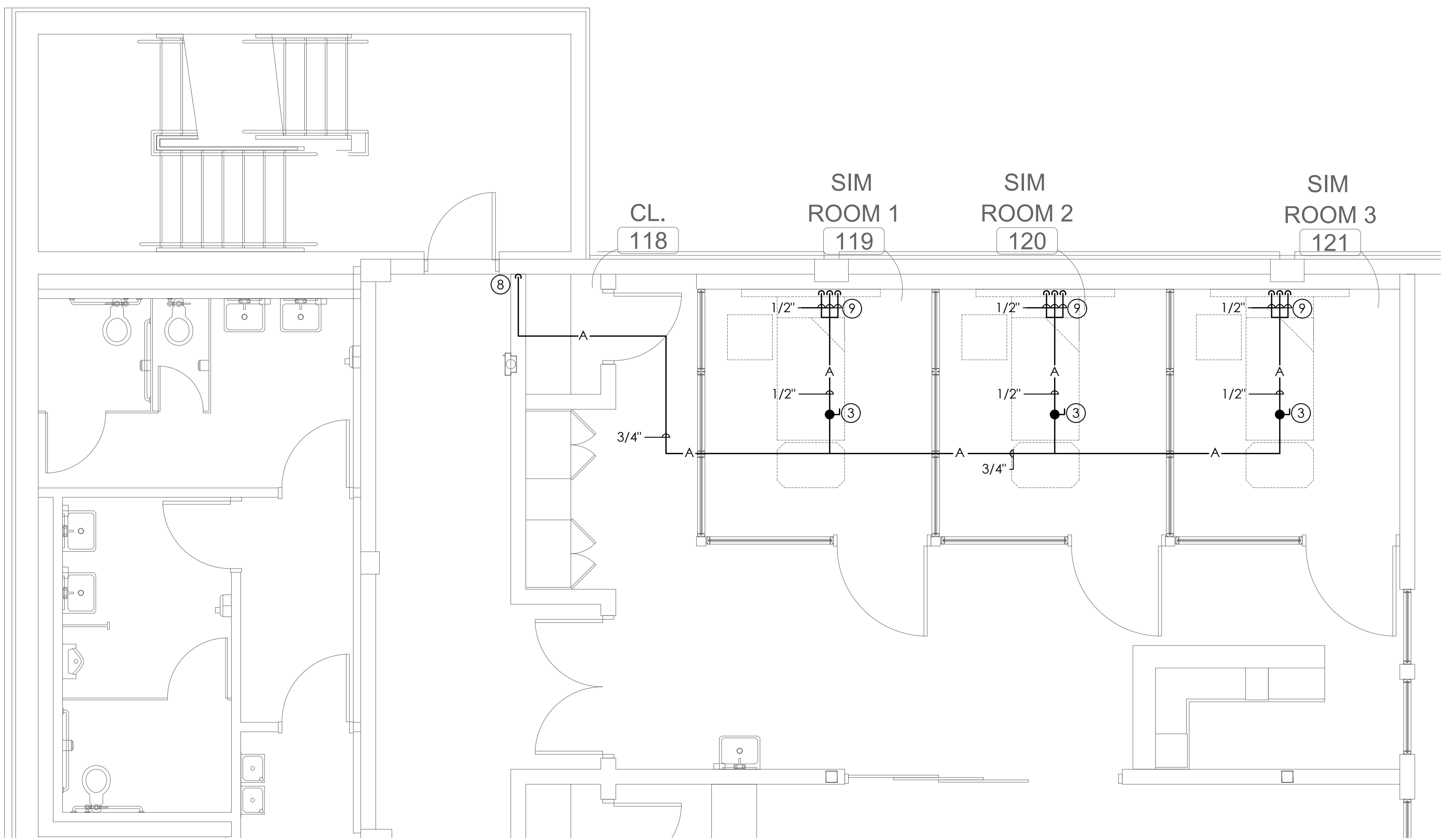
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P1.0 PLUMBING WATER PIPING ENLARGED KITCHEN PLAN - MAIN
SCALE: 1/4"=1'-0"

CULINARY LAB FOOD SERVICE EQUIPMENT SCHEDULE

ITEM #	DESCRIPTION	C.W. SIZE (IN)	C.W. AFF (IN)	H.W. SIZE (IN)	H.W. AFF (IN)	DIRECT DRAIN SIZE (IN)	DIRECT DRAIN AFF (IN)	INDIRECT DRAIN SIZE (IN)	MBTUH	GAS SIZE (IN)	GAS AFF (IN)	REMARKS
D4	ICE MACHINE WITH BIN	3/8"	78"	---	---	---	---	3/4"	---	---	---	CONNECT THRU WATER FILTER, EXTEND I.W. TO NEAREST F.S.
D9.1	MOP SINK	---	---	---	---	---	---	3"	---	---	---	---
D9.1	SERVICE FAUCET	3/4"	24"	3/4"	24"	---	---	---	---	---	---	---
D13	PREP TABLE WITH HAND SINK	1/2"	24"	1/2"	24"	1-1/2"	20"	---	---	---	---	---
D16	BEVERAGE TABLE	---	---	---	---	---	---	1-1/2"	---	---	---	EXTEND I.W. TO NEAREST F.S.
D21	PREP TABLE WITH SINK	---	---	---	---	---	---	1-1/2"	---	---	---	EXTEND I.W. TO NEAREST F.S.
D21.1	PREP TABLE FAUCET	1/2"	12"	1/2"	12"	---	---	---	---	---	---	---
D23	PREP TABLE WITH HAND SINK	1/2"	24"	1/2"	24"	1-1/2"	20"	---	---	---	---	---
D24	PREP TABLE WITH HAND SINK	1/2"	24"	1/2"	24"	1-1/2"	20"	---	---	---	---	---
D28	HAND SINK	1/2"	24"	1/2"	24"	1-1/2"	20"	---	---	---	---	---
D30	10 PAN COMBINATION OVEN ON STAND	3/4"	---	---	---	---	---	2"	---	---	---	CONNECT TO UDS, WATER THRU FILTER, EXTEND I.W. TO NEAREST F.S.
D31	12 QT KETTLE	1/2"	---	1/2"	---	---	---	---	---	---	---	CONNECT TO UDS.
D32	5 PAN STEAMER	(2) 3/8"	---	---	---	---	---	---	45.0	3/4"	---	CONNECT TO UDS, WATER THRU FILTER, EXTEND I.W. TO NEAREST F.S.
D33	RANGE	---	---	---	---	---	---	---	215.0	3/4"	---	CONNECT TO UDS.
D33A	RANGE MOUNTED SALAMDER	---	---	---	---	---	---	---	66.0	3/4"	---	CONNECT TO UDS.
D34	CHARBROILER ON STAND	---	---	---	---	---	---	---	68.0	3/4"	---	CONNECT TO UDS.
D35	GRIDDLE ON STAND	---	---	---	---	---	---	---	54.0	3/4"	---	CONNECT TO UDS.
D36	FRYER	---	---	---	---	---	---	---	120.0	1/2"	---	CONNECT TO UDS.
D37	30 GALLON BRAISING PAN	1/2"	---	1/2"	---	---	---	---	---	---	---	CONNECT TO UDS.
D38	DOUBLE STACK CONVECTION OVEN	---	---	---	---	---	---	---	---	---	---	CONNECT TO UDS.
D39	FLOOR TROUGH	---	---	---	4"	---	---	---	---	---	---	---
D40	3-COMPARTMENT SINK	---	---	---	---	---	(3) 1-1/2"	---	---	---	---	EXTEND I.W. TO NEAREST F.S.
D41	PRE-RINSE FAUCET	1/2"	24"	1/2"	24"	---	---	---	---	---	---	PLUMBER TO PROVIDE PRE-RINSE FAUCET T&S BRASS 5PR-2500 OR EQUAL
D42	FAUCET	1/2"	24"	1/2"	24"	---	---	---	---	---	---	---
D45	DISHMACHINE	1/2"	24"	1/2"	24"	---	---	1"	---	---	---	EXTEND I.W. TO NEAREST F.S.
D46	HOSE REEL WITH CONTROLS	1/2"	12"	1/2"	12"	---	---	---	---	---	---	---
D47	SOILED DISHTABLE	---	---	---	---	---	---	1-1/2"	---	---	---	EXTEND I.W. TO NEAREST F.S.
D51	UTILITY DISTRIBUTION SYSTEM	3/4"	DFA	3/4"	DFA	---	---	---	1980.0	---	---	DOWN FROM ABOVE (DFA)
D53	UTILITY DISTRIBUTION SYSTEM	3/4"	DFA	3/4"	DFA	---	---	---	2900.0	---	---	DOWN FROM ABOVE (DFA)

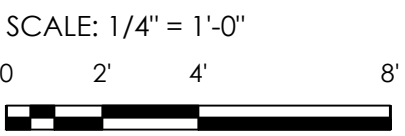


PLUMBING AIR PIPING PARTIAL FLOOR PLAN - LOWER
SCALE: 1/8"=1'-0"



PLUMBING AIR PIPING PARTIAL FLOOR PLAN - MAIN
SCALE: 1/4"=1'-0"

- COORDINATE AIR PIPING ROUTING AND DROPS WITH LIGHTING, DUCT WORK, AND STRUCTURE.
- ABOVE GRADE COMPRESSED AIR PIPING SHALL BE AIRNET STAINLESS STEEL MODULAR AIR PIPE. BELOW GRADE PIPING SHALL BE SCHEDULE 40 GALVANIZED.
- ABOVE GRADE COMPRESSED AIR PIPING SHALL BE SCHEDULE 40 BLACK STEEL OR AIRNET MODULAR AIR PIPE. BELOW GRADE PIPING SHALL BE SCHEDULE 40 GALVANIZED. PAINT ALL EXPOSED PIPING. OWNER TO CHOOSE COLOR.
- AIR PIPING - SCHEDULE 40 BLACK STEEL ABOVE GRADE. COPPER TYPE "L" BELOW GRADE. (NO JOINTS)
- COORDINATE AIR PIPE ROUTING WITH ELECTRICAL BUS BARS, LIGHTS, DUCT WORK, ETC...
- ④ NOTE LEGEND: (THIS SHEET ONLY)
1. AIR COMPRESSOR AND DRYER KAESER SFC 18-ST 25 H.P. (208/3/60) PROVIDE WEATHER PACKAGE FOR OUTDOOR INSTALLATION. (VERIFY PIPING ARRANGEMENT WITH OWNER)
 2. AIR REEL WITH 50' HOSE AND QUICK DISCONNECT. MOUNT TO STRUCTURE AT CEILING AREA (FURNISHED AND INSTALLED BY CONTRACTOR)(GRACO-LDX SERIES)
 3. CONTROL BALL VALVE
 4. QUICK DISCONNECT AIR CONNECTION MOUNTED ON EXTERIOR WALL. MOUNTED AT DOOR JAM HEIGHT
 5. AIR DROPS WITH QUICK DISCONNECT. LOCATE AT 6'-0" A.F.F.
 6. QUICK DISCONNECT AIR CONNECTION MOUNTED ON COLUMN. MOUNT AT 6'-0" A.F.F.
 7. 3/4" AIR LINE UP.
 8. 3/4" COMPRESSED AIR LINE FROM BELOW
 9. (3)1/2" AIR LINES TO HEAD WALL FOR MED GAS, OXYGEN, AND VACUUM
 10. COORDINATE AIR LINE ROUTING WITH DUCTWORK.
 11. KAESER KC FILTER (COORDINATE CLEARANCE WITH MANUFACTURER)
 12. KAESER RECEIVING TANK (120 GALLON) (COORDINATE CLEARANCE WITH MANUFACTURER)
 13. COORDINATE AIR LINE ROUTING WITH DUCTWORK

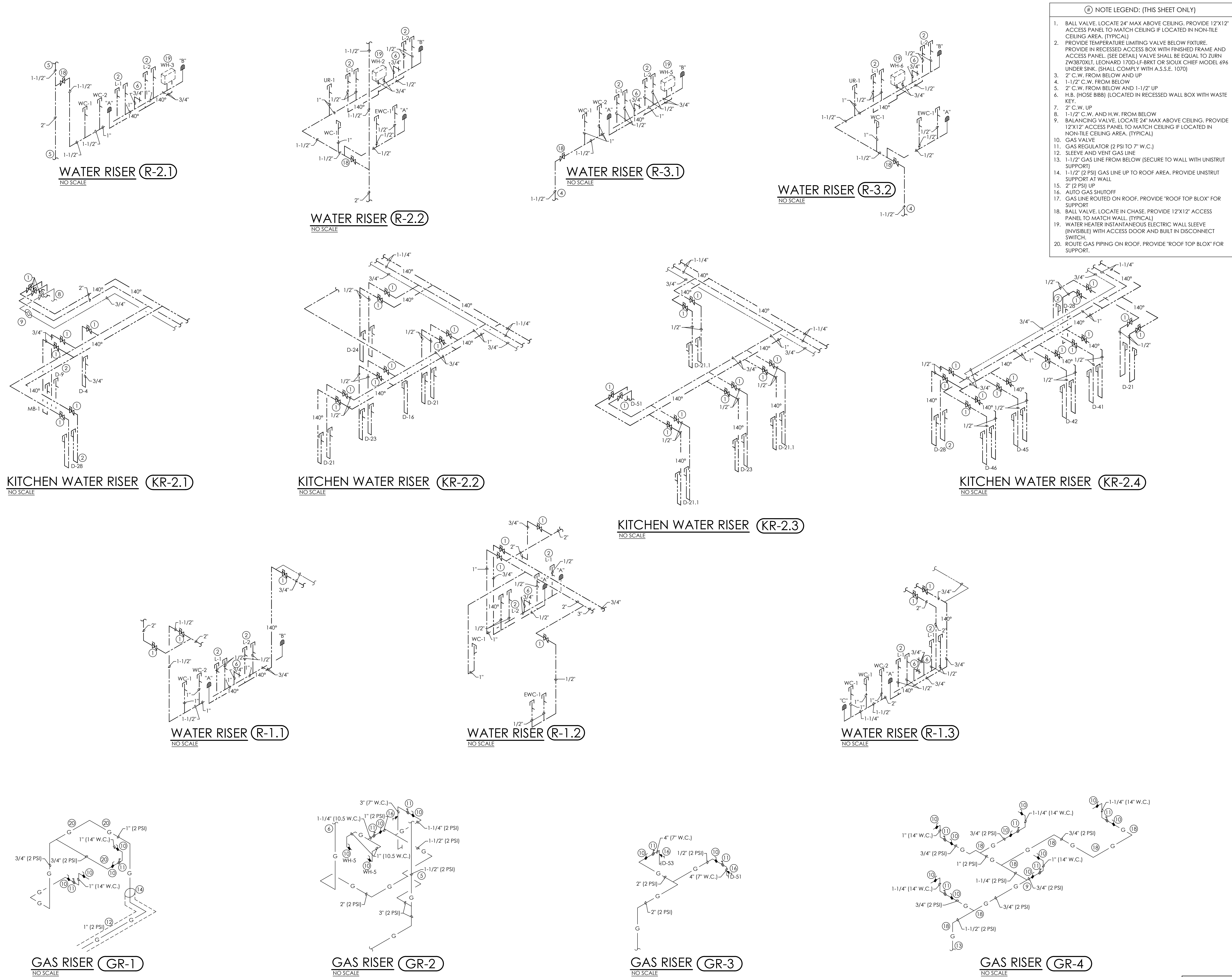


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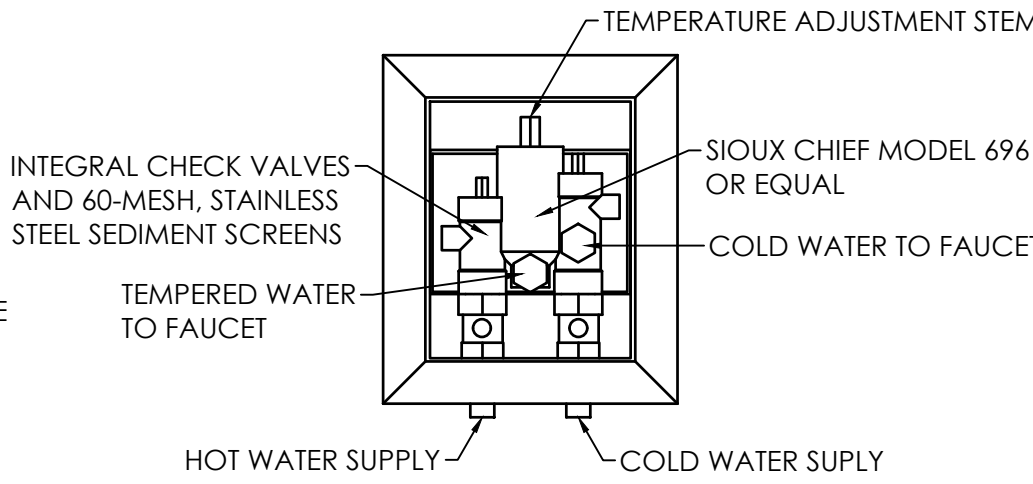
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DATE:	10.9.26
REVISIONS	



PLUMBING GENERAL NOTES

1. PROVIDE DISINFECTION OF WATER PIPING SYSTEM WITH CHLORINE SOLUTION AS PER CODE.
2. ALL OVERHEAD WATER PIPING TO BE RUN BELOW INSULATION AT BOTTOM OF TRUSSES FOR FREEZE PROTECTION.
3. INSTALLATION OF BACKFLOW PREVENTER SHALL COMPLY WITH THE 2021 INTERNATIONAL PLUMBING CODE.
4. ALL INDIRECT DRAINS TO HAVE INSULATED DEEP SEAL P-TRAPS.
5. ALL WALL HYDRANTS TO BE FREEZE PROOF AND TO HAVE VACUUM BREAKERS.
6. INSULATION ON ALL PIPING SHALL MEET SMOKE/ FLAME RATING OF 25 & 50.
7. ALL FLOOR DRAINS TO HAVE DEEP SEAL P-TRAPS.
8. INSTALL WATER HAMMER ARRESTORS AS FOLLOWS:
A. LAY IN CEILING: MOUNT WATER HAMMER ARRESTOR ABOVE CEILING FOR ACCESS.
B. SHEETROCK CEILING: MOUNT WATER HAMMER ARRESTOR IN CHASE WALL. PROVIDE 12" X 12" STAINLESS STEEL ACCESS PANEL IN WALL.
9. THESE DRAWINGS NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. IT IS INTENDED THAT A COMPLETE PLUMBING SYSTEM BE PROVIDED WITH ALL NECESSARY EQUIPMENT, APPURTENANCES AND CONTROLS. COMPLETELY COORDINATED WITH ALL DISCIPLINES. ALL PARAMETERS GIVEN IN THESE DOCUMENTS SHALL BE STRICTLY CONFORMED WITH ANY ITEMS AND LABOR REQUIRED FOR A COMPLETE PLUMBING SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS AND THESE CONTRACT DOCUMENTS SHALL BE FURNISHED WITHOUT INCURRING ANY ADDITIONAL COST TO THE PROJECT. CAREFULLY REVIEW ALL CONTRACT DOCUMENTS AND THE DESIGN OF OTHER TRADES BEFORE PREPARING SHOP DRAWINGS.
10. COORDINATE PLUMBING PIPING WITH STRUCTURAL, PLUMBING, HVAC AND ELECTRICAL. MAKE OFFSETS AND TRANSITIONS TO COORDINATE WITH OTHER TRADES WITHOUT ANY ADDITIONAL COST TO THE PROJECT.
11. NO PIPING TO BE RUN ABOVE ELECTRICAL PANELS.
12. MAINTAIN A MAXIMUM OF 55 PSIG WATER PRESSURE AT PLUMBING FIXTURES, CONSISTENT WITH ADEQUATE FLOW RATES.
13. ALL WASTE AND VENT IN CORRIDOR WALLS, RATED WALLS OR RETURN AIR PLENUMS TO BE CAST IRON PIPE.
14. ALL VTR'S TO BE CAST IRON (3'-0" MIN. LENGTH) AT ROOF PENETRATION.
15. SUPPORT PIPE AS REQUIRED BY THE 2018 INTERNATIONAL PLUMBING CODE.
16. FIRSTSTOP ALL RATED WALLS AND FLOOR PENETRATIONS. SEE ARCHITECTURAL DRAWINGS FOR RATED WALL AND FLOOR LOCATIONS.
17. COORDINATE ALL PLUMBING IN SLAB WITH BUILDING FOOTINGS.
18. OFFSET ALL VTR'S TO BACKSIDE OF ROOF RIDGE OR ON FLAT ROOF (AS SHOWN).
19. ALL CEILING ACCESS PANELS SHALL BE PAINTED TO MATCH CEILING.
20. PROVIDE FIRESTOPPING ASSEMBLIES AT ANY AND ALL FIRE-RATED PENETRATIONS. EQUAL TO ROKTEC.
21. DO NOT BEGIN WORK UNTIL ELEVATION OF FINAL CONNECTION POINT IS VERIFIED AND GRADING OF ENTIRE SYSTEM CAN BE DETERMINED (EVEN IF FINAL CONNECTION IS SPECIFIED UNDER ANOTHER SECTION).
22. PROVIDE 12"X12" CEILING ACCESS PANEL (M/FAB OR EQUAL) TO MATCH CEILING FOR ALL VALVES IF LOCATED IN TILE CEILING AREA. (TYPICAL)
23. ALL PLUMBING PRODUCTS THAT COME INTO CONTACT WITH POTABLE (DRINKABLE) WATER SHALL COMPLY WITH SAFE DRINKING WATER ACT (SDWA) AND THE REDUCTION OF LEAD IN DRINKING WATER. REDUCTION OF LEAD IN DRINKING WATER ACT WENT INTO EFFECT ON JANUARY 4, 2014.
24. THE CONTRACTOR SHALL EXECUTE ALL WORK SO THAT IT PROCEEDS WITH A MINIMUM OF INTERFERENCE WITH OTHER TRADES AND NORMAL FUNCTIONING OF EXISTING FACILITIES AND SERVICES.
25. VERIFY EXACT ROUGH-IN AND FINAL EQUIPMENT REQUIREMENTS IN FIELD.
26. THE CONTRACTOR SHALL VERIFY THAT ALL PIPING, AS SHOWN ON THESE DRAWINGS, WILL NOT CONFLICT WITH ANY DRAINS, SCUTTLES, JOINTS, VENTS, EQUIPMENT, ETC.
27. COORDINATE ROUTING AND LOCATIONS OF WASTE AND VENT PIPING WITH ALL OTHER TRADES.
28. THE PLUMBING CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER TRADES, ALL REQUIRED OPENINGS AND EXCAVATIONS, ALL REQUIRED OPENINGS IN FOUNDATIONS, FLOORS, WALLS AND ROOFS SHALL BE DESIGNED INTO THE STRUCTURE INITIALLY BY THE USE OF SLEEVES, CURBS, ETC. CUTTING AND PATCHING SHALL BE HELD TO A MINIMUM.
29. ALL ITEMS PROJECTING THROUGH THE ROOF SHALL BE FLASHED A MINIMUM OF 12" ABOVE THE ROOF. ALL VENTS SHALL BE A MINIMUM OF 10'-0" FROM ANY OUTSIDE AIR INTAKE DEVICE.
30. PROVIDE STOPS AND SHOCK ABSORBERS AT EACH FIXTURE OR GROUP OF FIXTURES.
31. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL CONNECTIONS TO GAS FIRED EQUIPMENT AND SPECIFIED FIXTURES. ALL GAS FIRED EQUIPMENT AND FIXTURES SHALL BE OPERABLE.
32. PROVIDE VACUUM BREAKERS AT FIXTURES WITH HOSE THREAD CONNECTIONS AND APPLIANCES WITH DIRECT CONNECTIONS TO DOMESTIC WATER.

33. WHERE DISSIMILAR PIPING MATERIALS (STEEL AND COPPER) ARE CONNECTED, INSTALL A THREADED BRASS NIPPLE FOR PIPE SIZES 2" AND LESS. FOR PIPE SIZES 2-1/2" AND ABOVE, INSTALL ISOLATING FLANGES. DIELECTRIC UNIONS ARE NOT TO BE USED EXCEPT AT THE WATER HEATERS.
34. ALL WATER LINES INSTALLED IN EXTERIOR WALLS SHALL BE INSTALLED INSIDE OF WALL INSULATION AND INSULATED INDIVIDUALLY TO PROTECT FROM FREEZING PIPING AND FITTINGS.
35. ALL PLUMBING FIXTURES SHALL BE WHITE, (UNLESS STATED OTHERWISE)
36. INSTALL "TRAPGUARD" FOR FLOOR DRAINS IN BATHROOMS, RESTROOMS, JANITOR, MECHANICAL ROOMS AND PARTY ROOM FLOOR DRAINS. ALL FLOOR DRAINS ARE TO HAVE 4" DEEP SEAL TRAPS AND "TRAPGUARD". (NO EXCEPTIONS).
37. PROVIDE APPROVED BACKFLOW PREVENTION AT ALL EQUIPMENT DIRECTLY CONNECTED TO WATER SYSTEM.
38. PROVIDE CLEANOUTS EVERY 75'-0" OR AT EACH CHANGE IN DIRECTION MORE THAN 45° AS REQUIRED BY CODE. COORDINATE LOCATIONS WITH ARCHITECT.
39. PROVIDE PRESSURE REDUCING VALVE IF THE INCOMING PRESSURE EXCEEDS 80 PSI. IF A PRV IS UTILIZED THEN IT SHALL BE SET TO 60 PSI. PROVIDE PRV AT EVERY BUILDING SUPPLY.
40. THESE PLANS (ALL PLUMBING SHEETS) ARE SCHEMATIC IN NATURE AND ARE INTENDED TO ESTABLISH SIZE, GENERAL ROUTING, LOCATION, PERFORMANCE AND ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. ALL WORK SHALL BE FULLY COORDINATED WITH OTHER TRADES TO INSURE THE INSTALLATION OF A COMPLETE OPERABLE SYSTEM THAT FITS IN THE SPACE ALLOTTED. PROVIDE ALL LABOR, EQUIPMENT, APPURTENANCES AND MATERIALS NECESSARY, AND PERFORM ALL OPERATIONS REQUIRED FOR THE INSTALLATION OF COMPLETE, FUNCTIONAL PLUMBING SYSTEMS AS OUTLINED ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS.
41. ALL WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES. (2021 IBC, 2021 IPC, 2018 IECC)
42. VERIFY ALL POINTS OF CONNECTION WITH OTHER DISCIPLINES (LOCATION AND INVERT) PRIOR TO INSTALLATION. THIS SHALL INCLUDE EXISTING SITE UTILITIES AS WELL AS NEW SITE UTILITIES INSTALLED UNDER THE SCOPE OF WORK FOR THIS PROJECT.
43. COORDINATE WITH OTHER TRADES TO PREVENT INTERFERENCE WITH HVAC DUCTS, ELECTRICAL LIGHTING AND STRUCTURE IN THE CEILING PLENUMS.
44. WHEN / IF A CONFLICT EXISTS BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE HIGHER FOR RATED WALL AND FLOOR LOCATIONS SHALL APPLY. THE FINAL DECISION SHALL BE MADE BY THE ARCHITECT AND / OR ENGINEER. THE HIGHER PRICE SHALL BE INCLUDED IN THE BID PRICE.
45. COORDINATE ALL DWV PIPING WITH THE JOIST LAYOUT BELOW. COORDINATE THROUGH THE ARCHITECT, GENERAL CONTRACTOR, THIS SET OF CONSTRUCTION DOCUMENTS (STRUCTURAL / ARCHITECTURAL) ETC. THERE WILL NOT BE ANY CHANGE ORDERS ISSUED OR PAID FOR GENERAL / REQUIRED OFFSETS DUE TO THE FAILURE OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH THE STRUCTURE PRIOR TO BID. THE SUBMITTED BID PRICE SHALL HAVE A ALLOWANCE FOR ALL REQUIRED OFFSETS, ETC.
46. COORDINATE MIN. SLOPE FOR SANITARY SEWER WITH TIE IN ELEVATIONS. PROVIDE 1/8" PER FOOT MIN. SLOPE IF ELEVATION WILL ALLOW.
47. EXACT LOCATIONS AND MOUNTING HEIGHTS OF PLUMBING FIXTURES SHALL BE OBTAINED FROM THE ARCHITECTURAL PLANS.
48. ALL VENT PIPING SHALL BE ATTACHED TO WALL NO FURTHER THAN 3'-0" AWAY.
49. ELECTRICAL OUTLETS SHALL BE INSTALLED BEHIND ELECTRIC WATER COOLERS (NOT EXPOSED)
50. ROUGH-IN WATER CLOSET AND URINAL FLUSH VALVE SO THAT THE FLUSH TUBE IS VERTICALLY STRAIGHT.
51. ADA FIXTURES AND INSTALLATION SHALL COMPLY WITH CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN.
52. PROVIDE A READILY ACCESSIBLE CLEANOUT AT OR NEAR THE BASE OF EACH WASTE AND VENT STACK PER INTERNATIONAL PLUMBING CODE AND THE SPECIFICATIONS. CLEANOUTS SHALL BE HIGH ENOUGH TO CLEAR THE TILE BASE WITHOUT CUTTING OF THE BASE AND SHALL BE LOCATED WITHIN THE SPECIFIED PIPING ENCLOSURE FOR ALL WALL MOUNTED LAVATORIES AND WALL MOUNTED HAND SINKS WHEN POSSIBLE.
53. LOCATE CLEANOUTS TO THE SIDE OF THE WATER CLOSETS WITH A MINIMUM CLEARANCE OF 6" FROM THE ROUGH-IN OF THE WATER CLOSETS. PREFERRED LOCATION IS IN ADA STALL TO ALLOW FOR ADDITIONAL ACCESS SPACE.
54. EXTREME CARE SHALL BE TAKEN WHEN ROUGHING IN CLEANOUTS AT EACH WALL MOUNTED LAVATORY AND HAND SINK. CLEANOUTS SHALL BE LOCATED WITHIN THE SPECIFIED LAV. SHIELD PIPING COVER WHENEVER POSSIBLE.
55. ALL CLEANOUTS SHALL BE ROUGHED IN HIGH ENOUGH TO CLEAR THE ARCHITECTURAL BASE MOLDING WITHOUT CUTTING THE BASE MOLDING.
56. PROVIDE A BALL VALVE ON ONE SIDE OF EVERY DIELECTRIC UNION AS REQUIRED TO FACILITATE ITS REMOVAL.
57. WATER HAMMER ARRESTORS SHALL BE INSTALLED AT ALL SOLENOID, REMOTE OPERATED OR QUICK CLOSING VALVES AND AT EACH PLUMBING FIXTURE OR BATTERY OF PLUMBING FIXTURES. SEE SPECS FOR ADDITIONAL REQUIREMENTS.

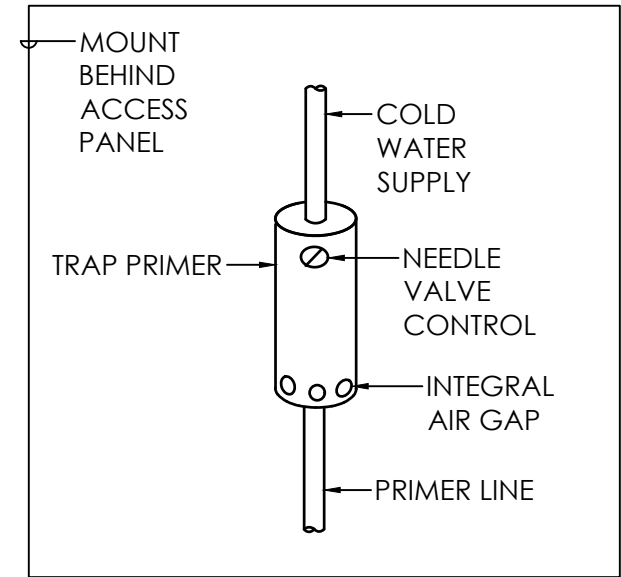


HOT INLET TEMPERATURE: 140°F
COLD INLET TEMPERATURE: 39°F - 80°F
TEMPERATURE OUT: 110°F

NOTE: MOUNT UNDER LAVATORY OR SINK. PROVIDE SUPPORT BRACKET. MOUNT IN WALL. PROVIDE IN RECESSED ACCESS BOX WITH FINISHED FRAME (NO EXCEPTIONS) PROVIDE ACCESS PANEL.

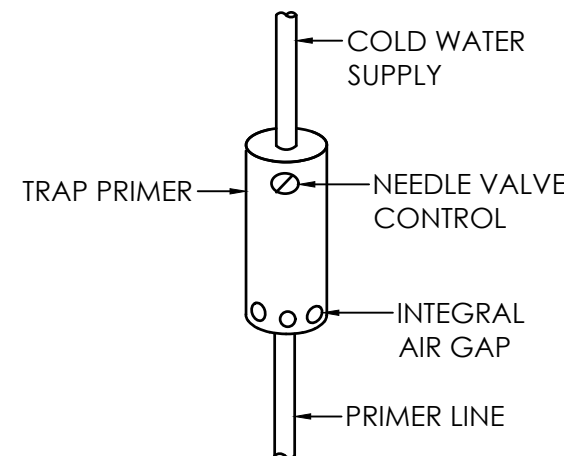
TEMPERATURE LIMITING VALVE IN WALL BOX DETAIL

NO SCALE



TRAP PRIMER DETAIL

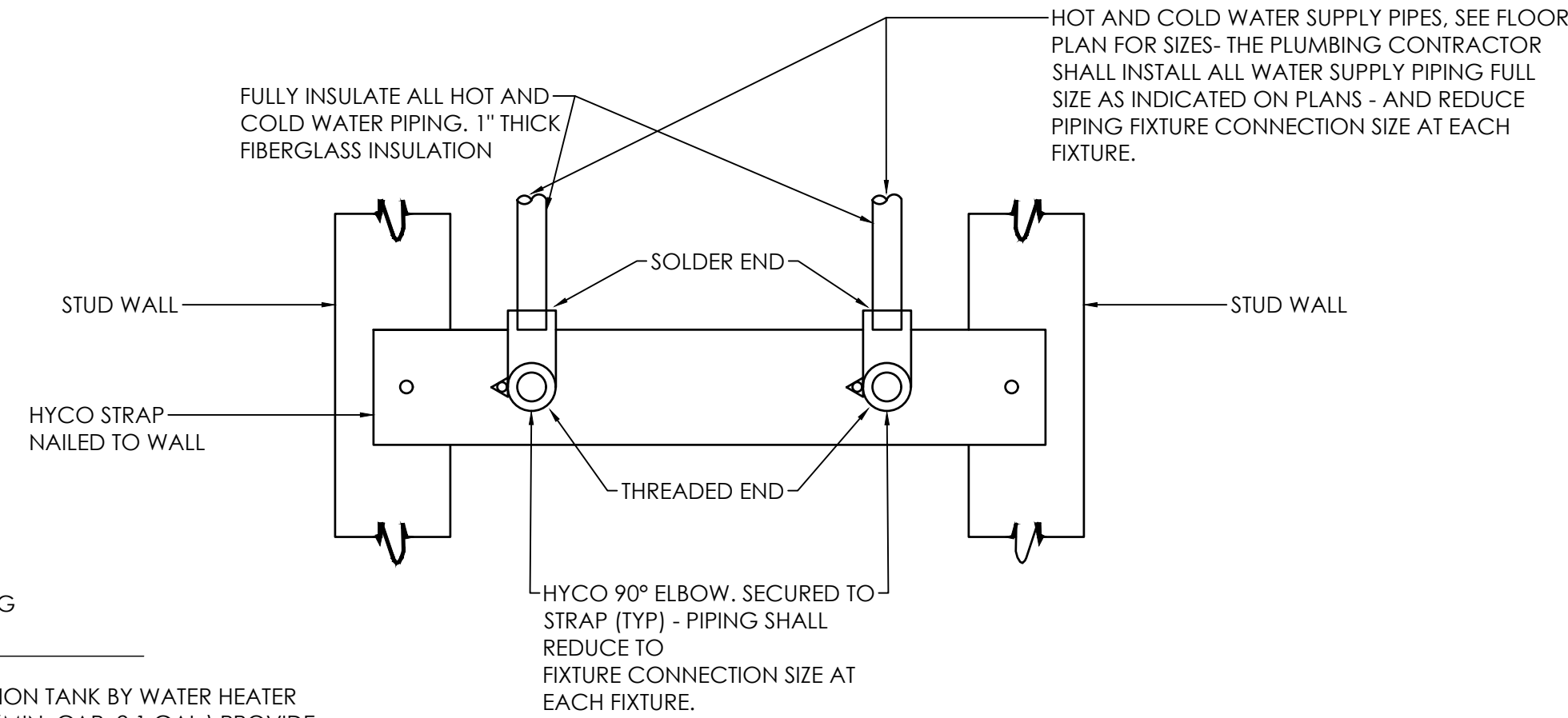
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TRAP PRIMER DETAIL

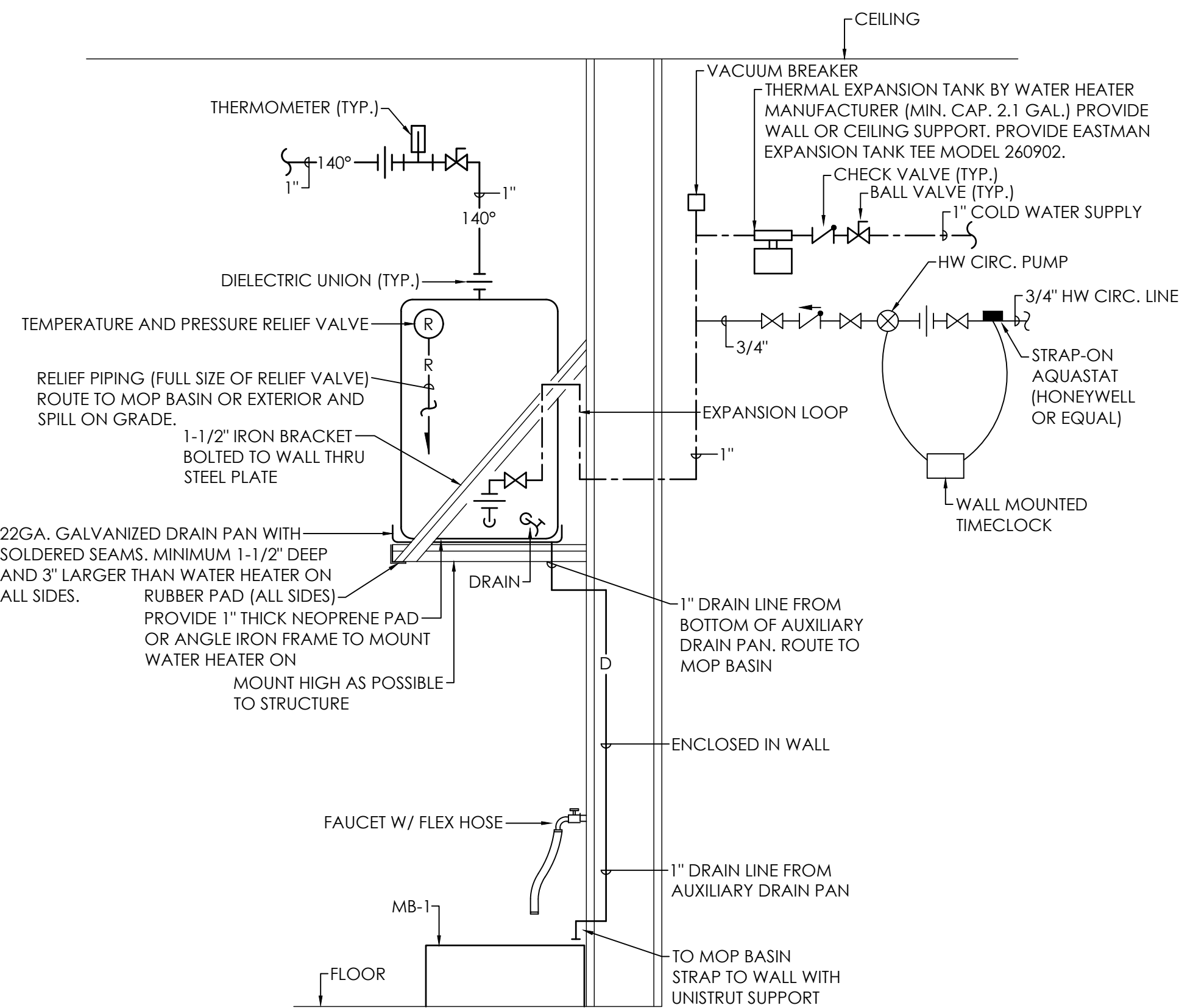
NO SCALE

(PROVIDE BALL VALVE FOR ISOLATION IN LINE SERVING TRAP PRIMER)



PIPE SUPPORT DETAIL

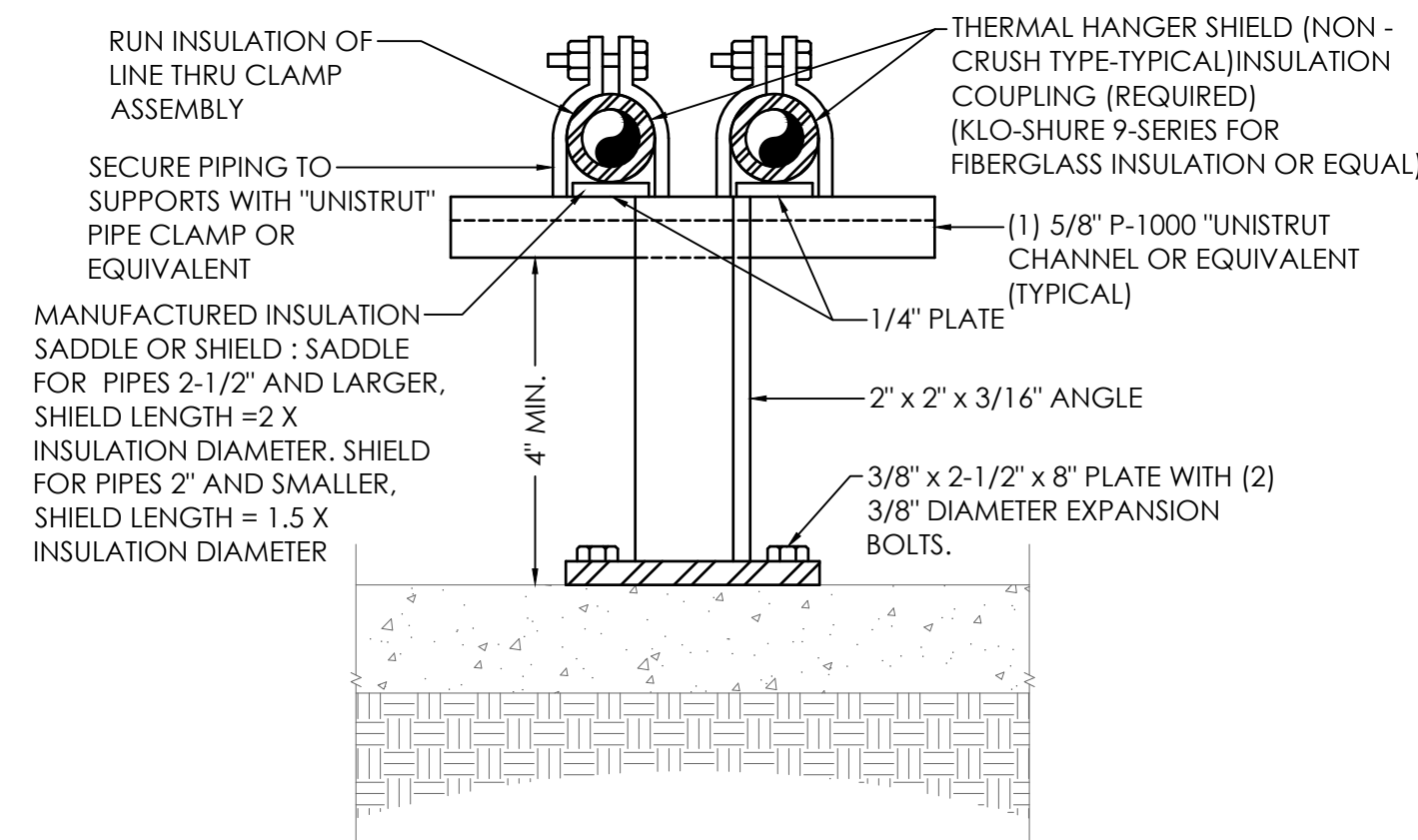
NO SCALE



WATER HEATER CONNECTION & MOUNTING DETAIL

NO SCALE

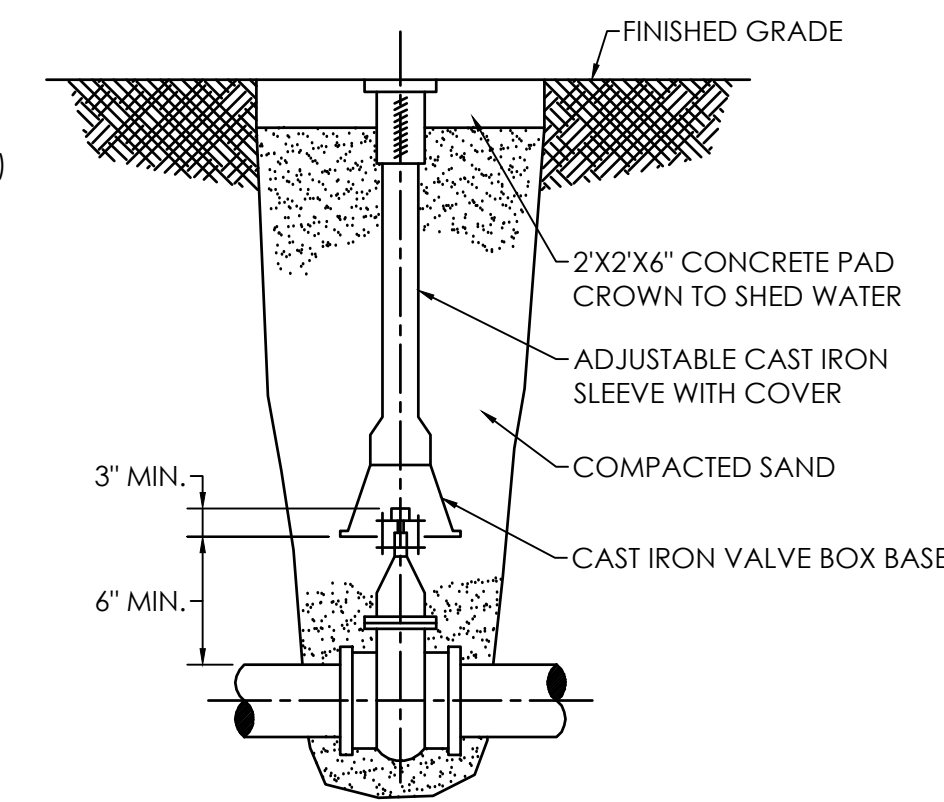
(WH-12)



EXTERIOR PIPE SUPPORT DETAIL

NO SCALE

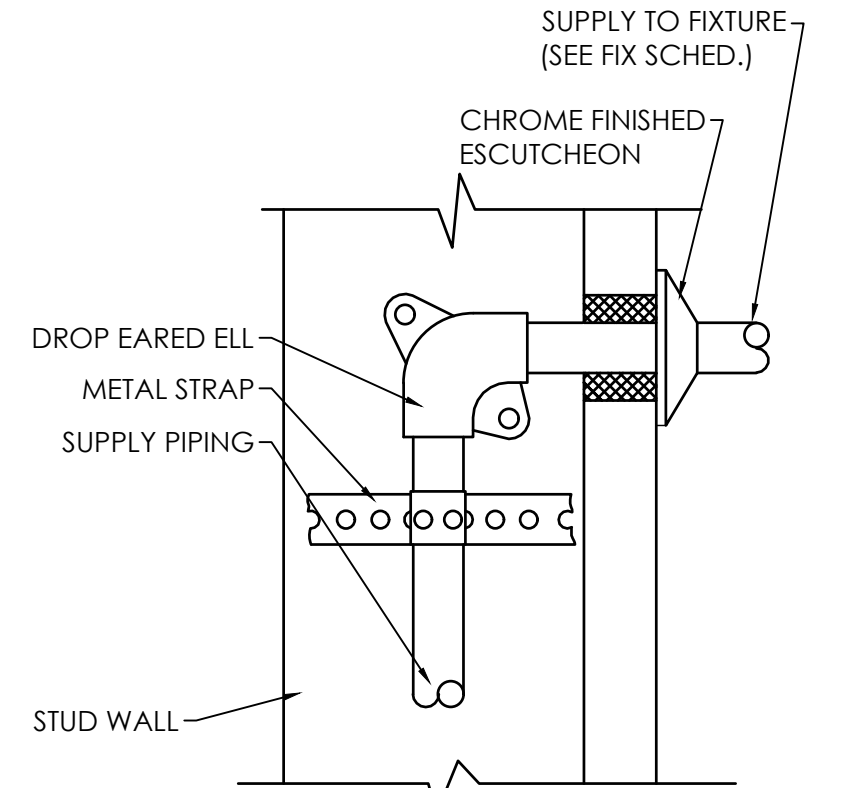
(NOTE: PROVIDE PREFAB 90° ELBOW ALUMINUM COVER)



NOTE:
1. VALVE BOX SHALL NOT REST ON VALVE OR MAIN LINE PIPE.
2. A VALVE STEM EXTENSION WITH CENTERING RING IS REQUIRED FOR VALVES BURIED DEEPER THAN 6'.

BALL VALVE AND BOX DETAIL

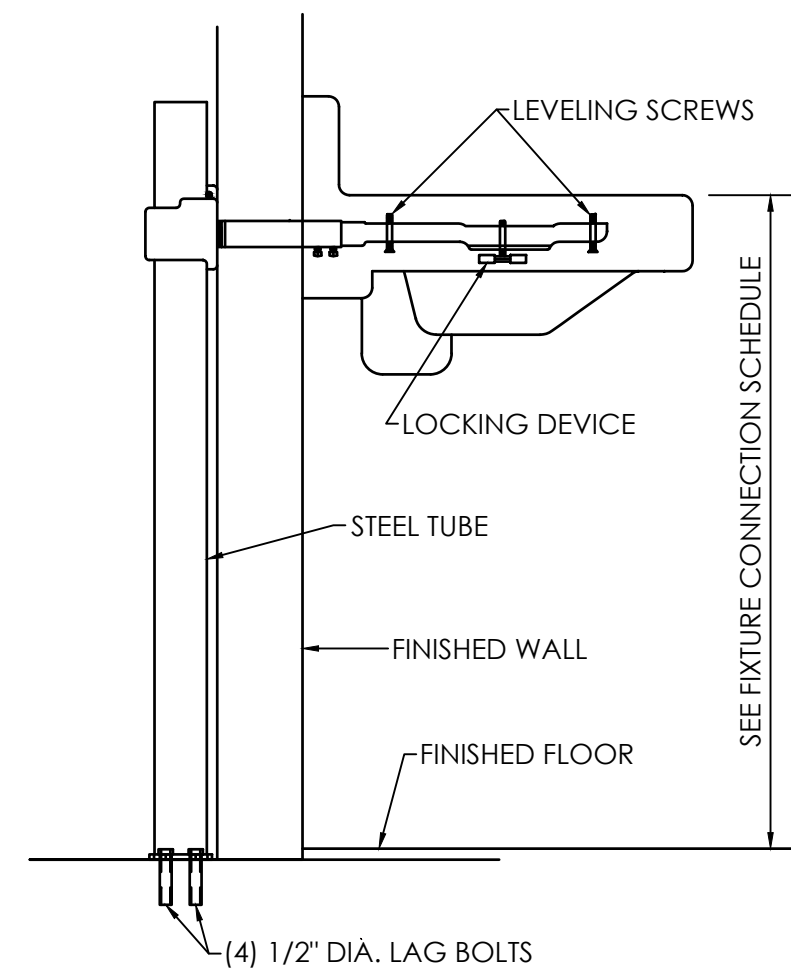
NO SCALE



NOTE: ANCHOR AND SECURE SUPPLY PIPING TO STUD WALL AS SHOWN OR BLOCKING BETWEEN STUDS.

ANCHORING FOR WATER SUPPLY DETAIL

NO SCALE



LAVATORY CARRIER DETAIL

NO SCALE

BASED ON ZURN Z-1231-SL

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	COLD	HOT	WASTE	REMARKS
WC-1	WATER CLOSET (H/C) *	1"	---	4"	FLOOR MOUNTED, FLUSH VALVE (H/C)
WC-2	WATER CLOSET	1"	---	4"	FLOOR MOUNTED, FLUSH VALVE
UR-1	URINAL (H/C)	1"	---	2"	WALL MOUNTED, MOUNT 17" MAX TO HIGHEST POINT OF LIP TO FINISHED FLOOR
L-1	LAVATORY (H/C) * *	1/2"	1/2"	1-1/4"	WALL HUNG, HANG 34" RIM TO FINISHED FLOOR
L-2	LAVATORY	1/2"	1/2"	1-1/4"	WALL HUNG
MB-1	MOP BASIN	1/2"	1/2"	3"	24" X 24" FIBERGLASS
EW-1	ELECTRIC WATER COOLER (H.C., BI-LEVEL) * * *	1/2"	---	2"	WALL MOUNTED, MOUNT 36" SPOUT TO FINISHED FLOOR, WITH BOTTLE FILLER, PROVIDE WATER HAMMER ARRESTOR
EM-1	EMERGENCY SHOWER/EYE FACE WASH	---	1-1/2"	3" F.D.	HAND CONTROL, MIXING VALVE TO COMPLY WITH ASSE 1071 - I.P.C. 411.3
HS-1	HAND SINK	1/2"	1/2"	3"	WALL HUNG
S-1	SINK * *	1/2"	1/2"	1-1/2"	STAINLESS STEEL SINGLE COMPARTMENT

FIXTURE SCHEDULE NOTES:

- * HANDLE TO WIDE SIDE OF STALL.
- ** INSULATE P-TRAP, DRAIN AND SUPPLIES WITH HAND LAY GUARD INSULATION KIT #102W OR EQUAL BY TRAP WRAP AND McGUIRE PRO WRAP.
- *** COORDINATE FINISH WITH ARCHITECT AND OWNER (MIDNIGHT BLACK, ARCTIC WHITE, OR STAINLESS STEEL AND SAFETY BUBBLER LEAD FREE

ELECTRIC WATER HEATER SCHEDULE

MARK	STORAGE CAPACITY	RECOVERY @ 100°F Δ T	KW	VOLT	PH	CY	REMARKS
WH-1	---	---	8.3	208	1	60	1,2,3
WH-2	---	---	8.3	208	1	60	1,2,3
WH-3	---	---	8.3	208	1	60	1,2,3
WH-4	---	---	8.3	208	1	60	1,2,3
WH-7	---	---	8.3	208	1	60	1,2,3
WH-8	---	---	3.0	208	1	60	1,3,4
WH-9	---	---	3.0	208	1	60	1,3,4
WH-10	---	---	3.0	208	1	60	1,3,4
WH-11	---	---	3.0	208	1	60	1,3,4
WH-12	30	24	6	208	1	60	1,4,5,6
WH-13	118	---	25 AMPS	120	1	60	1,7
WH-14	---	---	3.0	208	1	60	1,3,4

ELECTRIC WATER HEATER SCHEDULE NOTES:

1. PROVIDE THREE YEAR WARRANTY.
2. BASED ON CHRONOMITE CM-40L/208-ADJ-Z-S1616D (INVISIBLE ONLY WITH DISCONNECT) OR EQUAL.
3. RECESSED IN WALL WITH LOCKABLE STAINLESS STEEL ACCESS PANEL.
4. BASED ON CHRONOMITE CM-15L208-ADJ-Z-S1616D (INVISIBLE ONLY WITH DISCONNECT) OR EQUAL.
5. PROVIDE CIRC. PUMP 1/20 HP. 120V/1/60. (SEE SPECS)
6. PROVIDE TIME CLOCK 120V/1/60 (SEE SPECS)
7. BASED ON STING RAY MODEL 9300

GAS WATER HEATER SCHEDULE

MARK	STORAGE CAPACITY	RECOVERY @ 100°F Δ T	BTUH INPUT	REMARKS
WH-5	100	230	199,000	1,2,3,4,5,6,7,8,9
WH-6	100	230	199,000	1,2,3,4,5,6,7,8,9

GAS WATER HEATER SCHEDULE NOTES:

1. PROVIDE THREE YEAR WARRANTY.
2. PROVIDE EXPANSION TANK. (SEE SPEC.)
3. BASED ON A.C.S.MITH BTH199 OR EQUAL.
4. PROVIDE CIRCULATING PUMP. (SEE SPEC.)
5. PROVIDE TIME CLOCK. (SEE SPEC.)
6. PROVIDE EMERGENCY GAS SHUTOFF CONTROL, SOLENOID VALVE, & CARBON MONOXIDE SENSOR (SEE PLANS)
7. IPEX 636 VENT AND INTAKE PIPING
8. ALTERNATE
9. PROVIDE ACID NEUTRALIZATION KIT FOR THE DRAIN PIPING USED ON GAS FIRED CONDENSING WATER HEATER. COMPLY WITH 803.1 NEUTRALIZING DEVICE FOR CORROSIVE WASTES.

SUMP PUMP SCHEDULE

MARK	FT. OF HEAD	GPM	H.P.	RPM	VOLTS	PH	CY	NOTES
SP-1	25	50	1/2	3600	120	1	60	1,2
SP-2	25	50	1/2	3600	120	1	60	1,2

1. BASED ON STANCOR OIL MINDER SE-50" CAPABLE OF 50 G.P.M. @ 25 FT. HEAD.
2. PROVIDE ALARM/ CONTROL PANEL.

PLUMBING LEGEND

	WASTE PIPING
	VENT PIPING
	COLD WATER PIPING
	TEPID PIPING (88°)
	HOT WATER PIPING (140°)
	HOT WATER RETURN PIPING
	BALANCING VALVE
	BALL VALVE
	BALL VALVE IN 24"x24"x6" CONC. VALVE BOX
	C.O.T.G. (SET IN 18"x18"x6" CONCRETE PAD WITH TOOLED EDGES. PROVIDE BRASS PLUG.) (PROVIDE FRAME AND COVER)
	F.D.
	WASTE RISER
	WATER RISER
	WALL HYDRANT (FREEZE PROOF) (IN BOX WITH LOOSE TEE KEY)
	BELOW FLOOR
	VENT THRU ROOF (3'-0" SECTION PROVIDE SUPPORT AT ELBOW BELOW V.T.R.)
	W.C.O.
	F.C.O.
	WHA
	H.B.
	GAS PIPING (LABEL WITH PRESSURE)
	GAS VALVE
	GAS PRESSURE REGULATOR (LABEL WITH PRESSURE)
	SLEEVED AND VENTED GAS PIPING
	EXISTING TO REMAIN
	EXISTING TO BE REMOVED
	CONNECT TO EXISTING
	COMPRESSED AIR LINE



LATHAN
McKEE
ARCHITECTS

Academy St. Career Innovation Academy
The Troy City & Pike County Board of Education

708 E. Academy St., Troy, AL 36081

PLUMBING GENERAL NOTES,
DETAILS, AND SCHEDULES

SHEET TITLE:



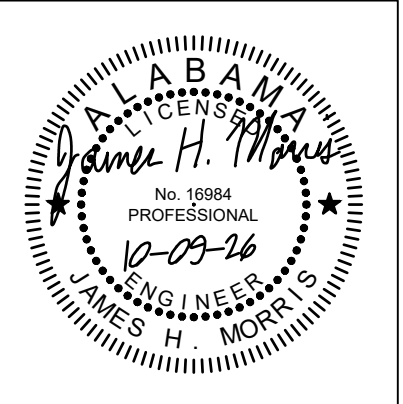
PROJ. MGR.: RLB
DRAWN: BMP
DATE: 10.9.26
REVISIONS

JOB NO.
25-249
SHEET NO:

P3.1

MORRIS DAVIS
ENGINEERING LLC

903 SOUTH PERRY STREET
MONTGOMERY, AL 36104
T. (334) 269-0209
www.morriseng.com PROJECT NO: 26-044



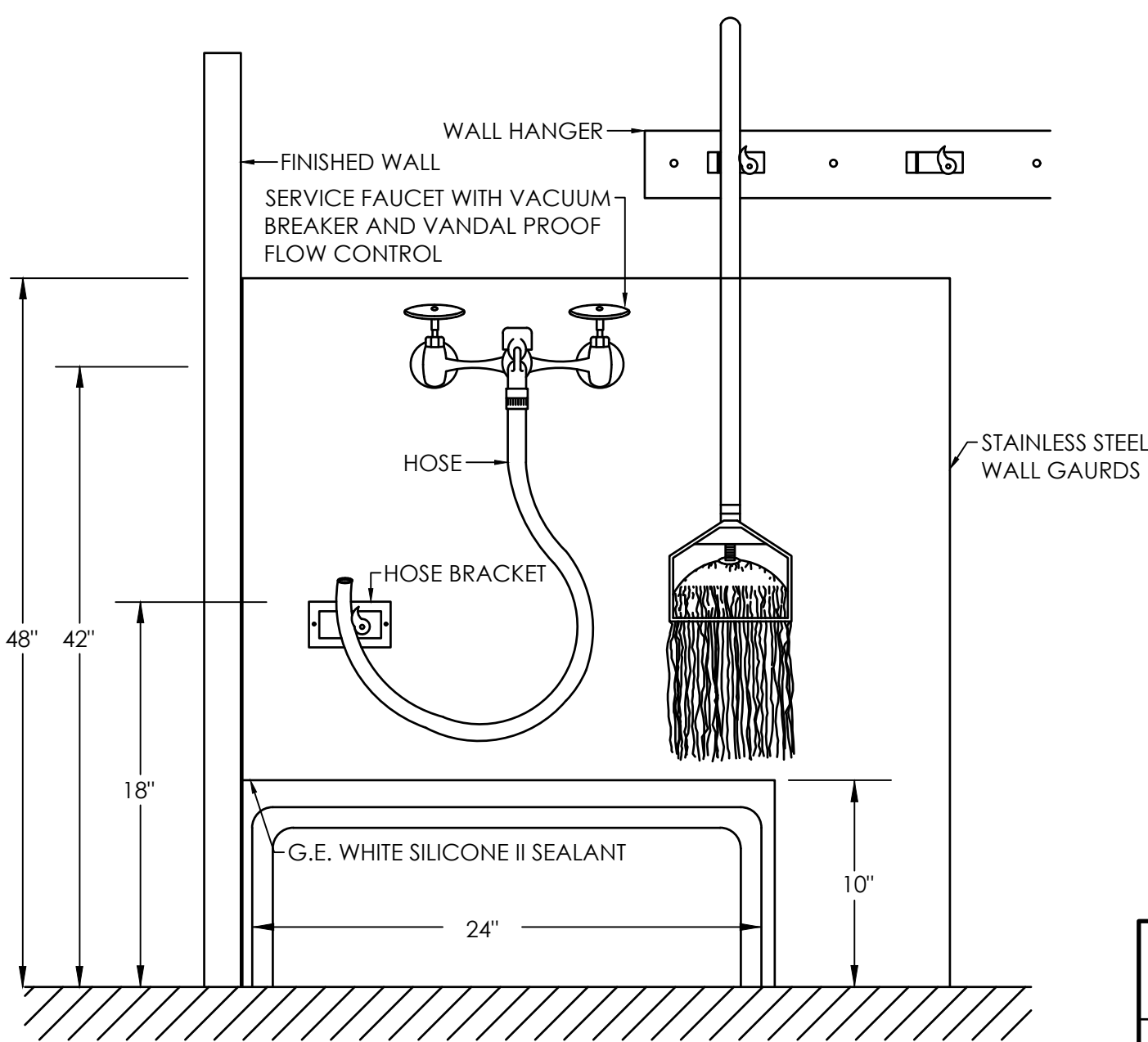
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REVISIONS

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25-249
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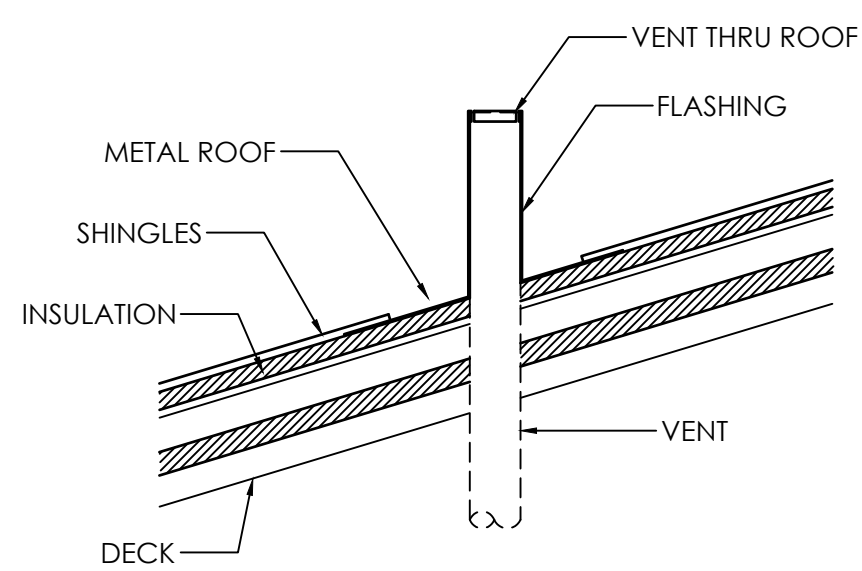
P3.2

MORRIS DAVIS
ENGINEERING LLC

903 SOUTH PERRY STREET
MONTGOMERY, AL 36104
T: (361) 269-0209
www.jmorriseng.com PROJECT NO: 26-044

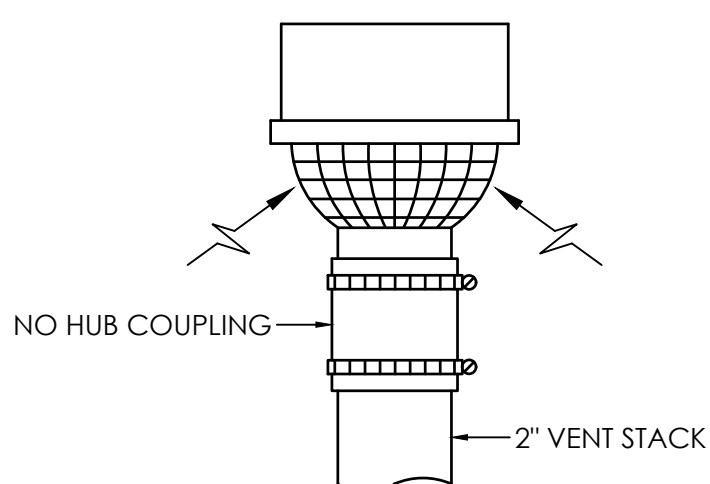


MOP SINK AND ACCESSORIES DETAIL
NO SCALE

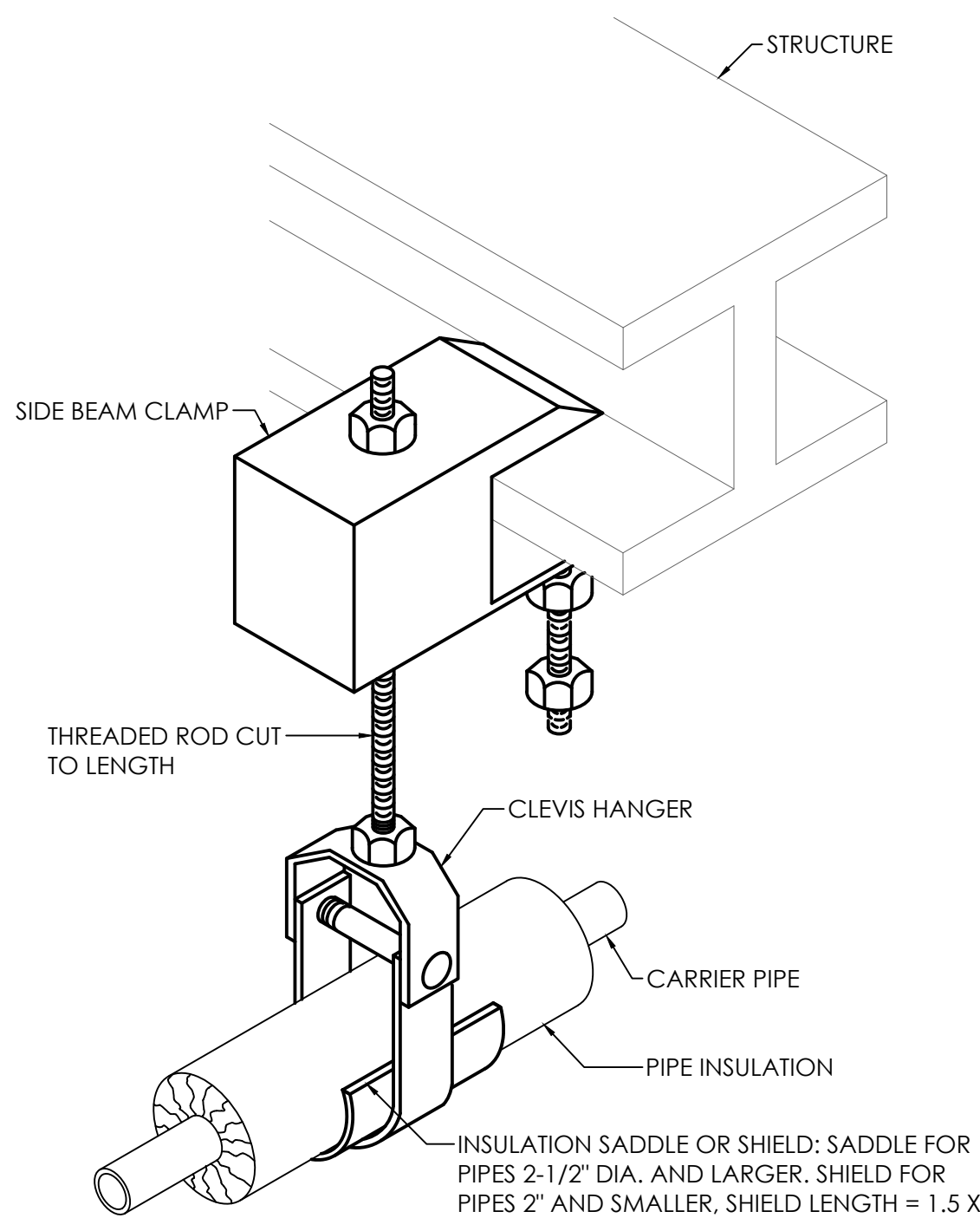


NOTE: ALL VENTS THRU ROOF (VTR) SHALL BE INSTALLED SO THAT THE TOP 3'-0" MINIMUM IS CAST IRON AT ROOF PENETRATION.
* PAINT VTR TO MATCH ROOF. PROVIDE SUPPORT AT ELBOW BELOW V.T.R.

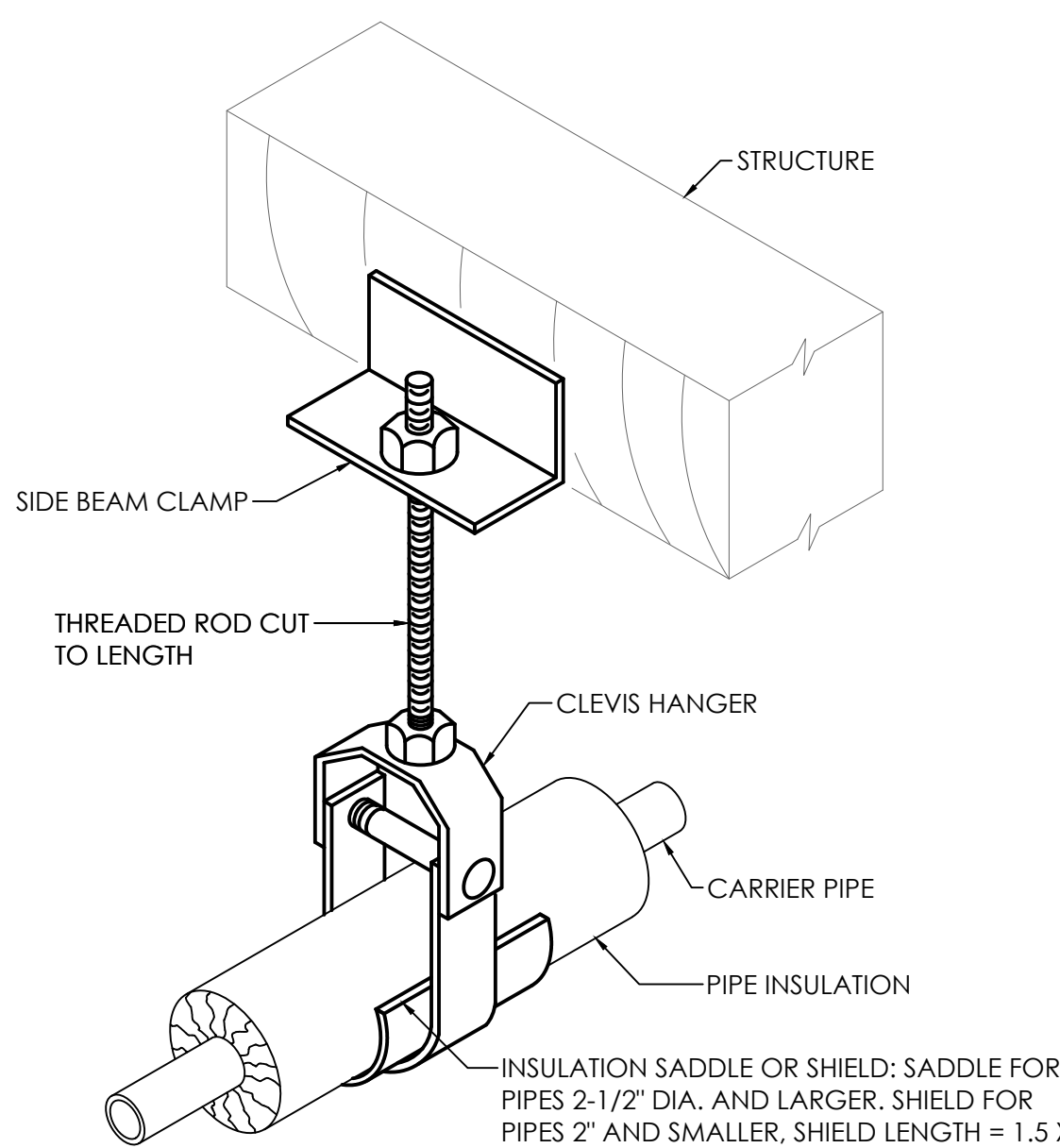
VENT THRU ROOF DETAIL
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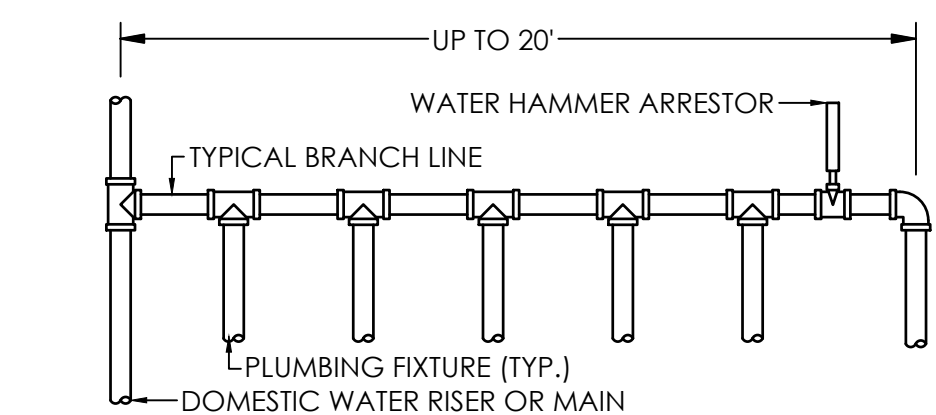
AIR ADMITTANCE VALVE DETAIL
NO SCALE



PIPE HANGER DETAIL
NO SCALE



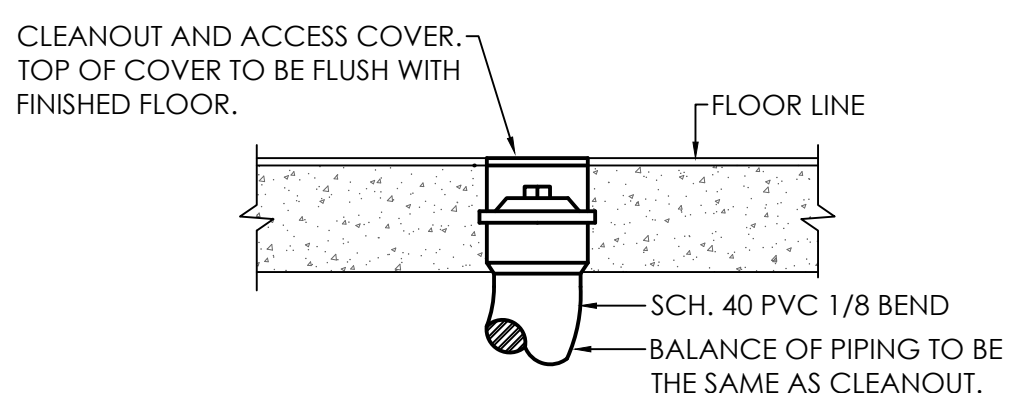
PIPE HANGER DETAIL
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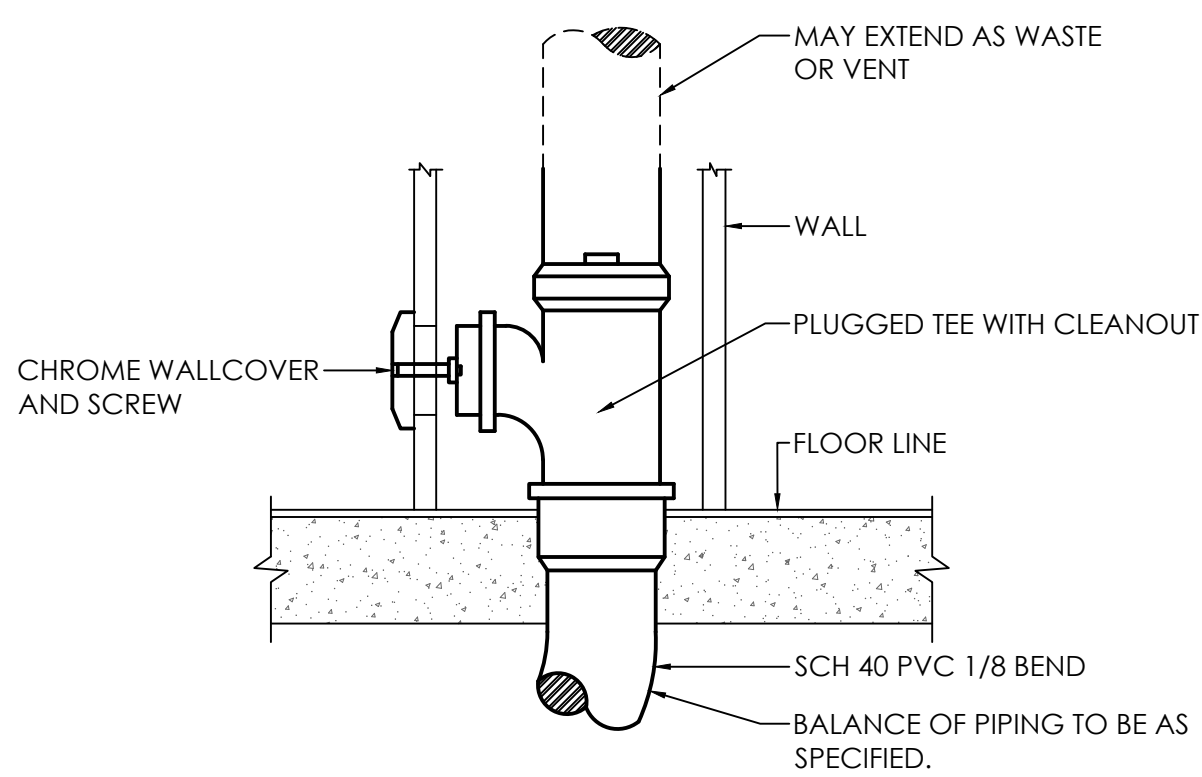
WATER HAMMER ARRESTOR SCHEDULE						
P.D.I. UNITS	A	B	C	D	E	F
FIXTURE UNITS	1-11	12-32	33-60	61-113	114-154	155-330

PROVIDE ACCESS FOR SERVICE.

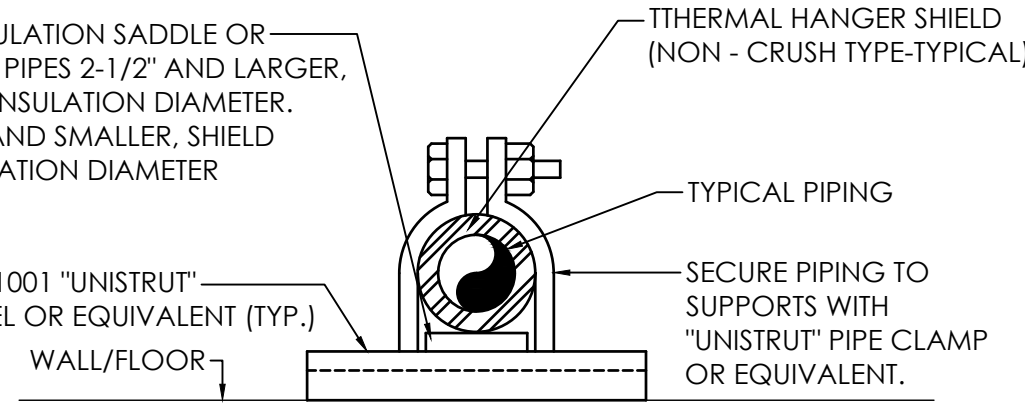
WATER HAMMER ARRESTOR INSTALLATION DETAIL
NO SCALE



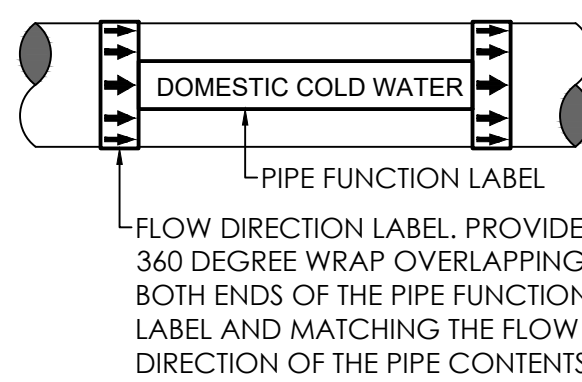
FLOOR CLEANOUT DETAIL (FCO)
NO SCALE



WALL CLEANOUT DETAIL
NO SCALE



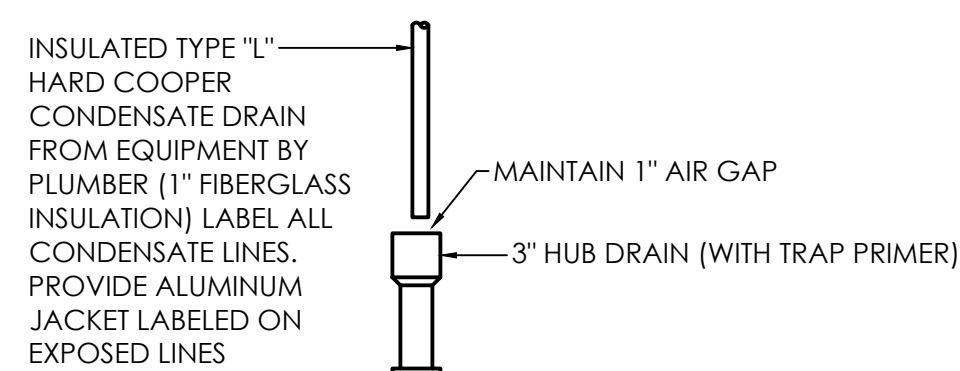
PIPING SUPPORT AT WALL/FLOOR DETAIL
NO SCALE



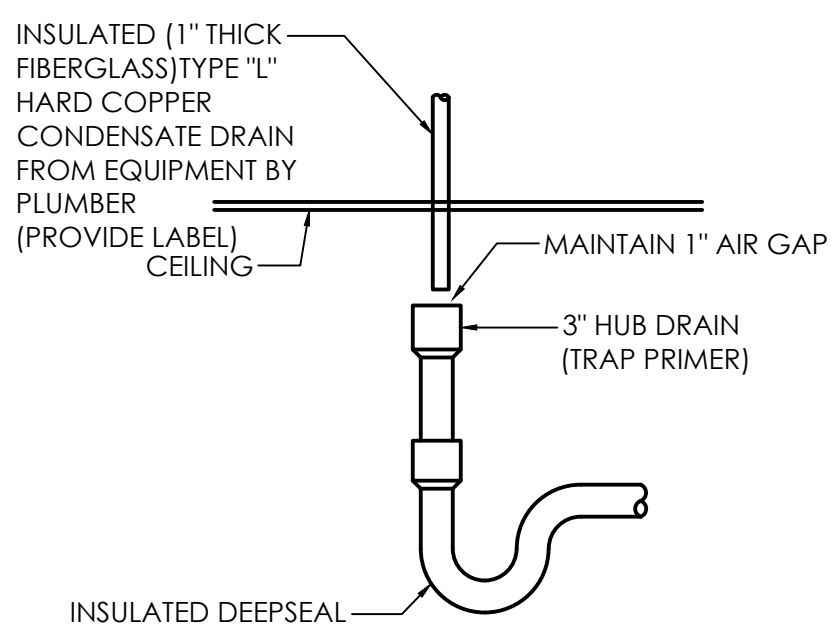
INSULATED PIPE HANGER
NO SCALE

- NOTES:
- PROVIDE A PIPE LABEL FOR EACH PIPE FUNCTION.
 - PROVIDE AT LEAST ONE LABEL ON EACH PIPE AT EACH CHANGE OF DIRECTION.
 - PROVIDE LABELS ON MAXIMUM CENTERS FOR EVERY PIPE AS NOTED IN THE SPECIFICATIONS. LABELS TO BE LOCATED IN AN EASILY VISIBLE LOCATION AS THEY WOULD NORMALLY BE SEEN (E.G. ON THE BOTTOM OF THE PIPES IN THE AIR AND ON THE TOP OR SIDES OF PIPES MOUNTED LOW).
 - LABELS SHALL BE COLOR CODED, PRE-PRINTED, WRAP AROUND TYPE - NO SELF-ADHESIVE VINYL.
 - SEE SPECIFICATIONS FOR OTHER REQUIREMENTS AND LIST OF PIPE FUNCTIONS.

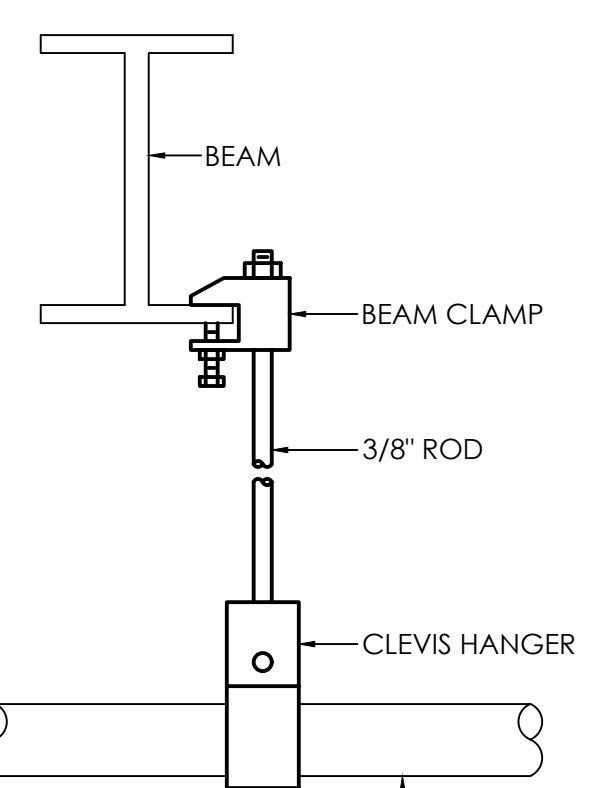
PIPING IDENTIFICATION DETAIL
NO SCALE



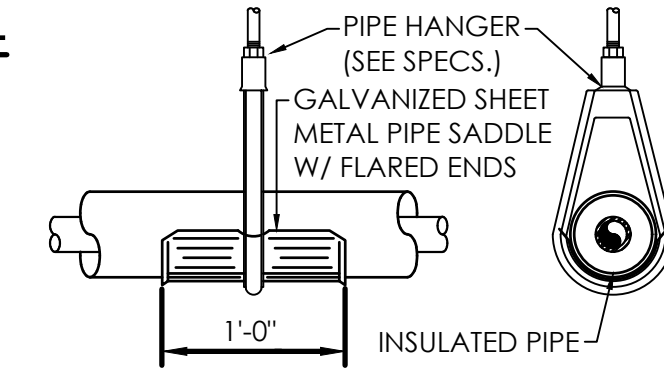
HUB DRAIN DETAIL
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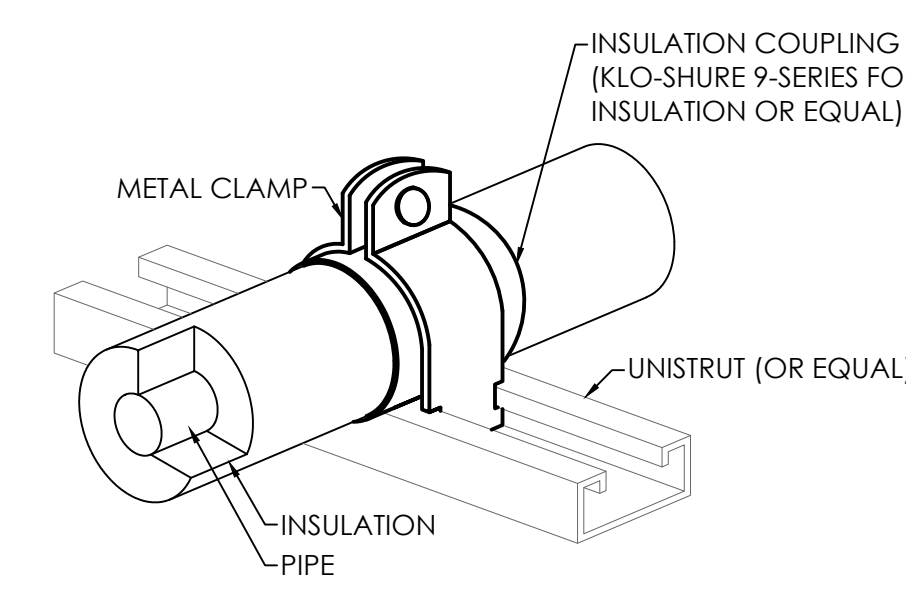
HUB DRAIN DETAIL
NO SCALE



PIPE HANGER DETAIL
NO SCALE

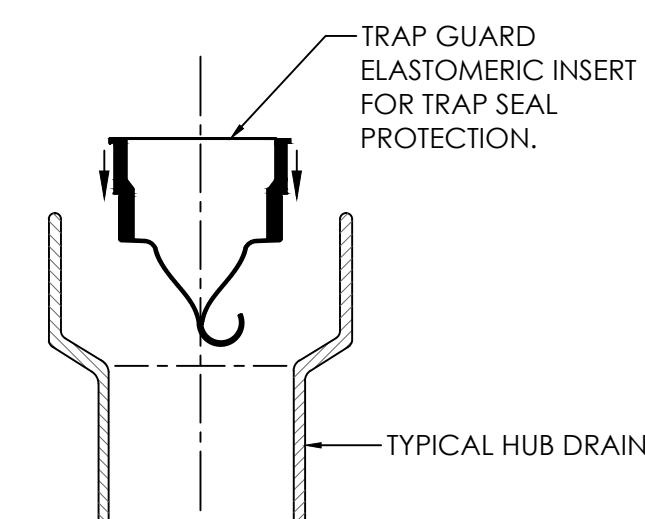


INSULATED PIPE HANGER
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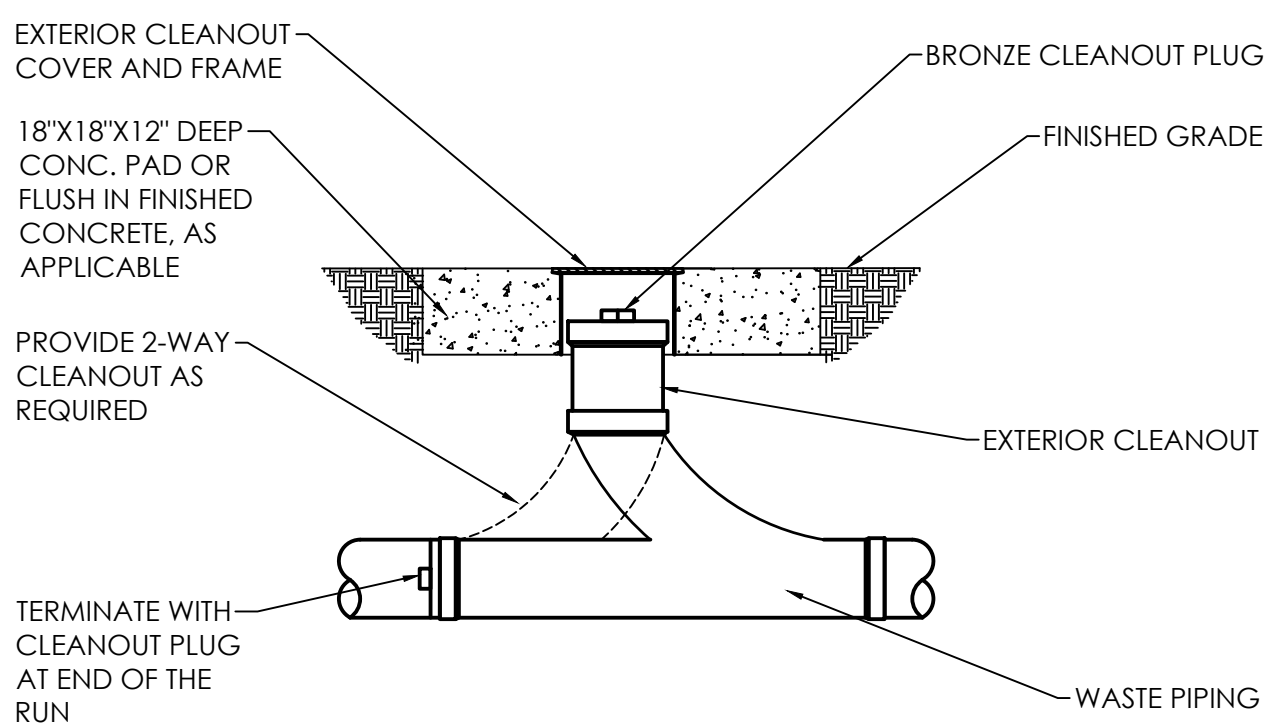


- NOTES:
- APPLICATION: FOR STRUT-MOUNTED, 4-INCH AND SMALLER, COPPER PIPE WITH 1" THICK FIBERGLASS INSULATION.
 - ALLOWED FOR HORIZONTAL OR VERTICAL INSTALLATION.

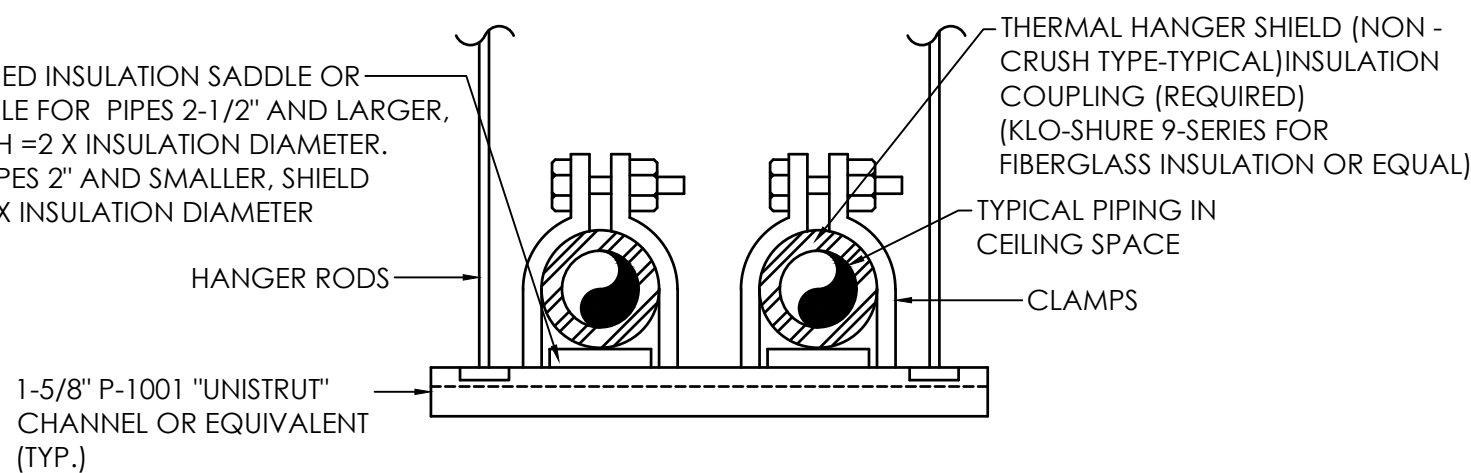
STRUT-MOUNTED PIPING SUPPORT
INSULATION COUPLING DETAIL
NO SCALE



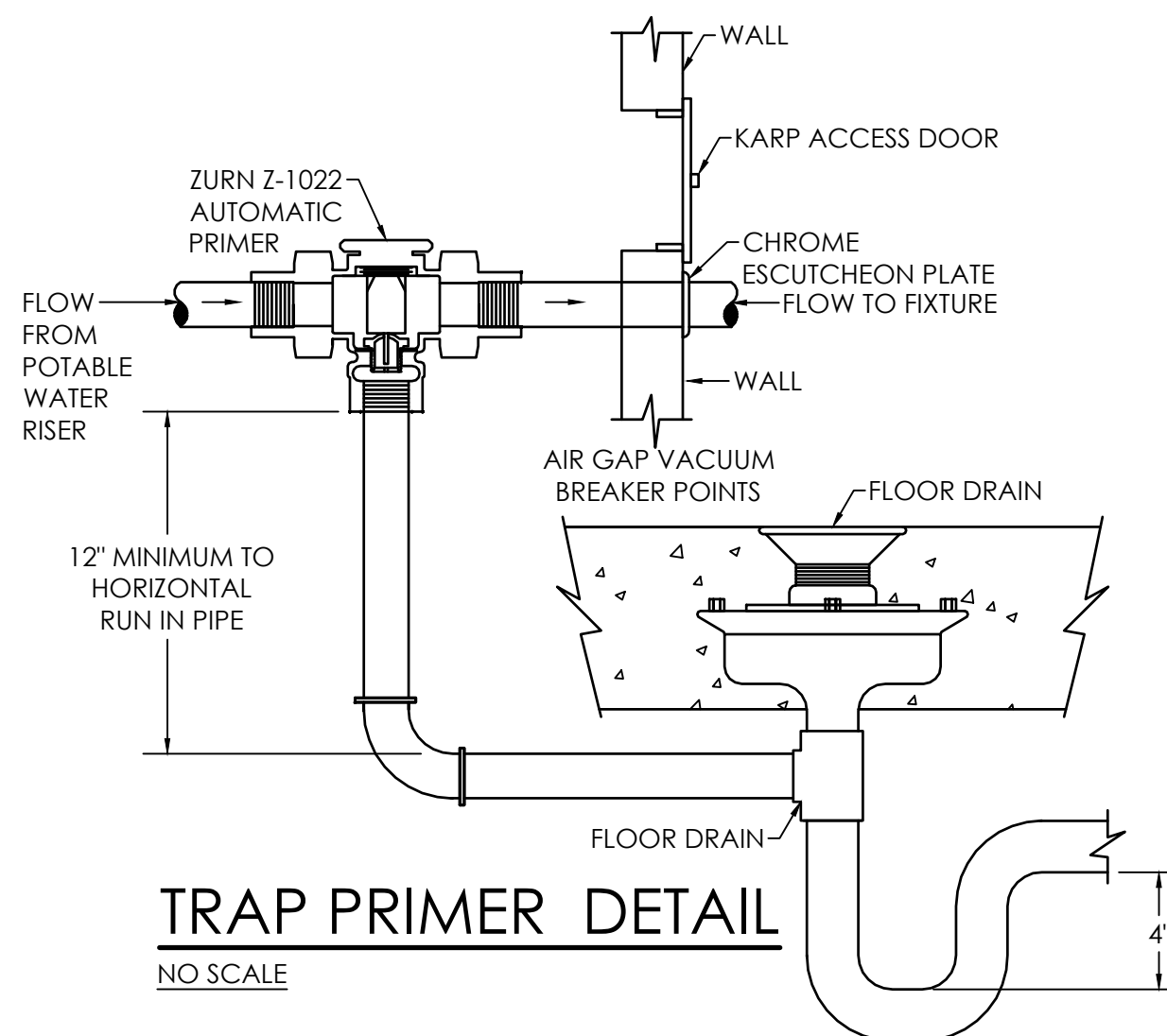
TRAP GUARD DETAIL - HUB DRAIN
NO SCALE



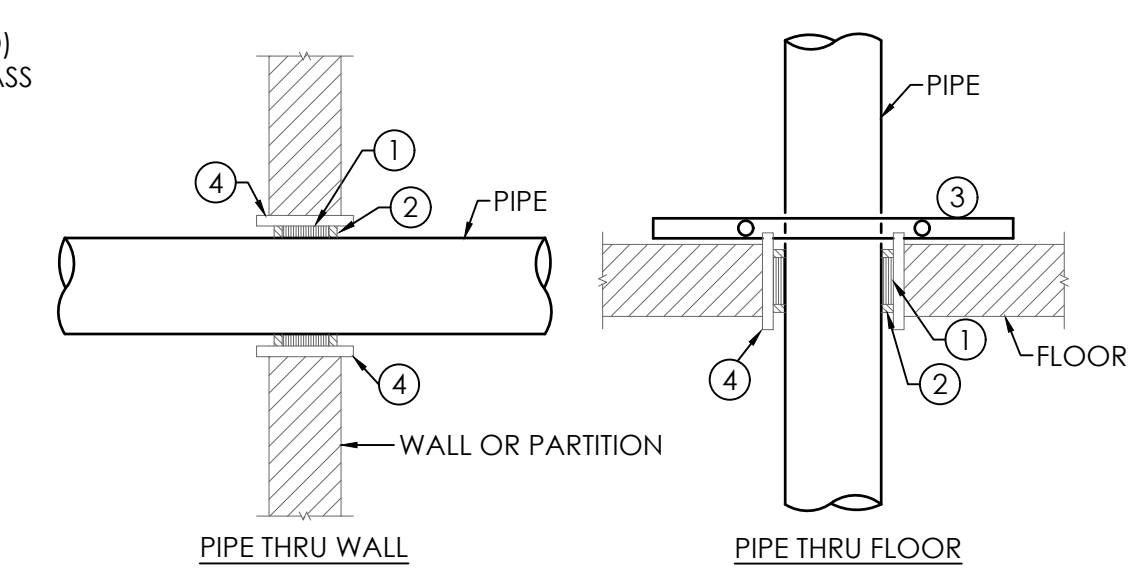
TYP. EXTERIOR CLEANOUT DETAIL
NO SCALE



SUSPENDED PIPING SUPPORT AT
CEILING DETAIL
NO SCALE

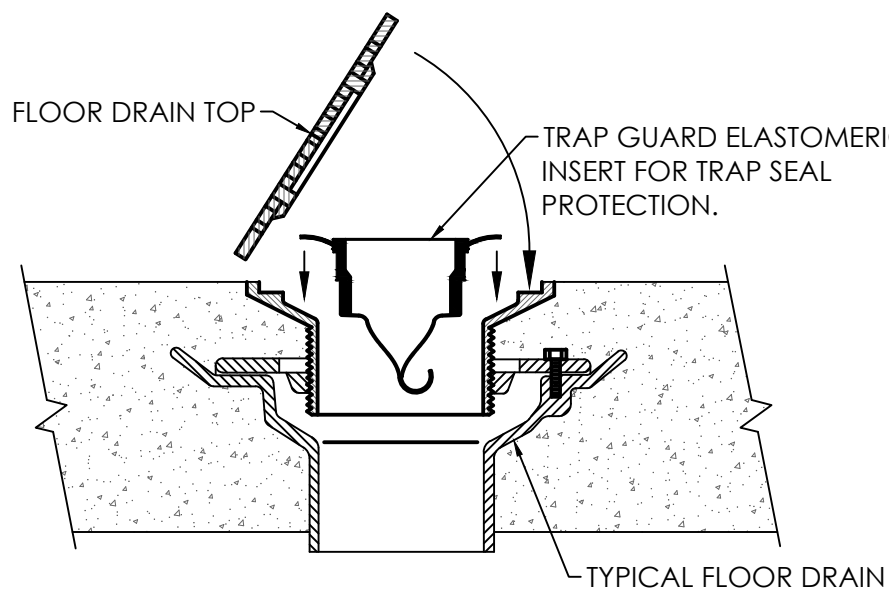


TRAP PRIMER DETAIL
NO SCALE



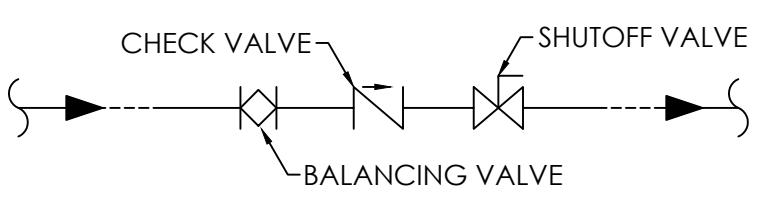
- PIPE THRU STRUCTURE LEGEND:
- FIRE STOP FOAM
 - FIRE STOP SEALANT
 - RISER CLAMP
 - SLEEVE

PIPE THRU STRUCTURE DETAIL
NO SCALE



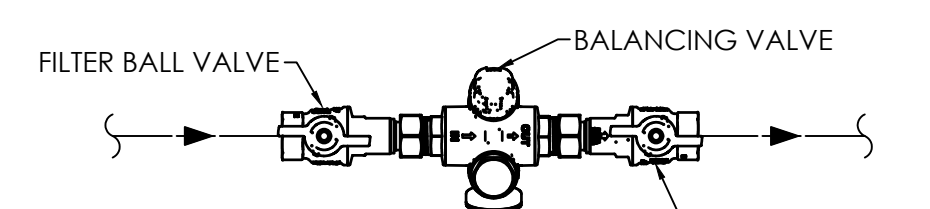
NOTE: PROVIDE TRAP SEAL PROTECTION FOR ALL FLOOR DRAINS, HUB DRAINS, FLOOR SINKS AND INDIRECT DRAINS. INSTALL AND SEAL TRAP GUARD ACCORDING TO MANUFACTURERS RECOMMENDATIONS.

TRAP GUARD DETAIL -
FLOOR DRAIN
NO SCALE



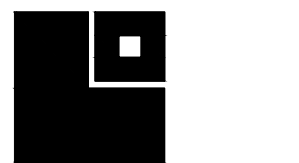
NOTE: THIS REQUIRED VALVE TRAIN IS REPRESENTED GRAPHICALLY AS JUST A BALANCING VALVE ON THE PLAN.

HOT WATER RETURN ASSEMBLY DETAIL
NO SCALE



NOTE: THIS REQUIRED VALVE TRAIN IS REPRESENTED GRAPHICALLY AS JUST A BALANCING VALVE ON THE PLAN.

TERMOSTATIC BALANCING
VALVE ASSEMBLY DETAIL
NO SCALE

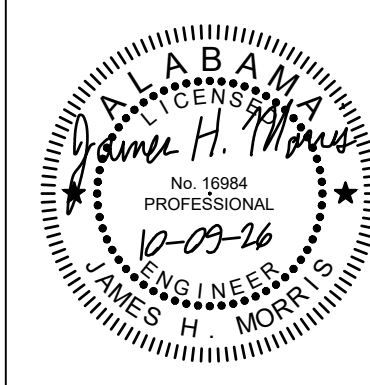


LATHAN
McKEE
ARCHITECTS

Academy St. Career Innovation Academy
The Troy City & Pike County Board of Education
708 E. Academy St., Troy, AL 36081

PLUMBING DETAILS

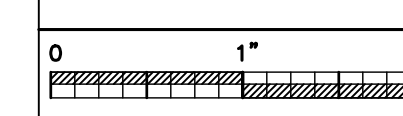
SHEET TITLE:



PROJ. MGR.:	RLB
DRAWN:	BMP
DATE:	10.9.26
REVISIONS	

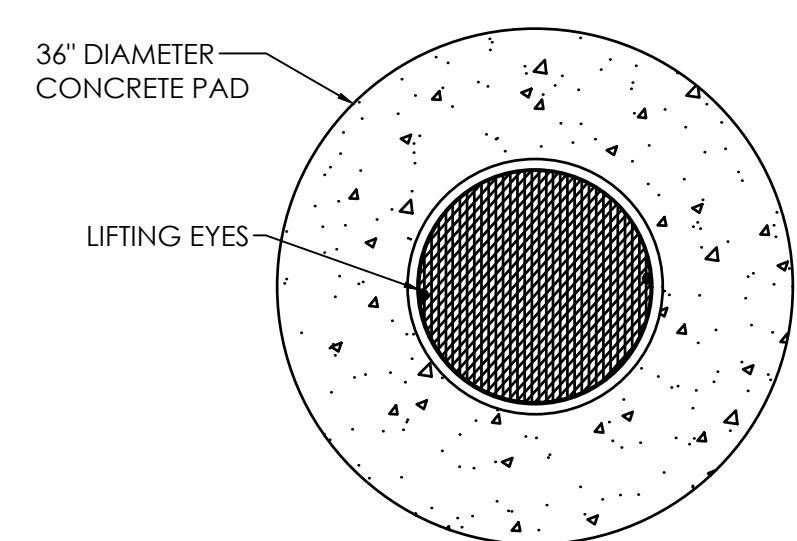
JOB NO.	25-249
SHEET NO.	

P3.3

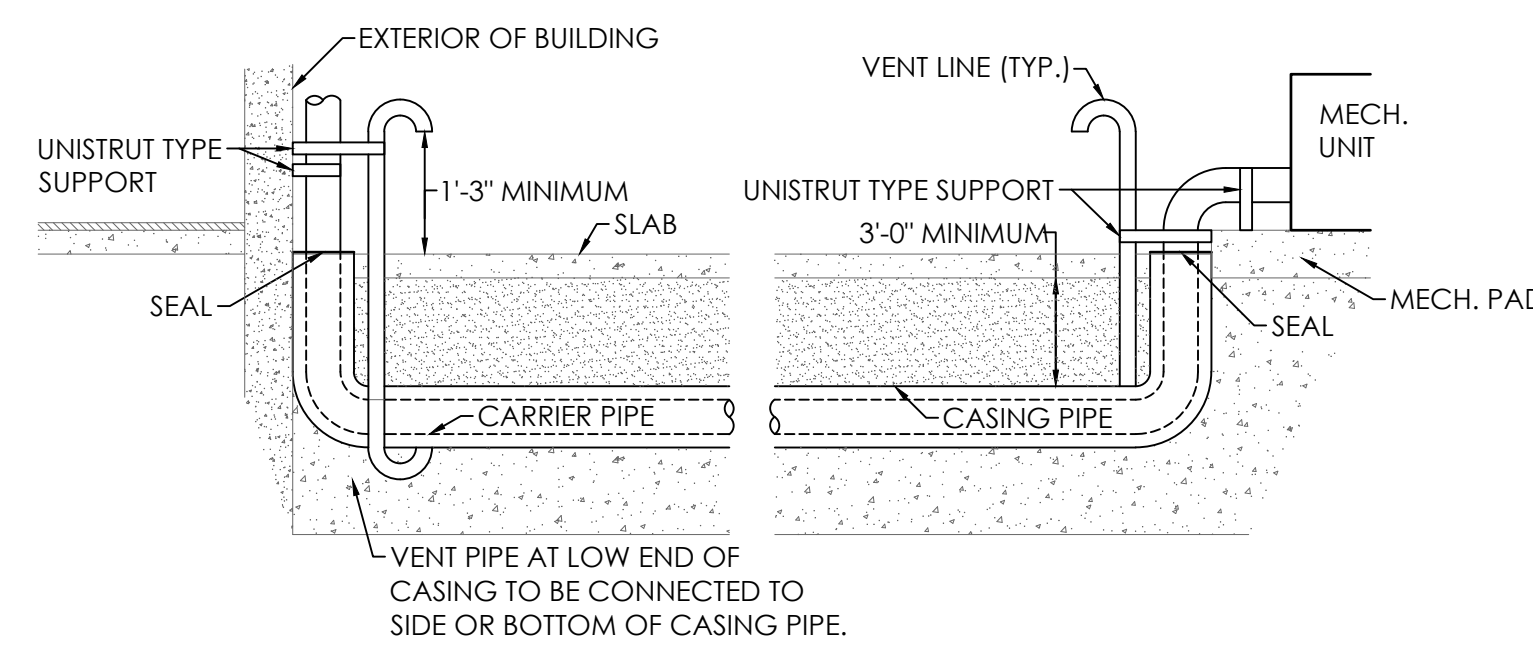


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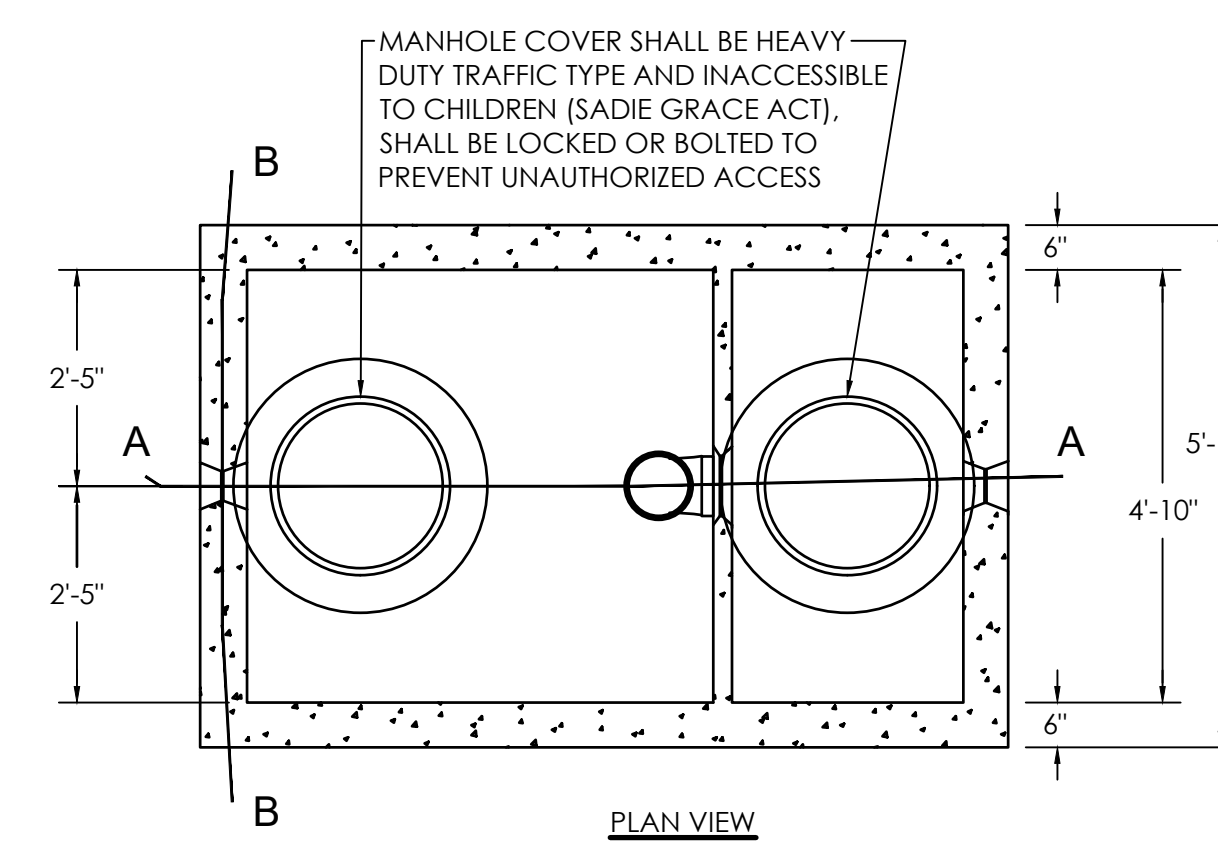


FRAME AND COVER DETAIL

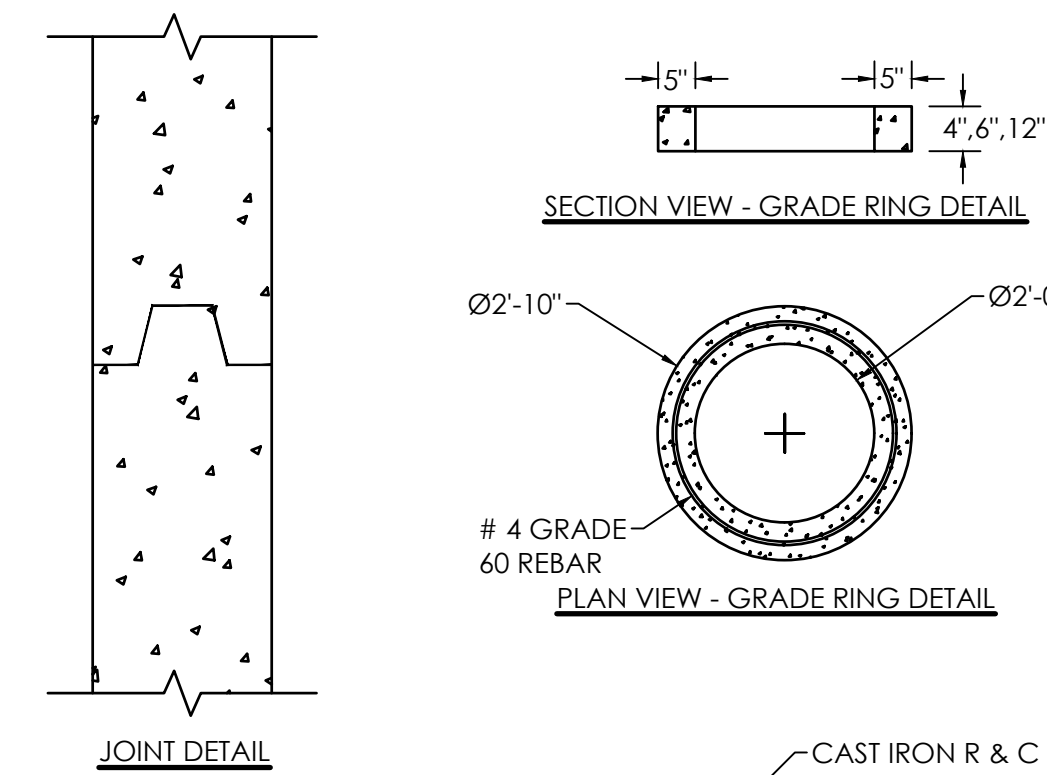


UNDERGROUND GAS SLEEVE AND VENT DETAIL

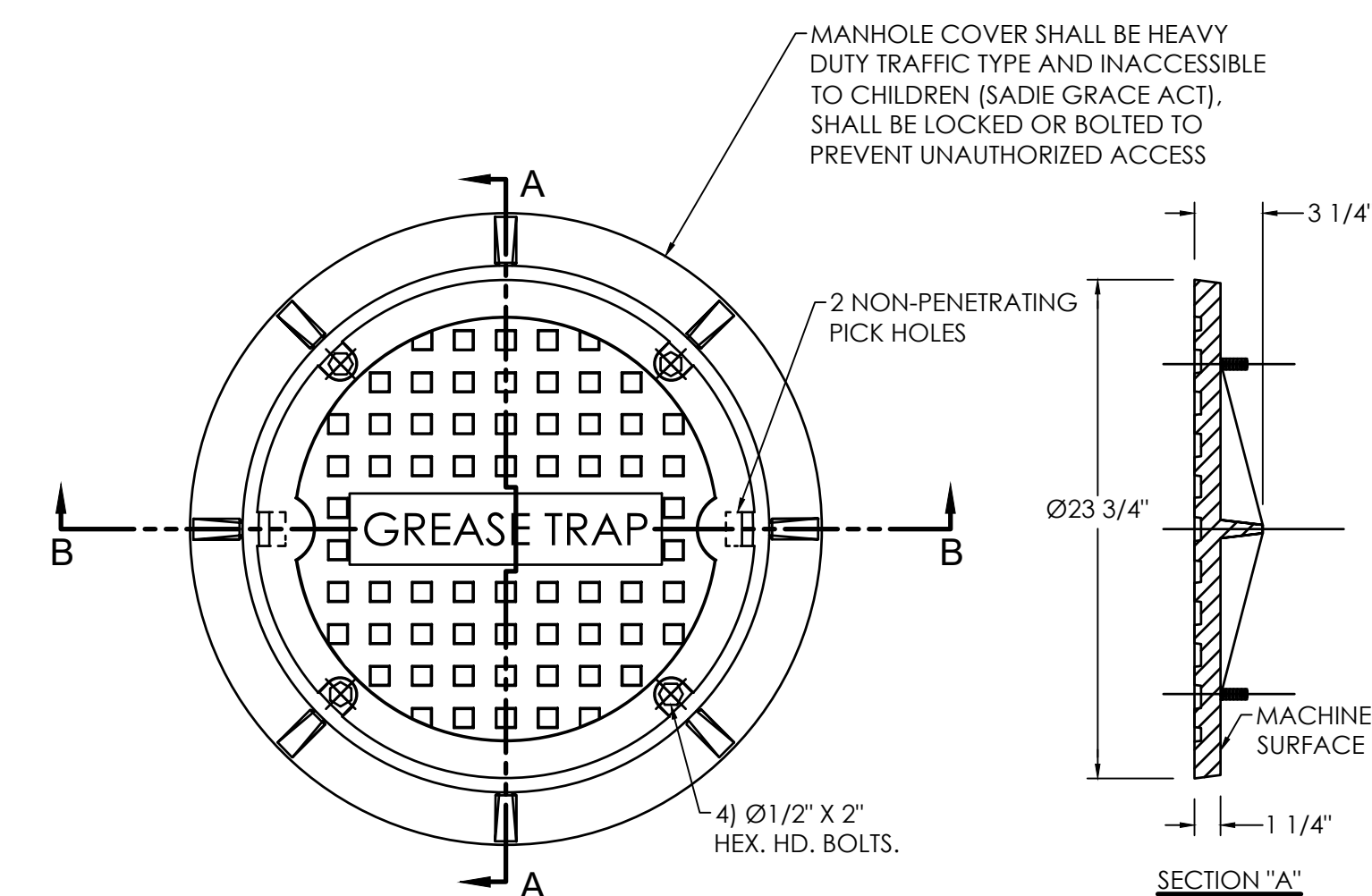
NO SCALE



PLAN VIEW

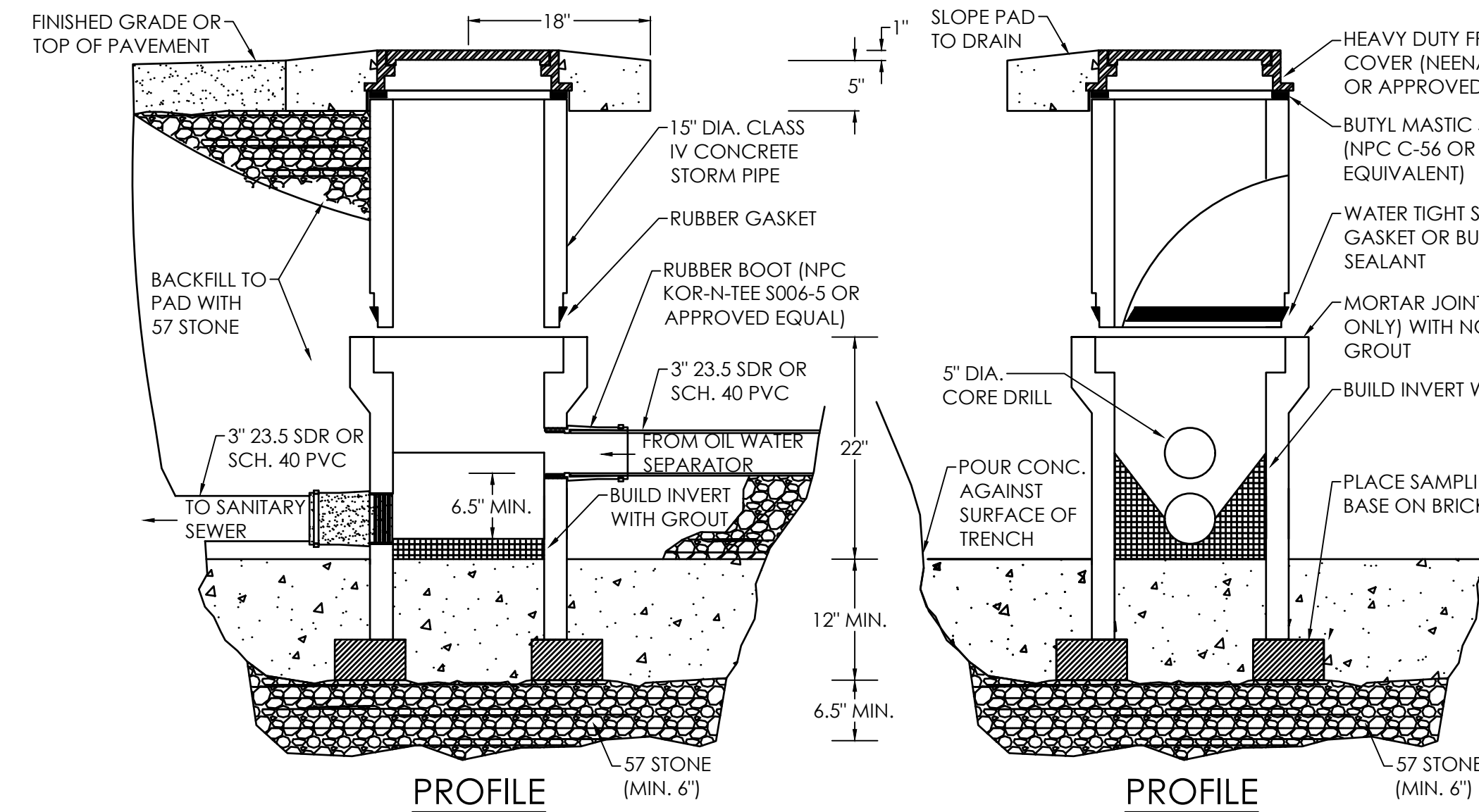


PLAN VIEW - GRADE RING DETAIL



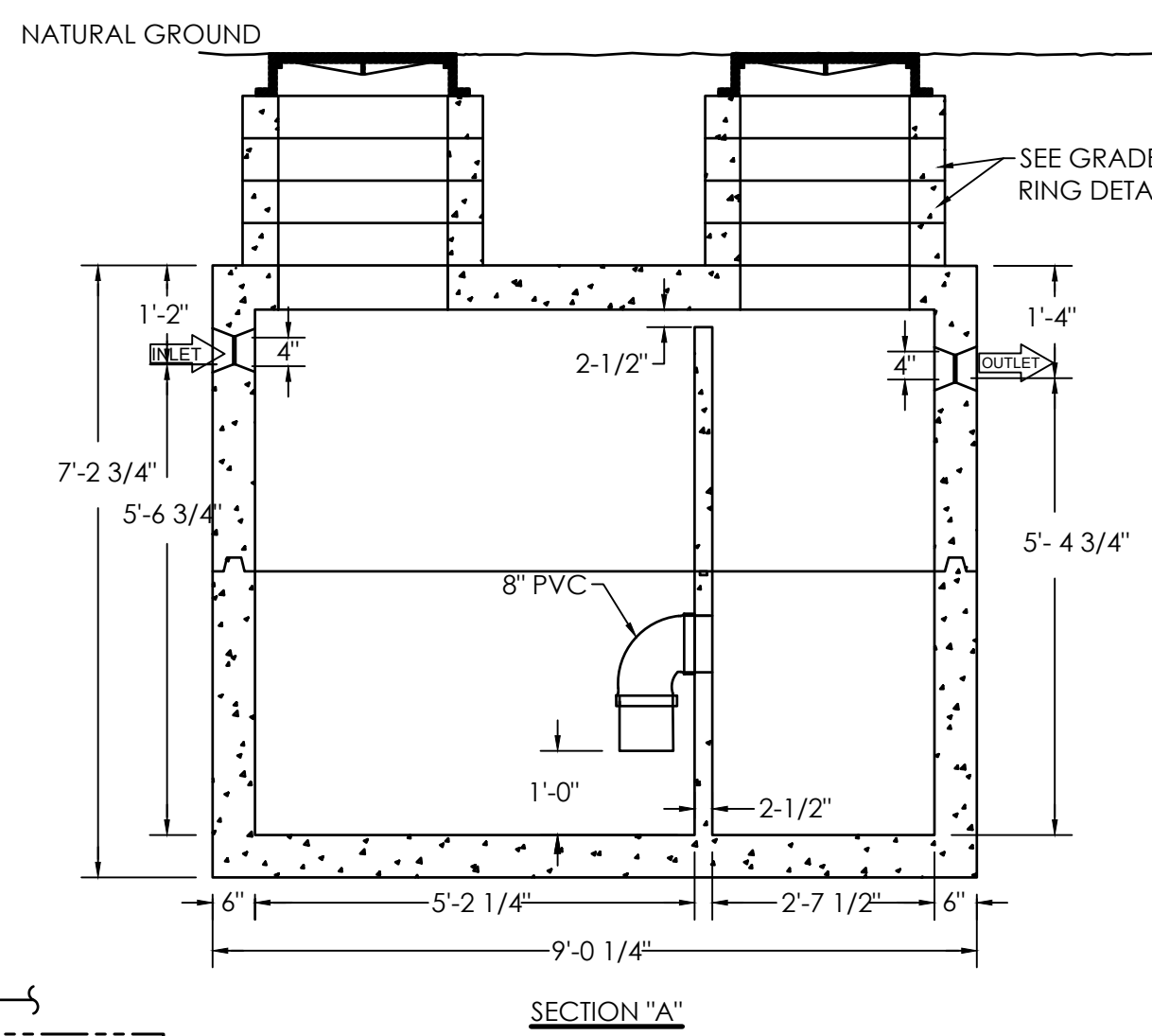
GREASE TRAP RING AND COVER DETAIL

NO SCALE



SAMPLING WELL DETAIL

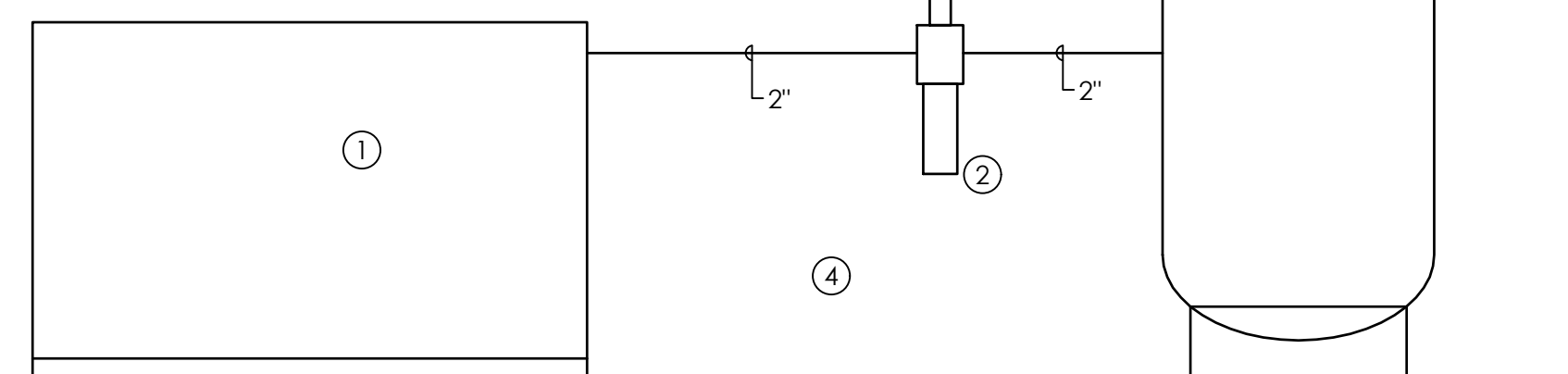
NO SCALE



1500 GAL. GREASE TRAP DETAIL

NO SCALE

- NOTE LEGEND (THIS DETAIL ONLY)
1. AIR COMPRESSOR, (KAESER SFC 18-ST)
 2. KAESER COALSING FILTER (KC)
 3. KAESER 120 GALLON RECEIVER TANK
 4. VERIFY PIPING ARRANGEMENT AND ACCESSORIES WITH MANUFACTURER

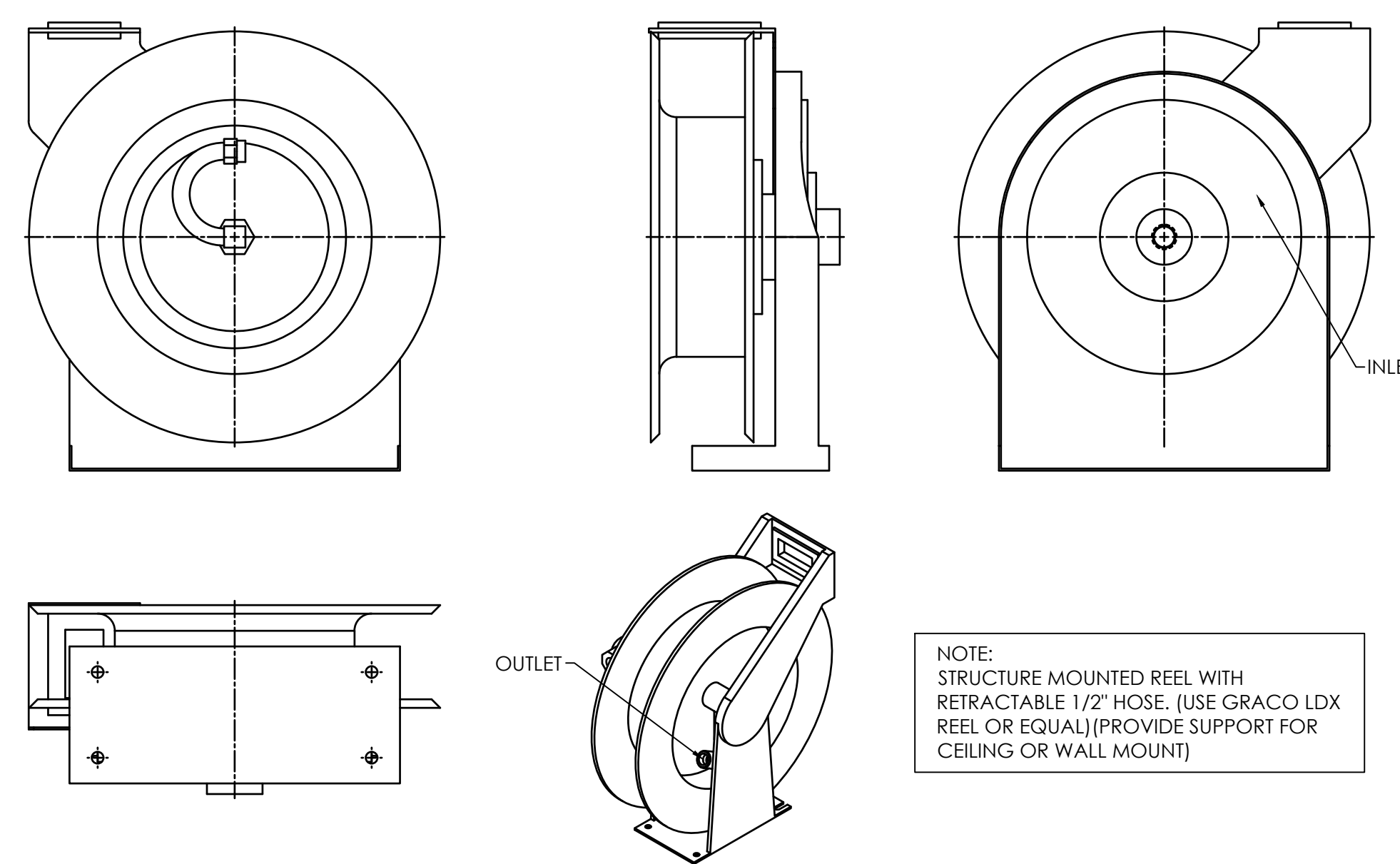


COMPRESSED AIR SYSTEM DETAIL

NO SCALE

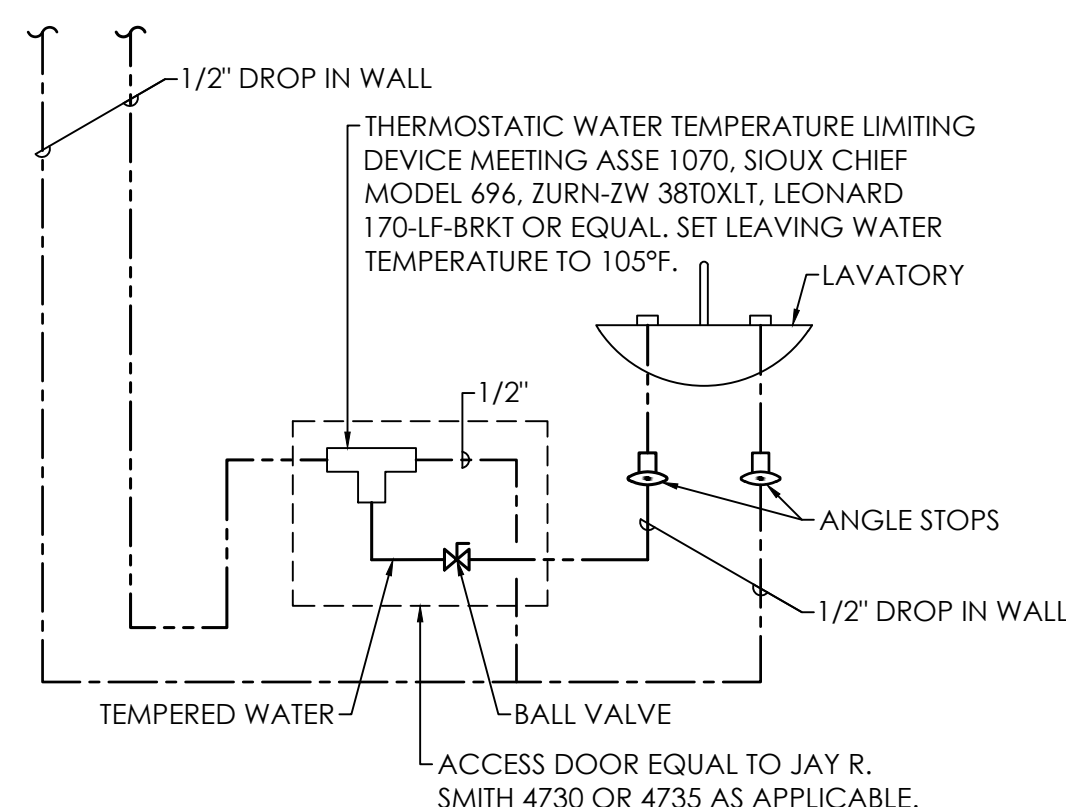
EMERGENCY SHOWER/ EYE WASH
STATION CONNECTION DETAIL (EM-1)

NO SCALE



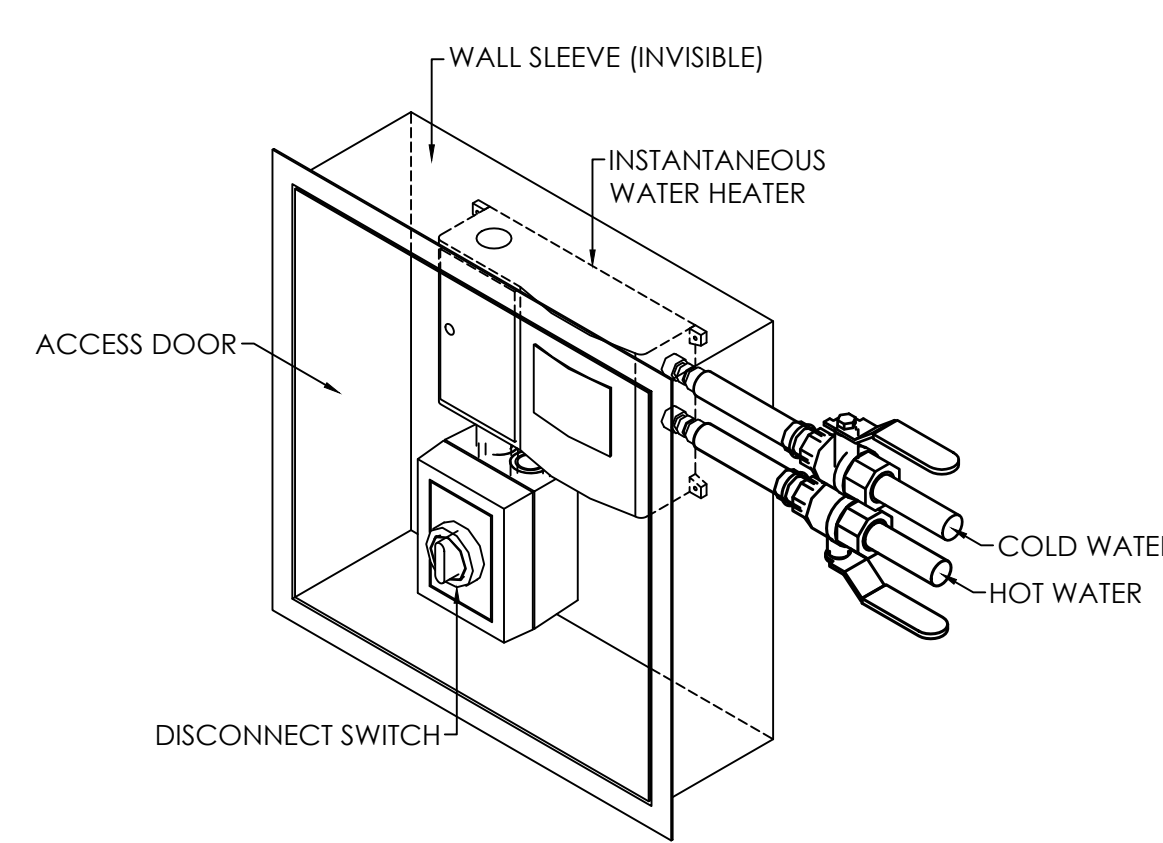
TYPICAL AIR REEL

NO SCALE



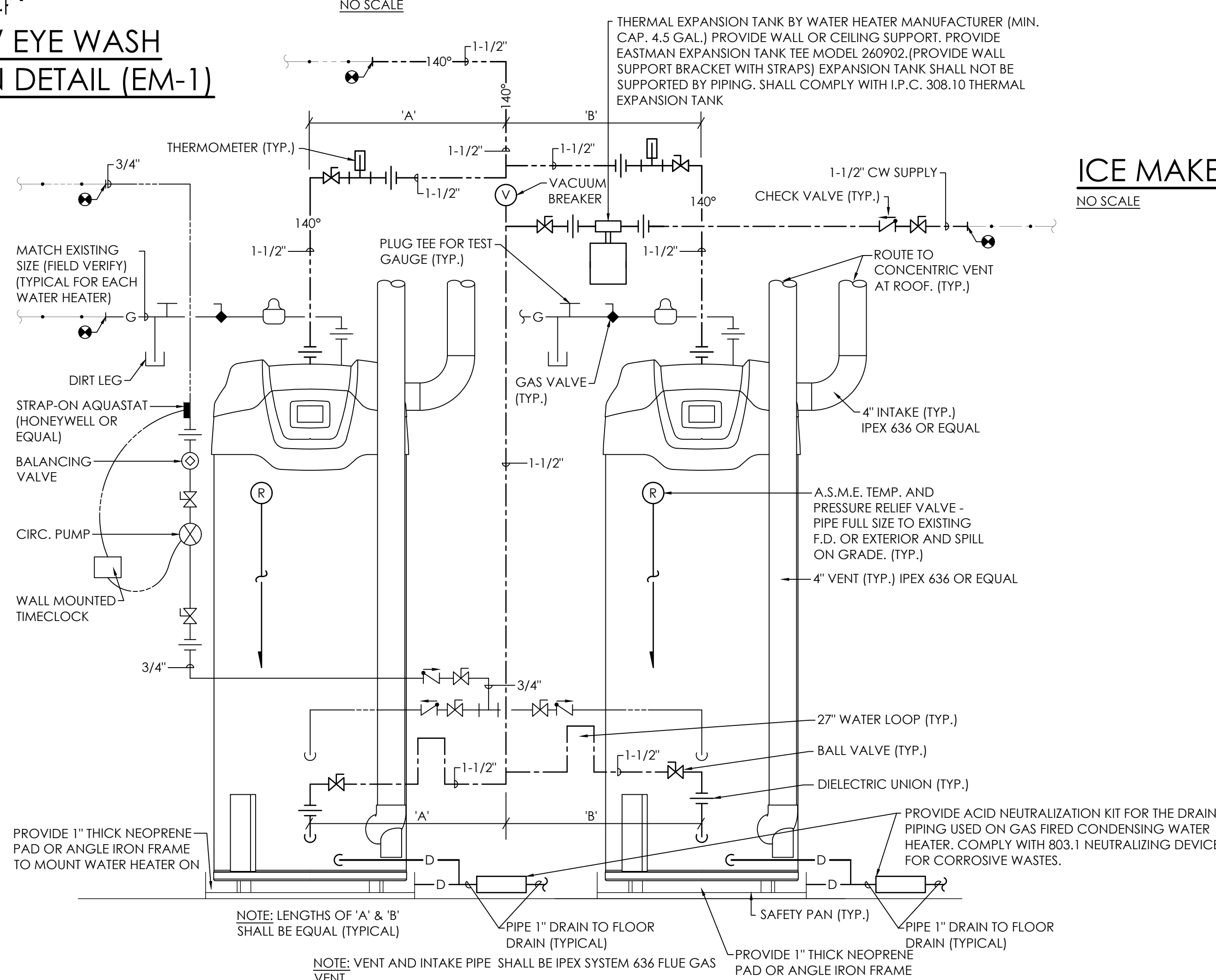
WATER TEMPERATURE LIMITING
DEVICE DETAIL

NO SCALE



INSTANTANEOUS WATER HEATER
CONNECTION DETAIL

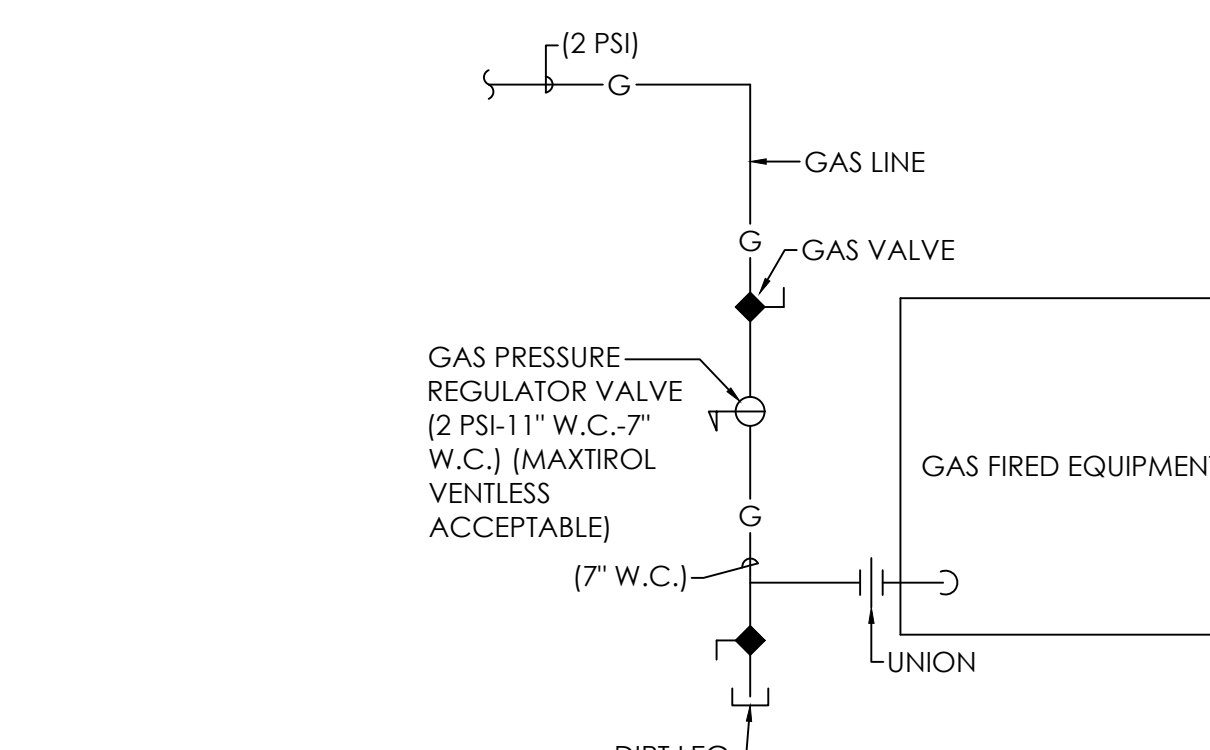
NO SCALE (WH-1, WH-2, WH-3, WH-4, WH-7, WH-8, WH-9, WH-10, WH-11, & WH-14)



CONDENSING WATER HEATER CONNECTION DETAIL

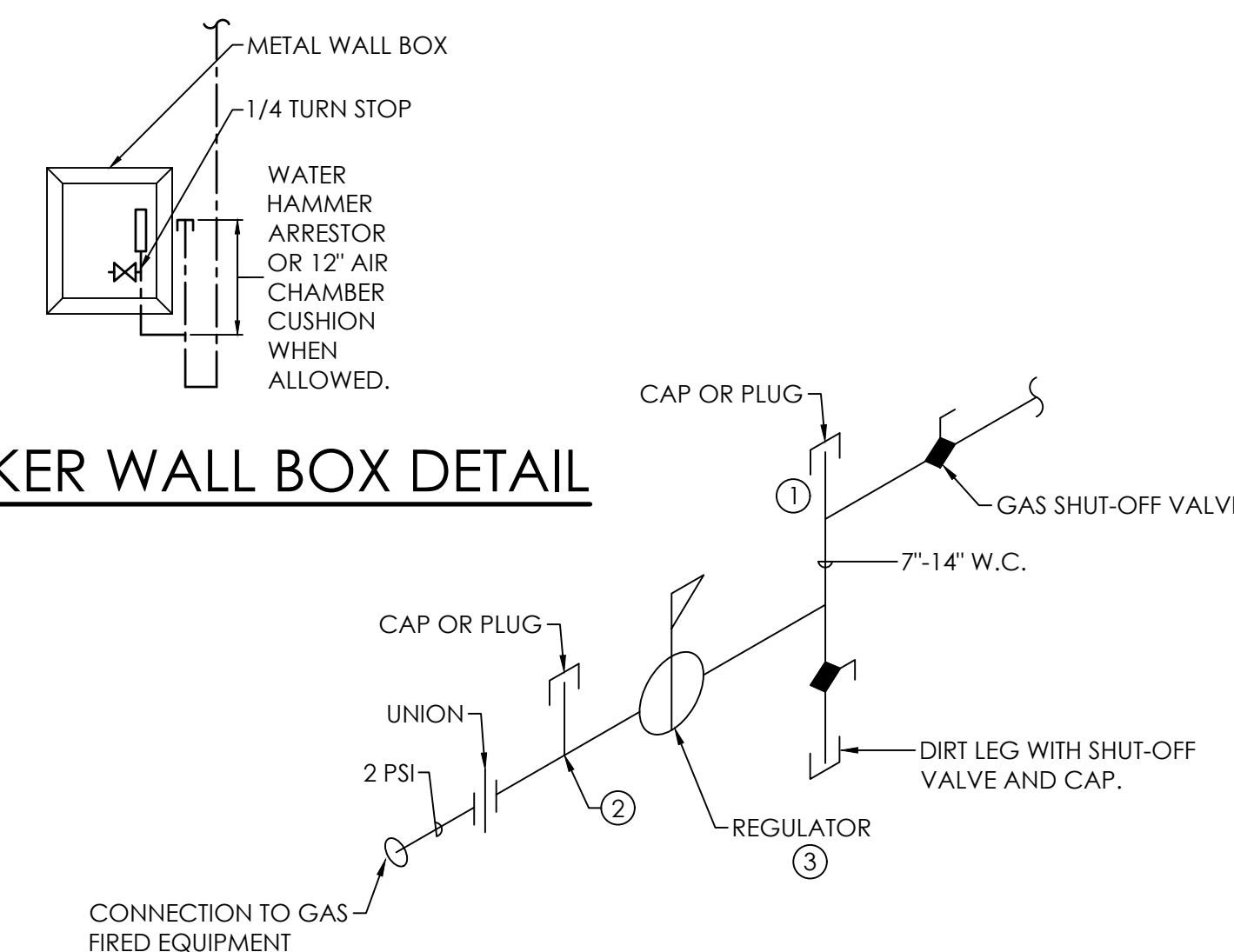
NO SCALE (ALTERNATE)

(WH-5, WH-6)



TYPICAL GAS CONNECTION DETAIL

NO SCALE



ICE MAKER WALL BOX DETAIL

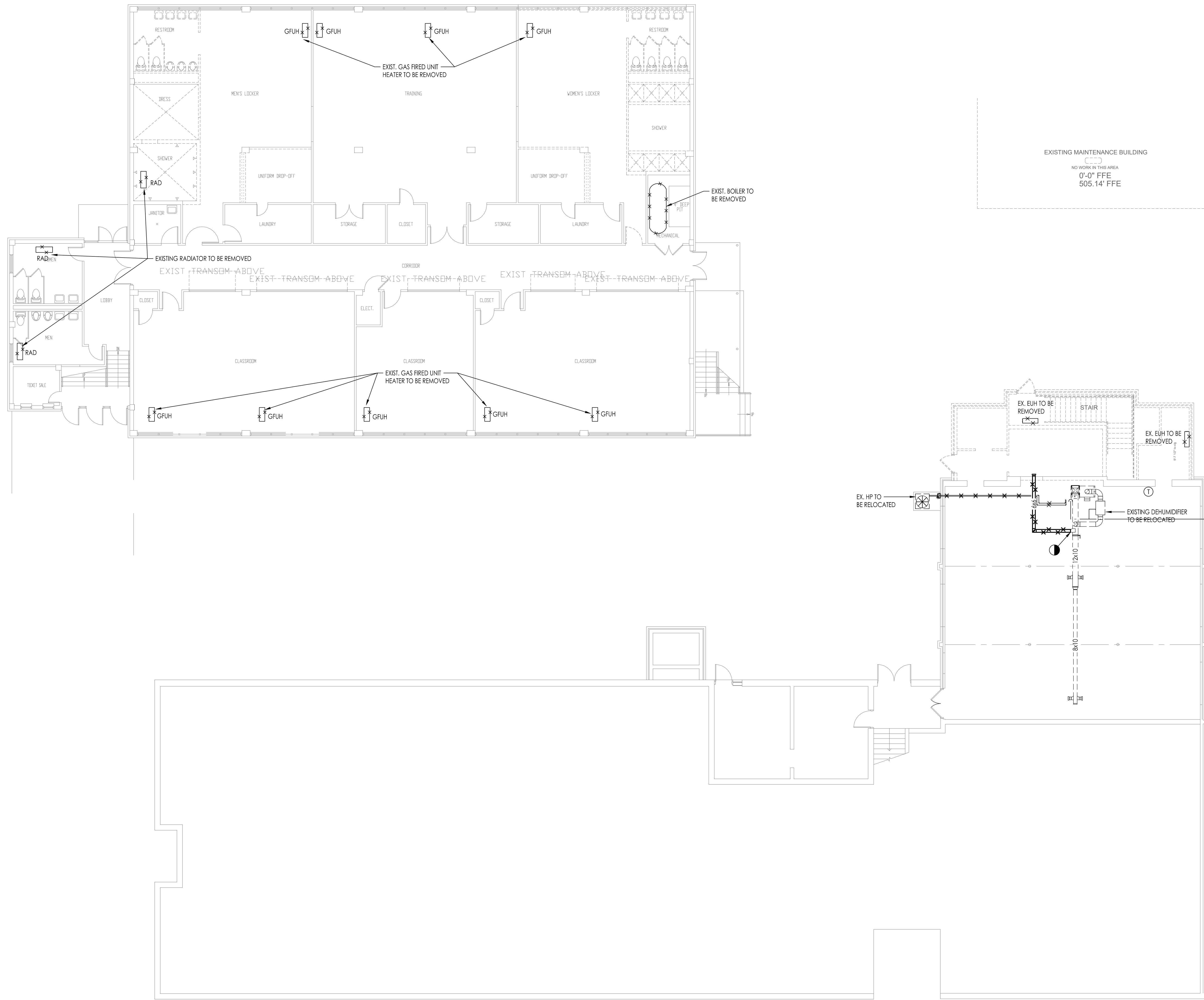
NO SCALE

NOTE: THE GAS PRESSURE REGULATOR SHALL BE PROVIDED WITH EASY ACCESS, WHERE LOCATED INDOORS, THE REGULATOR SHALL BE VENTED TO THE ATMOSPHERE. VENT PIPING SHALL NOT BE SMALLER THAN THE VENT CONNECTION ON THE REGULATOR AND SHALL BE RUN INDEPENDENTLY. (SERVING ONLY A SINGLE DEVICE VENT.)

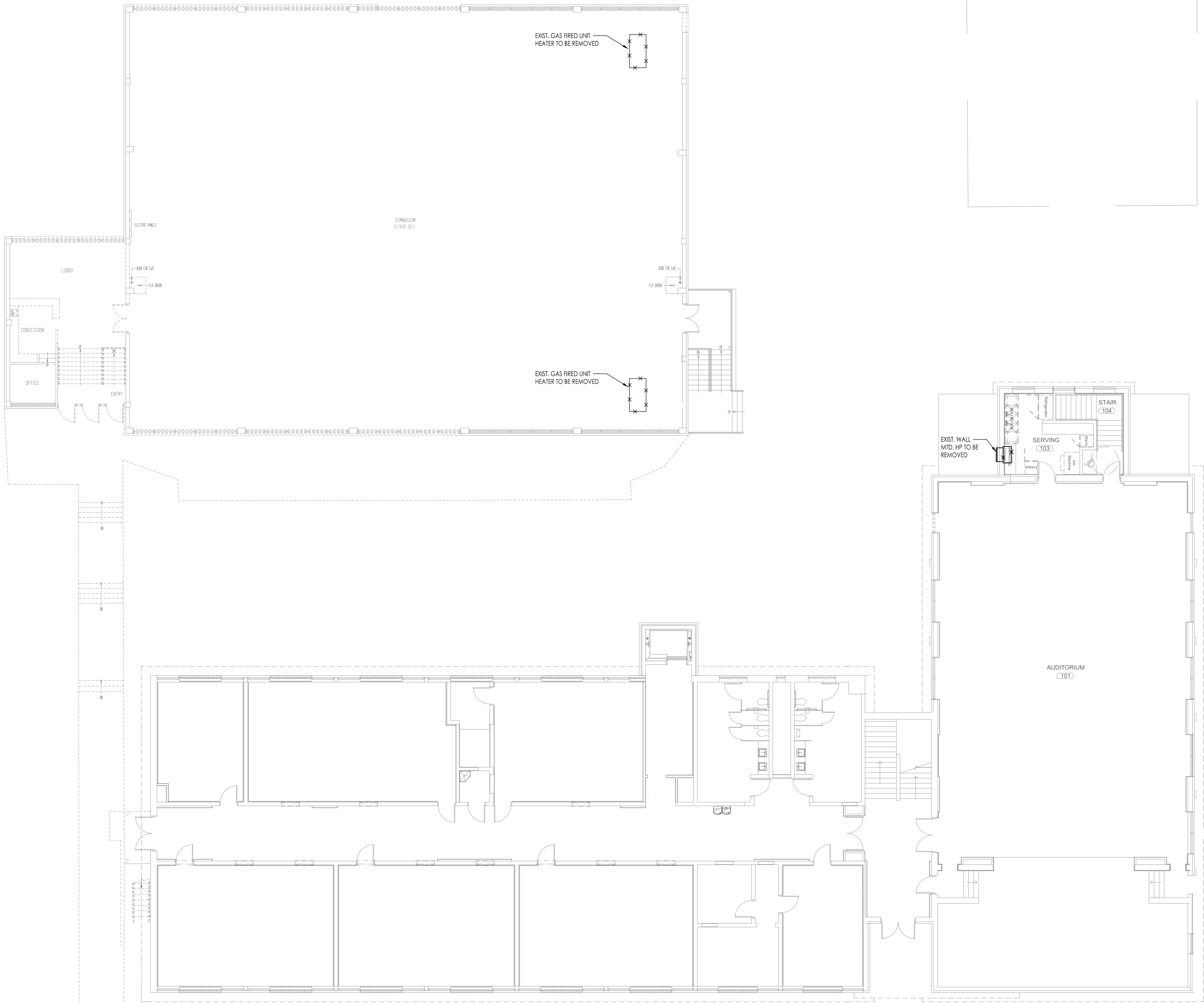
GAS PRESSURE REGULATOR DETAIL
(2 PSI TO 7" W.C.)

NO SCALE

- NOTE LEGEND: (THIS DETAIL ONLY)
1. A TEE FITTING WITH ONE OPENING CAPPED OR PLUGGED SHALL BE INSTALLED BETWEEN THE REGULATOR AND ITS UPSTREAM SHUT-OFF VALVE. THE TEE FITTING SHALL BE POSITIONED TO ALLOW CONNECTION OF A PRESSURE GAUGE AND TO SERVE AS A SEDIMENT TRAP. (DIRT LEG)
 2. A TEE FITTING WITH ONE OPENING CAPPED OR PLUGGED SHALL BE INSTALLED NOT LESS THAN 10 PIPE DIAMETERS DOWNSTREAM OF THE REGULATOR OUTLET. THE TEE FITTING SHALL BE POSITIONED TO ALLOW CONNECTION OF A PRESSURE GAUGE.
 3. LINE GAS PRESSURE REGULATORS SHALL BE LISTED AS COMPLYING WITH "ANSI Z 21.80". VENTLESS ACCEPTABLE (MAXITROL OR EQUAL)



1
M1.1
LOWER FLOOR MECHANICAL DEMOLITION
SCALE: 1/8" = 1'-0"



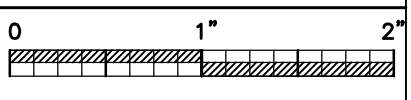
1
M1.2
MAIN FLOOR MECHANICAL DEMOLITION
SCALE: 1/8" = 1'-0"



PROJ. MGR.:	HD
DRAWN:	JKN
DATE:	10.9.26
REVISIONS	

JOB NO.	25-249
SHEET NO.:	

M2.1



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ENGINEERING LLC

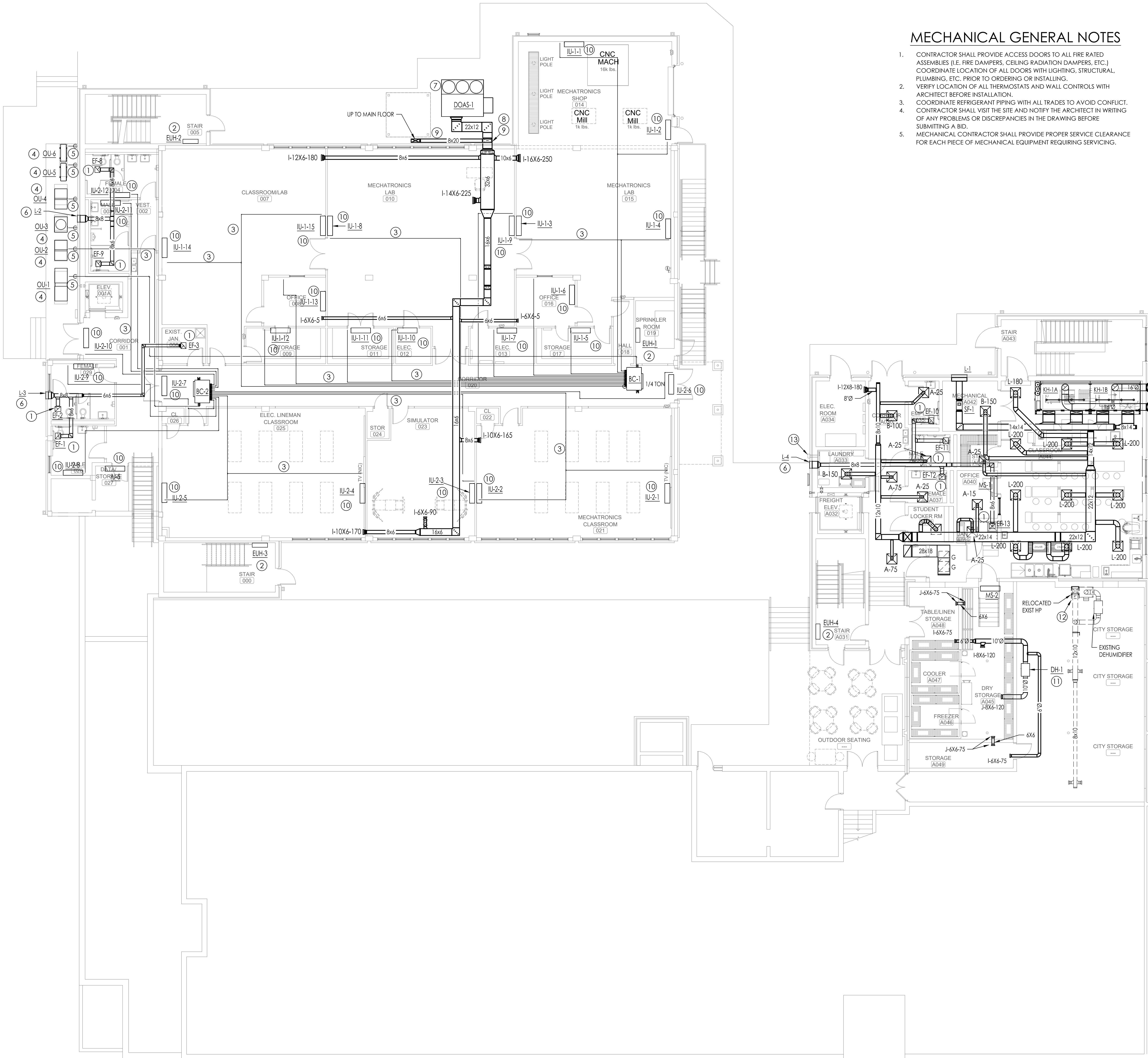
903 SOUTH PERRY STREET
MONTGOMERY, AL 36104
T: (334) 269-0209
www.jmorriseng.com PROJECT NO: 26-044

MECHANICAL GENERAL NOTES

- CONTRACTOR SHALL PROVIDE ACCESS DOORS TO ALL FIRE RATED ASSEMBLIES (I.E. FIRE DAMPERS, CEILING RADIATION DAMPERS, ETC.) COORDINATE LOCATION OF ALL DOORS WITH LIGHTING, STRUCTURAL, PLUMBING, ETC. PRIOR TO ORDERING OR INSTALLING.
- VERIFY LOCATION OF ALL THERMOSTATS AND WALL CONTROLS WITH ARCHITECT BEFORE INSTALLATION.
- COORDINATE REFRIGERANT PIPING WITH ALL TRADES TO AVOID CONFLICT. CONTRACTOR SHALL VISIT THE SITE AND NOTIFY THE ARCHITECT IN WRITING OF ANY PROBLEMS OR DISCREPANCIES IN THE DRAWING BEFORE SUBMITTING A BID.
- MECHANICAL CONTRACTOR SHALL PROVIDE PROPER SERVICE CLEARANCE FOR EACH PIECE OF MECHANICAL EQUIPMENT REQUIRING SERVICING.

NOTE LEGEND: (THIS SHEET ONLY)

- PROVIDE A COMPLETE AND OPERATIONAL EXHAUST FAN WITH ALL RELATED CONTROLS, ACCESSORIES, ETC. SEE SCHEDULE FOR INTERLOCKING AND CONTROL, EXHAUST DUCT TO DISCHARGE AT WALL LOUVER. PROVIDE BIRDSCREEN AND BACKDRAFT DAMPER.
- PROVIDE AND INSTALL A COMPLETE AND OPERATIONAL ELECTRIC UNIT HEATER SEMI-RECESSED IN WALL. UNIT BASED ON MARKEL 3450 SERIES HEAVY-DUTY FAN FORCED WALL HEATER. PROVIDE FACTORY MOUNTING ADJUSTABLE THERMOSTAT. PROVIDE LOCKBOX OVER WALL MOUNTED THERMOSTAT.
- PROVIDE REFRIGERANT PIPING FROM AC-UNIT TO RESPECTIVE CONDENSING UNIT. REFRIGERANT PIPING SHALL BE ROUTED CONCEALED IN THE WALL AND CEILING. REFRIGERANT PIPING SHALL BE SIZED PER MANUFACTURERS RECOMMENDATIONS. COORDINATE WITH LIGHTING, STRUCTURAL, PLUMBING, AND ALL OTHER TRADES PRIOR TO FABRICATING OR INSTALLING ANY PIPING.
- PROVIDE AND INSTALL A COMPLETE OPERATIONAL OUTDOOR CONDENSING UNIT WITH ALL RELATED WIRING, CONTROLS, MOUNTING HARDWARE, ACCESSORIES, ETC. MOUNT EQUIPMENT ON 4" THICK CONCRETE PAD. COORDINATE EXACT LOCATIONS PRIOR TO INSTALLING EQUIPMENT.
- REFRIGERANT PIPING AND CONTROL WIRING FROM OUTDOOR UNIT TO ASSOCIATED INDOOR UNIT. COVER EXTERIOR PIPING WITH ALUMINUM JACKET. INSTALL CONTROL WIRING IN EXTERIOR TYPE CONDUIT. MAXIMUM LENGTH OF FLEXIBLE CONDUIT SHALL BE 3'-0" MAX. STRAP CONDUIT AND REFRIGERANT PIPING TO ANCHORED UNISTRUT EVERY 3'-0" MAX. SEE DETAILS. PROVIDE AND INSTALL LONG LENGTH KIT AS REQUIRED PER MANUFACTURER.
- PROVIDE A LINED SHEET METAL PLENUM BEHIND LOUVER, FULL SIZE OF LOUVER, MINIMUM OF 12" DEEP.
- PROVIDE AND INSTALL A COMPLETE AND OPERATIONAL PACKAGED OUTDOOR AIR UNIT. MAINTAIN MINIMUM OF 10'-0" FROM ANY AIR DISCHARGE DEVICE. PROVIDE TIE DOWN FOR UNIT.
- PROVIDE FLASHING AND COUNTER FLASHING AROUND DUCTWORK WHERE IT PENETRATES THRU WALL. SEAL WATER TIGHT. (TYPICAL FOR ALL AREAS).
- ALL MAGUARD OR APPROVED EQUAL FOR ALL EXTERIOR DUCTWORK. EXTERIOR DUCTWORK SHALL BE R-12 INSULATION.
- PROVIDE AND INSTALL A COMPLETE AND OPERATIONAL WALL MOUNTED DUCTLESS MINI-SPLIT UNIT AS SCHEDULED AND SPECIFIED WITH ALL REQUIRED ACCESSORIES. RUN CONDENSATE IN INSULATED 3/4" COPPER TUBING TO NEAREST HUB DRAIN SHOWN ON PLUMBING PLANS. MAINTAIN REQUIRED SLOPE ON ALL CONDENSATE DRAINS.
- PROVIDE A COMPLETE AND OPERATIONAL SIDE STREAM DEHUMIDIFIER UNIT WITH ALL REQUIRED ACCESSORIES (APRILAIRE, ULTRA-AIRE, OR APPROVED EQUAL). PROVIDE A DRAIN PAN WITH FLOAT MICRO-SWITCH. SEE PLUMBING PLANS FOR CONDENSATE DRAIN. PROVIDE 10" DIAMETER FLEXIBLE INLET AND OUTLET DUCT TO AID IN NOISE ATTENUATION.
- EXISTING INDOOR SPLIT SYSTEM UNIT RELOCATED. RELATED OUTDOOR CONDENSING UNIT RELOCATED ON ROOF. REROUTE REFRIGERANT PIPING, WIRING, ETC. AS REQUIRED FOR RELOCATION.
- 4"Ø RIGID DRYER VENT DUCT TO WALL CAP. WALLCAP TO BE FANTECH FML8 OR APPROVED EQUIVALENT.

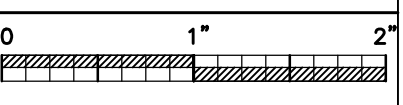




PROJ. MGR.: HD
DRAWN: JKN
DATE: 10.9.26
REVISIONS

JOB NO.
25-249
SHEET NO:

M2.2



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ENGINEERING LLC

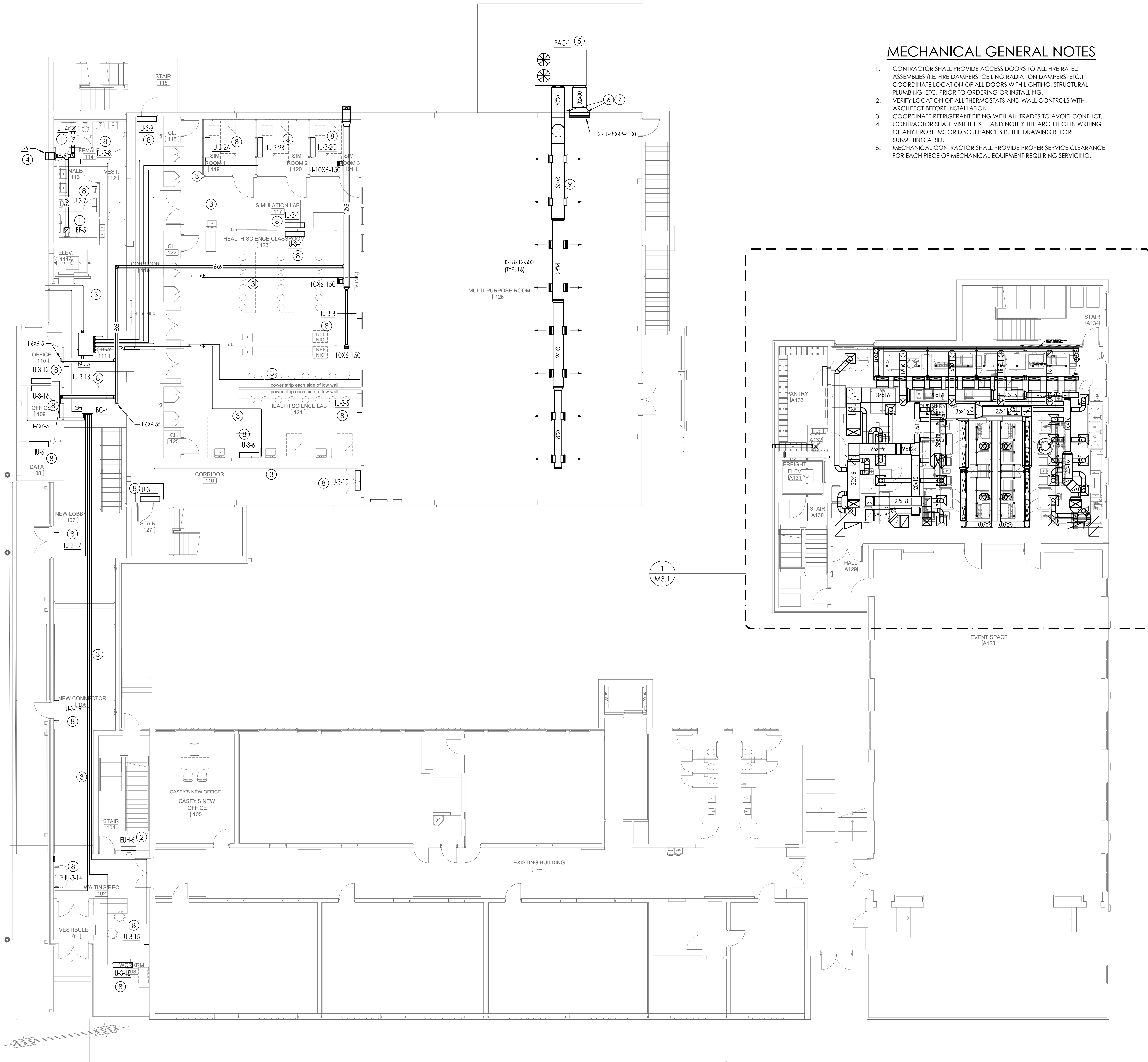
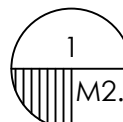
903 SOUTH PERRY STREET
MONTGOMERY, AL 36104
T: (334) 269-0209
www.jmorriseng.com PROJECT NO: 26-044

MECHANICAL GENERAL NOTES

- CONTRACTOR SHALL PROVIDE ACCESS DOORS TO ALL FIRE RATED ASSEMBLIES (I.E. FIRE DAMPERS, CEILING RADIATION DAMPERS, ETC.) COORDINATE LOCATION OF ALL DOORS WITH LIGHTING, STRUCTURAL, PLUMBING, ETC. PRIOR TO ORDERING OR INSTALLING.
- VERIFY LOCATION OF ALL THERMOSTATS AND WALL CONTROLS WITH ARCHITECT BEFORE INSTALLATION.
- COORDINATE REFRIGERANT PIPING WITH ALL TRADES TO AVOID CONFLICT. CONTRACTOR SHALL VISIT THE SITE AND NOTIFY THE ARCHITECT IN WRITING OF ANY PROBLEMS OR DISCREPANCIES IN THE DRAWING BEFORE SUBMITTING A BID.
- MECHANICAL CONTRACTOR SHALL PROVIDE PROPER SERVICE CLEARANCE FOR EACH PIECE OF MECHANICAL EQUIPMENT REQUIRING SERVICING.

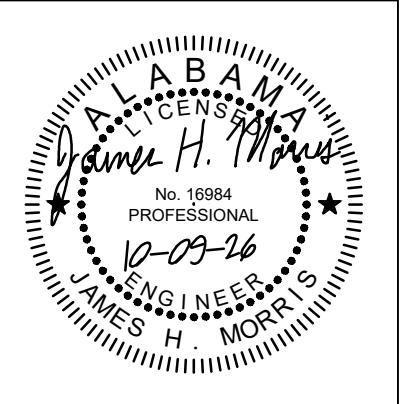
NOTE LEGEND: (THIS SHEET ONLY)

- PROVIDE A COMPLETE AND OPERATIONAL EXHAUST FAN WITH ALL RELATED CONTROLS, ACCESSORIES, ETC. SEE SCHEDULE FOR INTERLOCKING AND CONTROL. EXHAUST DUCT TO DISCHARGE AT WALL LOUVER. PROVIDE BIRDSCREEN AND BACKDRAFT DAMPER.
- PROVIDE AND INSTALL A COMPLETE AND OPERATIONAL ELECTRIC UNIT HEATER SEMI-RECESSED IN WALL UNIT BASED ON MARKEL 3450 SERIES HEAVY DUTY FAN FORCED WALL HEATER. PROVIDE FACTORY MOUNTING ADJUSTABLE THERMOSTAT. PROVIDE LOCKBOX OVER WALL MOUNTED THERMOSTAT.
- PROVIDE REFRIGERANT PIPING FROM AC-UNIT TO RESPECTIVE CONDENSING UNIT. REFRIGERANT PIPING SHALL BE ROUTED CONCEALED IN THE WALL AND CEILING. REFRIGERANT PIPING SHALL BE SIZED PER MANUFACTURERS RECOMMENDATIONS. COORDINATE WITH LIGHTING, STRUCTURAL, PLUMBING, AND ALL OTHER TRADES PRIOR TO FABRICATING OR INSTALLING ANY PIPING.
- PROVIDE A LINED SHEET METAL PLENUM BEHIND LOUVER. FULL SIZE OF LOUVER, MINIMUM OF 12" DEEP.
- PROVIDE AND INSTALL A COMPLETE AND OPERATIONAL PACKAGED UNIT WITH GAS HEAT. PROVIDE FACTORY DEHUMIDIFICATION. MOUNT EQUIPMENT ON 4" THICK CONCRETE PAD BY GENERAL CONTRACTOR. COORDINATE EXACT LOCATION PRIOR TO INSTALLING EQUIPMENT. ROUTE CONDENSATE TO DRYWELL. SEE DETAILS. PROVIDE SPACE TEMPERATURE SENSORS AND DUCT MOUNTED HUMIDITY AND CO2 SENSORS.
- PROVIDE FLASHING AND COUNTER FLASHING AROUND DUCTWORK WHERE IT PENETRATES THRU WALL. SEAL WATER TIGHT. (TYPICAL FOR ALL AREAS).
- ALL EXTERIOR DUCTWORK SHALL BE STANDARD GALVANIZED WITH 2" FIBER-BOARD ON EXTERIOR OF DUCTWORK. PROVIDE 1" ELASTOMERIC LINER IN THE SUPPLY DUCTWORK AND 1" FIBERGLASS LINER IN THE RETURN DUCTWORK. COVER EXTERIOR OF FIBER-BOARD WITH ALUMAGUARD.
- PROVIDE AND INSTALL A COMPLETE AND OPERATIONAL WALL MOUNTED DUCTLESS MINI-SPLIT UNIT AS SCHEDULED AND SPECIFIED WITH ALL REQUIRED ACCESSORIES. RUN CONDENSATE IN INSULATED 3/4" COPPER TUBING TO NEAREST HUB DRAIN SHOWN ON PLUMBING PLANS. MAINTAIN REQUIRED SLOPE ON ALL CONDENSATE DRAINS.
- EXPOSED DUCTWORK IN THIS AREA, ROUND DOUBLE WALL (1" INSULATION) SPIRAL DUCTWORK. PERFORATED INTERNAL LINER. COORDINATE DUCTWORK WITH LIGHTS TO AVOID CONFLICT AND DIRECT AIR DISCHARGE SO THAT AIR WILL NOT BLOW DIRECTLY ON LIGHTS OR HANGERS. ROUTE DUCTWORK TIGHT TO STRUCTURE. DUCTWORK TO BE FIELD PAINTED WITH PAINT GRIP FINISH. DUCTWORK TO BE PAINTED PRIOR TO INSTALL. COORDINATE EXACT COLOR WITH ARCHITECT. SEE DETAIL.



MAIN FLOOR MECHANICAL

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



PROJ. MGR.:	HD
DRAWN:	JKN
DATE:	10.9.26
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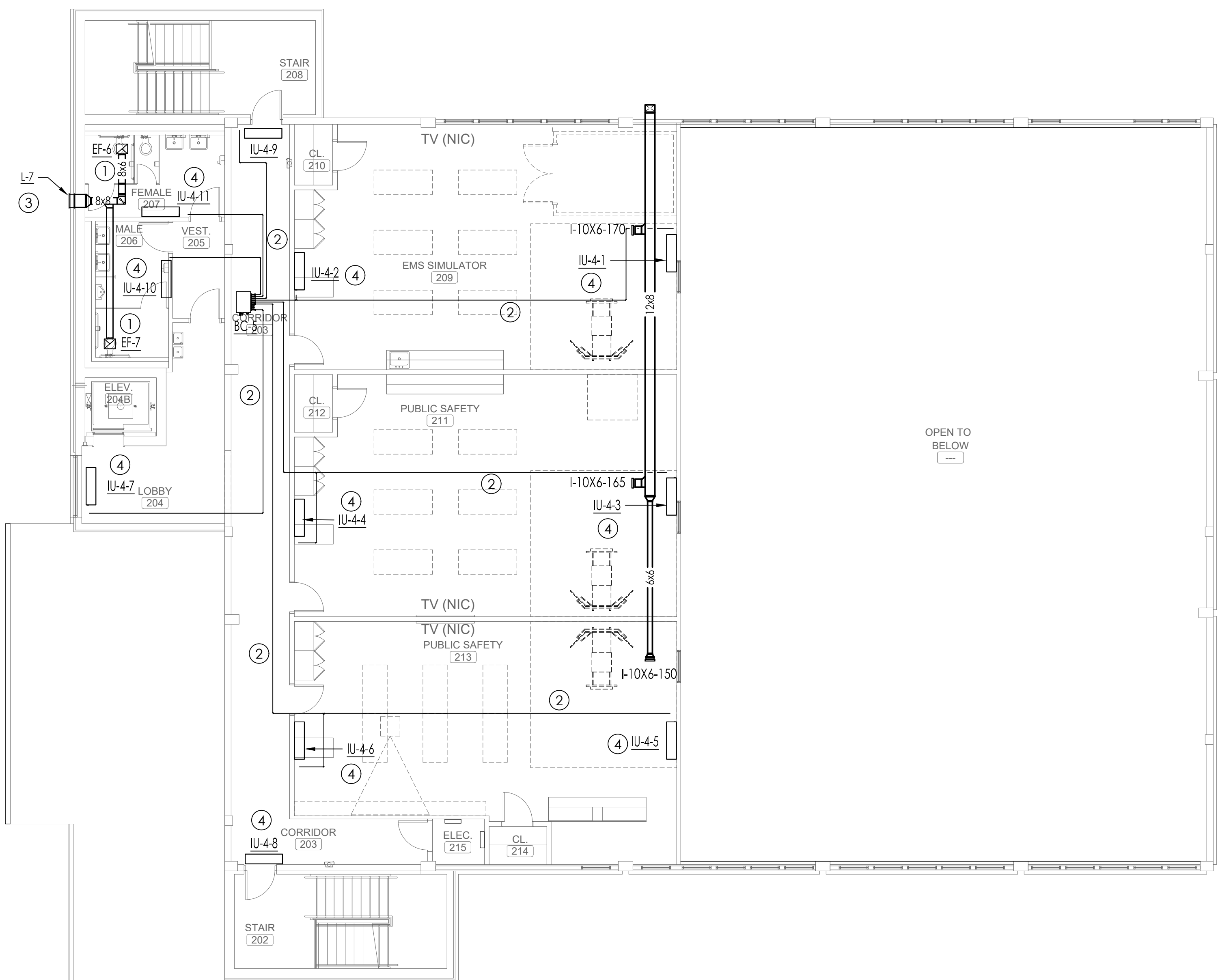
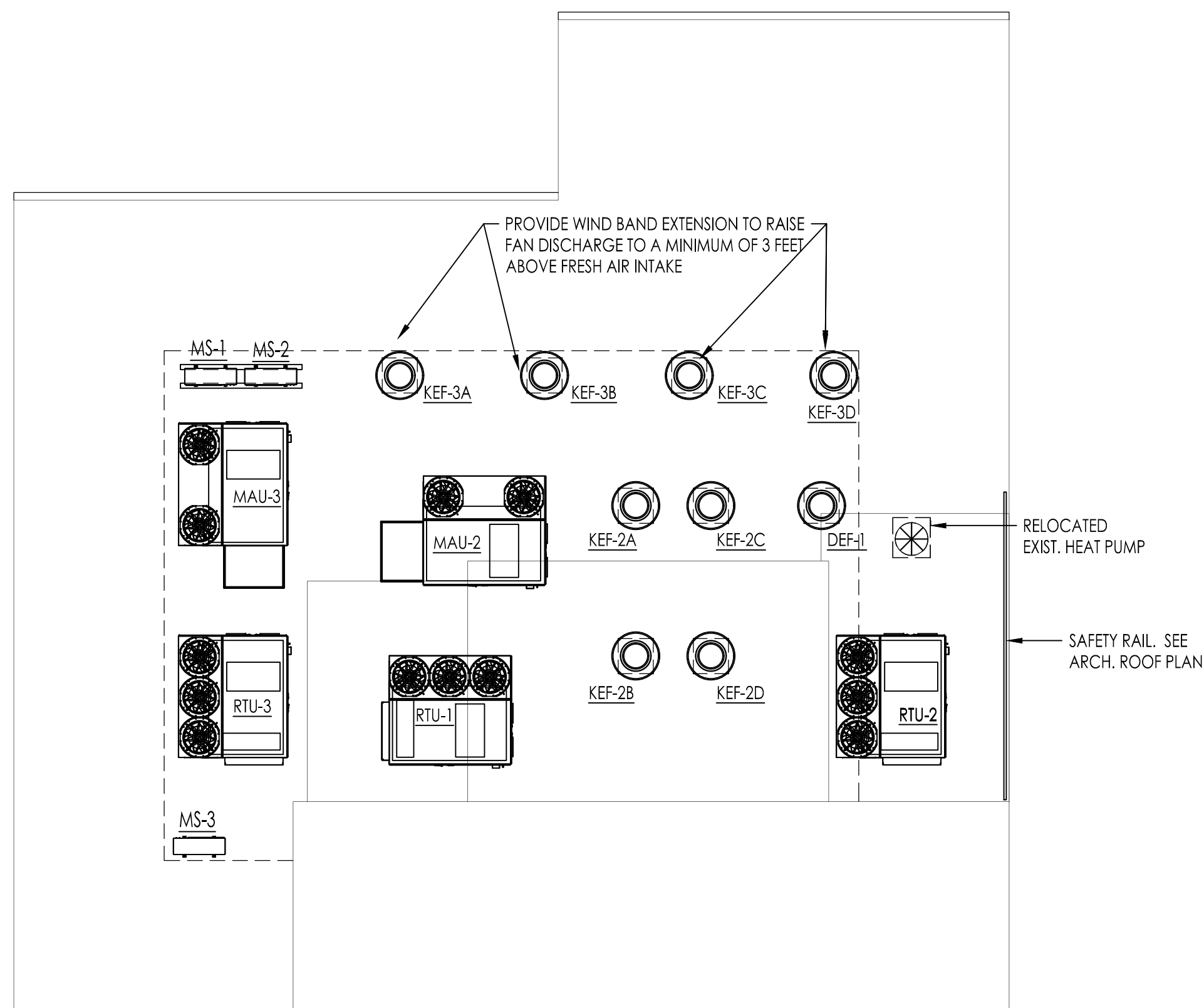
JOB NO.	25-249
SHEET NO:	M2.3

MECHANICAL GENERAL NOTES

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- MECHANICAL CONTRACTOR SHALL PROVIDE PROPER SERVICE CLEARANCE FOR EACH PIECE OF MECHANICAL EQUIPMENT REQUIRING SERVICING.

NOTE LEGEND: (THIS SHEET ONLY)

- PROVIDE A COMPLETE AND OPERATIONAL EXHAUST FAN WITH ALL RELATED CONTROLS, ACCESSORIES, ETC. SEE SCHEDULE FOR INTERLOCKING AND CONTROL. EXHAUST DUCT TO DISCHARGE AT WALL LOUVER. PROVIDE BIRDSCREEN AND BACKDRAFT DAMPER.
- PROVIDE REFRIGERANT PIPING FROM AC-UNIT TO RESPECTIVE CONDENSING UNIT. REFRIGERANT PIPING SHALL BE ROUTED CONCEALED IN THE WALL AND CEILING. REFRIGERANT PIPING SHALL BE SIZED PER MANUFACTURERS RECOMMENDATIONS. COORDINATE WITH LIGHTING, STRUCTURAL, PLUMBING, AND ALL OTHER TRADES PRIOR TO FABRICATING OR INSTALLING ANY PIPING.
- PROVIDE A LINED SHEET METAL PLENUM BEHIND LOUVER, FULL SIZE OF LOUVER. MINIMUM OF 1'2" DEEP.
- PROVIDE AND INSTALL A COMPLETE AND OPERATIONAL WALL MOUNTED DUCTLESS MINI-SPLIT UNIT AS SCHEDULED AND SPECIFIED WITH ALL REQUIRED ACCESSORIES. RUN CONDENSATE IN INSULATED 3/4" COPPER TUBING TO NEAREST HUB DRAIN SHOWN ON PLUMBING PLANS. MAINTAIN REQUIRED SLOPE ON ALL CONDENSATE DRAINS.



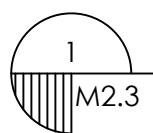
ROOF STEP DN

ROOF STEP DN

+12'-10" AFF
(528.54' FFE)

EXISTING

+12'-10" AFF
(528.54' FFE)



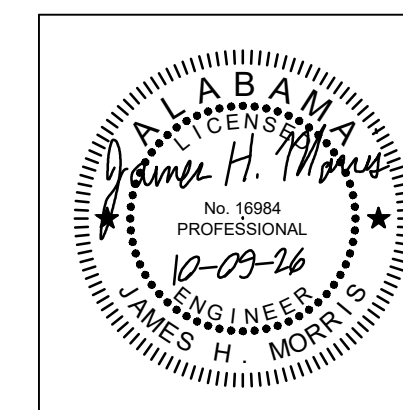
UPPER FLOOR MECHANICAL
SCALE: 1/8" = 1'-0"



Academy St. Career Innovation Academy
The Troy City & Pike County Board of Education

MECHANICAL LARGE SCALE
PLANS

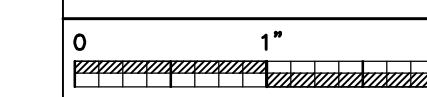
SHEET TITLE: F.



PROJ. MGR.: HD
DRAWN: JKN
DATE: 10.9.26
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25-249
SHEET NO:

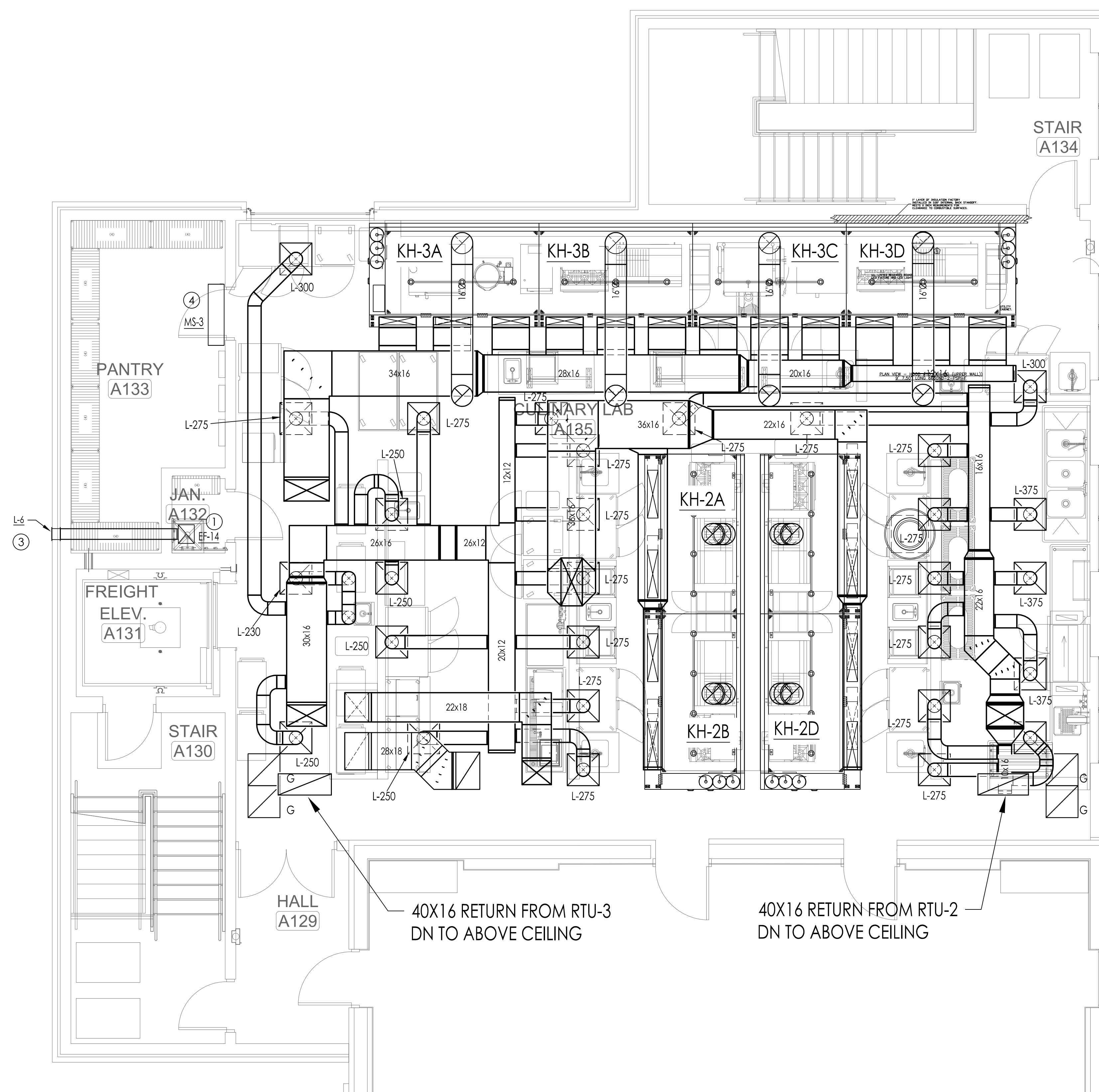
M3.1



1. CONTRACTOR SHALL PROVIDE ACCESS DOORS TO ALL FIRE RATED ASSEMBLIES (I.E. FIRE DAMPERS, CEILING RADIAN DAMPERS, ETC.) COORDINATE LOCATION OF ALL DOORS WITH LIGHTING, STRUCTURAL, PLUMBING, ETC. PRIOR TO ORDERING OR INSTALLING.
2. VERIFY LOCATION OF ALL THERMOSTATS AND WALL CONTROLS WITH ARCHITECT BEFORE ORDERING.
3. COORDINATE REFRIGERANT PIPING WITH ALL TRADES TO AVOID CONFLICT.
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5. MECHANICAL CONTRACTOR SHALL PROVIDE PROPER SERVICE CLEARANCE FOR EACH PIECE OF MECHANICAL EQUIPMENT REQUIRING SERVICE.

① NOTE LEGEND: (THIS SHEET ONLY)

1. PROVIDE A COMPLETE AND OPERATIONAL EXHAUST FAN WITH ALL RELATED CONTROLS, ACCESSORIES, ETC. SEE SCHEDULE FOR INTERLOCKING AND CONTROL. EXHAUST AIR IS TO DISCHARGE AT WALL LOUVER. PROVIDE BIRDSCREEN AND BACKDRAFT DAMPER.
2. PROVIDE REFRIGERANT PIPING FROM AC-UNIT TO RESPECTIVE CONDENSING UNIT. REFRIGERANT PIPING SHALL BE ROUTED CONCEALED IN THE WALL AND CEILING. REFRIGERANT PIPING SHALL BE SIZED PER MANUFACTURERS RECOMMENDATIONS. COORDINATE WITH LIGHTING, STRUCTURAL, PLUMBING, AND ALL OTHER TRADES PRIOR TO FABRICATING OR INSTALLING ANY PIPING.
3. PROVIDE A LINED SHEET METAL PLENUM BEHIND LOUVER, FULL SIZE OF LOUVER, MINIMUM OF 12" DEEP.
4. PROVIDE AND INSTALL REFRIGERANT AND OPERATIONAL WALL MOUNTED CONDENSING UNIT AS SCHEDULED AND SPECIFIED WITH ALL REQUIRED ACCESSORIES. RUN CONDENSATE IN INSULATED 3/4" COPPER TUBING TO NEAREST HUB DRAIN SHOWN ON PLUMBING PLANS. MAINTAIN REQUIRED SLOPE ON ALL CONDENSATE DRAINS.



MECHANICAL LARGE SCALE PLANS

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

MORRIS DAVIS
ENGINEERING LLC

903 SOUTH PERRY STREET
MONTGOMERY, AL 36104
T. (334) 269-0329
www.jmorriseng.com



LATHAN
McKEE
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Academy St. Career Innovation Academy
The Troy City & Pike County Board of Education

708 E. Academy St., Troy, AL 36061

MECHANICAL SCHEDULES

SHEET TITLE:



PROJ. MGR.: HD
DRAWN: JKN
DATE: 10.9.26
REVISIONS

JOB NO. 25-249
SHEET NO: M4.1
0 1" 2"

MORRIS DAVIS
ENGINEERING LLC
903 SOUTH PERRY STREET
MONTGOMERY, AL 36104
T. (334) 269-0229
www.morriseng.com PROJECT NO: 26-044

MITSUBISHI ELECTRIC TRANE HVAC US: CITY MULTI VRF OUTDOOR UNIT SCHEDULE

System Tag	Tag Reference	M-NET Address	Model Number	Modules	Nominal Cooling Capacity (BTU/h)	Nominal Heating Capacity (BTU/h)	Cooling Efficiency (EER [SEER])	EER2 [SEER2]	Heating COP @ 47°F [HSPF]	HSPF2 IV [V]	Design Cooling Outdoor Temp DB (°F)	Design Heating Outdoor Temp WB (°F)	Corrected Cooling Total Capacity (BTU/h)	Corrected Heating Capacity (BTU/h)	Preliminary Added Field Charge (See Note 5)	Electrical-Per Module				Notes / Options
																208/230 or [460V]				
																Voltage / Phase	MCA 208/230 or [460V]	RFS	MOCP	
OU-1	OU-1	51	TURY G2403AMMOA N	EP240	240,000	260,000	N/A	N/A	0.000	N/A [N/A]	95.0	43.0	179,657.1	242,127.0	53.4	208/230V / 3-phase 3-wire	88/88	90/90	150/150	1, 2, 3, 5, 6, 7, 8, 9, 10
OU-2	OU-2	66	TURY E1683AMMOA N	EM168	168,000	188,000	21.8 / 11.65	N/A	3.630	N/A [N/A]	95.0	43.0	158,856.6	181,262.4	45.2	208/230V / 3-phase 3-wire	60/60	70/70	100/100	1, 2, 3, 5, 6, 7, 8, 9, 10
OU-3	OU-3	51	TURY G2403AMMOA N	EP240	240,000	260,000	N/A	N/A	0.000	N/A [N/A]	95.0	43.0	222,843.7	241,394.8	54.0	208/230V / 3-phase 3-wire	102/102	110/110	125/125	1, 2, 3, 5, 6, 7, 8, 9, 10
CU-4	CU-4	86	TURY E1923AMMOA N	EM192	192,000	192,000	21.6 / 11	N/A	3.630	N/A [N/A]	95.0	43.0	176,732.8	185,726.4	43.9	208/230V / 3-phase 3-wire	60/60	70/70	100/100	1, 2, 3, 5, 6, 7, 8, 9, 10
OU-5	OU-5	47	PUY-AH24NL		24,000		N/A [N/A]	12 [21.1]	N/A [Clg Only]	N/A [N/A]	95.0	43.0	22,470.7	0.0	0.0	208/230V / 1-phase	22	25	37	1, 2, 4, 5, 6, 7, 8, 9, 10
OU-6	Data	22	PUY-AK12NL		12,000		N/A [N/A]	14.8 [21.1]	N/A [Clg Only]	N/A [N/A]	95.0	43.0	10,979.9	0.0	0.0	208/230V / 1-phase	16	20	27	1, 2, 4, 5, 6, 7, 8, 9, 10

Notes & Options:

- Nominal cooling capacities are based on indoor coil EAT of 80/67°F (DB/WB), outdoor of 95°F (DB)
- Nominal heating capacities are based on indoor coil EAT of 70°F (DB), outdoor of 43°F (WB)
- Efficiency values for EER, IEER, COP are based on AHRI 1290 test method for mixture of ducted & non-ducted indoor units.
- Efficiency values for EER2, SEER2, COP are based on AHRI 210/240 test method for mixture of ducted & non-ducted indoor units.
- For systems with multiple modules, refrigerant pipe dimensions indicate total system combined piping downstream of module twinning.
- Added field charge listed is in addition to factory charge, this must be updated based upon final as-built piping layout.
- Factory representatives shall review the project prior to and throughout the installation of CITY MULTI equipment
- Factory representatives shall startup and commission CITY MULTI equipment upon completion of equipment installations
- Factory representatives shall provide on-site assistance for the BMS integration of the CITY MULTI equipment
- Factory representatives shall provide end-user training on the CITY MULTI equipment upon completion of the installation of equipment

VRF HEAT RECOVERY BRANCH CIRCUIT CONTROLLER

System Tag	Tag Reference	M-NET Address	Model Number	Type (double / Main / Sub)	Number of Ports	Connected Capacity to BC	Voltage / Phase	MCA 208/230	Notes / Options
OU-1	BC-1	52	CMB-M1012NU-MA1-SV	Main	12	232,000.0	208/230V/1-phase	1.1/1.29	1
OU-2	BC-2	67	CMB-M1012NU-MA1-SV	Main	12	160,000.0	208/230V/1-phase	1.1/1.29	1
OU-3	BC-3	52	CMB-M1012NU-MA1-SV	Main	12	232,000.0	208/230V/1-phase	1.1/1.29	1
OU-3	BC-4	66	CMB-M108NU-MB1-SV	Sub	8	74,000.0	208/230V/1-phase	0.74/0.87	1
OU-4	BC-5	87	CMB-M108NU-MA1-SV	Main	8	192,000.0	208/230V/1-phase	0.74/0.87	1

Notes & Options:

- Include Diamondback Ball Valves BV-Series, 700PSIG working pressure, full port, 410A rated.
- For sub BC controller CMB-P-NU-GB1 or -GB, the total connectable indoor unit capacity can be 126,000 BTUs or less. If two sub BC controllers are used, the total

MECHANICAL GENERAL NOTES

- THESE DRAWINGS ARE NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. IT IS INTENDED THAT A COMPLETE AND OPERATIONAL HVAC SYSTEM BE PROVIDED WITH ALL NECESSARY EQUIPMENT, APPURTENANCES, AND CONTROLS, COMPLETELY COORDINATED WITH ALL DISCIPLINES. ALL PARAMETERS GIVEN IN THESE DOCUMENTS SHALL BE STRICTLY CONFORMED WITH. ANY ITEMS AND LABOR REQUIRED FOR A COMPLETE AND OPERATIONAL HVAC SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS, AND THESE CONTRACT DOCUMENTS SHALL BE FURNISHED WITHOUT INCURRING ANY ADDITIONAL COST TO THE OWNER. CAREFULLY REVIEW ALL CONTRACT DOCUMENTS AND THE DESIGN OF THE OTHER TRADES BEFORE PREPARING SHOP DRAWINGS.
- COORDINATE DUCTWORK AND PIPING WITH STRUCTURAL, PLUMBING, AND ELECTRICAL. MAKE OFFSETS AND TRANSITIONS AS REQUIRED TO COORDINATE WITH OTHER TRADES WITHOUT ANY ADDITIONAL COST TO THE OWNER.
- REFER TO CEILING PLANS FOR EXACT LOCATION OF ALL CEILING MOUNTED AIR DISTRIBUTION DEVICES. COORDINATE EXACT LOCATION OF GRILLES, REGISTERS, AND DIFFUSERS WITH REFLECTED CEILING PLANS AND LIGHT FIXTURES. IF A PARTICULAR ITEM IS NOT SHOWN ON THE REFLECTED CEILING PLAN, PREPARE A DRAWING AND PRESENT IT TO THE ENGINEER FOR THEIR REVIEW AND/OR APPROVAL.
- ALL DUCT TRANSITIONS FROM SQUARE TO ROUND SHALL BE SMOOTH SQUARE TO ROUND TRANSITIONS. OUTLET (TAP) FITTINGS AT THE END OF CAPPED DUCTS ARE NOT ACCEPTABLE.
- PORTIONS OF DUCTWORK VISIBLE THROUGH GRILLES, REGISTERS, AND DIFFUSERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK.
- ALL FAN MOTORS 1/8 HP AND ABOVE SHALL HAVE A DISCONNECT SWITCH MOUNTED AT THE FAN.
- ALL OPEN ENDED DUCTS SHALL BE REINFORCED WITH 1-1/2" X 1-1/2" X 1/8" GALVANIZED STEEL ANGLES BOLTED OR RIVETED 6" ON THE CENTER (MAX.) ALL AROUND THE EXTERIOR PERIMETER OF THE DUCT.
- MOUNT (HVAC CONTROLS) THERMOSTATS, HUMIDITY SENSORS, AND CO2 SENSORS 48" A.F.F. UNLESS NOTED OTHERWISE. SEE MECHANICAL DRAWINGS FOR LOCATIONS. WHERE THERE IS A CONFLICT OF LOCATIONS BETWEEN THE DRAWINGS, NOTIFY THE ENGINEER IMMEDIATELY. VERIFY EXACT LOCATION ARCHITECT BEFORE INSTALLATION.
- ALL BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE DIFFUSER SERVED UNLESS NOTED OTHERWISE. CONNECT TO TRUCK DUCTWORK WITH 45° TAKEOFF WITH GASKET FLANGE AND MANUAL VOLUME DAMPER WITH DAMPER HANDLE STANDOFF.
- PROVIDE INTERNAL INSULATION (1" THICK CLOSED CELL) FOR SUPPLY, RETURN, AND OUTDOOR AIR DUCTS WITHIN 20' OF EACH INDOOR AIR HANDLING UNIT, FAN, ETC. (UNLESS NOTED OTHERWISE). ALL OTHER DUCTWORK SHALL BE INSULATED WITH 2-3/8" THICK, FOIL SCRIM KRAFT (FSK) FACED 3/4 LB. DENSITY BLANKET INSULATION SECURED WITH STAPLES AND VAPOR BARRIER MASTIC UNLESS NOTED OTHERWISE.
- INSTALL AN IONIZATION TYPE SMOKE DETECTOR IN THE RETURN AIR DUCT OF EACH AIR HANDLING UNIT. SEE ELECTRICAL DRAWINGS. SMOKE DETECTOR SHALL BE PROVIDED BY FIRE ALARM CONTRACTOR AND INSTALLED BY THE MECHANICAL CONTRACTOR. ON UNITS THAT SUPPLY 18,000 CFM A SMOKE DETECTOR SHALL BE INSTALLED IN THE SUPPLY AIR DUCT AND RETURN AIR DUCT.
- CONDENSATE DRAIN LINES RUNNING HORIZONTALLY SHALL BE SLOPED 1/4" PER FOOT DOWN IN THE DIRECTION OF FLOW AS INDICATED. ALL CONDENSATE LINES SHALL BE COPPER AND INSULATED.
- WHERE MECHANICAL EQUIPMENT OCCURS ABOVE A LIFT-OUT ACOUSTICAL CEILING PANEL IDENTIFY THE PANEL WITH A 3/8" #8 ROUND HEAD SELF-THREADING SCREW OR ROUND STICK ON COLORED LABEL, SCREWED INTO THE PANEL WITH ONLY THE HEAD SHOWING. BEFORE INSERTING, PAINT HEAD OF SCREW WITH APPROPRIATE COLOR AS SPECIFIED UNDER PIPE IDENTIFICATION AND COLOR CODING.
- DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR. ADJUST FOR LINER.
- IN ADDITION TO OFFSETS IN DUCTWORK SHOWN, PROVIDE OFFSETS REQUIRED TO MAINTAIN TOP OF DUCTWORK AND PIPING TIGHT TO STRUCTURE.
- DUCTS AND EQUIPMENT WITH STANDING BRACES SHALL BE ARRANGED SO THAT THE BRACES WILL NOT BE OVER LIGHTS OR UNDER BEAMS IN AREAS WHERE THE CLEARANCE BETWEEN LIGHTS AND BEAMS IS LIMITED.
- EACH CEILING OR WALL DIFFUSER INDICATED SHALL HAVE RECTANGULAR TO ROUND TAKE-OFF WITH STANDING BRACKET AND MANUAL VOLUME CONTROL DAMPER AT THE SHEET METAL TRUNK DUCT SUCH THAT AIR CAN BE BALANCED.
- DUCTWORK SHALL BE IN ACCORDANCE WITH THE LATEST SMACNA STANDARD. SEAL ALL JOINTS WITH HARDCAST PRIOR TO INSULATING.
- ALL WALL SUPPLY AND RETURN AIR GRILLES SHALL BE CENTERED SYMMETRICALLY AND INSTALLED WITH PAINT MATCHED SCREWS.
- COORDINATE UNDERCUTTING OF DOORS WITH GENERAL CONTRACTOR.
- COORDINATE THE LOCATION OF ALL FLOOR DRAINS REQUIRED FOR MECHANICAL EQUIPMENT WITH PLUMBING CONTRACTOR TO INSURE PROPER LOCATION FOR SERVICE TO UNIT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OPENINGS IN THE STRUCTURE. COORDINATE THE LOCATION OF FLOOR DRAINS WITH MECHANICAL EQUIPMENT PRIOR TO ROUGHING IN OR PLACEMENT OF MECHANICAL EQUIPMENT.
- PROVIDE REMOTE OPERATOR FOR ALL INACCESSIBLE DUCT DAMPERS INCLUDING SPIN-IN DAMPERS. SHEET ROCK CEILINGS AND CONCEALED SPLINE CEILINGS ARE CONSIDERED INACCESSIBLE.
- ALL DUCTWORK SHALL BE CONNECTED TO AIR HANDLING UNITS WITH FLEXIBLE SLEEVES. EACH SLEEVE SHALL HAVE AT LEAST 1" SLACK ACROSS A CLEAN METAL-TO-METAL GAP OF AT LEAST 4". FLEXIBLE SLEEVE SHALL BE INSULATED.

ELECTRIC HEATER SCHEDULE

SYMBOL	LOCATION	CFM	HEATING KW	STEPS	ELECTRICAL	REMARKS
EUH-1	?	245	2	1	208/3/60	1
EUH-2	?	245	3	1	208/3/60	1
EUH-3	?	245	3	1	208/3/60	1
EUH-4	?	245	3	1	208/3/60	1
EUH-5	?	245	3	1	208/3/60	1

ELECTRIC HEATER SCHEDULE NOTES:

- BASED ON MAKEL 3450 OR APPROVED EQUIVALENT. HORIZONTAL DISCHARGE UNIT HEATER RECESSED IN WALL. PROVIDE RECESS ACCESSORIES, FACTORY INSTALLED ADJUSTABLE THERMOSTAT AND DISCONNECT SWITCH.

LOUVER SCHEDULE

SYMBOL	TYPE	EXT. SP H ₂ O	SIZE	MIN. SQ. FEET FREE AREA	CFM	REMARKS
L-1	I	.05	36"X24"	6.0	1100	1
L-2	R	.05	16"X12"	1.33	280	1
L-3	R	.05	16"X8"	0.88	210	1
L-4	R	.05	16"X12"	1.33	280	1
L-5	R	.05	16"X12"	1.33	280	1
L-6	R	.05	8"X6"	0.33	70	1
L-7	R	.05	16"X12"	1.33	280	1

SCHEDULE NOTES:

I = INTAKE, R = RELIEF

- RUSKIN MODEL ELF 6375D OR APPROVED EQUIVALENT. PROVIDE WITH BAKED ENAMEL FINISH TO MATCH BUILDING. ARCH/OWNER TO SELECT COLOR.

MECHANICAL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DUCTWORK, DOUBLE LINE AND SINGLE LINE. DIMENSIONS ARE NET FREE AREA.		WALL RETURN OR EXHAUST REGISTER
	SUPPLY DUCTWORK. DIMENSIONS ARE NET FREE AREA.		RETURN OR EXHAUST REGISTER OR GRILLE
	RETURN OR EXHAUST DUCTWORK. DIMENSIONS ARE NET FREE AREA.		VOLUME EXTRACTOR (VE) WITH PUSH-PULL LOCKING ADJUSTMENT ROD
	ACOUSTICALLY LINED DUCTWORK. DIMENSIONS ARE NET FREE AREA.		SPLITTER DAMPER (SPD) WITH PUSH-PULL LOCKING ADJUSTMENT ROD
	DUCTWORK RISE (R) OR DROP (D) ARROW SHOWS DIRECTION OF FLOW.		SPLITTER DAMPER (SPD) WITH PUSH-PULL LOCKING ADJUSTMENT ROD
	TRANSITION, 4:1 RATIO FOR LOW PRESSURE, 7:1 RATIO FOR HIGH PRESSURE.		CHILLED WATER SUPPLY
	ELBOW TURNED UP WITH TURNING VANES		CHILLED WATER RETURN
	ELBOW TURNED DOWN WITH TURNING VANES		HOT WATER SUPPLY
	ROUND DUCT TURNED DOWN		HOT WATER RETURN
	ROUND DUCT TURNED UP		PIPE TURNED DOWN
	RADIUS TYPE ELBOW WITH TURNING VANES. INSIDE RADIUS = WIDTH.		PIPE TURNED UP
	SQUARE TYPE ELBOW WITH DOUBLE THICKNESS VANES. VANES REQUIRED IN ALL DUCTWOK ELBOWS UNLESS NOTED OTHERWISE.		DUCT SMOKE DETECTOR
	ACCESS DOOR (AD) OR ACCESS PANEL (AP) 12X12 UNLESS NOTED OTHERWISE		WALL THERMOSTAT
	FIRE DAMPER (FD) OR SMOKE DAMPER (SD) ALL FD OR SD SHALL HAVE A 12X12 AP UNLESS NOTED OTHERWISE		WALL SWITCH
	MANUAL VOLUME DAMPER (MVD)		WALL MOUNTED TEMPERATURE SENSOR MONITORED BY DDC
	MOTOR OPERATED DAMPER (MOD) ALL MOD SHALL HAVE 12X12 AP UNLESS NOTED OTHERWISE		END OF DEMOLITION
	DIFFUSER WITH HARD SUPPLY DUCTWORK AND FLEXIBLE DUCTWORK TO DIFFUSER		CONNECT TO EXISTING
	WALL SUPPLY REGISTER		NEW WORK
			EXISTING TO BE REMOVED, INCLUDING ACCESSORIES
			EXISTING TO REMAIN

MITSUBISHI ELECTRIC TRANE HVAC US: CITY MULTI VRF INDOOR UNIT SCHEDULE

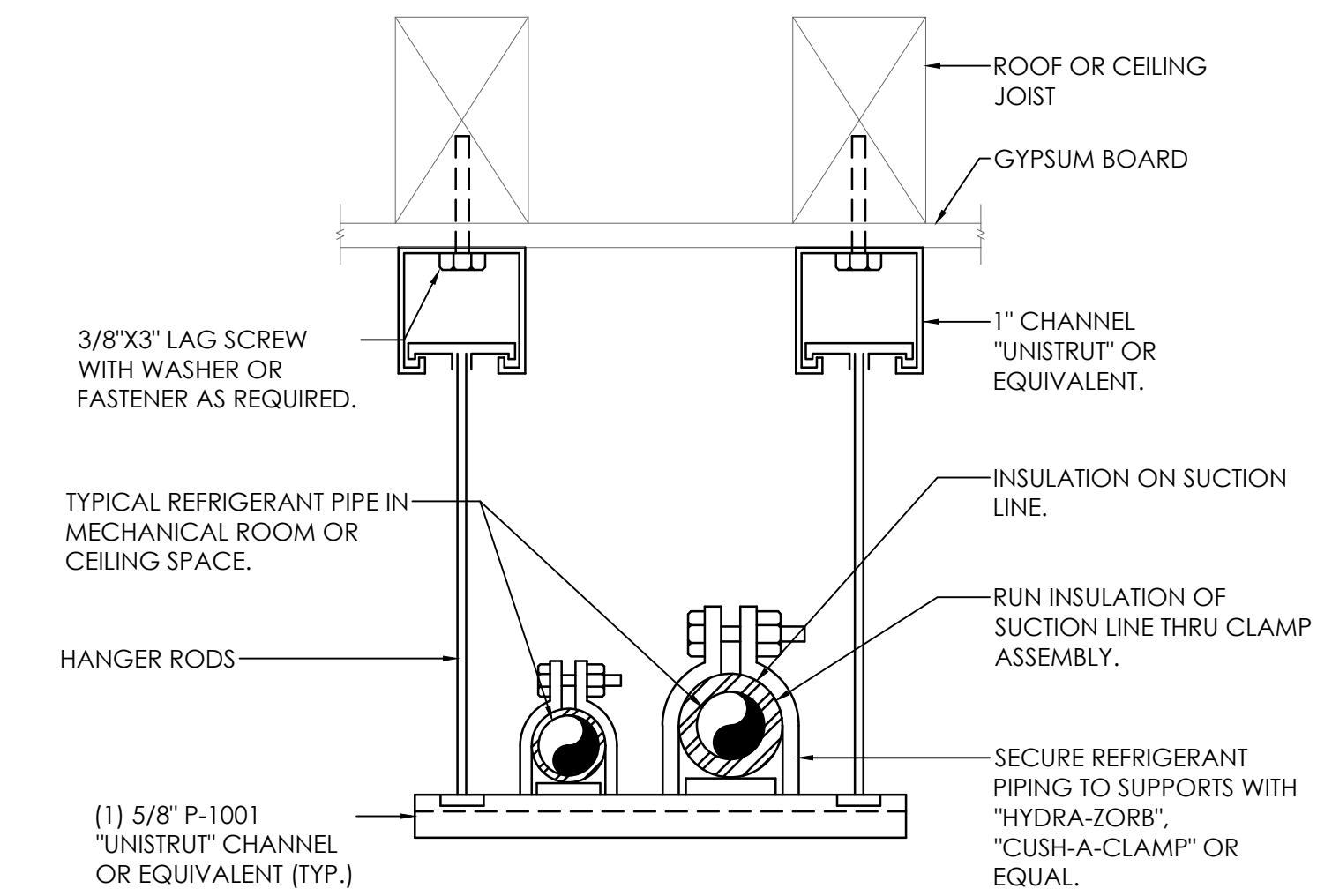
System Tag	Room Name	Tag Reference	Model	Type	Nominal Cooling Capacity (BTU/h)	Nominal Heating Capacity (BTU/h)	Cooling Design Entering Temp DB/WB (°F) / (Water in temp)	Heating Design Entering Temp DB/WB (°F) / (Water in temp)	Corrected Capacity				Refrig Pipe Dim Liquid/Suction (inch)	Fan Speed Setting	Peak Fan Airflow (cfm) / (Design gpm GUS/min)	Max Fan ESP Setting 208V/230V (IN WG)	Voltage / Phase	Electrical MCA/MFS	Notes / Options	
									Cooling Diversity Full/Partial (See Note 5, 6)	Cooling Total Capacity (BTU/h)	Cooling Sensible Capacity (BTU/h)	Heating Diversity Full/Partial (See Note 5, 6)								Heating Capacity (BTU/h)
IU-1-1		IU-1A - Mechanronics Shop	TPKFYP024KM1 M0A	Wall - Mounted	24,000	27,000	80.0/67.0	70	FULL DEMAND	18,585.2	18,585.2	FULL DEMAND	24,999.7	3/8 / 5/8	HIGH	920		208/230V/1-phase	0.34/15	1, 2, 3, 4
IU-1-2		IU-1B - Mechanronics Shop	TPKFYP024KM1 M0A	Wall - Mounted	24,000	27,000	80.0/67.0	70	FULL DEMAND	18,585.2	18,585.2	FULL DEMAND	24,999.7	3/8 / 5/8	HIGH	920		208/230V/1-phase	0.34/15	1, 2, 3, 4
IU-1-3		IU-2A - Mechanronics Classroom	TPKFYP024KM1 M0A	Wall - Mounted	24,000	27,000	80.0/67.0	70	FULL DEMAND	18,585.2	18,585.2	FULL DEMAND	24,999.7	3/8 / 5/8	HIGH	920		208/230V/1-phase	0.34/15	1, 2, 3, 4
IU-1-4		IU-2B - Mechanronics Classroom	TPKFYP024KM1 M0A	Wall - Mounted	24,000	27,000	80.0/67.0	70	FULL DEMAND	18,585.2	18,585.2	FULL DEMAND	24,999.7	3/8 / 5/8	HIGH	920		208/230V/1-phase	0.34/15	1, 2, 3, 4
IU-1-6		IU-3 Office	TPKFYP004LM1 M0A	Wall - Mounted	4,000	4,500	80.0/67.0	70	FULL DEMAND	3,097.5	3,097.5	FULL DEMAND	4,166.6	1/4 / 1/2	HIGH	148		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-1-5		IU-4 Storage	TPKFYP004LM1 M0A	Wall - Mounted	4,000	4,500	80.0/67.0	70	FULL DEMAND	3,097.5	3,097.5	FULL DEMAND	4,166.6	1/4 / 1/2	HIGH	148		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-1-7		IU-5 Office	TPKFYP004LM1 M0A	Wall - Mounted	4,000	4,500	80.0/67.0	70	FULL DEMAND	3,097.5	3,097.5	FULL DEMAND	4,166.6	1/4 / 1/2	HIGH	148		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-1-8		IU-6A - Mechanronics Lab	TPKFYP030KM1 M0A	Wall - Mounted	30,000	34,000	80.0/67.0	70	FULL DEMAND	23,231.5	20,987.3	FULL DEMAND	31,481.1	3/8 / 5/8	HIGH	920		208/230V/1-phase	0.34/15	1, 2, 3, 4
IU-1-9		IU-6B - Mechanronics Lab	TPKFYP030KM1 M0A	Wall - Mounted	30,000	34,000	80.0/67.0	70	FULL DEMAND	23,231.5	20,987.3	FULL DEMAND	31,481.1	3/8 / 5/8	HIGH	920		208/230V/1-phase	0.34/15	1, 2, 3, 4
IU-1-10		IU-7 Storage	TPKFYP004LM1 M0A	Wall - Mounted	4,000	4,500	80.0/67.0	70	FULL DEMAND	3,097.5	3,097.5	FULL DEMAND	4,166.6	1/4 / 1/2	HIGH	148		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-1-11		IU-8 Storage	TPKFYP004LM1 M0A	Wall - Mounted	4,000	4,500	80.0/67.0	70	FULL DEMAND	3,097.5	3,097.5	FULL DEMAND	4,166.6	1/4 / 1/2	HIGH	148		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-1-12		IU-9 Storage	TPKFYP004LM1 M0A	Wall - Mounted	4,000	4,500	80.0/67.0	70	FULL DEMAND	3,097.5	3,097.5	FULL DEMAND	4,166.6	1/4 / 1/2	HIGH	148		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-1-13		IU-10 Office	TPKFYP004LM1 M0A	Wall - Mounted	4,000	4,500	80.0/67.0	70	FULL DEMAND	3,097.5	3,097.5	FULL DEMAND	4,166.6	1/4 / 1/2	HIGH	148		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-1-14		IU-11A - Classrooms Lab	TPKFYP024KM1 M0A	Wall - Mounted	24,000	27,000	80.0/67.0	70	FULL DEMAND	18,585.2	18,585.2	FULL DEMAND	24,999.7	3/8 / 5/8	HIGH	920		208/230V/1-phase	0.34/15	1, 2, 3, 4
IU-1-15		IU-11B - Classrooms Lab	TPKFYP024KM1 M0A	Wall - Mounted	24,000	27,000	80.0/67.0	70	FULL DEMAND	18,585.2	18,585.2	FULL DEMAND	24,999.7	3/8 / 5/8	HIGH	920		208/230V/1-phase	0.34/15	1, 2, 3, 4
IU-2-1		IU-12A - Mechanronics Classroom	TPKFYP024KM1 M0A	Wall - Mounted	24,000	27,000	80.0/67.0	70	FULL DEMAND	23,828.5	21,209.5	FULL DEMAND	26,993.2	3/8 / 5/8	HIGH	920		208/230V/1-phase	0.34/15	1, 2, 3, 4
IU-2-2		IU-12B - Mechanronics Classroom	TPKFYP024KM1 M0A	Wall - Mounted	24,000	27,000	80.0/67.0	70	FULL DEMAND	23,828.5	21,209.5	FULL DEMAND	26,993.2	3/8 / 5/8	HIGH	920		208/230V/1-phase	0.34/15	1, 2, 3, 4
IU-2-3		IU-13 Simulator	TPKFYP024KM1 M0A	Wall - Mounted	24,000	27,000	80.0/67.0	70	FULL DEMAND	23,828.5	21,209.5	FULL DEMAND	26,993.2	3/8 / 5/8	HIGH	920		208/230V/1-phase	0.34/15	1, 2, 3, 4
IU-2-4		IU-14A Elect Lineman Classroom	TPKFYP024KM1 M0A	Wall - Mounted	24,000	27,000	80.0/67.0	70	FULL DEMAND	23,828.5	21,209.5	FULL DEMAND	26,993.2	3/8 / 5/8	HIGH	920		208/230V/1-phase	0.34/15	1, 2, 3, 4
IU-2-5		IU-14B Elect Linemen Classroom	TPKFYP024KM1 M0A	Wall - Mounted	24,000	27,000	80.0/67.0	70	FULL DEMAND	23,828.5	21,209.5	FULL DEMAND	26,993.2	3/8 / 5/8	HIGH	920		208/230V/1-phase	0.34/15	1, 2, 3, 4
IU-2-6		IU-15 Corridor	TPKFYP004LM1 M0A	Wall - Mounted	4,000	4,500	80.0/67.0	70	FULL DEMAND	3,971.4	3,463.7	FULL DEMAND	4,498.9	1/4 / 1/2	HIGH	148		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-2-7		IU-16 Corridor	TPKFYP004LM1 M0A	Wall - Mounted	4,000	4,500	80.0/67.0	70	FULL DEMAND	3,971.4	3,463.7	FULL DEMAND	4,498.9	1/4 / 1/2	HIGH	148		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-2-11		IU-17 Men	TPKFYP004LM1 M0A	Wall - Mounted	4,000	4,500	80.0/67.0	70	FULL DEMAND	3,971.4	3,463.7	FULL DEMAND	4,498.9	1/4 / 1/2	HIGH	148		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-2-12		IU-18 Women	TPKFYP004LM1 M0A	Wall - Mounted	4,000	4,500	80.0/67.0	70	FULL DEMAND	3,971.4	3,463.7	FULL DEMAND	4,498.9	1/4 / 1/2	HIGH	148		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-2-10		IU-19 Corridor	TPKFYP012LM1 M0A	Wall - Mounted	12,000	13,500	80.0/67.0	70	FULL DEMAND	11,914.2	8,495.7	FULL DEMAND	13,496.6	1/4 / 1/2	HIGH	297		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-2-8		IU-17 Men	TPKFYP004LM1 M0A	Wall - Mounted	4,000	4,500	80.0/67.0	70	FULL DEMAND	3,971.4	3,463.7	FULL DEMAND	4,498.9	1/4 / 1/2	HIGH	148		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-2-9		IU-17 Men	TPKFYP004LM1 M0A	Wall - Mounted	4,000	4,500	80.0/67.0	70	FULL DEMAND	3,971.4	3,463.7	FULL DEMAND	4,498.9	1/4 / 1/2	HIGH	148		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-5		IU-21 Storage	TPKFYP006LM1 M0A	Wall - Mounted	6,000	6,700	80.0/67.0	70	FULL DEMAND	5,957.1	4,786.5	FULL DEMAND	6,698.3	1/4 / 1/2	HIGH	191		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-3-2A		IU-3-2ASim	TPKFYP006LM1 M0A	Wall - Mounted	8,000	9,000	80.0/67.0	70	FULL DEMAND	7,677.4	6,049.9	FULL DEMAND	8,359.2	1/4 / 1/2	HIGH	237		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-3-2B		IU-3-2BSim	TPKFYP006LM1 M0A	Wall - Mounted	8,000	9,000	80.0/67.0	70	FULL DEMAND	7,677.4	6,049.9	FULL DEMAND	8,359.2	1/4 / 1/2	HIGH	237		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-3-2C		IU-3-2CSim	TPKFYP006LM1 M0A	Wall - Mounted	8,000	9,000	80.0/67.0	70	FULL DEMAND	7,677.4	6,049.9	FULL DEMAND	8,359.2	1/4 / 1/2	HIGH	237		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-3-1		IU-3-1Sim	TPKFYP006LM1 M0A	Wall - Mounted	8,000	9,000	80.0/67.0	70	FULL DEMAND	7,677.4	6,049.9	FULL DEMAND	8,359.2	1/4 / 1/2	HIGH	237		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-3-3		IU-3-6Health Sciences Lab	TPKFYP018LM1 M0A	Wall - Mounted	18,000	20,000	80.0/67.0	70	FULL DEMAND	17,274.1	12,408.1	FULL DEMAND	18,576.0	1/4 / 1/2	HIGH	438		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-3-4		IU-3-6Health Sciences Lab	TPKFYP018LM1 M0A	Wall - Mounted	18,000	20,000	80.0/67.0	70	FULL DEMAND	17,274.1	12,408.1	FULL DEMAND	18,576.0	1/4 / 1/2	HIGH	438		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-3-5		IU-3-4Health Science Classroom	TPKFYP018LM1 M0A	Wall - Mounted	18,000	20,000	80.0/67.0	70	FULL DEMAND	17,274.1	12,408.1	FULL DEMAND	18,576.0	1/4 / 1/2	HIGH	438		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-3-6		IU-3-3Health Science Classroom	TPKFYP018LM1 M0A	Wall - Mounted	18,000	20,000	80.0/67.0	70	FULL DEMAND	17,274.1	12,408.1	FULL DEMAND	18,576.0	1/4 / 1/2	HIGH	438		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-3-7		IU-25 Mens	TPKFYP004LM1 M0A	Wall - Mounted	4,000	4,500	80.0/67.0	70	FULL DEMAND	3,838.7	3,414.0	FULL DEMAND	4,179.6	1/4 / 1/2	HIGH	148		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-3-8		IU-26 Womens	TPKFYP004LM1 M0A	Wall - Mounted	4,000	4,500	80.0/67.0	70	FULL DEMAND	3,838.7	3,414.0	FULL DEMAND	4,179.6	1/4 / 1/2	HIGH	148		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-3-9		IU-2 Corridor 116	TPKFYP012LM1 M0A	Wall - Mounted	12,000	13,500	80.0/67.0	70	FULL DEMAND	11,516.1	8,333.7	FULL DEMAND	12,538.8	1/4 / 1/2	HIGH	297		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-3-10		IU-1 Corridor 116	TPKFYP004LM1 M0A	Wall - Mounted	4,000	4,500	80.0/67.0	70	FULL DEMAND	3,838.7	3,414.0	FULL DEMAND	4,179.6	1/4 / 1/2	HIGH	148		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-3-11		IU-3 Corridor 116	TPKFYP012LM1 M0A	Wall - Mounted	12,000	13,500	80.0/67.0	70	FULL DEMAND	11,516.1	8,333.7	FULL DEMAND	12,538.8	1/4 / 1/2	HIGH	297		208/230V/1-phase	0.24/15	1, 2, 3, 4
IU-3-12																				

PACKAGED GAS FIRED UNIT SCHEDULE																							
SYMBOL	SUPPLY FAN							COOLING MIN. (1)				HOT GAS REHEAT				REFRIGERANT CHARGE lbs of R-454B	HEATING MIN. (2)			ELECTRICAL		ACOUSTICS dB	REMARKS
	TOTAL CFM	OUTSIDE AIR		EXT. S.P. INCHES H ₂ O	DRIVE TYPE	FAN TYPE	MOTOR HP	TOTAL MBH	SEN. MBH	EER/ SEER (2)	ENT. DB/WB	LVG. DB	LVG. WB	MOISTURE REMOVAL GPH	INPUT MBH		OUTPUT MBH	DELTA T	VOLTAGE/ PHASE/ FREQUENCY	MCA/MOP (AMPS)			
		MIN.	MAX.																				
PAC-1	8,000	?	?	0.5	DIRECT	BC PLENUM	3.0	249.2	186.9	9.80/	73/64	74.1	60.76	10.20	?	250.00	202.50	23.23	208/3/60	108/150	87	1,2,3,4,5	

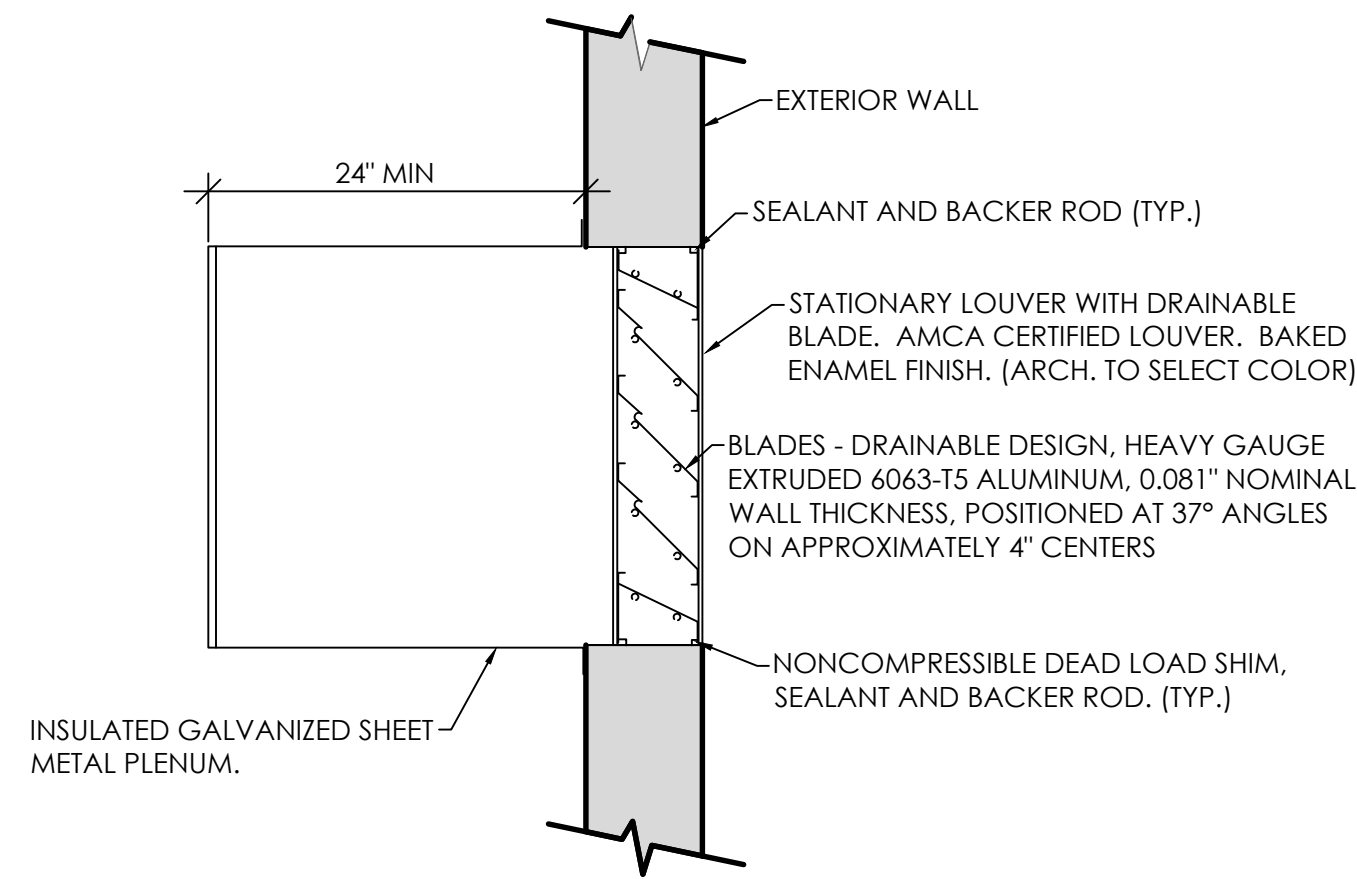
PACKAGED GAS/ELECTRIC UNIT SCHEDULE NOTES:
1. CAPACITY BASED ON EDB 80 DEGREES F., EWB 67 DEGREES F. & AMBIENT 95 DEGREES F.
2. RATED IN ACCORDANCE W/ARI STANDARD 210-81.
3. BASED ON TRANE MODEL YSK240, REFRIGERANT R-454B.
4. PROVIDE SINGLE POINT POWER CONNECTION, MODULATING HOT GAS REHEAT, HINGED ACCESS PANELS, AND FACTORY INSTALLED DISCONNECT SWITCH, MOTORIZED OUTDOOR AIR, POWERED (115A) CONVENIENCE OUTLET AND FACTORY HAIL GUARD. PROVIDE CONDENSATE DRAIN PAN AND 2" FLEATED MERV 8 FILTERS.
5. UNIT SHALL HAVE REFRIGERANT DETECTION SYSTEM.

PACKAGED 100% OUTDOOR AIR UNIT SCHEDULE																								
SYMBOL	TOTAL CFM	O.A. CFM	EXT. S.P. " H ₂ O	FAN TYPE	FAN DRIVE MOTOR TYPE	FAN MOTOR HP	COOLING					HOT GAS REHEAT			HEATING						AMCA SOUND RATING dBA	REMARKS		
							ENTERING		LEAVING		TOTAL MBH	SEN. MBH	COIL # ROWS	ENTERING	LEAVING	TOTAL MBH	EAT	LAT	INPUT	OUTPUT			TURN DOWN	ELEC.
							DB	WB	DB	WB														
DOAS-1	2400	2400	1.0	PLENUM	DIRECT	1.0	95	78	52.8	52.6	200.4	102.5	5	52.8	97.1	109.5	27.9	121.6	300.0	243.0	12:1	208/3/60	57.1	1,2,3,4,5

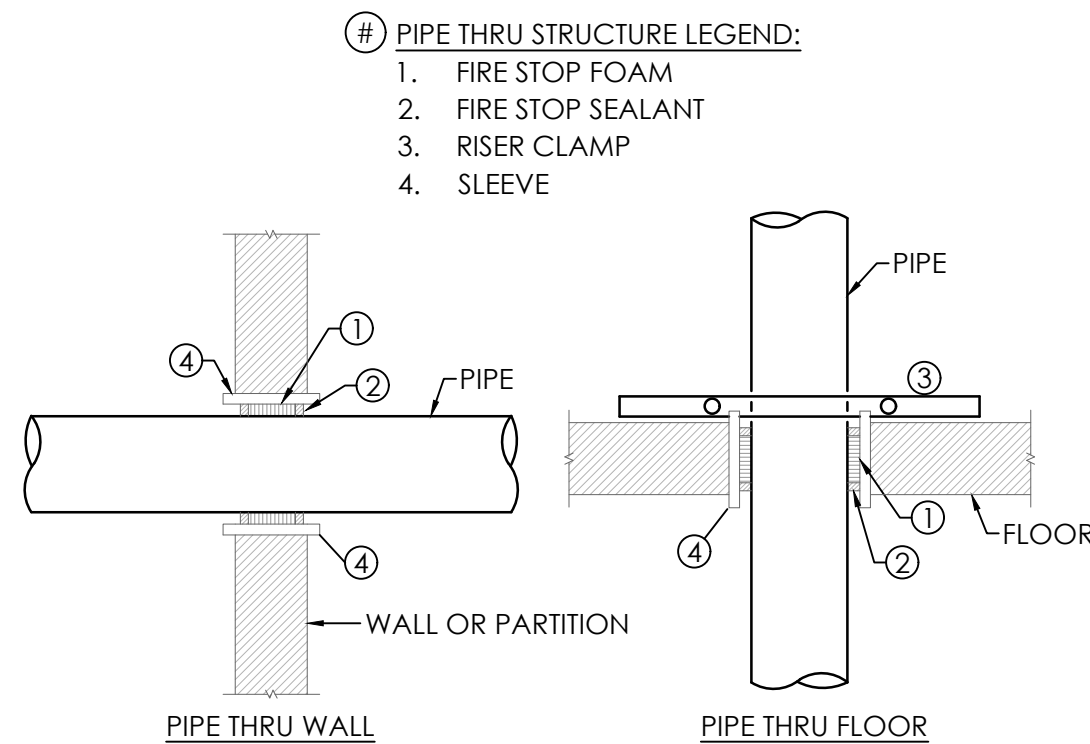
PACKAGED 100% OUTDOOR AIR UNIT SCHEDULE NOTES:
1. UNIT BASED ON VALENT MODEL VX. PROVIDE WITH R-454B REFRIGERANT, DOUBLE WALL 2 INCH R16 INSULATION.
2. PROVIDE SINGLE POINT POWER CONNECTION, AIR FLOW MONITORING, HINGED ACCESS PANELS, DIRECT DRIVE PLENUM BLOWER, FACTORY VFD, STAINLESS STEEL CONDENSATE DRAIN PAN, CONDENSATE OVERFLOW SWITCH, FACTORY CONTROLLER(BACNET COMPATIBLE), LOW LEAKAGE DAMPERS, BIPOLAR IONIZATION (BIPOLAR IONIZATION DEVICES SHALL DE-ENERGIZE WHEN THE AIR HANDLING UNIT SUPPLY FAN IS TURNED OFF), AND HAIL GUARDS.
3. PROVIDE 2" MERV 8 FILTERS.
4. PROVIDE 5 YEAR PARTS AND LABOR WARRANTY.
5. UNIT SHALL HAVE REFRIGERANT DETECTION SYSTEM.



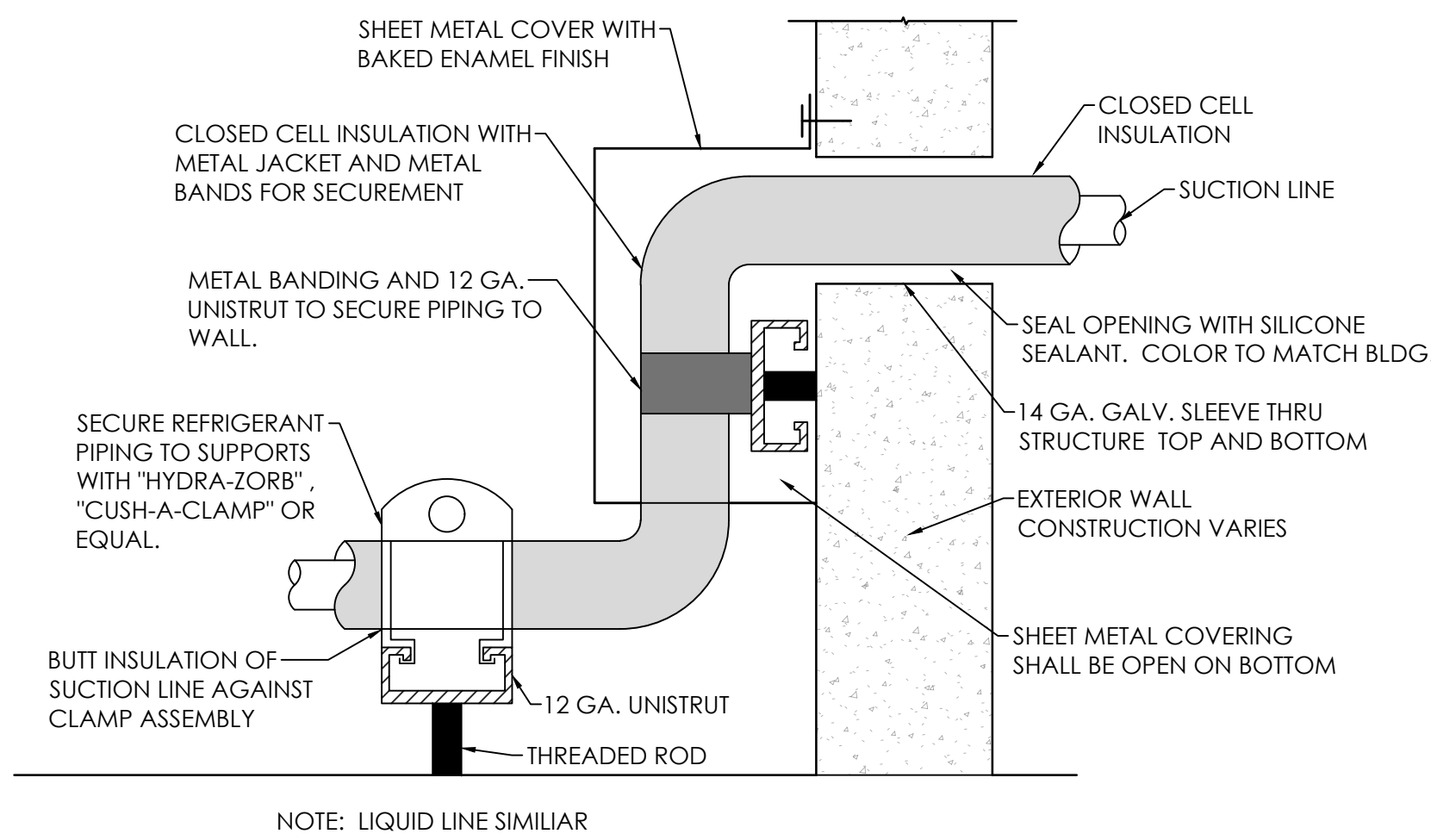
**SUSPENDED REFRIGERANT PIPE
SUPPORT AT CEILING DETAIL**
NO SCALE



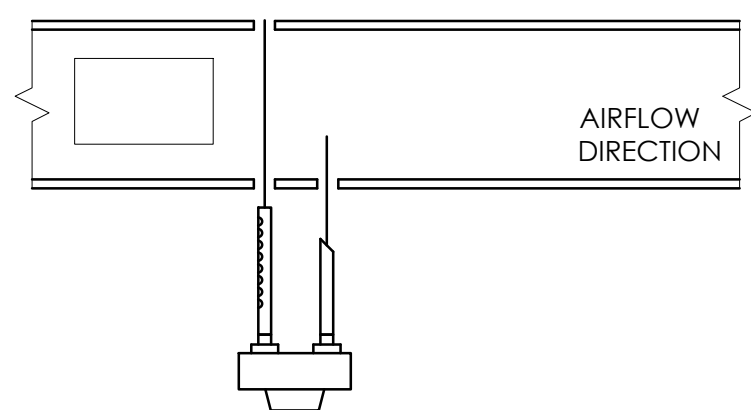
EXTERIOR LOUVER DETAIL
NO SCALE



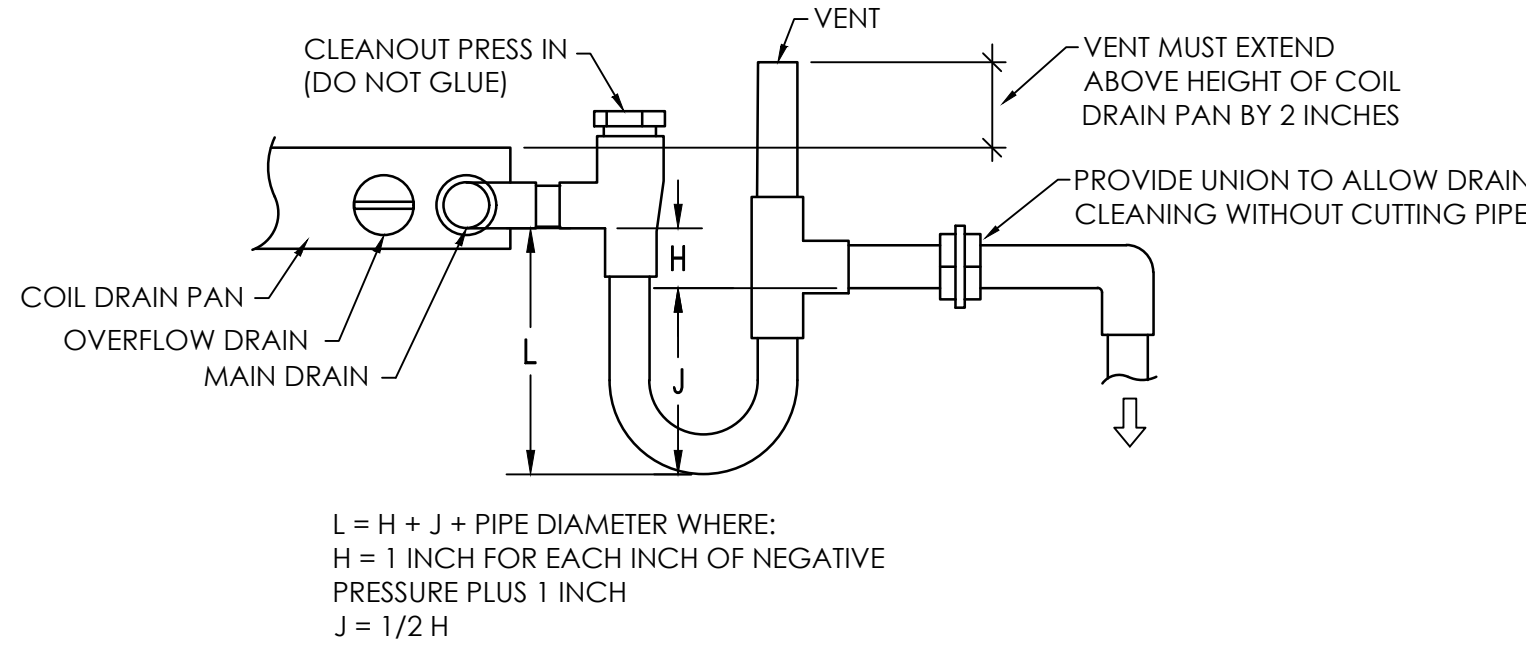
PIPE THRU STRUCTURE DETAIL
NO SCALE



REFRIGERANT PIPING PENETRATION DETAIL
NO SCALE



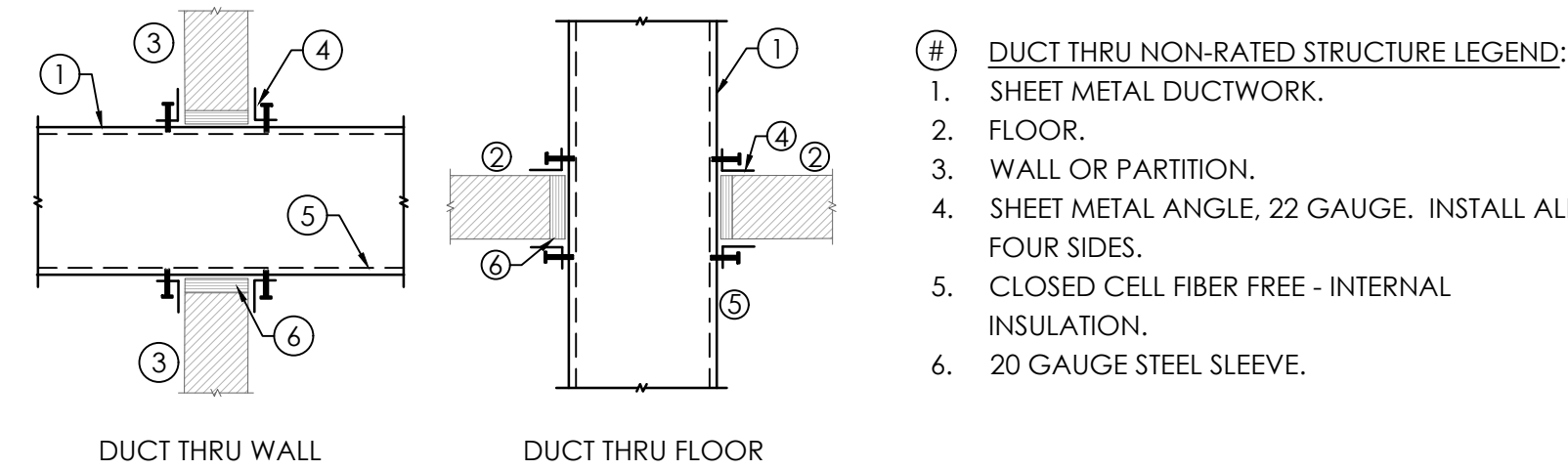
SMOKE DETECTOR DETAIL
NO SCALE
(LOCATE IN RETURN AIR DUCTWORK OF ALL AHU'S GREATER THAN 2000 CFM.)



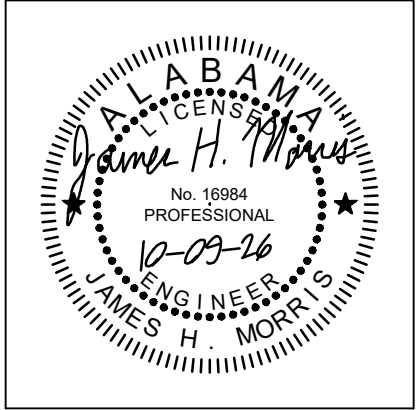
L = H + J + PIPE DIAMETER WHERE:
H = 1 INCH FOR EACH INCH OF NEGATIVE PRESSURE PLUS 1 INCH
J = 1/2 H

NOTE: ROUTE DRAIN TO NEAREST HUB DRAIN OR ROOF DRAIN. SEE PLUMBING. DRAIN SHALL NOT DISCHARGE ONTO ROOF.

CONDENSATE DRAIN DETAIL
NO SCALE



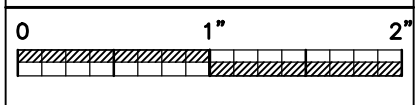
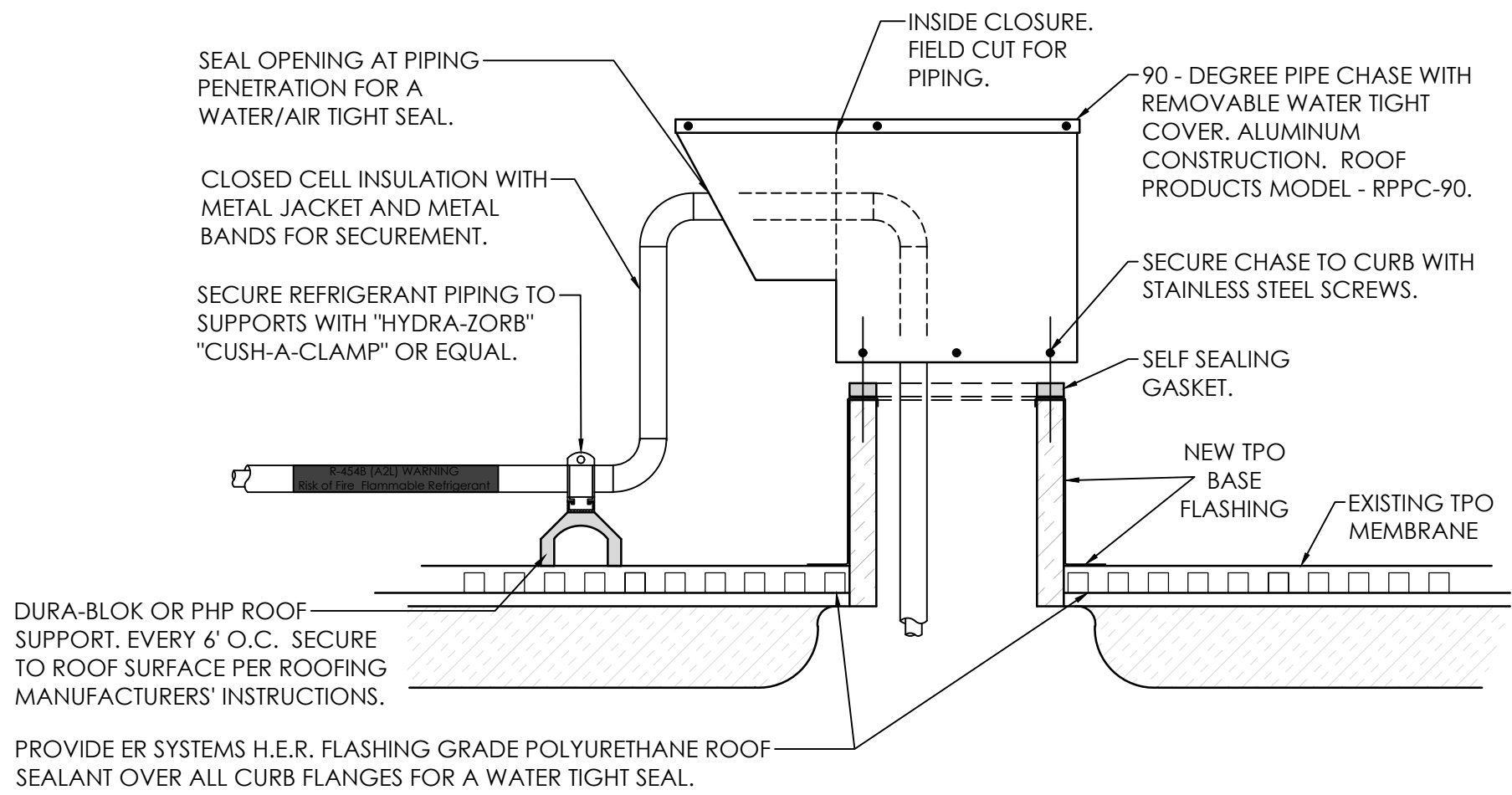
DUCT THRU NON-RATED STRUCTURE DETAIL
NO SCALE



PROJ. MGR.:	HD
DRAWN:	JKN
DATE:	10.9.26
REVISIONS	

JOB NO.	25-249
SHEET NO.	

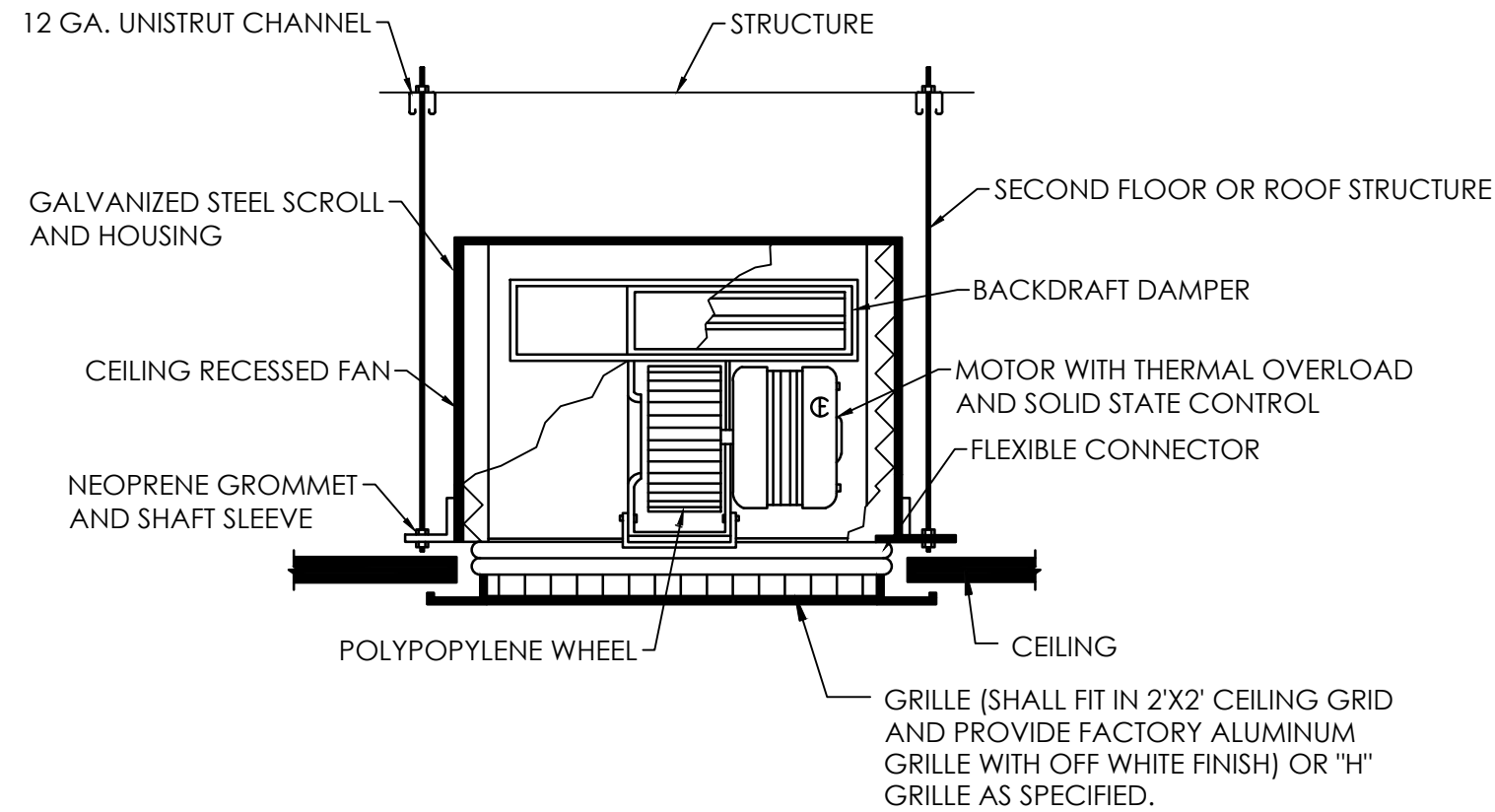
M4.4



NOTES:
1. PIPE CHASE SHALL BE FLASHED AND COUNTER FLASHED BY LICENSED ROOFING CONTRACTOR.

REFRIGERANT ROOF PIPE CHASE DETAIL

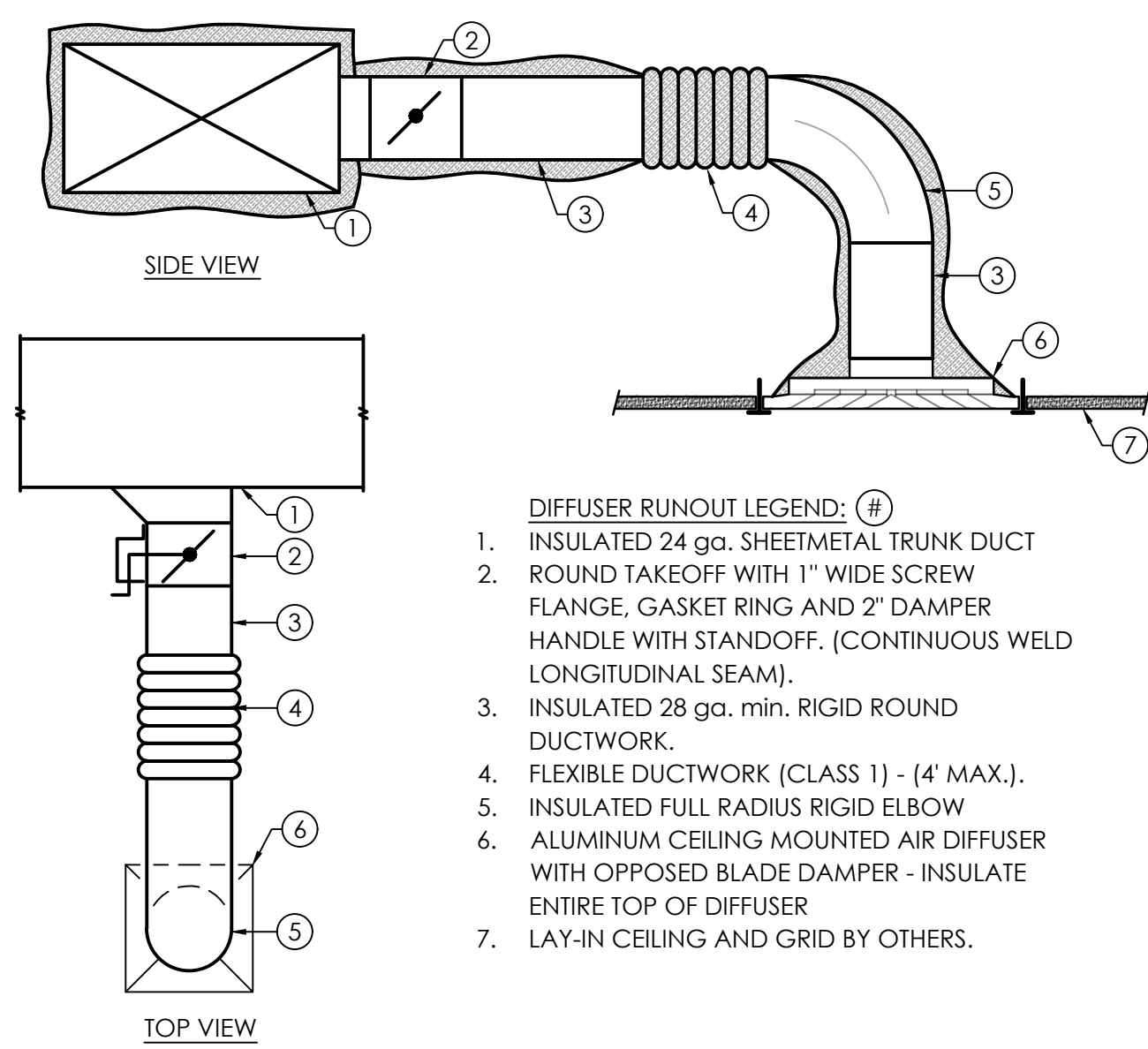
NO SCALE



CEILING MOUNTED EXHAUST FAN DETAIL

NO SCALE

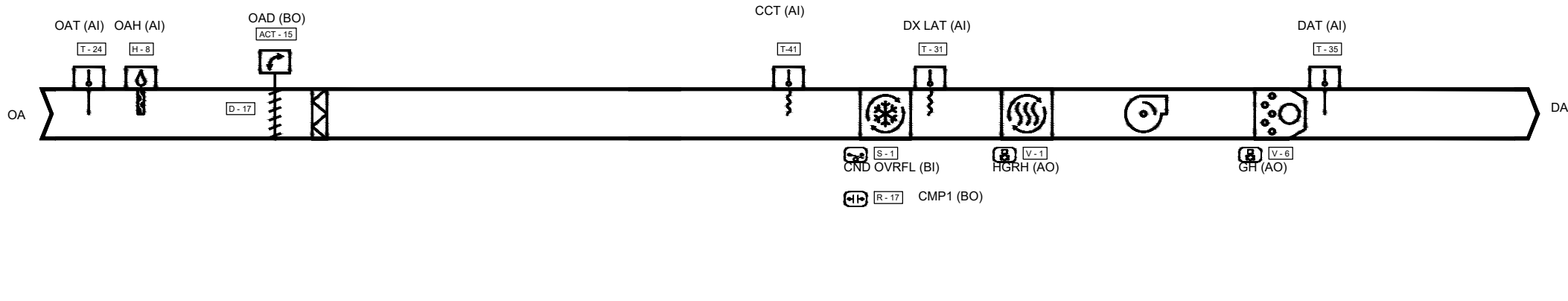
(TYP. ALL EXHAUST FANS)



DIFFUSER RUNOUT DETAIL

NO SCALE

NOTE TO MECHANICAL CONTRACTOR
ALL HVAC CONTROL COMPONENTS, CONTROL WIRING, INTERLOCKS, RELAYS, LOGIC, AND PROGRAMMING SHALL BE PROVIDED AND INSTALLED BY A QUALIFIED AND PRE-APPROVED CONTROLS CONTRACTOR. THE MECHANICAL (HVAC) CONTRACTOR SHALL NOT INSTALL OR MODIFY CONTROL SYSTEMS EXCEPT AS SPECIFICALLY DIRECTED BY THE CONTROLS CONTRACTOR. SEE SPECIFICATIONS FOR APPROVED MECHANICAL CONTROLS CONTRACTORS.



SEQUENCE OF OPERATION: DEDICATED OUTDOOR AIR SYSTEM (DOAS-1)

SYSTEM GENERAL DESCRIPTION:

THE DOAS CONTROLLER PROVIDES STAND-ALONE CONTROL. DOAS UNIT SHALL PROVIDE OUTSIDE AIR DURING ALL OCCUPIED TIMES.

DOAS UNOCCUPIED:

DURING THE UNOCCUPIED PERIODS, THE SUPPLY FAN SHALL BE DISABLED, THE OUTSIDE AIR DAMPER SHALL CLOSE, THE MECHANICAL COOLING SHALL BE DISABLED, TO CONSERVE ENERGY.

DOAS OCCUPIED:

THE DX COOLING AND THE GAS HEAT SHALL CONTROL TO MAINTAIN THE ACTIVE DISCHARGE AIR TEMPERATURE SETPOINT. THE DISCHARGE AIR TEMPERATURE SETPOINT SHALL BE LINEARLY RESET FROM 65 DEG. F (ADJ.) TO 75 DEG. F (ADJ.) AS THE OUTSIDE AIR TEMPERATURE FALLS FROM 90 DEG. F (ADJ.) TO 40 DEG. F (ADJ.)

DOAS HEAT/COOL MODE:

COOLING: THE UNIT CONTROLLER SHALL USE THE DISCHARGE AIR TEMPERATURE SENSOR AND DISCHARGE AIR TEMPERATURE COOLING SETPOINT TO DETERMINE WHEN TO INITIATE REQUESTS FOR COOLING. DISCHARGE AIR SETPOINT SHALL BE MAINTAINED BY CONTROLLING THE COOLING AS REQUIRED.

HEATING: THE UNIT CONTROLLER SHALL USE THE DISCHARGE AIR TEMPERATURE SENSOR AND DISCHARGE AIR TEMPERATURE HEATING SETPOINT TO DETERMINE WHEN TO INITIATE REQUESTS FOR HEATING. DISCHARGE AIR SETPOINT SHALL BE MAINTAINED BY CONTROLLING THE HEATING AS REQUIRED.

DOAS COOLING:

COOLING MODE SHALL BE ENABLED WHENEVER THE OUTDOOR AIR TEMPERATURE RISES ABOVE THE OUTDOOR AIR COOLING ENABLE SETPOINT. THE OUTDOOR AIR TEMPERATURE SHALL BE ABOVE THE OUTDOOR AIR HEATING ENABLE SETPOINT. DURING COOLING MODE, COOLING CAPACITY SHALL BE ADJUSTED TO MAINTAIN DISCHARGE AIR TEMPERATURE SETPOINT. WHEN THE OUTDOOR AIR TEMPERATURE IS ABOVE THE OUTDOOR AIR HEATING ENABLE, BUT BELOW THE OUTDOOR AIR COOLING ENABLE SETPOINT, COOLING MODE SHALL BE ENABLED WHEN THE SPACE TEMPERATURE IS ABOVE THE SPACE TEMPERATURE SETPOINT PLUS THE SPACE TEMPERATURE OFFSET. DEHUMIDIFICATION MODE SHALL TAKE PRIORITY OVER COOLING MODE. ON UNITS WITHOUT HEAD PRESSURE CONTROL, THE COMPRESSORS SHALL BE LOCKED OUT IF THE OUTDOOR AIR TEMPERATURE FALLS BELOW THE COMPRESSOR LOW AMBIENT LOCKOUT SETPOINT AND THERE IS A DEMAND FOR COOLING. WHEN THIS OCCURS, THE UNIT SHALL DISPLAY COMPRESSOR LOW AMBIENT LOCKOUT ACTIVE AS AN INFORMATIONAL DIAGNOSTIC.

DOAS PRIMARY HEATING:

HEATING MODE SHALL BE ENABLED WHENEVER THE OUTDOOR AIR TEMPERATURE IS BELOW THE OUTDOOR AIR HEATING ENABLE SETPOINT. DURING HEATING MODE, HEAT CAPACITY SHALL BE ADJUSTED TO MAINTAIN THE DISCHARGE AIR TEMPERATURE TO DISCHARGE AIR TEMPERATURE SETPOINT. THE UNIT CONTROLLER SHALL MONITOR THE STATUS OF THE HEATER USING HEAT ON OFF STATUS LOCAL. IN THE EVENT OF IGNITION FAILURE, THE UNIT SHALL MAKE THREE IGNITION ATTEMPTS BEFORE DISPLAYING DIAGNOSTIC: HEAT FAILURE. THE UNIT SHALL SHUT DOWN WHEN A HEAT FAILURE OCCURS AND SHALL A RESET FOUR HOURS LATER TO RE-ATTEMPT IGNITION.

DOAS DEHUMIDIFICATION:

DEHUMIDIFICATION MODE SHALL BE ENABLED WHENEVER THE SPACE DEWPOINT RISES ABOVE THE SPACE DEWPOINT SETPOINT OR WHEN THE OUTDOOR AIR DEWPOINT RISES ABOVE THE OUTDOOR AIR DEWPOINT SETPOINT. DURING THE DEHUMIDIFICATION MODE, THE COOLING CAPACITY SHALL BE ADJUSTED TO MAINTAIN THE DEHUMIDIFICATION TEMPERATURE SETPOINT. THE DEHUMIDIFICATION TEMPERATURE SETPOINT SHALL BE RESET BY COMPARING SPACE DEWPOINT TO SPACE DEWPOINT CALCULATED ENABLE SETPOINT MINUS 2 DEG. F THE HOT GAS HEATING VALVE SHALL BE ADJUSTED TO MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT.

DOAS SUPPLY FAN OPERATION:

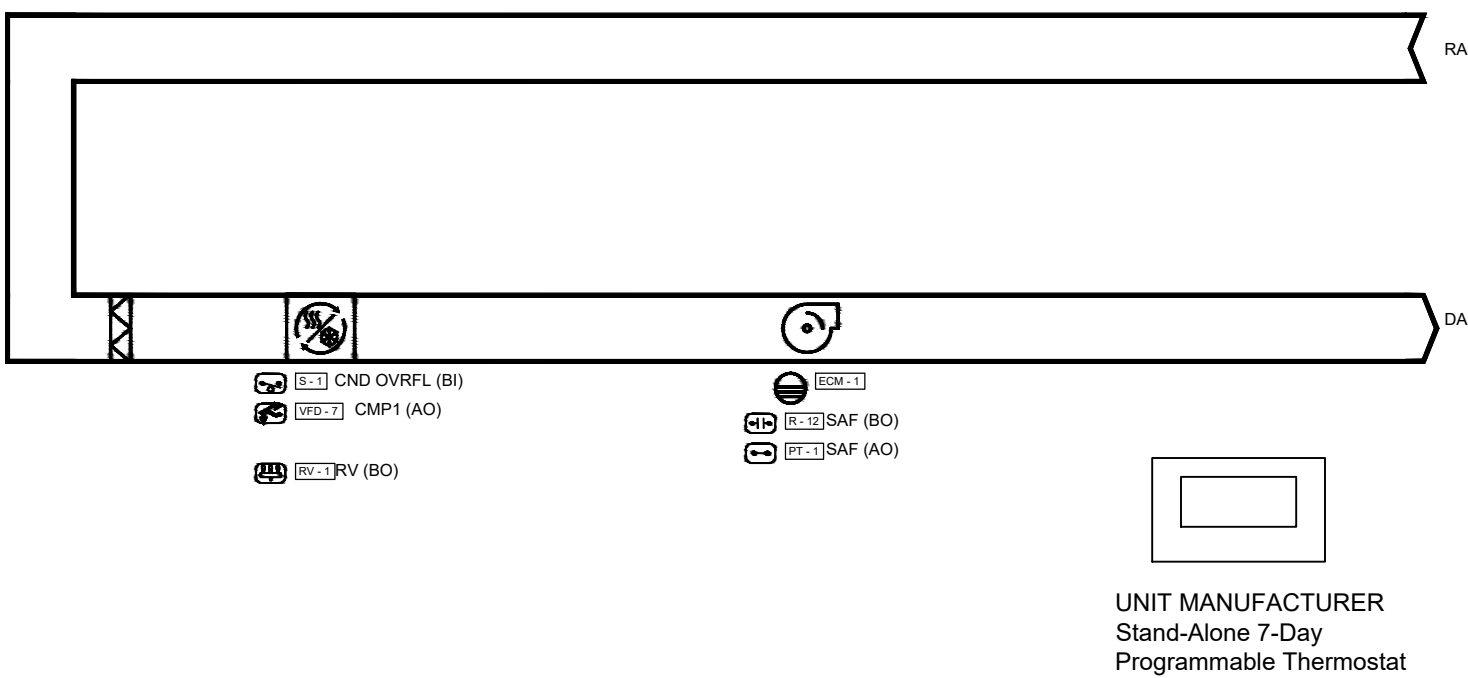
WHEN THE UNIT BECOMES OCCUPIED, THE OUTDOOR AIR DAMPER SHALL OPEN. WHEN THE OUTDOOR AIR DAMPER IS COMPLETELY OPEN THE DAMPER END SWITCH SHALL CLOSE INDICATING THE DAMPER IS FULLY OPEN AND THE SUPPLY FAN SEQUENCE CAN BEGIN. WHEN THE FAN START SEQUENCE HAS BEGUN, THE UNIT CONTROLLER SHALL COMMAND THE VARIABLE SPEED DRIVE FOR THE SUPPLY FAN TO SETPOINT. A SUPPLY FAN STATUS SWITCH SHALL PROVE FAN STATUS. IF AFTER 2 MINUTES (ADJ.) THE FAN DOES NOT HAVE A PROVEN SIGNAL, THE SUPPLY FAN FAILURE ALARM SHALL BE DISPLAYED AND THE UNIT SHALL SHUTDOWN REQUIRING A MANUAL RESET.

REFRIGERANT MITIGATION MODE:

THE UNIT CONTROLLER SHALL MONITOR THE LEAK DETECTION SYSTEM EVERY 5 SECONDS, WHEN A LEAK IS DETECTED, MITIGATION SHALL BE ACTIVATED.

IN OCCUPIED MODE, THE SUPPLY FAN SHALL REMAIN OPERATIONAL, AND THE COMPRESSOR(S), ELECTRIC HEATING, FUEL-FIRED HEATING, ELECTROSTATIC DEVICES, AND ANY OTHER IGNITION DEVICE STARTERS SHALL BE DISABLED, AND ACTIVATE MECHANICAL VENTILATION (IF IT'S REQUIRED BY SECTION 7.6.4 OF THE ASHRAE STANDARD). FOR THE DURATION OF THE MITIGATION PROCESS PLUS AN ADDITIONAL 5 MINUTES.

IN UNOCCUPIED MODE, THE SUPPLY FAN SHALL REMAIN OPERATIONAL, AND THE COMPRESSOR(S), ELECTRIC HEATING, FUEL-FIRED HEATING, ELECTROSTATIC DEVICES, AND ANY OTHER IGNITION DEVICE STARTERS SHALL BE DISABLED, AND ACTIVATE MECHANICAL VENTILATION (IF IT'S REQUIRED BY SECTION 7.6.4 OF THE ASHRAE STANDARD). FOR THE DURATION OF THE MITIGATION PROCESS PLUS AN ADDITIONAL 5 MINUTES.



SEQUENCE OF OPERATION: DUCTLESS HEAT PUMP (IMS/OMS-1 THRU IMS/OMS-14)

SYSTEM GENERAL DESCRIPTION:

EACH HEAT PUMP UNIT IS A SINGLE-ZONE, MULTI SPEED FAN, AND A WIRED STAND-ALONE 7-DAY PROGRAMMABLE TOUCH-SCREEN THERMOSTAT BY UNIT MANUFACTURER ONLY.

OCCUPIED:

DURING OCCUPIED PERIODS, THE SUPPLY FAN SHALL CYCLE ON A CALL FOR COOLING OR HEATING. UPON A CALL FOR DX HEATING OR COOLING, THE UNIT CONTROLLER SHALL ENABLE THE VARIABLE SPEED COMPRESSOR. THE COMPRESSOR SHALL START AT ITS MINIMUM SPEED AND THEN ADJUST THE SPEED TO MAINTAIN THE ACTIVE SPACE TEMPERATURE SETPOINT.

HEAT/COOL MODE:

COOLING: THE UNIT CONTROLLER SHALL USE THE DISCHARGE AIR TEMPERATURE SENSOR AND DISCHARGE AIR TEMPERATURE COOLING SETPOINT TO DETERMINE WHEN TO INITIATE REQUESTS FOR COOLING. DISCHARGE AIR SETPOINT SHALL BE MAINTAINED BY CONTROLLING THE COOLING AS REQUIRED.

SUPPLY FAN:

THE SUPPLY FAN SHALL CYCLE WHILE IN THE OCCUPIED MODE AND UNOCCUPIED MODE.

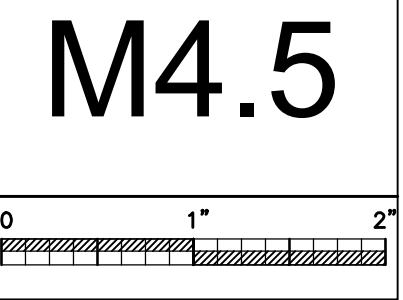
CONDENSATE OVERFLOW SHUTDOWN:

THE UNIT SHALL SHUT DOWN IN RESPONSE TO A SIGNAL FROM THE CONDENSATE OVERFLOW SENSOR. THE SENSOR SHALL BE INTERLOCKED TO THE UNIT COOLING CONTROLLER FOR IMMEDIATE SHUTDOWN OF COOLING.



PROJ. MGR.: HD
DRAWN: JKN
DATE: 10.9.26
REVISIONS

JOB NO.
25-249
SHEET NO:



FOR QUESTIONS, CALL THE
Southern GA Mechanical
REGION 163
PHONE:
EMAIL: reg163@captivesire.com

HOOD INFORMATION - JOB#8813739

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)							TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG	
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP			END TO END	ROW
1	KH-1A (LOWER)	6630 ND-2-PSP-F	CAPTIVEAIRE	9' 9"	600 DEG	I	HEAVY	236	2300			4'	16"	2300	1647	-0.824"	550	304 SS 100%	LEFT	ALONE
2	KH-1B (LOWER)	6630 ND-2-PSP-F	CAPTIVEAIRE	9' 9"	600 DEG	I	HEAVY	236	2300			4'	16"	2300	1647	-0.824"	550	304 SS 100%	RIGHT	ALONE
3	KH-2A (UPPER ISLAND)	6030 ND-2-PSP-F	CAPTIVEAIRE	10' 0"	600 DEG	I	HEAVY	235	2350			4'	16"	2350	1683	-0.804"	1250	304 SS 100%	LEFT	FRONT
4	KH-2B (UPPER ISLAND)	6030 ND-2-PSP-F	CAPTIVEAIRE	10' 0"	600 DEG	I	HEAVY	235	2350			4'	16"	2350	1683	-0.804"	1250	304 SS 100%	RIGHT	FRONT
5	KH-2C (UPPER ISLAND)	6030 ND-2-PSP-F	CAPTIVEAIRE	10' 0"	600 DEG	I	HEAVY	235	2350			4'	16"	2350	1683	-0.804"	1250	304 SS 100%	RIGHT	BACK
6	KH-2D (UPPER ISLAND)	6030 ND-2-PSP-F	CAPTIVEAIRE	10' 0"	600 DEG	I	HEAVY	235	2350			4'	16"	2350	1683	-0.804"	1250	304 SS 100%	LEFT	BACK
7	KH-3A (UPPER WALL)	6630 ND-2-PSP-F	CAPTIVEAIRE	9' 7.5"	600 DEG	I	HEAVY	234	2250			4'	16"	2250	1611	-0.788"	1150	304 SS 100%	LEFT	ALONE
8	KH-3B (UPPER WALL)	6630 ND-2-PSP-F	CAPTIVEAIRE	9' 7.5"	600 DEG	I	HEAVY	234	2250			4'	16"	2250	1611	-0.788"	1150	304 SS 100%	MIDDLE	ALONE
9	KH-3C (UPPER WALL)	6630 ND-2-PSP-F	CAPTIVEAIRE	9' 7.5"	600 DEG	I	HEAVY	234	2250			4'	16"	2250	1611	-0.788"	1150	304 SS 100%	MIDDLE	ALONE
10	KH-3D (UPPER WALL)	6630 ND-2-PSP-F	CAPTIVEAIRE	9' 7.5"	600 DEG	I	HEAVY	234	2250			4'	16"	2250	1611	-0.788"	1150	304 SS 100%	RIGHT	ALONE

HOOD INFORMATION

HOOD NO	TAG	TYPE	FILTER(S)				LIGHT(S)			WIRE GUARD	LOCATION	SIZE	UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
			QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	FIRE SYSTEM				ELECTRICAL	SWITCHES				
									TYPE						SIZE	MODEL #		
1	KH-1A (LOWER)	CAPRATE SOLD FILTER	7	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	ND	LEFT	12"x66"x30"	TANK FS	4.0/4.0/4.0	DCV-2211	1 LIGHT 1 FAN	YES	1298 LBS	
2	KH-1B (LOWER)	CAPRATE SOLD FILTER	7	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	ND							YES	793 LBS	
3	KH-2A (UPPER ISLAND)	CAPRATE SOLD FILTER	7	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	ND	LEFT	12"x60"x30"	TANK FS	4.0/4.0/4.0	DCV-4211	1 LIGHT 1 FAN	YES	1281 LBS	
4	KH-2B (UPPER ISLAND)	CAPRATE SOLD FILTER	7	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	ND							YES	826 LBS	
5	KH-2C (UPPER ISLAND)	CAPRATE SOLD FILTER	7	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	ND	RIGHT	12"x60"x30"	TANK FS	4.0/4.0/4.0			YES	1230 LBS	
6	KH-2D (UPPER ISLAND)	CAPRATE SOLD FILTER	7	20"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	ND							YES	826 LBS	
7	KH-3A (UPPER WALL)	CAPRATE SOLD FILTER	7	20"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	ND	LEFT	12"x66"x30"	TANK FS	4.0/4.0/4.0	DCV-4211	1 LIGHT 1 FAN	YES	1299 LBS	
8	KH-3B (UPPER WALL)	CAPRATE SOLD FILTER	7	20"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	ND							YES	787 LBS	
9	KH-3C (UPPER WALL)	CAPRATE SOLD FILTER	7	20"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	ND							YES	787 LBS	
10	KH-3D (UPPER WALL)	CAPRATE SOLD FILTER	7	20"	16"	85% SEE FILTER SPEC	3	RECESSED ROUND	ND	RIGHT	12"x66"x30"	TANK FS	4.0/4.0/4.0			YES	1248 LBS	

PERFORATED SUPPLY PLENUM(S)

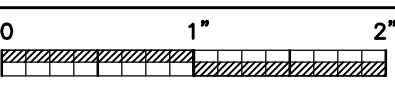
HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG	DIA	CFM	SP
1	KH-1A (LOWER)	Front	129"	9"	6"	MUA	6"	28"		275	0.054"
						MUA	6"	28"		275	0.054"
2	KH-1B (LOWER)	Front	118"	9"	6"	MUA	6"	28"		275	0.054"
						MUA	6"	28"		275	0.054"
3	KH-2A (UPPER ISLAND)	Front	132"	12"	6"	MUA	8"	36"		622	0.140"
						MUA	8"	36"		622	0.140"
4	KH-2B (UPPER ISLAND)	Front	120"	12"	6"	MUA	8"	36"		622	0.149"
						MUA	8"	36"		622	0.149"
5	KH-2C (UPPER ISLAND)	Front	132"	12"	6"	MUA	8"	36"		623	0.141"
						MUA	8"	36"		623	0.141"
6	KH-2D (UPPER ISLAND)	Front	120"	12"	6"	MUA	8"	36"		623	0.149"
						MUA	8"	36"		623	0.149"
7	KH-3A (UPPER WALL)	Front	127.5"	9"	6"	MUA	6"	28"		383	0.120"
						MUA	6"	28"		383	0.120"
						MUA	6"	28"		383	0.120"
						MUA	6"	28"		383	0.120"
8	KH-3B (UPPER WALL)	Front	115.5"	9"	6"	MUA	6"	28"		383	0.120"
						MUA	6"	28"		383	0.120"
						MUA	6"	28"		383	0.120"
						MUA	6"	28"		383	0.120"
9	KH-3C (UPPER WALL)	Front	115.5"	9"	6"	MUA	6"	28"		383	0.120"
						MUA	6"	28"		383	0.120"
						MUA	6"	28"		383	0.120"
						MUA	6"	28"		383	0.120"
10	KH-3D (UPPER WALL)	Front	127.5"	9"	6"	MUA	6"	28"		383	0.120"
						MUA	6"	28"		383	0.120"



PROJ. MGR.: HD
DRAWN: JKN
DATE: 10.9.26
REVISIONS

JOB NO.
25-249
SHEET NO:

M4.6



HOOD OPTIONS

HOOD NO	TAG	OPTION
1	KH-1A (LOWER)	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 128.00" HIGH X 265.00" LONG 304 SS VERTICAL.
		INSULATION FOR TOP OF HOOD.
		LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 304 SS.
		FINISHED BACK STANDOFF 3" WIDE 129" LONG INSULATED.
2	KH-1B (LOWER)	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		RIGHT SIDESPLASH 80.00" HIGH X 69.00" LONG 304 SS VERTICAL.
		RIGHT END STANDOFF (FINISHED) 1" WIDE 66" LONG INSULATED.
		BACKSPLASH - INSIDE CORNER 80.00" HIGH X 2.00" LEG LENGTH 304 SS VERTICAL.
		INSULATION FOR TOP OF HOOD.
3	KH-2A (UPPER ISLAND)	RIGHT WALL AS END PANEL.
		FINISHED BACK STANDOFF 3" WIDE 118" LONG INSULATED.
		FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		INSULATION FOR TOP OF HOOD.
		LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 304 SS.
4	KH-2B (UPPER ISLAND)	FINISHED BACK STANDOFF 3" WIDE 132" LONG INSULATED.
		FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		INSULATION FOR TOP OF HOOD.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 304 SS.
		FINISHED BACK STANDOFF 3" WIDE 120" LONG INSULATED.
5	KH-2C (UPPER ISLAND)	FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		INSULATION FOR TOP OF HOOD.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 304 SS.
		FINISHED BACK STANDOFF 3" WIDE 132" LONG INSULATED.
		FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
6	KH-2D (UPPER ISLAND)	INSULATION FOR TOP OF HOOD.
		LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 304 SS.
		FINISHED BACK STANDOFF 3" WIDE 120" LONG INSULATED.
		FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00" HIGH X 486.00" LONG 304 SS VERTICAL.
7	KH-3A (UPPER WALL)	INSULATION FOR TOP OF HOOD.
		LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 304 SS.
		FINISHED BACK STANDOFF 3" WIDE 127.5" LONG INSULATED.
		FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00" HIGH X 115.50" LONG 304 SS VERTICAL.
8	KH-3B (UPPER WALL)	INSULATION FOR TOP OF HOOD.
		FINISHED BACK STANDOFF 3" WIDE 115.5" LONG INSULATED.
		FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00" HIGH X 115.50" LONG 304 SS VERTICAL.
		INSULATION FOR TOP OF HOOD.
9	KH-3C (UPPER WALL)	FINISHED BACK STANDOFF 3" WIDE 115.5" LONG INSULATED.
		FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00" HIGH X 115.50" LONG 304 SS VERTICAL.
		INSULATION FOR TOP OF HOOD.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 304 SS.
10	KH-3D (UPPER WALL)	FINISHED BACK STANDOFF 3" WIDE 127.5" LONG INSULATED.
		FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00" HIGH X 115.50" LONG 304 SS VERTICAL.
		INSULATION FOR TOP OF HOOD.
		RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 304 SS.

CLEARANCE TO COMBUSTIBLES

HOODS #	SURFACE	*CLEARANCE
1,3,7	TOP	0"
	FRONT	0"
	BACK	0"
	LEFT	0"
	RIGHT	18"
2,5,10	TOP	0"
	FRONT	0"
	BACK	0"
	LEFT	18"
	RIGHT	0"
4,6,8,9	TOP	0"
	FRONT	0"
	BACK	0"
	LEFT	18"
	RIGHT	18"

- *0" CLEARANCE TO COMBUSTIBLES CONFORMS TO UL710 STANDARD.
- HOOD MOUNTED UTILITY CABINETS REQUIRE 36" SERVICE CLEARANCE.

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLID FILTER

THE CAPTRATE GREASE-STOP SOLID FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-Baffle DESIGN IN CONJUNCTION WITH A SLOTTED REAR Baffle DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

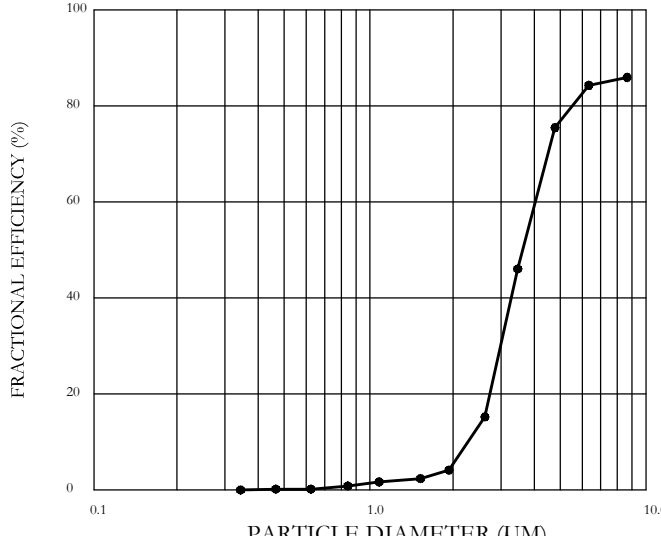
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

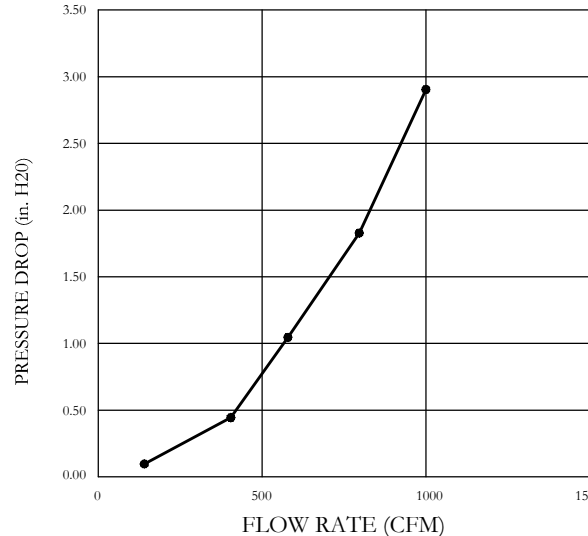
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 10 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLID WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

EFFICIENCY VS. PARTICLE DIAMETER



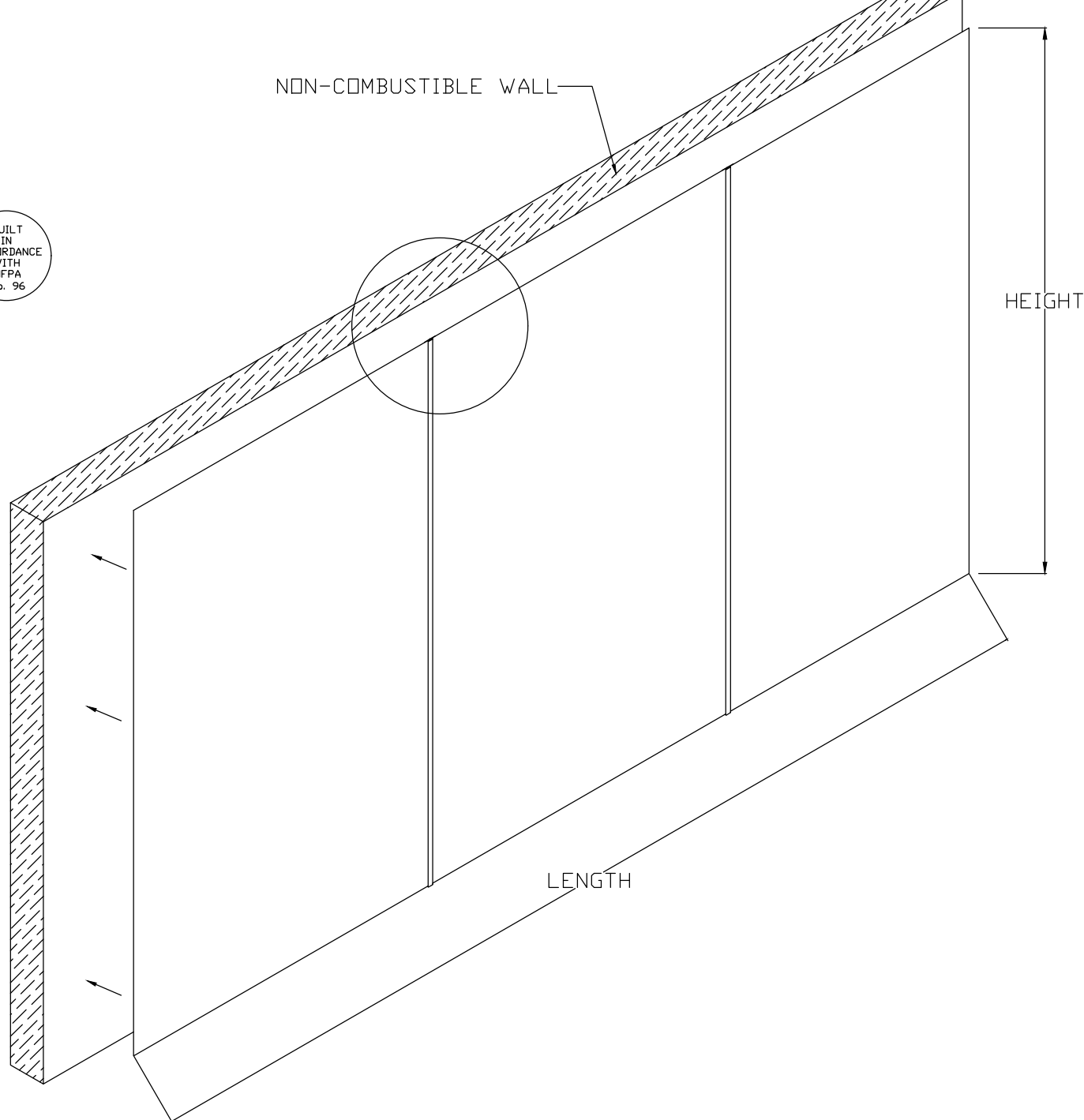
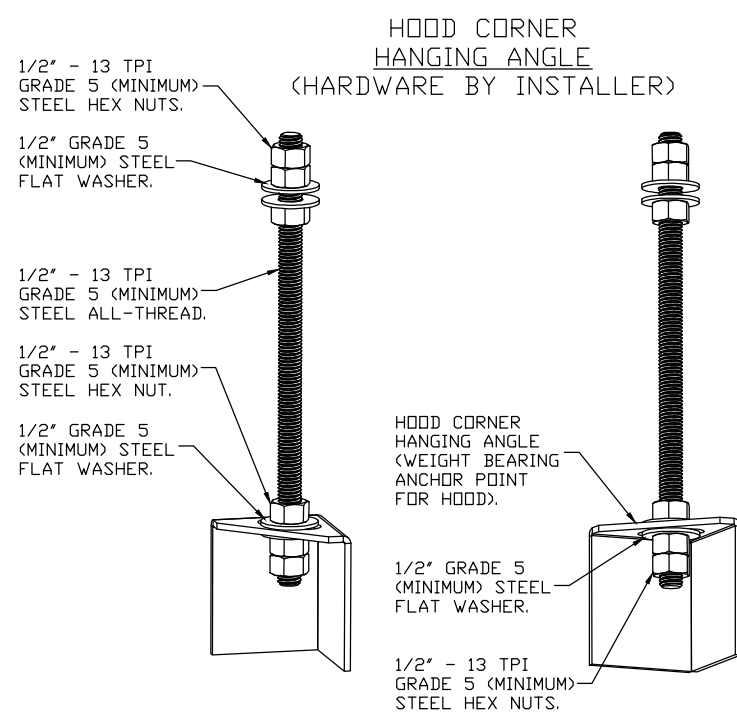
PRESSURE DROP VS. FLOW RATE



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96,
NSF STANDARD #2,
UL STANDARD #1046,
INT. MECH. CODE (IMC),
ULC-S649.

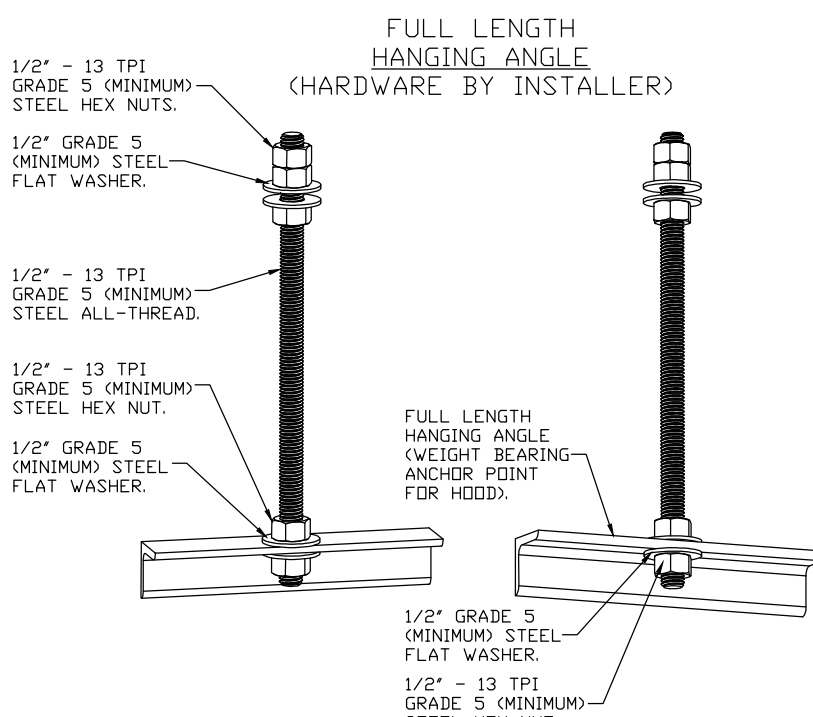


BACKSPLASH



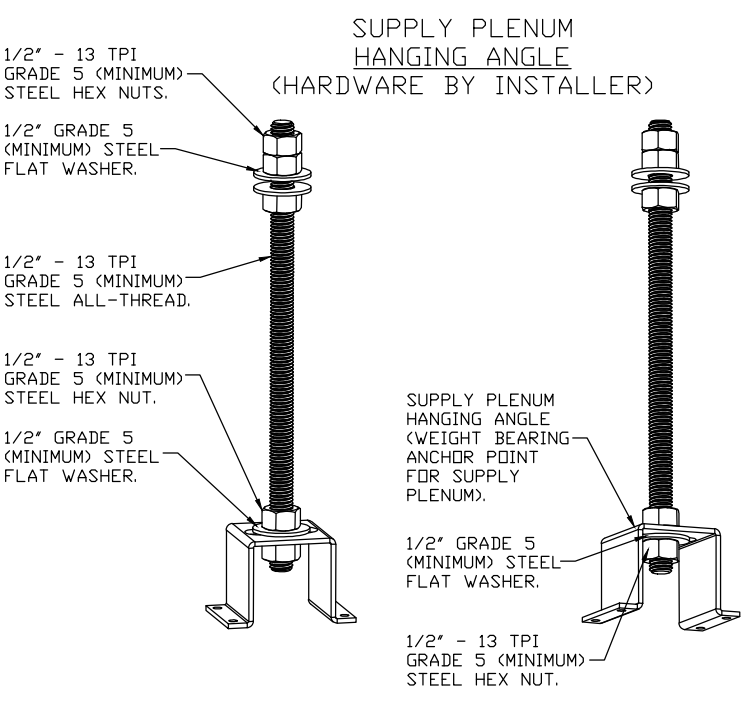
ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



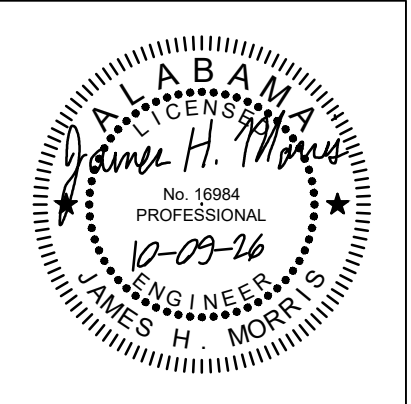
ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR FULL LENGTH HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



ASSEMBLY INSTRUCTIONS

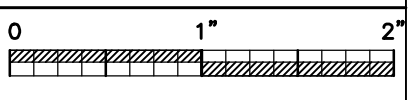
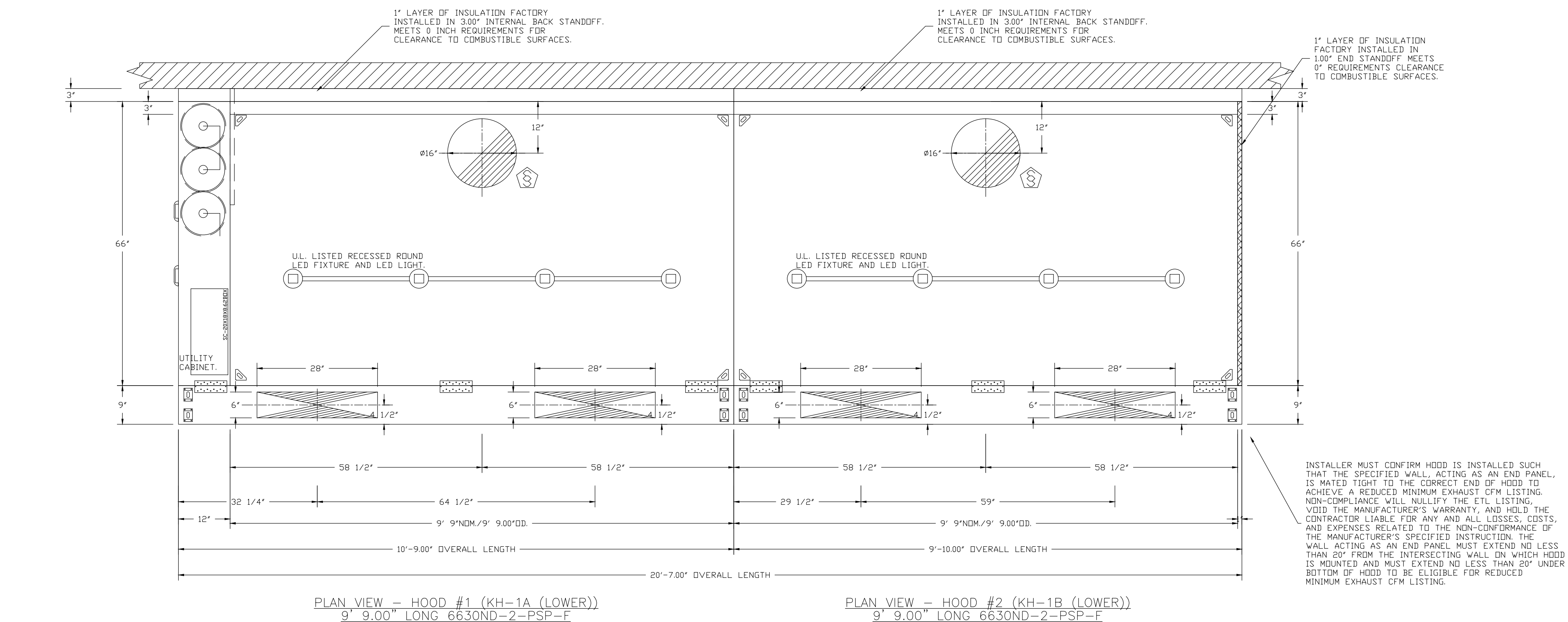
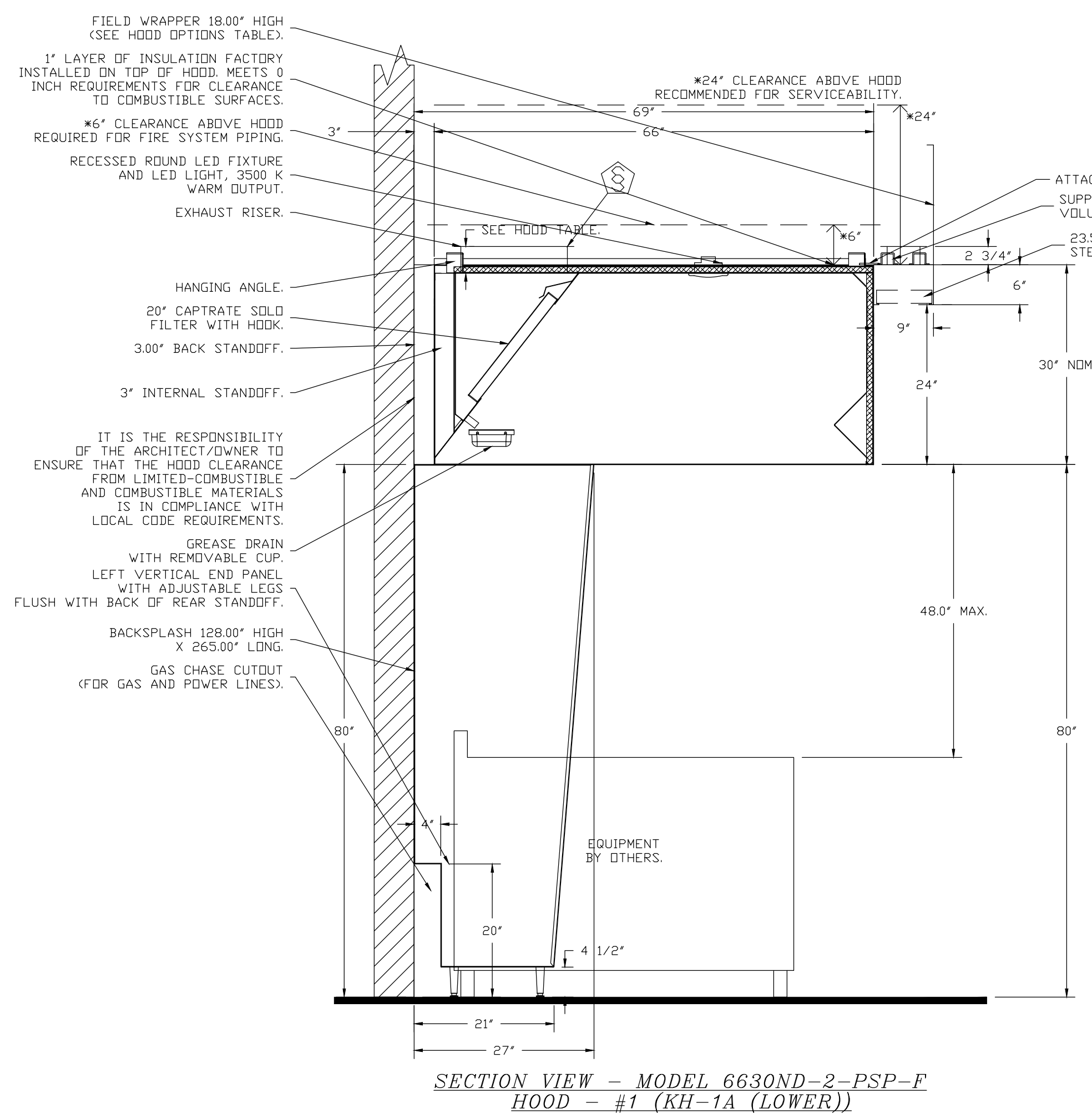
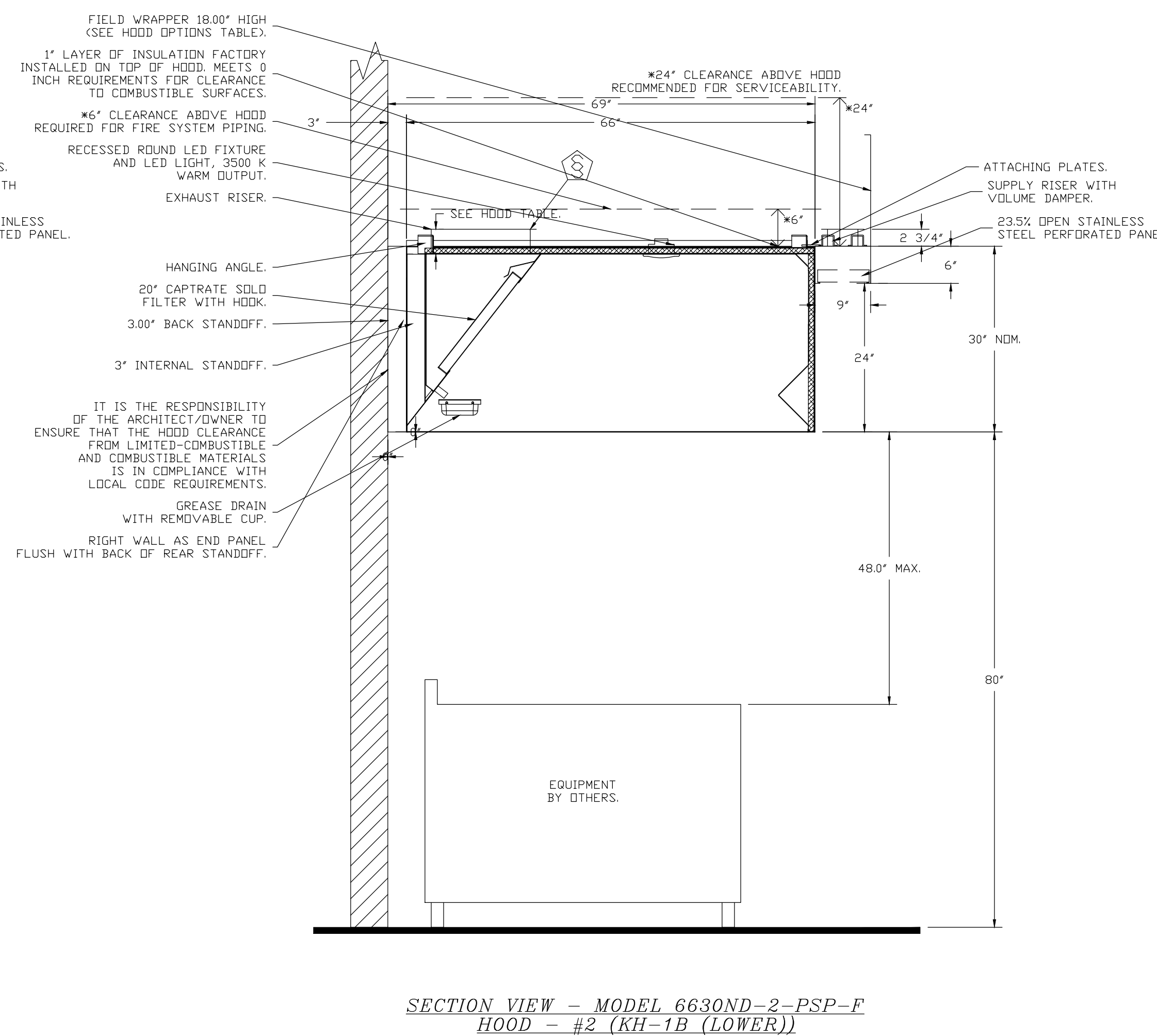
HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD, SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

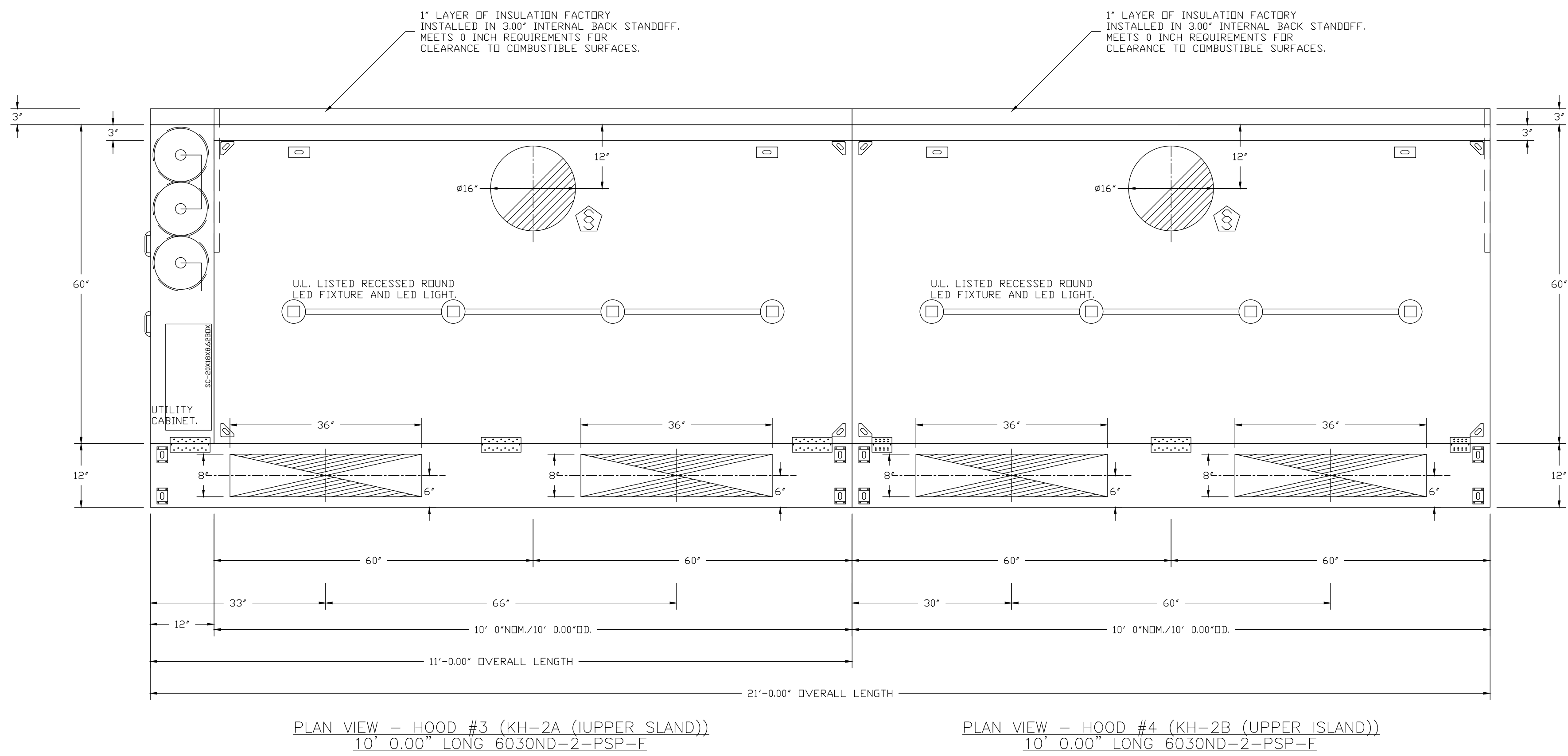
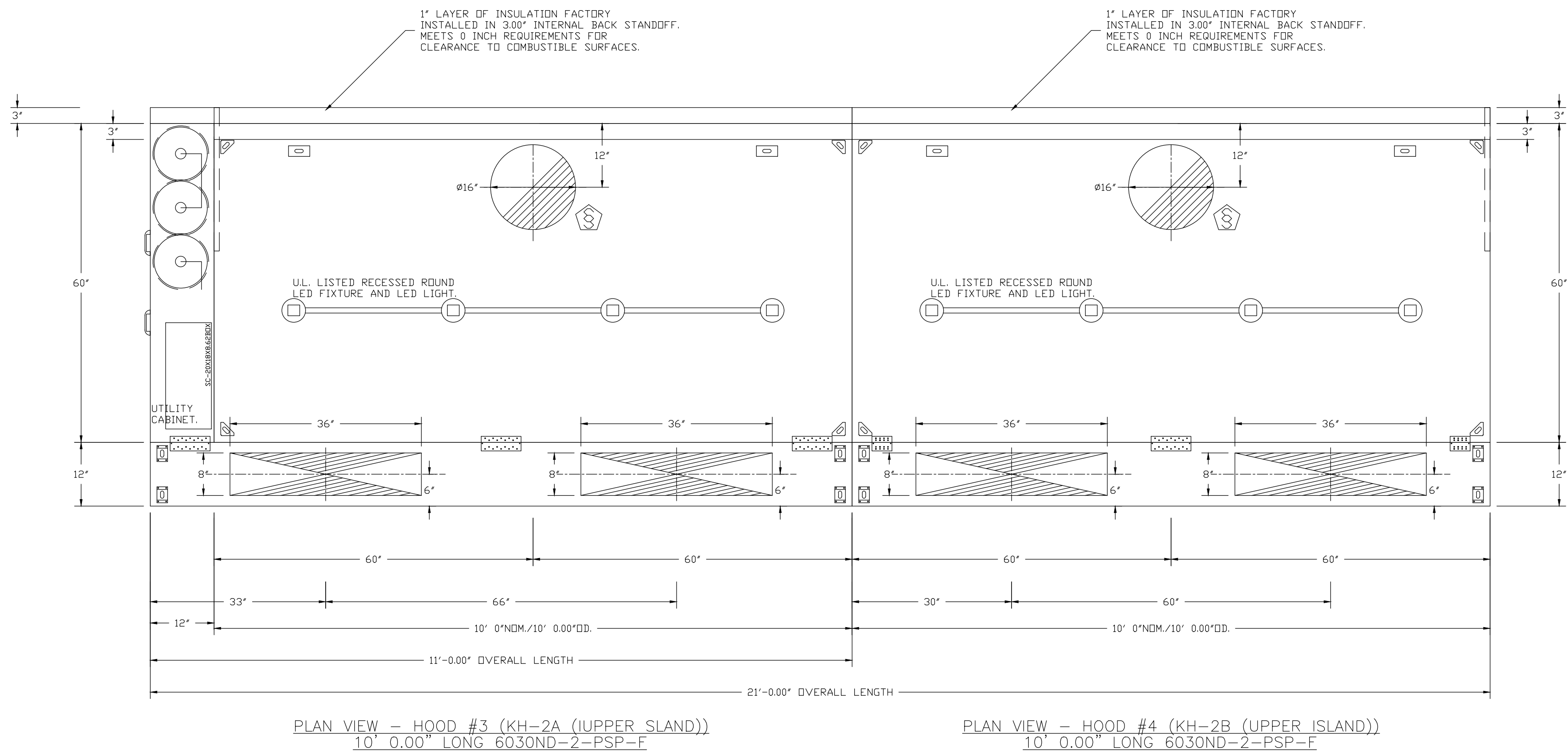


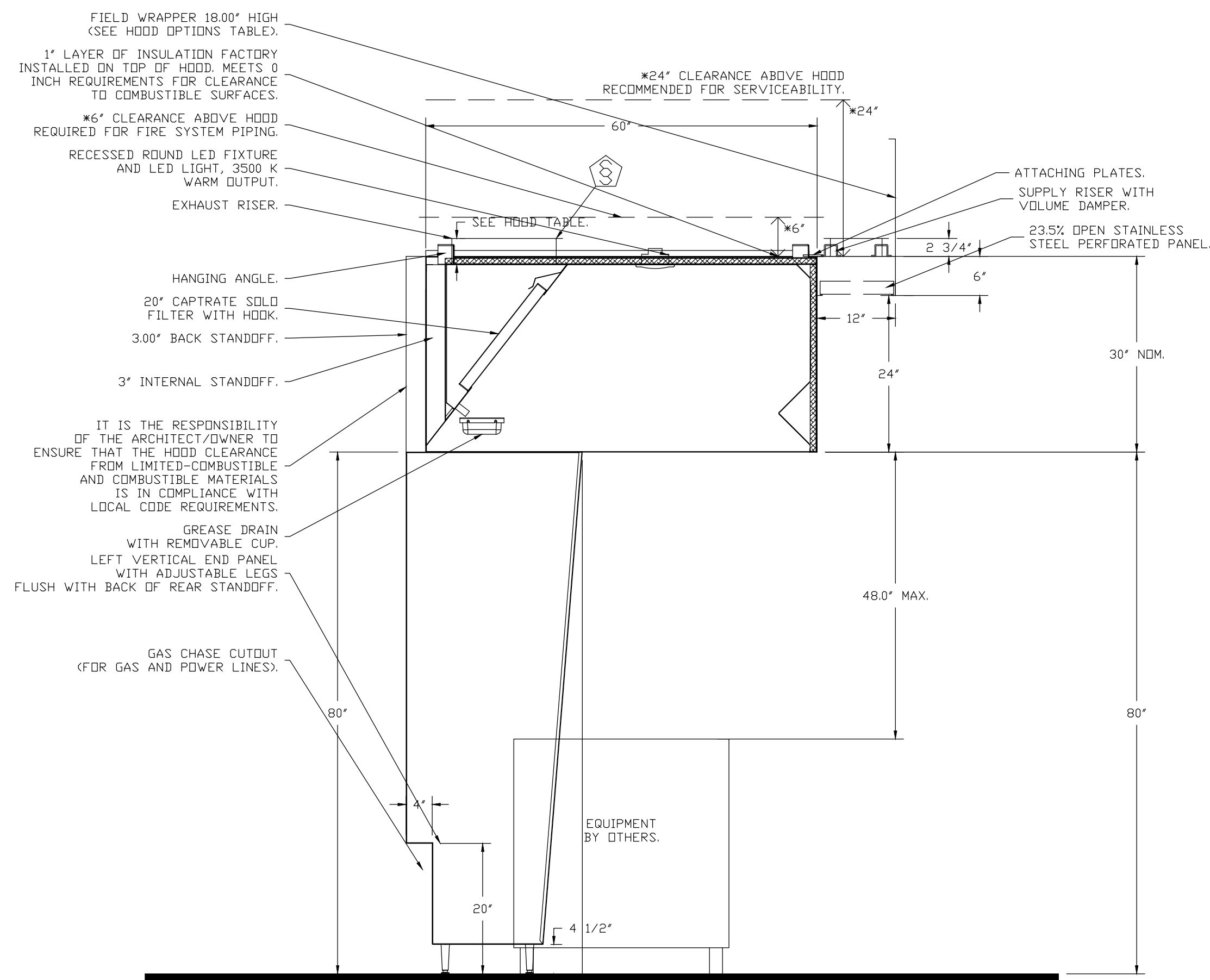
PROJ. MGR.:	HD
DRAWN:	JKN
DATE:	10.9.26
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JOB NO.	25-249
SHEET NO:	

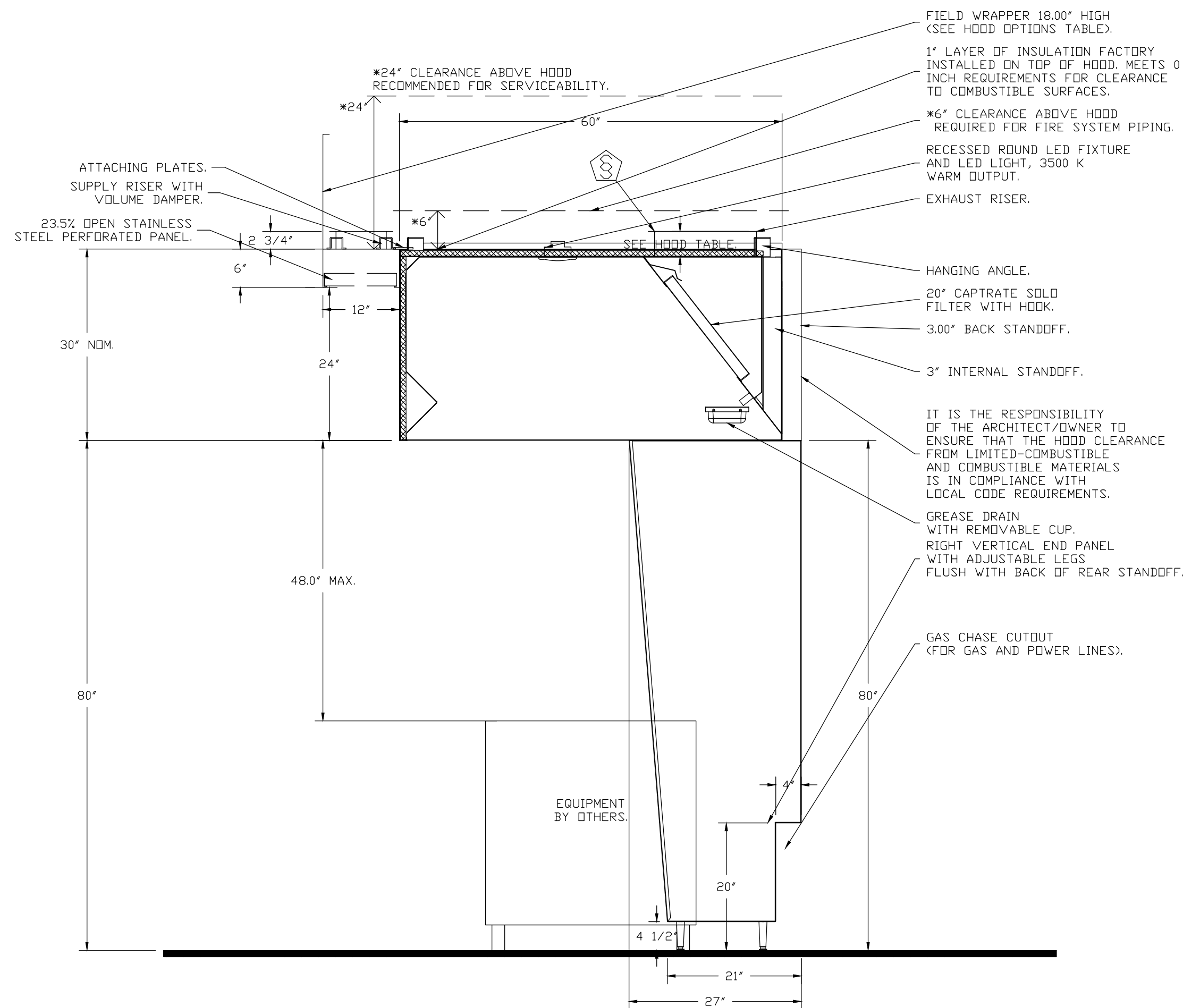
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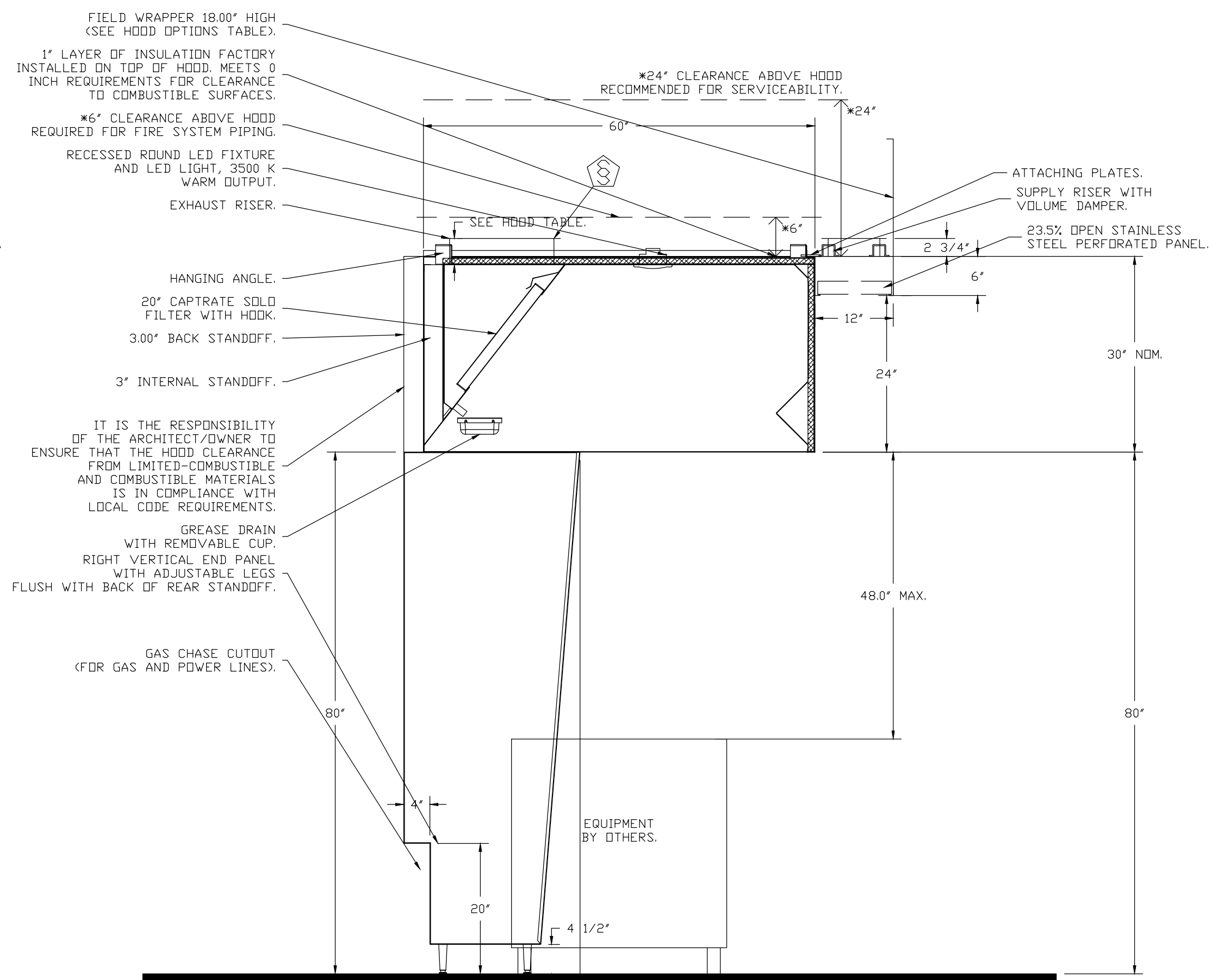




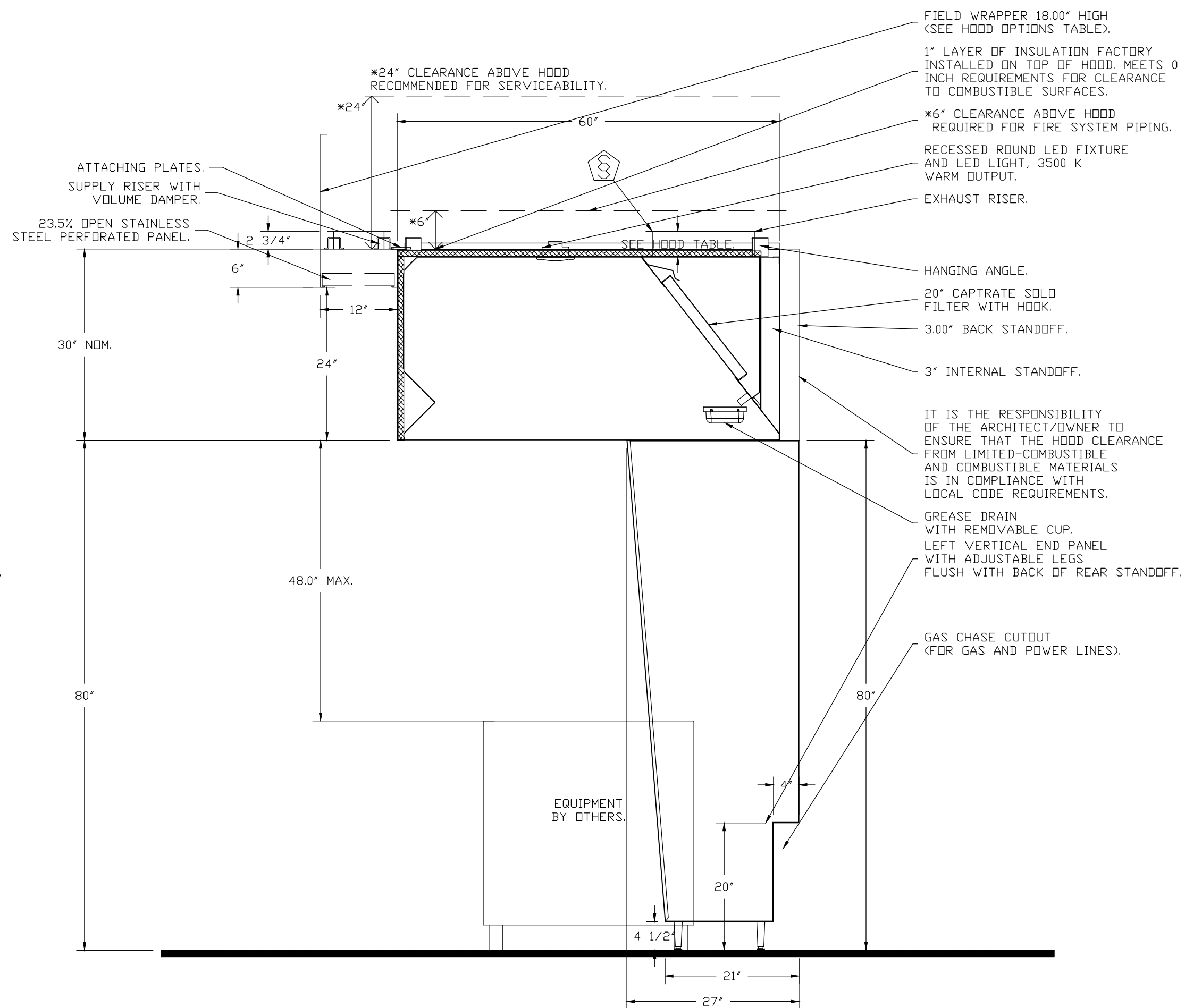
SECTION VIEW - MODEL 6030ND-2-PSP-F
HOOD - #3 (KH-2A (UPPER ISLAND))



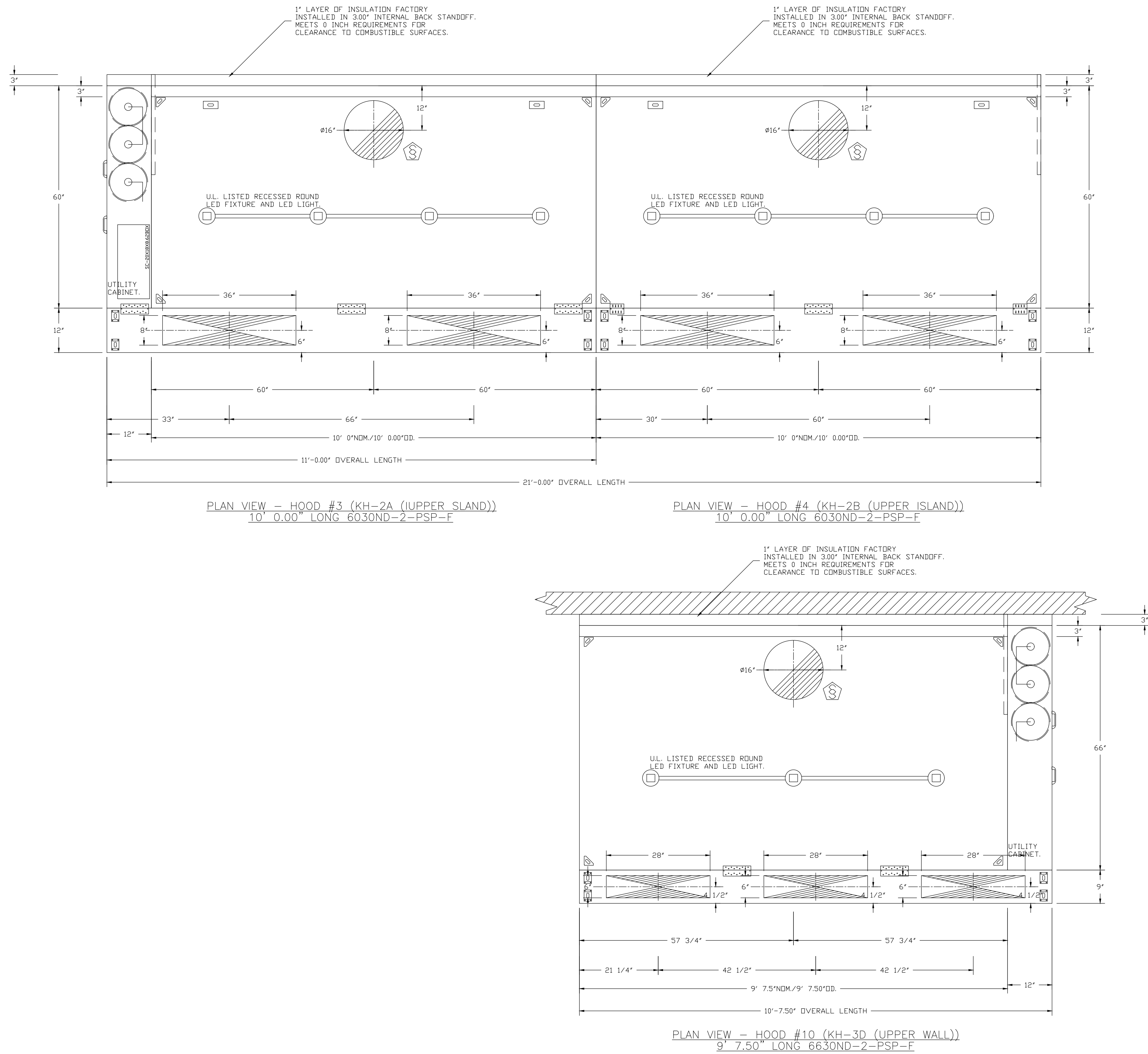
SECTION VIEW - MODEL 6030ND-2-PSP-F
HOOD - #5 (KH-2C (UPPER ISLAND))

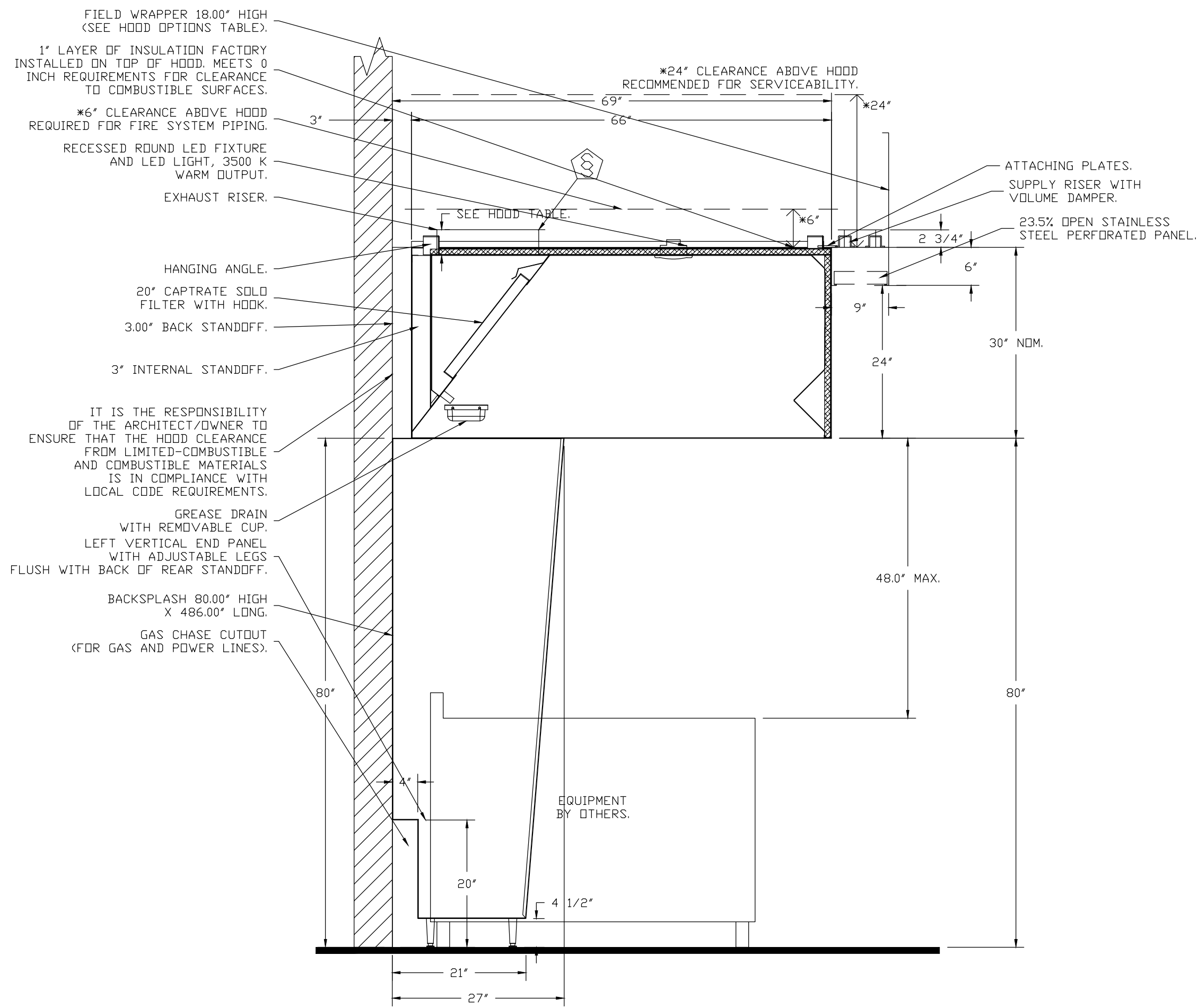


SECTION VIEW - MODEL 6030ND-2-PSP-F
HOOD - #4 (KH-2B (UPPER ISLAND))

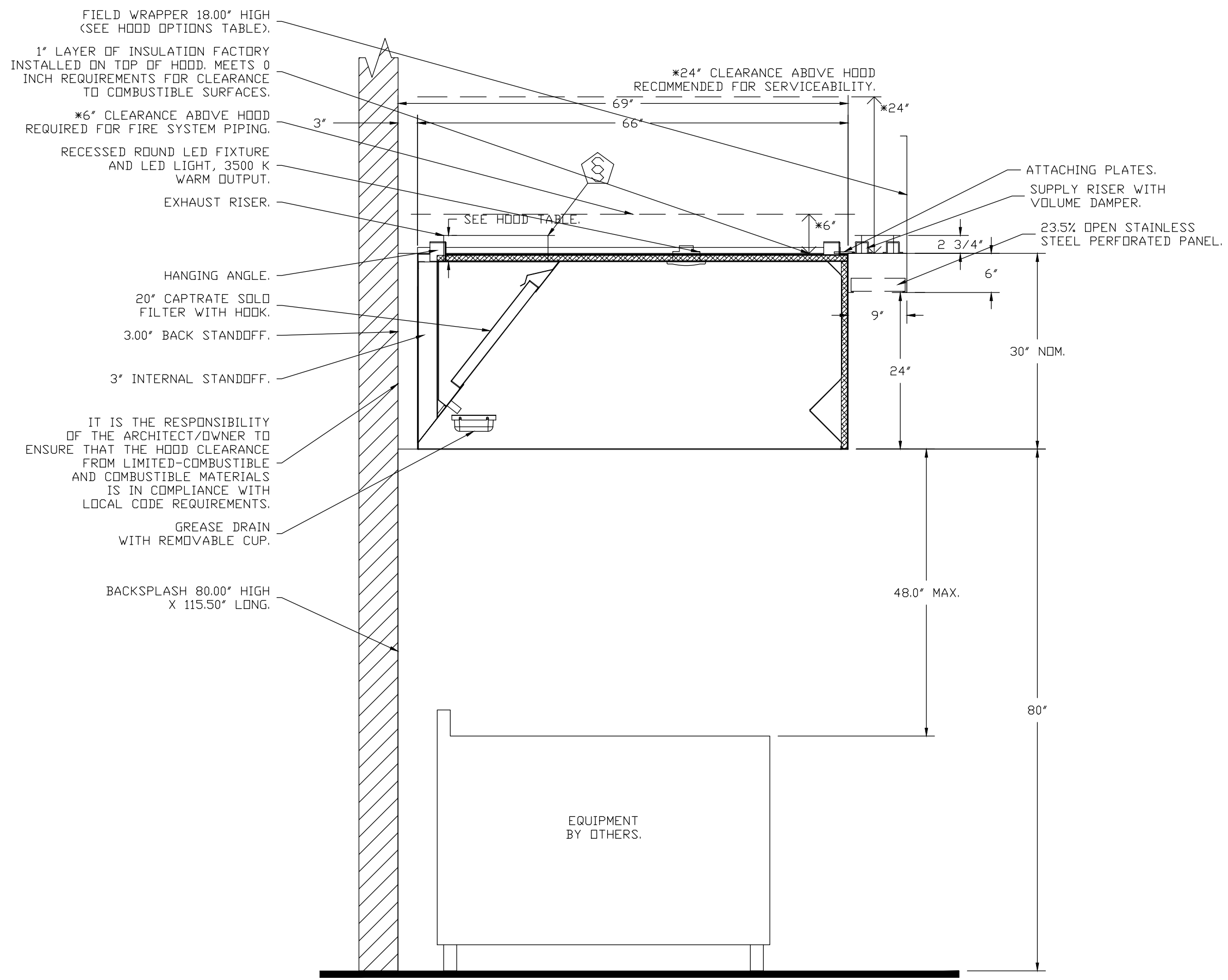


SECTION VIEW - MODEL 6030ND-2-PSP-F
HOOD - #6 (KH-2D (UPPER ISLAND))

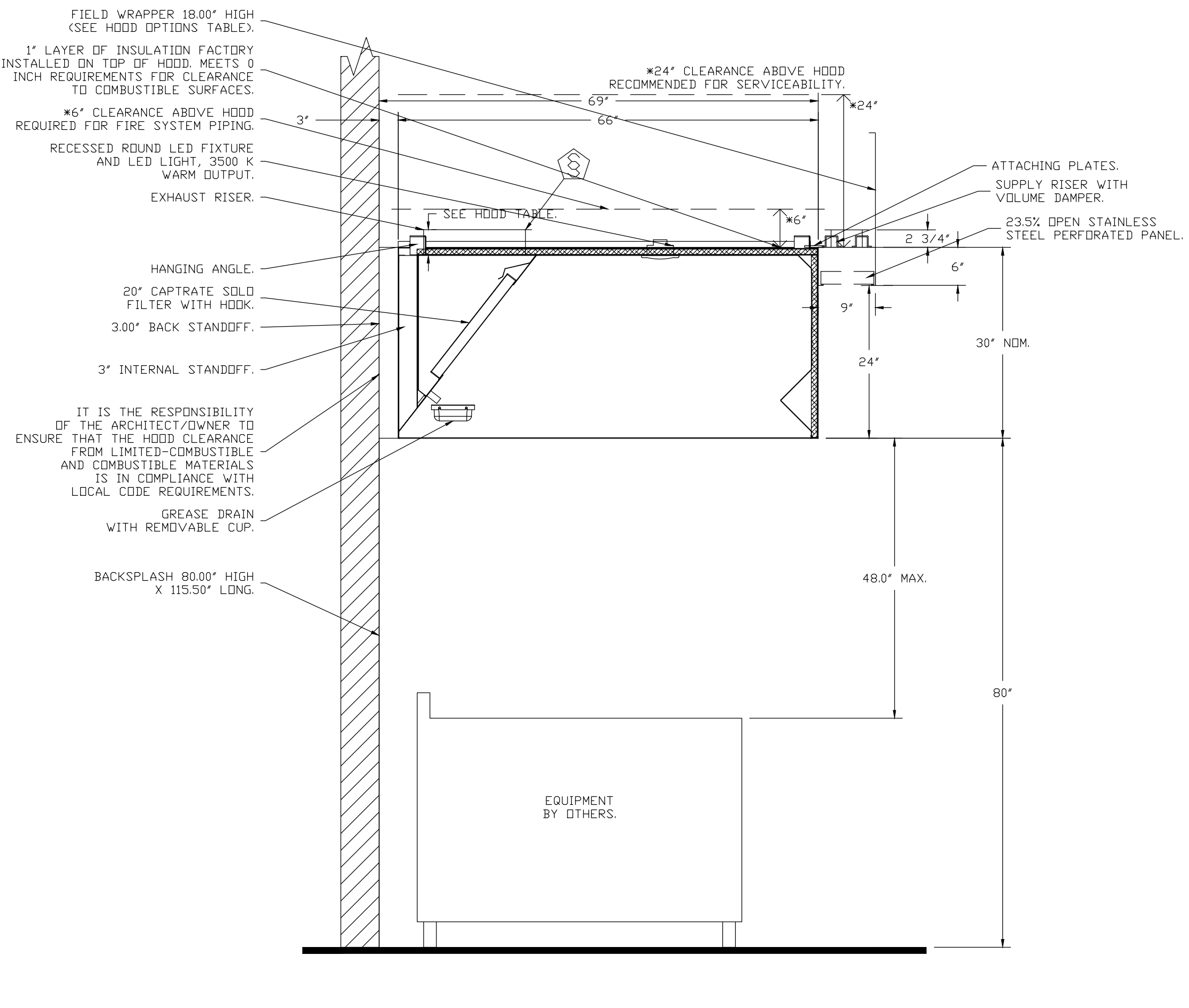




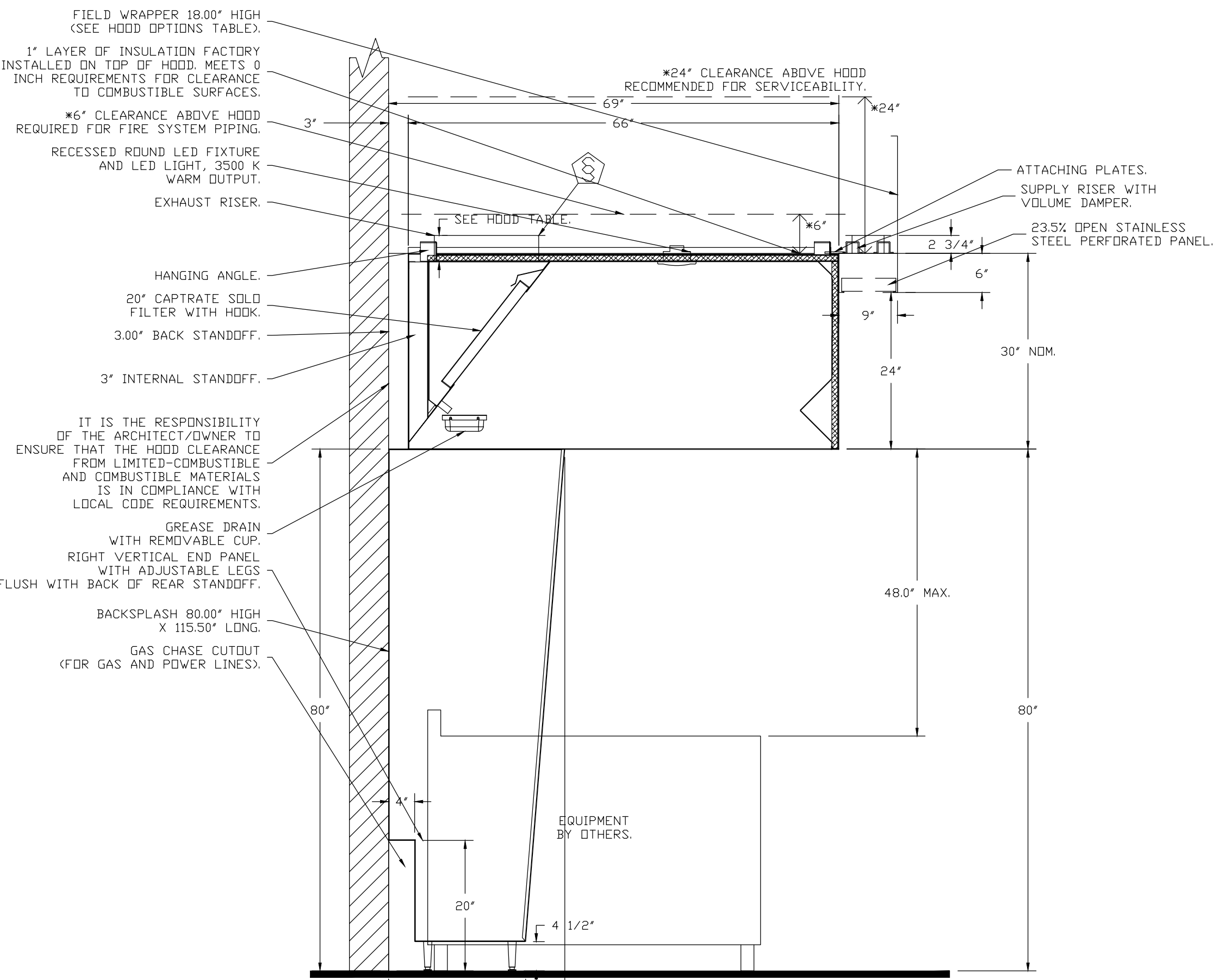
SECTION VIEW - MODEL 6630ND-2-PSP-F
HOOD - #7 (KH-3A (UPPER WALL))



SECTION VIEW - MODEL 6630ND-2-PSP-F
HOOD - #9 (KH-3C (UPPER WALL))



SECTION VIEW - MODEL 6630ND-2-PSP-F
HOOD - #8 (KH-3B (UPPER WALL))



SECTION VIEW - MODEL 6630ND-2-PSP-F
HOOD - #10 (KH-3D (UPPER WALL))

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SDNES
1	KEF-1A	1	DU8BHFA	CAPTIVEAIRE	2200	1000	1030	TEAD-ECM	2.000	0.7630	3	208	15.0	508 FPM	159	10.5
2	KEF-1B	1	DU8BHFA	CAPTIVEAIRE	2200	1000	1030	TEAD-ECM	2.000	0.7630	3	208	15.0	508 FPM	159	10.5
5	KEF-2A	1	DU8BHFA	CAPTIVEAIRE	2350	1000	1054	TEAD-ECM	2.000	0.8220	3	208	15.0	543 FPM	145	11
6	KEF-2B	1	DU8BHFA	CAPTIVEAIRE	2350	1000	1054	TEAD-ECM	2.000	0.8220	3	208	15.0	543 FPM	145	11
7	KEF-2C	1	DU8BHFA	CAPTIVEAIRE	2350	1000	1054	TEAD-ECM	2.000	0.8220	3	208	15.0	543 FPM	145	11
8	KEF-2D	1	DU8BHFA	CAPTIVEAIRE	2350	1000	1054	TEAD-ECM	2.000	0.8220	3	208	15.0	543 FPM	145	11
11	KEF-3A	1	DU8BHFA	CAPTIVEAIRE	2250	1000	1038	TEAD-ECM	2.000	0.7810	3	208	15.0	520 FPM	145	10.7
12	KEF-3B	1	DU8BHFA	CAPTIVEAIRE	2250	1000	1038	TEAD-ECM	2.000	0.7810	3	208	15.0	520 FPM	145	10.7
13	KEF-3C	1	DU8BHFA	CAPTIVEAIRE	2250	1000	1038	TEAD-ECM	2.000	0.7810	3	208	15.0	520 FPM	145	10.7
14	KEF-3D	1	DU8BHFA	CAPTIVEAIRE	2250	1000	1038	TEAD-ECM	2.000	0.7810	3	208	15.0	520 FPM	145	10.7
17	DEF-1	1	DU50HFA	CAPTIVEAIRE	1000	0.500	1302	TEAD-ECM	0.500	0.2990	1	208	3.8	380 FPM	76	11

FAN UNIT NO	TAG	FAN UNIT	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MCCP	WEIGHT (LBS)	SIDES
4	SF-1	1	INLINE-18Z	18Z-1-MOD	INLINE.1	-	1100	0.500	1113	ODP-ECM	1.675	0.2790	1	208	9.6	12A	20A	246	4.7

FAN UNIT		TAG	QTY	DDAS/RTU/MODEL	FAN INFORMATION	MANUFACTURER	BLOWER	TOTAL CFM	MAX OUTSIDE AIR CFM	RETURN AIR CFM	WEIGHT (LBS)	ELECTRICAL INFORMATION					COOLING INFORMATION					REHEAT INFORMATION					GAS HEAT INFORMATION					ASH MINIMUM ROOM VOLUME			NOTES						
UNIT NO	NO											ESP	HP	PHASE	VOLTS	MCA	MDCP	OUTSIDE DB	AIR DB	MIXED AIR DB	LEAVING AIR DB	CAPACITY DB	TOTAL SENS.	ICEER	ISM2R	DISCHARGE DB	CAPACITY DESIRED	CAPACITY MAX	MOISTURE REMOVAL RATE	GAS TYPE	INPUT BTUS	OUTPUT BTUS	TEMP RISE	REQUIRED INPUT GAS PRESSURE		ROOM AREA (F2)	AIRFLOW (CFM)	HEIGHT (FT)			
1	RTU-1	1	CAS-HVAC3-1300-20-20T	CAPTIVEAIRE	20P-3	3000	3000	0	2737	1.000	3.00	3	208	90.7A	100A	90.0°F	79.2°F	90.0°F	79.2°F	55.2°F	55.2°F	256.0 MBH	113.7 MBH	18.2	7.9	70.0°F	60.8°F	68.5 MBH	129.6 MBH	24.4	LBS/HR	NATURAL	279091	262664	65°F	1 LB. - 5 LB.	543.3	978	72	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22	
9	RTU-2	1	CAS-HVAC3-1400-22-30T	CAPTIVEAIRE	22Z-3	4000	4000	0	3161	0.750	5.00	3	208	144.3A	150A	90.0°F	79.2°F	90.0°F	79.2°F	54.5°F	54.5°F	348.8 MBH	154.5 MBH	14.9	5.8	70.0°F	60.4°F	68.5 MBH	204.6 MBH	16.9	LBS/HR	NATURAL	372122	301419	65°F	1 LB. - 5 LB.	719.6	1295	72	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,20,21,22,23	
10	MAU-2	1	CAS-HVAC3-1400-22-15T-MPU	CAPTIVEAIRE	22Z-3	5000	5000	0	2543	0.750	5.00	3	208	65.4A	70A	90.0°F	79.2°F	90.0°F	79.2°F	69.5°F	69.4°F	63.3°F	303.6 MBH	112.0 MBH	18.8	8.3	---	---	---	---	---	---	NATURAL	328208	260843	65°F	1 LB. - 5 LB.	469.9	846	72	1,2,3,4,5,6,7,8,9,10,11,12,13,15,16,17,21,22,23,24
15	RTU-3	1	CAS-HVAC3-1400-22-30T	CAPTIVEAIRE	22Z-3	4000	4000	0	2543	0.750	5.00	3	208	144.3A	150A	90.0°F	79.2°F	90.0°F	79.2°F	54.5°F	54.5°F	348.8 MBH	154.5 MBH	14.9	5.8	70.0°F	60.4°F	68.5 MBH	204.6 MBH	16.9	LBS/HR	NATURAL	372122	301419	65°F	1 LB. - 5 LB.	719.6	1295	72	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,20,21,22,23	
16	MAU-3	1	CAS-HVAC3-1400-22-15T-MPU	CAPTIVEAIRE	22Z-3	4600	4600	0	2543	0.750	5.00	3	208	65.4A	70A	90.0°F	79.2°F	90.0°F	79.2°F	68.5°F	68.4°F	63.3°F	303.9 MBH	108.3 MBH	18.8	8.3	---	---	---	---	---	---	NATURAL	296267	239976	45°F	1 LB. - 5 LB.	469.9	846	72	1,2,3,4,5,6,7,8,9,10,11,12,13,15,16,17,21,22,23,24

1. INVERTER SCROLL COMPRESSOR WITH INTEGRATED OIL SENSOR. DIGITAL OR STAGED SCROLL NOT AN APPROVED EQUAL 2. DIRECT DRIVE PLENUM BLOWER. BELT DRIVEN BLOWERS ARE NOT ACCEPTABLE 3. INTEGRATED MONITORING VIA CELLULAR CONNECTION BY MANUFACTURER 4. REFRIGERATION PRESSURE MONITORING ON HIGH AND LOW PRESSURE SIDE OF SYSTEM INCLUDED THROUGH DIGITAL INTERFACE 5. REFRIGERANT CONDENSING FANS 6. ELECTRONIC EXPANSION VALVE. TXV NOT ACCEPTABLE 7. SUCTION LINE ACCUMULATOR 8. FACTORY COMMISSIONING WITH 5 YEAR PARTS WARRANTY, 25 YEAR WARRANTY ON STAINLESS STEEL HEAT EXCHANGER 9. AVERAGING INTAKE, EVAP AND DISCHARGE TEMPERATURE SENSORS (DISCHARGE SENSOR TO BE FACTORY MOUNTED WITHIN UNIT) 10. 2" EXTERIOR DUAL-WALL CONSTRUCTION W/ 4" R-10 INSULATION-MINIMUM BOSA EXTERIOR W/ 24GA BASE 11. BIX EFFICIENT FURNACE, WITH MODULATING INDUCER TO MAINTAIN CONSTANT COMBUSTION EFFICIENCY ACROSS FIRING RANGE. 61 TURNDOWN WITH NG AND 54 TURNDOWN WITH LP UNIT SHALL INCLUDE UNIT SERVICE SAFE STOP FEATURE TO STOP THE COMPRESSOR FOR DAMAGE DURING SHUTDOWN FOR SERVICE 12. SUPPLY CFM MONITORING INTEGRAL TO UNIT WITH CFM MEASUREMENT INCLUDED THROUGH DIGITAL INTERFACE 13. FULLY MODULATING HOT GAS REHEAT 14. LOW AMBIENT COOLING OPERATION DOWN TO 0°F 15. HAIL GUARD FOR CONDENSING COIL 16. FACTORY INSTALLED COMPRESSOR SOUND BLANKET	18. RTU ECONOMIZER WITH DIFFERENTIAL ENTHALPY CONTROL 19. BAROMETRIC RELIEF DAMPER 20. DOWN DISCHARGE/DOWN RETURN 21. MINIMUM ROOM AREA ASSUMED 7.2' SUPPLY DIFFUSER HEIGHT AND IS CALCULATED PER UL60325-2-40 4TH ED. VALUES BASED ON FACTORY CHARGE. ACTUAL SITE CHARGE MAY DIFFER 22. 80% R410A RECHARGE OF 100% OF FACTORY CHARGE 23. DIRECT DRIVE ECM PLENUM BLOWER. BELT DRIVEN AND NON-ECM BLOWERS ARE NOT ACCEPTABLE 24. DOWN DISCHARGE/AND RETURN
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FAN UNIT NO.	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	KEF-1A	YES						
2	KEF-1B	YES						
4	3F-1				YES			
5	KEF-2A	YES						
6	KEF-2B	YES						
7	KEF-2C	YES						
8	KEF-2D	YES						
11	KEF-3A	YES						
12	KEF-3B	YES						
13	KEF-3C	YES						
14	KEF-3D	YES						
17	DEF-1		YES					

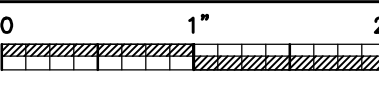
NO	DN FAN	TAG	R-VALUE	WEIGHT	ITEM	SIZE
1	# 1	KEF-1A	4.3	65 LBS	CURB	26.500" X 26.500" L X 20.000" INSULATED HINGED 16 GAUGE.
2	# 2	KEF-1B	4.3	65 LBS	CURB	26.500" X 26.500" L X 20.000" INSULATED HINGED 16 GAUGE.
3	# 3	RTU-1	4.3	104 LBS	CURB	59.500" X 91.000" L X 14.000" INSULATED.
4	# 4	KEF-2A	4.3	48 LBS	CURB	26.500" X 26.500" L X 24.000" INSULATED VENTED HINGED.
5	# 6	KEF-2B	4.3	48 LBS	CURB	26.500" X 26.500" L X 24.000" INSULATED VENTED HINGED.
7	# 7	KEF-2C	4.3	48 LBS	CURB	26.500" X 26.500" L X 24.000" INSULATED VENTED HINGED.
8	# 8	KEF-2D	4.3	48 LBS	CURB	26.500" X 26.500" L X 24.000" INSULATED VENTED HINGED.
9	# 9	RTU-2	4.3	104 LBS	CURB	59.500" X 91.000" L X 14.000" INSULATED.
10	# 10	MAU-2	4.3	194 LBS	CURB	59.500" X 91.000" L X 14.000" INSULATED.
11	# 11	KEF-3A	4.3	48 LBS	CURB	26.500" X 26.500" L X 24.000" INSULATED VENTED HINGED.
12	# 12	KEF-3B	4.3	48 LBS	CURB	26.500" X 26.500" L X 24.000" INSULATED VENTED HINGED.
13	# 13	KEF-3C	4.3	48 LBS	CURB	26.500" X 26.500" L X 24.000" INSULATED VENTED HINGED.
14	# 14	KEF-3D	4.3	48 LBS	CURB	26.500" X 26.500" L X 24.000" INSULATED VENTED HINGED.
15	# 15	RTU-3	4.3	104 LBS	CURB	59.500" X 91.000" L X 14.000" INSULATED.
16	# 16	MAU-3	4.3	194 LBS	CURB	59.500" X 91.000" L X 14.000" INSULATED.
17	# 17	DEF-1	15.3	18 LBS	CURB	19.500" X 19.500" L X 14.000" INSULATED.



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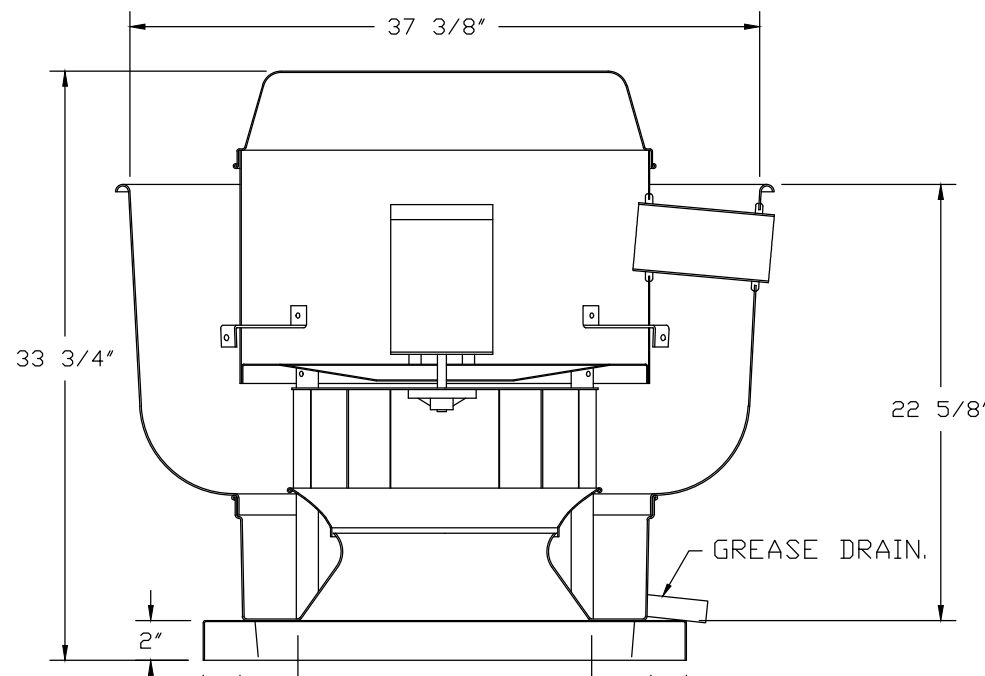
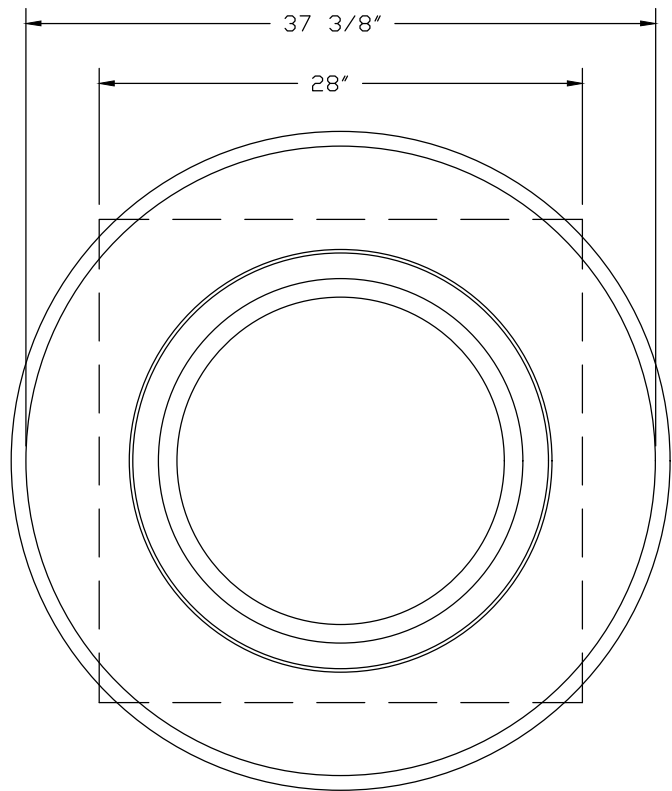
FAN OPTIONS				FAN OPTIONS				FAN OPTIONS				FAN OPTIONS										
FAN UNIT NO	TAG	QTY	DESCRIPTION	FAN UNIT NO	TAG	QTY	DESCRIPTION	FAN UNIT NO	TAG	QTY	DESCRIPTION	FAN UNIT NO	TAG	QTY	DESCRIPTION							
1	KEF-1-A	1	GREASE BOX		7	KEF-2C	1	INLET PRESSURE GAUGE, 0-35"		8	KEF-2D	1	GREASE BOX		10	MAU-2	1	INLET PRESSURE GAUGE, 0-35"				
		1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE				1	FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE DUCTS				1	MANIFOLD PRESSURE GAUGE, 0 TO 10" WC, 1 FURNACE									
		1	COOLING OVERRIDE				1	EXHAUST FAN HEAT BAFFLE				1	COOLING OVERRIDE									
		1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU. 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, "MA", OR "E2" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE				1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCD), CCW ROTATION				1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU. 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, "MA", OR "E2" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE									
		1	CONSTRUCTION MODE - MODIFIES START-UP SETTINGS TO ALLOW TEMPERING A BUILDING STILL UNDER CONSTRUCTION				1	2 YEAR PARTS WARRANTY				1	RTU BLOWER DOOR SWITCH									
		1	RTU BLOWER DOOR SWITCH				1	GREASE BOX				1	RTU3 DOWN DISCHARGE, 400, 500 MBH									
		1	FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE DUCTS				1	EXHAUST FAN HEAT BAFFLE				1	2" MERV 8 FILTERS FOR RTU3 (QTY. 4)									
		1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCD), CCW ROTATION				1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCD), CCW ROTATION				1	TOTAL CFM MONITORING									
		1	2 YEAR PARTS WARRANTY				1	2 YEAR PARTS WARRANTY				1	15 TON MODULATING COOLING OPTIO									
		1	WALL MOUNT CONSTRUCTION 18/20 (D60 ISOLATORS), 70LB MOTOR MAX FOR WALL MOUNTING				1	INLET PRESSURE GAUGE, 0-35"				1	ECM FAN DOAS - 3 PHASE									
2	KEF-1-B	1	SHIP LOOSE DISCONNECT FOR REMOTE MOUNT																			
		1	HINGE KIT LOCKING (XHD)- SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS																1	MANIFOLD PRESSURE GAUGE, 0-35"	1	R454B LEAK DETECTOR OPTION FOR RTUS
		1	EXHAUST FAN HEAT BAFFLE																1	COOLING OVERRIDE	1	LOW AMBIENT COOLING OPERATION - DOWN TO 0F AMBIENT
		1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCD), CCW ROTATION																1	SINGLE POINT ELECTRICAL CONNECTION FOR RTU. 750VA TRANSFORMER USED. IF A NON-DCV PREWIRE CONTROLS THIS UNIT, THE #28, #47, "MA", OR "E2" PREWIRE OPTION MUST BE SELECTED. DOES NOT PROVIDE SUPPLY STARTER IN PREWIRE	1	RTU FIXED 100% DA INTAKE CONTROL
		1	2 YEAR PARTS WARRANTY																1	CONSTRUCTION MODE - MODIFIES START-UP SETTINGS TO ALLOW TEMPERING A BUILDING STILL UNDER CONSTRUCTION	1	DISCHARGE FIRESTAT SET TO 240°F
		1	WALL MOUNT CONSTRUCTION 18/20 (D60 ISOLATORS), 70LB MOTOR MAX FOR WALL MOUNTING																1	RTU BLOWER DOOR SWITCH	1	INTAKE FIRESTAT SET TO 135°F
		1	SHIP LOOSE DISCONNECT FOR REMOTE MOUNT																1	RTU3 DOWN DISCHARGE, 400, 500 MBH	1	RTU3 DN RETURN - 100% DA - MPU
		1	HINGE KIT LOCKING (XHD)- SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS																1	2" MERV 13 FILTERS FOR RTU3 (QTY. 4)	1	2" METAL MESH FILTERS FOR RTU3 OUTDOOR INTAKE
		1	EXHAUST FAN HEAT BAFFLE																1	2" MERV 8 FILTERS FOR RTU3 (QTY. 4)	1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED
		1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCD), CCW ROTATION																1	OVERHEAT STAT	1	COMMERCIAL SMOKE DETECTOR/ALARM INTERLOCK - ALARM SUPPLIED BY OTHERS
3	RTU-1	1	2 YEAR PARTS WARRANTY																			
		1	FREEZESTAT																1	TOTAL CFM MONITORING	1	DDC MSTP BACKET REMOTE UNIT MONITORING
		1	DISCHARGE FIRESTAT SET TO 240°F																1	BLDWER STOP DELAY. ALLOWS RESIDUAL HEAT TO BE TRANSFERRED INTO THE SUPPLY AIR AFTER HEATING HAS STOPPED. FACTORY SET AT: 90 SECS FOR 1BT, 30 SECS FOR DF	1	NO REHEAT
		1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED																1	30 TON MODULATING REHEAT OPTION - SPACE B	1	RTU3 HAIL GUARD
		1	20 TON MODULATING REHEAT OPTION - SPACE B																1	RTUVZHI08 COMPRESSOR SOUND BLANKET 230V - FACTORY INSTALLED	1	RTU SIZE 3 INTAKE HOOD, SHIPPED LOOSE
		1	RTU3 CURB DUCT HANGER																1	ECM FAN DOAS - 3 PHASE	1	RTU3 CURB DUCT HANGER
		1	COMMERCIAL SMOKE DETECTOR/ALARM INTERLOCK - ALARM SUPPLIED BY OTHERS																1	R454B LEAK DETECTOR OPTION FOR RTUS	1	ECM 0-10V SUPPLY FAN CONTROL - RTU MUA BOARD (ZIEHL MOTOR)
		1	RTUVZHI17 COMPRESSOR SOUND BLANKET 230V - FACTORY INSTALLED																1	LOW AMBIENT COOLING OPERATION - DOWN TO 0F AMBIENT	1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS)
		1	RTU3 HAIL GUARD																1	1", 10 PSI HIGH GAS PRESSURE REGULATOR	1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET
		1	RTU ECONOMIZER - DIFFERENTIAL ENTHALPY CONTROL																1	INTAKE FIRESTAT SET TO 135°F	1	FREEZESTAT
4	SF-1	1	RTU INTAKE/RETURN DAMPER - DA PERCENTAGE CONTROL																			
		1	RTU ECONOMIZER BARDMETRIC RELIEF																1	DISCHARGE FIRESTAT SET TO 240°F	1	FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	CLOGGED FILTER SWITCH - NOTIFICATION ON HMI																1	CASLINK BUILDING MONITORING SYSTEM - INTERNET OR CELLULAR CONNECTION REQUIRED	1	EXHAUST FAN HEAT BAFFLE
		1	RTU3 POWERED CONVENIENCE OUTLET (GFCI), 15 AMP																1	30 TON MODULATING REHEAT OPTION FOR SIZE 3 CABINET - SPACE B	1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCD), CCW ROTATION
		1	DDC MSTP BACKET REMOTE UNIT MONITORING																1	R454B	1	2 YEAR PARTS WARRANTY
		1	RTU3 DOWN RETURN																1	COMMERCIAL SMOKE DETECTOR/ALARM INTERLOCK - ALARM SUPPLIED BY OTHERS	1	GREASE BOX
		1	2" METAL MESH FILTERS FOR RTU3 OUTDOOR INTAKE																1	RTU3 CURB DUCT HANGER	1	FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	VAV PACKAGE V/ 0-10VDC INPUT CONTROL (571 VFD INCLUDED)																1	DDC MSTP BACKET REMOTE UNIT MONITORING	1	EXHAUST FAN HEAT BAFFLE
		1	24VAC FIRE INPUT																1	CLOGGED FILTER SWITCH - NOTIFICATION ON HMI	1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCD), CCW ROTATION
		1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS)																1	RTU3 POWERED CONVENIENCE OUTLET (GFCI), 15 AMP	1	2 YEAR PARTS WARRANTY
5	KEF-2A	1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET																			
		1	INLINE INDOOR HANGING OPTION - INCLUDES 2 HSAI25 HANGING SPRING ISOLATORS PER UNIT-STRUCT																1	RTU INTAKE/RETURN DAMPER - MANUAL CONTROL VIA HMI	1	GREASE BOX
		1	ECM WIRING PACKAGE-SUPPLY - MODBUS CONTROL -MSC- (1 PHASE ZIEHL MOTOR)																1	RTU3 HAIL GUARD	1	FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY																1	RTUVZHI70 COMPRESSOR SOUND BLANKET 230V - FACTORY INSTALLED	1	EXHAUST FAN HEAT BAFFLE
		1	GREASE BOX																1	RTU3 DOWN RETURN	1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCD), CCW ROTATION
		1	FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE DUCTS																1	2" METAL MESH FILTERS FOR RTU3 OUTDOOR INTAKE	1	2 YEAR PARTS WARRANTY
		1	EXHAUST FAN HEAT BAFFLE																1	ECM 0-10V SUPPLY FAN CONTROL - RTU MUA BOARD (ZIEHL MOTOR)	1	GREASE BOX
		1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCD), CCW ROTATION																1	24VAC FIRE INPUT	1	FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	2 YEAR PARTS WARRANTY																1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS)	1	EXHAUST FAN HEAT BAFFLE
		1	GREASE BOX																1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET	1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCD), CCW ROTATION
6	KEF-2B	1	FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE DUCTS																			
		1	EXHAUST FAN HEAT BAFFLE																1	RTU3 DOWN RETURN	1	2 YEAR PARTS WARRANTY
		1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCD), CCW ROTATION																1	2" METAL MESH FILTERS FOR RTU3 OUTDOOR INTAKE	1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCD), CCW ROTATION
		1	2 YEAR PARTS WARRANTY																1	ECM 0-10V SUPPLY FAN CONTROL - RTU MUA BOARD (ZIEHL MOTOR)	1	2 YEAR PARTS WARRANTY
		1	GREASE BOX																1	24VAC FIRE INPUT	1	GREASE BOX
		1	FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE DUCTS																1	5 YEAR ENTIRE UNIT PARTS WARRANTY, 10 YEAR ENTIRE UNIT PARTS WARRANTY WITH REMOTE MONITORING AND CAPTIVEAIRE SERVICE CONTRACT, 25 YEAR STAINLESS STEEL FURNACE PARTS WARRANTY (SEE ADDITIONAL DETAILS)	1	FAN BASE CERAMIC SEAL - DU/DR180HFA - INSTALLED AT PLANT - FOR GREASE DUCTS
		1	EXHAUST FAN HEAT BAFFLE																1	EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET	1	EXHAUST FAN HEAT BAFFLE
		1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCD), CCW ROTATION																1	2 YEAR PARTS WARRANTY	1	ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -MSC- (TELCD), CCW ROTATION
		1	2 YEAR PARTS WARRANTY																1	2 YEAR PARTS WARRANTY	1	2 YEAR PARTS WARRANTY



PROJ. MGR.:	HD
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SHEET NO:	M4.14
	

FANS #1 (KEF-1A), #2 (KEF-1B) - DUBIOHFA EXHAUST FAN



TOP VIEW

FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST

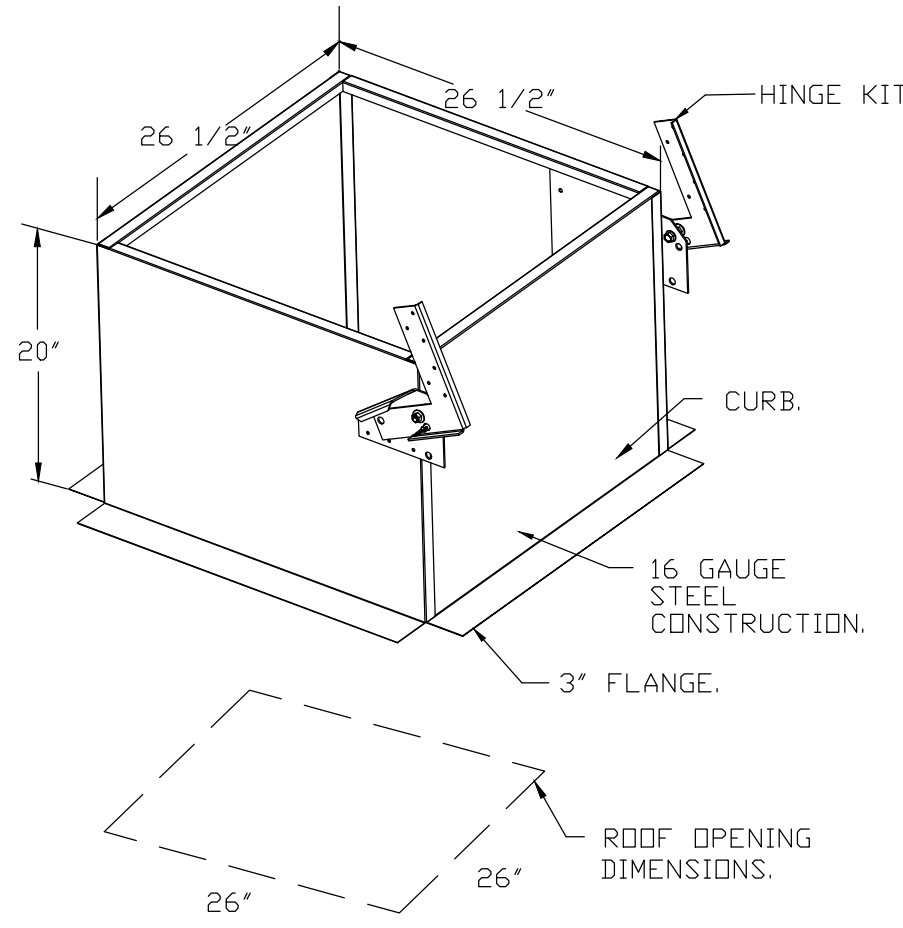
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST

EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

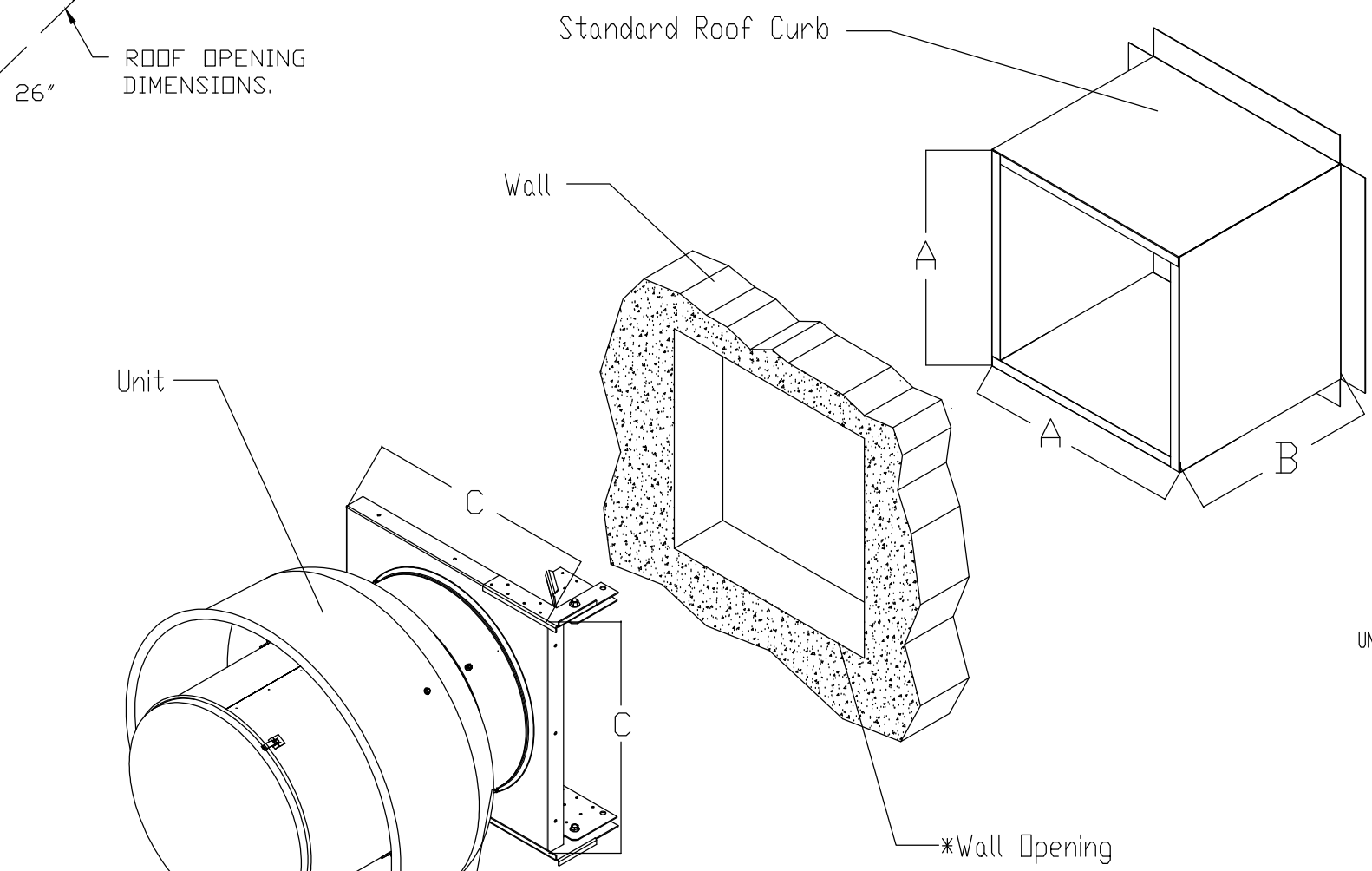
OPTIONS

- GREASE BOX.
- FAN BASE CERAMIC SEAL - DU/DRI80HFA - INSTALLED AT PLANT - FOR GREASE DUCTS.
- THROUGH WALL CURB MOUNT INSTALLATION. CURB HEIGHT MUST BE MINIMUM 10" TALLER THAN WALL THICKNESS FOR USE WITH A HINGE KIT.
- WALL MOUNT CONSTRUCTION 18/20 (D60 ISOLATORS), 70LB MOTOR MAX FOR WALL MOUNTING.
- SHIP LOOSE DISCONNECT FOR REMOTE MOUNT.
- HINGE KIT - LOCKING (XHD)- SHIPS LOOSE FOR CURB SUPPLIED BY OTHERS.
- EXHAUST FAN HEAT BAFFLE.
- ECM WIRING PACKAGE - EXHAUST - MODBUS CONTROL -M3C- (TELCD), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.



Wall Mount w/ Standard Curb

(24" WHEEL 2 HP - 1 & 3 PHASE)
(24" WHEEL 3 HP - 3 PHASE MAXIMUM)



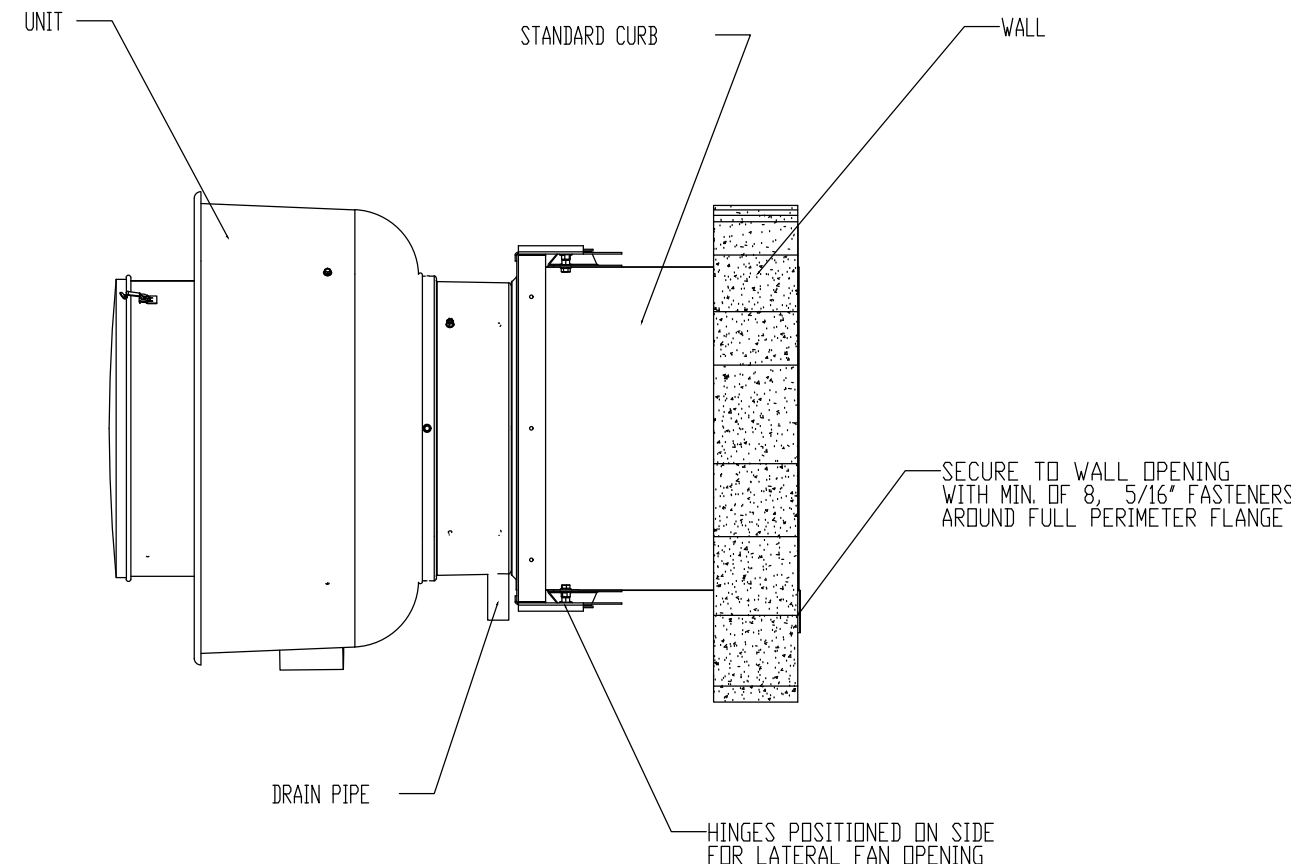
STANDARD CURB FITS INTO BASE OF FAN

ELECTRICIAN
1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
2. WIRE ALL FANS PER INCLUDED SCHEMATIC
3. WIRE START-STOP BRACER (OPTIONAL)
4. WIRE STOP-STOP BRACER (OPTIONAL)
5. WIRE GND VALVE
FLOODING AND SEALING OF WALL PENETRATION DONE BY OTHERS

A (IN.)	B (IN.)	C (IN.)
19 1/2	22	21
19 1/2	20	21
23	20	24 3/4
26 1/6	20	28
26 1/2	20	28
31 1/2	20	33

Wall Mount w/ Standard Curb SIDE VIEW

(24" WHEEL 2 HP & 3 HP 1 PHASE MAXIMUM)



FANS: #5 (KEF-2A), #6 (KEF-2B), #7 (KEF-2C), #8 (KEF-2D), #11 (KEF-3A), #12 (KEF-3B), #13 (KEF-3C), #14 (KEF-3D) - DUJ80HFA EXHAUST FAN

FEATURES:

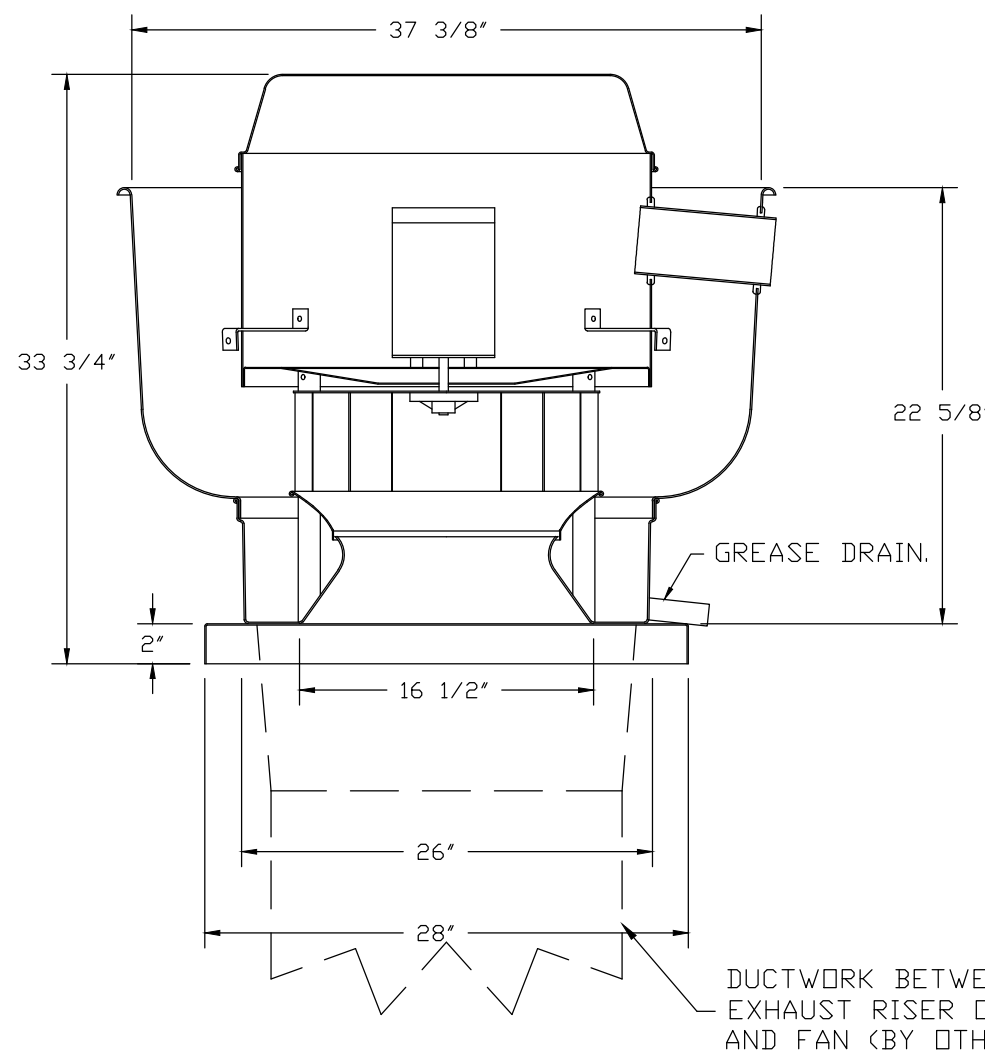
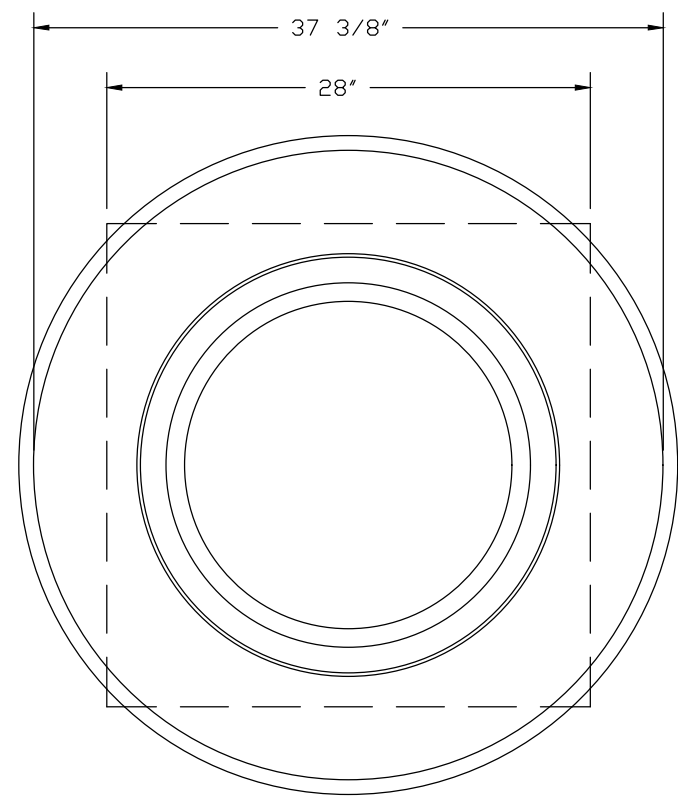
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULCS-5645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

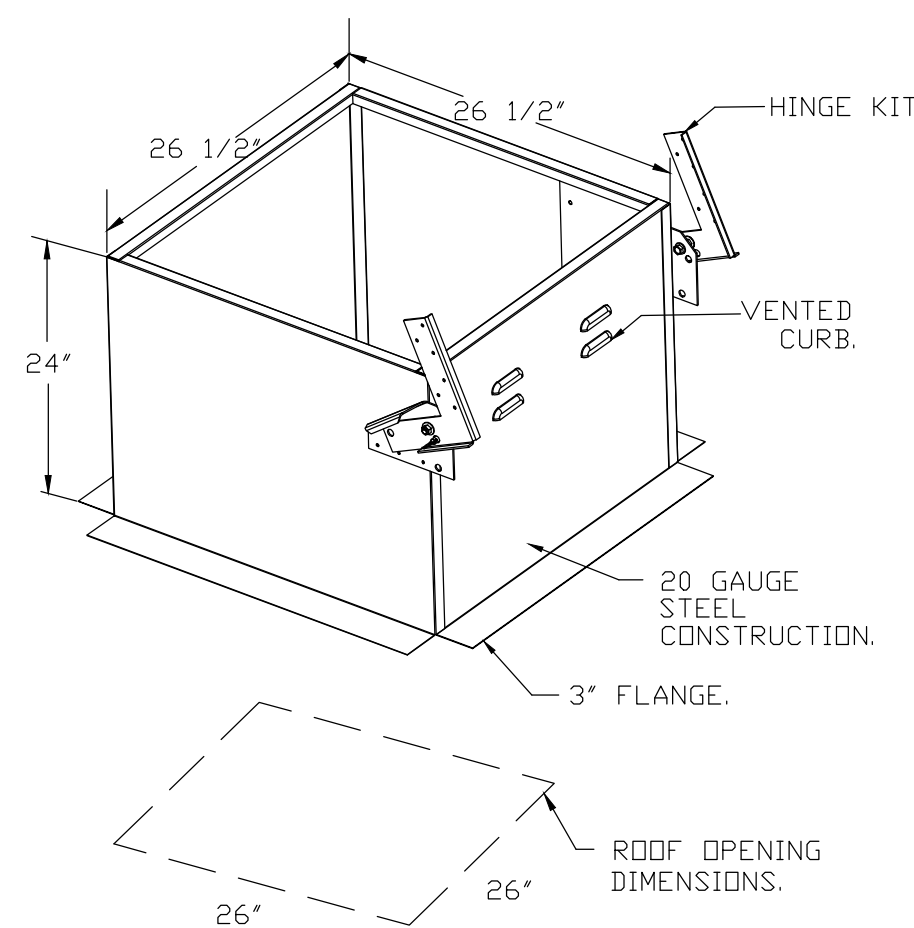
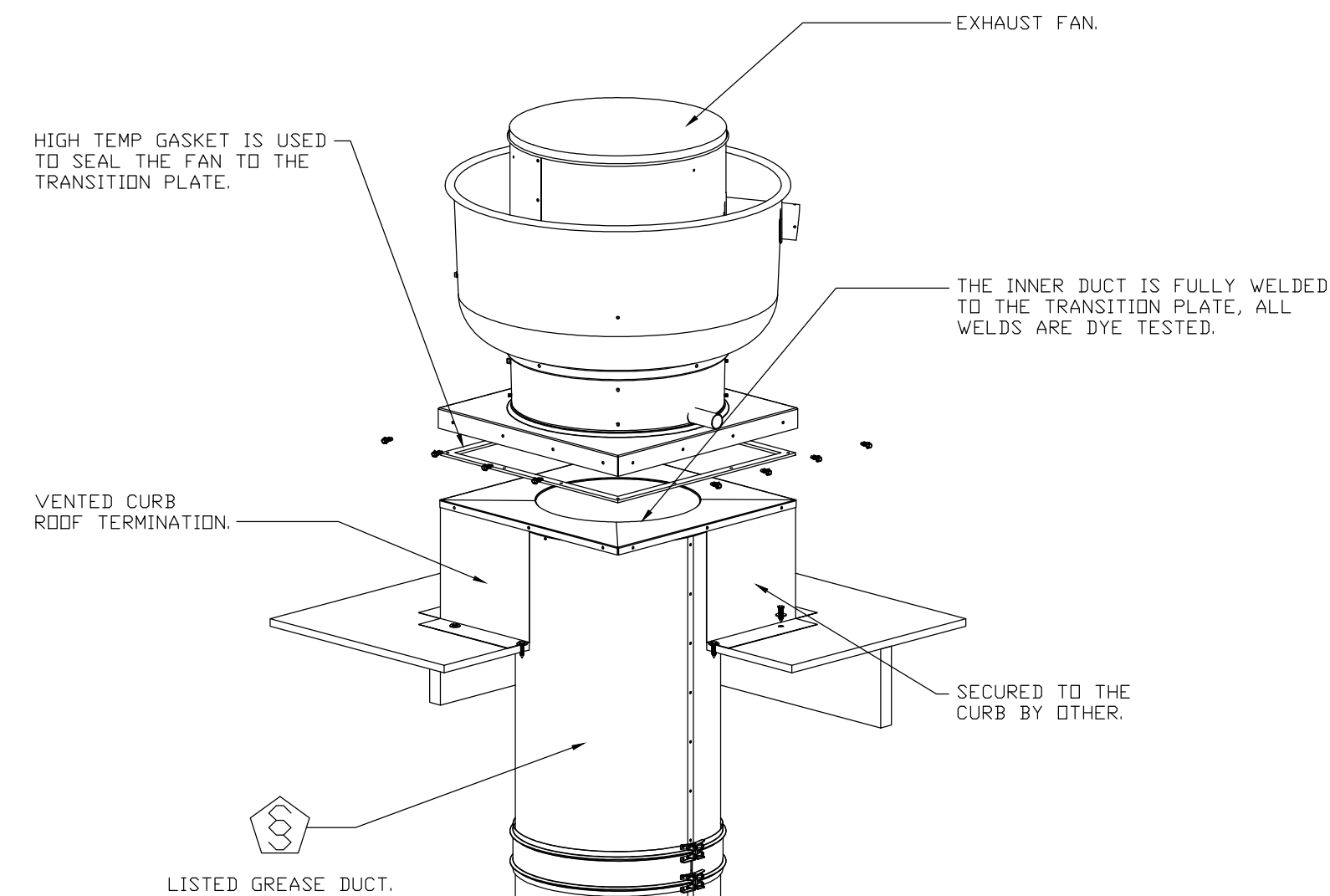
ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (315°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS:

- GREASE BOX.
- FAN BASE CERAMIC SEAL - DUJ80HFA - INSTALLED AT PLANT - FOR GREASE DUCTS.
- EXHAUST FAN HEAT BAFFLE.
- ECM WIRING PACKAGE - EXHAUST.
- MODBUS CONTROL -MSC- (TELCOD), CCW ROTATION.
- 2 YEAR PARTS WARRANTY.



TOP VIEW



*NOTE: UL 762 INSTALL.

GREASE BOX INSTALLATION

PARTS INCLUDED

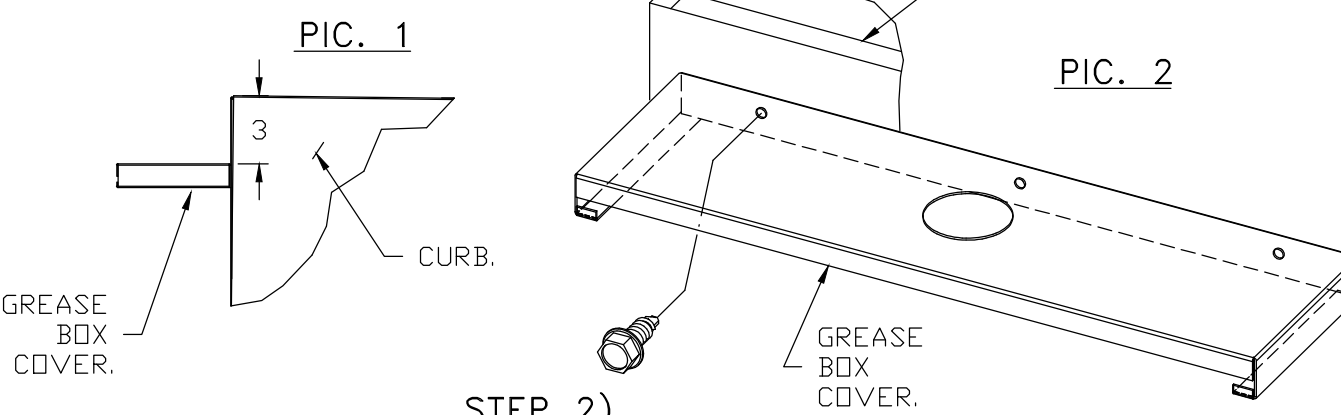
- GREASE BOX.
- GREASE BOX COVER.
- GREASE PIPE.
- SHEET METAL SCREWS 3 - LONG (3/4" LG.).

REV. #2 GREASE BOX 09/25/26

GREASE BOX FIELD INSTALLATION

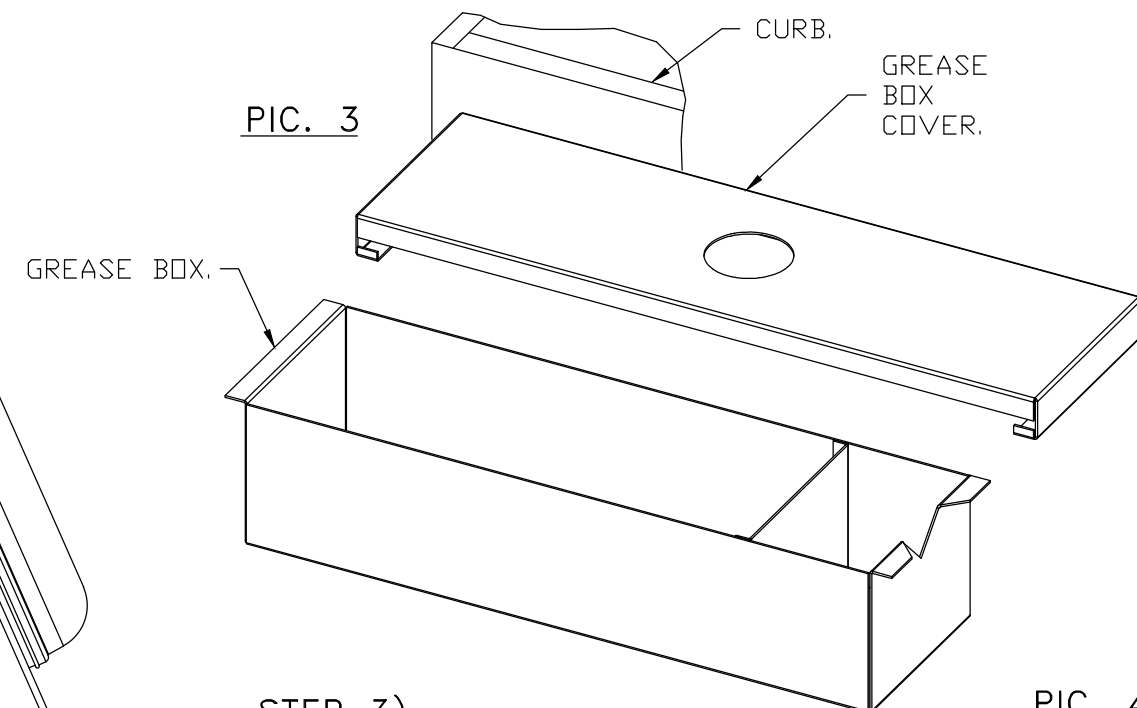
STEP 1)

ATTACH GREASE BOX COVER TO THE CURB, HOLD 3" DIMENSION AS SHOWN ON PIC. 1. SCREW GREASE BOX COVER TO CURB USING (3) LONG (3/4" LG.) SCREWS AS SHOWN ON PIC. 2.



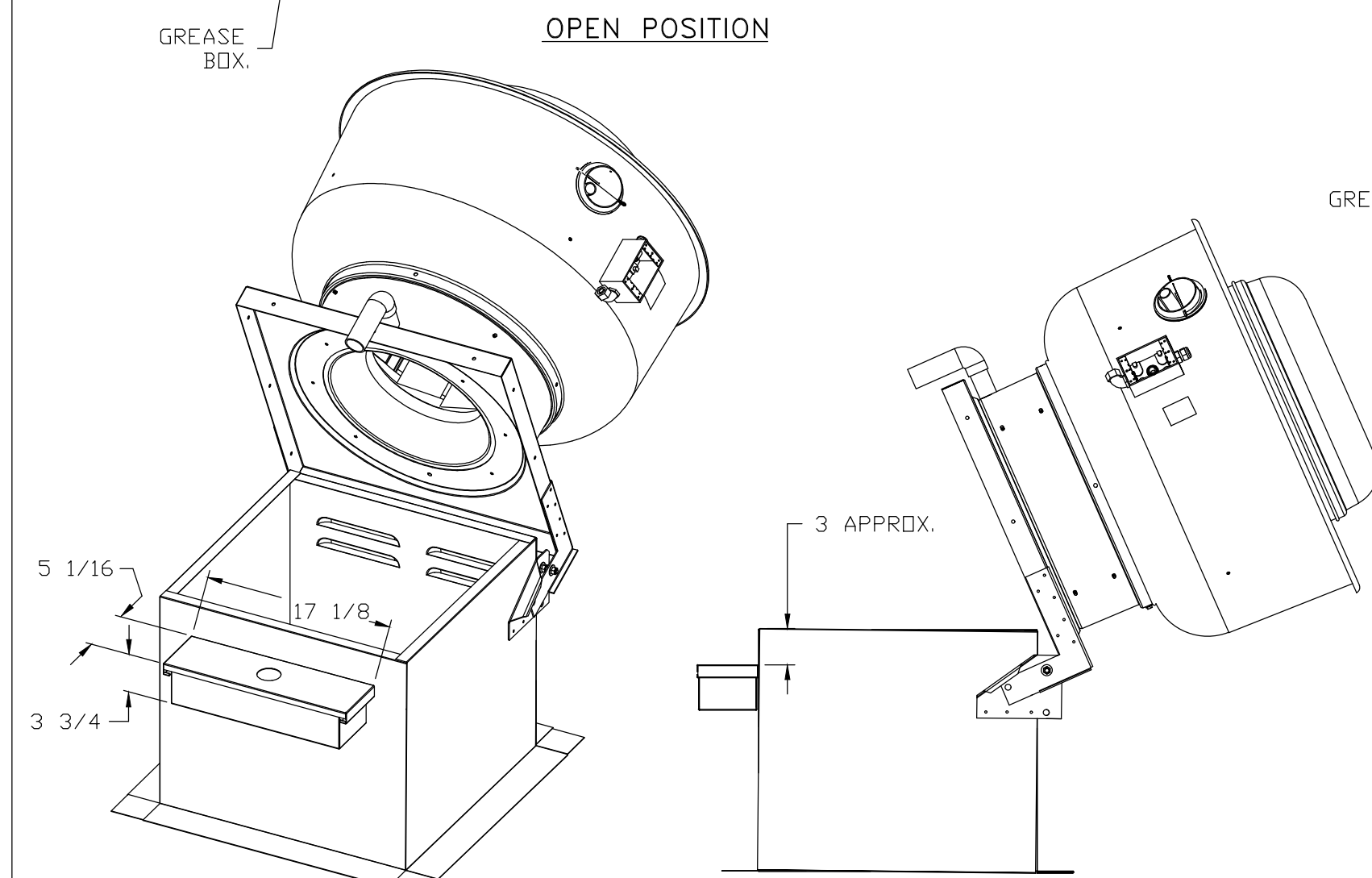
STEP 2)

ATTACH GREASE BOX TO GREASE BOX COVER, SLIDE AND DROP. AS SHOWN ON PIC. 3.

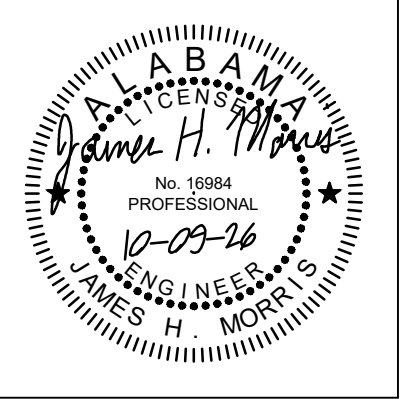


STEP 3)

INSTALL GREASE PIPE AS SHOWN ON PIC. 4.



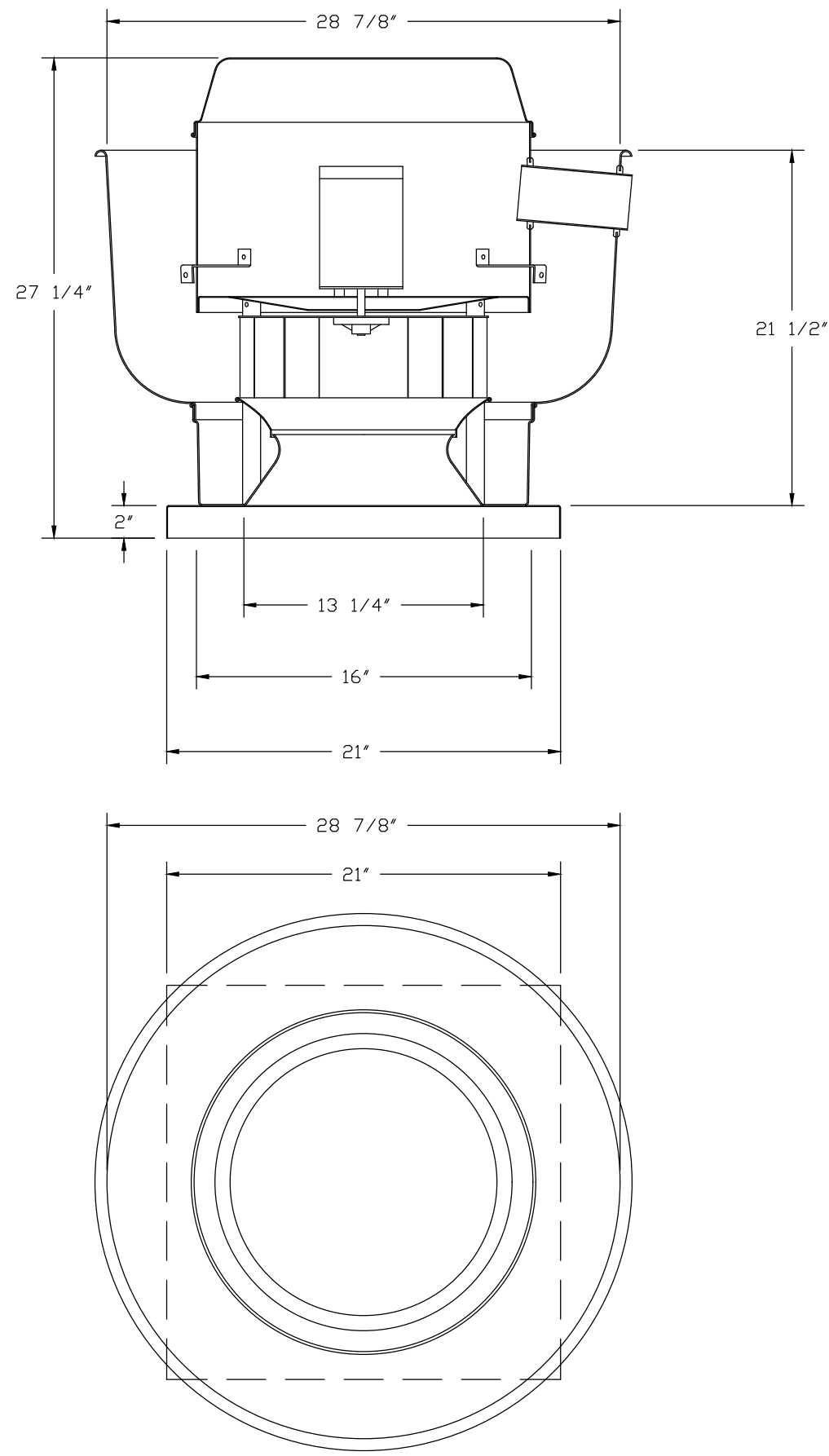
*NOTE: UL 705 INSTALL.



PROJ. MGR.: HD
DRAWN: JKN
DATE: 10.9.26
REVISIONS

JOB NO. 25-249
SHEET NO: M4.16
0 1" 2"

FAN #17_BUSQHEA - EXHAUST FAN (DEF-1)



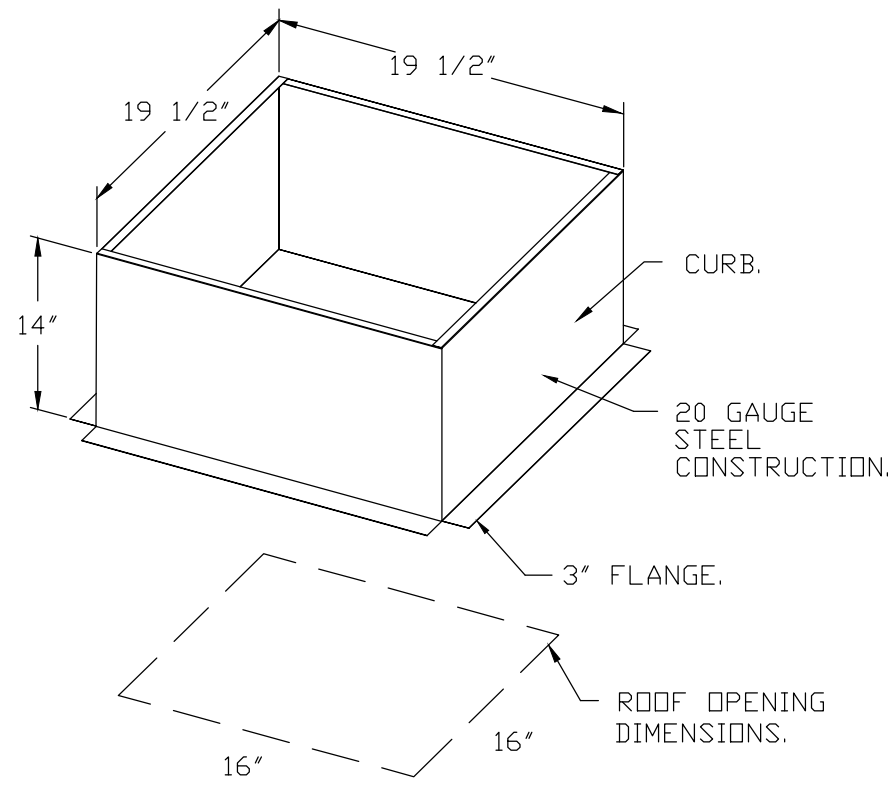
TOP VIEW

FEATURES:

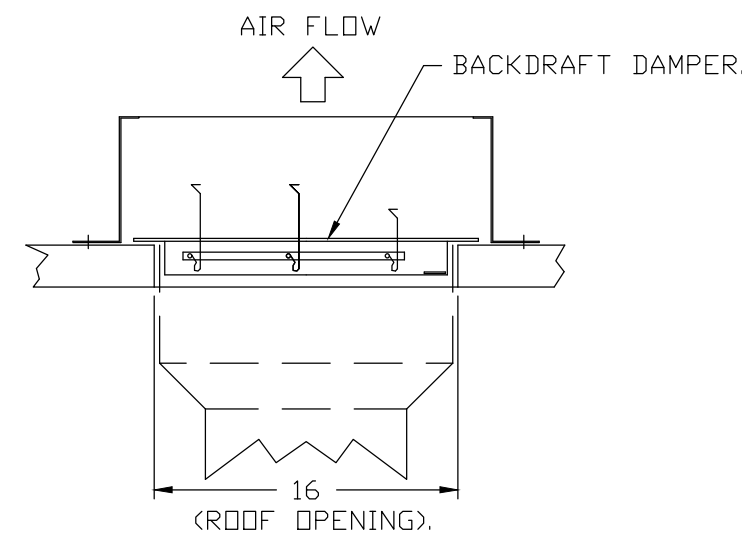
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- UL705.
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- NEMA 3R SAFETY DISCONNECT SWITCH.

OPTIONS

- ECM WIRING PACKAGE - EXHAUST
- MANUAL OR 0-10VDC REFERENCE SPEED CONTROL -MSC- (TELCD), CCW ROTATION.
- SCR-13 BIRD SCREEN.
- 1 15-BDD DAMPER.
- 2 YEAR PARTS WARRANTY.



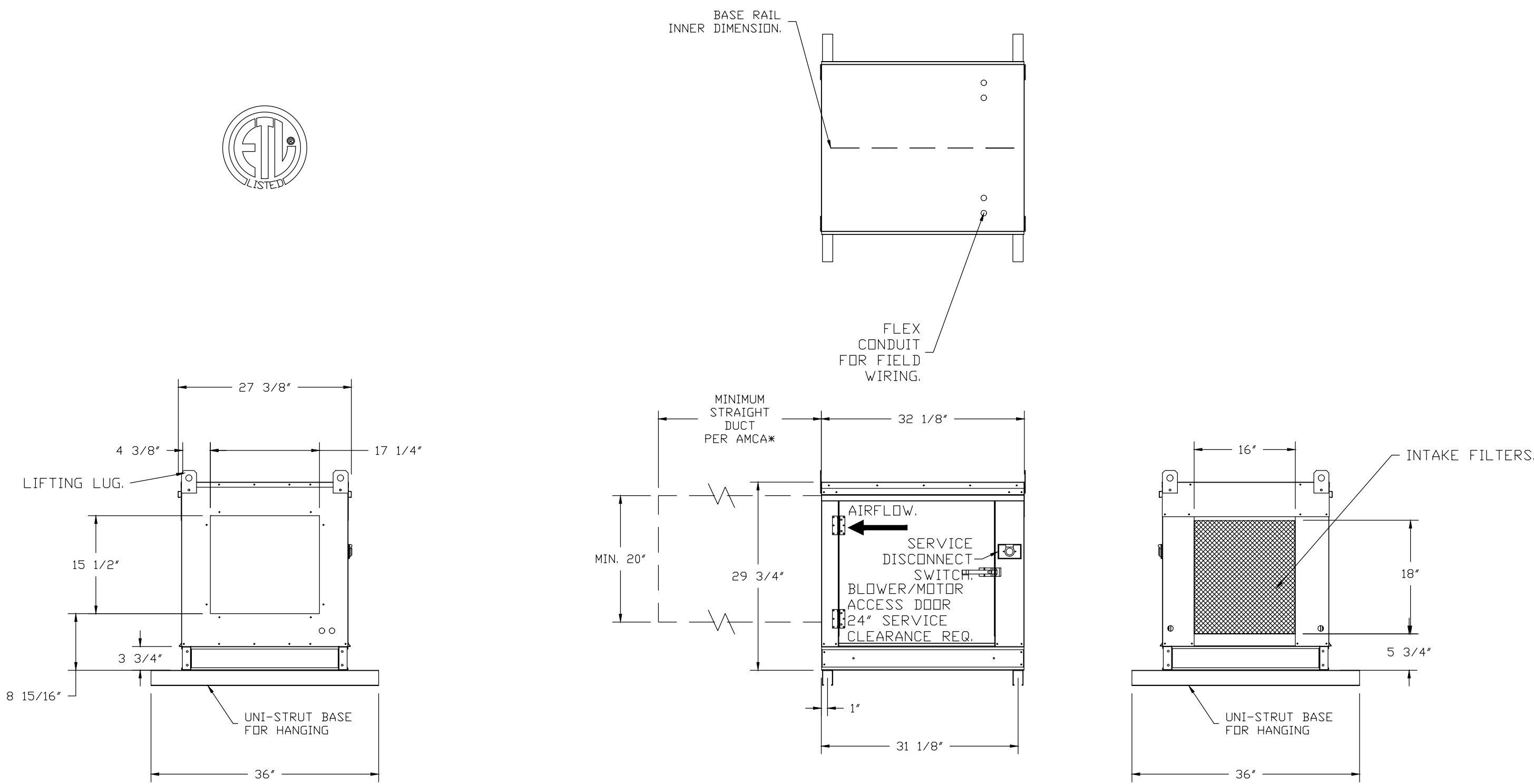
BACKDRAFT DAMPER INSTALLATION

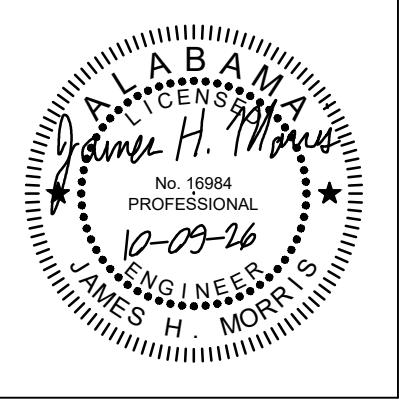


FAN #4_INLINE182 - SUPPLY FAN (SF-1)

1. INLINE SUPPLY UNIT w/ 18" DIRECT DRIVE FAN IN SIZE #1 HOUSING. INSULATED HOUSING.
2. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT.
3. INDOOR HANGING CRADLE FOR THE SIZE 1 UNTEMPERED INLINE UNIT. 2 HSA125 HANGING ISOLATORS PER UNI-STRUT INCLUDED.
4. ECM WIRING PACKAGE MODBUS CONTROL FOR SUPPLY EC SINGLE PHASE ZIEHL FANS. MSC CONTROLLER.
5. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).
6. 2 YEAR PARTS WARRANTY.

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED SUPPLY STRAIGHT DUCT SIZE IS 20" x 20".





PROJ. MGR.:	HD
DRAWN:	JKN
DATE:	10.9.26
REVISIONS	

JOB NO.	25-249
SHEET NO:	

FAN #3 CAS-HVAC3-I.300-20-20T - HEATER (RTU-1)

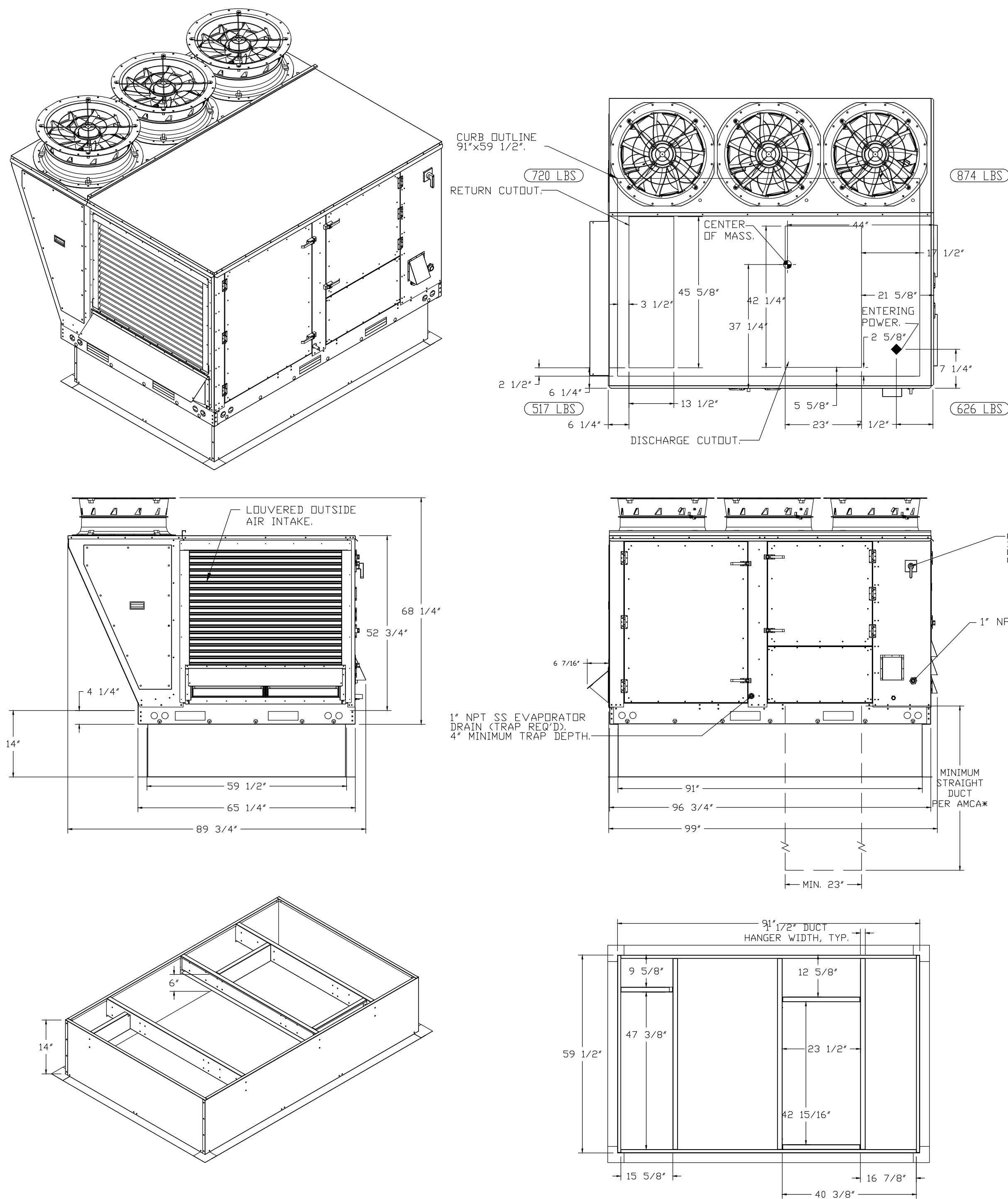
NOTES:

- DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
- DENOTES CORNER WEIGHT.
- ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.
- CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.
- EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.

*NOTE: INTEGRAL CO2 MONITORING AND CONTROL CAPABILITIES FOR ALL SPACE MOUNTED THERMOSTATS.

*NOTE: THIS UNIT IS INTENDED TO SERVE IN PLACE OF THE KITCHEN HVAC ROOF TOP UNIT (RTU) IN ADDITION TO PROVIDING APPROPRIATE MAKE-UP AIR FOR THE KITCHEN HOOD(S). RTU AND ASSOCIATED DUCTWORK SHALL BE REMOVED FROM SCOPE UNLESS REQUIRED FOR INTERNAL LOAD ESTIMATES. FINAL DESIGN SHALL BE REVIEWED AND APPROVED BY THE ENGINEER OF RECORD.

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.
SUGGESTED SUPPLY STRAIGHT DUCT SIZE IS 23" x 39".
SUGGESTED RETURN STRAIGHT DUCT SIZE IS 45-5/8" x 13-1/2".



FAN #9 (RTU-2), #15 (RTU-3) - CAS-HVAC3-I.400-22-30T HEATER

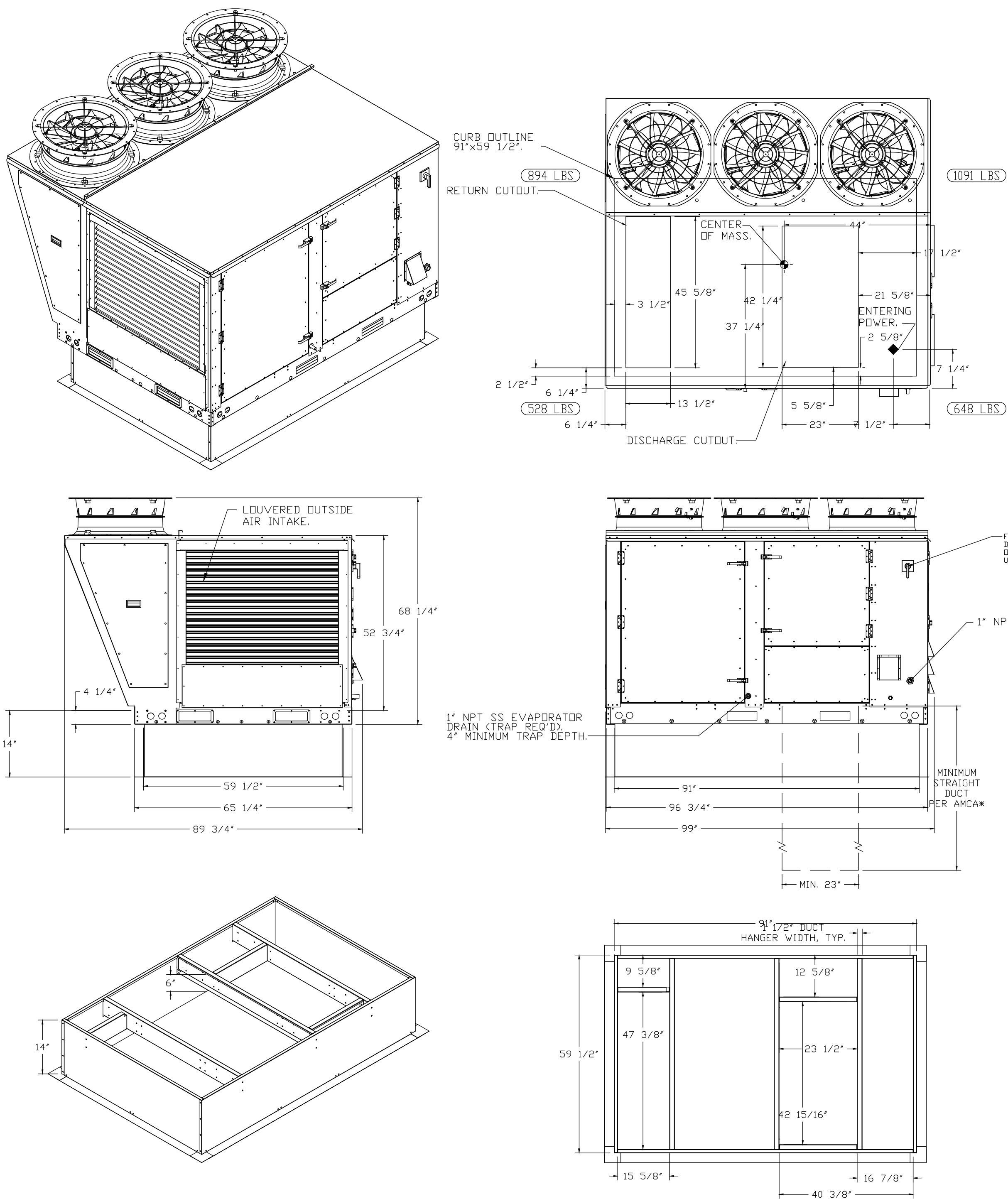
NOTES:

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- DENOTES CORNER WEIGHT.
- ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.
- CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.
- EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.

*NOTE: INTEGRAL CO2 MONITORING AND CONTROL CAPABILITIES FOR ALL SPACE MOUNTED THERMOSTATS.

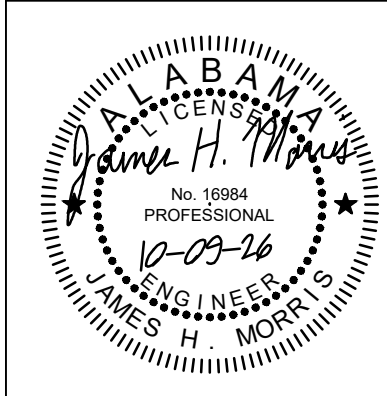
*NOTE: THIS UNIT IS INTENDED TO SERVE IN PLACE OF THE KITCHEN HVAC ROOF TOP UNIT (RTU) IN ADDITION TO PROVIDING APPROPRIATE MAKE-UP AIR FOR THE KITCHEN HOOD(S). RTU AND ASSOCIATED DUCTWORK SHALL BE REMOVED FROM SCOPE UNLESS REQUIRED FOR INTERNAL LOAD ESTIMATES. FINAL DESIGN SHALL BE REVIEWED AND APPROVED BY THE ENGINEER OF RECORD.

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MECHANICAL SCHEDULES AND
DETAILS - KITCHEN EQUIPMENT

SHEET TITLE:



PROJ. MGR.: HD
DRAWN: JKM

DRAWN: JKN

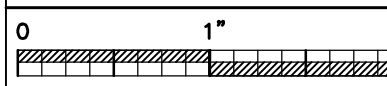
DATE: 10.9.26

REVISIONS

JOB NO. 25-249

SHEET NO

M4.18

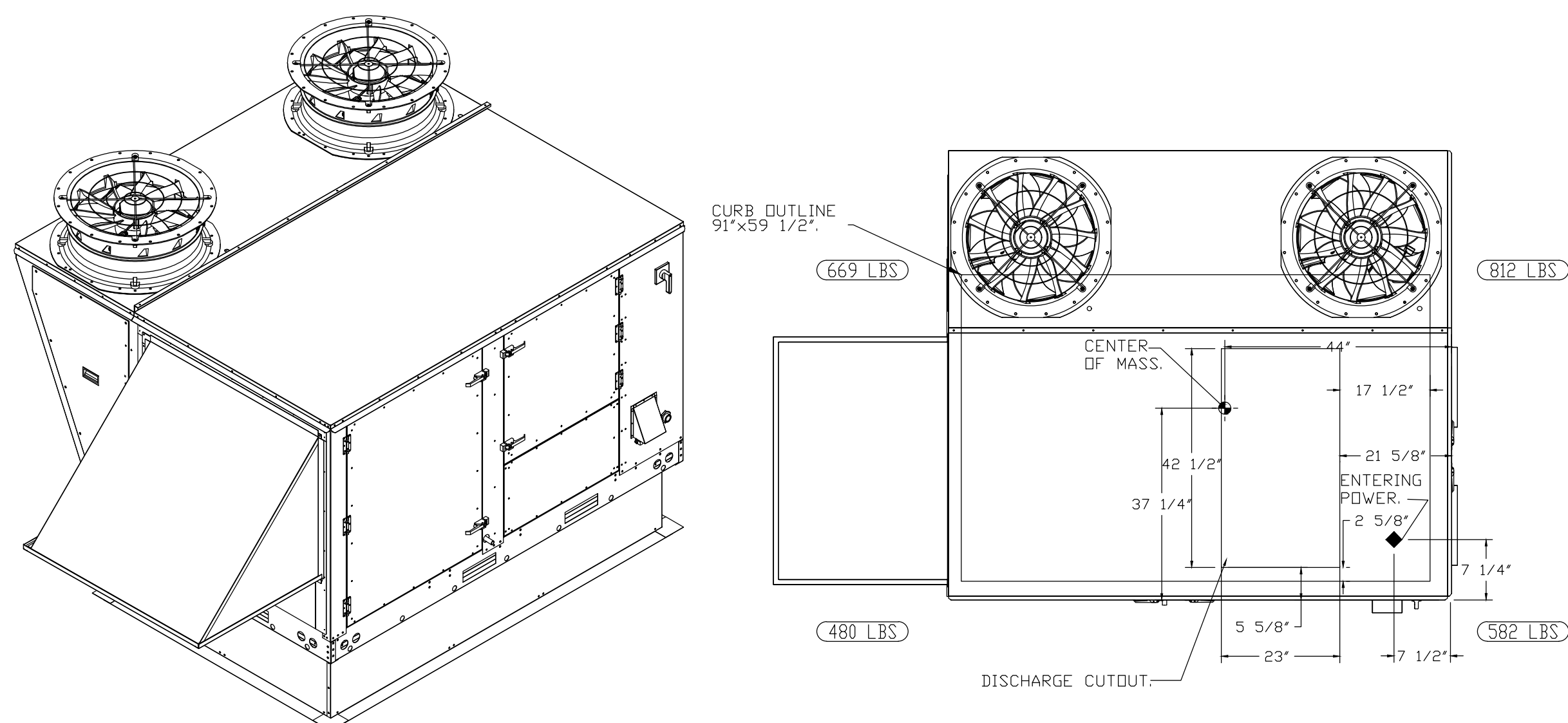
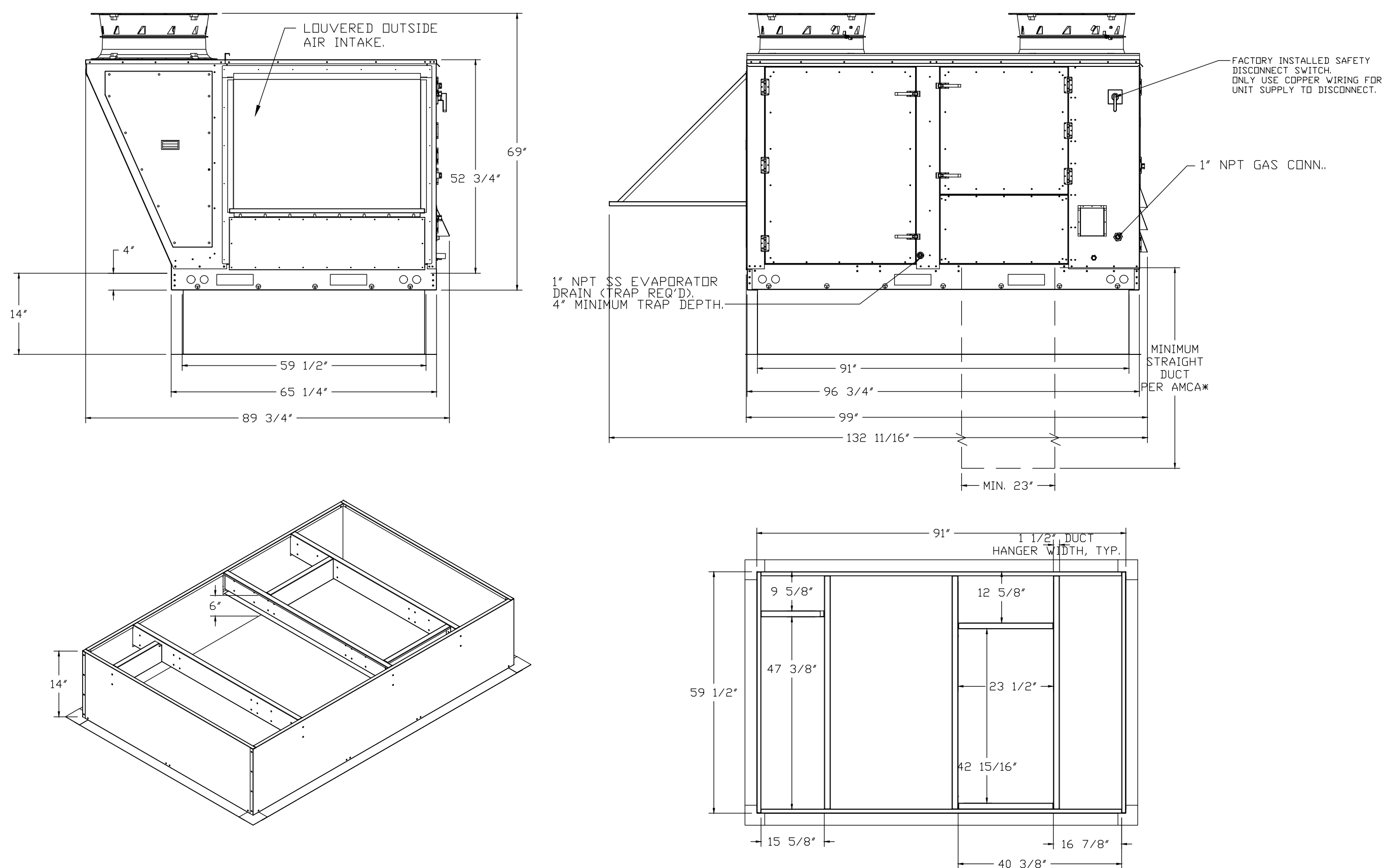
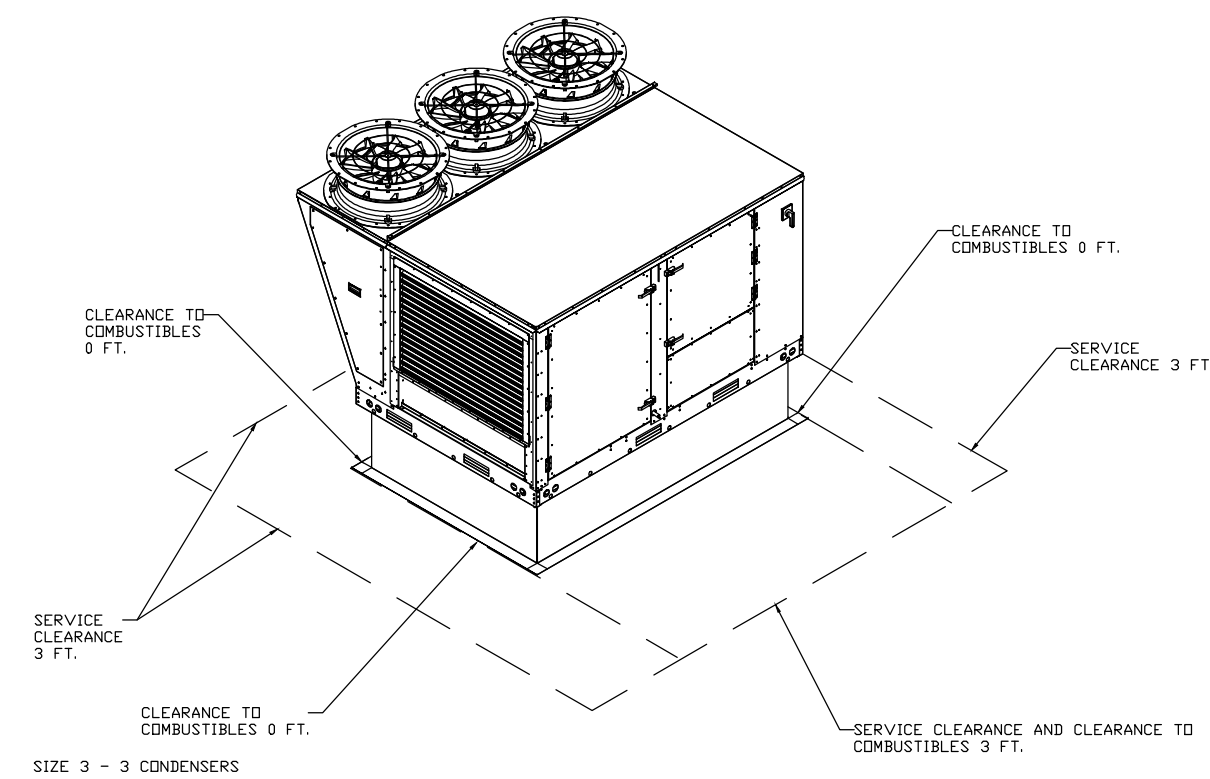
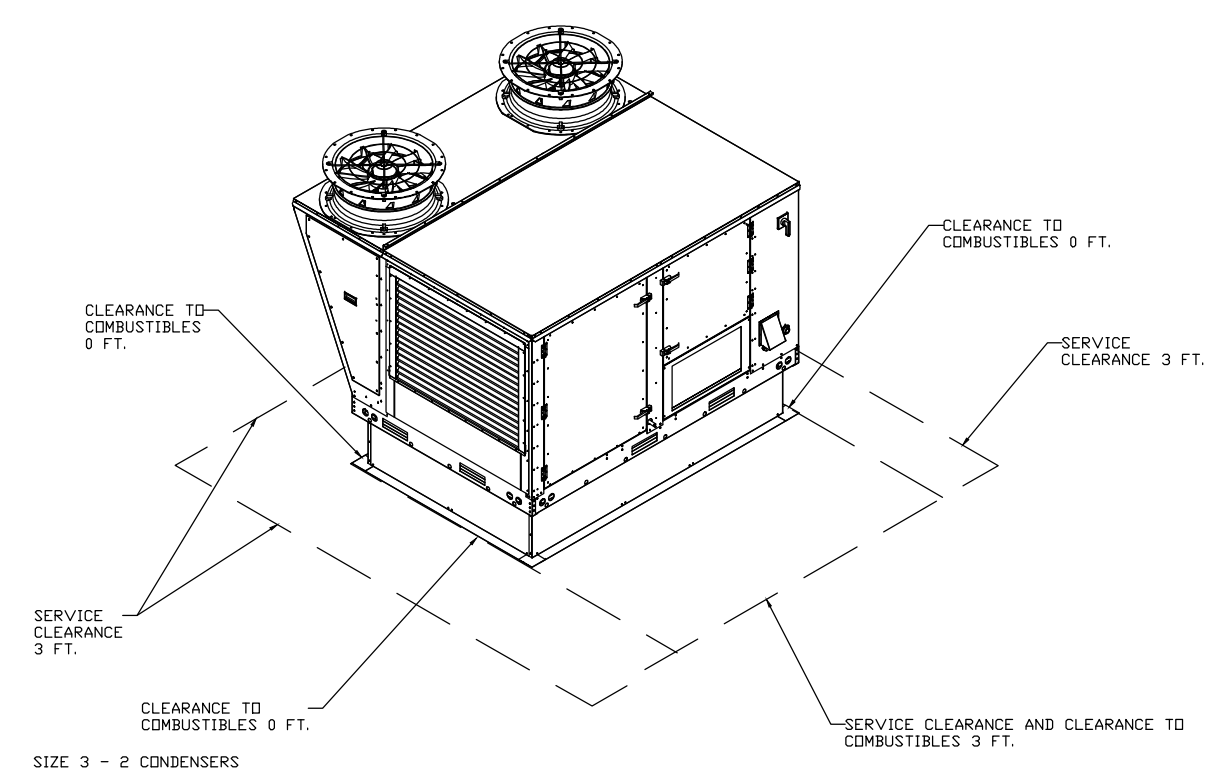
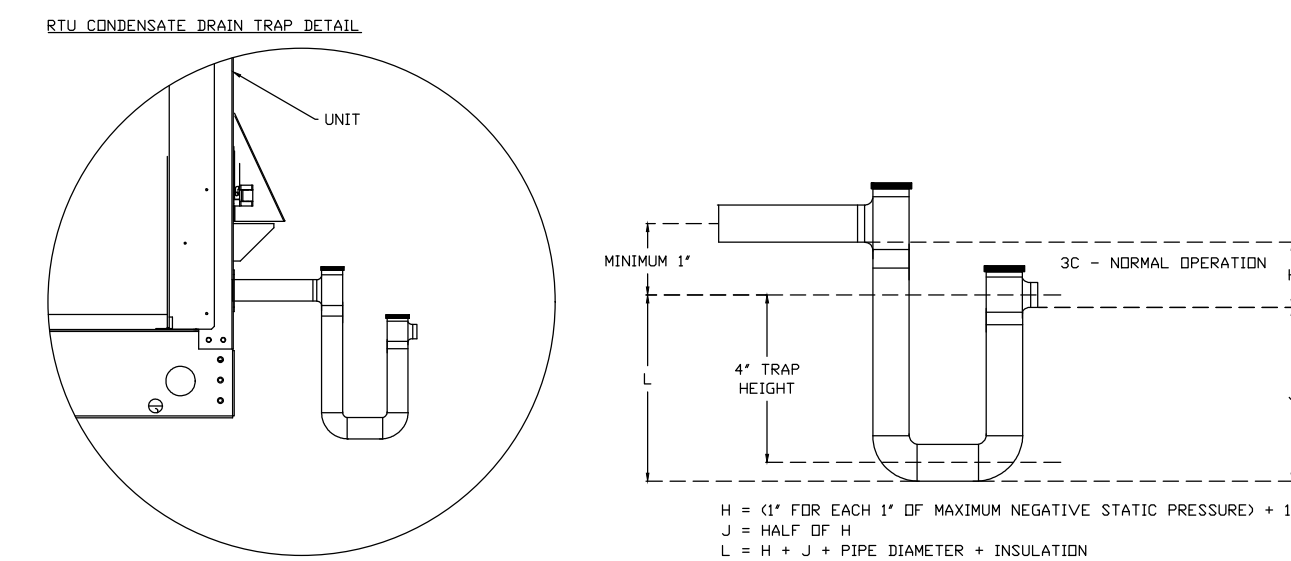


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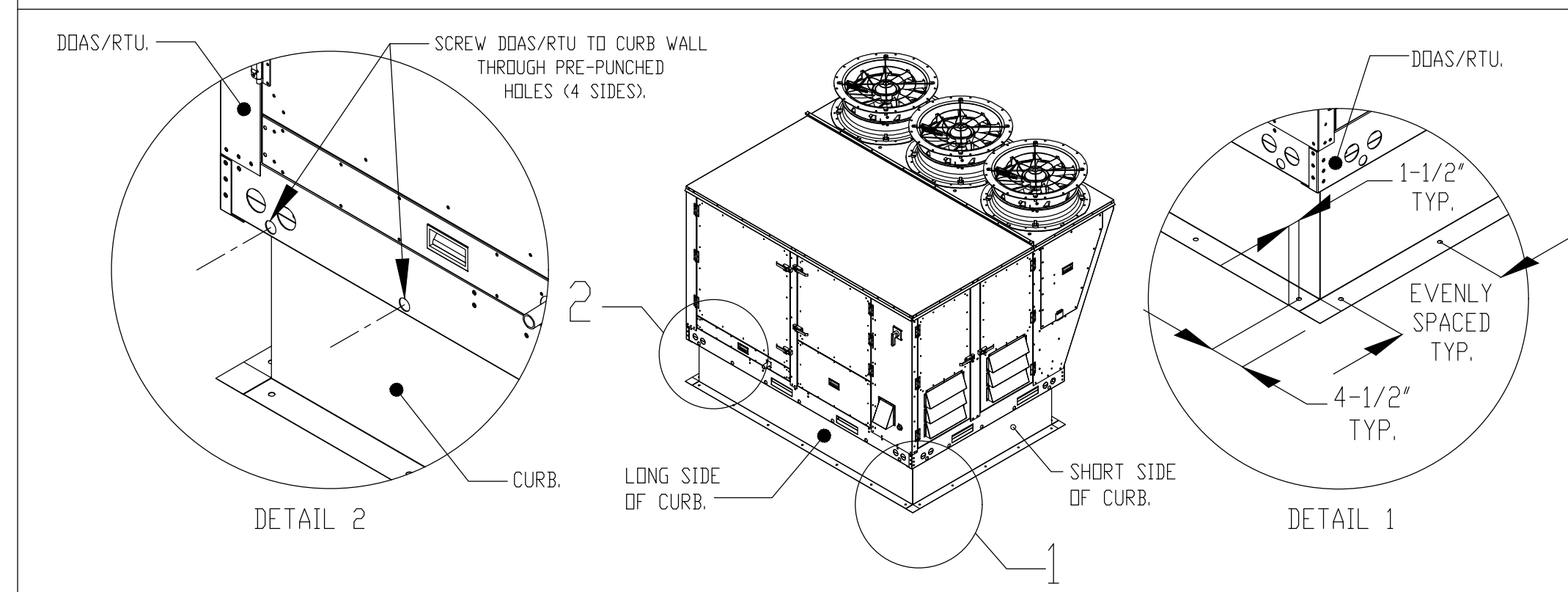
1. DO NOT OBSTRUCT OUTSIDE AIR INLET, OUTSIDE AIR COIL OR OUTSIDE AIR FAN.
2.  DENOTES CORNER WEIGHT.
3. ROOF OPENING MUST BE 2" SMALLER THAN CURB DIMENSIONS IN BOTH DIRECTIONS.
4. CONNECTION FROM BREAKER TO UNITS SAFETY DISCONNECT SWITCH TO BE COPPER WIRE ONLY.
5. EXTERIOR GAS CONNECTION PROVIDED BY FACTORY WITH QUICK SEAL AND ANTI-ROTATION BRACKET.

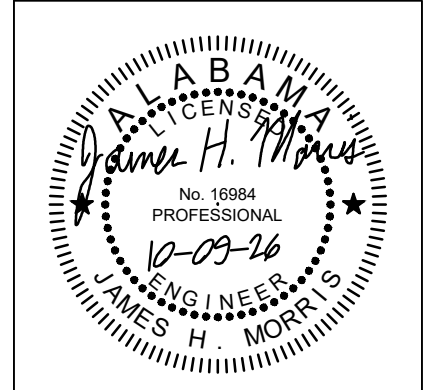
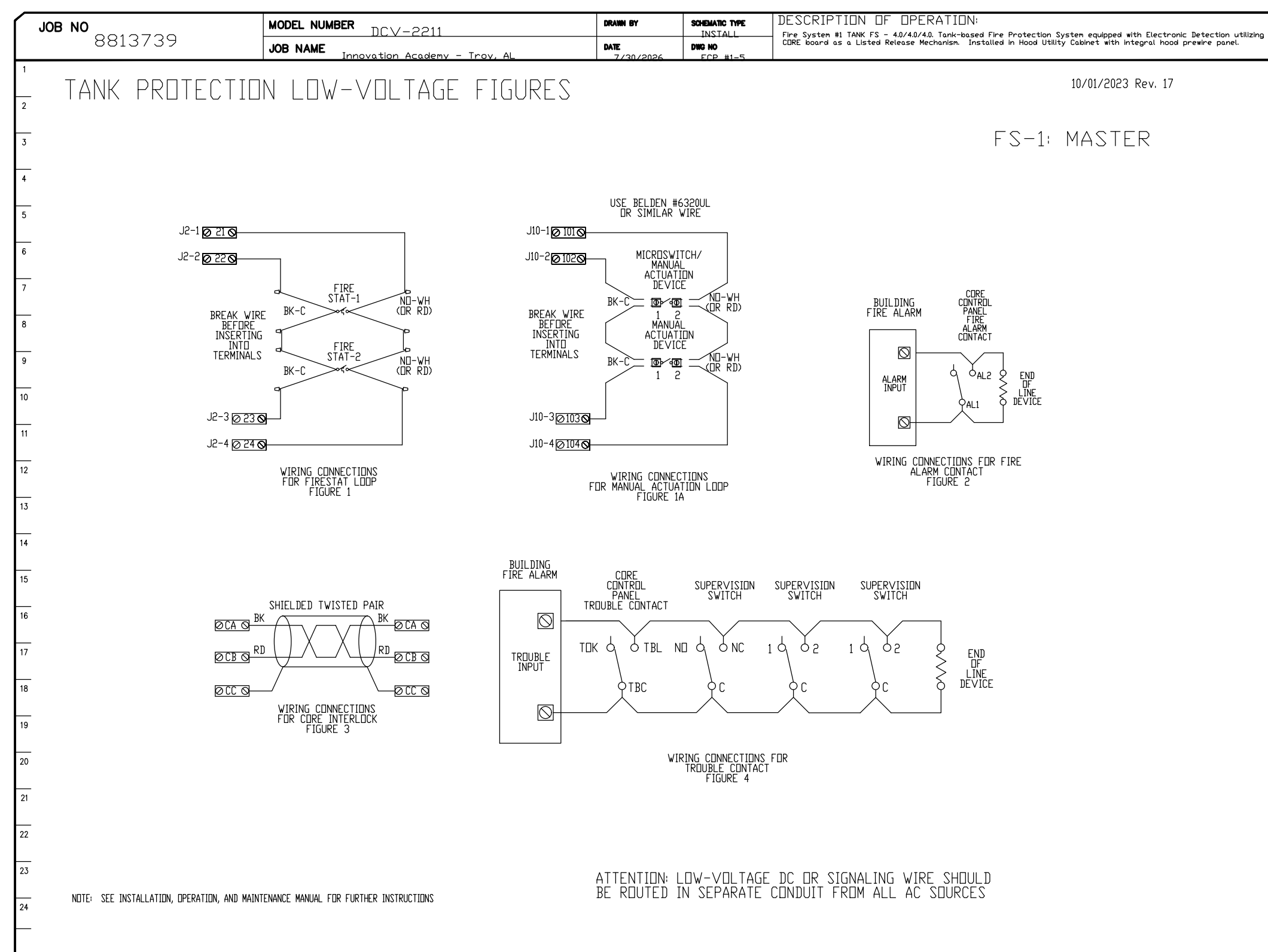
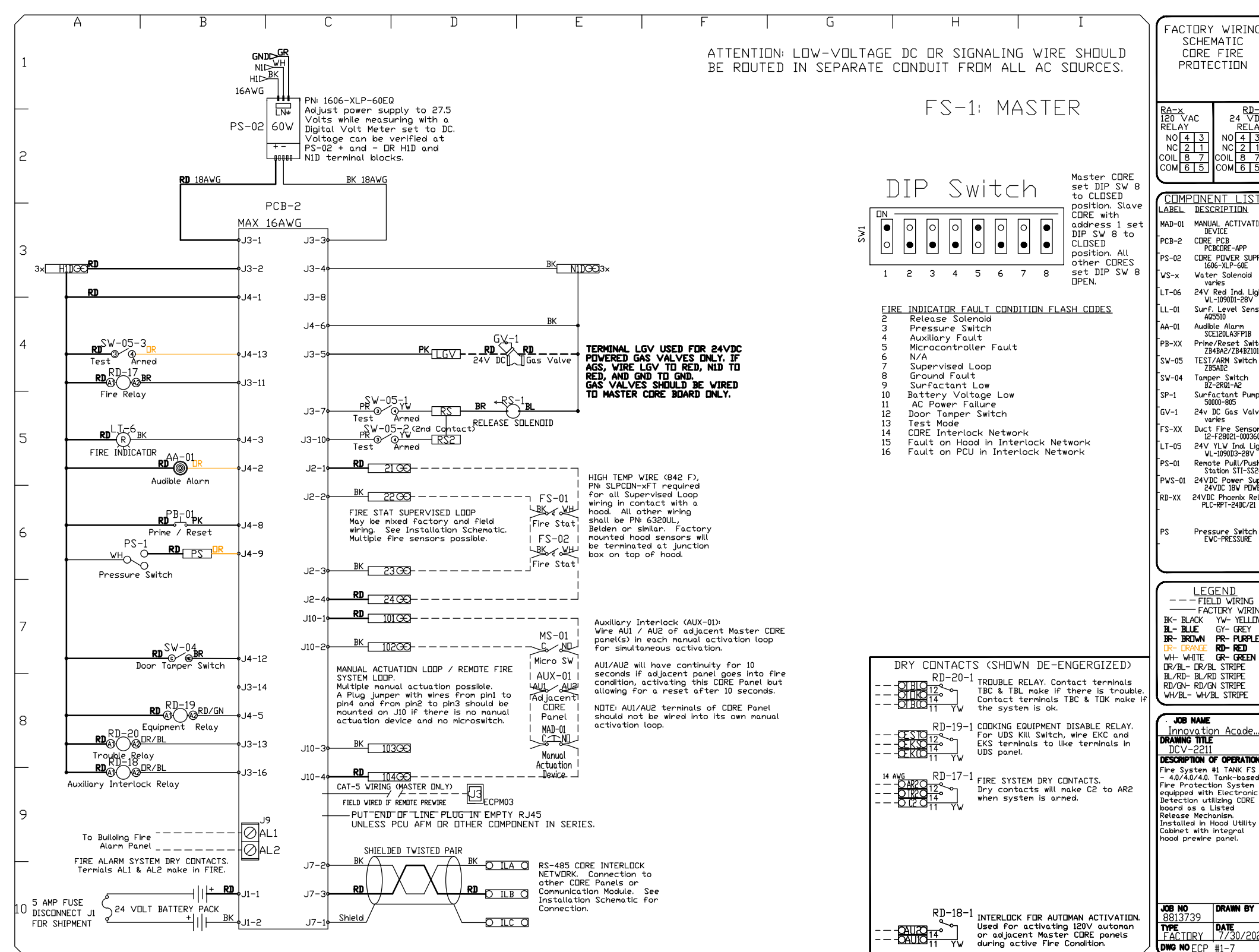
NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE, AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADII BACK WITH TURNING VANS. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT AND SUPPLY DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.

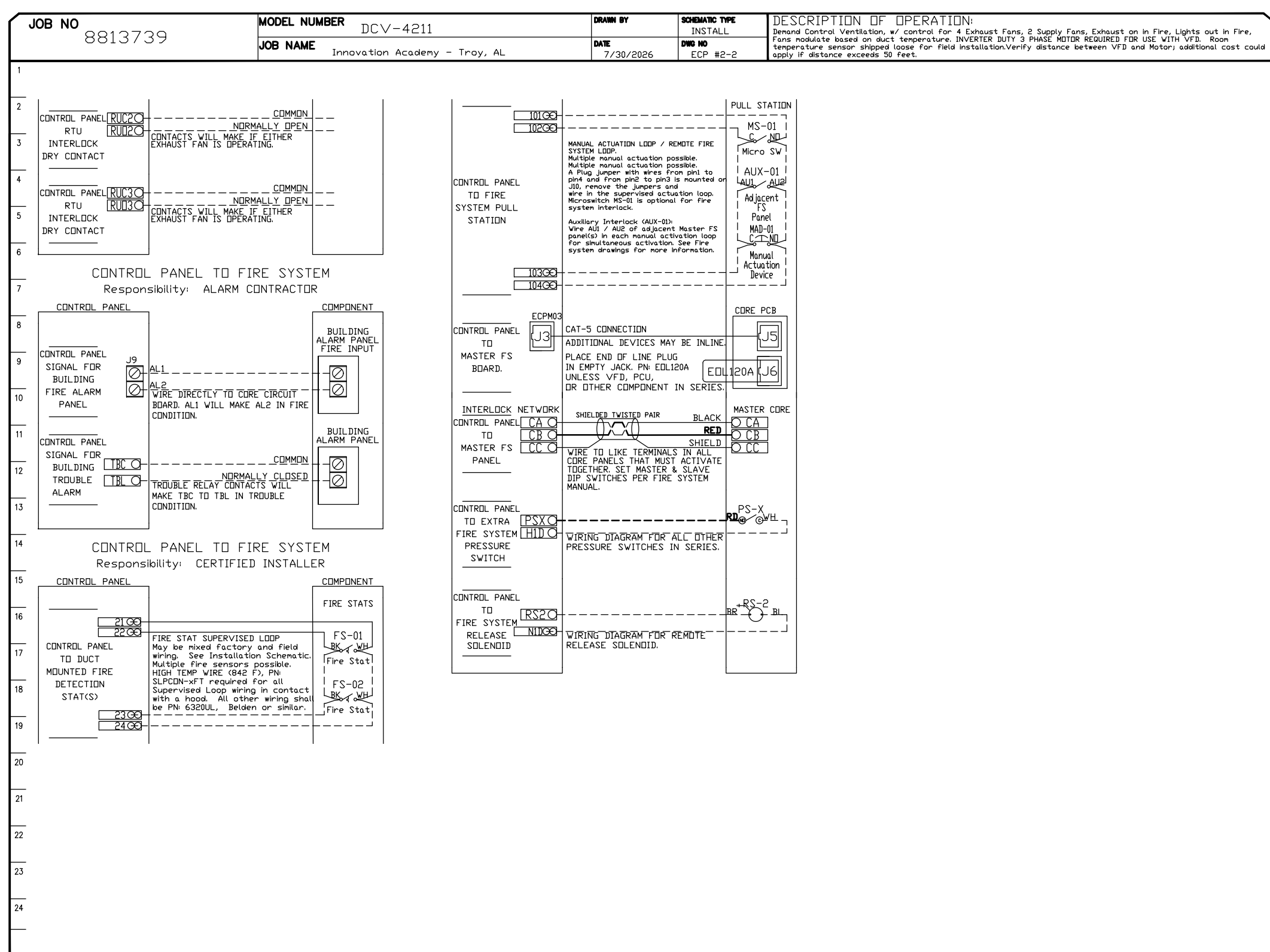
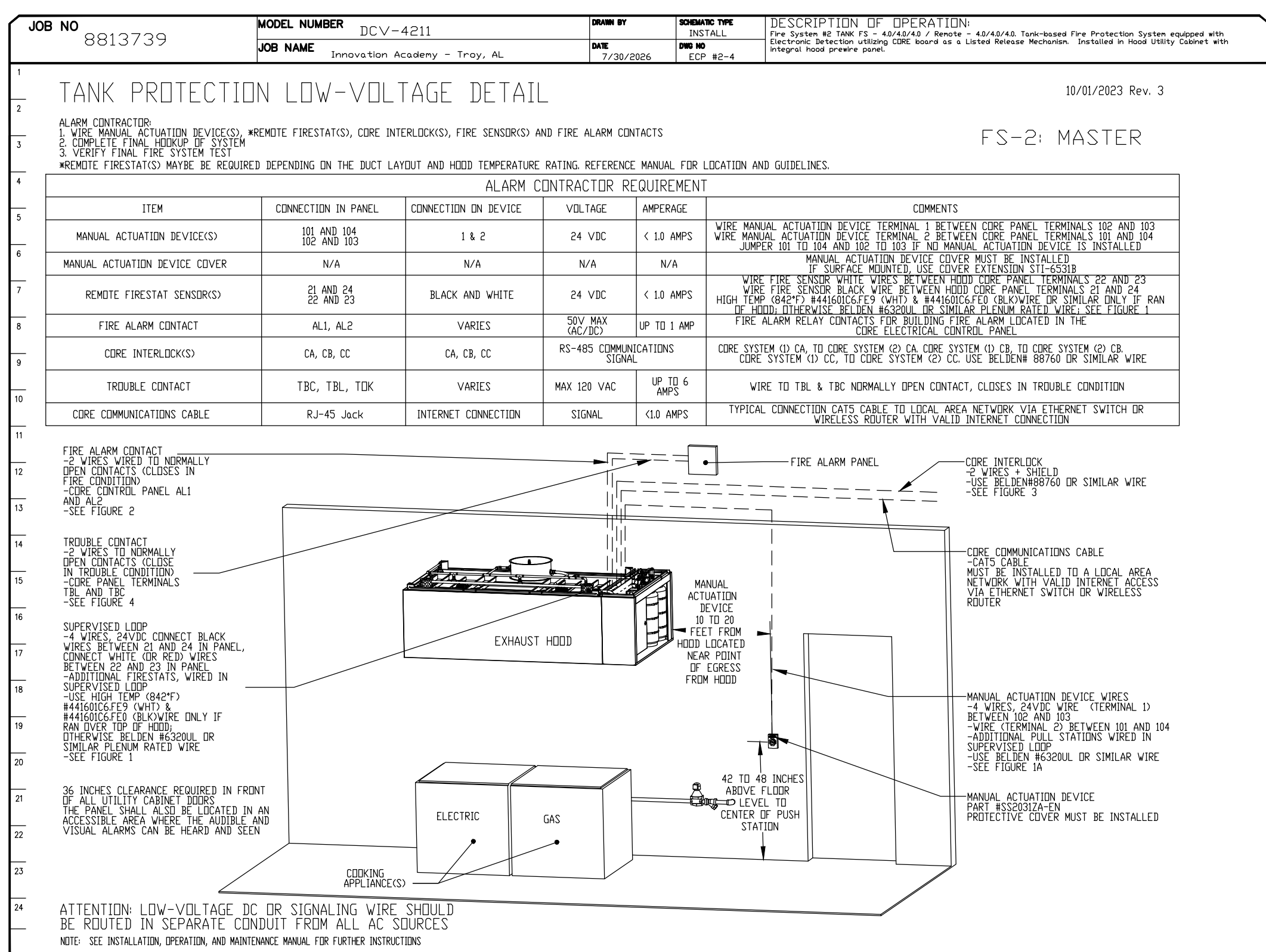
SUGGESTED SUPPLY STRAIGHT DUCT IS 23" x 39".

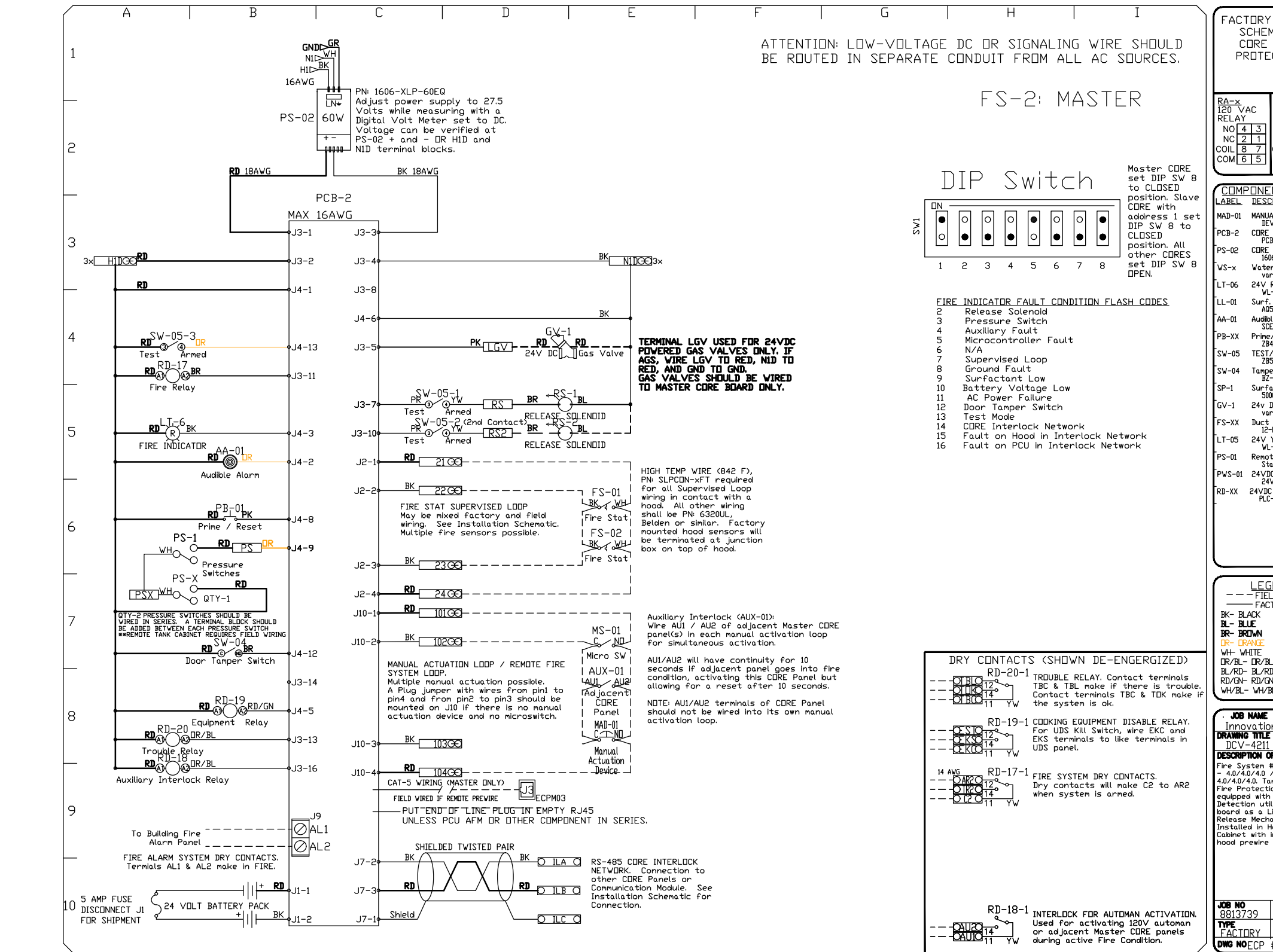


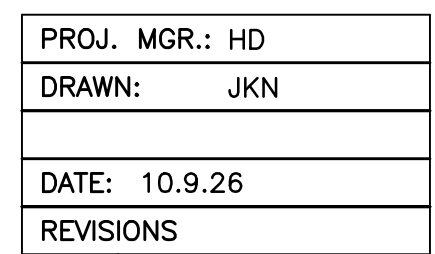
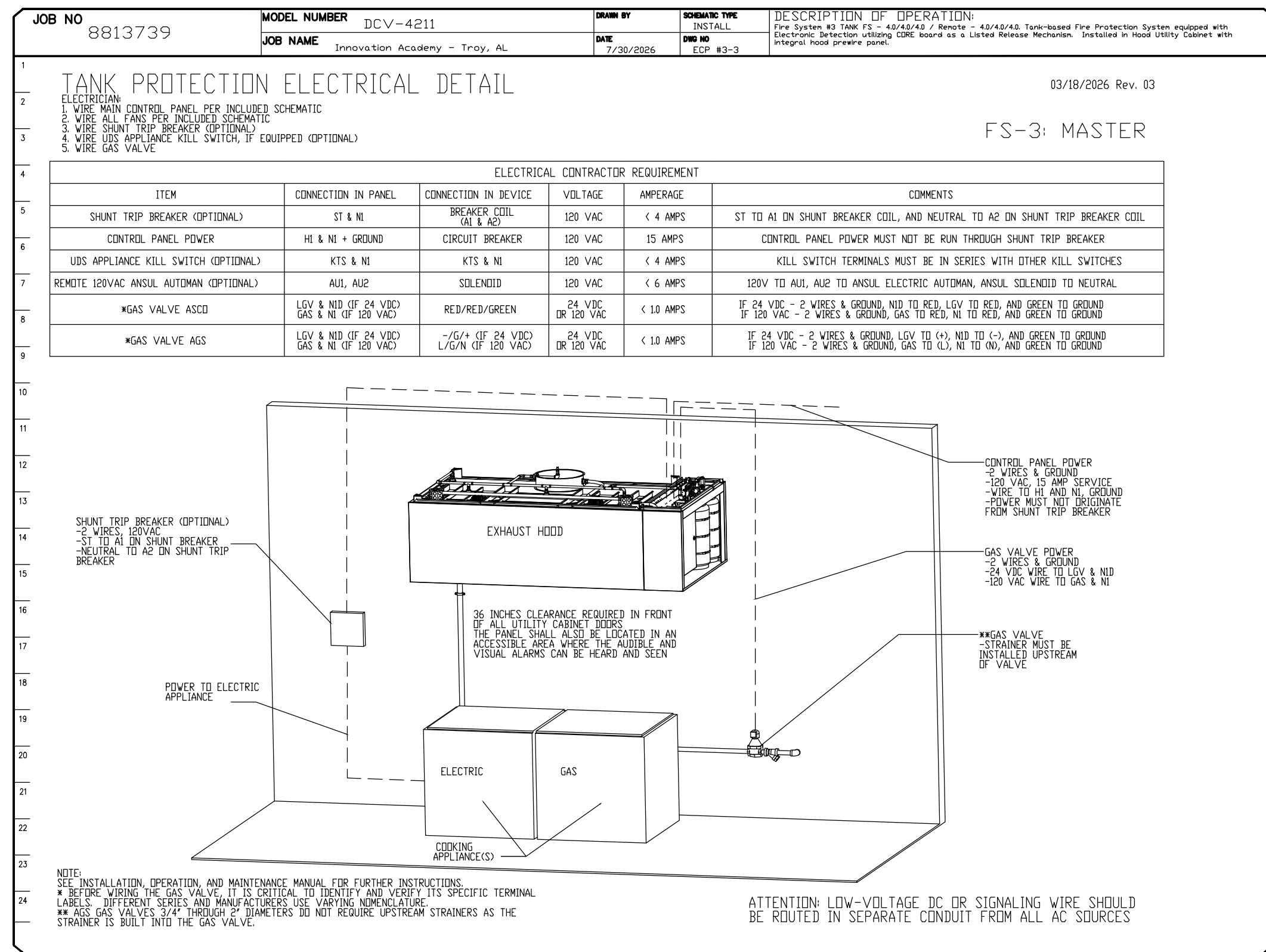
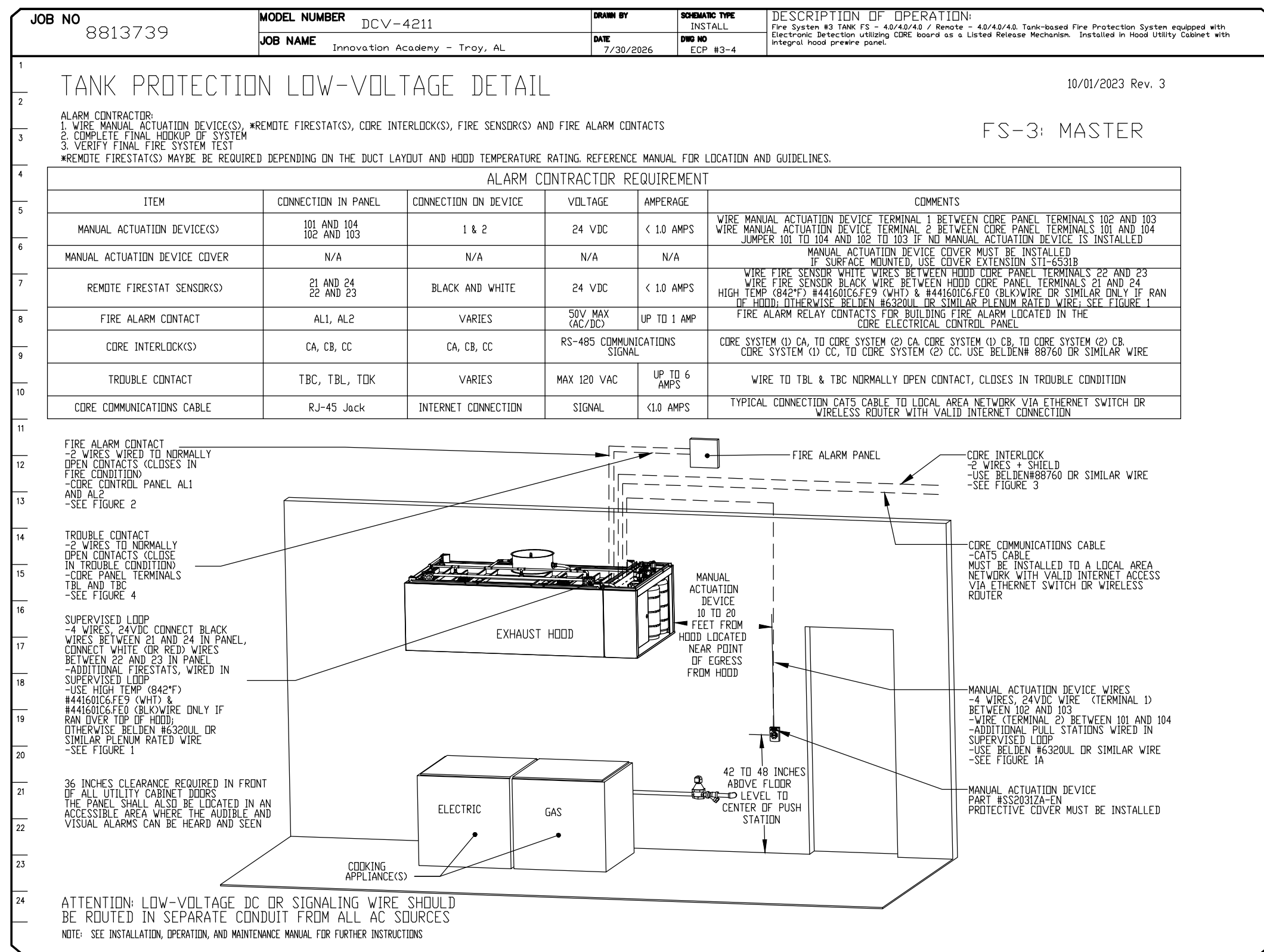
1. SECURE THE CURB TO THE ROOF FRAMING MEMBERS BY DRILLING 1/4" PILOT HOLES IN THE CURB FLANGES AT LOCATIONS SHOWN IN THE DIAGRAM BELOW. USING 3/8" X 2" ZINC PLATED STEEL LAG BOLTS, AND ZINC PLATED WASHERS, Screw THROUGH THE CURB FLANGES AND INTO THE ROOF FRAMING MEMBERS. A MINIMUM OF (5) LAG BOLTS IN EACH SHORT SIDE, AND (7) LAG BOLTS IN EACH LONG SIDE IS REQUIRED.
2. SECURE THE UNIT BASE TO THE SIDE WALLS OF THE CURB USING (24) 1/4"-14 X 2" SELF-DRILLING, STEEL ZINC PLATED SCREWS. PRE-PUNCHED HOLES HAVE BEEN PROVIDED FOR EACH SCREW LOCATION.

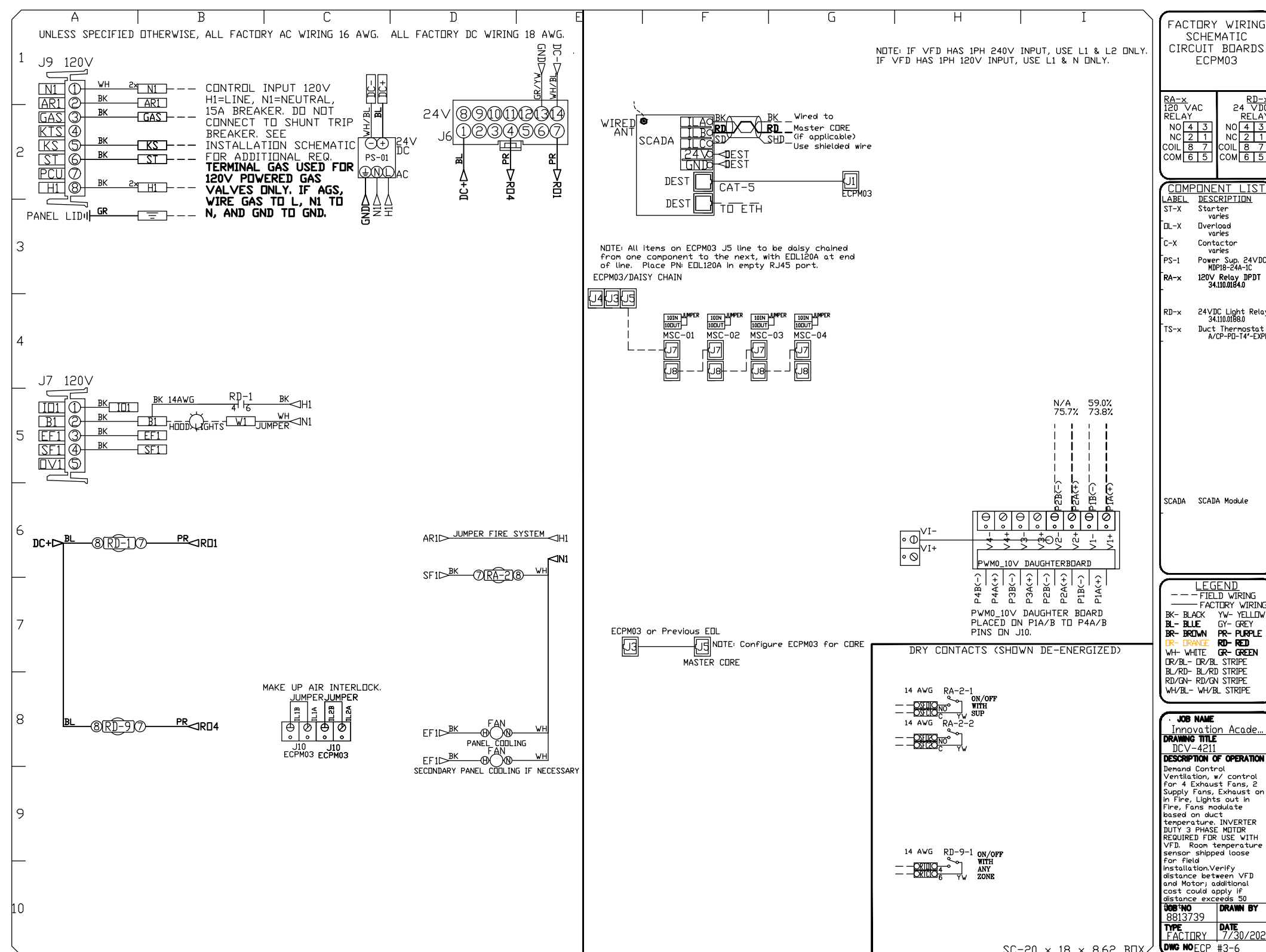
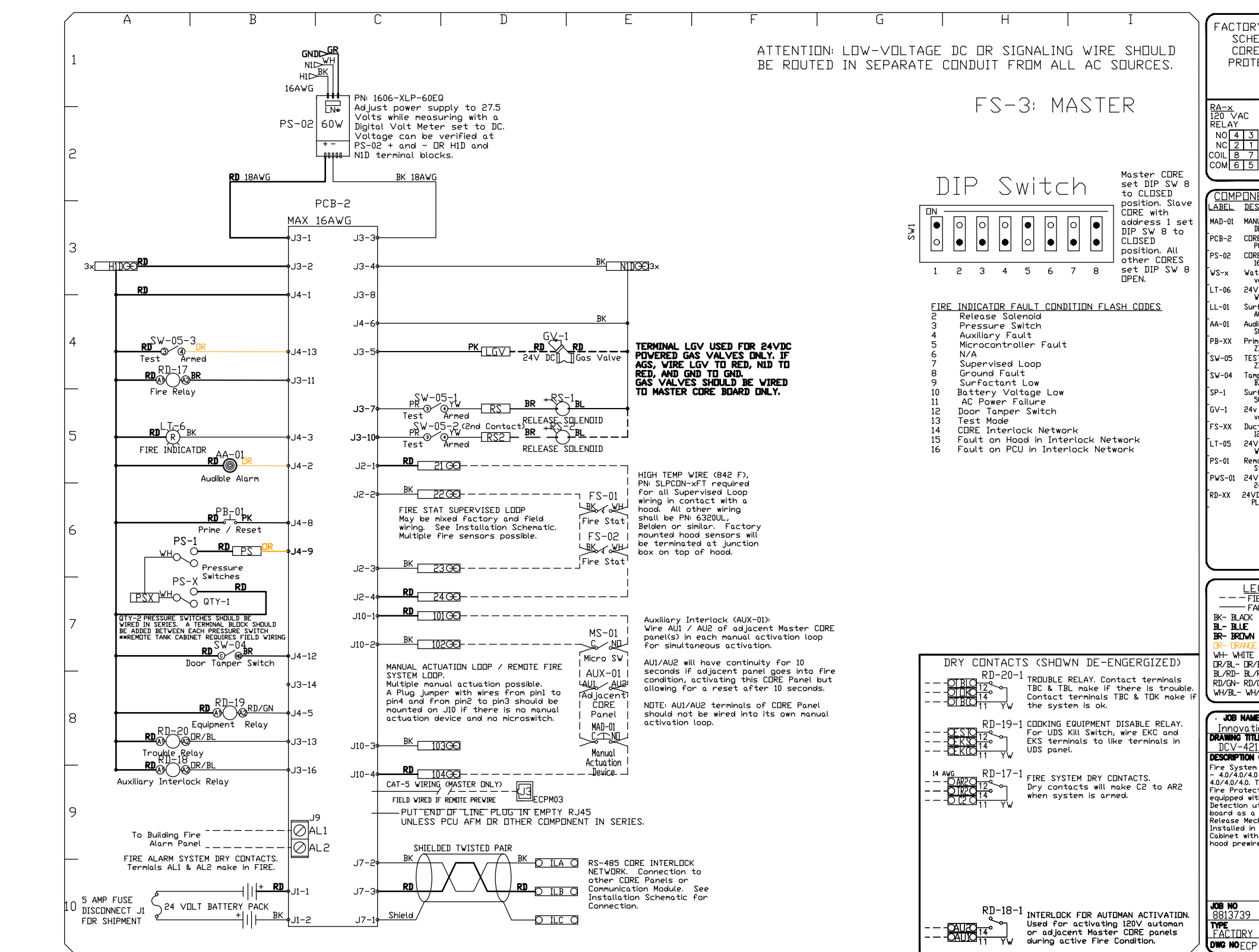












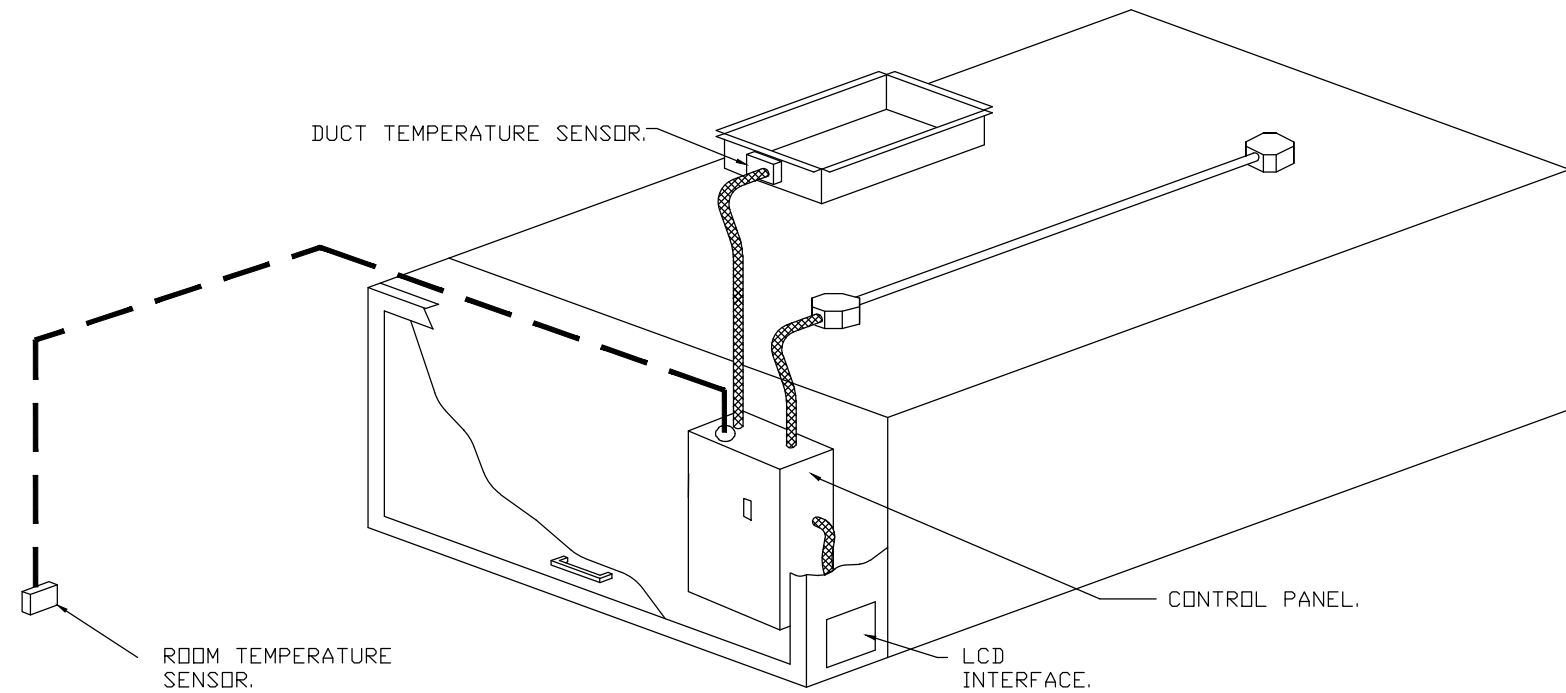


PROJ. MGR.:	HD
DRAWN:	JKN
DATE:	10.9.26
REVISIONS	

JOB NO.	25-249	
SHEET NO:	M4.25	
0	1"	2"

DEMAND CONTROL VENTILATION HOOD CONTROL PANEL SPECIFICATIONS:

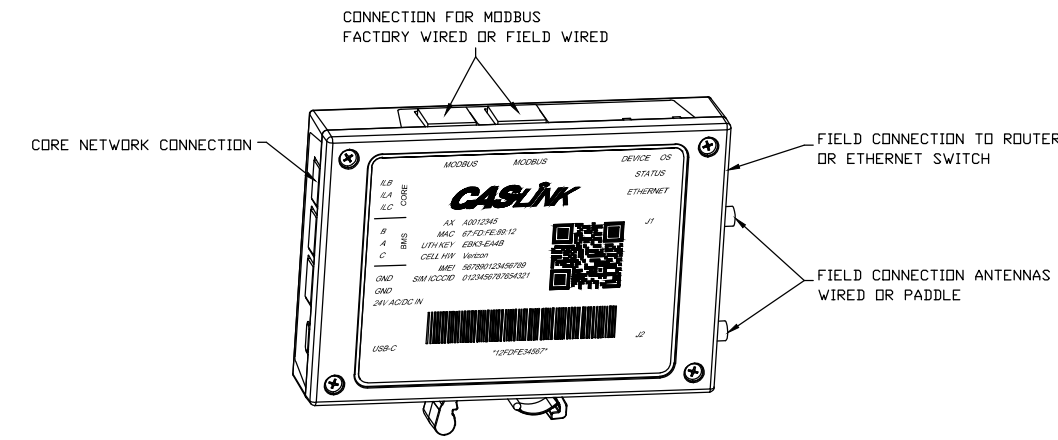
- CONTROLS SHALL BE LISTED BY ETL (UL 508A) AND SHALL COMPLY WITH DEMAND VENTILATION SYSTEM TURNDOWN REQUIREMENTS OUTLINED IN IECC 403.7.5 (2021).
- THE CONTROL ENCLOSURE SHALL BE NEMA 1 RATED AND LISTED FOR INSTALLATION INSIDE OF THE EXHAUST HOOD UTILITY CABINET. THE CONTROL ENCLOSURE MAY BE CONSTRUCTED OF STAINLESS STEEL OR PAINTED STEEL.
- TEMPERATURE PROBE(S) LOCATED IN THE EXHAUST DUCT RISER(S) SHALL BE CONSTRUCTED OF STAINLESS STEEL.
- A DIGITAL CONTROLLER SHALL BE PROVIDED TO ACTIVATE THE HOOD EXHAUST FANS DYNAMICALLY BASED ON A FIXED DIFFERENTIAL BETWEEN THE AMBIENT AND DUCT TEMPERATURES SENSORS. THIS FUNCTION SHALL MEET THE REQUIREMENTS OF IMC 507.1.1.
- A DIGITAL CONTROLLER SHALL PROVIDE ADJUSTABLE HYSTERESIS SETTINGS TO PREVENT CYCLING OF THE FANS AFTER THE COOKING APPLIANCES HAVE BEEN TURNED OFF AND/OR THE HEAT IN THE EXHAUST SYSTEM IS REDUCED.
- A DIGITAL CONTROLLER SHALL PROVIDE AN ADJUSTABLE MINIMUM FAN RUN-TIME SETTING TO PREVENT FAN CYCLING.
- VARIABLE FREQUENCY DRIVES (VFDS) SHALL BE PROVIDED FOR FANS AS REQUIRED. THE DIGITAL CONTROLLER SHALL MODULATE THE VFDS BETWEEN A MINIMUM SETPOINT AND A MAXIMUM SETPOINT ON DEMAND. THE DUCT TEMPERATURE SENSOR INPUT(S) TO THE DIGITAL CONTROLLER SHALL BE USED TO CALCULATE THE SPEED REFERENCE SIGNAL.
- THE VFD SPEED RANGE OF OPERATION SHALL BE FROM 0% TO 100% FOR THE SYSTEM, WITH THE ACTUAL MINIMUM SPEED SET AS REQUIRED TO MEET MINIMUM VENTILATION REQUIREMENTS.
- AN INTERNAL ALGORITHM TO THE DIGITAL CONTROLLER SHALL MODULATE SUPPLY FAN VFD SPEED PROPORTIONAL TO ALL EXHAUST FANS THAT ARE LOCATED IN THE SAME FAN GROUP AS THE SUPPLY FAN.
- THE SYSTEM SHALL OPERATE IN PREP MODE DURING LIGHT COOKING LOAD OR COOL DOWN MODE WHEN SUFFICIENT HEAT REMAINS UNDERNEATH THE HOOD SYSTEM AFTER COOKING OPERATIONS HAVE COMPLETED. OPERATION DURING EITHER OF THESE PERIODS WILL DISABLE THE SUPPLY FANS AND PROVIDE AN EXHAUST FAN SPEED THAT IS EQUAL TO THE MINIMUM VENTILATION REQUIREMENT.
- A DIGITAL CONTROLLER SHALL DISABLE THE SUPPLY FAN(S), ACTIVATE THE EXHAUST FAN(S), ACTIVATE THE APPLIANCE SHUNT TRIP, AND DISABLE AN ELECTRIC GAS VALVE AUTOMATICALLY WHEN FIRE CONDITION IS DETECTED ON A COVERED HOOD.
- A DIGITAL CONTROLLER SHALL ALLOW FOR EXTERNAL BMS FAN CONTROL VIA DRY CONTACT (EXTERNAL CONTROL SHALL NOT OVERRIDE FAN OPERATION LOGIC AS REQUIRED BY CODE).
- AN LCD INTERFACE SHALL BE PROVIDED WITH THE FOLLOWING FEATURES:
 - A. ON/OFF PUSH BUTTON FAN & LIGHT SWITCH ACTIVATION.
 - B. INTEGRATED GAS VALVE RESET FOR ELECTRONIC GAS VALVES (NO RESET RELAY REQUIRED).
 - C. VFD FAULT DISPLAY WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
 - D. DUCT TEMPERATURE SENSOR FAILURE DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
 - E. MIS-WIRED DUCT TEMPERATURE SENSOR DETECTION WITH AUDIBLE & VISUAL ALARM NOTIFICATION.
 - F. A SINGLE LOW VOLTAGE CAT-5 RJ45 WIRING CONNECTION.
 - G. AN ENERGY SAVINGS INDICATOR THAT UTILIZES MEASURED KWH FROM THE VFDS.



TYPICAL HOOD CONTROL PANEL INSTALLATION

SEQUENCE OF OPERATIONS:

- THE HOOD CONTROL PANEL IS CAPABLE OF OPERATING IN ONE OR MORE OF THE FOLLOWING STATES AT ANY GIVEN TIME:
- **AUTOMATIC:** THE SYSTEM OPERATES BASED ON THE DIFFERENTIAL BETWEEN ROOM TEMPERATURE AND THE TEMPERATURE AT THE HOOD CAVITY OR EXHAUST DUCT COLLAR. FANS ACTIVATE AT A CONFIGURABLE TEMPERATURE DIFFERENTIAL THRESHOLD. DEPENDING ON THE JOB CONFIGURATION EACH FAN ZONE CAN BE CONFIGURED AS STATIC OR DYNAMIC. THESE TERMS REFER TO WHETHER A VARIABLE MOTOR (SUCH AS EC MOTORS OR VFD DRIVEN MOTORS) MODULATE WITH TEMPERATURE. IF THE PANEL IS EQUIPPED WITH VARIABLE SPEED FANS AND THE ZONE IS DEFINED AS 'DYNAMIC', THESE WILL MODULATE WITHIN A USER-DEFINED RANGE BASED ON THE TEMPERATURE DIFFERENTIAL. PANELS EQUIPPED WITH VARIABLE SPEED FANS AND A FAN ZONE DEFINED AS 'STATIC', FANS WILL RUN AT A SET SPEED CALCULATED FOR THE DRIVE. DEMAND CONTROL VENTILATION SYSTEMS ARE CAPABLE OF MODULATING EXHAUST AND MAKE UP AIR FAN SPEEDS PER THE REQUIREMENTS OUTLINED IN IECC 403.7.5 (2021).
 - **MANUAL:** THE SYSTEM OPERATES BASED ON HUMAN INPUT FROM AN HMI.
 - **SCHEDULE:** A WEEKLY SCHEDULE CAN BE SET TO RUN FANS FOR A SPECIFIED PERIOD THROUGHOUT THE DAY. THERE ARE THREE OCCUPIED TIMES PER DAY TO ALLOW FOR THE USER TO SET UP A TIME THAT IS SUITABLE TO THEIR NEEDS. ANY TIME THAT IS WITHIN THE DEFINED OCCUPIED TIME, THE SYSTEM WILL RUN AT MODULATION MODE AND FOLLOW THE FAN PROCEDURE ALGORITHM BASED ON TEMPERATURE DURING THIS TIME. DURING UNOCCUPIED TIME, THE SYSTEM WILL HAVE AN EXTRA OFFSET TO PREVENT UNINTENDED ACTIVATION OF THE SYSTEM DURING A TIME WHERE THE SYSTEM IS NOT BEING OCCUPIED.
 - **OTHER:** THE SYSTEM OPERATES BASED ON THE INPUT FROM AN EXTERNAL SOURCE (DDC, BMS OR HARD-WIRED INTERLOCK).
 - **FIRE:** UPON ACTIVATION OF THE HOOD FIRE SUPPRESSION SYSTEM, THE EXHAUST FAN WILL COME ON OR CONTINUE TO RUN, THE HOOD MAKEUP AIR WILL SHUTDOWN, AND A SIGNAL WILL BE SENT FOR ACTIVATING THE SHUNT TRIP BREAKER PROVIDED BY THE ELECTRICIAN. FUEL GAS WILL SHUT OFF VIA A MECHANICAL/ELECTRICAL GAS VALVE ACTUATED BY THE HOOD FIRE SUPPRESSION SYSTEM.



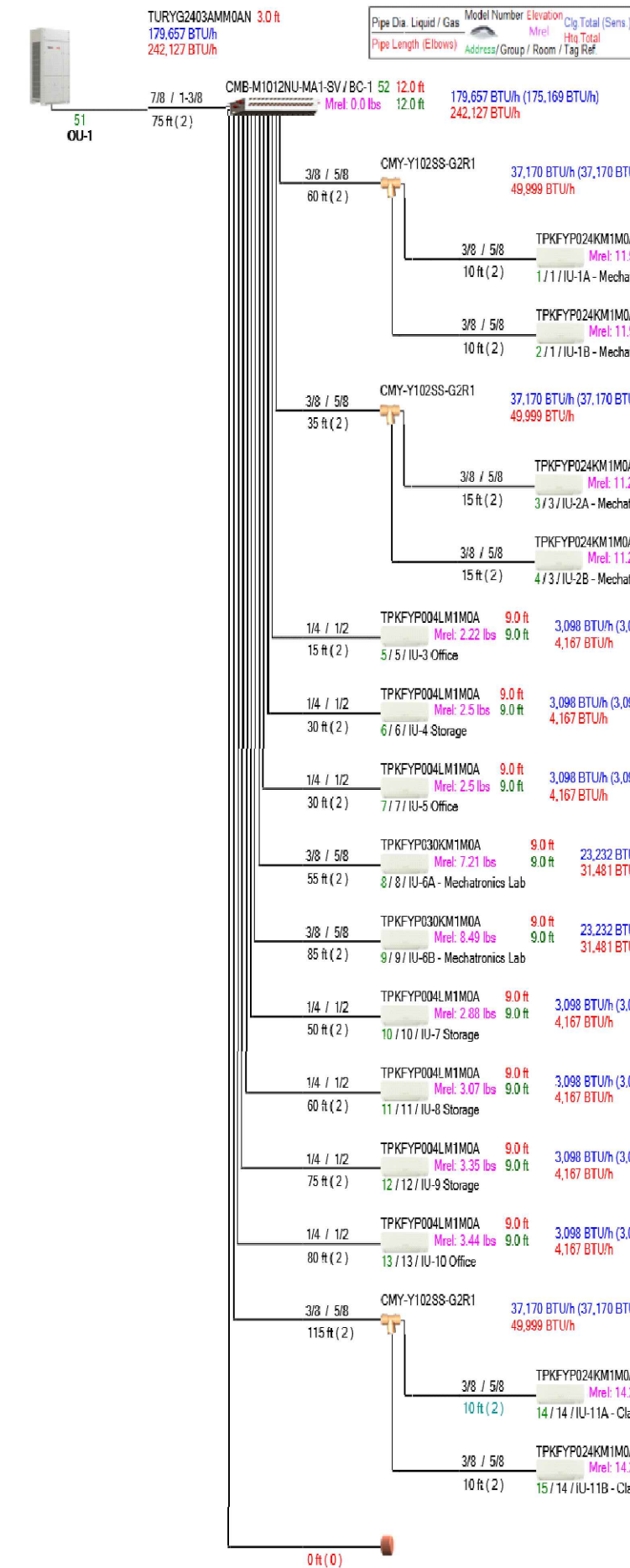
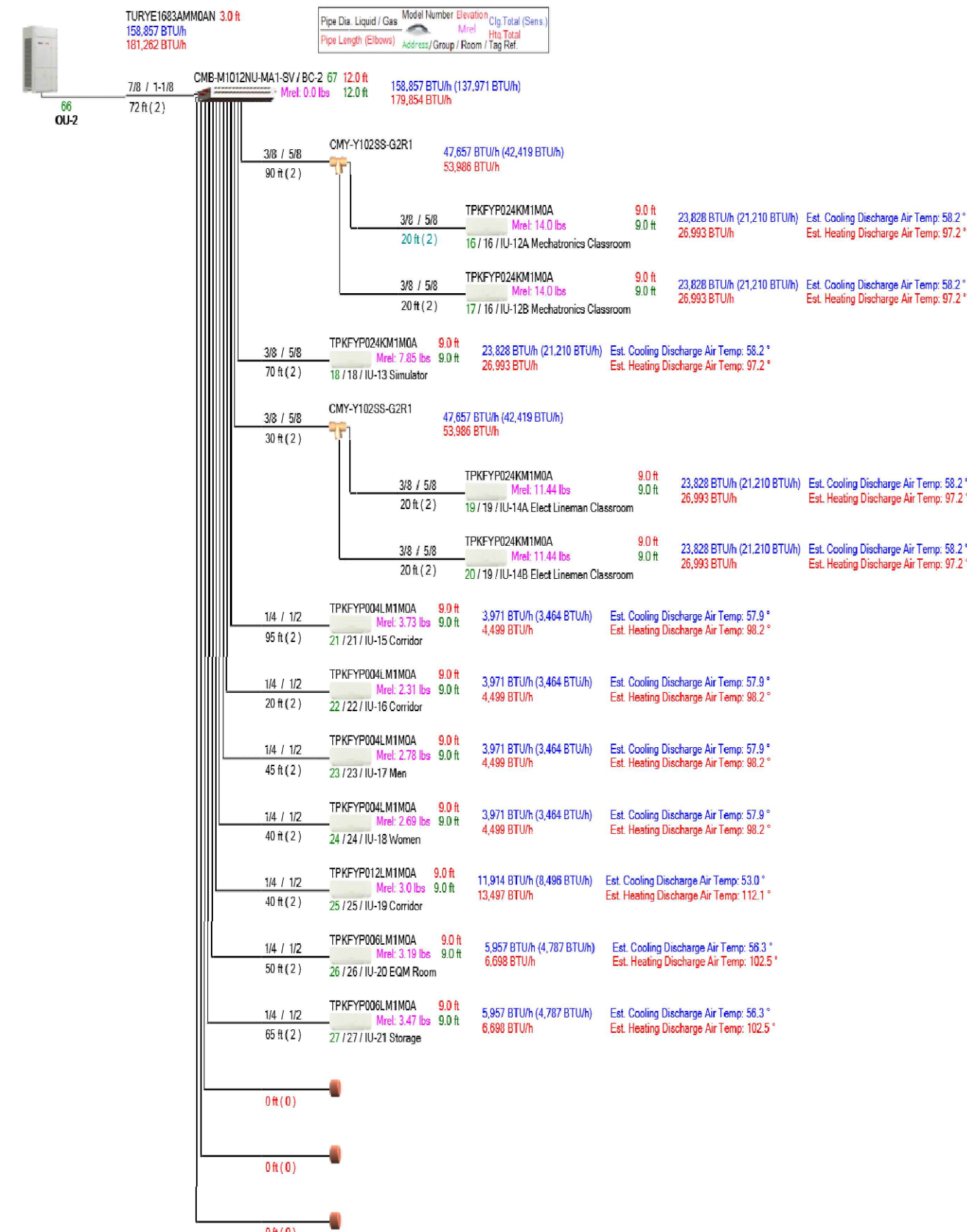
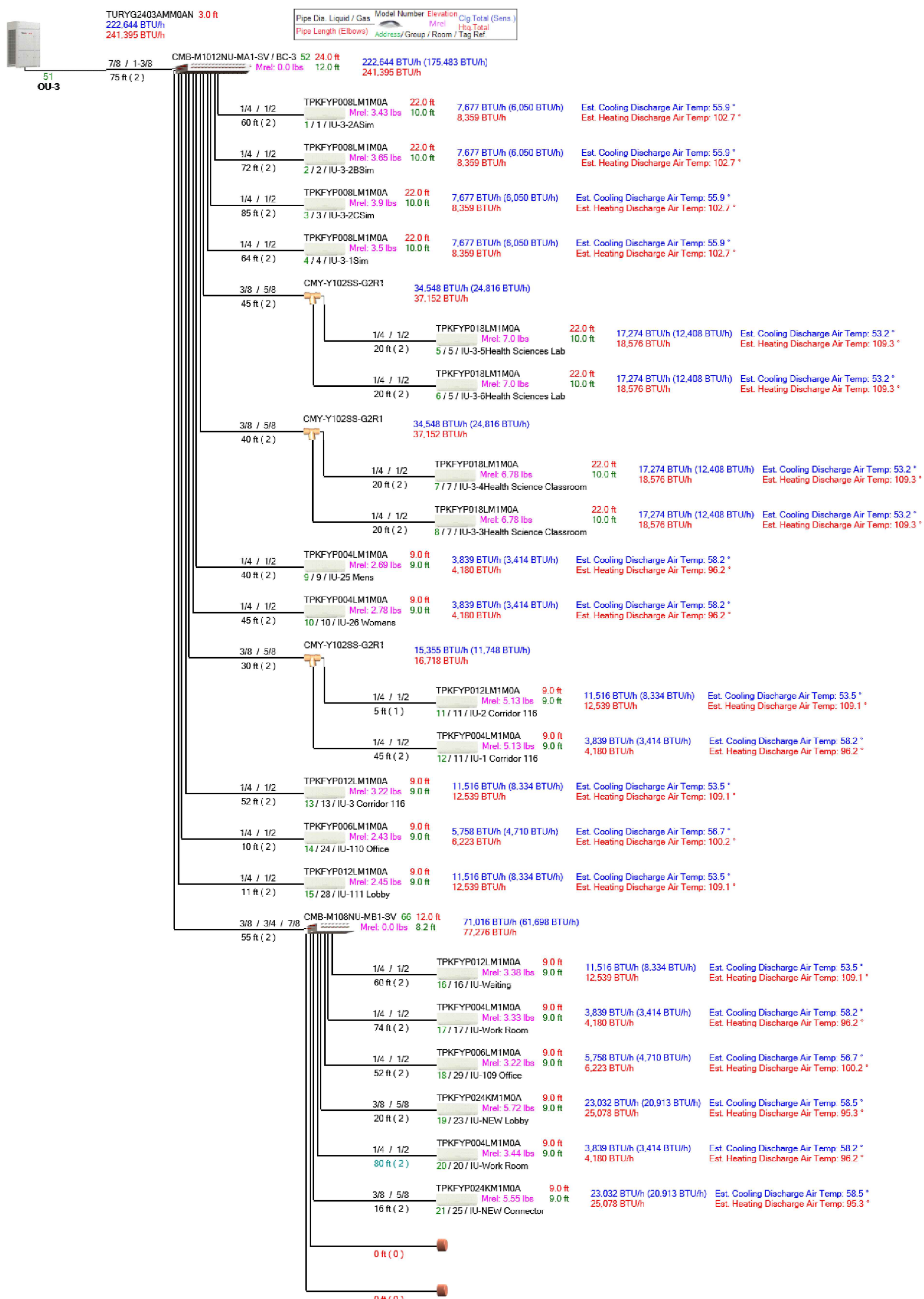
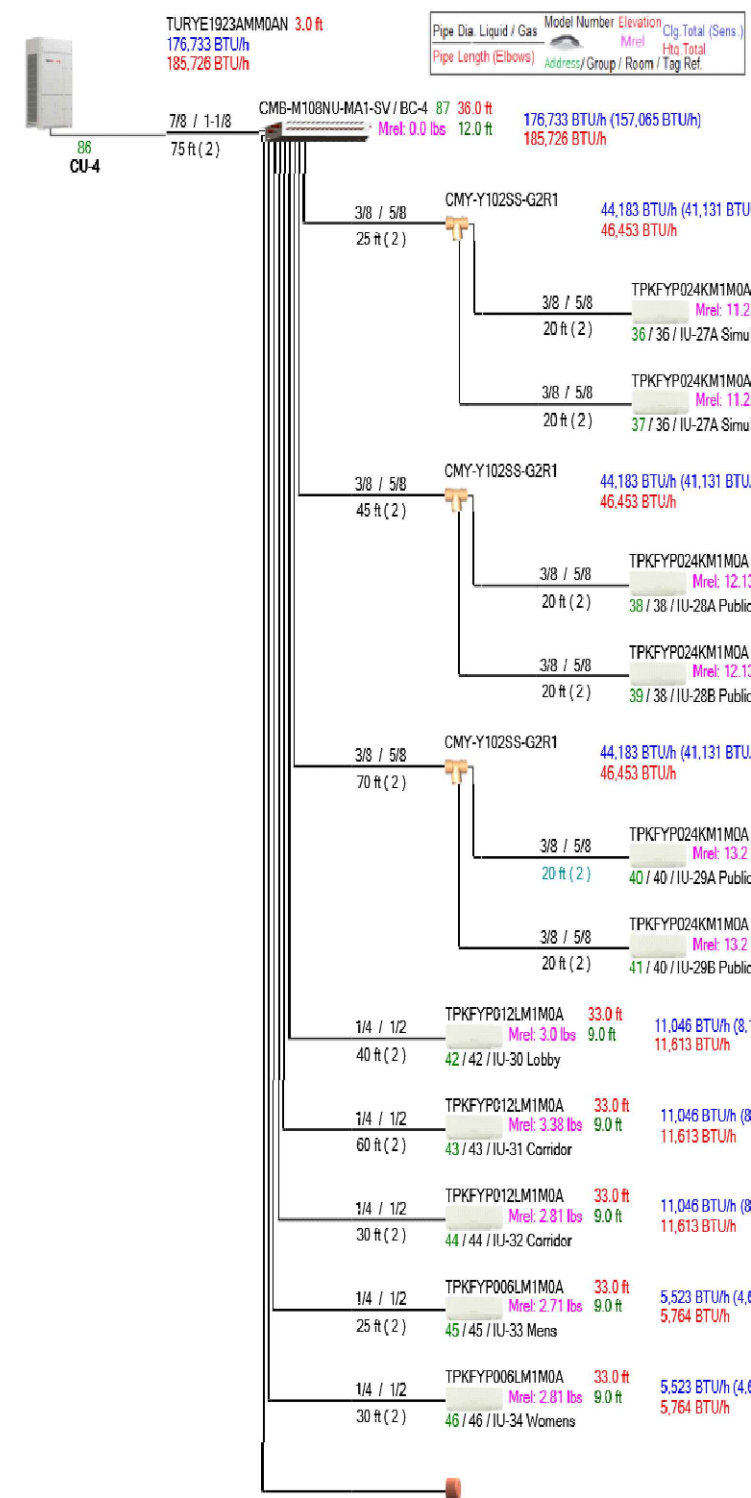
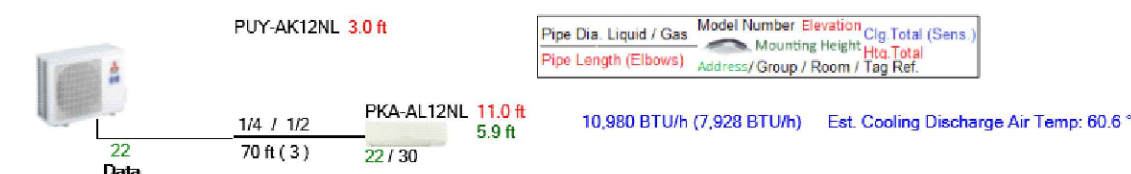
CASink Monitor and Control

- Hood control panel to support communications to cloud-based Building Management System.
- Hood Control Panel to allow cloud-based Building Management System to monitor real time parameters outlined as MONITOR in the points list.
- Hood Control Panel to allow cloud-based Building Management System to control parameters outlined as CONTROL in the points list.
- Hood Control Panel to allow cloud-based Building Management System to implement SYSTEM ECONOMIZER control strategies for fully integrated Building Management.

MONITORING AND CONTROL POINTS LIST

DDC Packages	Function	SC Packages	Function
Room Temperature	MONITOR	Room Temperature(s)	MONITOR
Duct Temperature(s)	MONITOR	Duct Temperature(s)	MONITOR
MGA Discharge Temperature	MONITOR	MGA Discharge Temperature	MONITOR
Kitchen RTU Discharge Temperature	MONITOR	Kitchen RTU Discharge Temperature	MONITOR
Fan Speed	MONITOR	Circulator Faults	MONITOR
Fan Amperage	MONITOR	Fan Faults	MONITOR
Fan Power	MONITOR	Fan Status	MONITOR
VFD Faults	MONITOR	VFD Faults	MONITOR
Circulator Faults	MONITOR	VFD Filter Cap Percentages	MONITOR
Fan Faults	MONITOR	Fan Condition	MONITOR
Fan Status	MONITOR	CORE Fire System	MONITOR
VFD Faults	MONITOR	Building Pressures	MONITOR
VFD Filter Cap Percentages	MONITOR	Fan Status(s)	MONITOR & CONTROL
Fire Condition	MONITOR	Light(s) Status(s)	MONITOR & CONTROL
CORE Fire System	MONITOR	Wash Button	MONITOR & CONTROL
Building Pressures	MONITOR		
Prep Time Button	MONITOR & CONTROL		
Fans Button	MONITOR & CONTROL		
Light(s) Button	MONITOR & CONTROL		
Wash Button	MONITOR & CONTROL		

System	IDU	Indoor unit type	Capacity (kBtu)	EDM/Method	Mitigation	Valve distance (ft)	Floor area (sqft)	Room Height (ft)	EDM/(lbs) Mrel (lbs)	lbs. over limit	compliance
OU-1	IU-1A	Wall Mount	24 LFL								COMPLIANT
	IU-1B	Wall Mount	24 LFL				70	605	9	52	
	IU-2A	Wall Mount	24 LFL								
	IU-2B	Wall Mount	24 LFL				45	885	9	76.07	
	IU-3	Wall Mount	4 LFL				15	100	9	8.6	
	IU-4	Wall Mount	4 LFL				30	110	9	9.45	COMPLIANT
	IU-5	Wall Mount	4 LFL				30	85	9	7.31	
	IU-6A	Wall Mount	30 LFL				55				COMPLIANT
	IU-6B	Wall Mount	30 LFL				85	1275	9	109.59	
	IU-7	Wall Mount	4 LFL				50	50	9	4.3	
	IU-8	Wall Mount	4 LFL				50	90	9	7.74	
OU-2	IU-9	Wall Mount	4 LFL				75	110	9	9.45	COMPLIANT
	IU-10	Wall Mount	4 LFL				80	115	9	9.89	
	IU-11A	Wall Mount	24 LFL								
	IU-11B	Wall Mount	24 LFL				125	1035	9	88.96	
	BC-1	BC	BC	Ventilated				2	0	0	
	IU-12A	Wall Mount	24 LFL				110	930	9	79.93	COMPLIANT
	IU-12B	Wall Mount	24 LFL				110	930	9	79.93	
	IU-13	Wall Mount	24 LFL				70	500	9	42.98	COMPLIANT
	IU-14A	Wall Mount	24 LFL				50				
	IU-14B	Wall Mount	24 LFL				50	955	9	82.08	COMPLIANT
	IU-15	Wall Mount	4 LFL				95				
OU-3	IU-16	Wall Mount	24 LFL				20	815	9	70.05	COMPLIANT
	IU-17	Wall Mount	4 LFL				45	130	9	11.17	
	IU-18	Wall Mount	4 LFL				40	130	9	11.17	COMPLIANT
	IU-19	Wall Mount	12 LFL				40	360	9	30.94	
	IU-20	Wall Mount	6 LFL				50	60	9	5.16	COMPLIANT
	IU-21	Wall Mount	6 LFL				65	230	9	19.77	
	BC-2	BC	BC	Ventilated				2			COMPLIANT
	IU-22A	Wall Mount	18 LFL				80	850	9	73.06	
	IU-22B	Wall Mount	18 LFL								
	IU-23A	Wall Mount	18 LFL				55	850	9	73.06	
	IU-23B	Wall Mount	18 LFL								
OU-3	IU-24A	Wall Mount	18 LFL				50	850	9	73.06	COMPLIANT
	IU-24B	Wall Mount	18 LFL				40	105	9	9.02	
	IU-25	Wall Mount	4 LFL				40	120	9	10.31	COMPLIANT
	IU-26	Wall Mount	4 LFL				45				
	BC-3	BC	BC	Ventilated				2			COMPLIANT
	IU-27A	Wall Mount	24 LFL								
	IU-27B	Wall Mount	24 LFL				35	950	9	81.65	
	IU-28A	Wall Mount	24 LFL								
	IU-28B	Wall Mount	24 LFL				55	950	9	81.65	
OU-3	IU-29A	Wall Mount	24 LFL				80	850	9	73.06	COMPLIANT
	IU-30	Wall Mount	12 LFL				40	180	9	15.47	
	IU-31	Wall Mount	12 LFL				60				COMPLIANT
	IU-32	Wall Mount	12 LFL				30	400	9	34.38	
	IU-33	Wall Mount	6 LFL				25	100	9	8.6	COMPLIANT
	IU-34	Wall Mount	6 LFL				30	120	9	10.32	
	BC-4	BC	BC	Ventilated				2			COMPLIANT
	IU-27A	Wall Mount	24 LFL								
	IU-27B	Wall Mount	24 LFL				35	950	9	81.65	
	IU-28A	Wall Mount	24 LFL								
	IU-28B	Wall Mount	24 LFL				55	950	9	81.65	

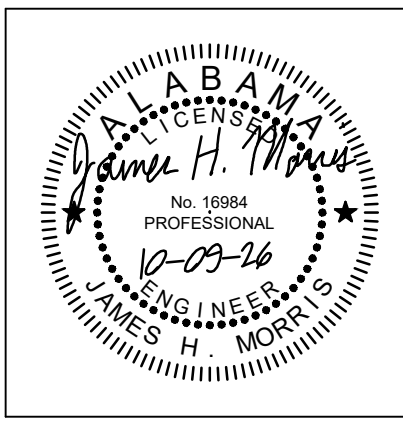


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Academy St. Career Innovation Academy
The Troy City & Pike County Board of Education
708 E. Academy St., Troy, AL 36061

MECHANICAL SCHEDULES

SHEET TITLE:



PROJ. MGR.: HD
DRAWN: JKN
DATE: 10.9.26
REVISIONS

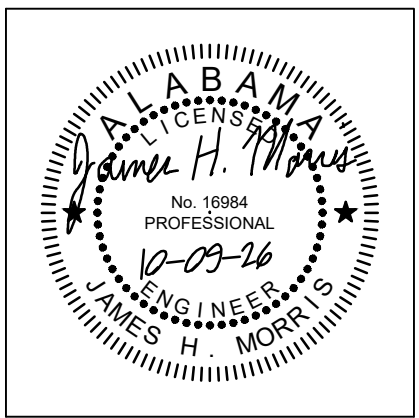
JOB NO.
25-249

SHEET NO:
M4.26

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MORRIS DAVIS
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PROJ. MGR.:	HD
DRAWN:	JKN
DATE:	10.9.26
REVISIONS	

JOB NO.	25-249
SHEET NO:	M4.27

2021 INTERNATIONAL MECHANICAL CODE REQUIRED OUTDOOR VENTILATION AIR TABLE 403.3															
UNIT TAG	ROOM	ROOM CLASSIFICATION PER TABLE 403.3	AREA FT²*2 (A2)	EST. OCC. LOAD (P2)	OCC. O.A RATE PER PERSON (Rp)	AREA O.A. RATE PER FT² (Ra)	TOTAL OCC. O.A. RATE (CFM) (RpP2)	TOTAL AREA O.A. RATE (CFM) (RaA2)	TOTAL O.A.(CFM) (RpP2)+(RaA2)= (Vb2)	ZONE O.A. (CFM) (Vo2)	O.A. INTAKE FLOW (CFM) (Vo1)	ZONE AIR DISTRUBUTION EFFECTVENESS (E2)	Exahust Rate S.F.	Exhaust Rate Plumbing Fixture	TOTAL AREA OCC. O.A. RATE (CFM) ADJUSTED FOR BIPOLAR IONIZATION
Lower Level Gymnasium	Storage 004	Storage Rooms	228	0	0	0.12	0	27.36	27.36	27.36	27.36	1	0	0	0
	Equipment Room 003	Storage Rooms	58	0	0	0.12	0	6.96	6.96	6.96	6.96	1	0	0	0
	Corridor 001	Corridors	362	0	0	0.06	0	21.72	21.72	21.72	21.72	1	0	0	0
	Women	Toilet Rooms - Public	134	0	0	0	0	0	0	0	0	1	0	0	0
	Men	Toilet Rooms - Public	133	0	0	0	0	0	0	0	0	1	0	0	0
	Data Storage 002	Storage Rooms	112	0	0	0.12	0	13.44	13.44	13.44	13.44	1	0	0	0
	Classroom/Lab 005	Classrooms (age 9 plus)	1034	37	10	0.12	370	124.08	494.08	494.08	494.08	1	0	0	185
	Office 006	Office Spaces	115	1	5	0.06	5	6.9	11.9	11.9	11.9	1	0	0	5
	Janitor	Storage Rooms	59	0	0	0.12	0	7.08	7.08	7.08	7.08	1	0	0	0
	Storage 007	Storage Rooms	109	0	0	0.12	0	13.08	13.08	13.08	13.08	1	0	0	0
	Mechatronics Lab 008	Classrooms (age 9 plus)	1296	46	10	0.12	460	155.52	615.52	615.52	615.52	1	0	0	230
	Storage 009	Storage Rooms	91	0	0	0.12	0	10.92	10.92	10.92	10.92	1	0	0	0
	Elec 010	Storage Rooms	48	0	0	0.12	0	5.76	5.76	5.76	5.76	1	0	0	0
	Storage 011	Storage Rooms	88	0	0	0.12	0	10.56	10.56	10.56	10.56	1	0	0	0
	Coridor 017	Corridors	902	0	0	0.06	0	54.12	54.12	54.12	54.12	1	0	0	0
	Mechatronics Shop 013	Classrooms (age 9 plus)	599	21	10	0.12	210	71.88	281.88	281.88	281.88	1	0	0	105
	Mechatronics Lab 012A	Classrooms (age 9 plus)	883	31	10	0.12	310	105.96	415.96	415.96	415.96	1	0	0	155
	Office 014	Office Spaces	110	1	5	0.06	5	6.6	11.6	11.6	11.6	1	0	0	5
	Storage 015	Storage Rooms	102	0	0	0.12	0	12.24	12.24	12.24	12.24	1	0	0	0
	Elect. Linemen Classroom 018	Classrooms (age 9 plus)	976	35	10	0.12	350	117.12	467.12	467.12	467.12	1	0	0	175
	Simulator 020	Classrooms (age 9 plus)	502	18	10	0.12	180	60.24	240.24	240.24	240.24	1	0	0	90
	Mechatronics Classroom 021	Classrooms (age 9 plus)	948	34	10	0.12	340	113.76	453.76	453.76	453.76	1	0	0	170
				224							3175.3				
Main Level	Female 114	Toilet Rooms - Public	117	0	0	0	0	0	0	0	0	1	0	0	0
	Male 113	Toilet Rooms - Public	104	0	0	0	0	0	0	0	0	1	0	0	0
	Vestibule 112	Corridors	49	0	0	0.06	0	2.94	2.94	2.94	2.94	1	0	0	0
	Corridor 116	Corridors	455	0	0	0.06	0	27.3	27.3	27.3	27.3	1	0	0	0
	Lobby 111	Corridors	428	0	0	0.06	0	25.68	25.68	25.68	25.68	1	0	0	0
	Office 110	Office Spaces	89	1	5	0.06	5	5.34	10.34	10.34	10.34	1	0	0	5
	Office 109	Office Spaces	89	1	5	0.06	5	5.34	10.34	10.34	10.34	1	0	0	5
	Data 108	Storage Rooms	58	0	0	0.12	0	6.96	6.96	6.96	6.96	1	0	0	0
	New Lobby 107	Corridors	520	0	0	0.06	0	31.2	31.2	31.2	31.2	1	0	0	0
	New Connector 106	Corridors	499	0	0	0.06	0	29.94	29.94	29.94	29.94	1	0	0	0
	Waiting/Rec 102	Reception Areas	347	11	5	0.06	55	20.82	75.82	75.82	75.82	1	0	0	55
	Workroom 103	Storage Rooms	101	0	0	0.12	0	12.12	12.12	12.12	12.12	1	0	0	0
	Simulation 117	Classrooms (age 9 plus)	841	30	10	0.12	300	100.92	400.92	400.92	400.92	1	0	0	150
	Health Science Classroom 118	Classrooms (age 9 plus)	841	30	10	0.12	300	100.92	400.92	400.92	400.92	1	0	0	150
	Health Science Lab 119	Classrooms (age 9 plus)	841	30	10	0.12	300	100.92	400.92	400.92	400.92	1	0	0	150
	Multipurpose Room 121	Multipurpose Assembly	4053	487	5	0.06	2435	243.18	2678.18	2678.18	2678.18	1	0	0	2435
				590							4113.58				
Upper Level	Ladies	Toilet Rooms - Public	117	0	0	0	0	0	0	0	0	1	0	0	0
	Men	Toilet Rooms - Public	104	0	0	0	0	0	0	0	0	1	0	0	0
	Vestibule	Corridors	49	0	0	0.06	0	2.94	2.94	2.94	2.94	1	0	0	0
	Corridor	Corridors	540	0	0	0.06	0	32.4	32.4	32.4	32.4	1	0	0	0
	Lobby	Lobbies/Prefunction	182	6	7.5	0.06	45	10.92	55.92	55.92	55.92	1	0	0	30
	Simulator	Classrooms (age 9 plus)	975	35	10	0.12	350	117	467	467	467	1	0	0	175
	Public Safety	Classrooms (age 9 plus)	929	33	10	0.12	330	111.48	441.48	441.48	441.48	1	0	0	165
	Public Safety	Classrooms (age 9 plus)	868	31	10	0.12	310	104.16	414.16	414.16	414.16	1	0	0	155
				105							1413.9				

DUCTLESS HEAT PUMP UNIT SCHEDULE (WALL MOUNTED)

SYMBOL	DESCRIPTION	SUPPLY AIR CFM	OUTSIDE AIR CFM	EXT. S.P. INCHES H ₂ O	FAN MOTOR WATTS	COOLING			HEATING		OUTDOOR ELEC.	REMARKS
						TOTAL MBH	SEN MBH	SEER2	TOTAL MBH	HSPF2		
MS-1	WALL MOUNTED (1 ton)	385	0	.15	30	12.0	8.76	21.1	18.0	10.10	208/11/60	1,2,3,4,5,7
MS-2	WALL MOUNTED (1 ton)	385	0	.15	30	12.0	8.76	21.1	18.0	10.10	208/11/60	1,2,3,4,5,7
MS-3	WALL MOUNTED (1 ton)	385	0	.15	30	12.0	8.76	21.1	18.0	10.10	208/11/60	1,2,3,4,5,7

REMARKS NOTES:

1. COOLING: CAPACITY BASED ON ED8 80° F., EWB 47° F. AND AMBIENT 95° F.
2. HEATING: CAPACITY BASED ON EWB 70° F., AMBIENT DB 47° F., AMBIENT RH 70%.
3. RATED IN ACCORDANCE WITH ARI STANDARD 210-81.
4. OUTDOOR UNIT, MITSUBISHI MODEL PUZ OR APPROVED EQUAL, PROVIDE R-454B REFRIGERANT.
5. OUTDOOR UNIT, MITSUBISHI MODEL PKA OR APPROVED EQUAL, PROVIDE R-454B REFRIGERANT.
6. PROVIDE WIRED WALL MOUNTED CONTROLLER, LOCATED AS SHOWN ON DRAWINGS.
7. PROVIDE SINGLE POINT POWER CONNECTION FOR OUTDOOR UNIT. ALL WIRING, TRANSFORMERS, ETC., SHALL BE FACTORY INSTALLED, INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

ELECTRICAL SYMBOL LEGEND

LIGHTING SYSTEMS SYMBOLS:

	CEILING FIXTURE, LETTER DENOTES TYPE OF FIXTURE.
	LIGHTING FIXTURE, LETTER IN SYMBOL DENOTES TYPE OF FIXTURE.
	LED LIGHTING FIXTURE, SURFACE MOUNTED OR RECESSED. NUMBER (1) REPRESENTS CIRCUIT NUMBER, A REPRESENTS FIXTURE TYPE [SEE LIGHTING FIXTURE SCHEDULE].
	INDICATES EMERGENCY LIGHT FIXTURE.
	LED STRIP OR INDUSTRIAL FIXTURE. SURFACE MOUNTED OR SUSPENDED.
	WALL BRACKET, LETTER DENOTES TYPE OF FIXTURE.
	EXIT LIGHT SURFACE MOUNTED ON CEILING. ARROWS INDICATE WHAT DIRECTION FACE SHOULD BE IN AND WHERE ARROWS SHALL BE SHOWN. IF NO ARROWS ARE SHOWN, THEN ALIGN FACE INTO CORRIDOR OR OPEN ROOM WITH NO ARROWS.
	EXIT LIGHT BRACKET MOUNTED OVER DOOR OR WALL MOUNTED AS INDICATED.
	SWITCH, SINGLE POLE, 20A, TOGGLE, FLUSH MOUNTED 48" A.F.F. TO THE TOP OF THE BOX.
	SWITCH, THREE-WAY, 20A, TOGGLE, FLUSH MOUNTED 48" A.F.F. TO THE TOP OF THE BOX.
	SWITCH, FOUR-WAY, 20A, TOGGLE, FLUSH MOUNTED 48" A.F.F. TO THE TOP OF THE BOX.
	SWITCH, SINGLE POLE, 20A, TOGGLE, FLUSH MOUNTED 48" A.F.F. TO THE TOP OF THE BOX. MOUNT IN A WEATHERPROOF BOX AND COVER.
	LINE VOLTAGE VACANCY SENSOR SWITCH, FLUSH MOUNTED 48" A.F.F. TO THE TOP OF THE BOX. MANUAL "ON", MANUAL/SENSOR "OFF".
	LINE VOLTAGE DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH. FLUSH MOUNTED 48" A.F.F. TO THE TOP OF THE BOX.
	LINE VOLTAGE DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH. FLUSH MOUNTED 48" A.F.F. TO THE TOP OF THE BOX. MANUAL "ON", MANUAL/ OCCUPANCY SENSOR "OFF" WITH 0-10V DIMMING.
	LOW VOLTAGE CONTROL SWITCH, FLUSH MOUNTED 48" A.F.F. TO THE TOP OF THE BOX. LETTER REPRESENTS INDIVIDUAL SWITCH. SEE LOW VOLTAGE SWITCH SCHEDULE FOR BUTTON/RELAY CONFIGURATION ON SHEET E0.2.
	LOW VOLTAGE, DUAL TECHNOLOGY, CEILING MOUNTED VACANCY SENSOR. MOUNT SENSOR BASED ON MANUFACTURER'S RECOMMENDED LOCATION.
	LOW VOLTAGE, DUAL TECHNOLOGY, CEILING MOUNTED OCCUPANCY SENSOR. MOUNT SENSOR BASED ON MANUFACTURER'S RECOMMENDED LOCATION.
	LOW VOLTAGE, DUAL TECHNOLOGY, WALL MOUNTED VACANCY SENSOR. MOUNT SENSOR BASED ON MANUFACTURER'S RECOMMENDED LOCATION.
	ROOM CONTROLLER, 277V, THREE SINGLE POLE RELAY POWER PACK, CONNECT CONTROL DEVICES IN SAME ROOM WITH CABLING PER MANUFACTURER'S REQUIREMENTS. 0-10V DIMMING CAPABILITIES PROVIDE DIMMING CIRCUIT TO FIXTURES AS REQUIRED.
	EMERGENCY ROOM CONTROLLER, UL 924, 277V, THREE SINGLE POLE RELAY POWER PACK, CONNECT CONTROL DEVICES IN SAME ROOM WITH CABLING PER MANUFACTURER'S REQUIREMENTS. 0-10V DIMMING CAPABILITIES PROVIDE DIMMING CIRCUIT TO FIXTURES AS REQUIRED.
	ROOM CONTROLLER, TWO SINGLE POLE RELAY POWER PACK AND TIME FUNCTION. CONNECT CONTROL DEVICES IN SAME ROOM WITH CABLING PER MANUFACTURER'S REQUIREMENTS. 0-10V DIMMING CAPABILITIES PROVIDE DIMMING CIRCUIT TO FIXTURE AS REQUIRED.
	LINE VOLTAGE, DUAL TECHNOLOGY, CEILING MOUNTED OCCUPANCY SENSOR. MOUNT SENSOR BASED ON MANUFACTURER'S RECOMMEND LOCATION.
	INDICATES EXISTING TO REMAIN AS IS.
	INDICATES EXISTING POST TOP LIGHT TO BE REMOVED AND RELOCATED AS SHOWN.
	INDICATES NIGHT LIGHT, 24 HOUR OPERATION.
	REMOTE MOUNTED LED DRIVER. MUST BE MOUNTED IN ACCESSIBLE SPACE.

RACEWAY SYMBOLS:

	LOW VOLTAGE CABLE. CABLES SHALL BE ROUTED THROUGH CONDUIT ABOVE HARD CEILINGS. ORDER LENGTHS AS NECESSARY.
	BRANCH CIRCUIT, CONCEALED ABOVE CEILING OR IN WALL, 1/2" C. UNLESS NOTED, WITH GREEN GROUNDING ELECTRODE CONDUCTOR IN ADDITION TO CIRCUIT SHOWN, MINIMUM #12 AWG COPPER.
	BRANCH CIRCUIT, EXPOSED IN BAR JOIST SPACE, BELOW CEILING OR ON WALLS, 1/2" C. UNLESS NOTED, WITH GREEN GROUNDING ELECTRODE CONDUCTOR IN ADDITION TO CIRCUIT SHOWN, MINIMUM #12 AWG COPPER. ROUTE PERPENDICULAR AND PARALLEL WITH STRUCTURAL MEMBERS.
	BRANCH CIRCUIT, CONCEALED IN SLAB BELOW SLAB, OR BELOW GRADE, WITH GREEN GROUNDING ELECTRODE CONDUCTOR IN ADDITION TO CIRCUIT SHOWN, MINIMUM #12 AWG COPPER.
	BRANCH CIRCUIT, HOMERUN TO PANEL, CIRCUIT SHOWN INDICATES 2#12 & 1#12(G)-1/2" C. TO ONE 20A/1P CIRCUIT BREAKER,  INDICATES 4#12 & 1#12(G)-1/2" C. TO TWO 20A/1P BREAKERS,  INDICATES 6#12 & 1#12(G)-1/2" C. TO THREE 20A/1P BREAKERS.
	BRANCH CIRCUIT WITH #10 AWG WIRING IN CONDUIT SIZED AS PER N.E.C. FOR NUMBER OF CONDUCTORS SHOWN, NUMBER INDICATES CONDUCTOR SIZE.
	BRANCH CIRCUIT INDICATING NIGHT LIGHT CIRCUIT.

GROUND SYSTEM SYMBOLS:

	MASTER GROUND BAR, 20"x4"x1/4" THICK, PRE-DRILLED, WITH INSULATING STAND-OFF MOUNT, BOND TO THE SERVICE ENTRANCE GROUND WITH #3/0 INSULATED GROUND. SEE DETAIL 1 ON SHEET E0.5.
	DATA CLOSET GROUND BAR, 20"x4"x1/4" THICK, PRE-DRILLED, WITH INSULATING STAND-OFF MOUNT, PROVIDE #3/0 INSULATED GROUND FROM BUILDING ELECTRIC SERVICE TO GROUND ELECTRODE SYSTEM DATA CLOSET GROUND BAR. GROUND TO BE ROUTED ABOVE ACCESSIBLE CEILINGS. SEE DETAIL 1 ON SHEET E0.7.
	PROVIDE 120V CONNECTION FOR DOOR HARDWARE. COORDINATE EXACT REQUIREMENTS AND CONNECTIONS WITH DOOR HARDWARE INSTALLER.
	MANUAL MOTOR STARTER, 208V, DOUBLE POLE, 1 SPEED, WITH PILOT LIGHT MOUNTED AT FAN COIL UNIT AS REQUIRED. EQUAL TO COOPER #AH680BGD.
	DOUBLE DUPLEX RECEPTACLE, QUAD, TAMPER-RESISTANT, TWO NEMA 5-20R, MOUNTED ON END OF 50 CORD.
	SINGLE RECEPTACLE FOR DRYER, NEMA L14-30R, FLUSH MOUNTED, VERIFY HEIGHT TO THE CENTER OF THE BOX. BREAKER SERVING EQUIPMENT SHALL BE GROUND-FAULT TYPE. COORDINATE EXACT REQUIREMENTS WITH KITCHEN EQUIPMENT SUPPLIER.
	DUPLEX RECEPTACLE, TAMPER-RESISTANT, NEMA 5-20R, FLUSH MOUNTED IN TV SUPPORT PLATE, VERIFY EXACT LOCATION AND REQUIREMENTS.
	PROVIDE 120V CONNECTION TO AUTOMATIC SLIDER DOORS CONTROL PANEL. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH DOOR PROVIDER.
	SINGLE GANG BOX SURFACE MOUNTED FOR SENSOR WITH CONDUIT TO AUTOMATIC DOORS CONTROL PANEL AS REQUIRED.
	DUPLEX RECEPTACLE, TAMPER-RESISTANT, NEMA 5-20R, FLUSH MOUNTED IN PROJECTOR SUPPORT PLATE, VERIFY EXACT LOCATION AND REQUIREMENTS.
	MANUAL MOTOR STARTER, 120V, 30A, SINGLE POLE, 1 SPEED, WITH PILOT LIGHT MOUNTED AT CHAIR LIFT CONTROLLER AS REQUIRED. COORDINATE LOCATION AND REQUIREMENT WITH ARCHITECT AND LIFT SUPPLIER.
	MANUAL MOTOR STARTER, SINGLE POLE, 1 SPEED, WITH PILOT LIGHT MOUNTED IN NEMA 4X ENCLOSURE AT EVAP. VERIFY WITH COOLER SUPPLIER.
	MANUAL MOTOR STARTER, 120V, 30A, SINGLE POLE, 1 SPEED, WITH PILOT LIGHT MOUNTED IN WEATHERPROOF ENCLOSURE AT CHAIR LIFT CONTROLLER AS REQUIRED. COORDINATE LOCATION AND REQUIREMENT WITH ARCHITECT AND LIFT SUPPLIER.

POWER SYSTEMS SYMBOLS:

	DUPLEX RECEPTACLE, TAMPER-RESISTANT, NEMA 5-20R, FLUSH MOUNTED 18" A.F.F. TO THE CENTER OF THE BOX.
	DUPLEX RECEPTACLE, TAMPER-RESISTANT, NEMA 5-20R, FLUSH MOUNTED AT 44" A.F.F. TO THE CENTER OF THE BOX OR 4" ABOVE BACKPLASH TO CENTERLINE. REFER TO ARCHITECTURAL DETAILS.
	DUPLEX RECEPTACLE, TAMPER RESISTANT, FOR WATER COOLER. COORDINATE LOCATION AND HEIGHT WITH PLUMBING TRADE. RECEPTACLE WILL BE CONCEALED BEHIND WATER COOLER. BREAKER SERVING COOLER SHALL BE GROUND-FAULT TYPE.
	DUPLEX RECEPTACLE FOR COOLER/REFRIGERATOR, NEMA 5-20R, FLUSH MOUNTED AT 44" A.F.F. TO THE CENTER OF THE BOX BREAKER SERVING COOLER SHALL BE GROUND-FAULT TYPE.
	DOUBLE DUPLEX RECEPTACLE, QUAD, TAMPER-RESISTANT, TWO NEMA 5-20R, FLUSH MOUNTED 18" A.F.F. TO THE CENTER OF THE BOX IN ONE TWO GANG BOX.
	DUPLEX RECEPTACLE, TAMPER-RESISTANT WEATHERPROOF WITH "EXTRA-DUTY" HOOD AND GROUND FAULT INTERRUPTING CAPABILITIES. NEMA 5-20R, FLUSH MOUNTED 18" A.F.G. TO THE CENTER OF THE BOX.
	DUPLEX RECEPTACLE, ANY OF ABOVE EXCEPT GROUND-FAULT TYPE.
	DUPLEX RECEPTACLE, NEMA 5-20R, SURFACE MOUNTED AT DEHUMIDIFIER, COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
	MANUAL MOTOR STARTER, SINGLE POLE, 1 SPEED, WITH PILOT LIGHT MOUNTED 44" A.F.F. TO THE CENTER OF THE BOX.
	JUNCTION BOX, MOUNTED ABOVE CEILING OR IN JOIST SPACE. SIZE AS NOTED OR REQUIRED.
	JUNCTION BOX, WALL MOUNTED, MOUNTING HEIGHT AND SIZE AS NOTED OR REQUIRED.
	JUNCTION BOX, FLEX CONN. TO EQUIPMENT. MOUNTING HEIGHT & SIZE AS NOTED OR REQUIRED.
	CIRCULATING PUMP AND TIME CLOCK FOR WATER HEATER BY PLUMBING CONTRACTOR. ELECTRICAL CONTRACTOR TO MAKE CONNECTIONS TO EQUIPMENT.
	DISCONNECT SWITCH. SIZE AS INDICATED ON GENERAL EQUIPMENT SCHEDULE.
	MOTOR, SIZE AND CHARACTERISTICS AS NOTED.
	SERVICE ENTRANCE PANELBOARD.
	LIGHTING OR POWER BRANCH CIRCUIT PANELBOARD.
	ELECTRICAL CONNECTION TO MOTORIZED DAMPER, 120 VOLT. VERIFY LOCATION WITH MECHANICAL CONTRACTOR.
	LOCKABLE DISCONNECT SWITCH, SINGLE POLE, 20A, 120 VOLT, MOUNTED 44" A.F.F. TO THE CENTER OF BOX EQUAL TO COOPER #AH680BGD&C.
	ELECTRICAL CONNECTION (120V) TO WALL MOUNT HAND DRYER, CONNECT TO A GROUND-FAULT TYPE CIRCUIT BREAKER, COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECT.
	SINGLE GANG, JUNCTION BOX FOR SPRINKLER SYSTEM HORN / STROBE DEVICE ON EXTERIOR OF WALL WITH 120V CONNECTION. COORDINATE EXACT LOCATION WITH SPRINKLER CONTRACTOR.
	DUPLEX RECEPTACLE FOR TV, TAMPER-RESISTANT, NEMA 5-20R, MOUNTED IN MEDIA BOX. COORDINATE LOCATION WITH ARCHITECT / OWNER. REFER TO DETAIL 6 ON SHEET E0.7.
	SINGLE RECEPTACLE, NEMA 6-30R, FLUSH MOUNTED AS REQUIRED TO THE CENTER OF THE BOX.
	SINGLE RECEPTACLE FOR MIXER, NEMA L14-20R, FLUSH MOUNTED, VERIFY HEIGHT TO THE CENTER OF THE BOX. BREAKER SERVING EQUIPMENT SHALL BE GROUND-FAULT TYPE. COORDINATE EXACT REQUIREMENTS WITH KITCHEN EQUIPMENT SUPPLIER.
	SINGLE RECEPTACLE FOR HOT WATER DISPENSER, NEMA 6-30R, FLUSH MOUNTED, VERIFY HEIGHT TO THE CENTER OF THE BOX. BREAKER SERVING EQUIPMENT SHALL BE GROUND-FAULT TYPE. COORDINATE EXACT REQUIREMENTS WITH KITCHEN EQUIPMENT SUPPLIER.
	EMERGENCY POWER SHUT OFF STATION FOR WATER HEATERS IN SPACE, 2 1/2" RED MUSHROOM HEAD STYLE PUSH BUTTON TO EATON #H1250T3R, MOUNTED IN SINGLE GANG BOX 48" A.F.F. TO TOP OF BOX WITH ENGRAVED DEVICE PLATE "EMERGENCY POWER SHUTDOWN" AND CLEAR PLASTIC HINGED COVER. WHEN ACTIVATED, PUSHBUTTON WILL SHUNT TRIP CIRCUIT BREAKER(S) IN ELECTRICAL PANEL TO DISCONNECT POWER TO ALL WATER HEATERS AND GAS SHUTOFF VALVE. PROVIDE WIRING AND POWER AS REQUIRED.
	PROVIDE 120V CONNECTION TO GAS SHUT OFF VALVE AT WATER HEATERS. COORDINATE EXACT REQUIREMENTS WITH SUPPLIER.
	PROVIDE 120V CONNECTION TO GAS SHUT OFF VALVE UNDER HOOD. COORDINATE EXACT REQUIREMENTS WITH SUPPLIER.
	DUPLEX RECEPTACLE FOR TV/INTERACTIVE BOARD, NEMA 5-20R, FLUSH MOUNTED 18" A.F.F. TO THE CENTER OF THE BOX WITH 3/4" CONDUIT STUBBED UP TO RECEPTACLE ABOVE. COORDINATE LOCATION WITH ARCHITECT / OWNER. LETTER INDICATES DIFFERENT MOUNTING HEIGHTS. REFER TO DETAIL 6 ON SHEET E0.7.
	DUPLEX RECEPTACLE FOR TV/INTERACTIVE BOARD, NEMA 5-20R, FLUSH MOUNTED BEHIND TV/BOARD. COORDINATE MOUNTING HEIGHT TO THE CENTER OF THE BOX. COORDINATE LOCATION WITH ARCHITECT / OWNER. LETTER INDICATES DIFFERENT MOUNTING HEIGHTS. REFER TO DETAIL 6 ON SHEET E0.7.
	INDICATES DOOR DETAIL. REFER TO DETAIL 8 ON SHEET E0.7.
	TWO CIRCUIT, TWO CHANNEL SURFACE MOUNTED PLUG-MODE WITH DUPLEX RECEPTACLE, OUTLET TO BE ON ALTERNATING CIRCUITS, TAMPER-RESISTANT, NEMA 5-20R AS SHOWN. EQUAL TO WIREMOLD 2000 SERIES.VERIFY COLOR WITH ARCHITECT.
	PROVIDE 120V CONNECTION FOR DOOR HARDWARE. COORDINATE EXACT REQUIREMENTS AND CONNECTIONS WITH DOOR HARDWARE INSTALLER.
	MANUAL MOTOR STARTER, 208V, DOUBLE POLE, 1 SPEED, WITH PILOT LIGHT MOUNTED AT FAN COIL UNIT AS REQUIRED. EQUAL TO COOPER #AH680BGD.
	DOUBLE DUPLEX RECEPTACLE, QUAD, TAMPER-RESISTANT, TWO NEMA 5-20R, MOUNTED ON END OF 50 CORD.
	SINGLE RECEPTACLE FOR DRYER, NEMA L14-30R, FLUSH MOUNTED, VERIFY HEIGHT TO THE CENTER OF THE BOX. BREAKER SERVING EQUIPMENT SHALL BE GROUND-FAULT TYPE. COORDINATE EXACT REQUIREMENTS WITH KITCHEN EQUIPMENT SUPPLIER.
	DUPLEX RECEPTACLE, TAMPER-RESISTANT, NEMA 5-20R, FLUSH MOUNTED IN TV SUPPORT PLATE, VERIFY EXACT LOCATION AND REQUIREMENTS.
	PROVIDE 120V CONNECTION TO AUTOMATIC SLIDER DOORS CONTROL PANEL. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH DOOR PROVIDER.
	SINGLE GANG BOX SURFACE MOUNTED FOR SENSOR WITH CONDUIT TO AUTOMATIC DOORS CONTROL PANEL AS REQUIRED.
	DUPLEX RECEPTACLE, TAMPER-RESISTANT, NEMA 5-20R, FLUSH MOUNTED IN PROJECTOR SUPPORT PLATE, VERIFY EXACT LOCATION AND REQUIREMENTS.
	MANUAL MOTOR STARTER, 120V, 30A, SINGLE POLE, 1 SPEED, WITH PILOT LIGHT MOUNTED AT CHAIR LIFT CONTROLLER AS REQUIRED. COORDINATE LOCATION AND REQUIREMENT WITH ARCHITECT AND LIFT SUPPLIER.
	MANUAL MOTOR STARTER, SINGLE POLE, 1 SPEED, WITH PILOT LIGHT MOUNTED IN NEMA 4X ENCLOSURE AT EVAP. VERIFY WITH COOLER SUPPLIER.
	MANUAL MOTOR STARTER, 120V, 30A, SINGLE POLE, 1 SPEED, WITH PILOT LIGHT MOUNTED IN WEATHERPROOF ENCLOSURE AT CHAIR LIFT CONTROLLER AS REQUIRED. COORDINATE LOCATION AND REQUIREMENT WITH ARCHITECT AND LIFT SUPPLIER.

AUXILIARY SYSTEM SYMBOLS:

	AUXILIARY SYSTEM BACKBOARD, WALL MOUNTED 3/4" PLYWOOD 4x8" UNLESS NOTED OTHERWISE, PLYWOOD TO BE PAINTED WITH 2 COATS OF FIRE RETARDANT PAINT BOTH SIDES & ALL EDGES. BACKBOARD SHALL ALSO BE USED FOR ACCESS CONTROLS.
	DATA, SINGLE GANG OUTLET WITH CAT 6 CABLING, FLUSH MOUNTED AT 18" A.F.F. (UNLESS NOTED OTHERWISE) TO THE TOP OF THE BOX WITH 1" CONDUIT STUBBED-UP INTO ACCESSIBLE CEILING SPACE AND TERMINATE WITH PLASTIC BUSHING. PROVIDE COVER PLATE AS REQUIRED. NUMBER BESIDE SYMBOL INDICATES NUMBER OF DATA DROPS. REFER TO DETAIL 2 ON SHEET E0.8.
	CEILING MOUNTED TV OUTLET, SINGLE GANG OUTLET WITH CAT 6 CABLING, FLUSH MOUNTED IN TV SUPPORT PLATE OR AS REQUIRED. LEAVE 10" OF SLACK ABOVE CEILING. PROVIDE COVER PLATE AS REQUIRED. NUMBER BESIDE SYMBOL INDICATES NUMBER OF DATA DROPS. REFER TO DETAIL 2 ON SHEET E0.8.
	TWO CHANNEL SURFACE MOUNTED PLUG MOLD WITH SINGLE GANG OUTLET WITH CAT 6 CABLING, SURFACE MOUNTED, PROVIDE COVER PLATE AS REQUIRED. NUMBER BESIDE SYMBOL INDICATES NUMBER OF DATA DROPS. REFER TO DETAIL 2 ON SHEET E0.8. SAME AS SHOWN ON POWER PLAN. REFER TO POWER SYSTEM SYMBOL LEGEND.
	WIRE ACCESS POINT, CAT 6A CABLING TERMINATED ABOVE ACCESSIBLE CEILING SPACE WITH 10' SLACK, NUMBER BESIDE SYMBOL INDICATES NUMBER OF DATA DROPS. REFER TO DETAIL 5 ON SHEET E0.8.
	WIRE ACCESS POINT WITH CAT 6A CABLING, WALL MOUNTED 10'-0" A.F.F. WITH 1" CONDUIT STUBBED INTO ABOVE ACCESSIBLE CEILING SPACE AND TERMINATED WITH PLASTIC BUSHING. NUMBER BESIDE SYMBOL INDICATES NUMBER OF DATA DROPS. REFER TO DETAIL 5 ON SHEET E0.8.
	PROVIDE ONE (1) 2" CONDUIT SLEEVE IN ACCESSIBLE CEILING SPACE AND STUB UP AND TERMINATE AT CABLE TRAY, PROVIDE APPROPRIATE FIRE RATED ASSEMBLY. TERMINATE WITH BUSHING ON BOTH ENDS.
	PROVIDE ONE (1) 3" CONDUIT SLEEVE UP THRU FLOOR AND TERMINATE AT BACKBOARD ABOVE, PROVIDE APPROPRIATE FIRE RATED ASSEMBLY. TERMINATE WITH BUSHING ON BOTH ENDS.
	PROVIDE FOUR (4) 4" CONDUIT SLEEVES THRU WALL, PROVIDE APPROPRIATE FIRE RATED ASSEMBLY, TERMINATE WITH BUSHING ON BOTH ENDS. CONDUIT TO BE MOUNTED HIGH AS POSSIBLE.
	PROVIDE ONE (1) 2" CONDUIT SLEEVE THRU WALL AND STUB OUT TO CABLE TRAY. MOUNT SLEEVE AS HIGH AS POSSIBLE. PROVIDE APPROPRIATE FIRE RATED ASSEMBLY. TERMINATE WITH BUSHING ON BOTH ENDS. CONDUIT TO BE MOUNTED HIGH AS POSSIBLE.
	PROVIDE TWO (2) 4" CONDUIT SLEEVES THRU WALL, PROVIDE APPROPRIATE FIRE RATED ASSEMBLY, TERMINATE WITH BUSHING ON BOTH ENDS. CONDUIT TO BE MOUNTED HIGH AS POSSIBLE.
	PROVIDE ONE (1) 1" CONDUIT SLEEVE UP THRU FLOOR AND TERMINATE AT BACKBOARD ABOVE, PROVIDE APPROPRIATE FIRE RATED ASSEMBLY. TERMINATE WITH BUSHING ON BOTH ENDS.
	PROVIDE ONE (1) 3" CONDUIT SLEEVE DOWN THRU FLOOR AND TERMINATE AT CABLE TRAY ON MAIN LEVEL. PROVIDE APPROPRIATE FIRE RATED ASSEMBLY. TERMINATE WITH BUSHING ON BOTH ENDS.
	PROVIDE ONE (1) 3" CONDUIT SLEEVE DOWN THRU FLOOR AND TERMINATE ABOVE ACCESSIBLE CEILING ON LOWER LEVEL. PROVIDE APPROPRIATE FIRE RATED ASSEMBLY. TERMINATE WITH BUSHING ON BOTH ENDS.
	TV OUTLET, SINGLE GANG OUTLET WITH CABLE AS REQUIRED, MOUNTED IN MEDIA BOX. PROVIDE COVER PLATE AS REQUIRED. NUMBER BESIDE SYMBOL INDICATES NUMBER OF DATA DROPS. COORDINATE EXACT LOCATION WITH ARCHITECT / OWNER. REFER TO DETAIL 5 ON SHEET E0.7.
	INTERCOM SPEAKER JUNCTION BOX FLUSH IN CEILING WITH CABLE. LEAVE 10" OF CABLE SLACK. NUMBER BESIDE SYMBOL INDICATES NUMBER OF DATA DROPS.
	INTERCOM SPEAKER JUNCTION BOX SURFACE WALL MOUNTED, 8'-0" A.F.F. WITH CABLE. NUMBER BESIDE SYMBOL INDICATES NUMBER OF DATA DROPS.
	INTERCOM SPEAKER WEATHERPROOF JUNCTION BOX RECESSED WALL MOUNTED, 10'-0" A.F.F. WITH CABLE. NUMBER BESIDE SYMBOL INDICATES NUMBER OF DATA DROPS.
	INTERCOM SPEAKER HAND SET WITH CABLE, DESK MOUNTED OR WALL MOUNTED, VERIFY EXACT LOCATION, PROVIDE SINGLE GANG BOX WITH 3/4" C. FLUSH WALL MOUNTED 48" A.F.F. TO TOP OF BOX OR IF HAND SET IS ON DESK, BOX TO BE FLUSH WALL MOUNTED 18" A.F.F. TO TOP OF BOX, STUBBED UP AND TURN OUT WALL HIGH AS POSSIBLE. TERMINATE WITH BUSHING. VERIFY EXACT LOCATION WITH OWNER. NUMBER BESIDE SYMBOL INDICATES NUMBER OF DATA DROPS.
	HDMI AND CABLE, SINGLE GANG OUTLET, FLUSH MOUNTED AT 18" A.F.F. TO THE CENTER OF THE BOX WITH 1 1/4" CONDUIT AND CABLE STUBBED-UP TO HDB BOX ABOVE. PROVIDE COVER PLATE AS REQUIRED. COORDINATE EXACT LOCATION WITH ARCHITECT / OWNER. REFER TO DETAIL 6 ON SHEET E0.7 AND SHEET E0.8.
	HDMI, SINGLE GANG OUTLET FLUSH MOUNTED BEHIND INTERACTIVE BOARD, COORDINATE MOUNTING HEIGHT TO THE CENTER OF THE BOX. PROVIDE WITH 1 1/4" CONDUIT STUBBED-UP INTO ACCESSIBLE CEILING SPACE AND TERMINATE WITH PLASTIC BUSHING. PROVIDE COVER PLATE AS REQUIRED. COORDINATE EXACT LOCATION WITH ARCHITECT / OWNER. REFER TO DETAIL 6 ON SHEET E0.7 AND SHEET E0.8.
	HDMI AND CABLE, SINGLE GANG OUTLET, FLUSH MOUNTED AT 18" A.F.F. TO THE CENTER OF THE BOX WITH 1 1/4" CONDUIT AS REQUIRED. PROVIDE COVER PLATE AS REQUIRED. COORDINATE EXACT LOCATION WITH ARCHITECT / OWNER. REFER TO DETAIL 6 ON SHEET E0.7 AND SHEET E0.8.
	DATA OUTLET AND CABLE, SINGLE GANG OUTLET, FLUSH MOUNTED AT 18" A.F.F. TO THE CENTER OF THE BOX WITH 1 1/4" CONDUIT STUBBED-UP TO DB BOX ABOVE. PROVIDE COVER PLATE AS REQUIRED. NUMBER BESIDE SYMBOL INDICATES NUMBER OF DATA DROPS REQUIRED. HOMERUN CABLE TO DATA RACK. COORDINATE EXACT LOCATION WITH ARCHITECT OWNER. REFER TO DETAIL 6 ON SHEET E0.7 AND SHEET E0.8.
	DATA OUTLET AND CABLE, SINGLE GANG OUTLET FLUSH MOUNTED BEHIND INTERACTIVE BOARD, COORDINATE MOUNTING HEIGHT TO THE CENTER OF THE BOX. PROVIDE WITH 1 1/4" CONDUIT STUBBED-UP INTO ACCESSIBLE CEILING SPACE AND TERMINATE WITH PLASTIC BUSHING. PROVIDE COVER PLATE AS REQUIRED. NUMBER BESIDE SYMBOL INDICATES NUMBER OF DATA DROPS REQUIRED. HOMRUN CABLES TO DATA RACK. COORDINATE EXACT LOCATION WITH ARCHITECT / OWNER. REFER TO DETAIL 6 ON SHEET E0.7 AND SHEET E0.8.
	AREA OF RESCUE CALL STATION WITH 2-WAY COMMUNICATION. PROVIDE SINGLE GANG JUNCTION BOX FLUSH MOUNTED 48" A.F.F. TO THE TOP OF THE BOX AND CABLING AS REQUIRED. VERIFY EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. EQUAL TO TALKAPHONE.
	AREA OF RESCUE MASTER STATION WITH 2-WAY COMMUNICATION. PROVIDE SINGLE GANG JUNCTION BOX FLUSH MOUNTED 48" A.F.F. TO THE TOP OF THE BOX AND CABLING AS REQUIRED. VERIFY EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN. EQUAL TO TALKAPHONE.
	CEILING MOUNTED PROJECTOR OUTLET, SINGLE GANG OUTLET WITH CAT 6 CABLING, FLUSH MOUNTED IN PROJECTOR SUPPORT PLATE OR AS REQUIRED. LEAVE 10" OF SLACK ABOVE CEILING. PROVIDE COVER PLATE AS REQUIRED. NUMBER BESIDE SYMBOL INDICATES NUMBER OF DATA DROPS.

FIRE ALARM SYSTEM SYMBOLS:

	FIRE ALARM SYSTEM CONTROL PANEL.
	FIRE ALARM SYSTEM REMOTE ANNUNCIATOR PANEL.
	FIRE ALARM SYSTEM MANUAL PULL STATION FLUSH MOUNTED 48" A.F.F. TO THE TOP OF THE BOX. SEE INSTALLATION DETAIL.
	FIRE ALARM SYSTEM HORN/STROBE. MOUNT AT 80" A.F.F. MUST MEET 'ADA' REQUIREMENTS.
	FIRE ALARM SYSTEM DUAL CLEAR/AMBER STROBE ONLY UNIT, WALL MOUNTED 80" A.F.F. MUST MEET "ADA" REQUIREMENTS.
	FIRE ALARM SYSTEM SPEAKER/STROBE, WALL MOUNTED 80" A.F.F. MUST MEET "ADA" REQUIREMENTS.
	FIRE ALARM SYSTEM SPEAKER/STROBE, WEATHERPROOF, WALL MOUNTED 80" A.F.F. MUST MEET "ADA" REQUIREMENTS.
	FIRE ALARM SYSTEM HEAT DETECTOR, CEILING MOUNTED, 135°F.
	FIRE ALARM SYSTEM SMOKE DETECTOR, CEILING MOUNTED.
	FIRE ALARM SYSTEM CARBON MONOXIDE SENSOR, COORDINATE MOUNTING LOCATION WITH PLUMBING CONTRACTOR.
	FIRE ALARM SYSTEM DUCT MOUNTED SMOKE DETECTOR[QTY. 2, ONE IN SUPPLY SIDE AND ONE IN RETURN SIDE] WITH RELAYS AS REQUIRED FOR MECHANICAL UNIT SHUTDOWN.
	FIRE ALARM SYSTEM SMOKE DETECTOR UNIT, CEILING MOUNTED, 190°F.
	FIRE ALARM SYSTEM CONNECTION TO TAMPER SWITCH, VERIFY REQUIREMENTS WITH SPRINKLER CONTRACTOR.
	FIRE ALARM SYSTEM CONNECTION TO FLOW SWITCH, VERIFY REQUIREMENTS WITH SPRINKLER CONTRACTOR.
	SPRINKLER SYSTEM HORN / STROBE DEVICE ON EXTERIOR OF WALL. COORDINATE EXACT LOCATION WITH SPRINKLER CONTRACTOR.
	FIRE ALARM CONNECTION TO HOOD. COORDINATE EXACT REQUIREMENTS AND LOCATION.
	FIRE ALARM CONNECTION TO FIRE SHUTTER. COORDINATE EXACT REQUIREMENTS AND LOCATION.
	FIRE ALARM CONNECTION FOR ELEVATOR RECALL AS REQUIRED.

SECURITY/ACCESS CONTROL SYMBOLS:

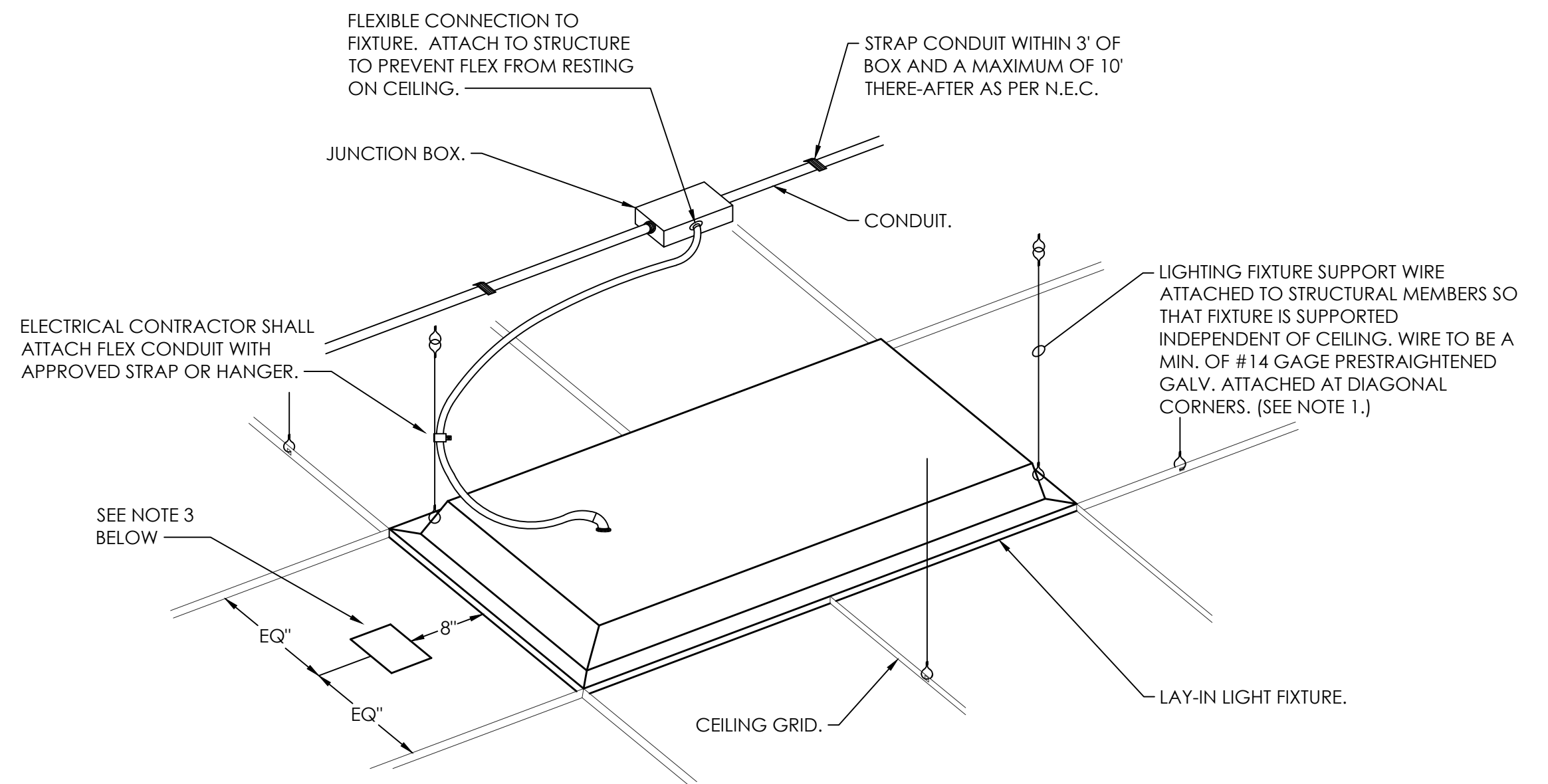
	SECURITY CARD READER, FLUSH MOUNTED AT 48" A.F.F., ON INSECURE SIDE OF DOOR, WITH 3/4" C. STUBBED UP TO DOOR ACCESS CONTROL JUNCTION BOX. COORDINATE EXACT REQUIREMENTS. REFER TO DETAIL 8 ON SHEET E0.7.
	JUNCTION BOX FOR PUSH BUTTON DOOR RELEASE, FLUSH MOUNTED. VERIFY LOCATION AND HEIGHT WITH OWNER, WITH 3/4" C. STUBBED UP TO DOOR ACCESS CONTROL JUNCTION BOX. COORDINATE EXACT REQUIREMENTS. REFER TO DETAIL 8 ON SHEET E0.7.
	JUNCTION BOX FOR DOOR ACCESS CONTROLS, MOUNTED ABOVE ACCESSIBLE CEILING SPACE WITH 3/4" C., TERMINATE WITH BUSHING. COORDINATE EXACT REQUIREMENTS. REFER TO DETAIL 5 ON SHEET E0.7.

1. ALL LUMINAIRES AND INSTALLATION SHALL BE IN ACCORDANCE WITH NEC, NFPA AND LOCAL CODES. ALL LUMINAIRES SHALL BE UL LISTED AND INSTALLED IN ACCORDANCE WITH THE UL LISTING.
2. LUMINAIRES SHALL BE FURNISHED COMPLETE WITH THE PROPER LAMP BASE OR PIN RECEPTORS, WIRING COMPONENTS, LAMPS, SUPPORTING FRAMES AND DEVICES, ETC., FOR A COMPLETE INSTALLATION.
3. ALL LUMINAIRE DEVICES, COMPONENTS, FITTINGS, SUPPORTS, ETC., SHALL BE COORDINATED TO PROVIDE A COMPLETE UL LISTED INSTALLATION.
4. ALL LUMINAIRES DRIVERS SHALL BE COMPATIBLE WITH THE LIGHTING CONTROL SYSTEM OR DIMMING CONTROL SYSTEM PROVIDED.
5. SECURE EACH CLAY-IN LUMINAIRE AT TWO LOCATIONS TO THE CEILING GRID. PROVIDE BOLTS, SCREWS, RIVETS OR APPROVED CLIPS IN USE WITH THE TYPE CEILING AND LUMINAIRE INSTALLED.
6. ALL LUMINAIRES IN MECHANICAL AND ELECTRICAL ROOMS SHALL BE INSTALLED TO CLEAR ELECTRICAL EQUIPMENT, DUCT, PIPING, ETC., SUSPEND BELOW OBSTRUCTION WHEN CONFLICTS OCCUR.
7. ADJUSTABLE AIMING LUMINAIRES SHALL BE ADJUSTED FOR FINAL APPROVAL AT NIGHT. OWNER, ARCHITECT, AND ENGINEER RESERVES THE RIGHT TO HAVE THE CONTRACTOR ADJUST LIGHTING TO THEIR SATISFACTION.
8. ALL SURFACE OR SUSPENDED LUMINAIRES SHALL HAVE JOINING PLATES, END CAPS, CANOPIES, ETC.
9. ALL INTERIOR LUMINAIRES SHALL BE PROVIDED WITH 3500K COLOR TEMPERATURE LEDS. ALL EXTERIOR LUMINAIRES SHALL BE PROVIDED WITH 4000K COLOR TEMPERATURE LEDS.
10. ARCHITECT RESERVES THE RIGHT TO SELECT ALL COLORS FOR LUMINAIRES, POLES, MOUNTING ACCESSORIES, ETC. DURING SHOP DRAWING REVIEW.
11. COORDINATE LUMINAIRE MOUNTING WITH ARCHITECTURAL ELEVATIONS PRIOR TO INSTALLATION.
12. PROVIDE ALL EXIT SIGNS WITH DIRECTIONAL ARROWS AS SHOWN ON DRAWINGS.
13. CONTRACTOR SHALL PROVIDE ALL SLOPE ADAPTERS, FLANGE KITS, TRIMS, AND ALL OTHER MOUNTING ACCESSORIES AS NEEDED TO MOUNT EACH LUMINAIRE IN CEILINGS AS SHOWN. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLANS.
14. ALL EXIT SIGNS AND LUMINAIRES DESIGNATED AS EMERGENCY SHALL BE PROVIDED WITH A MINIMUM 1100 LUMEN EMERGENCY BATTERY BALLAST CAPABLE OF 90 MINUTES OF ILLUMINATION.
15. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL LUMINAIRES AND EXIT SIGNS.
16. APPROVED EQUAL LIGHTING MANUFACTURERS ARE HUBBELL AND ADLPHUS LIGHTING.

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 ADJACENT UTILITY TYPE ROOM WHENEVER POSSIBLE. ROOM CONTROLLERS SHOWN ON PLAN IS DIAGRAMMATIC FOR CIRCUMITY. DO NOT USE THESE FOR ACTUAL LOCATIONS. PROVIDE A WHITE PHENOLIC LABEL WITH "1" BLACK TEXT THAT READS "LC" GLUED ON CEILING GRID UNDER POWER PACK FOR EACH LOCATION FOR FUTURE MAINTENANCE.
2. PROVIDE COMPLETE LIGHTING CONTROLS TO COMPLY WITH ASHRAE 90.1-2013 AS HEREIN NOTED AND AS SHOWN ON DRAWINGS.
3. ALL SENSORS SHALL BE LOCATED BY MANUFACTURER TO ACCOMPLISH EXACT REQUIREMENTS FOR SENSOR.
4. ALL LIGHTING CONTROLS SHALL BE "MANUAL ON" EXCEPT FOR CORRIDORS AND EXTERIOR AT DOORWAYS.
5. FURNISH AND INSTALL ALL LOW VOLTAGE LIGHTING CONTROL WIRING BETWEEN ROOM CONTROLLER, SENSORS, AND WALL SWITCHES. WHERE DIMMING OF FIXTURES IS REQUIRED, PROVIDE 0-10 VOLT CABLED AS NEEDED TO EACH FIXTURE. DIMMING CABLES SHALL NOT BE ROUTED IN SAME CONDUIT AS POWER CONDUIT (120V). REFER TO TYPICAL ROOM LIGHTING CONTROL WIRING DIAGRAM.
6. SHOP DRAWINGS MUST BE SUBMITTED AND SHALL INCLUDE SENSOR LOCATIONS AND WIRING LAYOUTS. MANUFACTURER SHALL INCLUDE AT LEAST THREE (3) ON-SITE MEETINGS WITH CONTRACTOR: 1) PRE-INSTALL - AFTER SHOP DRAWINGS ARE APPROVED AND BEFORE ANY WORK BEGINS, 2) START-UP - AFTER WORK IS COMPLETE AND PRIOR TO FINAL INSPECTION, 3) FINAL CHECK- AFTER FINAL INSPECTION IS COMPLETED. OWNER TRAINING.
7. MANUFACTURER SHALL PROVIDE WRITTEN REPORT AS TO FUNCTIONAL TESTING AFTER SYSTEM IS COMPLETE. REPORT MUST BE SIGNED BY FIELD TECHNICIAN AND MUST STATE THAT CONTROLS ARE INSTALLED, CALIBRATED, ADJUSTED, PROGRAMMED, AND IN PROPER WORKING CONDITION AS WELL AS DOCUMENTING THAT THE LIGHTING PERFORMS CORRECTLY TO THE INTENDED OPERATION. REPORT MUST ALSO INDICATE, BY OWNER'S SIGNATURE, THAT ALL CONTROLS HAVE BEEN COORDINATED WITH OWNER.
8. PROVIDE WIRELESS CONFIGURATION TOOL FOR PROGRAMMING LIGHTING CONTROLS.
9. INTERIOR LIGHTING CONTROLLED BY A TIMED SENSOR SHALL FLASH ONE MINUTE PRIOR TO SHUT OFF. SYSTEM SHALL ALLOW LOCAL OVERRIDE OF AUTOMATIC SHUT OFF FOR UP TO 2 HOURS.
10. **CONTROL CABLING SHALL BE PURPLE IN COLOR.**

1. OCCUPANCY SENSORS SHALL BE VACANCY TYPE WITH DUAL TECHNOLOGY DETECTION AND 30 MINUTE CUTOFF TIME.
2. OCCUPANCY SENSOR MANUFACTURER PROVIDER WILL BE RESPONSIBLE FOR SIZING THE OCCUPANCY SENSORS IN EACH 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 OTHER EQUIPMENT IS REQUIRED IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AND INSTALL. IT WILL BE THE CONTRACTOR 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 PLACK PLACEMENT.
6. OCCUPANCY SENSORS MOUNTED OVER DOORWAYS SHALL BE ONE (1) FOOT INSIDE THRESHOLD.
7. LIGHTING CONTROL SYSTEM IS SPECIFIED AROUND HUBBELL AUTOMATION SYSTEM. CONTRACTOR SHALL PROVIDE ALL MATERIALS, DEVICES, WIRING, CONNECTIONS, AND PROGRAMMING NEEDED IF ANY OTHER LIGHTING CONTROL SYSTEM IS SUBMITTED FOR APPROVAL AND IS APPROVED.
8. WATT STOPPER AND IN-LIGHT ARE APPROVED EQUALS.
9. CONTRACTOR SHALL GROUND ALL JUNCTION BOXES CONTAINING LOW VOLTAGE SWITCHES OR ANY OTHER LIGHTING CONTROL DEVICE WITH #12 GROUND.
10. PROVIDE A UL924 DEVICE FOR THE LIGHTING CONTROLS SUCH THAT UPON POWER LOSS THE LOCAL CONTROLS IS BYPASSED TO ALLOW THE EMERGENCY LIGHTS TO ILLUMINATE 100%. ALL EMERGENCY LIGHTS.

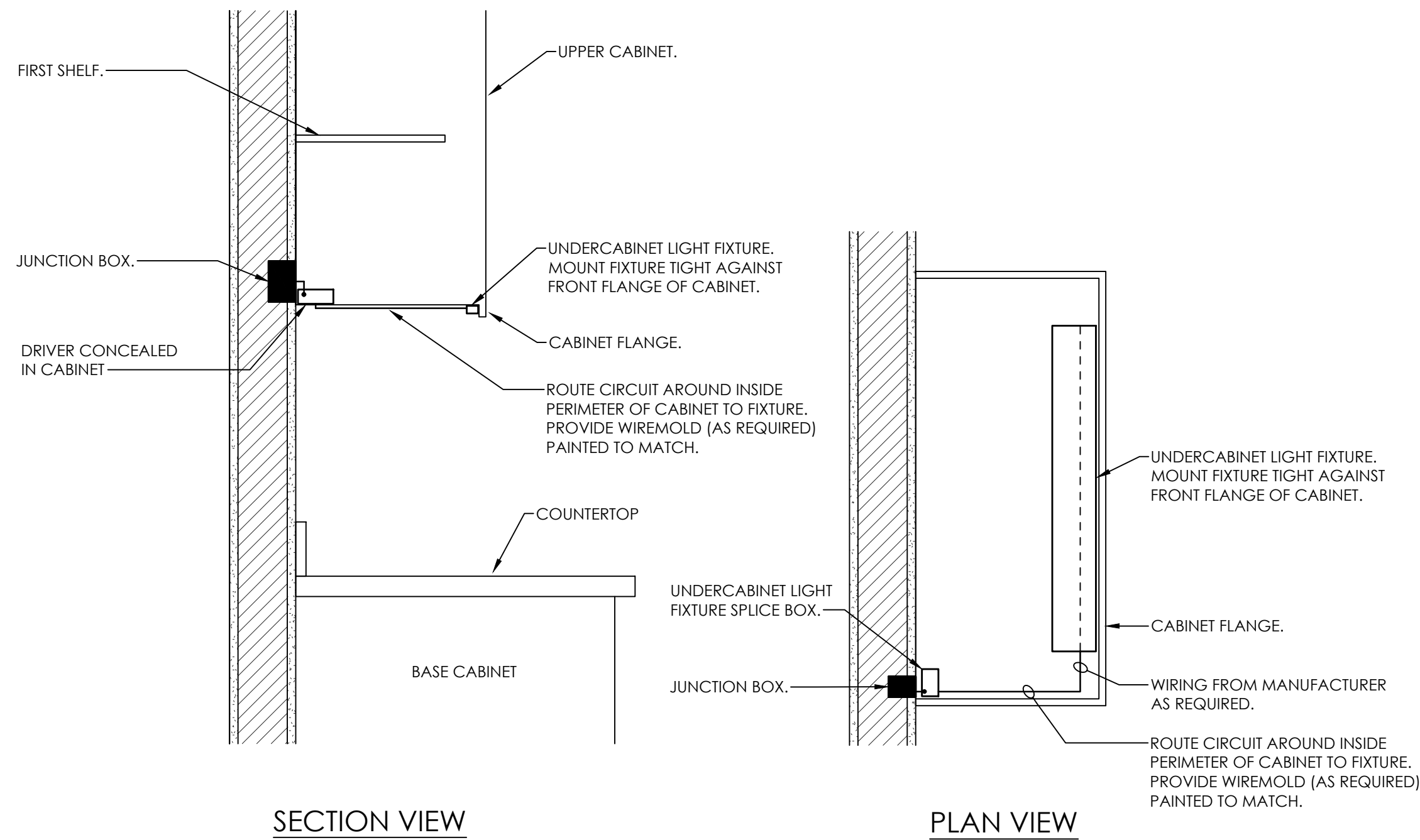
LIGHTING FIXTURE SCHEDULE						
SYMBOL	MANUFACTURER & CATALOG #	LAMP	WAITS	MOUNTING	VOLTS	REMARKS
AA	FURNISHED BY OWNER	LED W/UNIT 35K	54	RECESSED CEILING	120	INSTALLED BY ELECTRICAL CONTRACTOR.
A	COLUMBIA #CBT24-A-LSCS-EDD	LED W/UNIT 35K	45	RECESSED CEILING	120	2 x 4 LED FLAT PANEL, SWITCHABLE, 2750L/3300L/4400L LUMENS, 0-10V DIMMING.
AE	COLUMBIA #CBT24-A-LSCS-EDD-ELL14	LED W/UNIT 35K	45	RECESSED CEILING	120	2 x 4 LED FLAT PANEL, SWITCHABLE, 2750L/3300L/4400L LUMENS, 0-10V DIMMING WITH EMERGENCY BATTERY PACK.
C	HUBBELL #LCL4-35ML-E-U	LED W/UNIT 35K	48	SURFACE CEILING	120	4' LED WITH LENS.
CE	HUBBELL #LCL4-35ML-E-U-ELL14	LED W/UNIT 35K	48	SURFACE CEILING	120	4' LED WITH LENS AND EMERGENCY BATTERY PACK.
D	COLUMBIA #CBT22-A-LSCS-EDD	LED W/UNIT 35K	25	RECESSED CEILING	120	2 x 2 LED FLAT PANEL, SWITCHABLE, 2750L/3300L/4400L LUMENS, 0-10V DIMMING.
DE	COLUMBIA #CBT22-A-LSCS-EDD-ELL14	LED W/UNIT 35K	25	RECESSED CEILING	120	2 x 2 LED FLAT PANEL, SWITCHABLE, 2750L/3300L/4400L LUMENS, 0-10V DIMMING WITH EMERGENCY BATTERY PACK.
E	LIGHTCONTROL #4L-P-D-0-SOF-C1-35K9-D075-D01-1-C-UNV-ACC8	LED W/UNIT	10W PER FT	PENDANT W/ CABLE	120	4'W x 4.5'H x 10'L LED PENDANT DIRECT WITH EXTRUDED ALUMINUM HOUSING.
EM	LIGHTALARMS #LCAB-25QLED	LED W/UNIT	10	SURFACE WALL	120	TWO HEAD EMERGENCY LIGHT WITH EMERGENCY BATTERY PACK.
F	LIGHTCONTROL #4L-P-D-0-SOF-C1-35K9-D075-D01-1-C-UNV-ACC8	LED W/UNIT	10W PER FT	PENDANT W/ CABLE	120	4'W x 4.5'H x 6'L LED PENDANT DIRECT WITH EXTRUDED ALUMINUM HOUSING.
FL	BEACON #VP-F-360L-270-K47-6X6-UNV-K-BLT	LED W/UNIT	31 1/2	POLE 30'	120	BULL HORN BRACKET WITH TWO WIDE SPREAD FLOOD LIGHTS MOUNTED ON 50' TREATED WOOD POLE. POLE TO BE BURIED 10' IN GROUND OR AS REQUIRED.
G	LIGHTCONTROL #4L-P-D-0-SOF-C1-35K9-D075-D01-1-C-UNV-ACC8	LED W/UNIT	10W PER FT	PENDANT W/ CABLE	120	4'W x 4.5'H x 8'L LED PENDANT DIRECT WITH EXTRUDED ALUMINUM HOUSING.
H	LIGHTCONTROL #4L-P-D-4-SOF-C1-35K9-D075-D01-1-C-UNV-ACC8	LED W/UNIT	10W PER FT	PENDANT W/ CABLE	120	4'W x 4.5'H x 4'L LED PENDANT DIRECT WITH EXTRUDED ALUMINUM HOUSING.
HE	LIGHTCONTROL #4L-P-D-4-SOF-C1-35K9-D075-D01-1-C-UNV-ACC8-EM	LED W/UNIT	10W PER FT	PENDANT W/ CABLE	120	4'W x 4.5'H x 4'L LED PENDANT DIRECT WITH EXTRUDED ALUMINUM HOUSING WITH EMERGENCY BATTERY PACK.
K	COLUMBIA #CRN2-1-LSCS-EDMW-SO-W-35K	LED W/UNIT 35K	150	PENDANT AIRCRAFT CABLE	120	ROUND LED HIGH PERFORMANCE HIGH BAY, 0-10V DIMMING.
L	COLUMBIA #CWM4-35MWSM-FR-F-A-EDU-OW	LED W/UNIT 35K	30	SURFACE WALL	120	48" LONG LED LINEAR WITH INTEGRAL OCCUPANCY SENSOR. DIM DOWN TO 50%.
M	CGF DESIGN COLUMBIA B #MN-CL8-26-CT4-90CRI-UNV-BZ-CT8	LED W/UNIT 35K	30	SURFACE WALL	120	26" LINEAR WALL SCONCE.
N	COLUMBIA #CRW4-A-LSCS	LED W/UNIT 35K	41	SURFACE CEILING	120	4' LED WITH LENS.
NE	COLUMBIA #CRW4-A-LSCS-ELL145T	LED W/UNIT 35K	41	SURFACE CEILING	120	4' LED WITH LENS WITH EMERGENCY BATTERY PACK.
PA	GARDCO #OPF-S-A02-840-T4W-MAR-UNV-WIAP-BK VALMONT #DS330-500W250-P9-FP-BK-FBC-AB-25'	LED W/UNIT 40K	63	POLE 25'	120	WIRELESS CONTROL SINGLE LED FIXTURE ON 25' ROUND STEEL POLE. POLE SHALL HAVE VIBRATION DAMPER AND BLACK FINISH. CONTRACTOR TO USE SUPPLIED TEMPLATE FOR SETTING ANCHOR BOLTS. VERIFY EXACT POLE CONFIGURATION PRIOR TO ORDERING.
PA1	GARDCO #OPF-S-A06-840-T4M-MAR-UNV-WIAP-BK VALMONT #DS330-500W250-P9-FP-BK-FBC-AB-25'	LED W/UNIT 40K	139	POLE 25'	120	WIRELESS CONTROL SINGLE LED FIXTURE ON 25' ROUND STEEL POLE. POLE SHALL HAVE VIBRATION DAMPER AND BLACK FINISH. CONTRACTOR TO USE SUPPLIED TEMPLATE FOR SETTING ANCHOR BOLTS. VERIFY EXACT POLE CONFIGURATION PRIOR TO ORDERING.
PB	GARDCO #PPF-P-A09-840-T2M-T3-UNV-D4ID-WIAPLB VALMONT #DS330-500W250-P9-FP-BK-FBC-AB-12'	LED W/UNIT 40K	139	POLE 12'	120	WIRELESS CONTROL SINGLE LED FIXTURE POST TOP ON 12' ROUND STEEL POLE. POLE SHALL HAVE VIBRATION DAMPER AND BLACK FINISH. CONTRACTOR TO USE SUPPLIED TEMPLATE FOR SETTING ANCHOR BOLTS. VERIFY EXACT POLE CONFIGURATION PRIOR TO ORDERING.
PC	GARDCO #OPF-S-A02-840-T5W-MAR-UNV-WIAP-BK VALMONT #DS330-500W250-P9-FP-BK-FBC-AB-25'	LED W/UNIT 40K	54	POLE 25'	120	WIRELESS CONTROL DOUBLE 180° LED FIXTURE ON 25' ROUND STEEL POLE. POLE SHALL HAVE VIBRATION DAMPER AND BLACK FINISH. CONTRACTOR TO USE SUPPLIED TEMPLATE FOR SETTING ANCHOR BOLTS. VERIFY EXACT POLE CONFIGURATION PRIOR TO ORDERING.
PC1	GARDCO #OPF-S-A07-840-T5W-MAR-UNV-WIAP-BK VALMONT #DS330-500W250-P9-FP-BK-FBC-AB-25'	LED W/UNIT 40K	139	POLE 25'	120	WIRELESS CONTROL DOUBLE 180° LED FIXTURE ON 25' ROUND STEEL POLE. POLE SHALL HAVE VIBRATION DAMPER AND BLACK FINISH. CONTRACTOR TO USE SUPPLIED TEMPLATE FOR SETTING ANCHOR BOLTS. VERIFY EXACT POLE CONFIGURATION PRIOR TO ORDERING.
R	LIGHTCONTROL #2L-P-D-08-SOF-C1-35K9-D100-D01-1-C-UNV-ACC8	LED W/UNIT	10W PER FT	PENDANT W/ CABLE	120	2'W x 4.5'H x 8'L LED PENDANT DIRECT WITH EXTRUDED ALUMINUM HOUSING.
RE	LIGHTCONTROL #2L-P-D-08-SOF-C1-35K9-D100-D01-1-C-UNV-ACC8-EF	LED W/UNIT	10W PER FT	PENDANT W/ CABLE	120	2'W x 4.5'H x 8'L LED PENDANT DIRECT WITH EXTRUDED ALUMINUM HOUSING WITH EMERGENCY BATTERY PACK.
S	LIGHTCONTROL #2L-P-D-04-SOF-C1-35K9-D100-D01-1-C-UNV-ACC8	LED W/UNIT	10W PER FT	PENDANT W/ CABLE	120	2'W x 4.5'H x 4'L LED PENDANT DIRECT WITH EXTRUDED ALUMINUM HOUSING.
SE	LIGHTCONTROL #2L-P-D-04-SOF-C1-35K9-D100-D01-1-C-UNV-ACC8-EF	LED W/UNIT	10W PER FT	PENDANT W/ CABLE	120	2'W x 4.5'H x 4'L LED PENDANT DIRECT WITH EXTRUDED ALUMINUM HOUSING WITH EMERGENCY BATTERY PACK.
TR	CHAUVEIT PROFESSIONAL #COLORADO 3 SOLO POLE AND BASE APPLIED #10 20 120 TR 20.5 x 20.5 BASE FIXTURE: MEGA LITE #4100 TUFF BABY P84	LED W/UNIT	60 x4	PENDANT W/ CABLE	120	COLORADO 3 SOLO ZOOMING WASH LIGHT OR STRAND FIXTURE. BLACK, MAGNESIUM HOUSING, WEI LOCATION LISTED. PROVIDE BLACK IP65 RATED SETTRONIC POWERCON EXTENSION AND IP65 RATED 5-PIN DMX EXTENSION CABLE AS REQUIRED. SEE DETAIL 5 ON SHEET E1.5 FOR INSTALLATION REQUIREMENTS. VERIFY CABLE LENGTH FOR VARIOUS FIXTURE MOUNTING LOCATIONS. TWO(2) STACKED 10-0" (TOTAL 20-0" HEIGHT) HEAVY DUTY TRUSSES WITH BLACK POWDER COATED FINISH. VERIFY POLE COLOR WITH ARCHITECT. POLE BASE SHALL INCLUDE TUFF BABY LED UP-LIGHT, STRAND FIXTURE, OR GVA FIXTURE. IP65 RATED, SPOT FIXTURE, MOUNTED AT THE TOWER BASE AND CENTERED WITHIN TRUSS STRUCTURE.
UC	KELVIX #UNR3-WL1-500-35K-24V-NA CHANNEL #CH-014-C-X-FR-CP-EC	LED W/UNIT		UNDER CABINET	24V	LOW PROFILE 24V LED TAPE LIGHT IN EXTRUDED ALUMINUM CHANNEL WITH 500 LUMENS PER FT. AND 0-10V DIMMING. PROVIDE ALL PARTS AND PIECES FOR A COMPLETE INSTALLATION. SEE ARCHITECTURAL CASEWORK PLANS FOR LENGTHS. MANUFACTURE SHALL PROVIDE FIXTURE FOR THE ENTIRE LENGTH AS SHOWN ON DRAWINGS. SEE DETAIL 2 THIS SHEET.
WP	HUBBELL #SG1-40-4K7-FI-UNV-DB	LED W/UNIT 40K	38	SURFACE WALL	120	LED WALLPACK, DARK BRONZE FINISH.
WPE	HUBBELL #SG1-40-4K7-FI-UNV-DB-E	LED W/UNIT 40K	38	SURFACE WALL	120	LED WALLPACK, DARK BRONZE FINISH WITH EMERGENCY BATTERY PACK.
X	LIGHTALARMS #GRAN-AC-R-W	LED W/UNIT	10	FLUSH CEILING	120	LED EXIT SIGN, WHITE WITH RED LETTERS, EMERGENCY BATTERY PACK
X1	LIGHTALARMS #GRAN-AC-R-W	LED W/UNIT	10	FLUSH CEILING	120	LED EXIT SIGN WITH ARROWS, WHITE WITH RED LETTERS, EMERGENCY BATTERY PACK.
X2	LIGHTALARMS #GRAN-AC-R-W	LED W/UNIT	10	WALL	120	LED EXIT SIGN WITH ARROWS, WHITE WITH RED LETTERS, EMERGENCY BATTERY PACK.
X3	LIGHTALARMS #GRAN-AC-R-W	LED W/UNIT	10	WALL	120	DOUBLE FACE LED EXIT SIGN WITH ARROWS, WHITE WITH RED LETTERS, EMERGENCY BATTERY PACK.
ATH	RATH #7090	LED W/UNIT	10	WALL	120	AREA OF RESCUE. LED LIGHTED WITH EMERGENCY BATTERY PACK.



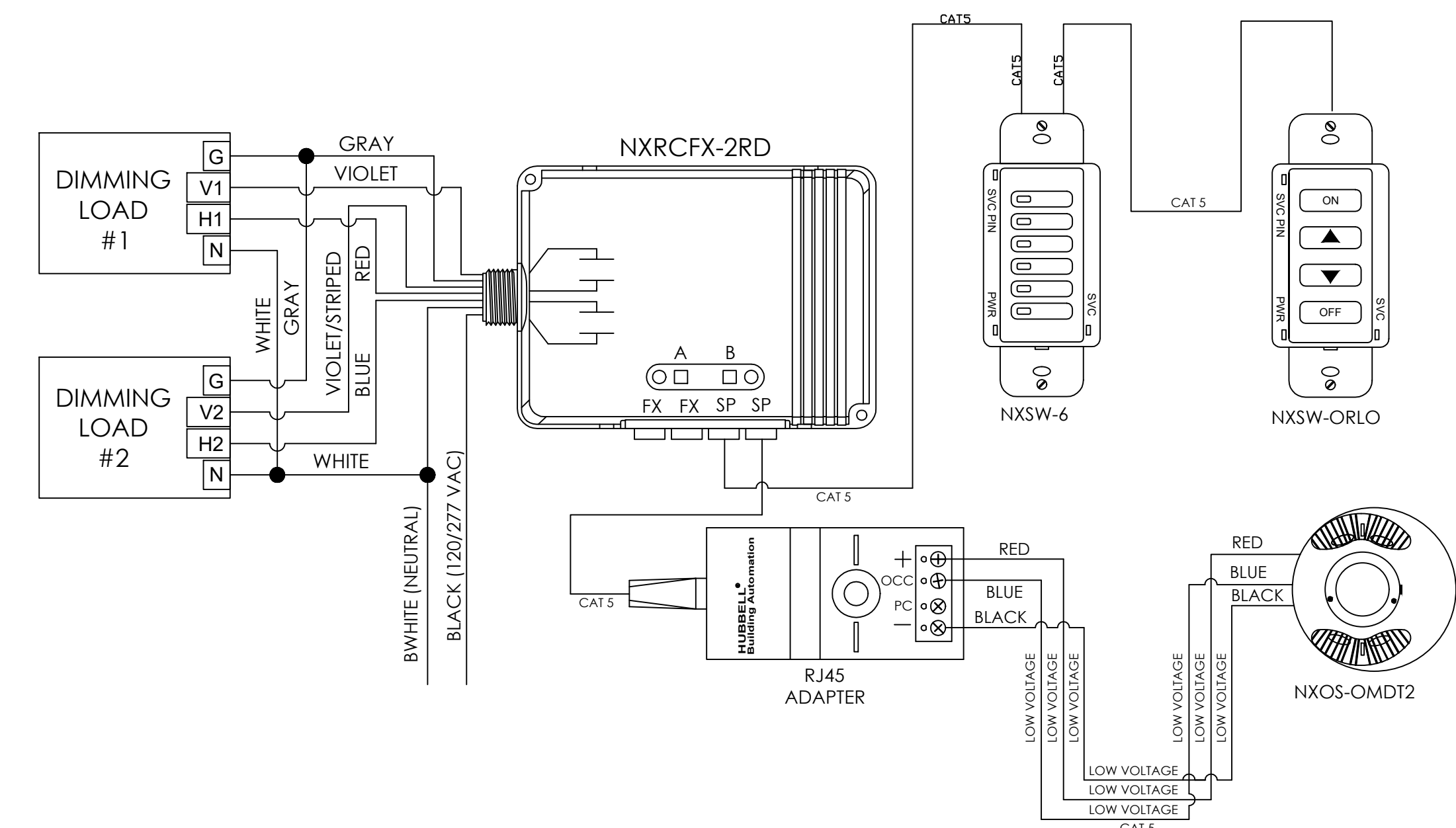
E0.2 NOT TO SCALE

NOTES:

1. INDEPENDENT SUPPORT WIRES MUST BE MARKED (PAINTED) SO THAT THEY CAN BE DISTINGUISHABLE AS NON CEILING SUPPORT WIRES PER N.E.C.
2. INDEPENDENT SUPPORT WIRES SHALL NOT HAVE AN ANGLE OF MORE THAN 45° FROM THE CEILING GRID.
3. THIS ONLY APPLIES FOR REMOTE TEST SWITCH. FLUSH MOUNTED IN CEILING TILE.



E0.2 NOT TO SCALE



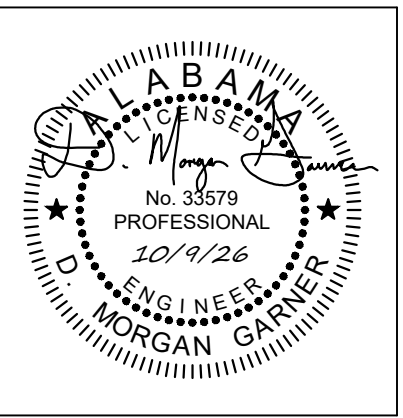
E0.2 NOT TO SCALE



Academy St. Career Innovation Academy

708 E Academy St, Troy, AL 36081

**SHEET TITLE: LIGHTING FIXTURE SCHEDULE, NOTES
AND DETAILS**

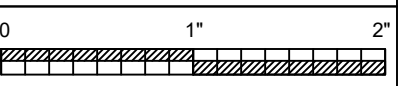


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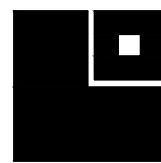
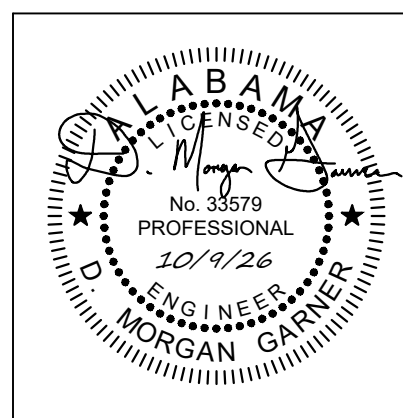
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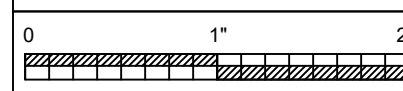
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JOB NO. 25-249

SHEET NO:

E0.3

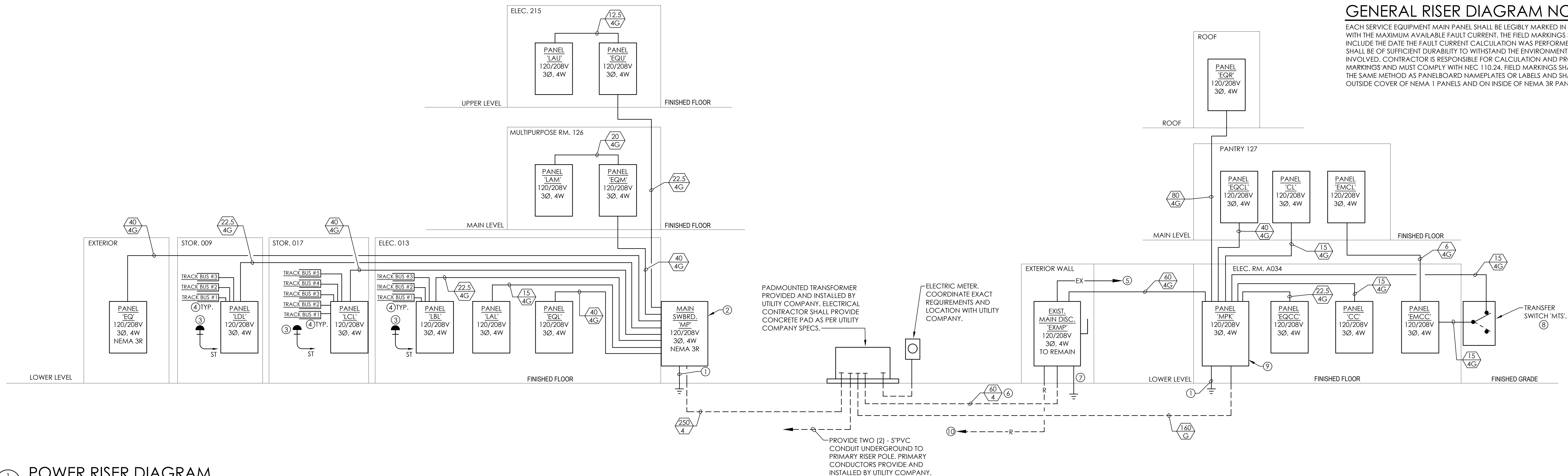


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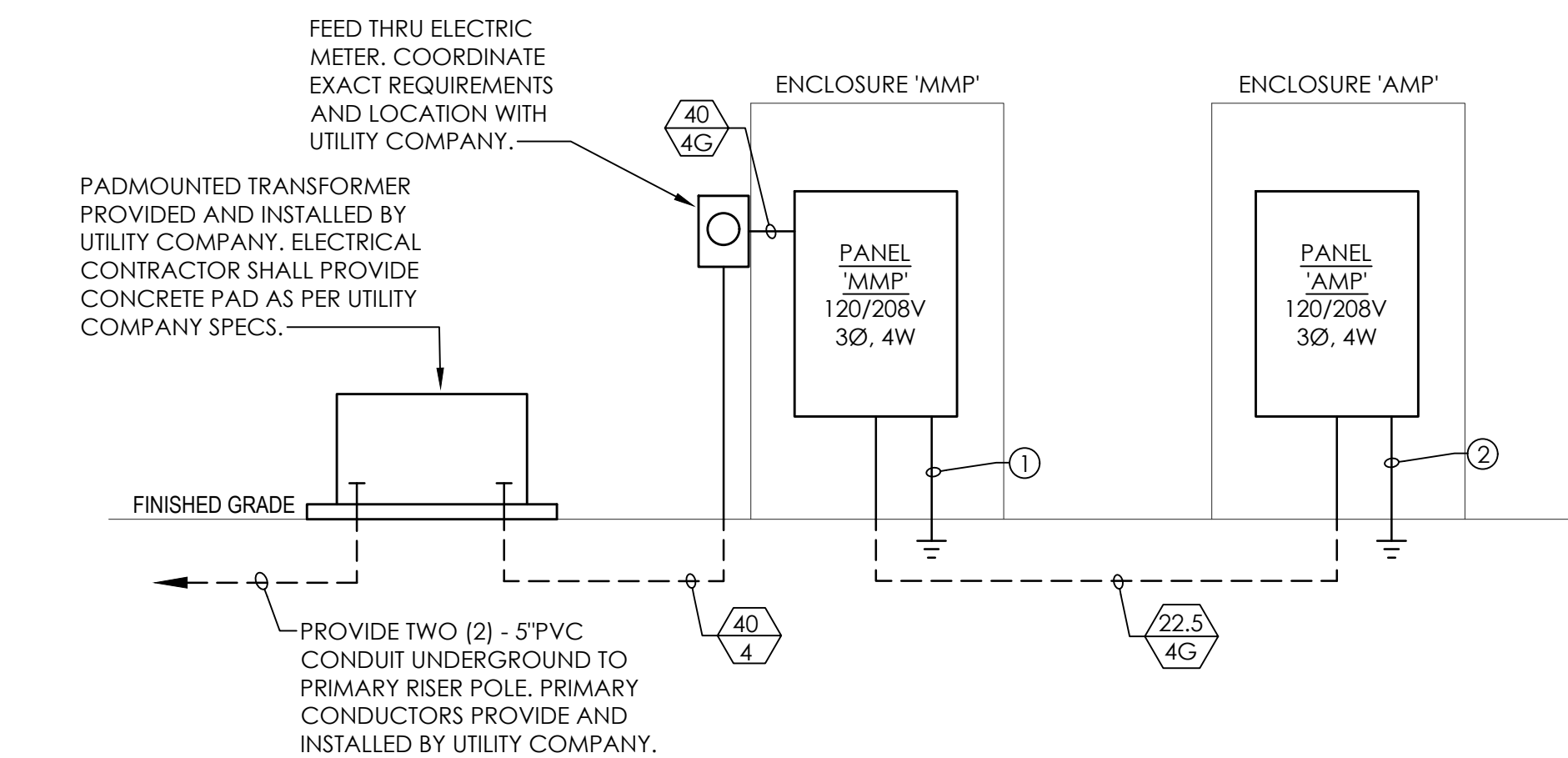
GENERAL RISER DIAGRAM NOTE:

EACH SERVICE EQUIPMENT MAIN PANEL SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. THE FIELD MARKINGS SHALL INCLUDE THE DATE THE FAULT CURRENT CALCULATION WAS PERFORMED AND SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED. CONTRACTOR IS RESPONSIBLE FOR CALCULATION AND PROPER MARKINGS AND MUST COMPLY WITH NEC 110.24. FIELD MARKINGS SHALL UTILIZE THE SAME METHOD AS PANELBOARD NAMEPLATES OR LABELS AND SHALL BE ON OUTSIDE COVER OF NEMA 1 PANELS AND ON INSIDE OF NEMA 3R PANELS.



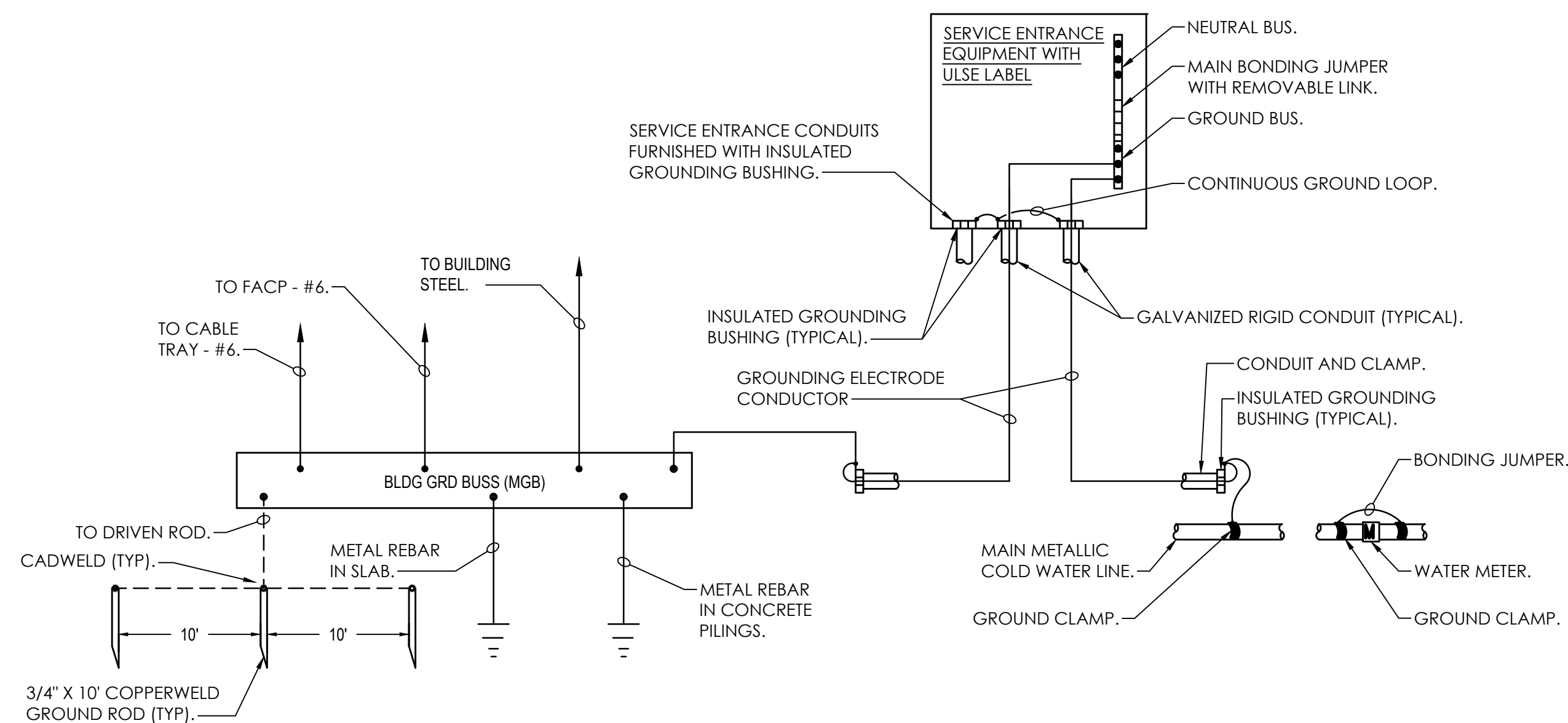
1 POWER RISER DIAGRAM

- NO SCALE
NOTES:
- 1#3/0 BARE COPPER EACH GROUND IN 1" CONDUIT. ONE(1) DRIVEN, ONE(1) TO BUILDING STEEL, ONE(1) TO REBAR AND ONE(1) TO COLD WATER PIPE AS PER N.E.C.
 - MAIN SWITCHBOARD 'MP' SHALL BE A 2500 AMP MCB, 120/208V, 3P, 4W, NEMA 3R SURFACE MOUNTED ON EXTERIOR OF BUILDING.
 - "EMERGENCY STOP" PUSH BUTTON TYPE. UPON ACTIVATION, SHUNT TRIP POWER TO PANEL MAIN CIRCUIT BREAKER AS INDICATED AND LABEL PUSH BUTTON "EMERGENCY STOP-PANEL 'XX'". MAIN CIRCUIT BREAKER MUST BE MANUALLY RESET TO RESTORE POWER TO PANEL. REFER TO POWER PLAN FOR LOCATION.
 - CONNECT TO MANUFACTURER DISCONNECTING MEANS AS REQUIRED. REFER TO POWER PLAN FOR BREAKER AND CONDUCTOR SIZES.
 - EXISTING CONDUCTORS TO EXISTING PANEL 'MDP' TO REMAIN AS IS.
 - UNDER BASE BID, EXISTING MAIN DISCONNECT 'EXMP' SHALL BE RE-FED FROM NEW PADMOUNTED TRANSFORMER. IF ALTERNATE IS ACCEPTED EXISTING MAIN DISCONNECT SWITCH 'EXMP' WILL BE FED FROM SWITCHBOARD 'MPK'. REFER TO SHEET E1.1 FOR ADDITIONAL INFORMATION ON EXISTING MAIN DISCONNECT 'EXMP'.
 - IF DISCONNECT SWITCH 'EXMP' IS DISCONNECTED FROM SECONDARY SERVICE AND FED FROM PANEL 'MPK', REMOVE SERVICE GROUND AND BONDING JUMPER AS REQUIRED.
 - MANUAL TRANSFER SWITCH, 200A, NEMA 3R, FUSED AT 150A, 120/208V, 3W, 4W WITH CAM-LOCK RECEPTACLE FOR TEMPORARY INPUT.
 - MAIN SWITCHBOARD 'MPK' SHALL BE A 1600 AMP MCB, 120/208V, 3P, 4W, NEMA 1.
 - EXISTING UNDERGROUND SECONDARY SERVICE TO EXISTING MAIN DISCONNECT 'EXMP' TO REMAIN TEMPORARILY DURING RENOVATION OF EXISTING BUILDING. ONCE EXISTING SWITCH IS RE-FED, EXISTING UNDERGROUND SECONDARY SHALL BE REMOVED. REFER TO SHEET E1.1 AND E1.2 FOR ADDITIONAL INFORMATION ON EXISTING AND NEW PRIMARY SERVICE.



2 POWER RISER DIAGRAM PARKING / AMPHITHEATER

- NO SCALE
NOTES:
- 1#1/0 BARE COPPER EACH GROUND IN 1" CONDUIT AS PER N.E.C.
 - 1#2 BARE COPPER EACH GROUND IN 1" CONDUIT AS PER N.E.C.



2 SERVICE ENTRANCE GROUNDING INSTALLATION

- NOT TO SCALE:
NOTES:
- GROUNDING ELECTRODE SYSTEM SHALL BE IN ACCORDANCE WITH THE NEC ARTICLE 250.
 - GROUNDING ELECTRODE CONDUCTORS SHALL BE CONTINUOUS AND NOT SPICED.
 - GROUNDING ELECTRODE CONDUCTORS SHALL BE ENCLOSED IN FULL LENGTH GALVANIZED RIGID CONDUIT AS INDICATED.
 - GROUNDING ELECTRODE CONDUCTORS SHALL BE BARE COPPER.
 - ALL BUSHINGS INSTALLED IN DIRECT CONTACT WITH EARTH SHALL BE APPROVED FOR THE PURPOSE.
 - GROUND CONNECTIONS BELOW GRADE SHALL BE EXOTHERMICALLY WELDED TYPE.
 - PROVIDE GROUNDING JUMPERS FROM COLD WATER PIPING TO HOT WATER PIPING AT EACH WATER HEATER PROVIDE GROUNDING JUMPERS AT EACH INSULATED JOINT OR ANY PLACE WHERE GROUND IS BROKEN TO MAINTAIN THE INTEGRITY OF THE GROUNDING SYSTEM.

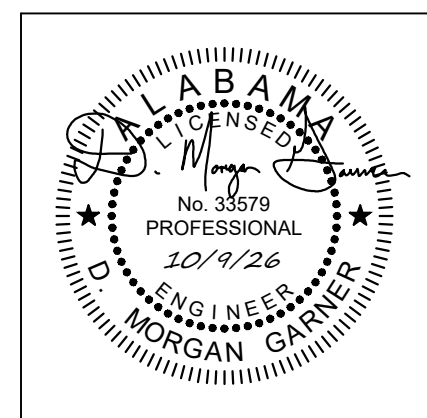


LATHAN
McKEE
ARCHITECTS

Academy St. Career Innovation Academy
The Troy City & Pike County Board of Education

708 E. Academy St., Troy, AL 36081

SHEET TITLE: PANELBOARD SCHEDULES

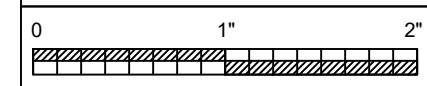


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SHEET NO:

E0.4



PANEL LOCATIONS

PANEL	LOCATION	SHEET NO.
MP	EXTERIOR	E4.1
EQ	EXTERIOR	E4.1
EQL	ELEC. 013	E4.1
LBL	ELEC. 013	E4.1
LCL	STOR. 017	E4.1
LDL	STOR. 009	E4.1
EQM	MULTIPURPOSE 126	E4.2
LAM	MULTIPURPOSE 126	E4.2
EQU	ELECT. 215	E4.3
LAU	ELEC. 215	E4.3

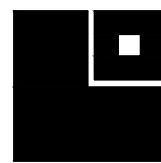
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PANELBOARD SCHEDULE												PANEL 'EQU'			
DIRECTORY	LOAD (VOLT*AMPS)			CKT NO	BRKR AMPS	BRKR AMPS	CKT NO	LOAD (VOLT*AMPS)			DIRECTORY				
	A	B	C					A	B	C					
WH-3	4150			1	502	202	2	312			IU-4-1,3,5				
8.3 KW		4150		3			4		312						
WH-4			4150	5	502	202	6			312	IU-4-2,4,6,8				
8.3 KW	4150			7			8	312							
WH-11		150		9	202	202	10		416		IU-4-7,10,11				
3.0 KW			1500	11			12			416					
SPARE	0			13	202	202	14	0			SPARE				
		0		15			16		0						
				17			18								
				19			20								
				21			22								
				23			24								
				25			26								
				27			28								
				29			30								
				31			32								
				33			34								
				35			36								
SIMULATOR	6000			37	703	1253	38	7927			PANEL LAU				
		6000		39			40		7927						
			6000	41			42			7927					
SUB-TOTAL	14300	10300	11650					8551	8655	8655	SUB-TOTAL				
VOLTAGE : 120/208V, 3PH, 4W				PANEL TYPE:				TOTAL LOAD - A				22851	LOCATION		
MAIN BREAKER : MLO				MAIN BUS : 25SA				TOTAL LOAD - B				18955	ELEC. 215		
MOUNTING: SURFACE				A.I.C. RATING: 42K				TOTAL LOAD - C				20305	TOTAL CONN. CURRENT		
NOTES:				ENCLOSURE: NEMA 1				TOTAL LOAD (VA)				62111	172.53 A		

PANELBOARD SCHEDULE												PANEL 'LAU'			
DIRECTORY	LOAD (VOLT*AMPS)			CKT NO	BRKR AMPS	BRKR AMPS	CKT NO	LOAD (VOLT*AMPS)			DIRECTORY				
	A	B	C					A	B	C					
ELEVATOR CONTROLS	1080			1	20	20	2	1250			LIGHTS CORRIDOR				
ELEVATOR LIGHTS		500		3	20	20	4		450		NIGHT LIGHT				
RECEPTS 203,204,206,207				5	20	20	6			900	CLASSRM LAB.LTS				
EWC	1000			7	20GF	20	8	900			CLASSRM LAB.LTS				
HAND DRYER 206		1500		9	20GF	20	10		900		CLASSRM LAB.LTS				
HAND DRYER 207			1500	11	20GF	20	12			1500	MULTIPURPOSE CLRM.LTS				
RECEPTS 209	600			13	20	20	14	1500			MULTIPURPOSE CLRM.LTS				
RECEPTS 209		800		15	20	20	16		800		RECEPTS 213				
RECEPTS 209			800	17	20	20	18			600	RECEPTS 213				
RECEPTS 209	1000			19	20	20	20	800			RECEPTS 213				
RECEPTS 211		600		21	20	20	22		800		RECEPTS 213				
RECEPTS 211			600	23	20	20	24			1000	RECEPT 213				
RECEPT 211	800			25	20	20	26	1000			PROJECTOR RECEPT 213				
RECEPT 211		1000		27	20	20	28		0		SPARE				
RECEPTS 211			600	29	20	20	30			0	SPARE				
SPARE	0			31	20	20	32	0			SPARE				
SPARE		0		33	20	20	34		0		SPARE				
SPARE			0	35	20	20	36			0	SPARE				
				37			38								
				39			40								
				41			42								
SUB-TOTAL	4480	4400	3500					5450	2950	4000	SUB-TOTAL				
VOLTAGE : 120/208V, 3PH, 4W				PANEL TYPE: AQ				TOTAL LOAD - A				9630	LOCATION		
MAIN BREAKER : MLO				MAIN BUS : 125A				TOTAL LOAD - B				7350	ELEC. 215		
MOUNTING: SURFACE				A.I.C. RATING: 42K				TOTAL LOAD - C				7500	TOTAL CONN. CURRENT		
NOTES:				ENCLOSURE: NEMA 1				TOTAL LOAD (VA)				24780	68.3 A		

PANELBOARD SCHEDULE											PANEL 'LDL'				
DIRECTORY	LOAD (VOLT*AMPS)			CKT NO	BRKR AMPS	BRKR AMPS	CKT NO	LOAD (VOLT*AMPS)			DIRECTORY				
	A	B	C					A	B	C					
RECEPT 007	400			1	20	20	2	400			RECEPT 007				
RECEPT 007		400		3	20	20	4		400		RECEPT 007				
RECEPT 007			400	5	20	20	6			400	RECEPT 007				
RECEPT 007	400			7	20GF	20	8	400			RECEPT 007				
RECEPT 007		400		9	20	20	10		400		RECEPT 007				
RECEPT 007			400	11	20	20	12			400	RECEPT 007				
RECEPT 007	400			13	20	20	14	400			RECEPT 007				
RECEPT 007		400		15	20	20	16		800		RECEPT 008				
SPARE			0	17	20	20	18			400	RECEPT 009				
SPARE	0			19	20	20	20	0			SPARE				
SPARE		0		21	20	20	22		0		SPARE				
SPARE			0	23	20	20	24			0	SPARE				
SPARE	0			25	20	20	26	0			SPARE				
SPARE		0		27	20	20	28		0		SPARE				
SPARE			0	29	20	20	30			0	SPARE				
				31			32								
				33			34								
				35			36								
				37			38								
				39			40								
				41			42								
				43			44								
EQUIP OUTLET		1664		45	20I2	20I2	46				SPARE				
			1664	47			48								
SPARE	0			49	60I3	60I3	50	4800			BUSS DUCT #2				
		0		51			52		4800						
			0	53			54			4800					
BUSS DUCT #1	4800			55	60I3	60I3	56	4800			BUSS DUCT #3				
		4800		57			58		4800						
			4800	59			60			4800					
SUB-TOTAL	6000	7664	7264					10800	11200	10800	SUB-TOTAL				
VOLTAGE : 120/208V, 3PH, 4W				PANEL TYPE:				TOTAL LOAD - A				16800		LOCATION	
MAIN BREAKER : MCB SHUNT TRIP				MAIN BUS : 225A				TOTAL LOAD - B				18864		STOR. 009	
MOUNTING: SURFACE				A.I.C. RATING: 42K				TOTAL LOAD - C				18064		TOTAL CONN. CURRENT	
NOTES:				ENCLOSURE: NEMA 1				TOTAL LOAD (VA)				53728			

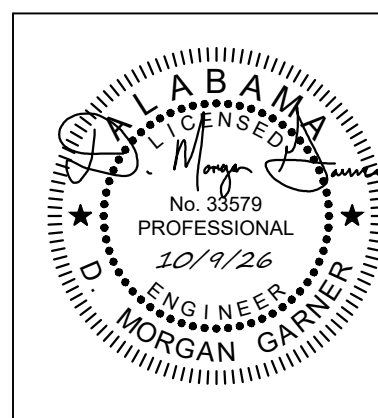
PANELBOARD SCHEDULE												PANEL 'EQM'			
DIRECTORY	LOAD (VOLT*AMPS)			CKT NO	BRKR AMPS	BRKR AMPS	CKT NO	LOAD (VOLT*AMPS)			DIRECTORY	LOAD (VOLT*AMPS)			DIRECTORY
	A	B	C					A	B	C		A	B	C	



LATHAN
&McKEE
ARCHITECTS

Academy St. Career Innovation Academy
The Troy City & Pike County Board of Education
708 E. Academy St., Troy, AL 36181

SHEET TITLE: PANELBOARD SCHEDULES AND NOTES



PROJ. MGR.: RH
DRAWN: RH
DATE: 10-9-2026
REVISIONS

JOB NO. 25-249
SHEET NO:

E0.41

0 1" 2'

SWITCHBOARD SCHEDULE NOTES

- SWITCHBOARD DESIGNATIONS INDICATED IN SCHEDULES ARE THOSE OF EATON. EQUAL EQUIPMENT BY OTHER MANUFACTURERS WILL BE CONSIDERED. IF OTHER MANUFACTURER'S PANELS ARE TO BE USED, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL SPACE REQUIREMENTS.
- EACH SWITCHBOARD SHALL HAVE AN INTEGRATED EQUIPMENT RATING EQUAL TO THE LOWEST A.I.C. OF ANY CIRCUIT BREAKER IN SWITCHBOARD.
- ALL CIRCUIT BREAKERS SHALL BE BOLT ON TYPE.
- SWITCHBOARD MUST HAVE BUSSED INCOMING LINE LUG SECTION. NO SIDE ACCESS PERMITTED. SWITCHBOARD MUST HAVE A EMPTY SECTION FOR SERVICE ENTRANCE CONDUCTOR TERMINATION AND ENTRY.
- SWITCHBOARD SHALL HAVE INTEGRAL SURGE PROTECTION DEVICE, EATON TYPE. 200K A PER PHASE. 200K A.I.C. WITH INTEGRAL CIRCUIT BREAKER WITH INDICATING LIGHTS, ALARM, TEST, FORM C CONTACTS AND A SURGE CONDUCTOR. **THIS NOTE APPLIES TO ALL SWITCHBOARDS.**
- IN MAIN SWITCHBOARD, ANY CIRCUIT BREAKERS, RATED 1000 AMPERES OR MORE SHALL BE PROVIDED WITH GROUND-FAULT PROTECTION. REFER TO NEC 230.95 MUST BE PROVIDED.
- CONTRACTOR TO PROVIDE ALL BRANCH CIRCUIT NUMBERS USING PERMANENT CIRCUIT MARKER WITH THE PROPER CIRCUIT NUMBER ATTACHED NEXT TO EACH BREAKER. STICK ON NUMBERS WILL NOT BE APPROVED. ON SPECTRA BRANCH BREAKERS, CONTRACTOR TO PROVIDE FIELD MOUNTED PHENOLIC NAMEPLATE INDICATING EACH LOAD.
- PROVIDE U.L.S.E. (U.L. SERVICE ENTRANCE) LABEL.
- EACH SERVICE EQUIPMENT MAIN PANEL SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. THE FIELD MARKINGS SHALL INCLUDE THE DATE THE FAULT CURRENT CALCULATION WAS PERFORMED AND SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED. CONTRACTOR IS RESPONSIBLE FOR CALCULATION AND PROPER MARKINGS AND MUST COMPLY WITH NEC 110.24. FIELD MARKINGS SHALL UTILIZE THE SAME METHOD AS PANELBOARD NAMEPLATES OR LABELS AND SHALL BE ON OUTSIDE COVER OF NEMA 1 PANELS AND ON INSIDE OF NEMA 3R PANELS.
- PROVIDE FACTORY INSTALL DIGITAL POWER METERING EQUIPMENT AS REQUIRED.
- PROVIDE ARC ENERGY REDUCTION SWITCHING AS REQUIRED TO COMPLY WITH NEC 240.67. PROVIDE DOCUMENTATION OF THIS ON A PLAQUE ON INTERIOR OF DOOR.
- ALL CIRCUIT BREAKERS SHALL BE SOLID STATE BREAKERS.
- BREAKERS NOTED WITH *ST ARE REQUIRED TO BE SHUNT-TRIP TYPE BREAKERS.

PANELBOARD SCHEDULE NOTES

- PANELBOARD DESIGNATIONS INDICATED IN SCHEDULES ARE THOSE OF ABB. EQUAL EQUIPMENT BY OTHER MANUFACTURERS WILL BE CONSIDERED. IF OTHER MANUFACTURER'S PANELS ARE TO BE USED, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL SPACE REQUIREMENTS.
- EACH PANELBOARD SHALL HAVE AN INTEGRATED EQUIPMENT RATING EQUAL TO THE LOWEST A.I.C. OF ANY CIRCUIT BREAKER IN PANEL.
- WHERE CURRENT LIMITING CIRCUIT BREAKERS ARE USED, THEY SHALL BE SERIES RATED FOR DOWSTREAM PROTECTION. SUBMITAL DATA SHALL INCLUDE A CURRENT U.L. APPROVED TABLE OF SERIES CONNECTED RATINGS OF ALL CIRCUIT BREAKERS TO BE USED. ALL 120/208V, 3PH, 4W PANELS SHALL BE SERIES RATED UNLESS NOTED OTHERWISE.
- ALL PANELS SHALL HAVE DOOR IN DOOR CONSTRUCTION. DOOR SHALL BE INSTALLED CORRECTLY PER MANUFACTURERS INSTRUCTIONS. WHEN HINGED COVER DOOR IS OPENED, INTERIOR DEAD FRONT OPENS WITH DOOR.
- ALL BRANCH CIRCUIT BREAKERS SHALL BE BOLT ON TYPE.
- ALL CIRCUIT BREAKERS 100A AND ABOVE SHALL BE SOLID STATE BREAKERS TYPE LSI.
- CONTRACTOR TO PROVIDE ALL BRANCH CIRCUIT NUMBERS USING PERMANENT CIRCUIT MARKERS WITH THE PROPER CIRCUIT NUMBER ATTACHED NEXT TO EACH BREAKER. STICK ON NUMBERS WILL NOT BE APPROVED. ON RELI-BRANCH BREAKERS, CONTRACTOR TO PROVIDE FIELD MOUNTED PHENOLIC NAMEPLATE INDICATING EACH LOAD. NO HAND WRITING VISIBLE ON THE PANEL WILL BE ACCEPTABLE.
- ALL BLANK SPACES SHALL BE ASSUMED BUSSED SPACE FOR EACH PANELBOARD.
- PANEL SHALL HAVE SURGE PROTECTION DEVICE. SURGE PROTECTION DEVICE MUST BE INSTALLED INTERNALLY TO THE ELECTRICAL DISTRIBUTION EQUIPMENT AND SHIPPED FROM THE MANUFACTURER'S FACTORY AS A COMPLETE U.L. LISTED ASSEMBLY. PANELBOARD SPD'S SHALL BE ABB TMENVN/100/200, OR EQUAL. VOLTAGES FOR DEVICES SHALL BE INDICATED ON THE PANELBOARD SCHEDULES AND SINGLE LINE DIAGRAM. **THIS NOTE APPLIES TO ALL PANELS.**
- ALL TWO SECTION PANELS SHALL HAVE EQUAL CAN HEIGHTS.
- PROVIDE U.L.S.E. (U.L. SERVICE ENTRANCE) LABEL. THIS NOTE ONLY APPLIES TO PANELS NOTED SO.
- A.I.C. RATING, SR STANDS FOR SERIES RATED.
- THE TERMINATION POINT OF THE FEEDER SERVING EACH ASSEMBLY SHALL BE AT THE NEAREST POINT OF FEEDER ENTRY TO MINIMIZE CONDUCTOR FILL IN THE CAN. COORDINATE TOP/BOTTOM FEED PANELBOARD PROVISIONS WITH EACH FEEDER INSTALLATION.
- PROVIDE THE PROPERLY SIZED CONDUCTOR TERMINATION POINTS OR LUGS (MULTIPLE LUGS WHEN PARALLEL FEEDERS ARE USED) FOR THE NUMBER AND SIZE CIRCUITS INDICATED.
- EACH PANELBOARD SHALL HAVE A NAMEPLATE AS SHOWN IN DETAIL. ENGINEER WILL NOT ACCEPT JOB UNTIL THESE NAMEPLATES ARE PROVIDED.
- PROVIDE TYPED CIRCUIT DIRECTORY THAT INDICATES WHAT EACH CIRCUIT IS SERVING AND FOR LIGHTING AND RECEPTACLE CIRCUITS THE ROOM NUMBERS THAT CIRCUIT IS SERVING SHALL BE INCLUDED IN DIRECTORY.
- ALL PANELBOARDS SHALL BE CLEARLY MARKED TO COMPLY WITH N.E.C. 110.16 REGARDING POTENTIAL HAZARDS OF ARC FLASH.
- EACH SERVICE EQUIPMENT MAIN PANEL SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. THE FIELD MARKINGS SHALL INCLUDE THE DATE THE FAULT CURRENT CALCULATION WAS PERFORMED AND SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED. CONTRACTOR IS RESPONSIBLE FOR CALCULATION AND PROPER MARKINGS AND MUST COMPLY WITH NEC 110.24. FIELD MARKINGS SHALL UTILIZE THE SAME METHOD AS PANELBOARD NAMEPLATES OR LABELS AND SHALL BE ON OUTSIDE COVER OF NEMA 1 PANELS AND ON INSIDE OF NEMA 3R PANELS.
- CONTRACTOR SHALL INSTALL GROUND FAULT AND ARC FAULT CIRCUIT INTERRUPTION CIRCUIT BREAKERS AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION (AHJ).
- BREAKERS NOTED WITH *GF ARE REQUIRED TO BE GROUND-FAULT TYPE BREAKERS.
- BREAKERS NOTED WITH *ST ARE REQUIRED TO BE SHUNT-TRIP TYPE BREAKERS.

PANEL LOCATIONS

PANEL	LOCATION	SHEET NO.
MPK	ELEC. A034	E4.4
EQCC	ELEC. A035	E4.4
CC	ELEC. A034	E4.4
EMCC	ELEC. A034	E4.4
EQCL	PANTRY 127	E4.5
CL	PANTRY 127	E4.5
EMCL	PANTRY 127	E4.5
EQR	ROOF	E4.3
MPP	ENCLOSURE AMP	E1.2
AMP	ENCLOSURE AMP	E1.2

GARNER
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Project No: 26-020

PANELBOARD SCHEDULE										PANEL 'MPK'	
DIRECTORY	LOAD (VOLT/AMPS)			CKT NO	BRKR AMPS	BRKR AMPS	CKT NO	LOAD (VOLT/AMPS)			DIRECTORY
	A	B	C					A	B	C	
EXIST. MAIN SW. EXP	19566			1	6003	8003	2	73800			PANEL EQR
		19566		3			4		73800		
			19566	5			6			73800	
TRANSF. SW. MTS	9421			7	1503	4003	8	19685			PANEL EQCL
PANELS EMCC & EMCL		9421		9			10		19685		
			9421	11			12			19685	
PANEL CC	8618			13	1503	1503	14	5501			PANEL CL
		8618		15			16		5501		
			8618	17			18			5501	
UDS E41.1.3	24000			19	2503	4003	20	38400			UDS #1.3
		24000		21	ST	ST	22		38400		
			24000	23			24			38400	
PANEL EQCC	19316			25	2253		26				
		19316		27			28				
			19316	29			30				
ELEVATOR	10320			31	1503		32				
			10320	33	ST		34				
				35			36				
				37			38				
				39			40				
				41			42				
SUB-TOTAL	91241	91241	81953					137386	137386	137386	SUB-TOTAL
VOLTAGE : 120/208V, 3PH, 4W				PANEL TYPE:		TOTAL LOAD - A		228627		LOCATION	
MAIN BREAKER : MCB				MAIN BUS: 1800 A		TOTAL LOAD - B		228627		ELEC. A034	
MOUNTING: SURFACE				A.I.C. RATING: 42K		TOTAL LOAD - C		219339		TOTAL CONN. CURRENT	
NOTES: U.L.S.E.				ENCLOSURE: NEMA 1		TOTAL LOAD (VA)		676593		1879.43 A	

PANELBOARD SCHEDULE										PANEL 'EQCC'	
DIRECTORY	LOAD (VOLT/AMPS)			CKT NO	BRKR AMPS	BRKR AMPS	CKT NO	LOAD (VOLT/AMPS)			DIRECTORY
	A	B	C					A	B	C	
SPARE	0			1	303	302	2	0			DRYER E7.1
		0		3			4		0		
SPARE			0	5	303	302	6			2500	HOT WTR DISP. E-29
				7			8			2500	
SPARE	0			9	202	302	10			0	SPARE
SF-1		998		11	ST		12			0	
1.675 HP			998	13	203	302	14	0		0	SPARE
#0 QT MIXER E-30	960			15			16		0		
		960		17			18			0	
SPARE	0			19	303	203	20	936			KEF-1A
				21			22		936		2 HP
		0		23			24			936	
SPARE			0	25	303	203	26	936			KEF-1B
				27			28		936		2 HP
				29			30			936	
EJH-4	1000			31	203	302	32	0			SPARE
3.0 KW		1000		33	ST		34		0		
			1000	35			36			0	
DISH MACHINE E82	6132			37	803	903	38	7020			DISH MACHINE E82.1
TANK HT. MOTOR, CONTROLS		6132		39			40		7020		BOOSTER HTR. 30KW
			6132	41			42			7020	
SUB-TOTAL	8092	9090	9090					11392	8892	11392	SUB-TOTAL
VOLTAGE : 120/208V, 3PH, 4W				PANEL TYPE:		TOTAL LOAD - A		19484		LOCATION	
MAIN BREAKER : MLO				MAIN BUS: 225A		TOTAL LOAD - B		17982		ELEC. A034	
MOUNTING: SURFACE				A.I.C. RATING: 42K		TOTAL LOAD - C		20482		TOTAL CONN. CURRENT	
NOTES:				ENCLOSURE: NEMA 1		TOTAL LOAD (VA)		57948		160.97 A	

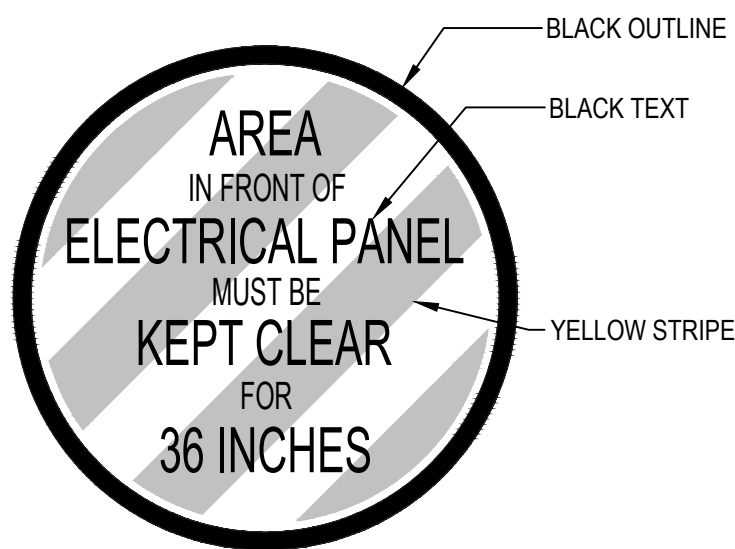
PANELBOARD SCHEDULE										PANEL 'CC'	
DIRECTORY	LOAD (VOLT/AMPS)			CKT NO	BRKR AMPS	BRKR AMPS	CKT NO	LOAD (VOLT/AMPS)			DIRECTORY
	A	B	C					A	B	C	
UDS TERMINALS E-41.1.1	1000			1	20	20	2	1200			LIGHTS
HOOD CONTROLS D53.1.2		1000		3	20	20	4		200		NIGHT LIGHTS
DISH MACHINE PUMP E82.2			L	5	20	20	6		725		LIGHTS CLASSROOM
EWIC	1200			7	20GF	20GF	8	780			AIR CURTAIN E1
RECEPTS		1000		9	20	20	10		1500		WASHER E7
RECEPTS			600	11	20	20GF	12		200		E88 RECEPTS. 032
RECEPTS. 035	600			13	20	20GF	14	200			E88 RECEPTS. 032
RECEPTS. 035		600		15	20	20GF	16		200		E88 RECEPTS. 032
RECEPTS. 030.032			600	17	20GF	20GF	18		200		E88 RECEPTS. 032
RECEPTS. 030.032.040	600			19	20GF	20GF	20	200			E88 RECEPTS. 032
RECEPTS. 030.032		600		21	20	20GF	22		200		E88 RECEPTS. 032
RECEPTS. 032			200	23	20GF	20GF	24		400		E88 RECEPTS. 032
RECEPTS. 032	200			25	20GF	20GF	26	400			E88 RECEPTS. 032
RECEPTS. 032		200		27	20GF	20GF	28		300		EXTERIOR LIGHTS
RECEPTS. 032			200	29	20GF	20GF	30		600		RECEPTS. 032
WH-5 & 6 PUMPS/CLOCK	1000			31	20	20GF	32	500			FAC-C (LOCKABLE/RED)
SP-2		500		33	20	20GF	34		450		LIGHTS
CHAIR LIFT			2500	35	30	20ST	36			200	GAS SHUT OFF AT HOOD
CHAIR LIFT	2500			37	30	20GF	38	0			SPARE
CHAIR LIFT		2500		39	30	20GF	40		0		SPARE
SPARE			0	41	20	20GF	42		0		SPARE
SPARE	0			43	20	20	44	0			SPARE
SPARE			0	45	20	20	46		0		SPARE
SPARE			0	47	20	20	48		0		SPARE
SPARE	0			49	20	20	50	0			SPARE
SPARE		0		51	20	20	52		0		SPARE
SPARE			0	53	20	20	54		0		SPARE
SPARE	0			55	20	20	56	0			SPARE
SPARE		0		57	20	20	58		0		SPARE
SPARE			0	59	20	20	60		0		SPARE
SUB-TOTAL	7100	6400	4100					3280	2850	2325	SUB-TOTAL
VOLTAGE : 120/208V, 3PH, 4W				PANEL TYPE:		TOTAL LOAD - A		10380		LOCATION	
MAIN BREAKER : MLO				MAIN BUS: 225A		TOTAL LOAD - B		9250		ELEC. A034	
MOUNTING: SURFACE				A.I.C. RATING: 42K		TOTAL LOAD - C		6425		TOTAL CONN. CURRENT	
NOTES:				ENCLOSURE: NEMA 1		TOTAL LOAD (VA)		26055		72.38 A	

PANELBOARD SCHEDULE										PANEL 'EMCC'	
DIRECTORY	LOAD (VOLT/AMPS)			CKT NO	BRKR AMPS	BRKR AMPS	CKT NO	LOAD (VOLT/AMPS)			DIRECTORY
	A	B	C					A	B	C	
FREEZER ACCESS. E12.3	1200			1	20	20	2	1000			EVAPORATOR PAN E-19
COOLER ACCESS. E12.6		1200		3	20	20	4		1000		EVAPORATOR PAN E-19
COOLER EVAP COIL E12.5			1200	5	20	20GFS	6			264	RECEPT E30
SPARE	0			7	20	20GFS	8	400			RECEPTS
SPARE		0		9	20	20GFS	10		840		RECEPT E31
SPARE			0	11	20	20GFS	12			400	RECEPTS
SPARE	0			13	20	20GFS	14	0			SPARE
SPARE		0		15	20	20GFS	16		0		SPARE
SPARE			0	17	20	20GFS	18			0	SPARE
				19	20						
				21							
				23	24						
				25	24						
FREEZER EVAP E12.2		1123		27	20G	20G	28				SPARE
			1123	29			30	0	0	0	
COOLER COND. E12.4	1800			31	20G	30G	32	0			SPARE
		1800		33			34	0	0		
			1800	35			36		0		
FREEZER COND. E12.1	2400			37	30G	60G	38	1971			PANEL 'EMCL'
		2400		39			40		1971		
			2400	41			42			1971	
SUB-TOTAL	5400	6523	6523					3371	3811	2635	SUB-TOTAL
VOLTAGE : 120/208V, 3PH, 4W				PANEL TYPE:				TOTAL LOAD - A		8771	LOCATION
MAIN BREAKER : MLO				MAIN BUS: 225A				TOTAL LOAD - B		10334	ELEC. A034
MOUNTING : SURFACE				A.I.C. RATING: 42K				TOTAL LOAD - C		9158	TOTAL CONC. CURRENT
NOTES:				ENCLOSURE : NEMA 1				TOTAL LOAD (VA)		28263	78.51 A

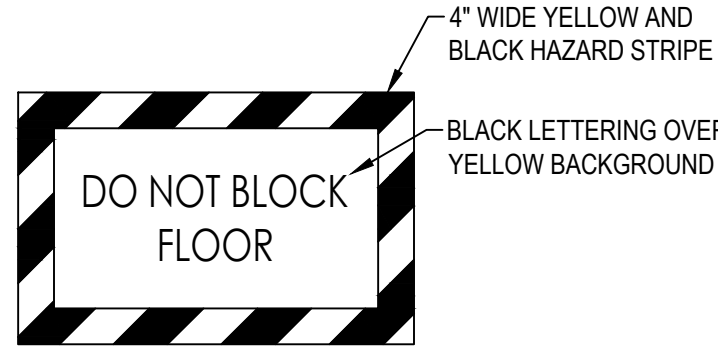


1 TYPICAL ARC FLASH WARNING LABEL DETAIL

- NOT TO SCALE
- NOTES:
1. PROVIDE SELF-ADHESIVE VINYL LABEL TO AFFIX TO ELECTRICAL EQUIPMENT TO WARN OF ARC FLASH HAZARDS PER N.E.C. 110.16.
 2. THE LABEL FORMAT AND TEXT SHALL BE IN ACCORDANCE WITH THE FIGURE. ALL OTHER LABELS MUST BE SUBMITTED FOR APPROVAL.
 3. THE LABEL SHALL BE LOCATED ON THE EQUIPMENT TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT.
 4. THE SIZE OF THE LABEL SHALL BE 4" HIGH AND 6" WIDE FOR INDOOR AND OUTDOOR EQUIPMENT.



TYPE 'A'



TYPE 'B'

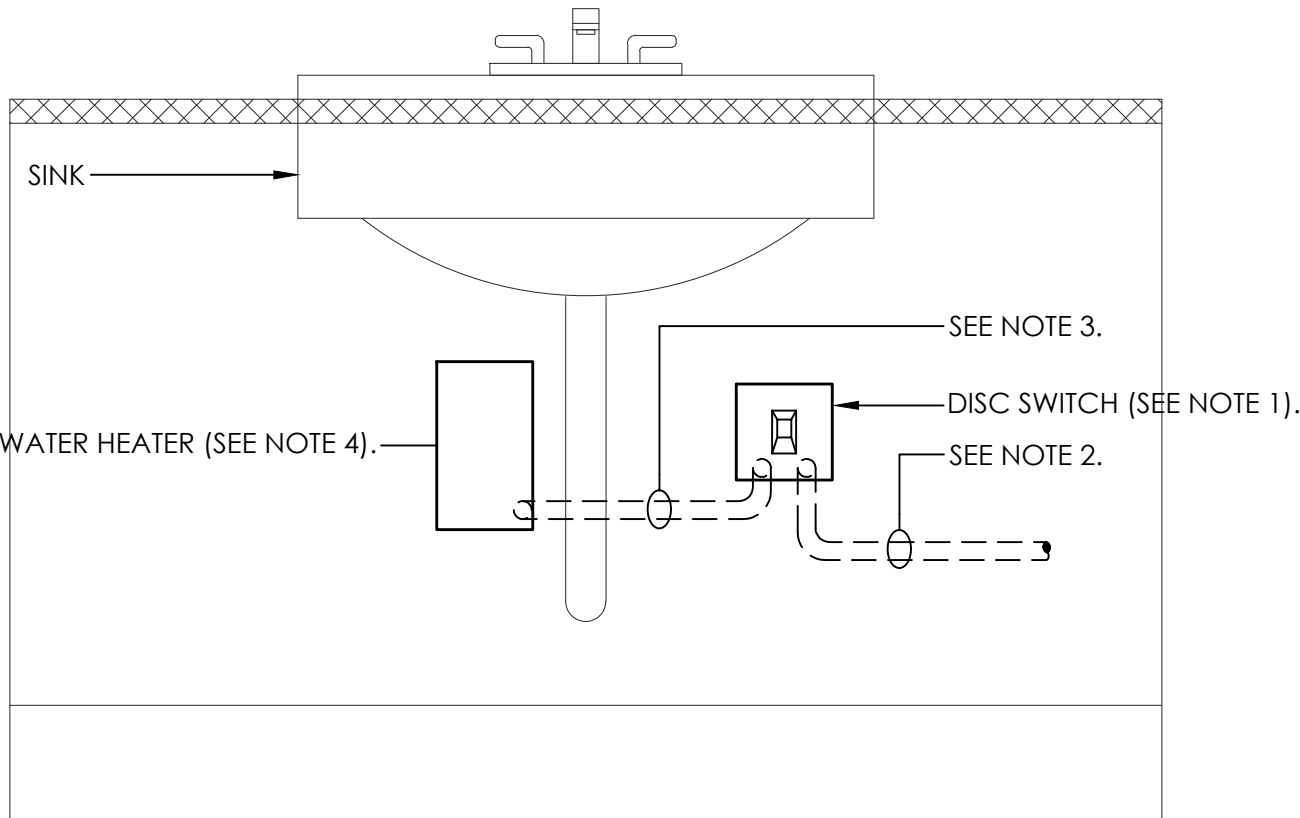
4 ELECTRICAL EQUIPMENT CLEARANCE MARKING

- NOT TO SCALE
- NOTES:
1. THIS DETAIL IS TYPICAL FOR ALL ELECTRICAL PANELS.

PANEL WORKING SPACES			
NOMINAL VOLTAGE TO GROUND	MINIMUM CLEAR DISTANCE		
	CONDITION 1	CONDITION 2	CONDITION 3
0-150	3'-0"	3'-0"	3'-0"
151-600	3'-0"	3'-6"	4'-0"

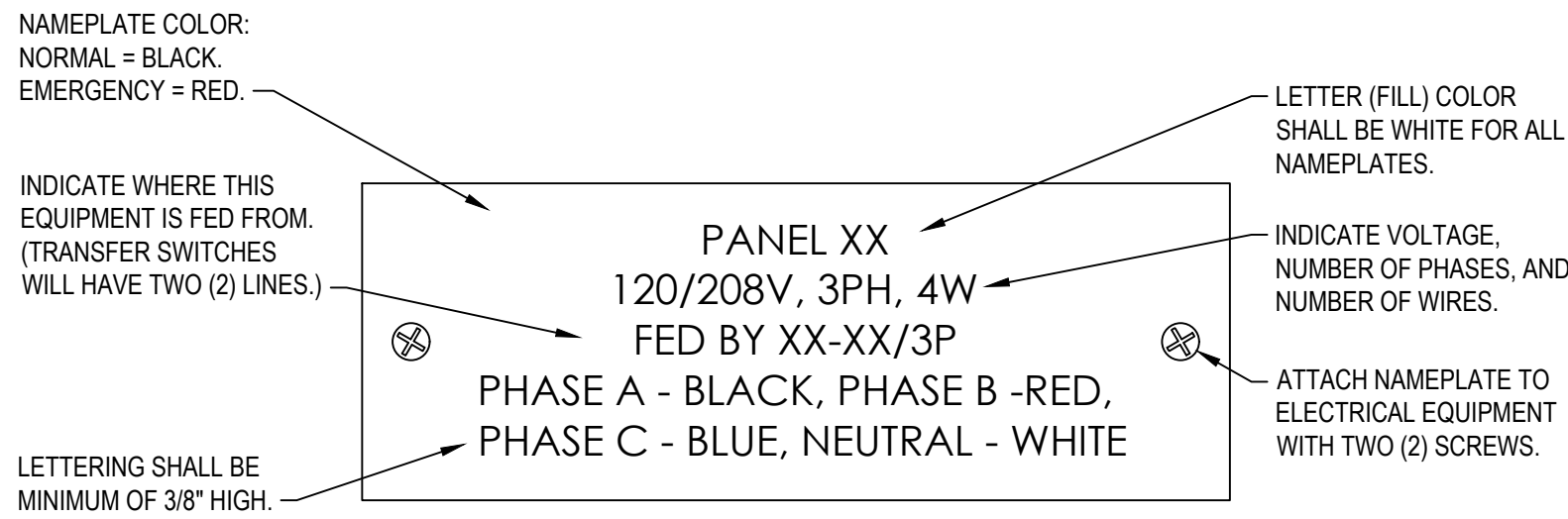
NOTE:
WHERE THE CONDITIONS ARE AS FOLLOWS:

- CONDITION 1 - EXPOSED LIVE PARTS ON ONE SIDE OF THE WORKING SPACE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORKING SPACE THAT ARE EFFECTIVELY GUARDED BY INSULATING MATERIALS.
- CONDITION 2 - EXPOSED LIVE PARTS ON ONE SIDE OF THE WORKING SPACE AND GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE. CONCRETE, BRICK, OR TILE WALLS SHALL BE CONSIDERED AS GROUNDED.
- CONDITION 3 - EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORKING SPACE.



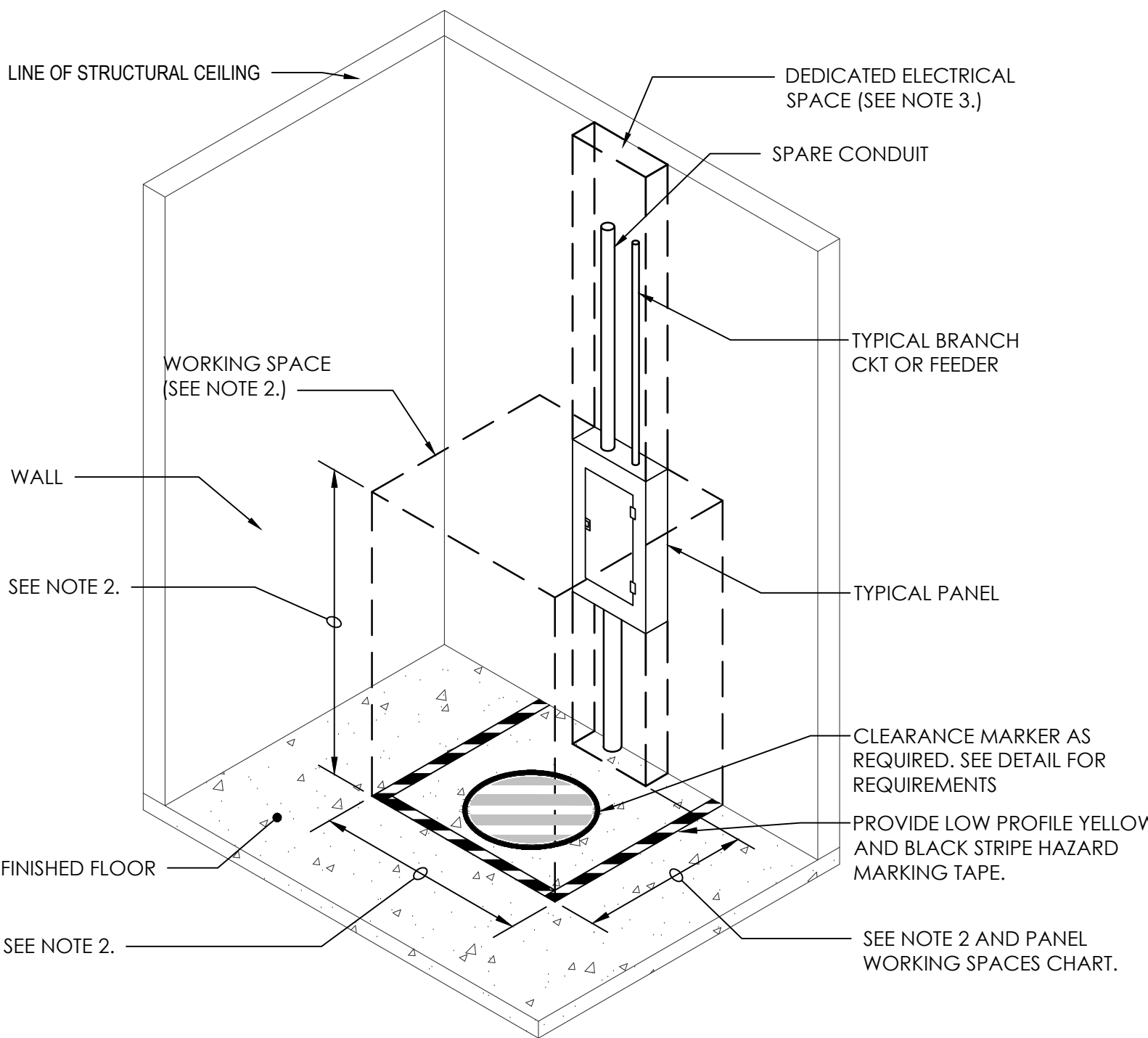
7 INSTANTANEOUS WATER HEATER DETAIL

- NOT TO SCALE
- NOTES:
1. FURNISH AND INSTALL A FLUSH MOUNTED 20 AMP, 1 POLE, 277V, MANUAL CONTACTOR, MOUNTED AS SHOW. LOCATE DISCONNECT SWITCH BELOW LAVATORY, MOUNT NEATLY AND SECURELY.
 2. 2#10 & 1#10(G)-1/2" c. FROM PANEL AS WRITTEN IN NOTE. ROUTE CONCEALED.
 3. 2#10 & 1#10(G)-1/2" c. FROM DISCONNECT SWITCH TO WATER HEATER. ROUTE CONCEALED.
 4. WATER HEATER FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR. MAKE ELECTRICAL CONNECTION AS PER MANUFACTURER'S REQUIREMENTS.



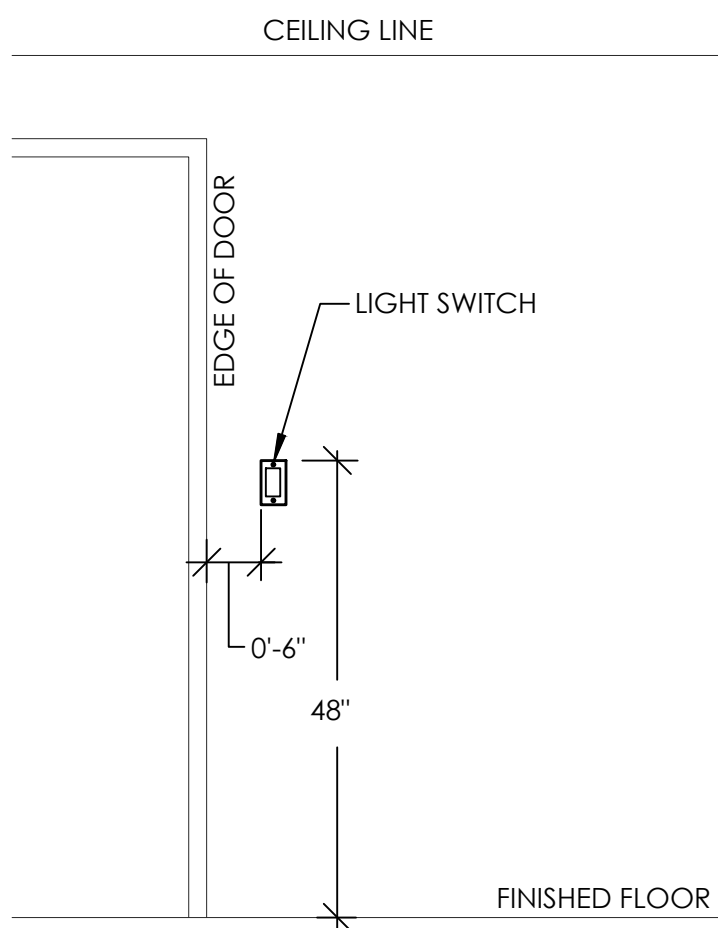
2 ELECTRICAL EQUIPMENT NAMEPLATE DETAIL

- NOT TO SCALE
- NOTES:
1. THIS DETAIL IS TYPICAL FOR ALL ELECTRICAL EQUIPMENT INCLUDING BUT NOT LIMITED TO PANELS, DISCONNECTS, ETC.
 2. NAMEPLATES SHALL BE MOUNTED NEAR THE TOP AND CENTER OF EQUIPMENT.



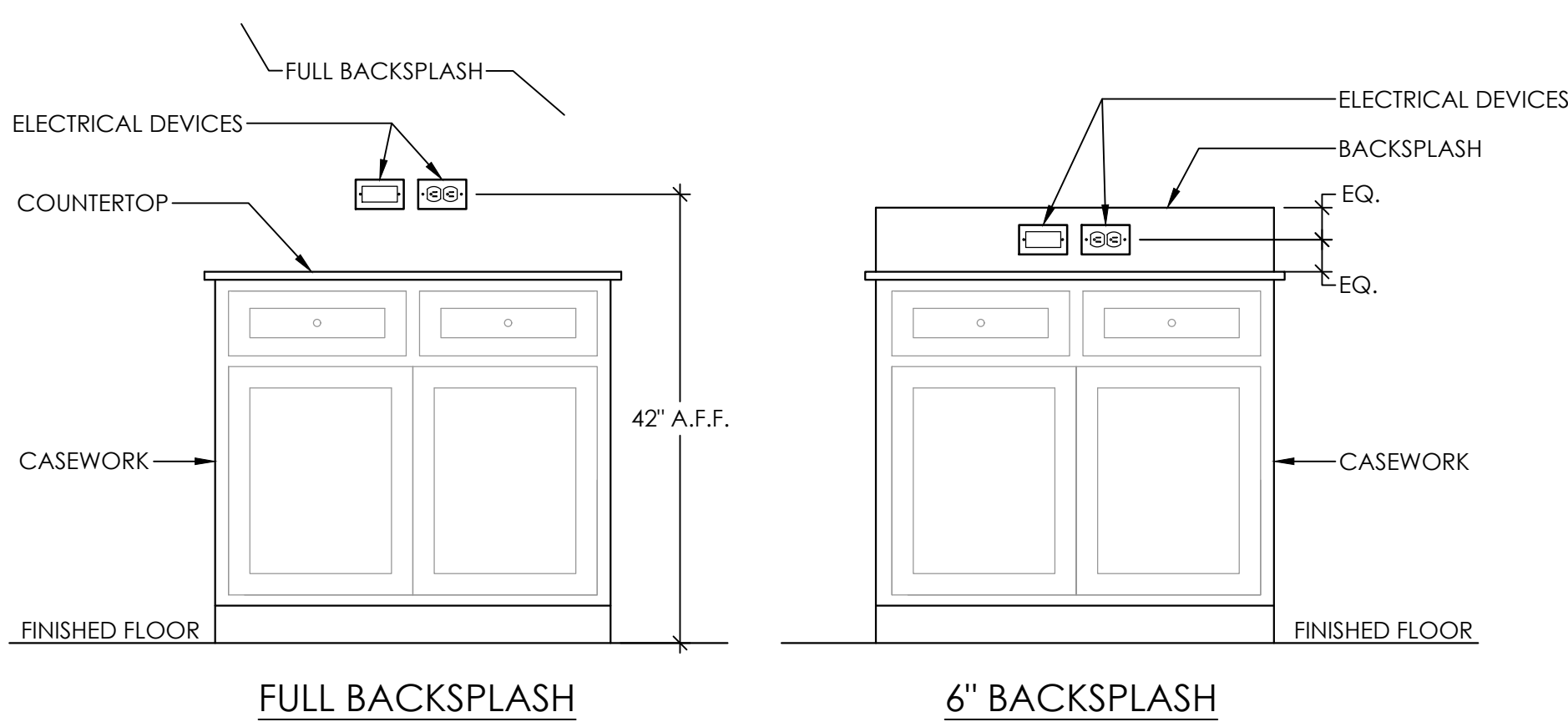
5 ELECTRICAL PANEL WORKING CLEARANCES

- NOT TO SCALE
- NOTES:
1. DIMENSIONS SHOWN ARE MINIMUM.
 2. WORKING SPACE IS DEFINED AS THE SPACE IN FRONT OF THE PANEL FOR EXAMINATION, ADJUSTMENTS, SERVICING AND/OR MAINTENANCE WHILE ENERGIZED. IN ALL CASES WORK SPACES SHALL PERMIT AT LEAST A 90 DEG. OPENING OF EQUIPMENT DOORS OR HINGED PANELS.
 - WIDTH: 30" OR WIDTH OF EQUIPMENT (WHICHEVER IS GREATER)
 - HEIGHT: 6'-6" FROM FLOOR OR HEIGHT OF EQUIPMENT, (WHICHEVER IS GREATER)
 - DEPTH: DEPENDS ON CONDITIONS OUTLINED IN PANEL WORKING SPACES CHART.
 3. DEDICATED ELECTRICAL SPACE IS DEFINED AS THE SPACE EQUAL TO THE WIDTH AND DEPTH OF THE EQUIPMENT, EXTENDING FROM FLOOR TO A HEIGHT OF 6'-0" ABOVE THE EQUIPMENT OR TO THE STRUCTURAL CEILING, (WHICHEVER IS LOWER)
 4. SEE NFPA 70, CURRENT NEC.



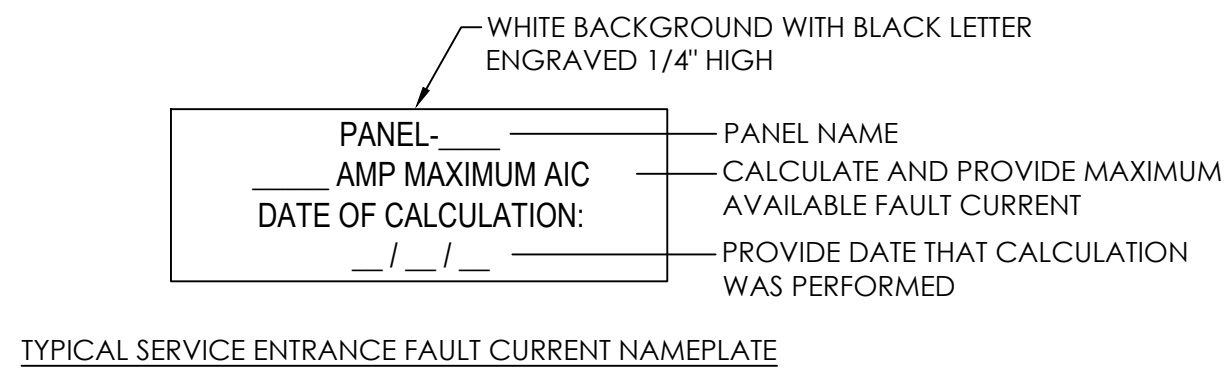
8 TYPICAL LIGHT SWITCH INSTALLATION DETAIL

- NOT TO SCALE
- NOTES:
1. MOUNT DEVICES ON SAME VERTICAL CENTERLINE.
 2. THERMOSTATS SHALL BE MOUNTED PER ADA.
 3. THE LIGHT SWITCH MAY NOT APPLY IN ALL CASES.
 4. IF THE THERMOSTAT IS SHOWN IN THE MIDDLE OF A WALL ON THE FLOOR PLANS, THEN THE DOOR EDGE REQUIREMENTS DO NOT APPLY.
 5. ALL CONFLICTS SHALL BE PRESENTED TO THE ARCHITECT FOR A RESOLUTION.



9 TYPICAL ELECTRICAL DEVICE INSTALLATION IN BACKSPASH DETAIL

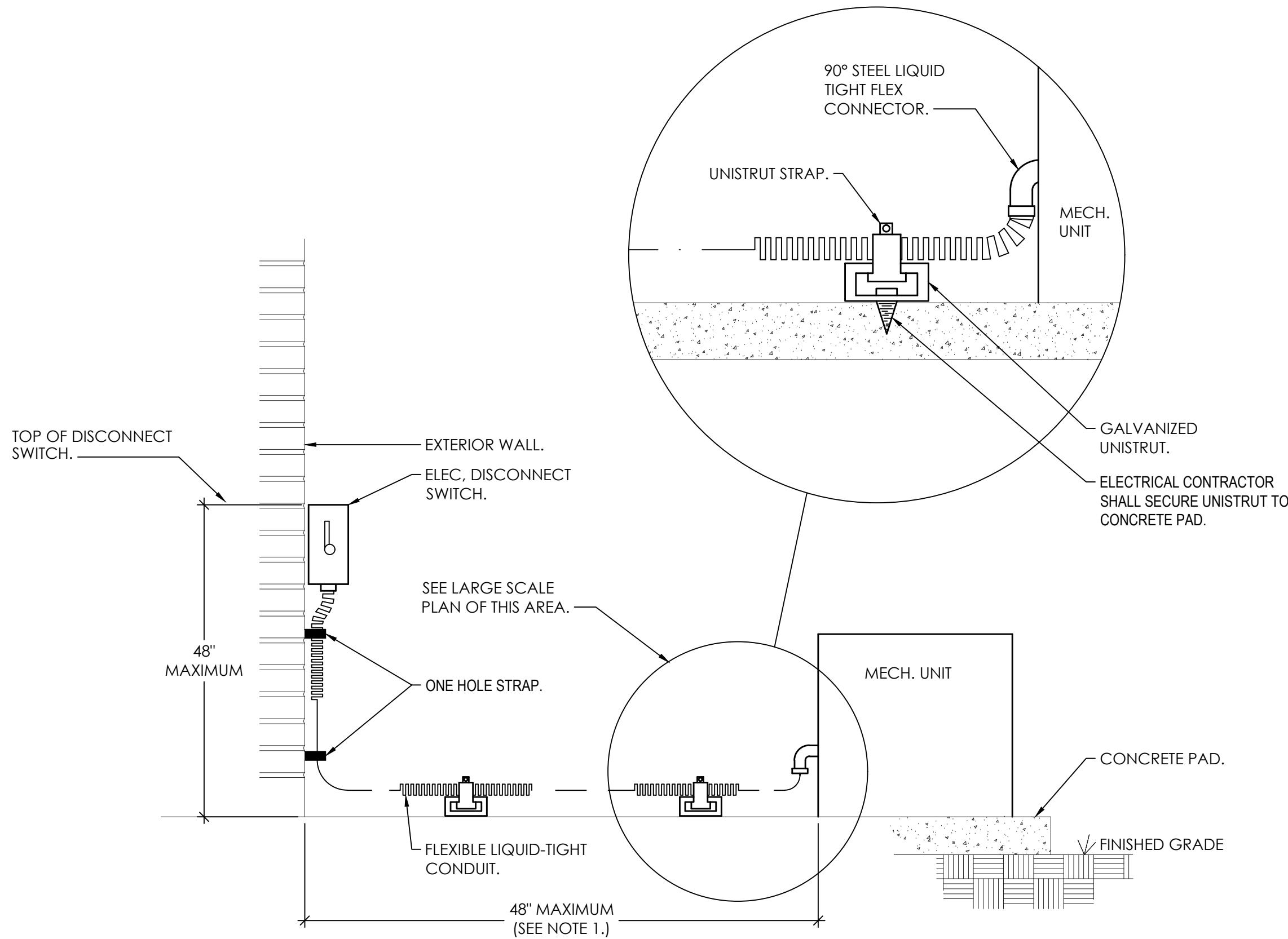
NOT TO SCALE



TYPICAL SERVICE ENTRANCE FAULT CURRENT NAMEPLATE

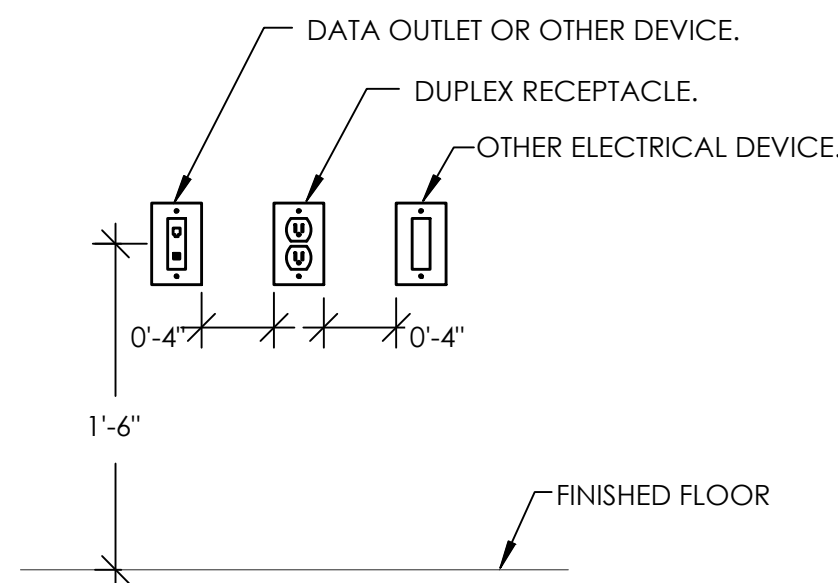
3 SERVICE ENTRANCE FAULT CURRENT NAMEPLATE DETAIL

- NOT TO SCALE
- NOTE:
1. CONTRACTOR SHALL CALCULATE AND PROVIDE NAMEPLATE ON THE SERVENTRANCE EQUIPMENT THAT INDICATES THE MAXIMUM AVAILABLE FAULT CURRENT AND THE DATE THE CALCULATION WAS PERFORMED. SEE NAMEPLATE REQUIREMENTS BELOW.



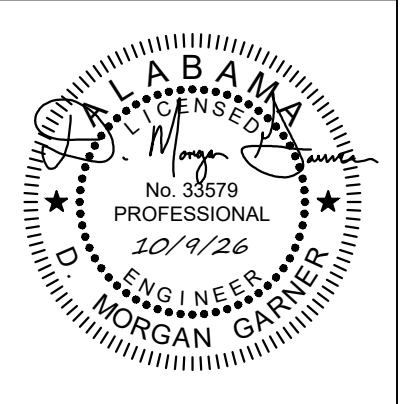
6 TYP. MECH. UNIT CONNECTION DETAIL

- NOT TO SCALE
- NOTE:
1. FOR DISTANCES GREATER THAN 48" CONDUIT TO BE ROUTED BELOW GRADE TO WITHIN 6" OF MECHANICAL UNIT, STUB-UP WITH RIGID ELBOW THRU CONCRETE PAD. PROVIDE FLEXIBLE CONNECTION FROM ELBOW TO MECHANICAL UNIT, WITH CONNECTION MADE AT UNIT AS SHOWN ABOVE.



10 TYPICAL ELECTRICAL DEVICE DETAIL

- NOT TO SCALE
- NOTES:
1. THIS DETAIL APPLIES WHERE EVER MULTIPLE DEVICES ARE SHOWN NEXT TO EACH OTHER ON THE SAME WALL.
 2. SEE ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT LOCATION OF DEVICES.
 3. ALL CONFLICTS SHALL BE PRESENTED TO THE ARCHITECT FOR A RESOLUTION.

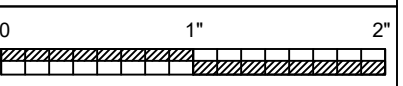


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1 E0.6 FIRE ALARM SYSTEM RISER DIAGRAM

1. PROVIDE WIRING IN RED CONDUIT PER MANUFACTURER'S REQUIREMENTS.
2. SEE FLOOR PLAN FOR LOCATION AND QUANTITY OF DEVICES.
3. COORDINATE LOCATIONS AND CONNECTIONS OF HVAC SHUTDOWN RELAYS WITH HVAC/CONTROLS VENDOR.
4. PROVIDE ADDRESSABLE SYSTEM.
5. IF NOT SHOWN ON FLOOR PLANS PROVIDE 120V. CIRCUIT FOR FACP POWER.
6. DEVICES ARE TO BE RED WITH "ALARM" ENGRAVING TO COMPLY WITH FIRE ALARM USE.
7. CIRCUIT BREAKER TO HAVE A RED HANDLE AND IS BE LOCKABLE.
8. COMMUNICATIONS CABLING AS SPECIFIED, TYPICAL
9. PROVIDE 6 STRAND MULTIMODE FIBER CONNECTION.
10. VERIFY EXACT LOCATION WITH LOCAL FIRE MARSHALL.
11. CONNECTION FOR ELEVATOR RECALL AS REQUIRED.

FIRE ALARM SYSTEM GENERAL NOTES:

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 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 CLASS "B" CIRCUITS SHALL BE INSTALLED SUCH THAT THE OUTGOING AND RETURN CONDUCTORS, EXITING FROM AND RETURNING TO THE CONTROL UNIT RESPECTIVELY, ARE ROUTED SEPARATELY AND NOT RUN IN THE SAME CABLE OR RACEWAY.
6. 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.
7. A "CERTIFICATE OF COMPLETION" IN ACCORDANCE WITH NFPA 72 SHALL BE FURNISHED PRIOR TO FINAL ACCEPTANCE.
8. CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND PROVIDING ALL FIRE ALARM DEVICE QUANTITIES FROM AUXILIARY DRAWINGS. DO NOT USE THIS RISER FOR DEVICE COUNTS.
9. PROVIDE ADDITIONAL NOTIFICATION APPLIANCE CIRCUIT PANELS, AMPLIFIERS, POWER SUPPLIES, ETC. FOR FUTURE CAPACITY TO HAVE SYSTEM WORK CORRECTLY AS ONE SYSTEM.
10. PROVIDE EMERGENCY BATTERIES CAPABLE OF RUNNING THE COMPLETE FIRE ALARM SYSTEM IN ALARM MODE.
11. ALL WIRING TO BE IN CONDUIT SIZED IN ACCORDANCE WITH NEC WITH A MINIMUM SIZE OF 3/4". ALL FIRE ALARM CONDUIT SHALL BE RED.
12. PROVIDE ALL FIRE ALARM JUNCTION BOXES WITH RED COVER, STENCIL THE LETTERS "FA" IN 2" HIGH LETTERS ON EACH BOX COVER.
13. FIRE ALARM SYSTEM PROVIDER IS RESPONSIBLE FOR PROVIDING SIGNAL LINE BOOSTERS AS REQUIRED FOR SYSTEM TO FUNCTION PROPERLY.

EMERGENCY RADIO SYSTEM (BDA) NOTES:

CONTRACTOR SHALL PERFORM AN ONSITE SURVEY OF EXISTING BUILDING OUTSIDE OF THE ALLOWANCE. TESTING SHOULD BE CONDUCTED PRIOR TO THE START OF THE FINISHES BEING INSTALLED: SPECIFICALLY, THE CEILING.

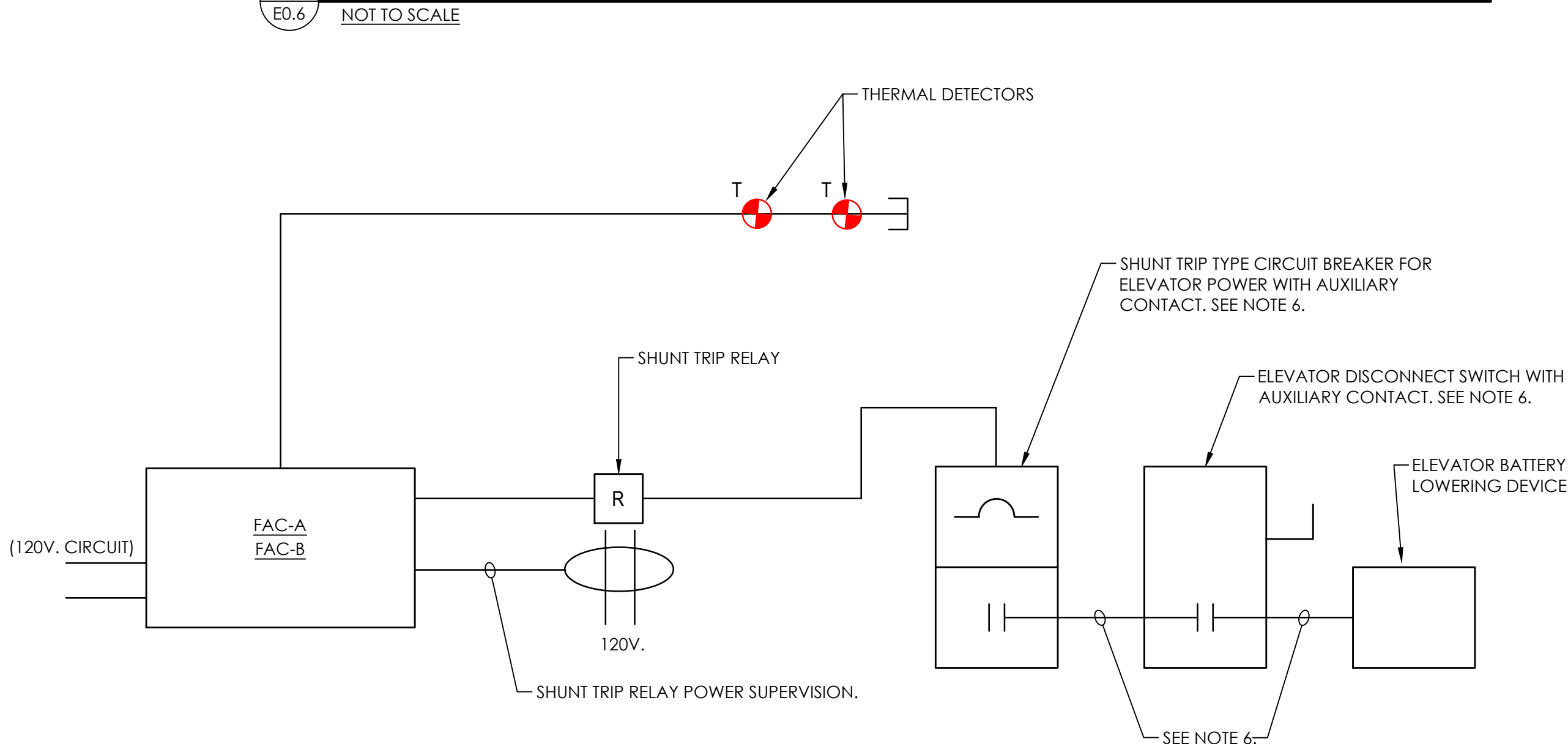
REFER TO ARCHITECTURAL SPECIFICATIONS FOR ALLOWANCE ON THIS SYSTEM IN THE EVENT THE BUILDING DOES NOT MEET CURRENT CODES.

PROVIDE A TWO-WAY EMERGENCY RADIO COMMUNICATIONS ENHANCEMENT SYSTEM UTILIZING A BI-DIRECTIONAL AMPLIFIER SOLUTION AS REQUIRED BY THE AHJ. THE BDA SOLUTION MUST MEET ALL OF THE REQUIREMENTS OF NFPA, IFC AND IBC WHICH INCLUDE REQUIREMENTS FOR THE INSTALLATION, PERFORMANCE AND STRENGTH OF EMERGENCY RADIO COMMUNICATION ENHANCEMENT SYSTEMS (ERCS) FOR COMMERCIAL FACILITIES. MOST SPECIFICALLY THE INTERNATIONAL FIRE CODE (IFC-SECTION 510), NFPA 1221 (2016 EDITION) AND IBC 201 (SECTION 916).

THE INSTALLATION COMPANY OF THE BDA SOLUTION SHALL MAINTAIN A FCC LICENSE OR BE FACTORY TRAINED BY THE BDA SOLUTION MANUFACTURER. PROOF OF LICENSE SHALL BE PROVIDED ALONG WITH BDA SOLUTION (SPECIFICATION SHEETS, ETC.) AND BUILDING SPECIFIC BDA SOLUTION DESIGN. IN THE FIRE ALARM SUBMITTAL PACKAGE TO THE FIRE ALARM ENGINEER ON RECORD FOR REVIEW AND APPROVAL.

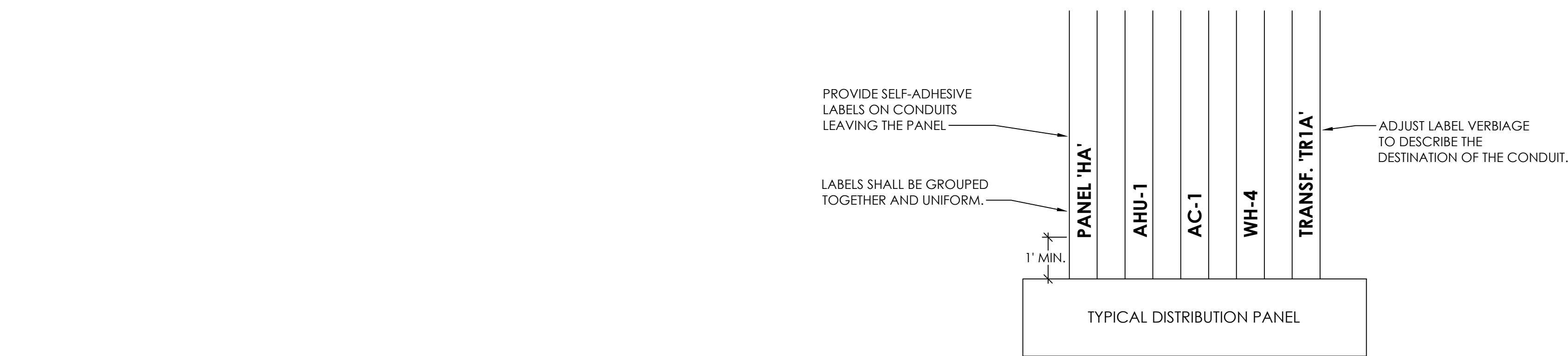
THE BDA SOLUTION MUST BE SUPERVISED BY THE BUILDING FIRE ALARM SYSTEM AND REPORT SIGNALS VIA THE FIRE ALARM SYSTEM TO THE FIRE ALARM CENTRAL STATION MONITORING COMPANY IF A TROUBLE WITH THE BDA SOLUTION EXISTS. CERTIFICATION OF COMPLETION AND TESTING (INCLUDING TEST RESULTS) OF BDA SOLUTION SHALL BE PROVIDED IN CONJUNCTION WITH THE FIRE ALARM COMPLETION CERTIFICATION.

2 E0.6 DUCT SMOKE DETECTOR CONNECTION DETAIL



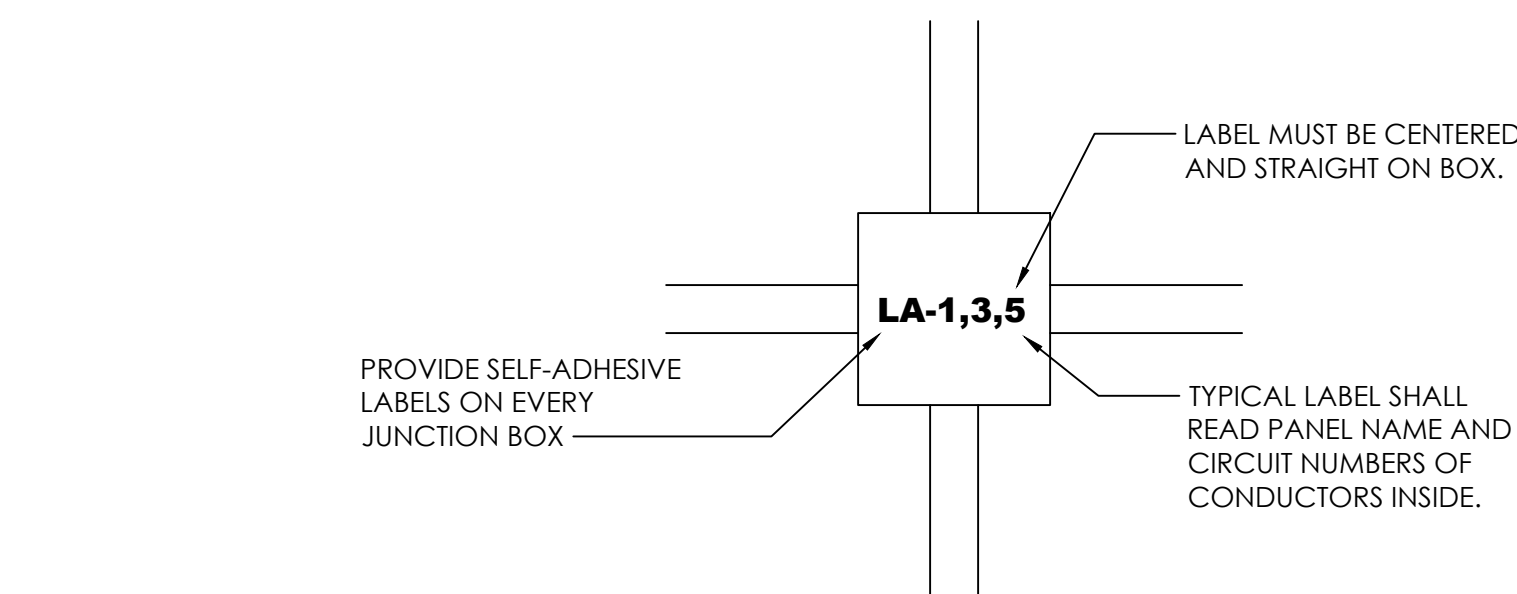
3 E0.6 SPRINKLER INITIATED ELEVATOR SHUT DOWN DETAIL

- NOT TO SCALE
NOTES:
1. INTENT OF SYSTEM IS TO PROVIDE SHUT-DOWN/RECALL OF ELEVATOR PRIOR TO WATER APPLICATION FROM SPRINKLERS ON ELEVATOR EQUIPMENT AND BRAKES AS PER NFPA 72 3-9.4.
 2. THERMAL DETECTORS SHALL HAVE BOTH A LOWER TEMPERATURE RATING AND HIGHER SENSITIVITY COMPARED TO THE SPRINKLER. THERMAL DETECTORS SHALL BE LOCATED WITHIN 2 FEET OF EACH SPRINKLER HEAD. PROVIDE NUMBER OF DETECTORS TO MATCH NUMBER OF SPRINKLER HEADS IN ELEVATOR MACHINE ROOM AND HOISTWAY.
 3. SHUNT TRIP RELAY POWER TO BE SUPERVISED BY FACP.
 4. ELEVATOR EQUIPMENT SHALL USE SHUNT-TRIP TYPE CIRCUIT BREAKER.
 5. COORDINATE ALL WORK WITH SPRINKLER AND ELEVATOR CONTRACTORS.
 6. PROVIDE AUXILIARY CONTACT AND CIRCUITING TO COMPLY WITH NEC ARTICLE 620.91 AND PER ELEVATOR MANUFACTURER'S INSTRUCTIONS FOR DISCONNECTING ELEVATOR BATTERY LOWERING DEVICE.



6 E0.6 TYPICAL CONDUIT LABELING DETAIL

- NOT TO SCALE
NOTES:
1. THIS APPLIES TO ALL BRANCH FEEDER CONDUITS FEEDING MECHANICAL EQUIPMENT. OTHER MAJOR ELECTRICAL EQUIPMENT AND PANELS, 20A/1P BRANCH CIRCUITS DO NOT HAVE TO BE LABELED. ANY CONDUIT 1" AND LARGER MUST BE LABELED LEAVING ALL PANELS.
 2. ALL LABELS MUST BE PRE-PRINTED LABELS OF THE SAME SIZE AND TEXT.

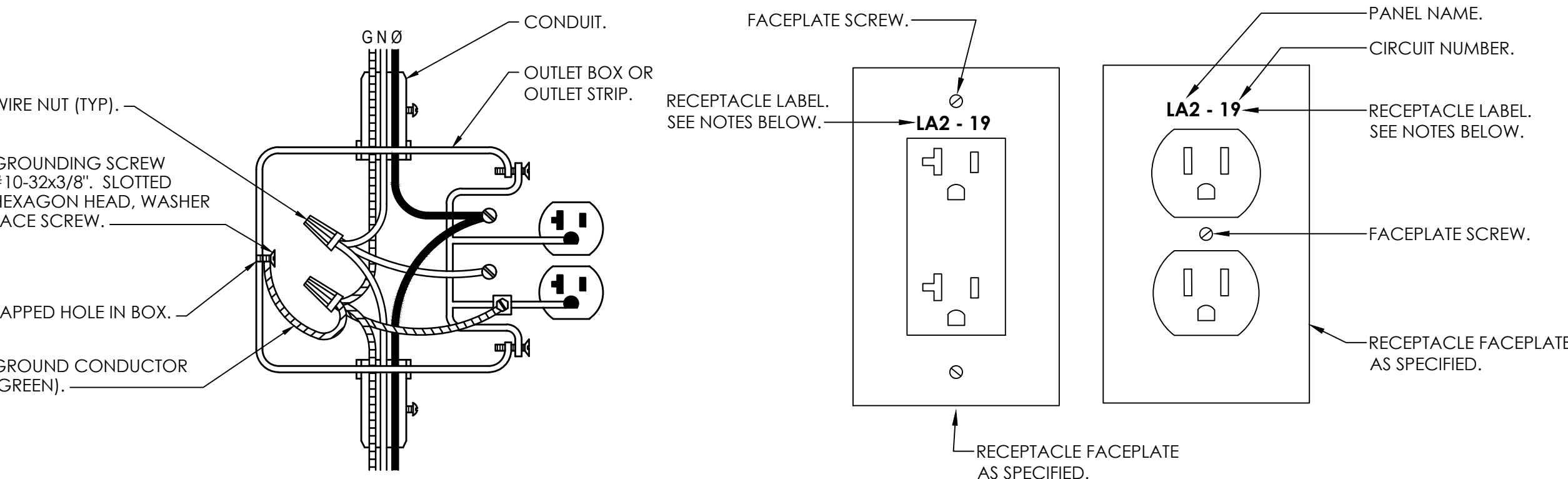


9 E0.6 TYPICAL JUNCTION BOX LABELING DETAIL

- NOT TO SCALE
NOTES:
1. ALL COVERS FOR FIRE ALARM MUST BE FACTORY APPLIED RED.
 2. ALL LABELS MUST BE PRE-PAINTED LABELS OF THE SAME SIZE AND TEXT. NO HAND WRITING WILL BE ACCEPTED.
 3. JUNCTION BOXES WITH CEILING PAINT ON THEM WILL NOT BE ACCEPTED.

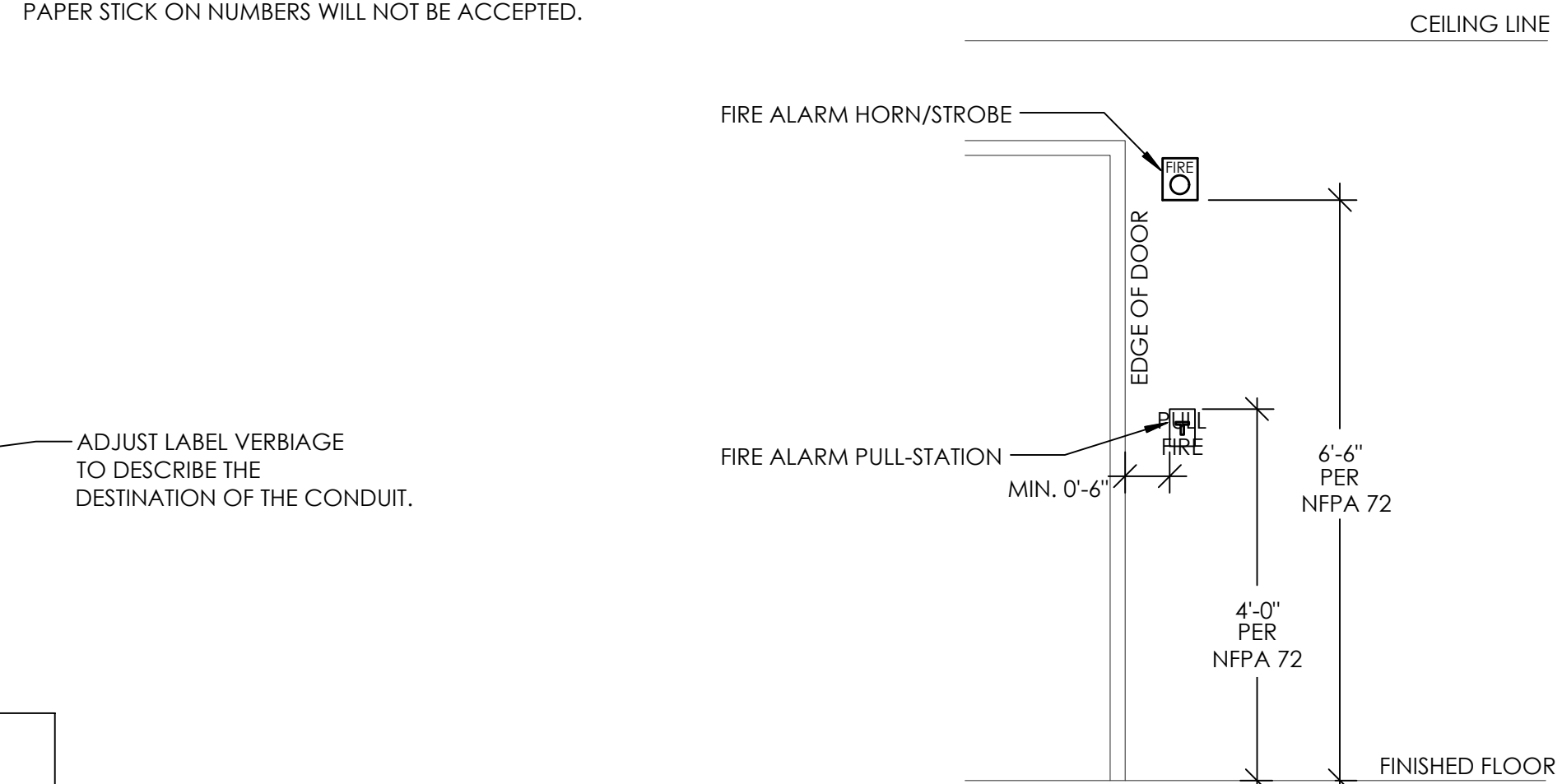
4 E0.6 TYPICAL MECHANICAL EQUIPMENT ELECTRICAL DETAIL

- NOT TO SCALE
NOTES:
1. THIS DETAIL IS TYPICAL FOR ALL MECHANICAL/PLUMBING EQUIPMENT INCLUDING BUT NOT LIMITED TO AIR HANDLERS, MINI SPLITS, ROOF TOP UNITS, WATER HEATERS, ETC.
 2. IF NO DISCONNECT IS SHOWN, UNIT IS FURNISHED WITH INTEGRAL DISCONNECT FROM MANUFACTURER OR IS IN SIGHT OF ELECTRICAL PANEL. MAKE ELECTRICAL CONNECTIONS PER MANUFACTURER'S REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL VERIFY UNITS HAVE INTEGRAL DISCONNECT WITH MECHANICAL CONTRACTOR.



5 E0.6 TYPICAL RECEPTACLE & FACEPLATE DETAIL

- NOT TO SCALE
NOTES:
1. NEUTRAL AND GROUND CONDUCTOR SHALL BE CONTINUOUS SO THAT REMOVAL OF DEVICES WILL NOT INTERFERE WITH CONDUCTOR CONTINUITY.
 2. RECEPTACLE FACEPLATES SHALL BE LABELED WITH THE PANEL NAME AND CIRCUIT NUMBER IT IS FED FROM.
 3. LETTERING SHALL BE A MINIMUM OF 3/16" HIGH.
 4. STAINLESS STEEL FACEPLATE
LETTER (FILL) COLOR:
NORMAL = WHITE.
EMERGENCY = RED.
STAINLESS STEEL FACEPLATE LABELS SHALL BE ENGRAVED.
 4. PLASTIC FACEPLATE
LETTER (FILL) COLOR:
NORMAL = BLACK.
EMERGENCY = RED.
PLASTIC FACEPLATE LABELS SHALL BE LASER-PRINTED ON CLEAR SELF ADHESIVE VINYL.
- PAPER STICK ON NUMBERS WILL NOT BE ACCEPTED.

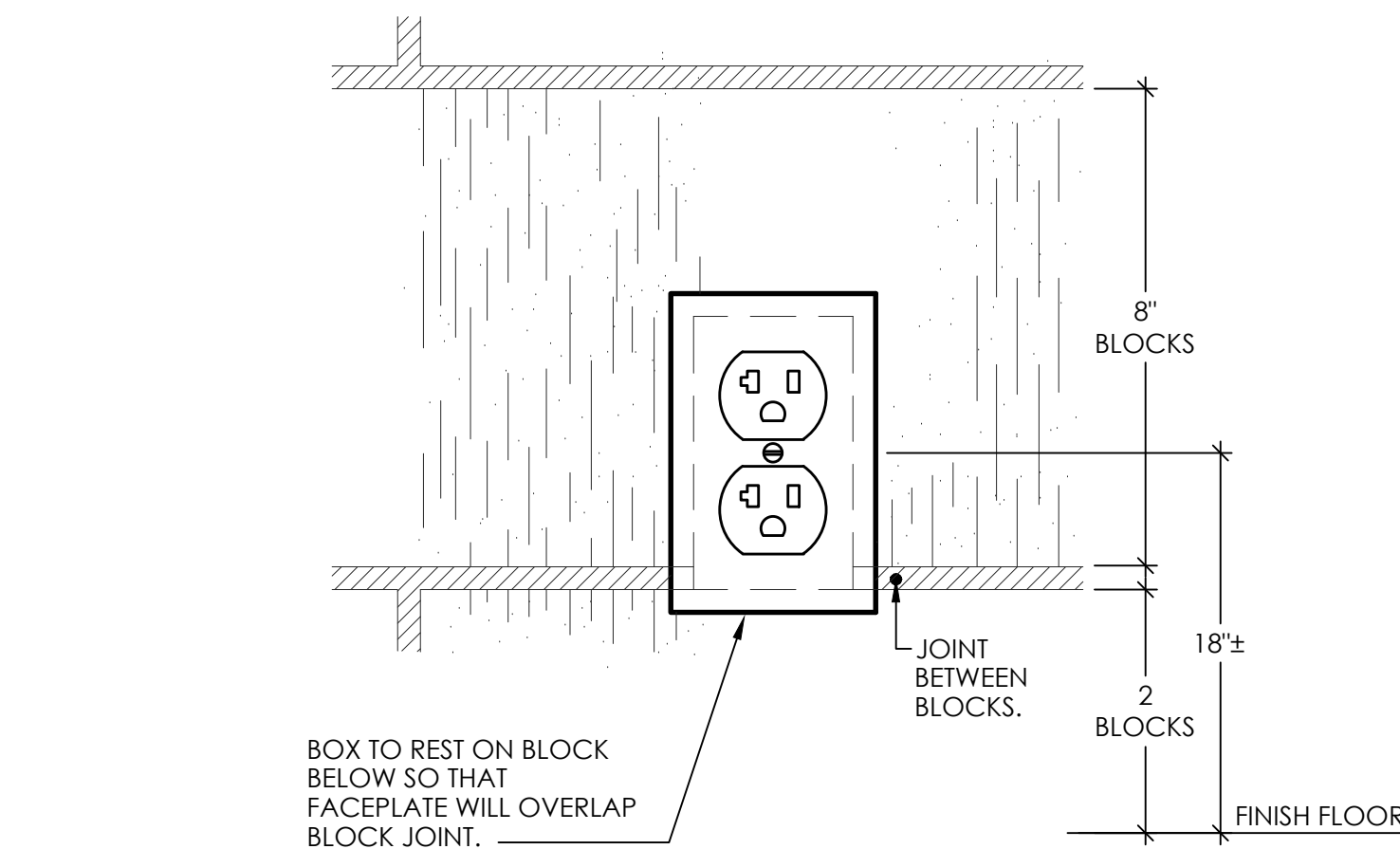


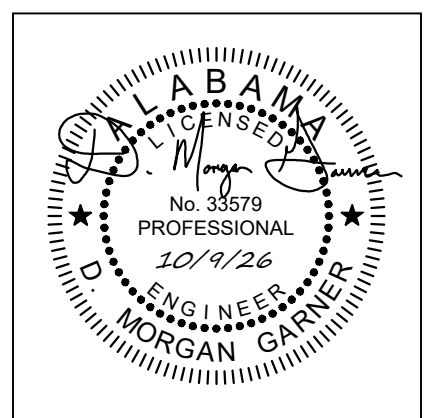
7 E0.6 TYPICAL FIRE ALARM DEVICE INSTALLATION DETAIL

- NOT TO SCALE
NOTES:
1. FIRE ALARM DEVICES SHALL BE MOUNTED PER NFPA 72. THE PULL STATION HANDLE SHALL BE MOUNTED BETWEEN 42" AND 48" ABOVE THE FINISH FLOOR. THE STROBE SHALL BE MOUNTED BETWEEN 80" AND 96" ABOVE THE FINISH FLOOR.
 2. IF FIRE ALARM DEVICES ARE SHOWN IN THE MIDDLE OF A WALL ON THE FLOOR PLANS, THEN THE DOOR EDGE REQUIREMENTS DO NOT APPLY.
 3. ALL CONFLICTS SHALL BE PRESENTED TO THE ARCHITECT FOR A RESOLUTION.

8 E0.6 RECEPTACLE DETAIL for BLOCK INSTALLATION

NOT TO SCALE



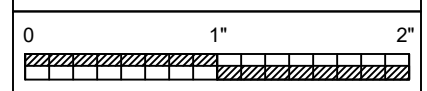
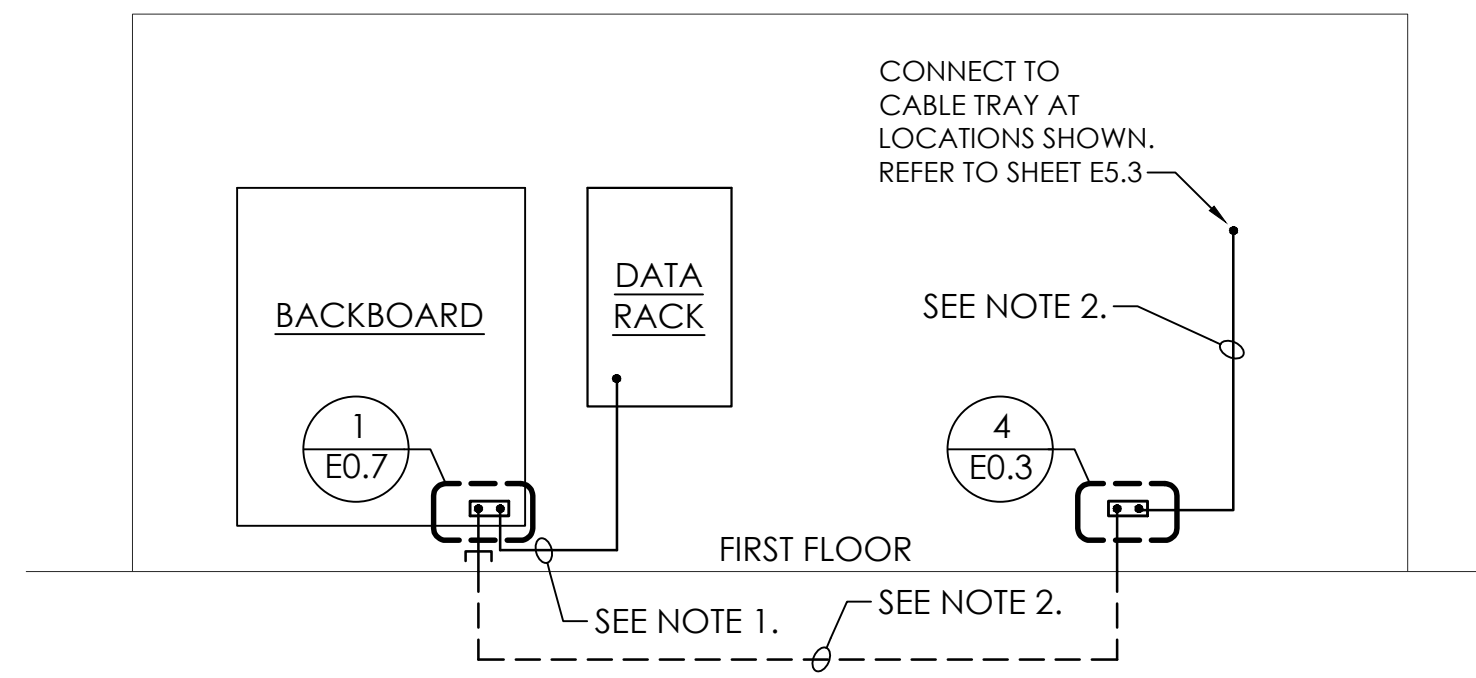


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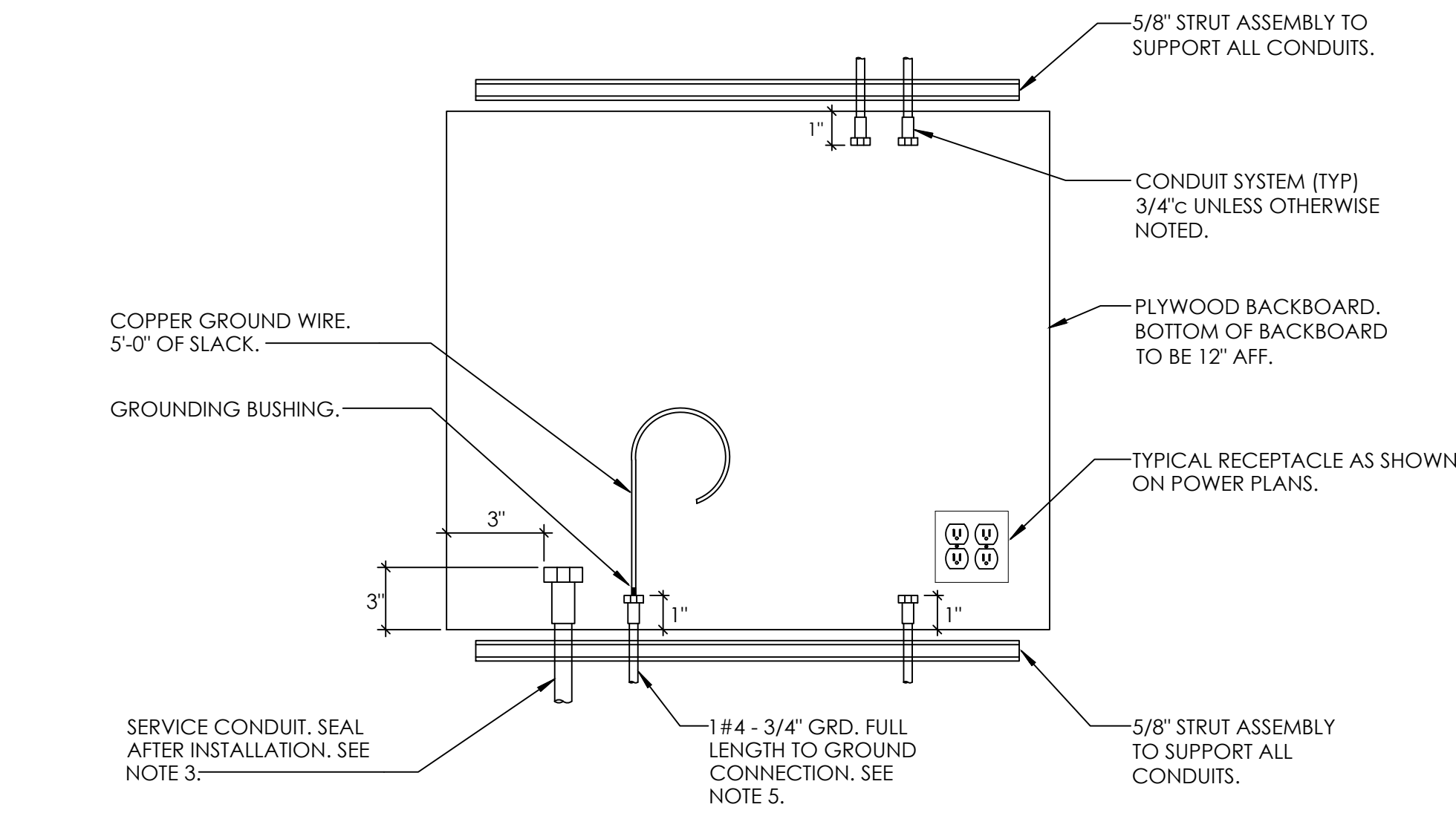
GROUNDING SYSTEM RISER DIAGRAM

3
E0.7

NOT TO SCALE

NOTES:

- #4 COPPER GROUND IN 1".
- #6 COPPER GROUND IN 1".



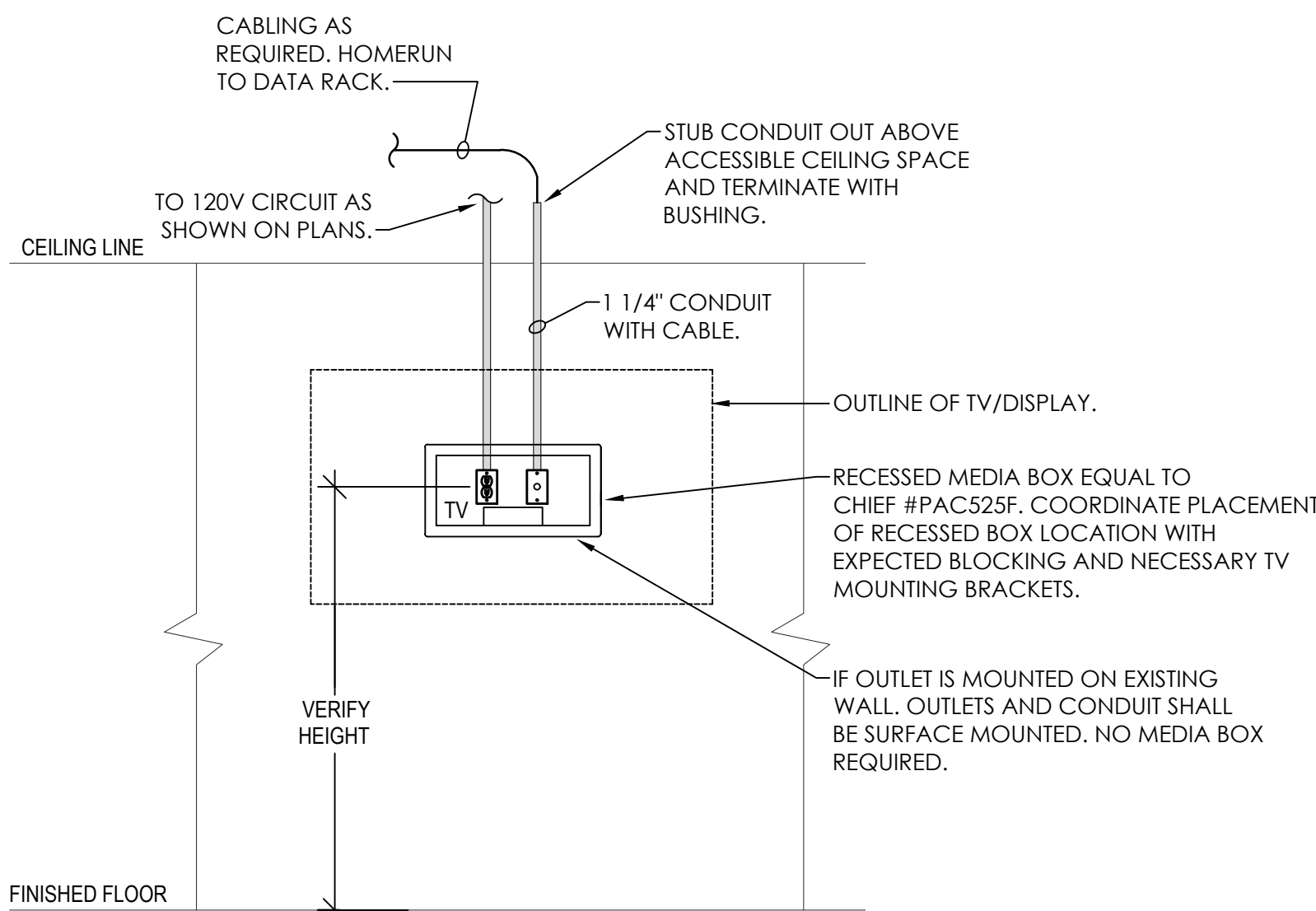
AUXILIARY SYSTEM BACKBOARD PROVISIONS DETAIL

2
E0.7

NOT TO SCALE

NOTES:

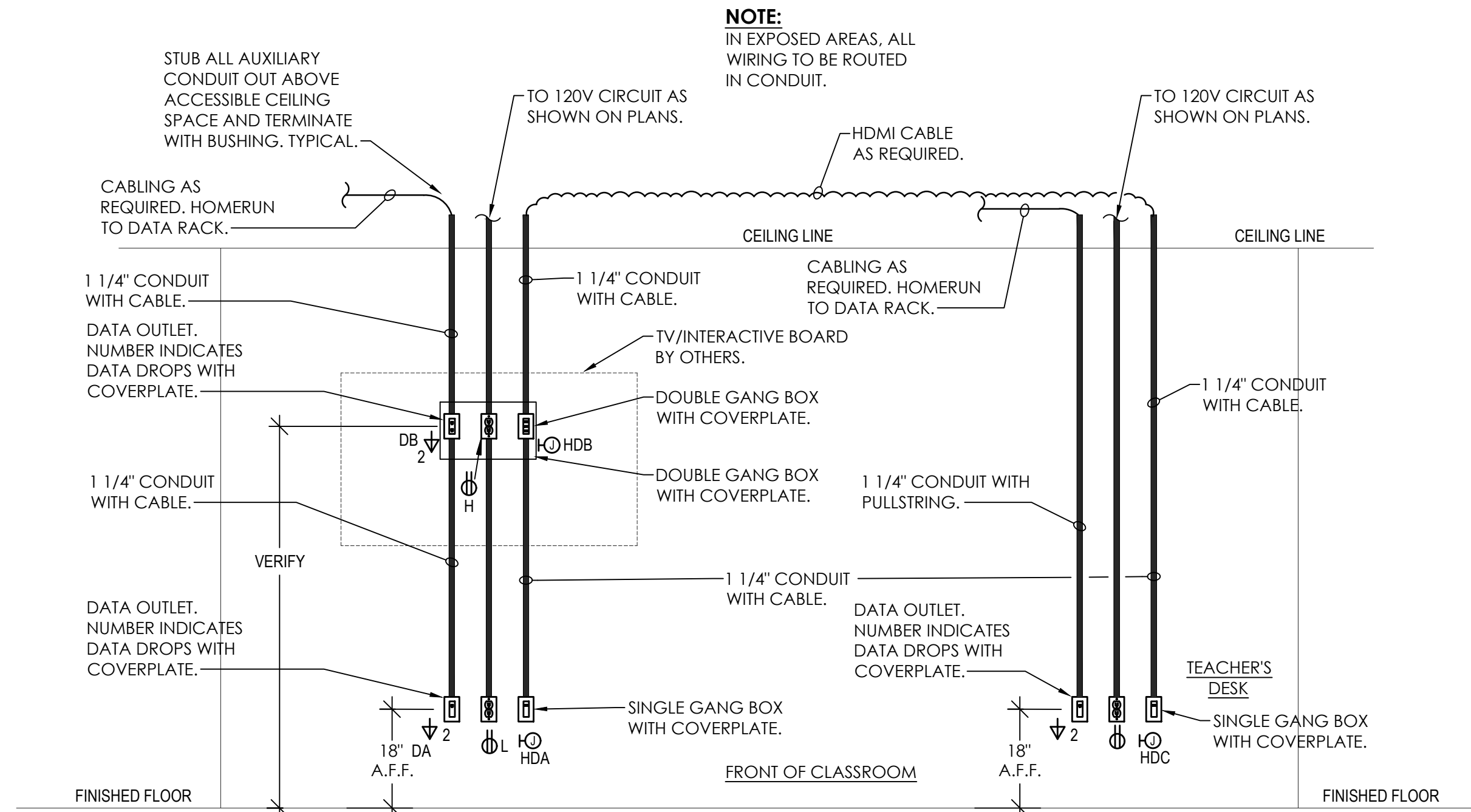
- ALL EMPTY CONDUITS SHALL BE FURNISHED WITH PULL WIRE.
- ALL CONDUIT ENDS TO CONTAIN A PLASTIC BUSHING (CONNECTOR AND BUSHING ASSEMBLY WHEN REQUIRED).
- ALL CONDUITS FROM EXTERIOR OR BELOW GRADE SHALL BE SEALED AFTER CABLE INSTALLATION. COMPOUNDS FOR SEALING DUCTS AND CONDUIT SHALL HAVE A PUTTY-LIKE CONSISTENCY WORKABLE WITH THE HANDS AT TEMPERATURES AS LOW AS 35 DEGREES F. SHALL NOT SLUMP AT A TEMPERATURE OF 300 DEGREES F. AND SHALL NOT HARDEN MATERIALLY WHEN EXPOSED TO THE AIR.
- PLYWOOD SHALL BE 3/4" EXTERIOR RATED AND CUT TO SIZE AS INDICATED. PAINT WITH 2 COATS OF FIRE-RETARDANT PAINT.
- THE GROUND CONNECTION SHALL BE MADE TO THE BUILDING GROUND SYSTEM TO ESTABLISH EQUAL POTENTIAL WITH THE GROUND ELECTRODE SYSTEM.



TYPICAL TV / INTERACTIVE BOARD OUTLET DETAIL

5
E0.7

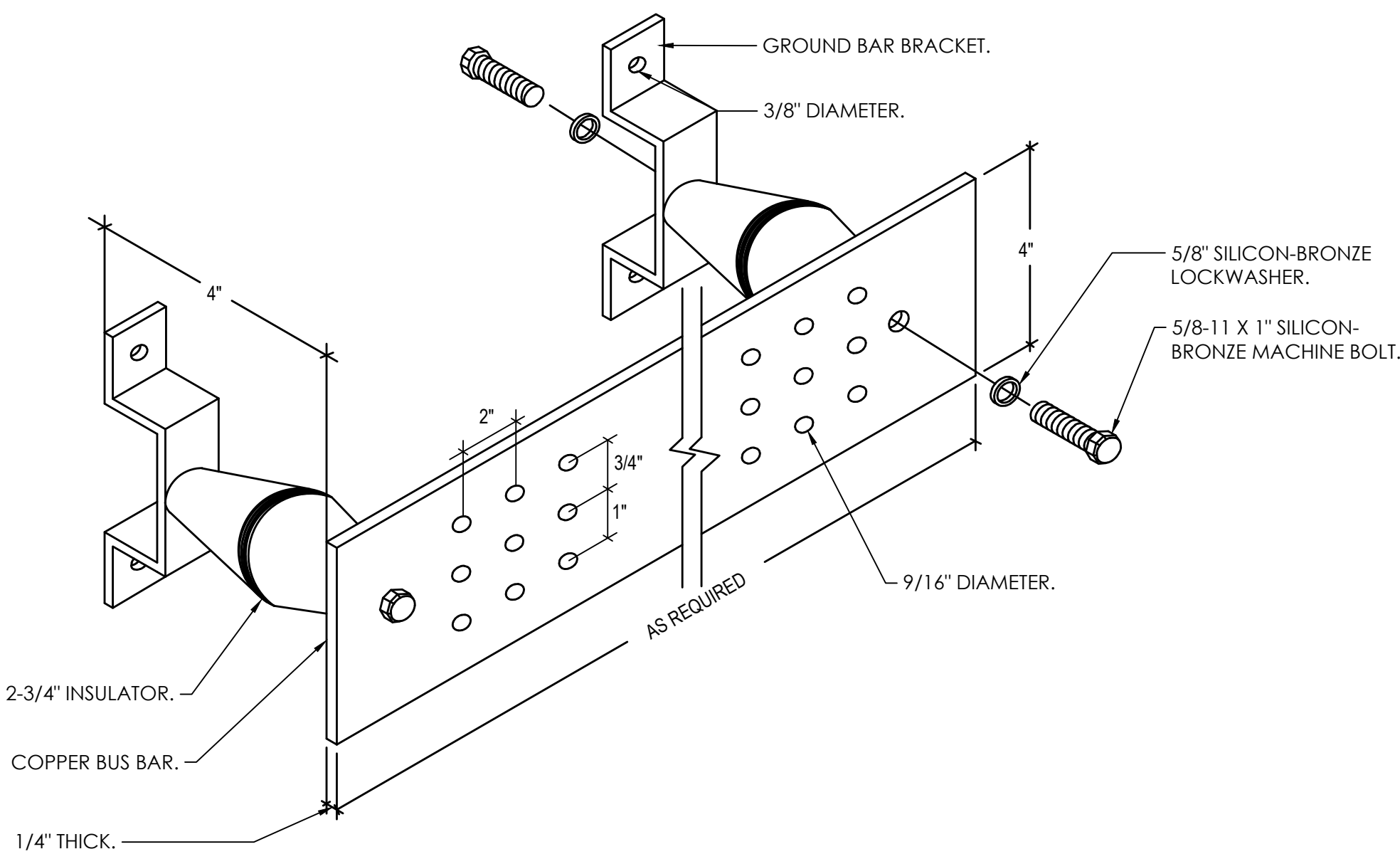
NOT TO SCALE



TYPICAL TV/INTERACTIVE BOARD OUTLET LAYOUT DETAIL

6
E0.7

NOT TO SCALE



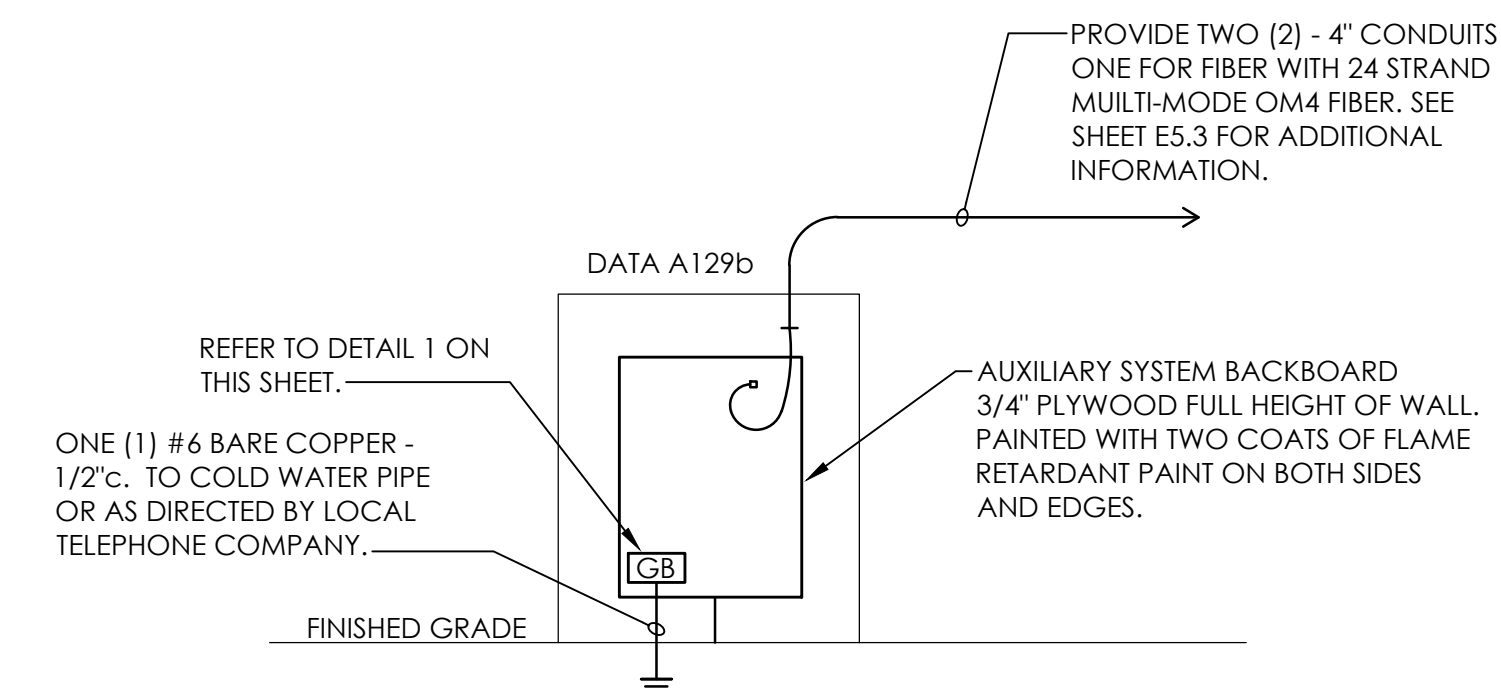
TYPICAL GROUND BUS DETAIL

1
E0.7

NOT TO SCALE

NOTES:

- ALL GROUNDING AND BONDING SHALL BE IN ACCORDANCE WITH THE NEC AND UL STANDARDS.
- ALL DIMENSIONS INDICATED IN THESE DOCUMENTS ARE FOR REFERENCE AND COORDINATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS IN THE FIELD.
- ALL GROUND ELECTRODES OR BONDING CONDUCTORS INSTALLED ALONE WITH A RACEWAY SHALL UTILIZE GRC WITH GROUNDING BUSHINGS AT EACH END. THIS GROUND CONDUCTOR SHALL LOOP THRU THE BUSHING LUG PRIOR TO TERMINATION.
- LENGTH OF BUS SHALL BE AS REQUIRED BY THE NUMBER OF CONDUCTOR CONNECTIONS PLUS 25% SPARE CAPACITY SPACE OR AS SPECIFIED OTHERWISE.
- BUS BARS OVER 20" IN LENGTH REQUIRE AT LEAST ONE ADDITIONAL 3-2/4" INSULATOR SUPPORT OR AS REQUIRED. BUS BARS OVER 4" WIDE REQUIRE INSULATORS AT ALL 4 CORNERS OR AS REQUIRED.



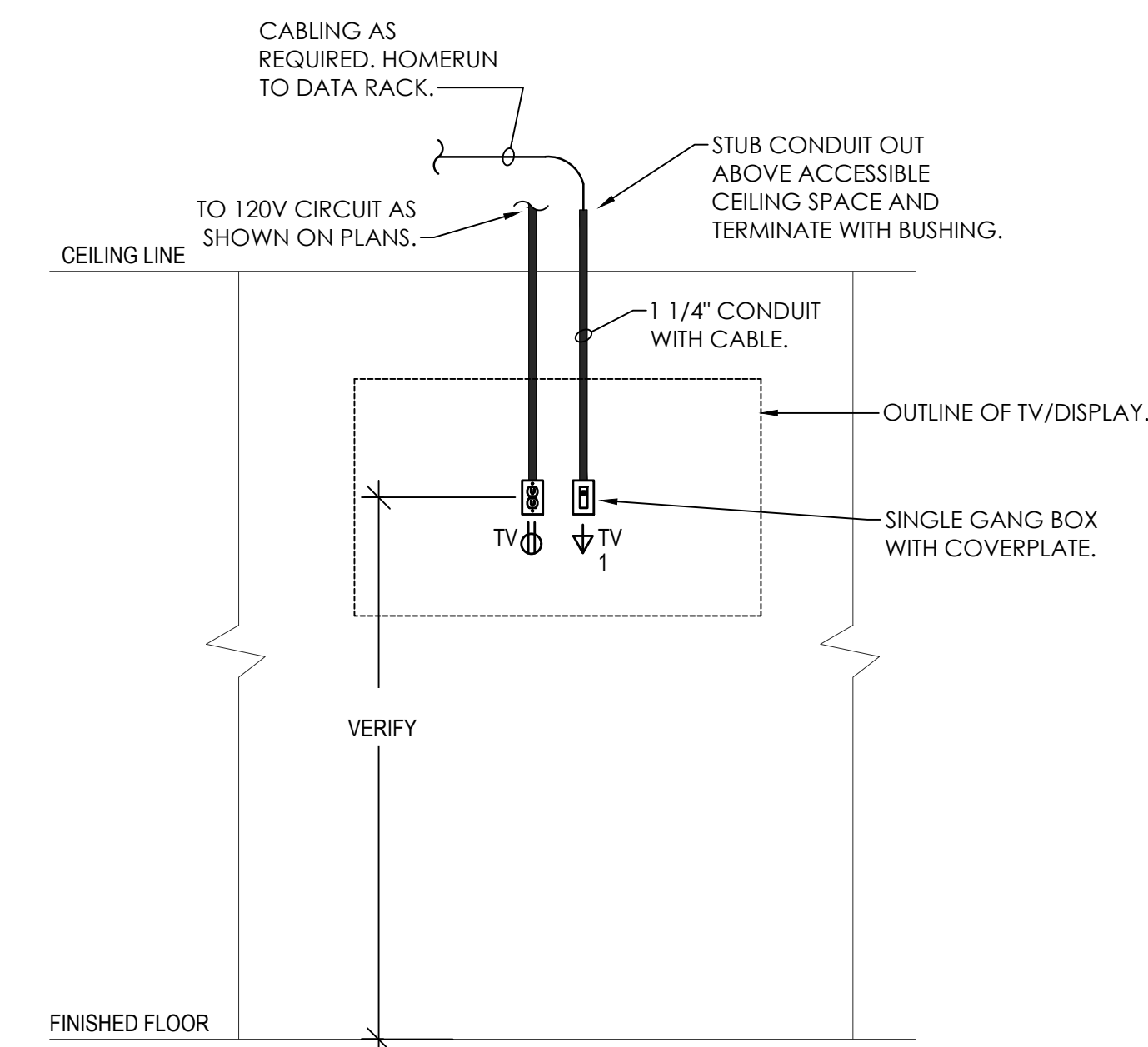
TYPICAL AUXILIARY SYSTEM RISER DIAGRAM

4
E0.7

NOT TO SCALE

NOTES:

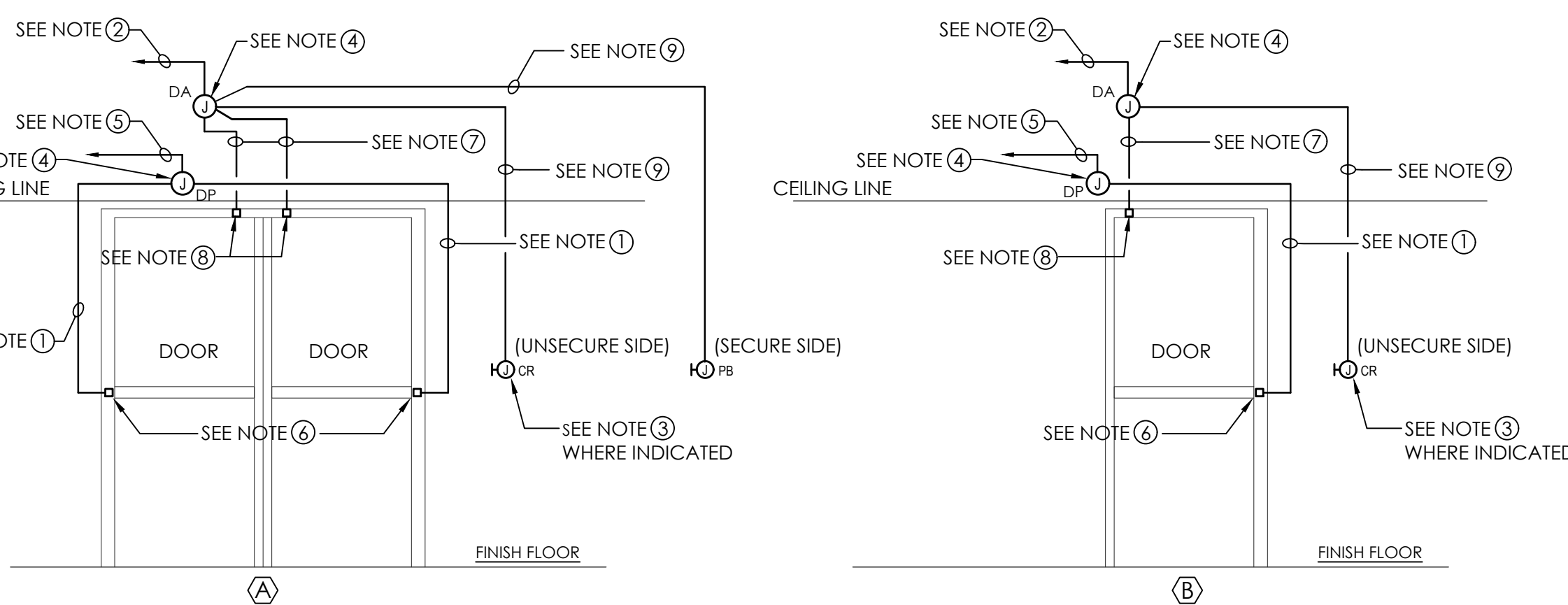
- COORDINATE EXACT ROUTING OF SERVICE WITH OWNER I.T. PERSONNEL PRIOR TO ANY WORK.
- PREFER TO DETAIL 1 ON SHEET E0.8 FOR ADDITIONAL INFORMATION.



TYPICAL TV/DISPLAY OUTLET DETAIL

7
E0.7

NOT TO SCALE



ACCESS DOOR SYSTEM CONDUIT DETAIL

8
E0.7

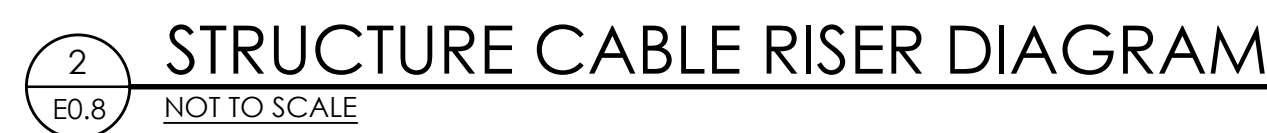
NOT TO SCALE

DOOR HARDWARE NOTES:

- RACEWAYS, BACK BOXES AND JUNCTION BOXES SHALL BE CONCEALED IN WALLS OR CEILING WHERE POSSIBLE.
- DOOR DETAILS ARE DIAGRAMMATIC AND SHALL NOT BE USED TO DETERMINE EQUIPMENT LOCATIONS. FLOOR PLANS INDICATE LOCATIONS OF EQUIPMENT AND COMPONENTS. COORDINATION WITH THE WORK OF OTHER TRADES SHALL BE MADE PRIOR TO INITIAL INSTALLATION.
- PROVIDE ALL CABLING AS REQUIRED.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL POWER REQUIREMENTS, CONDUITS, JUNCTION BOXES AND CABLING.

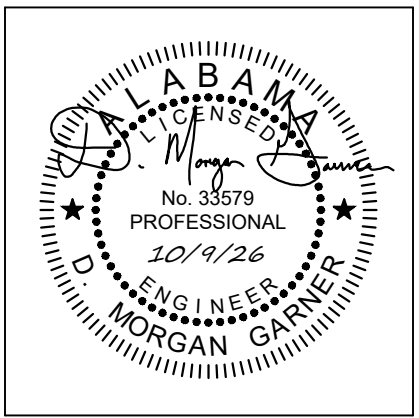
DOOR/SECURITY/ACCESS KEY NOTES (#)

- 3/4" CONDUIT WITH POWER CABLE FROM JUNCTION BOX DOWN TO DOOR POWER TRANSFER DEVICE BY ELECTRICAL CONTRACTOR. COORDINATE EXACT LOCATION AND DOOR REQUIREMENTS WITH G.C. AND SECURITY CONTRACTOR. POWER TRANSFER DEVICE BY OTHERS.
- PROVIDE 3/4" CONDUIT AND CABLING TO SECURITY PANEL AS DIRECTED BY OWNER. VERIFY PRIOR TO ROUGH-IN.
- JUNCTION BOX WITH 3/4"E.C. AND CABLE UP TO JUNCTION BOX FOR CARD READER FLUSH MOUNTED 48" A.F.F. ON SINGLE GANG BOX. ELECTRICAL CONTRACTOR TO COORDINATE PLACEMENT WITH OWNER / ARCHITECT.
- 4 SQUARE JUNCTION BOX MOUNTED ABOVE ACCESSIBLE CEILING OR ABOVE DOOR BY ELECTRICAL CONTRACTOR.
- 120V POWER AS REQUIRED.
- CONNECTION TO DOOR POWER TRANSFER DEVICE AS REQUIRED.
- 3/4" CONDUIT AND CABLE FROM JUNCTION BOX DOWN TO DOOR CONTACT BY ELECTRICAL CONTRACTOR. COORDINATE EXACT LOCATION AND DOOR REQUIREMENTS WITH G.C. AND SECURITY CONTRACTOR. CONTACT DEVICE BY OTHERS.
- CONNECTION TO DOOR CONTACT AS REQUIRED.
- 3/4" CONDUIT AND CABLE FROM JUNCTION BOX UP TO DOOR ACCESS JUNCTION BOX BY ELECTRICAL CONTRACTOR. COORDINATE EXACT LOCATION AND DOOR REQUIREMENTS WITH G.C.
- 4 SQUARE JUNCTION BOX MOUNTED ABOVE ACCESSIBLE CEILING OR ABOVE DOOR BY ELECTRICAL CONTRACTOR FOR FUTURE CONTROLS.
- PROVIDE 3/4" EMPTY CONDUIT AND CABLE TO SECURITY PANEL AS DIRECTED BY OWNER. VERIFY PRIOR TO ROUGH-IN.
- STUB 3/4" CONDUIT WITH CABLE INTO DOOR JAMB. COORDINATE EXACT LOCATION WITH DOOR SUPPLIER.



STRUCTURED CABLING	RACEWAY SYSTEMS - J HOOKS AND/OR CABLE TRAY AS SHOWN ON PLANS		X	X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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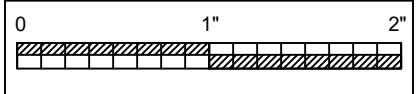


PROJ. MGR.:	RH
DRAWN:	RH
DATE: 10-9-2026	
REVISIONS	

JOB NO. 25-249

SHEET NO:

E0.9



COMcheck Software Version 4.1.5.5

Interior Lighting Compliance Certificate

Project Information

Energy Code: 90.1 (2013) Standard

Project Title: Academy Street Career Innovation Academy

Project Type: New Construction

Construction Site: 708 East Academy Street
Troy, AL

Owner/Agent: The Troy City & Pike County BOE

Designer/Contractor: Richard Holt
Garner and Associates Engineering
PC
901 South Perry Street
Montgomery, AL

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Learning Center (School/University)	37412	0.87	32548
Total Allowed Watts =			32548

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Learning Center (School/University)				
LED 1: A: 2 x 4 LED Flatpanel: Other:	1	30	54	1620
LED 2: AA: 2 x 4 LED Flatpanel: Other:	1	47	45	2115
LED 3: C: 4' LED: Other:	1	44	48	2112
LED 4: D: 2' x 2' LED Flatpanel: Other:	1	14	25	350
LED 5: E: 10' LED Linear: Other:	1	79	100	7900
LED 6: F: 6' LED Linear: Other:	1	11	60	660
LED 7: G: 8' LED Linear: Other:	1	7	80	560
LED 8: H: 4' LED Linear: Other:	1	16	40	640
LED 9: K: LED Highbay: Other:	1	24	150	3600
LED 10: L: 4' LED: Other:	1	10	30	300
LED 11: N: 4' LED Wrap Around: Other:	1	29	41	1189
LED 12: R: 8' LED Linear: Other:	1	7	80	560
LED 13: S: 4' LED Linear: Other:	1	44	40	1760
Total Proposed Watts =			23366	

Interior Lighting PASSES: Design 28% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 90.1 (2013) Standard requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Project Title: Academy Street Career Innovation Academy

Report date: 10/08/26

Data filename: Untitled.ckk

Page 1 of 8

Richard Holt - Electrical Designer

10/7/2026

Name - TitleSignatureDate

Project Title: Academy Street Career Innovation Academy

Report date: 10/08/26

Data filename: Untitled.ckk

Page 2 of 8

COMcheck Software Version 4.1.5.5

Exterior Lighting Compliance Certificate

Project Information

Energy Code: 90.1 (2013) Standard

Project Title: Academy Street Career Innovation Academy

Project Type: New Construction

Exterior Lighting Zone: 2 (Residential mixed use area (LZ2))

Construction Site: 708 East Academy Street
Troy, AL

Owner/Agent: The Troy City & Pike County BOE

Designer/Contractor: Richard Holt
Garner and Associates Engineering
PC
901 South Perry Street
Montgomery, AL

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
East Door (Other door (not main entry))	3 ft of door	20	Yes	60
East Door (Other door (not main entry))	3 ft of door	20	Yes	60
East Door (Other door (not main entry))	3 ft of door	20	Yes	60
East Door (Other door (not main entry))	3 ft of door	20	Yes	60
East Door (Other door (not main entry))	3 ft of door	20	Yes	60
East Door (Other door (not main entry))	3 ft of door	20	Yes	60
East Door (Other door (not main entry))	3 ft of door	20	Yes	60
East Wall (Illuminated length of facade wall or surface)	30 ft	2.5	No	75
East Wall (Illuminated length of facade wall or surface)	43 ft	2.5	No	108
West Wall (Illuminated length of facade wall or surface)	46 ft	2.5	No	115
West Wall (Illuminated length of facade wall or surface)	21 ft	2.5	No	52
West Wall (Illuminated length of facade wall or surface)	54 ft	2.5	No	135
West Wall (Illuminated length of facade wall or surface)	106 ft	2.5	No	265
South Wall (Illuminated length of facade wall or surface)	77 ft	2.5	No	192
South Door (Other door (not main entry))	3 ft of door	20	Yes	60
North Door (Other door (not main entry))	3 ft of door	20	Yes	60
North Wall (Illuminated length of facade wall or surface)	30 ft	2.5	No	75
North Wall (Illuminated length of facade wall or surface)	58 ft	2.5	No	145
Total Tradable Watts (a) =			540	
Total Allowed Watts =			1702	
Total Allowed Supplemental Watts (b) =			600	

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 600 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
East Door (Other door (not main entry)) 3 ft of door width): Tradable Wattage				
LED 1: WP: LED Wallpack: Other:	1	1	38	38

Project Title: Academy Street Career Innovation Academy

Report date: 10/08/26

Data filename: Untitled.ckk

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A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
LED 2: WP: LED Wallpack: Other:	1	1	38	38
LED 3: WP: LED Wallpack: Other:	1	1	38	38
LED 4: WP: LED Wallpack: Other:	1	1	38	38
LED 5: WP: LED Wallpack: Other:	1	1	38	38
LED 6: WP: LED Wallpack: Other:	1	1	38	38
LED 7: WP: LED Wallpack: Other:	1	1	38	38
East Wall (Illuminated length of facade wall or surface 30 ft): Non-tradable Wattage				
LED 8: WP: LED Wallpack: Other:	1	2	38	76
East Wall (Illuminated length of facade wall or surface 43 ft): Non-tradable Wattage				
LED 9: WP: LED Wallpack: Other:	1	1	38	38
West Wall (Illuminated length of facade wall or surface 46 ft): Non-tradable Wattage				
LED 10: WP: LED Wallpack: Other:	1	3	38	114
West Wall (Illuminated length of facade wall or surface 21 ft): Non-tradable Wattage				
LED 11: WP: LED Wallpack: Other:	1	4	38	152
West Wall (Illuminated length of facade wall or surface 54 ft): Non-tradable Wattage				
LED 12: WP: LED Wallpack: Other:	1	1	38	38
West Wall (Illuminated length of facade wall or surface 106 ft): Non-tradable Wattage				
LED 13: WP: LED Wallpack: Other:	1	2	38	76
South Wall (Illuminated length of facade wall or surface 77 ft): Non-tradable Wattage				
LED 14: WP: LED Wallpack: Other:	1	2	38	76
South Door (Other door (not main entry)) 3 ft of door width): Tradable Wattage				
LED 15: WP: LED Wallpack: Other:	1	1	38	38
North Door (Other door (not main entry)) 3 ft of door width): Tradable Wattage				
LED 16: WP: LED Wallpack: Other:	1	1	38	38
North Wall (Illuminated length of facade wall or surface 30 ft): Non-tradable Wattage				
LED 17: WP: LED Wallpack: Other:	1	1	38	38
North Wall (Illuminated length of facade wall or surface 58 ft): Non-tradable Wattage				
LED 18: WP: LED Wallpack: Other:	1	1	38	38
Total Tradable Proposed Watts =			342	

Exterior Lighting PASSES: Design 67% better than code

Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 90.1 (2013) Standard requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Richard Holt - Electrical Designer

10/7/2026

Name - TitleSignatureDate

Project Title: Academy Street Career Innovation Academy

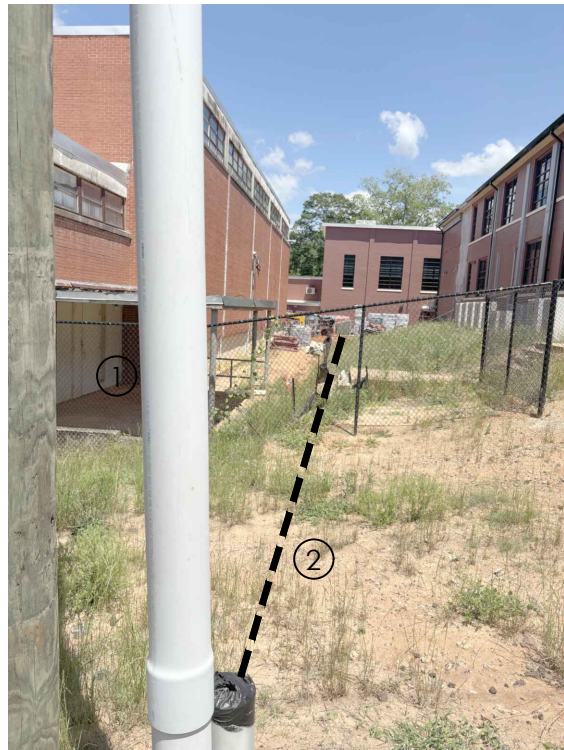
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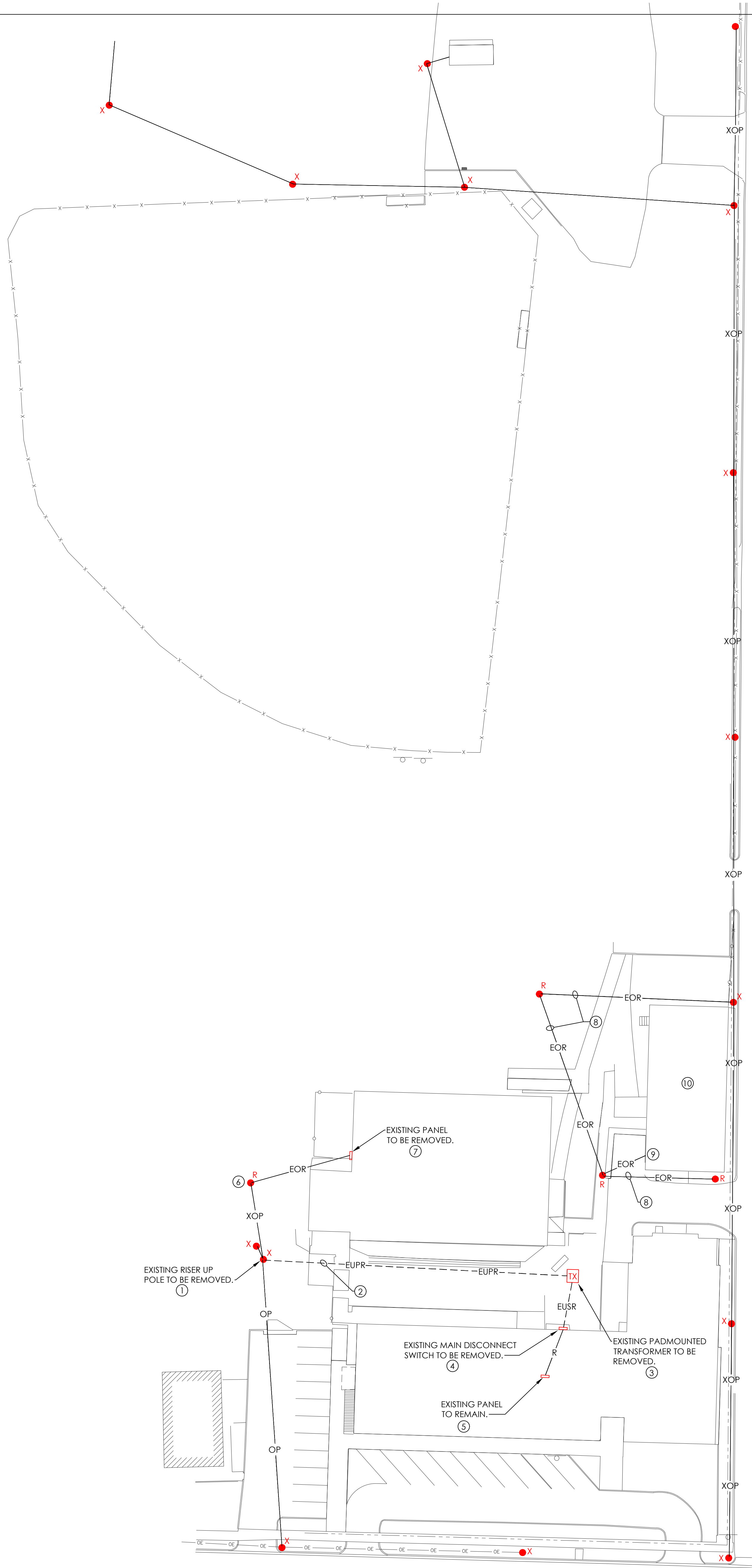
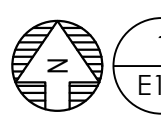
2
E1.1
REFERENCE PHOTO 'A'
NOT TO SCALE



3
E1.1
REFERENCE PHOTO 'B'
NOT TO SCALE



4
E1.1
REFERENCE PHOTO 'C'
NOT TO SCALE



1
E1.1

ELECTRICAL DEMOLITION SITE PLAN

SCALE: 1"=30'-0"

ELECTRICAL SITE LEGEND

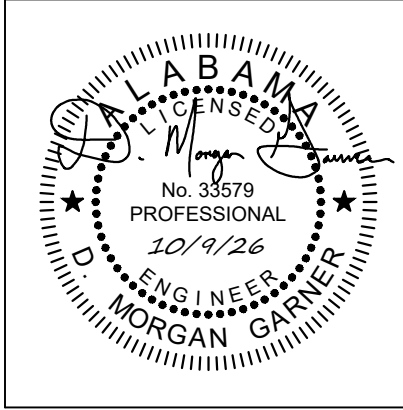
- EUPR --- EXISTING UNDERGROUND PRIMARY TO REMAIN TEMPORALLY DURING CONTRACTION. ONCE NEW SERVICE IS INSTALLED AND EXISTING BUILDING IS RE-FED THAN EXISTING PRIMARY TO BE REMOVED. PRIMARY MUST BE PROTECTED DURING CONSTRUCTION.
- EOP --- EXISTING OVERHEAD SERVICE TO BE REMOVED.
- XOP --- EXISTING OVERHEAD PRIMARY TO REMAIN AND BE REWORKED BY TROY CITY UTILITY TO UPGRADE TO THREE PHASE SYSTEM.
- EUSR --- EXISTING UNDERGROUND SECONDARY TO REMAIN TEMPORALLY DURING CONTRACTION. ONCE NEW SERVICE IS INSTALLED AND EXISTING BUILDING IS RE-FED THAN EXISTING SECONDARY TO BE REMOVED. PRIMARY MUST BE PROTECTED DURING CONSTRUCTION.
- OP --- EXISTING OVERHEAD PRIMARY TO REMAIN.
- ETX EXISTING TRANSFORMER TO REMAIN TEMPORALLY DURING CONTRACTION. ONCE NEW SERVICE IS INSTALLED AND EXISTING BUILDING IS RE-FED THAN PADMOUNTED TRANSFORMER TO BE REMOVED.
- X EXISTING UTILITY POLE TO REMAIN.
- R EXISTING UTILITY POLE TO BE REMOVED.

KEYED NOTES

8

- EXISTING PRIMARY RISER UP POLE WILL BE REMOVED ONCE NEW SERVICE IS INSTALLED AND ENERGIZED. COORDINATE WITH CITY UTILITY DEPARTMENT. REFER TO DETAIL 2 THIS SHEET FOR REFERENCE.
- EXISTING UNDERGROUND PRIMARY MUST BE LOCATED AND SHALL REMAIN IN PLACE TEMPORALLY DURING CONTRACTION. ONCE NEW SERVICE IS INSTALLED AND EXISTING BUILDING IS RE-FED THAN EXISTING PRIMARY TO BE REMOVED. **PRIMARY MUST BE PROTECTED DURING CONSTRUCTION.** COORDINATE WITH CITY UTILITY DEPARTMENT. REFER TO DETAIL 2 THIS SHEET FOR REFERENCE.
- EXISTING PADMOUNTED TRANSFORMER SHALL REMAIN IN PLACE TEMPORALLY DURING CONTRACTION. ONCE NEW SERVICE IS INSTALLED AND EXISTING BUILDING IS RE-FED THAN EXISTING TRANSFORMER TO BE REMOVED. COORDINATE WITH CITY UTILITY DEPARTMENT. REFER TO DETAIL 2, 3, & 4 THIS SHEET FOR REFERENCE.
- EXISTING MAIN DISCONNECT SWITCH 'EXMP' TO REMAIN IN PLACE. SWITCH 'EXMP' TO BE RE-FED FROM EITHER NEW TRANSFORMER, UNDER BASE BID OR SWITCHBOARD 'MPK' UNDER ALTERNATE.
- EXISTING PANEL TO REMAIN. DISCONNECT CONDUCTORS FROM DISCONNECT SWITCH AND REMOVE. CONDUIT TO BE ABANDONED OR REUSED IF PERMISSIBLE. PANEL WILL BE RE-FED FROM NEW SERVICE PANEL 'MP'.
- EXISTING UTILITY POLE WITH POLE MOUNTED TRANSFORMERS AND OVERHEAD SERVICE TO BUILDING SHALL BE REMOVED. COORDINATE WITH CITY UTILITY DEPARTMENT. REFER TO DETAIL 3 THIS SHEET FOR REFERENCE.
- EXISTING EXTERIOR MAIN PANEL TO BE REMOVED. REMOVED ALL ASSOCIATED CONDUITS AND CONDUCTORS. REFER TO DETAIL 3 THIS SHEET FOR REFERENCE.
- EXISTING OVERHEAD SERVICE AND POLES TO BE REMOVED. COORDIANTE WITH CITY UTILITY DEPARTMENT.
- EXISTING OVERHEAD SERVICE AND ALL ASSOCIATED CONDUIT AND WIRING TO BE REMOVED.
- EXISTING BUILDING TO BE DEMOLISHED BY OTHERS.

SHEET TITLE: ELECTRICAL DEMOLITION SITE PLAN



PROJ. MGR.: RH
DRAWN: RH
DATE: 10-9-2026
REVISIONS

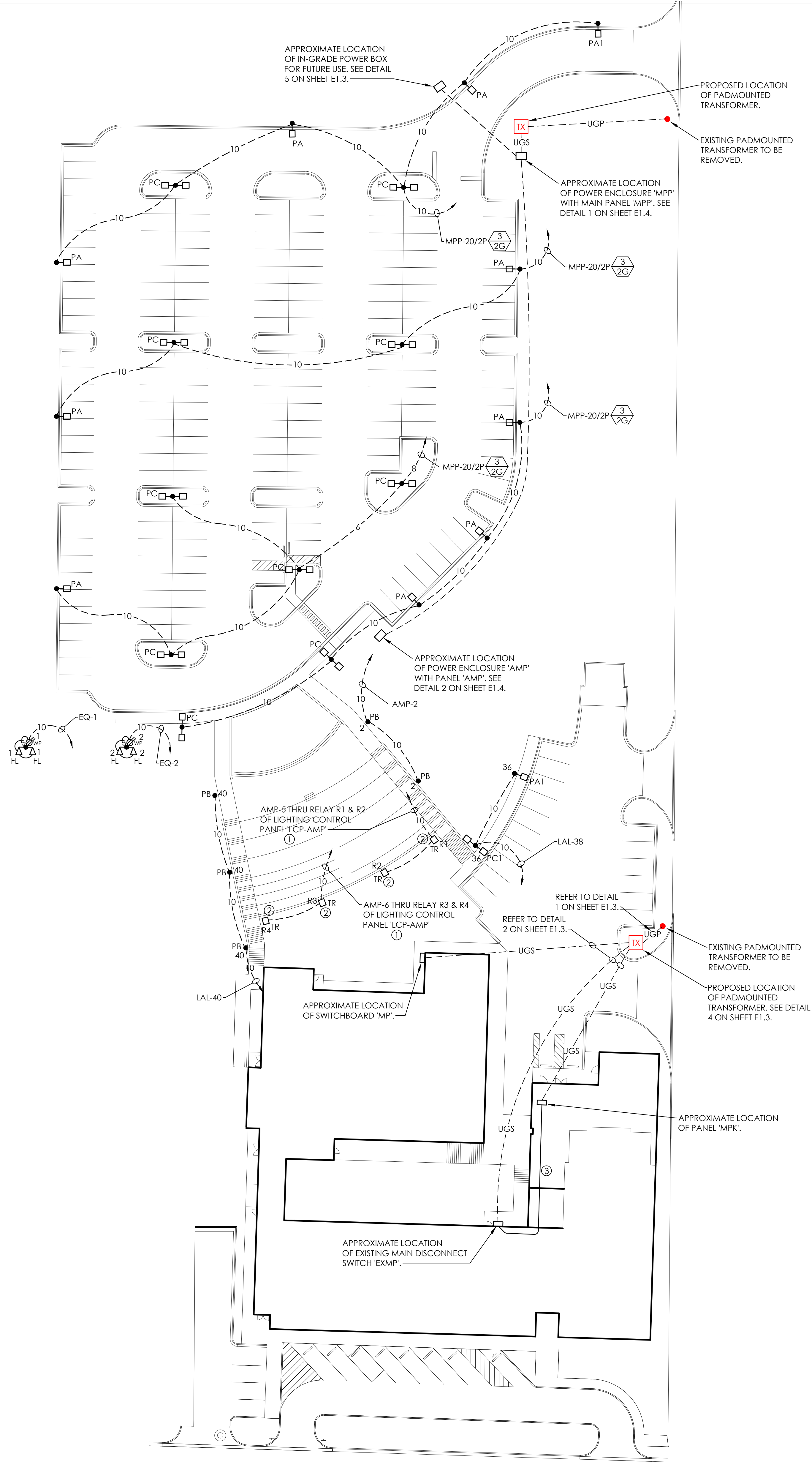
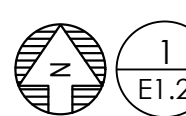
JOB NO. 25-249

SHEET NO:

E1.1

GARNER
&
ASSOCIATES ENGINEERING
901 South Perry Street, Montgomery, AL 36104
o | 334.647.1596 e | admin@garner-engineering.com
Project No: 26-020

- N:\2026 Jobs\26-020 Pike Academy St. Innovation Academy\Drawings\Elec\2020-E1-SITE.DWG
- Thursday, October 8, 2026 5:57:00 PM



ELECTRICAL SITE PLAN

SCALE: 1"=30'-0"

ELECTRICAL SITE LEGEND

- UGP --- NEW UNDERGROUND PRIMARY. CONDUIT FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. CONDUCTORS FURNISHED AND INSTALLED BY UTILITY COMPANY. REFER TO POWER RISER FOR ADDITIONAL INFORMATION.
- UGS --- NEW UNDERGROUND SECONDARY. 120/208V, 3PH, 4W FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
- EUPR --- EXISTING UNDERGROUND PRIMARY TO REMAIN DURING CONSTRUCTION. ONCE NEW CONSTRUCTION IS COMPLETE, UTILITY COMPANY TO REMOVE CONDUCTOR.
- TX NEW PADMOUNTED TRANSFORMER FURNISHED AND INSTALLED BY UTILITY COMPANY. CONCRETE PAD FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
- UF --- NEW UNDERGROUND FIBER BY OTHERS. ELECTRICAL CONTRACTOR TO PROVIDE TWO (2) - 4" CONDUITS. REFER TO DETAILS 3 ON SHEET E1.2
- ICB EXISTING IN-GRADE COMMUNICATION BOX.
- PL POLE LIGHT FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
- 10 --- LIGHTING BRANCH CIRCUIT, MIN OF #10 WIRE. NUMBER INDICATES WIRE SIZE
- PE POWER EQUIPMENT ENCLOSURE, SIZE AS INDICATED OR REQUIRED.

KEYED NOTES

- THREE (3) SCHEDULE 40 PVC CONDUITS, ONE (1) - 3/4" PVC CONDUIT FOR POWER, HOMERUN TO ENCLOSURE 'AMP' AND ONE (1) - 3/4" PVC CONDUIT FOR DMX CABLE AS REQUIRED, HOMERUN DMX CABLE TO DMX SPLITTER CONNECTED TO ETC DMX CONTROLLER IN ENCLOSURE 'AMP'. ONE (1) - 3/4" PVC CONDUIT SPARE STUBBED INTO ENCLOSURE 'AMP'. PROVIDE SURGE SUPPRESSION ON THE POWER AND DATA CIRCUITRY. SEE DETAIL 5 ON SHEET E1.5.
- SPICE 20A/1P CIRCUIT AND DMX CABLE WITHIN EACH TYPE 'TR' POLE BASE. 20A/1P CIRCUIT WILL CONNECT TO IP65 RATED POWERKON CABLE AS REQUIRED. DMX CABLE WILL CONNECT TO IP65 RATED 5-PIN DMX EXTENSION CABLE AS REQUIRED. UTILIZE POWERKON AND 5-PIN DMX EXTENSION CABLE TO CONNECT THE FOUR (4) RGBW FIXTURES MOUNTED TO EACH TRUSS IN SERIES, WHERE REQUIRED. NEATLY FASTEN AND SECURE POWER AND DMX CABLE TO TRUSS ARMS. SEE DETAIL 5 ON SHEET E1.5 FOR ADDITIONAL INFORMATION.
- VERIFY ROUTING OF FEEDER CONDUIT TO EXISTING MAIN DISCONNECT 'EXMP' THRU BUILDING AND CRAWL SPACE PRIOR TO ROUGH-IN.

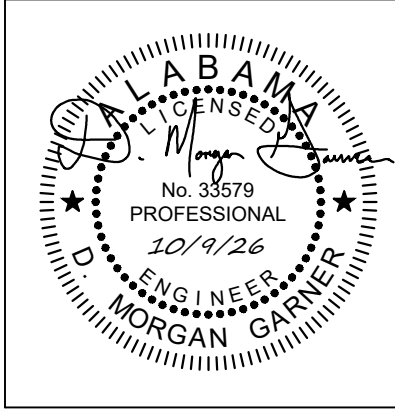
GENERAL NOTES

- UNDERGROUND PVC CONDUIT SHALL BE SCHEDULE 40 PVC.
- UNDERGROUND PRIMARY CONDUIT SHALL MAINTAIN A MINIMUM DEPTH OF 48".
- UNDERGROUND SECONDARY CONDUIT SHALL MAINTAIN MINIMUM DEPTH OF 36".
- COORDINATE ALL UNDERGROUND UTILITIES WITH OTHER TRADES TO AVOID ANY CONFLICT.
- VERIFY EXACT LOCATION OF POWER RISER POLES AND PADMOUNTED TRANSFORMER LOCATION WITH CITY OF TROY ELECTRICAL DEPARTMENT.
- REFER TO ARCHITECTURAL SPECIFICATIONS FOR BASE BID AND ALTERNATE BID PACKAGES.

LIGHTING CONTROL PANEL LCP-AMP

ROOM: ELECTRICAL 013					
RELAY	VOLT	CIRCUIT	DESCRIPTION	AUTOMATION	NOTES
R1	120	AMP-5	TRUSS LIGHTS	TIMED ON / TIMED OFF	
R2	120	AMP-5	TRUSS LIGHTS	TIMED ON / TIMED OFF	
R3	120	AMP-6	TRUSS LIGHTS	TIMED ON / TIMED OFF	
R4	120	AMP-6	TRUSS LIGHTS	TIMED ON / TIMED OFF	

SHEET TITLE: ELECTRICAL SITE PLAN

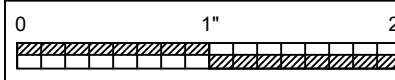


PROJ. MGR.:	RH
DRAWN:	RH
DATE:	10-9-2026
REVISIONS	

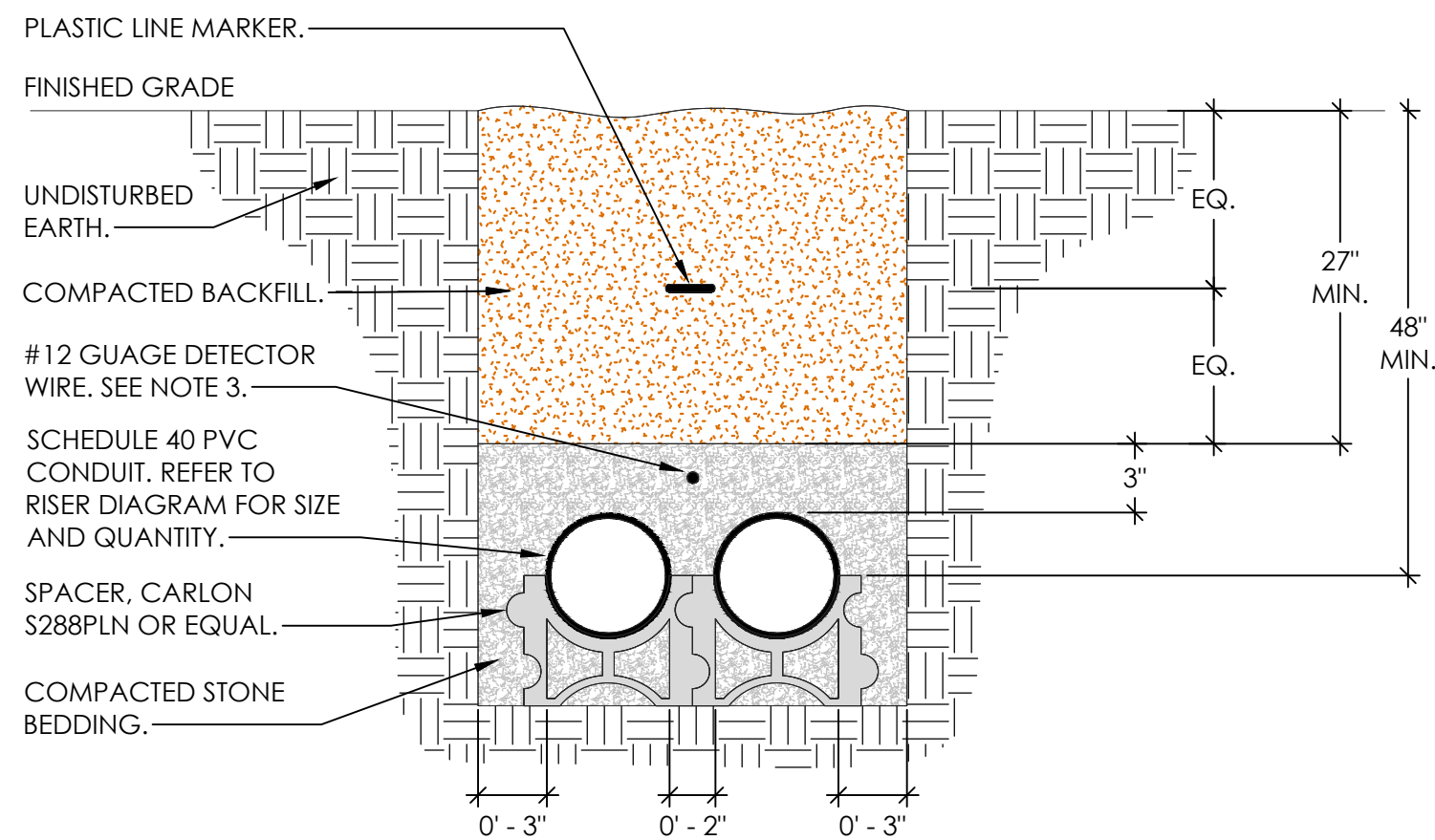
JOB NO. 25-249

SHEET NO:

E1.2



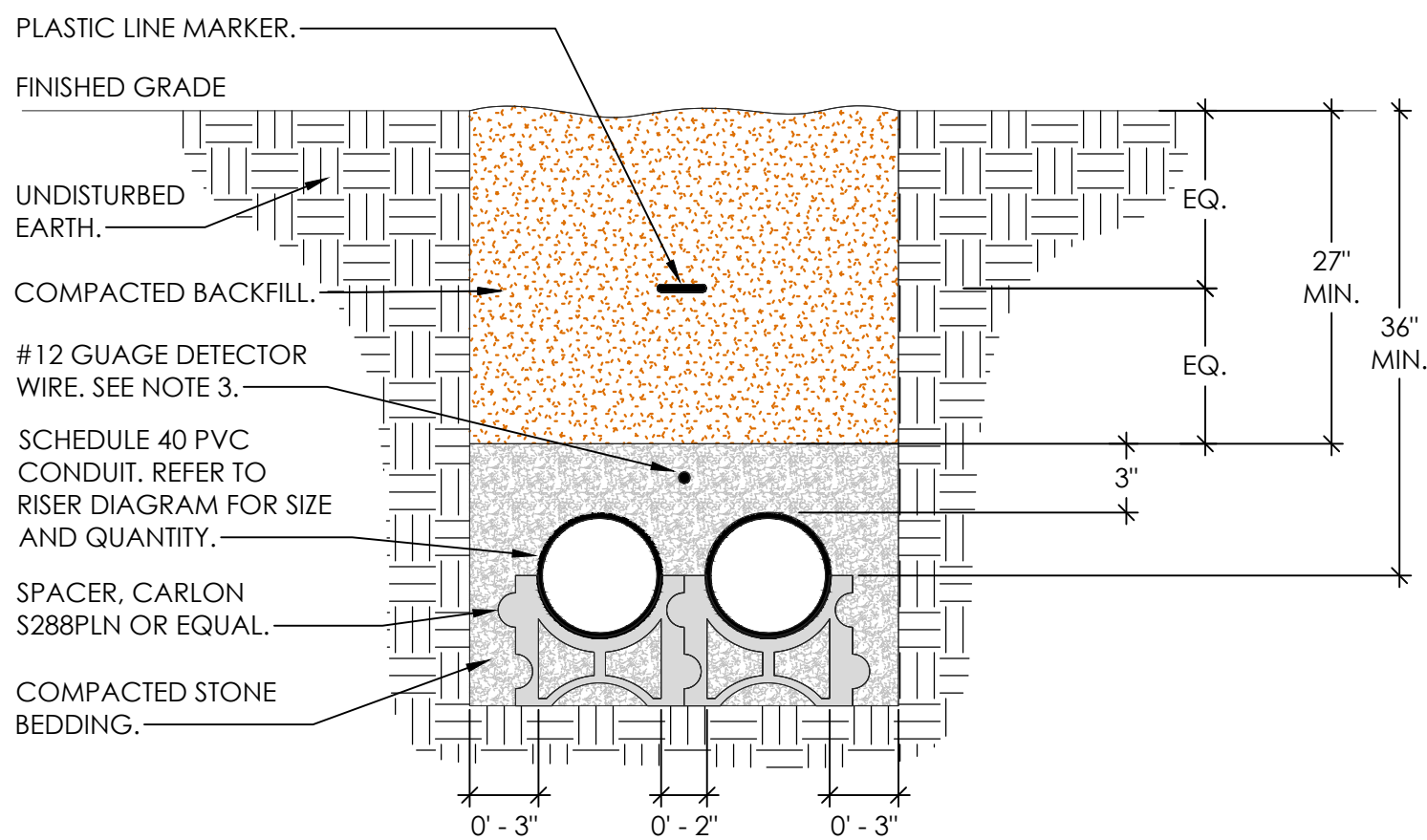
Academy St. Career Innovation Academy
The Troy City & Pike County Board of Education
708 E. Academy St., Troy, AL 36081



PRIMARY DUCT BANK DETAIL

NOT TO SCALE

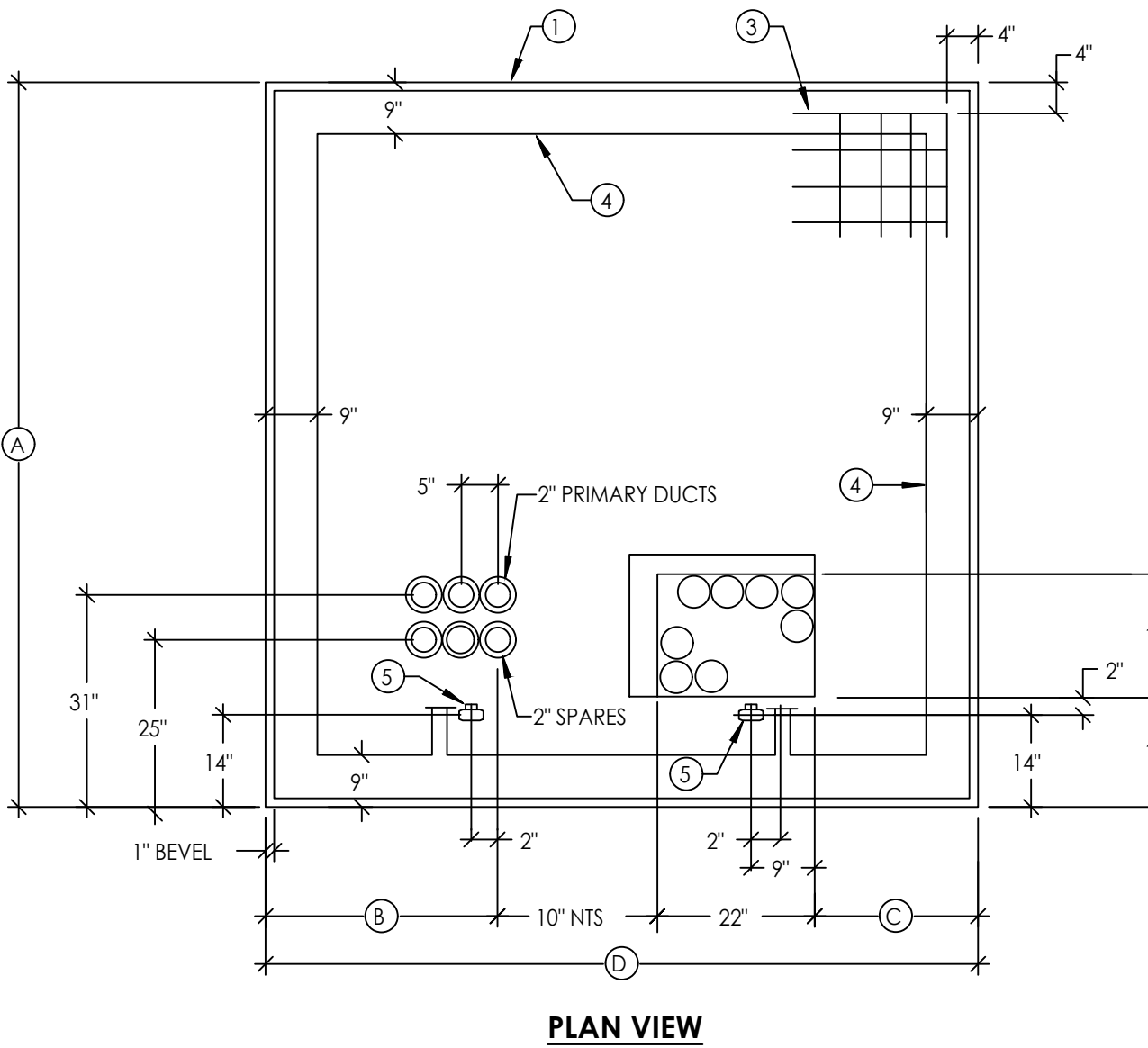
- NOTES:
1. PLASTIC LINE MARKER SHALL BE RED WITH BLACK WRITING THAT READS "WARNING HIGH VOLTAGE".
 2. VERIFY CONDUIT DEPTHS WITH LOCAL UTILITY COMPANY.
 3. DETECTOR WIRE SHALL HAVE A CONTINUOUS OUTER PROTECTIVE JACKET AND MARKED WITH THREE(3) PURPLE STRIPES ON EACH END AND A LABEL MARKED "DETECTOR WIRE".



TYPICAL SECONDARY DUCT BANK DETAIL

NOT TO SCALE

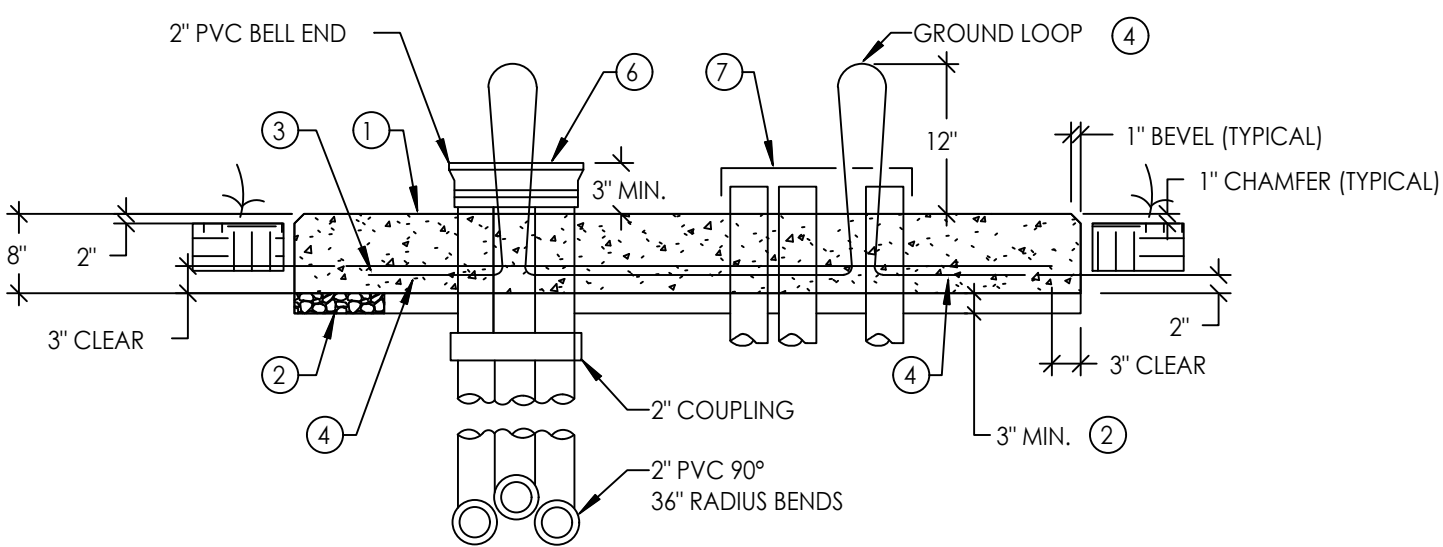
- NOTES:
1. PLASTIC LINE MARKER SHALL BE RED WITH BLACK WRITING THAT READS "WARNING HIGH VOLTAGE".
 2. VERIFY CONDUIT DEPTHS WITH LOCAL UTILITY COMPANY.
 3. DETECTOR WIRE SHALL HAVE A CONTINUOUS OUTER PROTECTIVE JACKET AND MARKED WITH THREE(3) PURPLE STRIPES ON EACH END AND A LABEL MARKED "DETECTOR WIRE".



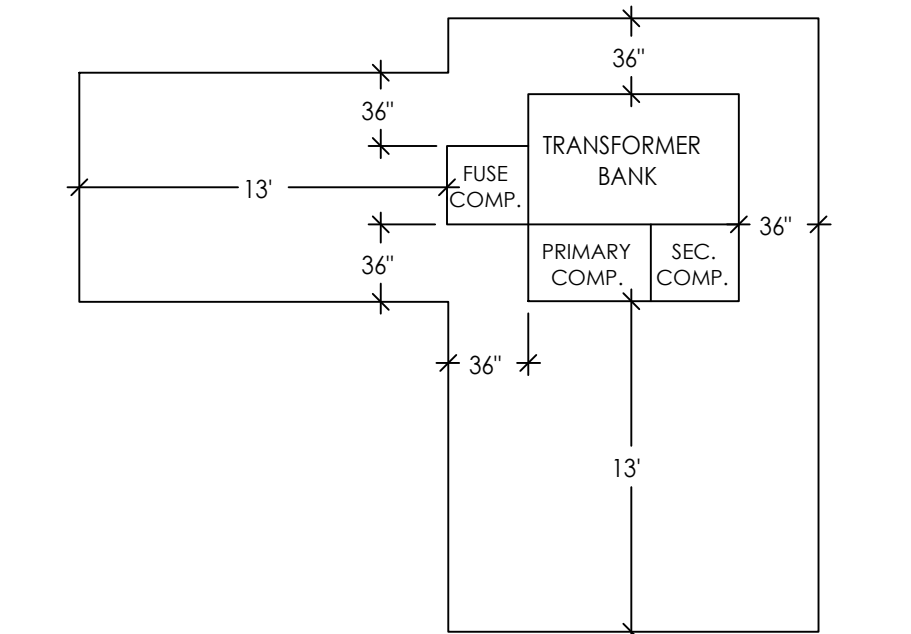
TYPICAL TRANSFORMER PAD INSTALLATION DETAIL

NOT TO SCALE

DIMENSIONS				
208 OR 480 VOLT	A	B	C	D
75-500 KVA	90"	24"	16"	72"
750-2000 KVA	144"	36"	28"	96"



SECTION VIEW



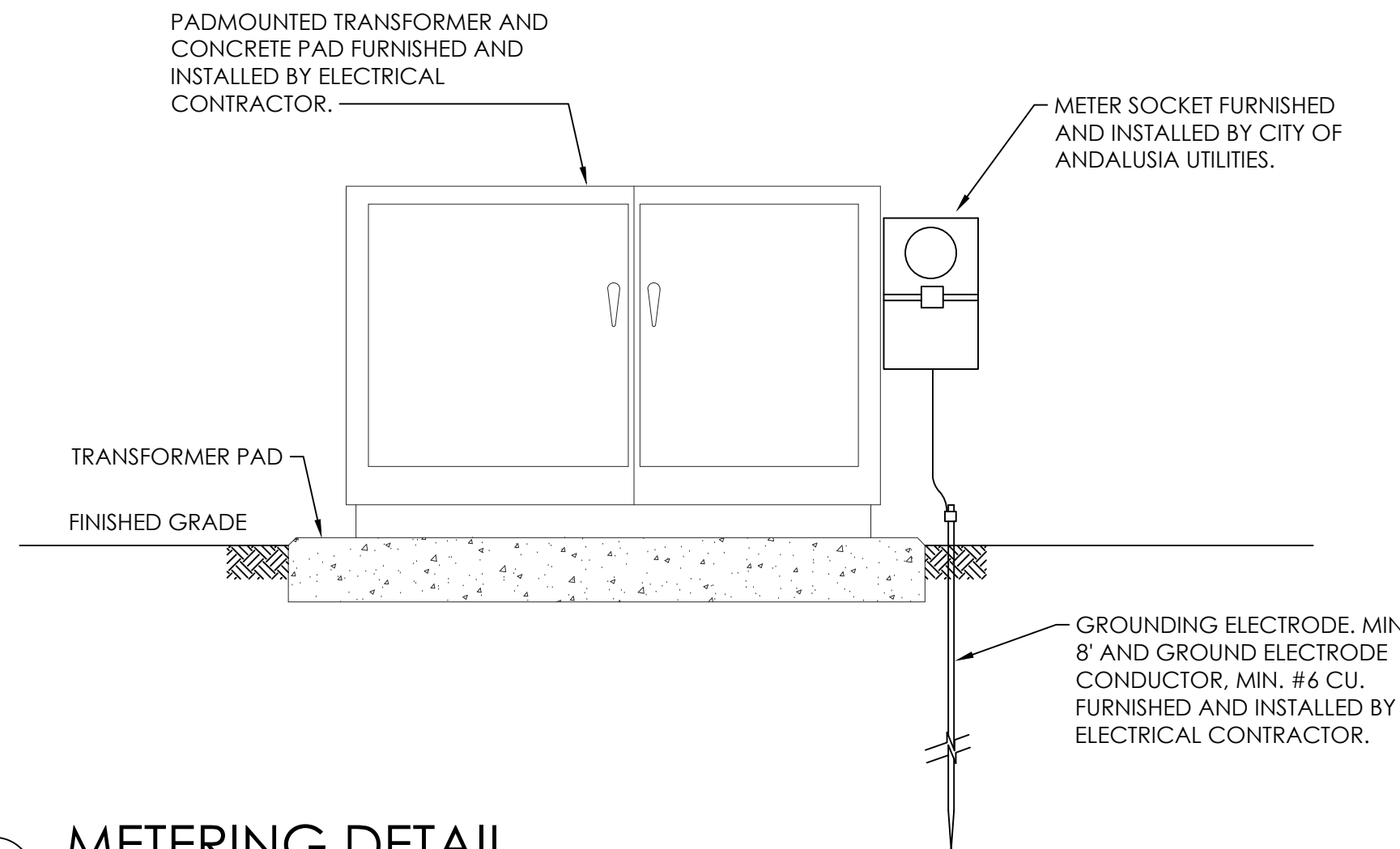
MINIMUM CLEARANCE REQUIREMENTS

GENERAL NOTES:

1. THIS DETAIL IS TYPICAL ONLY. COORDINATE ACTUAL DIMENSIONS & REQUIREMENTS WITH THE UTILITY & ACTUAL TRANSFORMER TO BE FURNISHED.
2. SECONDARY AND METERING DUCT ENTRANCES MUST BE KEPT WITHIN THE BOUNDARY LINES SHOWN. NUMBER AND LOCATION OF SECONDARY DUCTS TO BE DETERMINED BY CITY OF TROY UTILITY REPRESENTATIVE BEFORE PAD IS POURED. CITY OF TROY UTILITY WILL DETERMINE CONDUIT SPACING.
3. FOR CLEARANCE TO OTHER STRUCTURES SEE MINIMUM CLEARANCE REQUIREMENTS. THERE SHALL BE NO ABOVE GROUND OBSTRUCTIONS SUCH AS FENCES, SHRUBS, PLANTS, GAS METERS, AIR CONDITIONERS, ETC. WITHIN 10 FEET OF THE FRONT OF THE TRANSFORMER OR WITHIN 3 FEET OF THE SIDES OR BACK.
4. CONTRACTOR SHALL COORDINATE WITH CITY OF TROY UTILITY ENGINEERING DEPARTMENT FOR FURTHER REQUIREMENTS AND SPECIFICATIONS PRIOR TO CONSTRUCTION OF PAD.

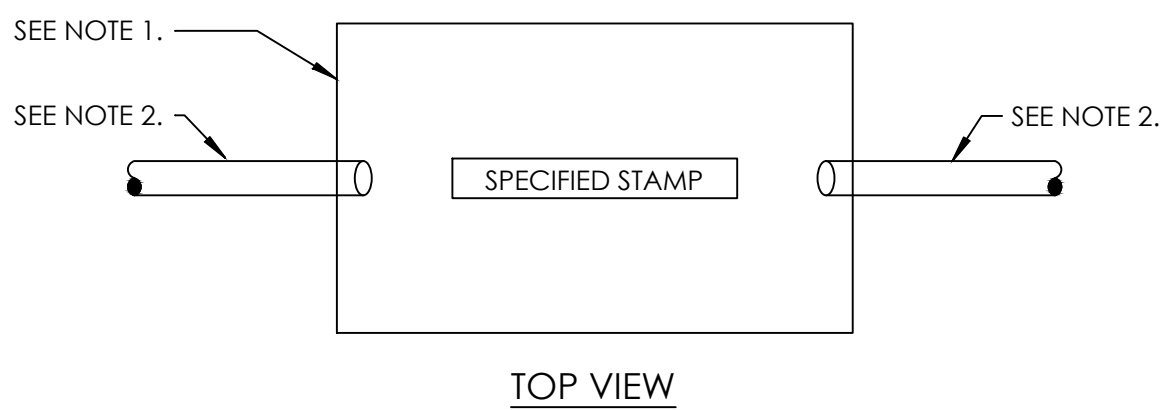
KEYED NOTES:

1. CONCRETE PAD, CONCRETE TO DEVELOP 3000 PSI COMPRESSIVE STRENGTH WITHIN 28 DAYS. OMIT 1 INCH BEVEL ON ALL EDGES FLUSH WITH OTHER CONCRETE WORK. SEE ARCHITECTURAL PAD DETAILS AND SPECIFICATIONS FOR FURTHER REQUIREMENTS.
2. COMPACTED GRAVEL FILL. PAD SHOULD BE POURED AGAINST A 3 INCH MINIMUM COMPACTED GRAVEL FILL THAT IS PLACED ON WELL COMPACTED EARTH. SEE ARCHITECTURAL PAD DETAILS AND SPECIFICATIONS FOR FURTHER REQUIREMENTS.
3. #4 REBAR (GRADE 40) EQUALLY SPACE 6" EACH WAY.
4. #2/0 STRANDED BARE COPPER, CONTINUOUS GROUND BUS. TWO 3/4 INCH x 10 FOOT GALVANIZED GROUND RODS AND #2/0 COPPER GROUND BUS WIRE TO BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
5. 3/4" (19.05mm) x 10' (3.05m) GROUND ROD. TWO 3/4 INCH x 10 FOOT GALVANIZED GROUND RODS AND #2/0 COPPER GROUND BUS WIRE TO BE FURNISHED AND INSTALLED BY CONTRACTOR.
6. PRIMARY DUCTS - 2" PVC.
7. SECONDARY DUCTS. PROVIDE GROUNDING BUSHINGS ON EACH AND A CONTINUOUS GROUND BONDING CONDUCTOR.

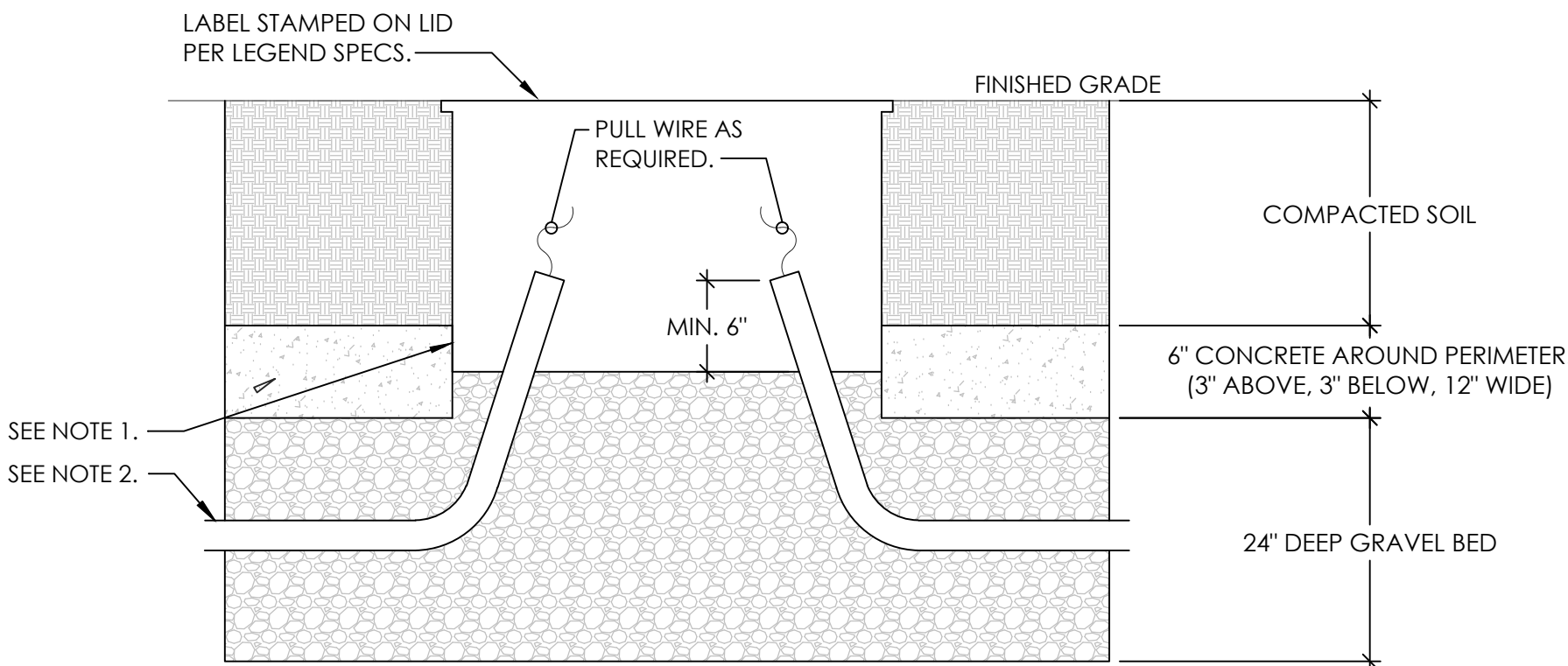


METERING DETAIL

NOT TO SCALE



TOP VIEW



SIDE VIEW

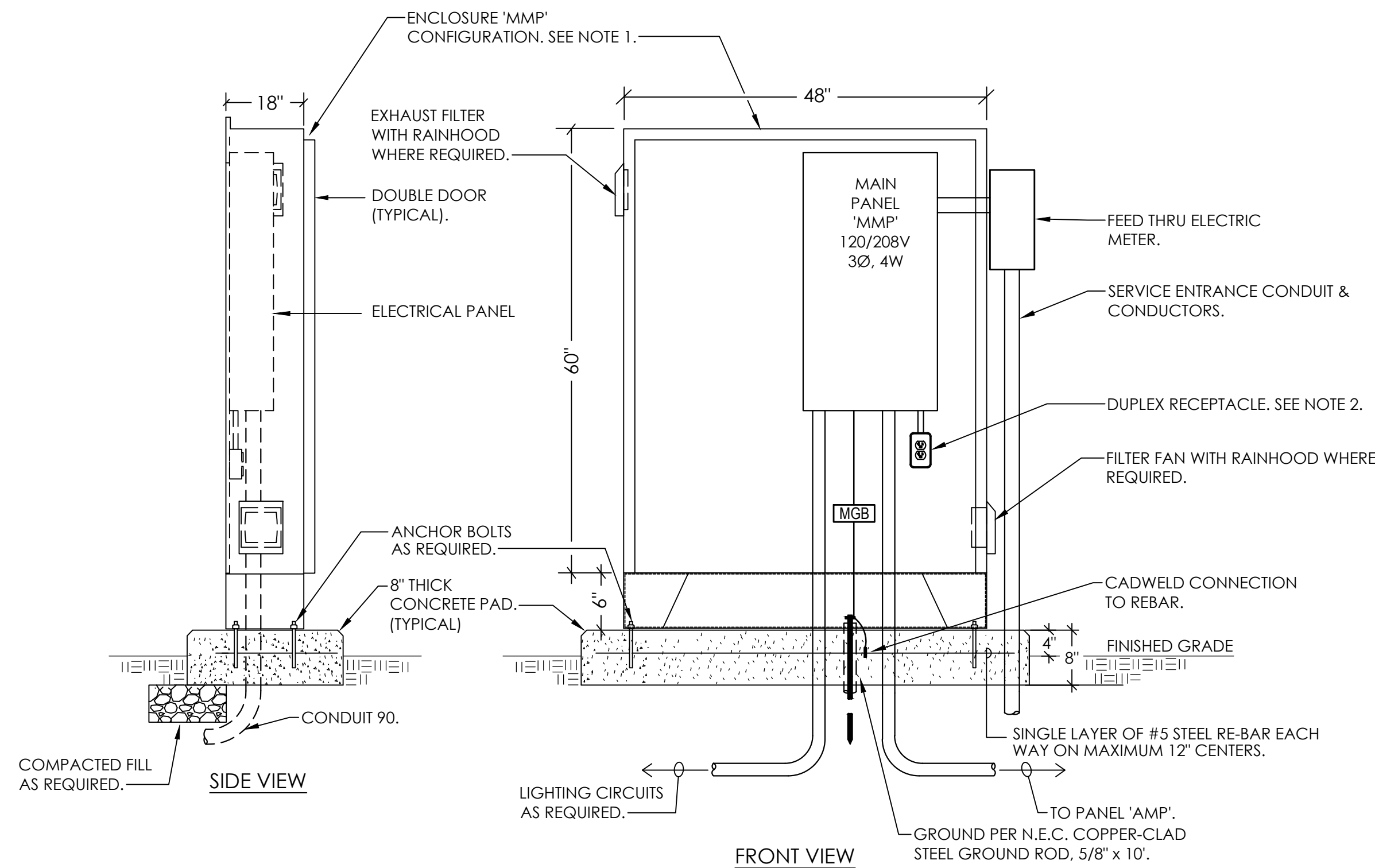
IN-GRADE QUAZITE JUNCTION BOX TYPICAL

NOT TO SCALE

- NOTES:
1. QUAZITE POLYMER CONCRETE, TIER 5 RATED, IN-GRADE PULL BOX WITH CRUSH AND RUN DRAIN BASE.
 2. TYPICAL CONDUIT, 45 DEGREE ANGLE INTO BASE OF THE BOX WITH THE ENDS OF THE CONDUIT 6" ABOVE THE GRAVEL BASE.

PULL BOX SCHEDULE

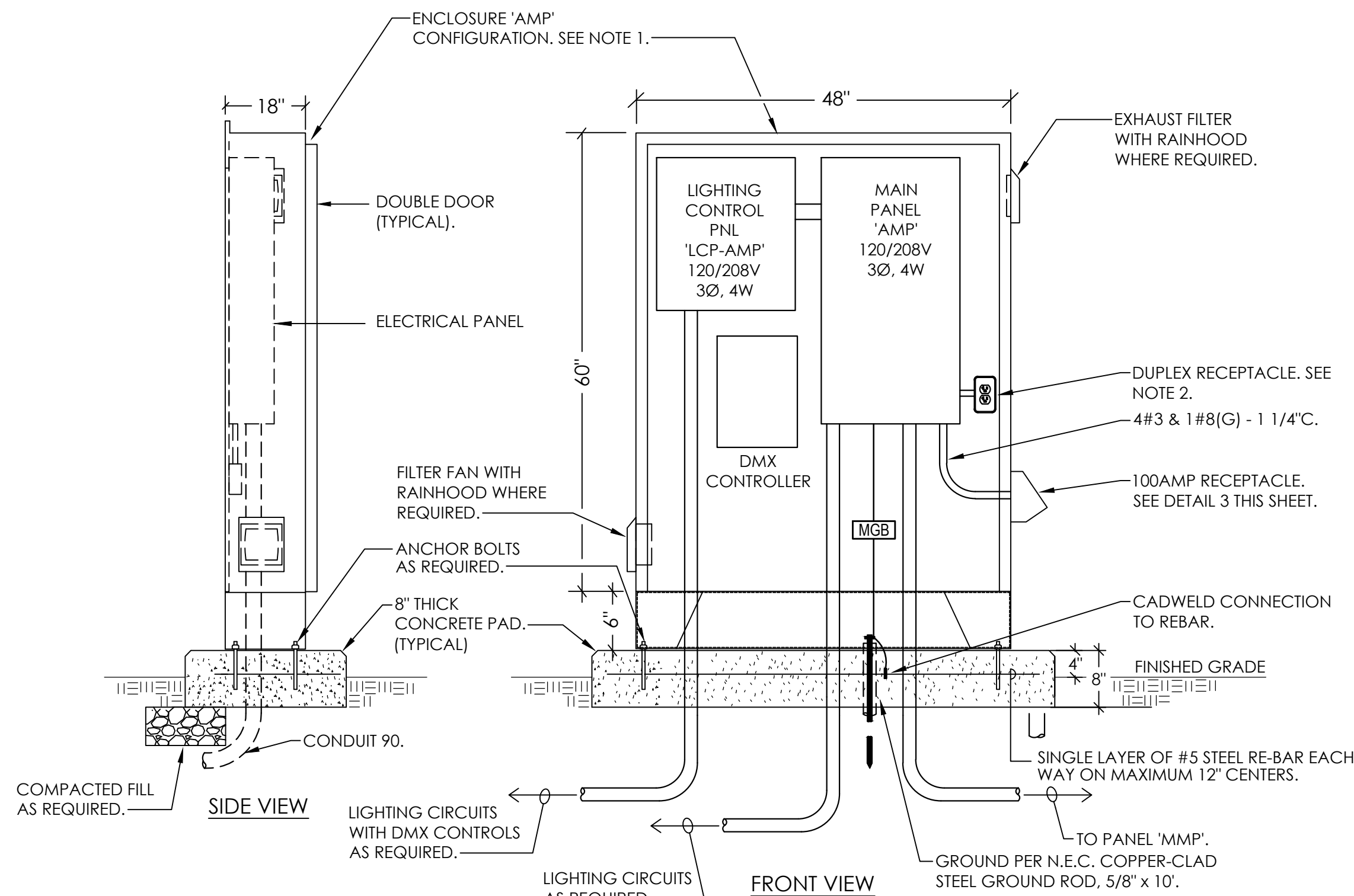
NAME	SIZE	STAMP	MANUFACTURER	RATING	COMMENTS
FB	3' x 5'	'FIBER'	QUAZITE	TIER 15	PROVIDED BY E.C.



1
E1.4
DETAIL - ELECTRICAL ENCLOSURE 'MMP'

NOT TO SCALE

- NOTES:
- SERVICE ENCLOSURES SHALL BE NEMA TYPE 4X ENCLOSURE MADE OF STAINLESS STEEL WITHOUT HOLES OR KNOCKOUTS. EQUAL TO HAMMOND #HN4FM604818SS(BLACK). PROVIDE ALL SIDES BOLT ON SKIRT. ALL EXTERIOR HARDWARE TO BE STAINLESS STEEL, WITH 6 INCH FLOOR STANDS. PROVIDE PERMANENT LABEL TO READ "ENCLOSURE 'MMP'". INCLUDE REAR INNER PANEL (PROVIDE DIN RAIL AND PVC WIRE DUCT FOR EQUIPMENT MOUNTING AS REQUIRED). ALL PENETRATIONS OF ENCLOSURE MUST BE AS PER MANUFACTURERS RECOMMENDATIONS IN ORDER TO MAINTAIN INTEGRITY OF ENCLOSURE. ENCLOSURE TO BE SIZED TO ACCOMMODATE EQUIPMENT AS REQUIRED AND TO MAINTAIN PROPER CODE CLEARANCES AS PER N.E.C. ELECTRICAL CODE. CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING BASED ON POWER EQUIPMENT. ENCLOSURE SHALL BE SECURELY ANCHORED TO CONCRETE PAD.
 - PROVIDE DUPLEX RECEPTACLE, NEMA 5-20R, CONNECT DUPLEX RECEPTACLES TO DEDICATED 20A/1P CIRCUIT. CIRCUIT SHALL ALSO FEED THE THERMOSTAT CONTROLLED FILTER FANS ASSOCIATED WITH ENCLOSURE.
 - CONCRETE PAD FOR SERVICE ENCLOSURE SHALL BE 8" THICK WITH A MINIMUM OF 2 INCHES ABOVE GRADE, 6 INCHES BEYOND EACH SIDE AND END OF ENCLOSURE



2
E1.4
DETAIL - ELECTRICAL ENCLOSURE 'AMP'

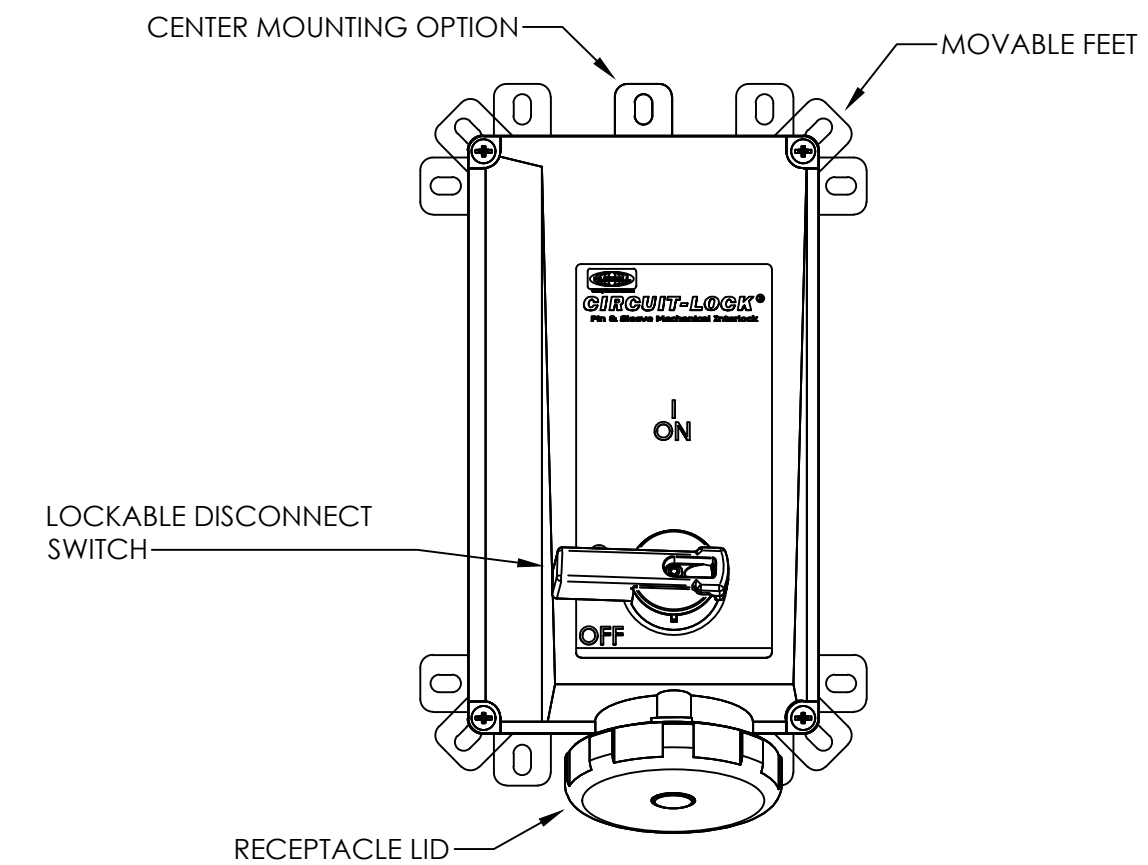
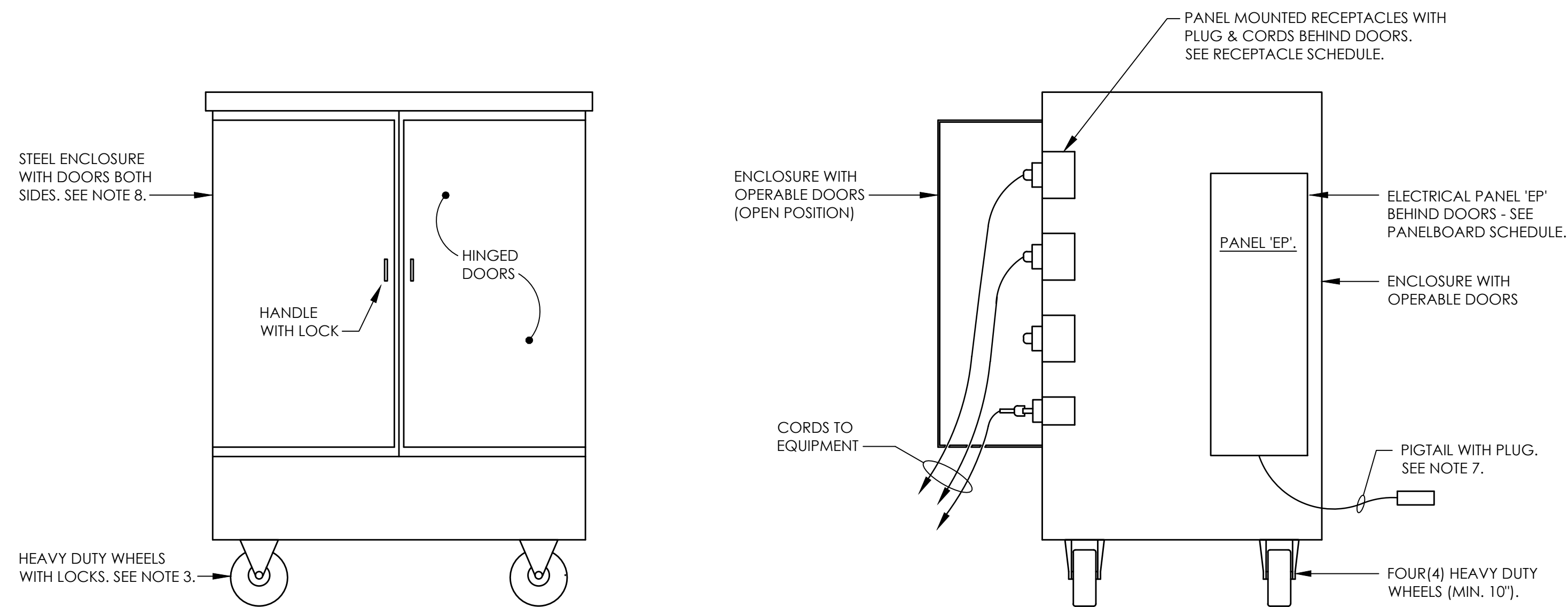
NOT TO SCALE

- NOTES:
- SERVICE ENCLOSURES SHALL BE NEMA TYPE 4X ENCLOSURE MADE OF STAINLESS STEEL WITHOUT HOLES OR KNOCKOUTS. EQUAL TO HAMMOND #HN4FM604818SS(BLACK). PROVIDE ALL SIDES BOLT ON SKIRT. ALL EXTERIOR HARDWARE TO BE STAINLESS STEEL, WITH 6 INCH FLOOR STANDS. PROVIDE PERMANENT LABEL TO READ "ENCLOSURE 'MMP'". INCLUDE REAR INNER PANEL (PROVIDE DIN RAIL AND PVC WIRE DUCT FOR EQUIPMENT MOUNTING AS REQUIRED). ALL PENETRATIONS OF ENCLOSURE MUST BE AS PER MANUFACTURERS RECOMMENDATIONS IN ORDER TO MAINTAIN INTEGRITY OF ENCLOSURE. ENCLOSURE TO BE SIZED TO ACCOMMODATE EQUIPMENT AS REQUIRED AND TO MAINTAIN PROPER CODE CLEARANCES AS PER N.E.C. ELECTRICAL CODE. CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING BASED ON POWER EQUIPMENT. ENCLOSURE SHALL BE SECURELY ANCHORED TO CONCRETE PAD.
 - PROVIDE DUPLEX RECEPTACLE, NEMA 5-20R, CONNECT DUPLEX RECEPTACLES TO DEDICATED 20A/1P CIRCUIT. CIRCUIT SHALL ALSO FEED THE THERMOSTAT CONTROLLED FILTER FANS ASSOCIATED WITH ENCLOSURE.
 - CONCRETE PAD FOR SERVICE ENCLOSURE SHALL BE 8" THICK WITH A MINIMUM OF 2 INCHES ABOVE GRADE, 6 INCHES BEYOND EACH SIDE AND END OF ENCLOSURE.

3
E1.4
PORTABLE POWER CART CONNECTION DETAIL

NOT TO SCALE

- NOTES:
- PROVIDE PERMANENT LABEL TO READ "PORTABLE POWER CONNECTION RECEPTACLE". ALL PENETRATIONS OF ENCLOSURE MUST BE AS PER MANUFACTURERS RECOMMENDATIONS IN ORDER TO MAINTAIN INTEGRITY OF ENCLOSURE. MOUNT RECEPTACLE TO SIDE OF ENCLOSURE AS REQUIRED.
 - PROVIDE UNFUSED 100A/3P MECHANICAL INTERLOCK RECEPTACLE EQUAL TO HUBBELL #HBL100M9W. SO CORD ON POWER CART SHALL HAVE CORRESPONDING MATING PLUG.



ELEVATION 'A' WITH DOOR CLOSED
NOT TO SCALE

PORTABLE POWER CART BOX (SECTION "A-A")
NOT TO SCALE

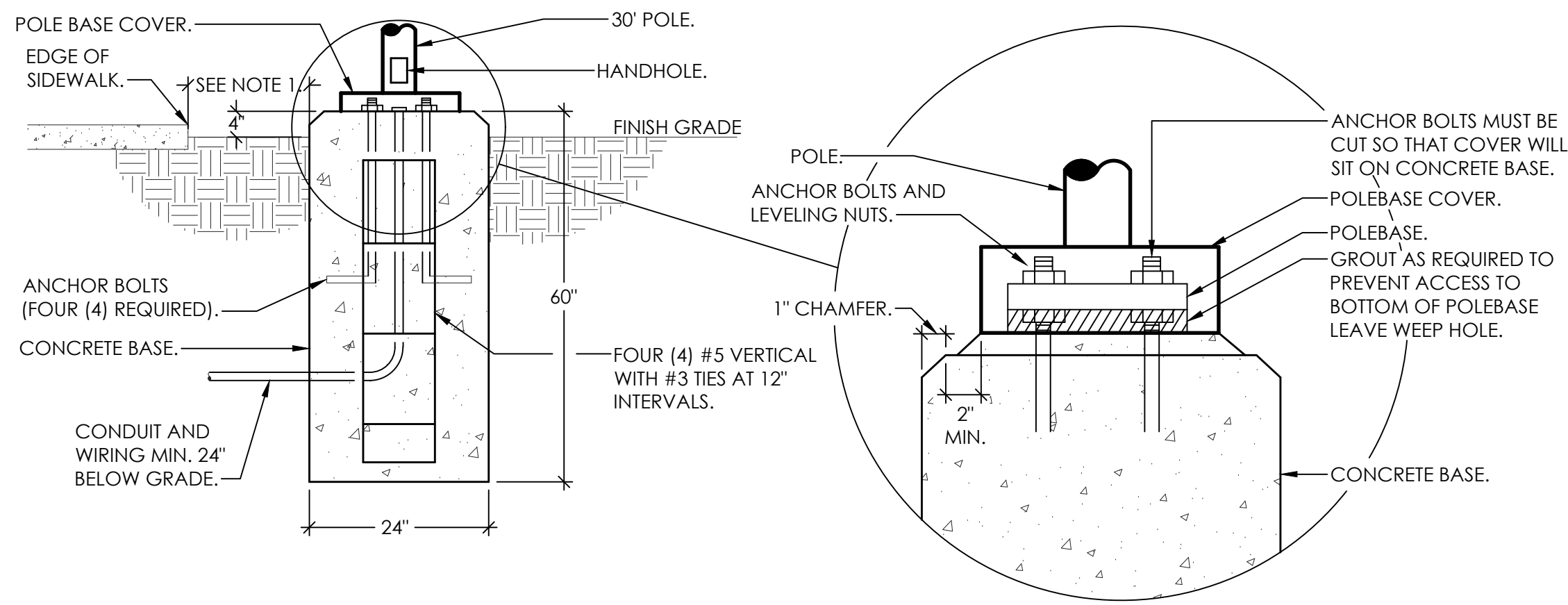
4
E1.4
PORTABLE POWER CART BOX (ELEVATION 'A')

NOT TO SCALE

- NOTES:
- ELEVATION SHOWS PANEL MOUNTED RECEPTACLE BEHIND DOORS.
 - ALL RECEPTACLES ARE PANEL MOUNTED BEHIND DOORS TO ALLOW CORDS TO BE PLUGGED IN WITH DOOR CLOSED. SEE SECTION "A-A".
 - BOX SHALL HAVE FOUR (4) HEAVY DUTY WHEELS(MIN. 10") TO ENABLE EASY MOVEMENT. WHEELS SHALL HAVE CAPABILITY TO BE LOCKED IN FIXED POSITION.
 - ELEVATION "A" SHOWS LOCATION AND RECEPTACLE TYPES.
 - BACK SIDE OF BOX WILL HAVE PANELBOARD "EP" BEHIND DOORS.
 - ENTIRE BOX SHALL BE SUITABLE FOR WET LOCATION WHILE IN USE WITH ALL DOORS CLOSED.
 - BOX SHALL HAVE 50' LONG PIGTAIL CONNECTED TO PANEL EP WITH MATING PLUG (HUBBELL #HBL4100P12W) ON END OF PIGTAIL. PIGTAIL SHALL BE ROUND PORTABLE CABLE - TYPE W 4- CONDUCTOR PORTABLE POWER CABLE #2 AWG(121 AMP) HOUSTON WIRE & CABLE COMPANY #HW256 00204. PROVIDE HEAVY DUTY KELLUM GRIP AT PIGTAIL CONNECTION TO BOX. PROVIDE STORAGE POSITION INSIDE BEHIND DOORS WHEN CABLE ON IN USE
 - BOX SHALL BE RAINPROOF-TYPE 3R, STEEL(G90) ENCLOSURE AND DOORS WITH HEAVY DUTY HINGES. PAINT BLACK COLOR. VERIFY WITH OWNER.
 - DIMENSIONS SHOWN ARE ESTIMATED SIZE. SUBMIT DETAIL DRAWING FOR APPROVAL.

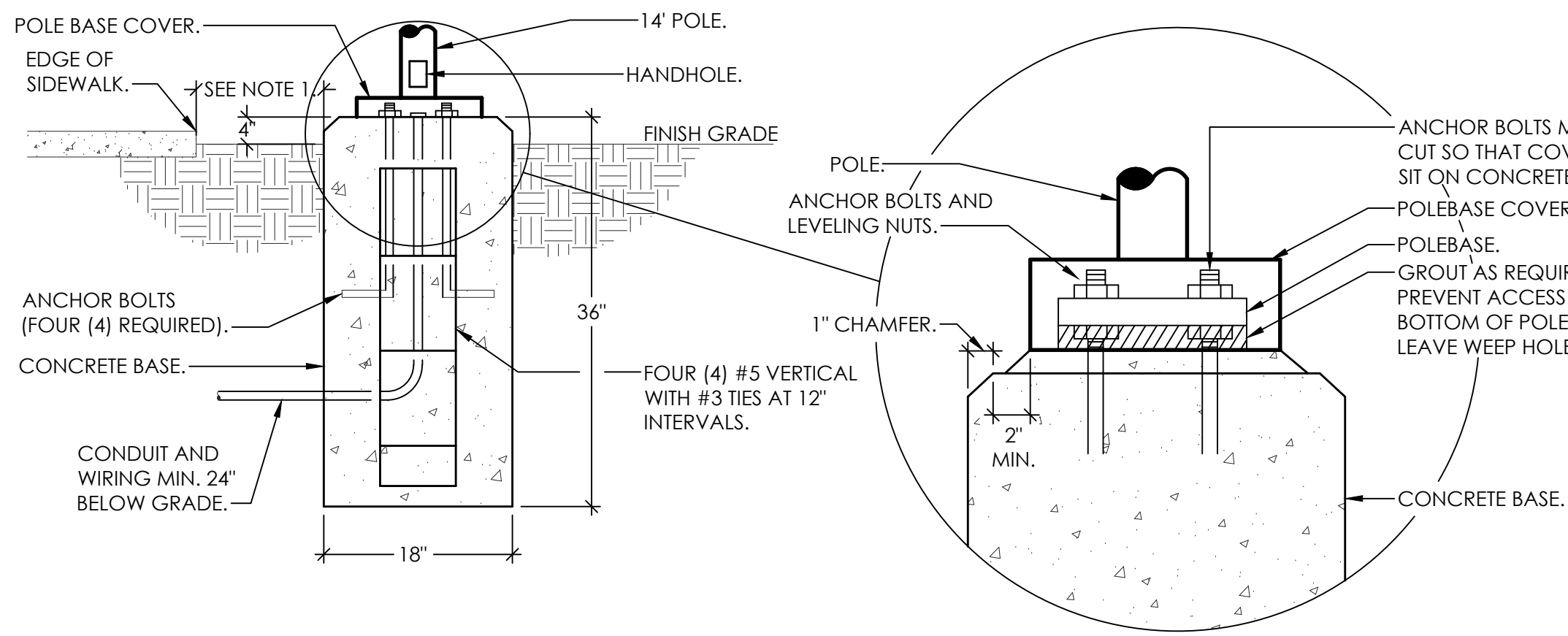
NOTE:
CONTRACTOR SHALL INCLUDE IN BID QUANTITY ONE(1) PORTABLE POWER BOX AS SHOWN AND DESCRIBED ON THIS SHEET. CONTRACTOR MUST SUBMIT DETAIL SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.

PANELBOARD SCHEDULE										PANEL 'EP'	
DIRECTORY	LOAD (VOLT*AMPS)			CKT NO	BRKR AMPS	BRKR	CKT NO	LOAD (VOLT*AMPS)			DIRECTORY
	A	B	C					A	B	C	
SINGLE REC. NEMA L5-20R	1500			1	20	20	2	1500			SINGLE REC. NEMA 5-20R
SINGLE REC. NEMA L5-20R		1500		3	20	20	4		1500		SINGLE REC. NEMA 5-20R
SINGLE REC. NEMA L5-20R			1500	5	20	20	6			1500	SINGLE REC. NEMA 5-20R
SINGLE REC. NEMA L5-20R	1500			7	20	20	8	1500			SINGLE REC. NEMA 5-20R
SINGLE REC. NEMA L5-20R		1500		9	20	20	10		1500		SINGLE REC. NEMA 5-20R
SINGLE REC. NEMA L5-20R			1500	11	20	20	12			1500	SINGLE REC. NEMA 5-20R
SPARE	0			13	20	20	14	1500			SINGLE REC. NEMA 5-20R
SPARE		0		15	20	20	16		1500		SINGLE REC. NEMA 5-20R
SPARE			0	17	20	20	18			0	SPARE
SPARE	0			19	20	50/2	20	2600			SINGLE REC. 50A
SPARE		0		21	20		22		2600		
SPARE			0	23	20	30/2	24			1600	SINGLE REC. NEMA L14-30R
100A CAM DEVICE				25	100/3		26	1600			
				27		30/2	28		1600		SINGLE REC. NEMA L14-30R
				29			30			1600	
				31			32				
				33			34				
				35			36				
				37			38				
				39			40				
				41			42				
SUB-TOTAL	3000	3000	3000					8700	8700	6200	SUB-TOTAL
VOLTAGE : 120/208V, 3PH, 4W				PANEL TYPE:		TOTAL LOAD - A		11700		LOCATION	
MAIN BREAKER : MCB				MAIN BUS: 100A		TOTAL LOAD - B		11700			
MOUNTING: SURFACE				A.I.C. RATING: 10K		TOTAL LOAD - C		9200		TOTAL CONN. CURRENT	
NOTES:				ENCLOSURE: NEMA 1		TOTAL LOAD (VA)		32600		90.56 A	



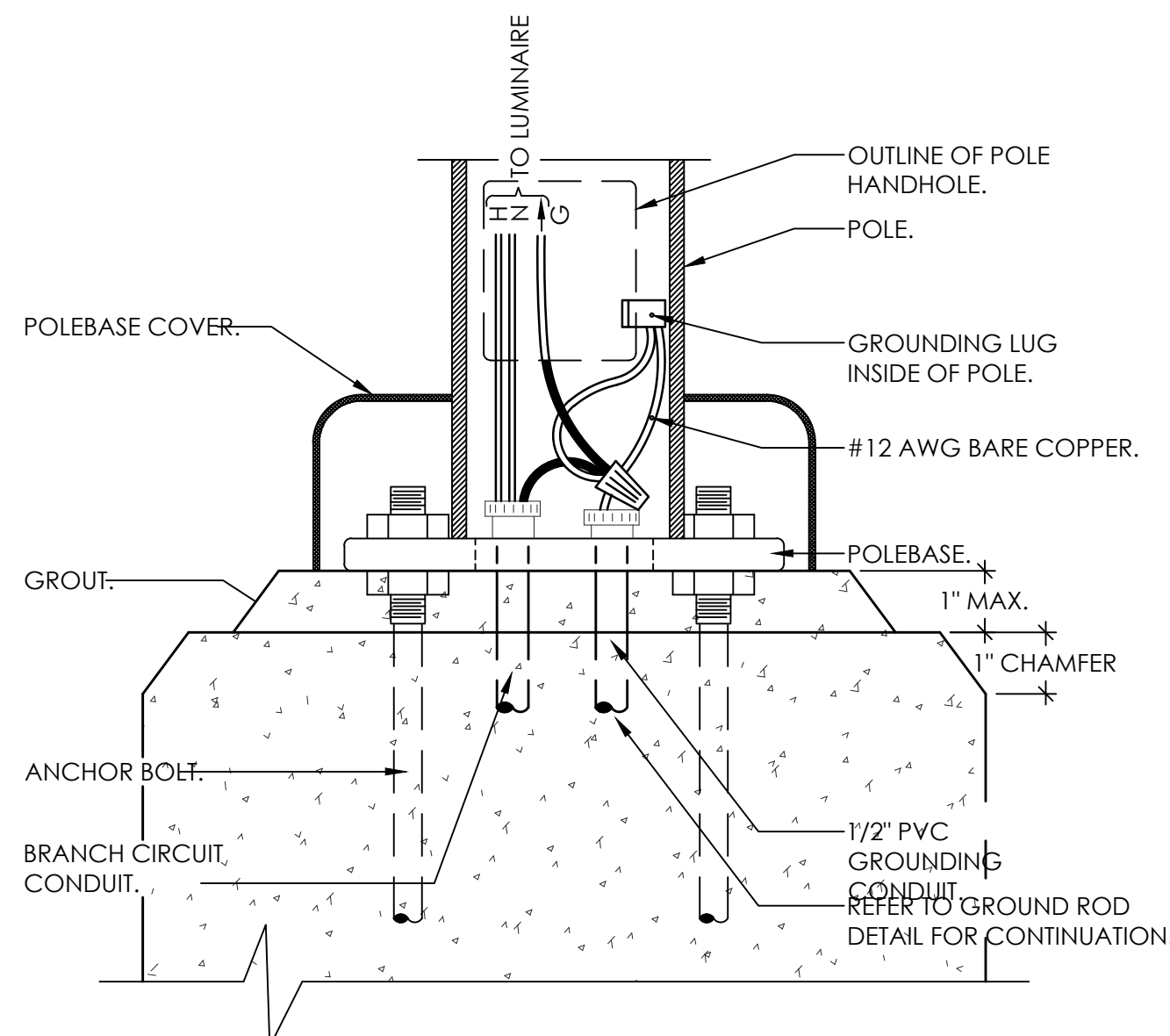
1 POLEBASE DETAIL FIXTURE 'PA', 'PA1', 'PC' & 'PC1'

NOT TO SCALE
NOTE:
1. TYPICAL FOR ALL POLE LIGHTS. POLE BASES SHALL BE INSTALLED 2' FROM EDGE OF SIDEWALK UNLESS NOTED OTHERWISE. VERIFY DIMENSION WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.



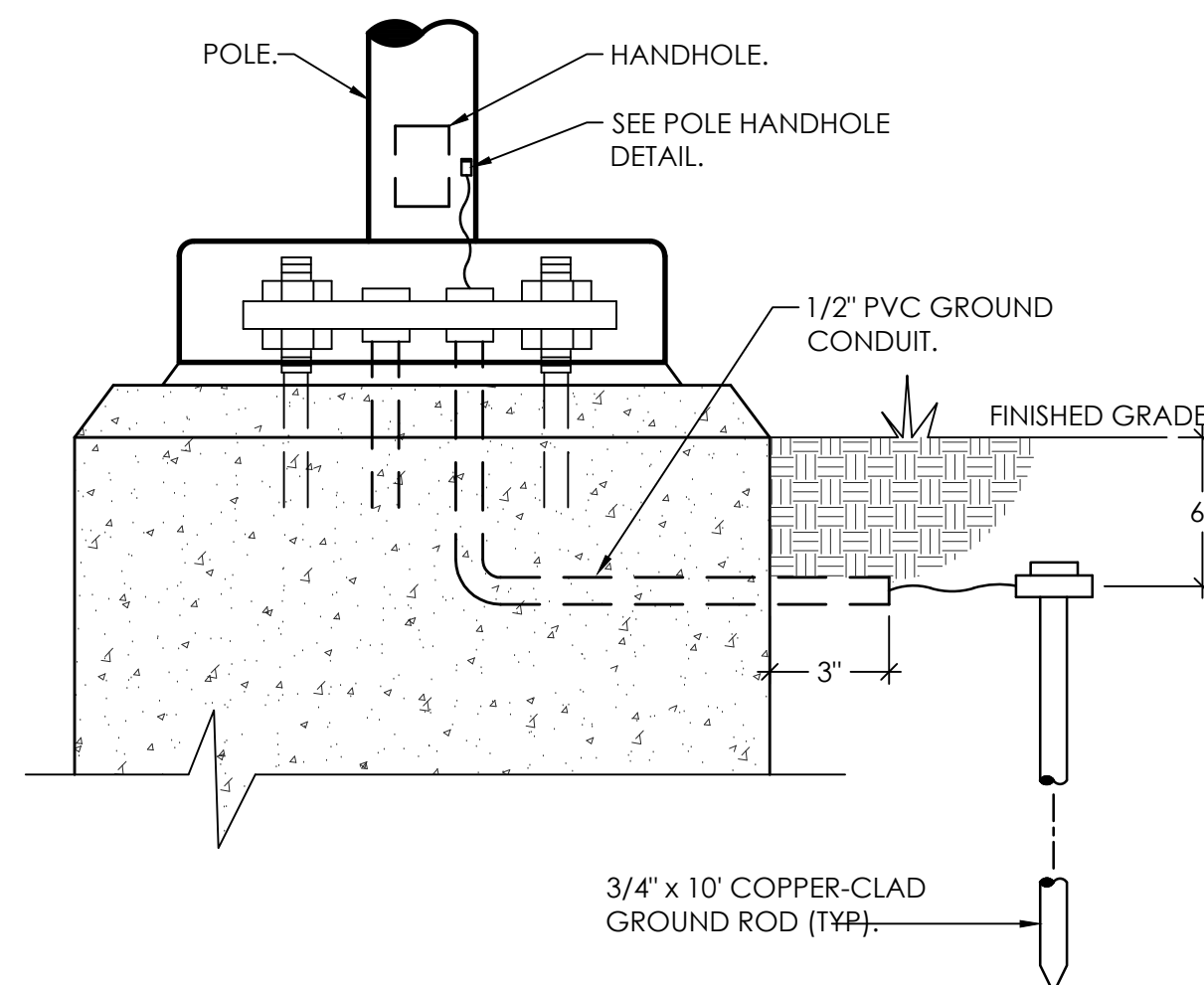
2 POLEBASE DETAIL FIXTURE 'PB'

NOT TO SCALE
NOTE:
1. POLE BASES SHALL BE INSTALLED 2' FROM EDGE OF SIDEWALK UNLESS NOTED OTHERWISE. VERIFY DIMENSION WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.



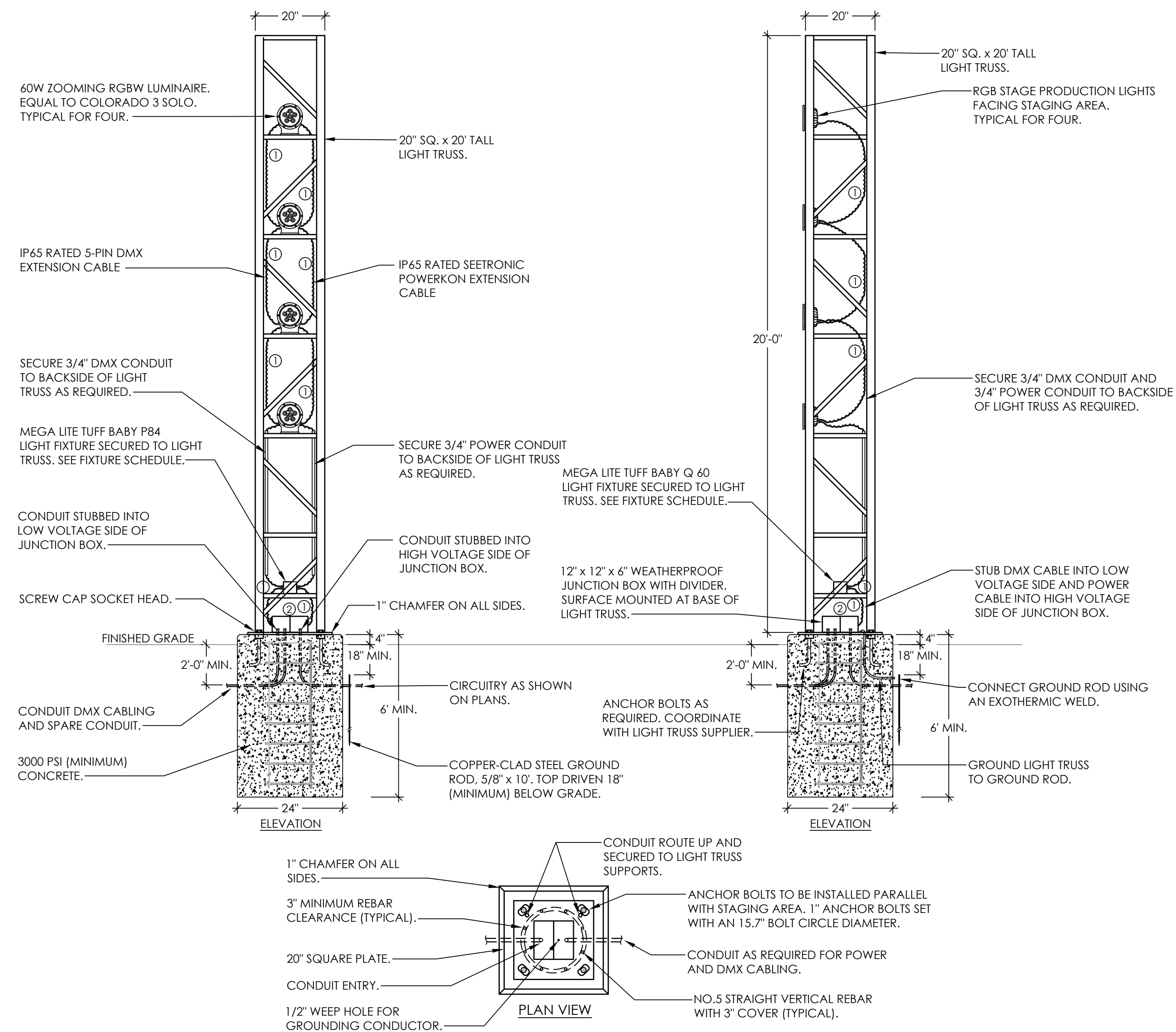
3 TYPICAL POLE HANDHOLE DETAIL

NOT TO SCALE



4 TYPICAL GROUND ROD DETAIL

NOT TO SCALE



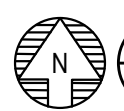
5 LIGHT TRUSS 'TR' ELEVATION AND PLAN VIEW

NOT TO SCALE

KEYED NOTES:

- CONNECT 120V POWER AND DMX CABLES IN SERIES. UTILIZE IP65 RATED SEETRONIC POWERKON EXTENSION CABLE FOR POWER CONNECTION. UTILIZE IP65 RATED 5-PIN DMX EXTENSION CABLE FOR DMX CONNECTION. WHERE REQUIRED, NEATLY FASTEN AND SECURE CABLE TO LIGHT TRUSS ARMS.
- SPLICE 20A/1P CIRCUIT AND DMX CABLE WITHIN EACH COMPARTMENT OF JUNCTION BOX. 20A/1P CIRCUIT WILL CONNECT TO IP65 RATED POWERKON CABLE AS REQUIRED. DMX CABLE WILL CONNECT TO IP65 RATED 5-PIN DMX EXTENSION CABLE AS REQUIRED. UTILIZE POWERKON AND 5-PIN DMX EXTENSION CABLE TO CONNECT THE THREE(3) RGB FIXTURES MOUNTED TO EACH POLE IN SERIES. WHERE REQUIRED, NEATLY FASTEN AND SECURE POWER AND DMX CABLE TO POLE ARMS.

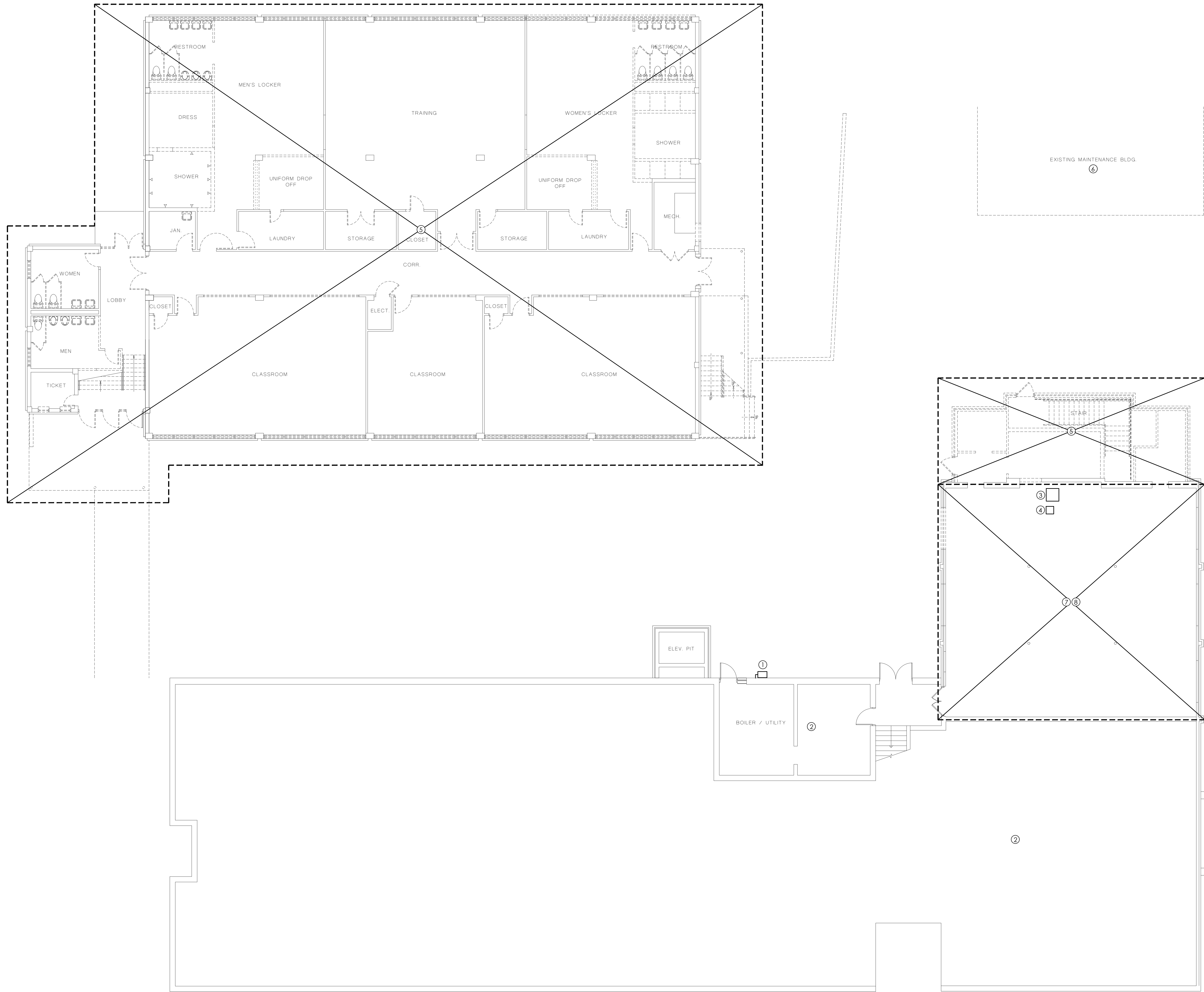
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- Thursday, October 8, 2026 7:50:39 PM



E2.1

OVERALL LOWER LEVEL ELECTRICAL DEMOLITION FLOOR PLAN

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



KEYED NOTES

1. EXISTING MAIN DISCONNECT SWITCH 'EXMP' TO REMAIN. REMOVE EXISTING SECONDARY CONNECTION TO SWITCH 'EXMP'. REFER TO SHEET E1.1 FOR ADDITIONAL DEMOLITION REQUIREMENTS.
2. NO WORK REQUIRED.
3. EXISTING INDOOR HEAT PUMP TO BE RELOCATED AS SHOWN. EXISTING DISCONNECT SERVING UNIT TO BE REMOVED. EXISTING FEEDER CIRCUIT TO REMAIN AND BE EXTENDED AS REQUIRED TO RECONNECT TO EXISTING UNIT.
4. EXISTING DEHUMIDIFIER TO BE RELOCATED AS SHOWN. EXISTING DISCONNECT SERVING UNIT TO BE REMOVED. EXISTING FEEDER CIRCUIT TO REMAIN AND BE EXTENDED AS REQUIRED TO RECONNECT TO EXISTING UNIT.
5. ALL EXISTING ELECTRICAL EQUIPMENT, DEVICES AND COMPONENTS (LIGHTING FIXTURES, RECEPTACLES, DISCONNECTS, PANELS, ALL FIRE ALARM DEVICES, ETC.) TO BE REMOVED FROM AREA INDICATED BY DASHED LINE. REMOVE ALL ASSOCIATED BOXES, WIRING, & CONDUIT AS REQUIRED. ANY CONDUIT ABANDONED MUST HAVE CONDUCTORS REMOVED.
6. EXISTING OUT BUILDING TO BE DEMOLISHED.
7. EXISTING LIGHTS, CONDUITS, CIRCUIT AND CONTROLS TO BE REMOVED.
8. ANY BREAKERS FREED UP DUE TO REMOVAL OF EQUIPMENT SHALL BECOME SPARES AND LABELED AS SO AND PROVIDE A UPDATED TYPED DIRECTORY IN EXISTING PANEL.

GENERAL NOTES FOR DEMOLITION:

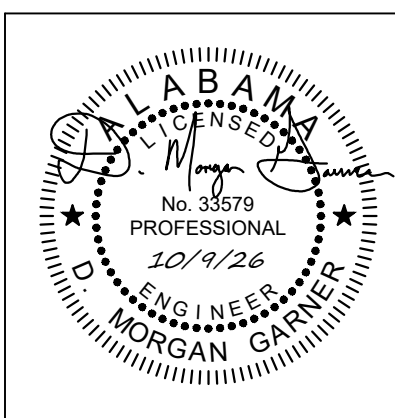
1. ALL ELECTRICAL WORK AND MATERIAL SHALL CONFORM TO THE LATEST EDITION OF THE N.E.C., AND THE REQUIREMENTS OF THE STATE AND LOCAL AUTHORITY HAVING JURISDICTION.
2. WHERE ANY CIRCUITS HAVE BEEN INTERRUPTED DUE TO REMOVAL OF OUTLETS, DEVICES, WALLS, ETC., THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECONNECTING OR REWIRING THE CIRCUIT AS REQUIRED TO INSURE CIRCUIT CONTINUITY TO ALL REMAINING AND NEW DEVICES OR FIXTURES.
3. ALL REMOVED ELECTRICAL EQUIPMENT (I.E. WIRE, CONDUIT, FIXTURES, SWITCHES, ETC.) SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR.
4. AFTER COMPLETION OF RENOVATION WORK CONTRACTOR SHALL PROVIDE AND INSTALL A CORRECT, TYPED DIRECTORY CARD FOR MODIFIED PANELS.
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH ALL EXISTING CONDITIONS PRIOR TO BID DATE, AS HE SHALL BE RESPONSIBLE FOR SAME.
6. ELECTRICAL CONTRACTOR VERIFY STATUS OF ANY ITEMS NOT SHOWN WITH OWNER PRIOR TO REMOVAL OF ITEM.
7. REMOVE EXISTING RECEPTACLES AND LIGHT FIXTURES IN AREA OF RENOVATION.
8. WHERE EXISTING CONDUIT CAN NOT BE REMOVED IT SHALL BE PERMISSIBLE TO ABANDON SAID CONDUIT AND REMOVE CONDUCTORS ONLY.
9. ABANDONED AND REMOVED CONDUIT SHALL HAVE WIRE PULLED FROM THEM.



LATHAN
McKEE
ARCHITECTS

Academy St. Career Innovation Academy
The Troy City & Pike County Board of Education
708 E. Academy St., Troy, AL 36061

SHEET TITLE: OVERALL LOWER LEVEL ELECTRICAL
DEMOLITION FLOOR PLAN

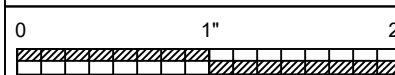


PROJ. MGR.: RH
DRAWN: RH
DATE: 10-9-2026
REVISIONS

JOB NO. 25-249

SHEET NO:

E2.1



GARNER
&
ASSOCIATES ENGINEERING

901 South Perry Street, Montgomery, AL 36104
o | 334.647.1596 e | admin@garner-engineering.com
Project No: 26-020

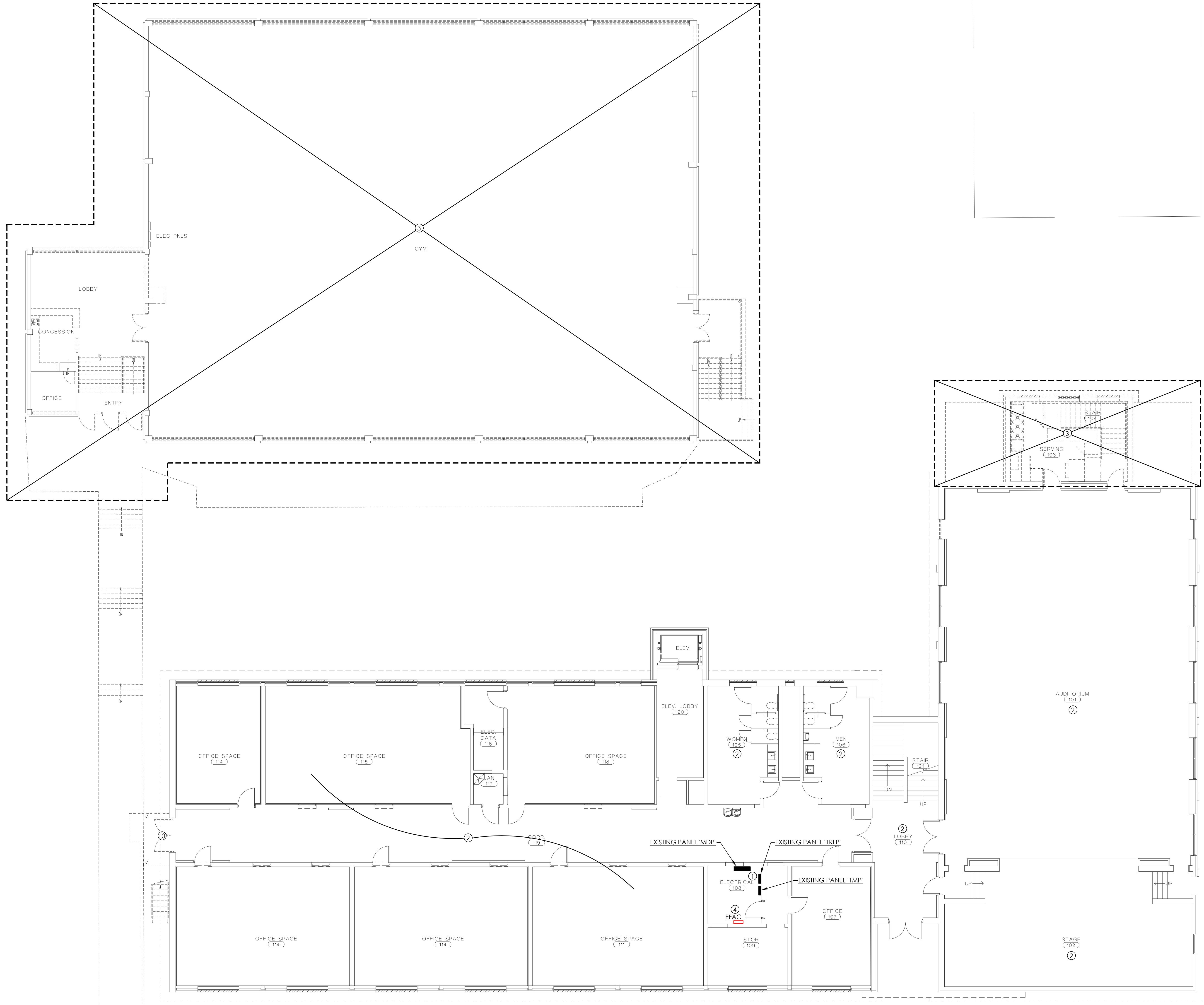
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- Thursday, October 8, 2026 7:50:26 PM



1
E2.2

OVERALL MAIN/GYM LEVEL ELECTRICAL DEMOLITION FLOOR PLAN

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



KEYED NOTES

1. EXISTING MAIN AND BANCH PANELS TO REMAIN AND BE MODIFIED AS SHOWN.
2. NO WORK REQUIRED.
3. ALL EXISTING ELECTRICAL EQUIPMENT, DEVICES AND COMPONENTS (LIGHTING FIXTURES, RECEPTACLES, DISCONNECTS, PANELS, ALL FIRE ALARM DEVICES, ETC.) TO BE REMOVED FROM AREA INDICATED BY DASHED LINE. REMOVE ALL ASSOCIATED BOXES, WIRING, & CONDUIT AS REQUIRED. ANY CONDUIT ABANDONED MUST HAVE CONDUCTORS REMOVED.
4. EXISTING FIRE ALARM CONTROL PANEL (EDWARDS IO SERIES) TO REMAIN AND BE MODIFIED AS SHOWN AND REQUIRED.

GENERAL NOTES FOR DEMOLITION:

1. ALL ELECTRICAL WORK AND MATERIAL SHALL CONFORM TO THE LATEST EDITION OF THE N.E.C. AND THE REQUIREMENTS OF THE STATE AND LOCAL AUTHORITY HAVING JURISDICTION.
2. WHERE ANY CIRCUITS HAVE BEEN INTERRUPTED DUE TO REMOVAL OF OUTLETS, DEVICES, WALLS, ETC., THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECONNECTING OR REWIRING THE CIRCUIT AS REQUIRED TO INSURE CIRCUIT CONTINUITY TO ALL REMAINING AND NEW DEVICES OR FIXTURES.
3. ALL REMOVED ELECTRICAL EQUIPMENT (I.E. WIRE, CONDUIT, FIXTURES, SWITCHES, ETC.) SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR.
4. AFTER COMPLETION OF RENOVATION WORK CONTRACTOR SHALL PROVIDE AND INSTALL A CORRECT, TYPED DIRECTORY CARD FOR MODIFIED PANELS.
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND BECOME THOROUGHLY FAMILIAR WITH ALL EXISTING CONDITIONS PRIOR TO BID DATE, AS HE SHALL BE RESPONSIBLE FOR SAME.
6. ELECTRICAL CONTRACTOR VERIFY STATUS OF ANY ITEMS NOT SHOWN WITH OWNER PRIOR TO REMOVAL OF ITEM.
7. REMOVE EXISTING RECEPTACLES AND LIGHT FIXTURES IN AREA OF RENOVATION.
8. WHERE EXISTING CONDUIT CAN NOT BE REMOVED IT SHALL BE PERMISSIBLE TO ABANDON SAID CONDUIT AND REMOVE CONDUCTORS ONLY.
9. ABANDONED AND REMOVED CONDUIT SHALL HAVE WIRE PULLED FROM THEM.
10. REMOVE AREA OF REFUGE, CAMERA AND WIFI ROUTER FROM EXTERIOR WALL.

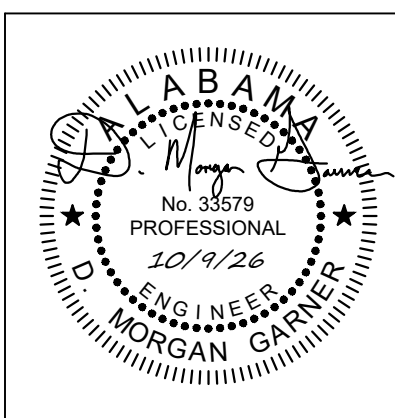


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The Troy City & Pike County Board of Education

708 E. Academy St., Troy, AL 36081

SHEET TITLE: OVERALL MAIN/GYM LEVEL ELECTRICAL
DEMOLITION FLOOR PLAN



PROJ. MGR.: RH
DRAWN: RH
DATE: 10-9-2026
REVISIONS

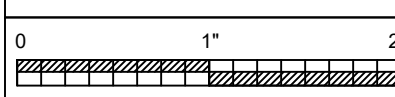
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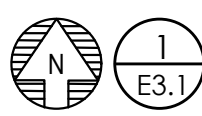
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Project No: 26-020

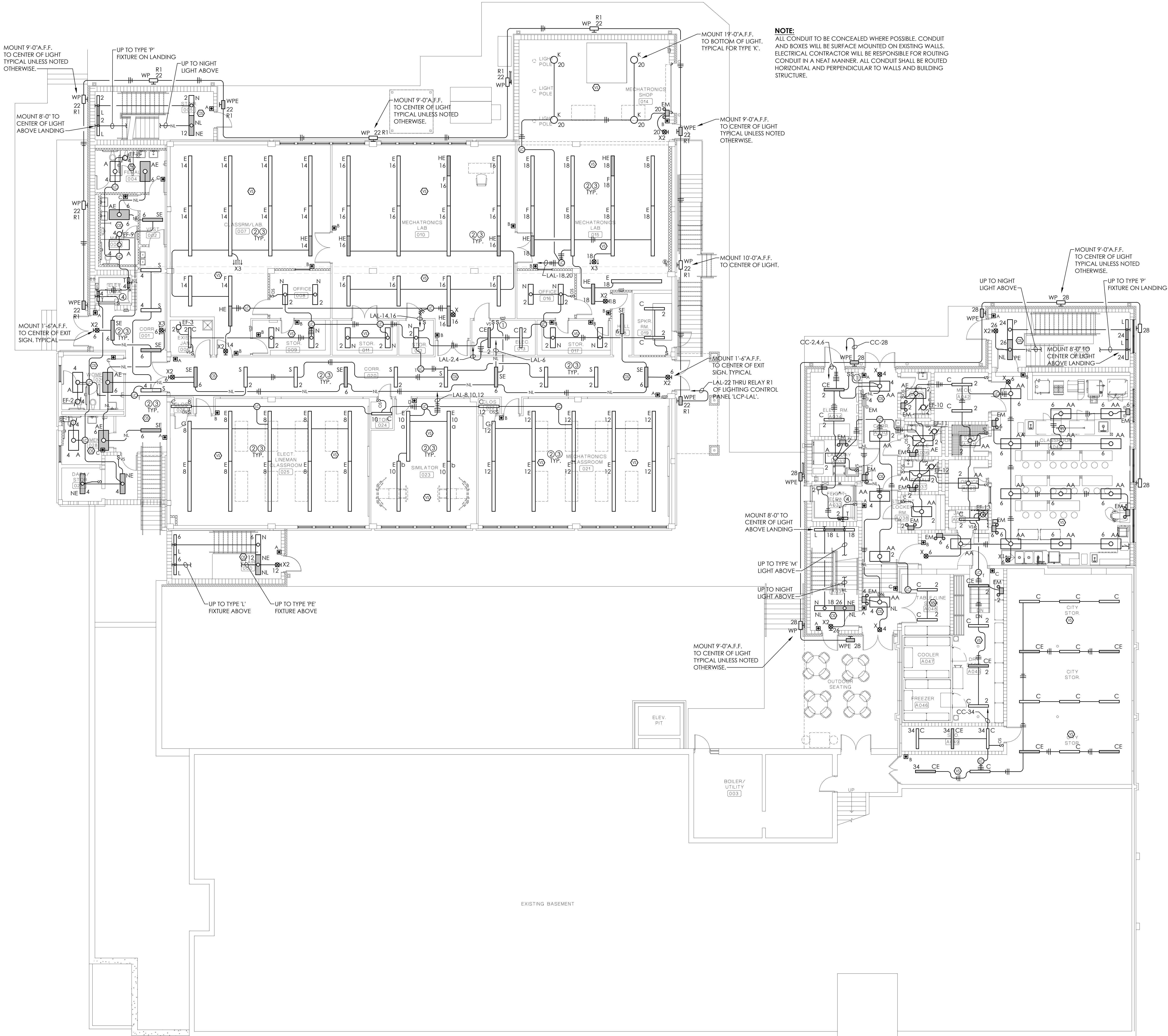


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OVERALL LOWER LEVEL LIGHTING FLOOR PLAN

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



KEYED NOTES

1. NIGHT LIGHT OVERRIDE SWITCH, SWITCH SHALL REMAIN IN THE ON POSITION. PROVIDE LABEL "NIGHT LIGHT SWITCH".
2. ALL AREAS WITH EXPOSED CEILING, ALL CONTROL CABLE SHALL BE ROUTED IN CONDUIT. NO EXPOSED CABLING WILL BE ACCEPTABLE.
3. ALL LIGHTS NOT MOUNTED IN A RECESSED CEILING UNLESS NOTED OTHERWISE SHALL BE EITHER SURFACE MOUNTED OR PENDANT MOUNTED. ALL PENDANT MOUNTED LIGHTS SHALL BE MOUNTED 8'-6" A.F.F. TO BOTTOM OF FIXTURE.
4. MOUNT LIGHTS AND SWITCH IN PIT AREA. SWITCH TO BE LOCATED NEAREST PIT ACCESS AND LIGHTS TO BE MOUNTED TO BEST LIGHT PIT OR AS NOTED.

GENERAL NOTES

1. ALL LOW-VOLTAGE CABLING RUN IN EXPOSED AREAS SHALL BE INSTALLED IN CONDUIT.
2. ALL CONDUITS SURFACE MOUNTED IN EXPOSED AREAS SHALL BE ROUTED HORIZONTAL AND PERPENDICULAR TO BUILDING STRUCTURE AND PAINTED TO MATCH FINISH OF AREA.
3. ALL 120 VOLT CIRCUITS MORE THAN 75' LONG FROM PANEL TO FIRST OUTLET SHALL BE MINIMUM OF #10 AWG COPPER CONDUCTORS.
4. FURNISH AND INSTALL ALL LOW VOLTAGE LIGHTING CONTROL WIRING BETWEEN ROOM CONTROLLER, SENSORS, AND WALL SWITCHES. WHERE DIMMING OF FIXTURES IS REQUIRED, PROVIDE 0-10 VOLT CABLED AS NEED TO EACH FIXTURES. DIMMING CABLES SHALL BE CYAN IN COLOR AND SHALL NOT BE ROUTED IN SAME CONDUIT AS POWER CONDUIT (120V).
5. VERIFY MOUNTING HEIGHT ON ALL EXTERIOR LIGHTS WITH ARCHITECT ELEVATIONS PRIOR TO ROUGH IN.
6. PROVIDE DEDICATED NEUTRALS FOR EACH MULTIWIRE HOMERUN PER NEC.
7. ROOMS WITH ELECTRICAL PANELS SHALL NOT BE AUTOMATICALLY CONTROLLED.
8. LIGHTS IN MECHANICAL ROOMS SHALL BE ADJUSTED AS REQUIRED TO AVOID CONFLICTS WITH DUCT WORK AND BEST LIGHT THE SPACE.
9. REFER TO POWER PLAN FOR PANEL LOCATIONS.
10. REFER TO ARCHITECTURAL SPECIFICATIONS FOR BASE BID AND ALTERNATE BID PACKAGES.

LOW VOLTAGE SWITCH SCHEDULE

MARK	BUTTONS	RELAY/CIRCUIT	LABEL - ENGRAVING	AUTOMATION
A	2	LC - a LC - a	ON OFF	MANUAL ON/OFF/TIMED OFF/MOTION OFF
B	4	LC - a LC - a LC - a LC - a	ON OFF RAISE LOWER	MANUAL ON / AUTO OFF MANUAL OFF RAISE LOWER
C	2	LC - a LC - a	ON OFF	MANUAL ON/OFF/MOTION ON/OFF

NOTES LIGHTING CONTROLS:

1. PROVIDE COMPLETE LIGHTING CONTROLS TO COMPLY WITH ASHRAE 90.1-2013 AS HEREIN NOTED AND AS SHOWN ON DRAWINGS.
2. ALL SENSORS SHALL BE LOCATED BY MANUFACTURER TO ACCOMPLISH EXACT REQUIREMENTS FOR SENSOR.
3. FURNISH AND INSTALL ALL LOW VOLTAGE LIGHTING CONTROL WIRING BETWEEN ROOM CONTROLLER, SENSORS, AND WALL SWITCHES. WHERE DIMMING OF FIXTURES IS REQUIRED, PROVIDE 0-10 VOLT CABLED AS NEED TO EACH FIXTURES. DIMMING CABLES SHALL NOT BE ROUTED IN SAME CONDUIT AS POWER CONDUIT (120V).
4. SHOP DRAWINGS MUST BE SUBMITTED AND SHALL INCLUDE SENSOR LOCATIONS AND WIRING LAYOUTS. MANUFACTURER SHALL INCLUDE AT LEAST THREE (3) ON-SITE MEETINGS WITH CONTRACTOR: 1) PRE-INSTALL - AFTER SHOP DRAWINGS ARE APPROVED AND BEFORE ANY WORK BEGINS, 2) START-UP - AFTER WORK IS COMPLETE AND PRIOR TO FINAL INSPECTION, 3) FINAL CHECK - AFTER FINAL INSPECTION IS COMPLETED, OWNER TRAINING.
5. MANUFACTURER SHALL PROVIDE WRITTEN REPORT AS TO FUNCTIONAL TESTING AFTER SYSTEM IS COMPLETE. REPORT MUST BE SIGNED BY FIELD TECHNICIAN AND MUST STATE THAT CONTROLS ARE INSTALLED, CALIBRATED, ADJUSTED, PROGRAMMED, AND IN PROPER WORKING CONDITION AS WELL AS DOCUMENTING THAT THE LIGHTING PERFORMS CORRECTLY TO THE INTENDED OPERATION. REPORT MUST ALSO INDICATE, BY OWNER'S SIGNATURE, THAT ALL CONTROLS HAVE BEEN COORDINATED WITH OWNER.
6. PROVIDE WIRELESS CONFIGURATION TOOL FOR PROGRAMMING LIGHTING CONTROLS.
7. ANY CONTROL CABLE IN EXPOSED AREAS SHALL BE INSTALLED IN CONDUIT.

LIGHTING CONTROL PANEL LCP-LAL

ROOM: ELECTRICAL 013				
RELAY	VOLT	CIRCUIT	DESCRIPTION	AUTOMATION
RA1	120	LAL-22	EXTERIOR BLDG. LTS.	TIMED ON / TIMED OFF
RA2	120	LAL-24	EXTERIOR BLDG. LTS.	TIMED ON / TIMED OFF
RA3	120	SPARE		
RA4	120	SPARE		



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SHEET TITLE: OVERALL LOWER LEVEL LIGHTING FLOOR PLAN

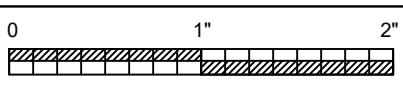


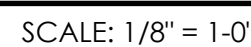
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DRAWN: RH
DATE: 10-9-2026
REVISIONS

JOB NO. 25-249

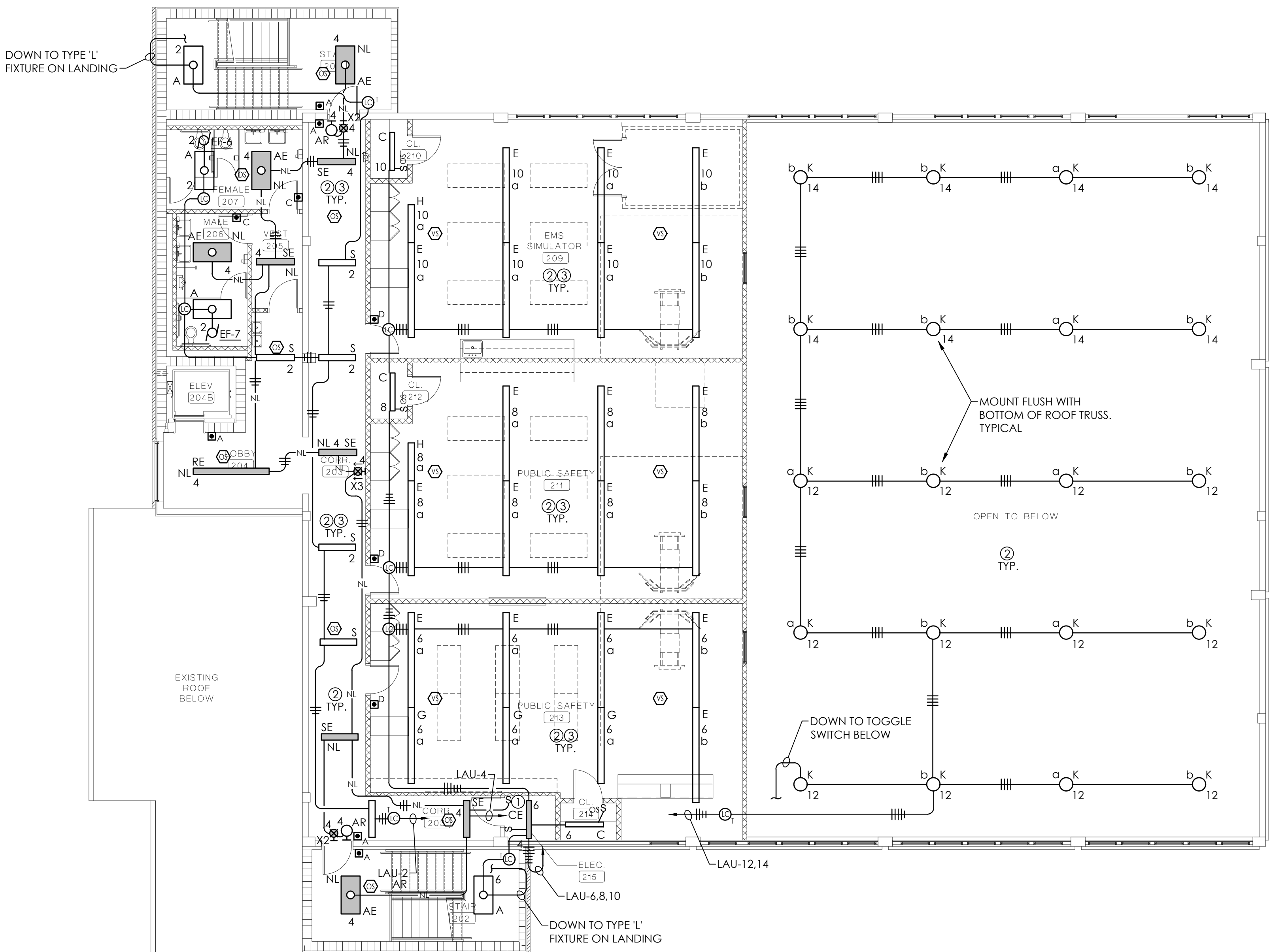
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NOTE:
ALL CONDUIT TO BE CONCEALED WHERE POSSIBLE. CONDUIT AND BOXES WILL BE SURFACE MOUNTED ON EXISTING WALLS. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR ROUTING CONDUIT IN A NEAT MANNER. ALL CONDUIT SHALL BE ROUTED HORIZONTAL AND PERPENDICULAR TO WALLS AND BUILDING STRUCTURE.

KEYED NOTES

1. NIGHT LIGHT OVERRIDE SWITCH. SWITCH SHALL REMAIN IN THE ON POSITION. PROVIDE LABEL "NIGHT LIGHT SWITCH".
2. ALL AREAS WITH EXPOSED CEILING. ALL CONTROL CABLE SHALL BE ROUTED IN CONDUIT. NO EXPOSED CABLEING WILL BE ACCEPTABLE.
3. ALL LIGHTS NOT MOUNTED IN A RECESSED CEILING SHALL BE EITHER SURFACE MOUNTED OR PENDANT MOUNTED. ALL PENDANT MOUNTED LIGHTS SHALL BE MOUNTED 9'-0" A.F.F. TO BOTTOM OF FIXTURE OR AS NOTED.

GENERAL NOTES

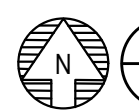
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9. REFER TO POWER PLAN FOR PANEL LOCATIONS.

LOW VOLTAGE SWITCH SCHEDULE

MARK	BUTTONS	RELAY/CIRCUIT	LABEL - ENGRAVING	AUTOMATION
A	2	LC - a LC - a	ON OFF	MANUAL ON/OFF/TIMED OFF/MOTION OFF
B	4	LC - a LC - a LC - a LC - a	ON OFF RAISE LOWER	MANUAL ON / AUTO OFF MANUAL OFF RAISE LOWER
C	2	LC - a LC - a	ON OFF	MANUAL ON/OFF/MOTION ON/OFF
D	6	LC - a LC - a LC - a LC - b LC - b LC - b	ON/OFF RAISE LOWER ON/OFF RAISE LOWER	MANUAL ON/OFF / AUTO OFF RAISE LOWER MANUAL ON/OFF / AUTO OFF RAISE LOWER

NOTES LIGHTING CONTROLS:

1. PROVIDE COMPLETE LIGHTING CONTROLS TO COMPLY WITH ASHRAE 90.1-2013 AS HEREIN NOTED AND AS SHOWN ON DRAWINGS.
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OVERALL UPPER LEVEL LIGHTING FLOOR PLAN

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



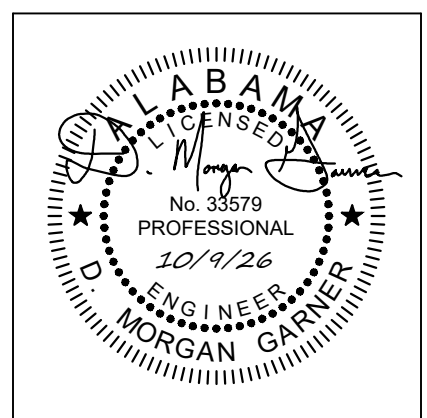
**LATHAN
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ARCHITECTS

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The Troy City & Pike County Board of Education

708 E. Academy St., Troy, AL 36081

SHEET TITLE: OVERALL UPPER LEVEL LIGHTING FLOOR PLAN



PROJ. MGR.:	RH
DRAWN:	RH
DATE:	10-9-2026
REVISIONS	

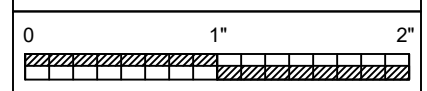
JOB NO. 25-249

SHEET NO:

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Project No: 26-020



KEYED NOTES

1. FEEDER CIRCUIT, DISCONNECT SWITCH AND CONNECTION TO ELEVATOR. VERIFY EXACT LOCATION AND COORDINATE EXACT REQUIREMENTS WITH ELEVATOR MANUFACTURER. DISCONNECT ARRANGEMENT TO MEET NEC 620.51.
2. STARLINE T1 SERIES TRACK BUSWAY, 208/120V, 3PH, 60A, WITH THREE (3) 20A/2P RECEPTACLES MOUNTED ON CORDS AND THREE (3) QUAD RECEPTACLES MOUNTED ON CORDS. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING ALL COMPONENTS FOR A COMPLETE INSTALLATION. BOTTOM OF TRACK SHALL BE MOUNTED 8'-0" A.F.F. TO BOTTOM OF TRACK AND DEVICES SHALL BE HUNG TO WITHIN 3'-0" A.F.F. OR AS DIRECTED BY OWNER.
3. STARLINE T1 SERIES TRACK BUSWAY, 208/120V, 3PH, 60A, WITH TWO (2) 20A/2P RECEPTACLES MOUNTED ON CORDS AND TWO (2) QUAD RECEPTACLES MOUNTED ON CORDS. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING ALL COMPONENTS AND HARDWARE FOR A COMPLETE INSTALLATION. BOTTOM OF TRACK SHALL BE MOUNTED 8'-0" A.F.F. TO BOTTOM OF TRACK AND DEVICES SHALL BE HUNG TO WITHIN 3'-0" A.F.F. OR AS DIRECTED BY OWNER.
4. STARLINE PLUG-IN DISCONNECT UNIT WITH CORD AND DEVICE AS REQUIRED FURNISHED AND MOUNTED ON TRACK BUSWAY.
5. STARLINE END FEED UNIT.
6. PROVIDE WIRING FROM SHUNT TRIP BREAKER IN PANEL 'EQL' TO EMERGENCY STOP PUSH BUTTON. WIRING SHALL BE RUN IN PARALLEL WITH WIRING TO SHUNT TRIP MAIN CIRCUIT BREAKER IN PANEL 'LCL'.

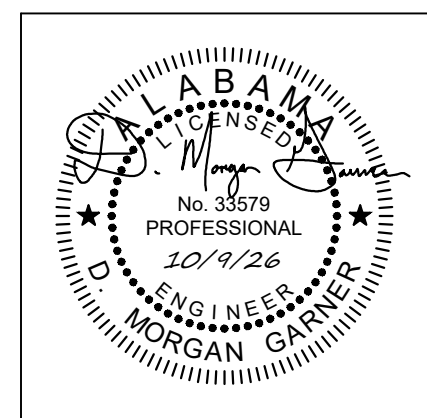
GENERAL NOTES

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2. ALL CONDUITS SURFACE MOUNTED SHALL BE ROUTED HORIZONTAL AND PERPENDICULAR TO BUILDING STRUCTURE AND PAINTED TO MATCH FINISH OF AREA.
3. ALL 120 VOLT CIRCUITS MORE THAN 75' LONG FROM PANEL TO FIRST OUTLET SHALL BE MINIMUM OF #10 AWG COPPER CONDUCTORS.
4. **ALL RECEPTACLE WHERE SHALL BE TAMPER-RESISTANT STYLE DEVICE AS PER N.E.C. ARTICLE 406.12.**
5. FEEDER CIRCUIT AND DISCONNECT SWITCH FOR ELEVATOR. VERIFY EXACT LOCATION AND COORDINATE EXACT REQUIREMENTS WITH ELEVATOR MANUFACTURER. DISCONNECT ARRANGEMENT TO MEET NEC 620.51.
6. **REFER TO ARCHITECTURAL SPECIFICATIONS FOR BASE BID AND ALTERNATE BID PACKAGES.**

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The Troy City & Pike County Board of Education
708 E. Academy St., Troy, AL 36081

SHEET TITLE: OVERALL LOWER LEVEL POWER FLOOR PLAN



PROJ. MGR.:	RH
DRAWN:	RH
DATE:	10-9-2026
REVISIONS	

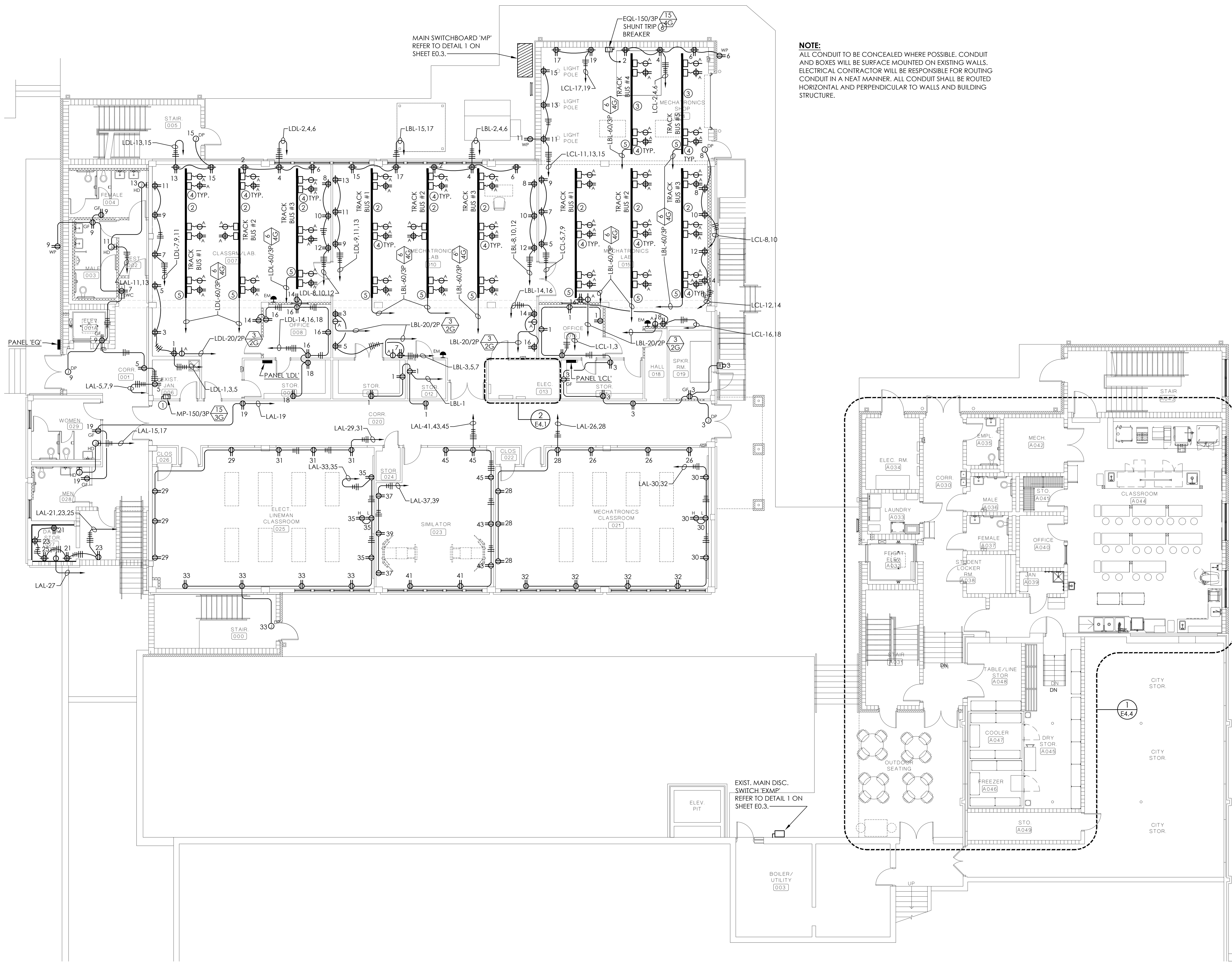
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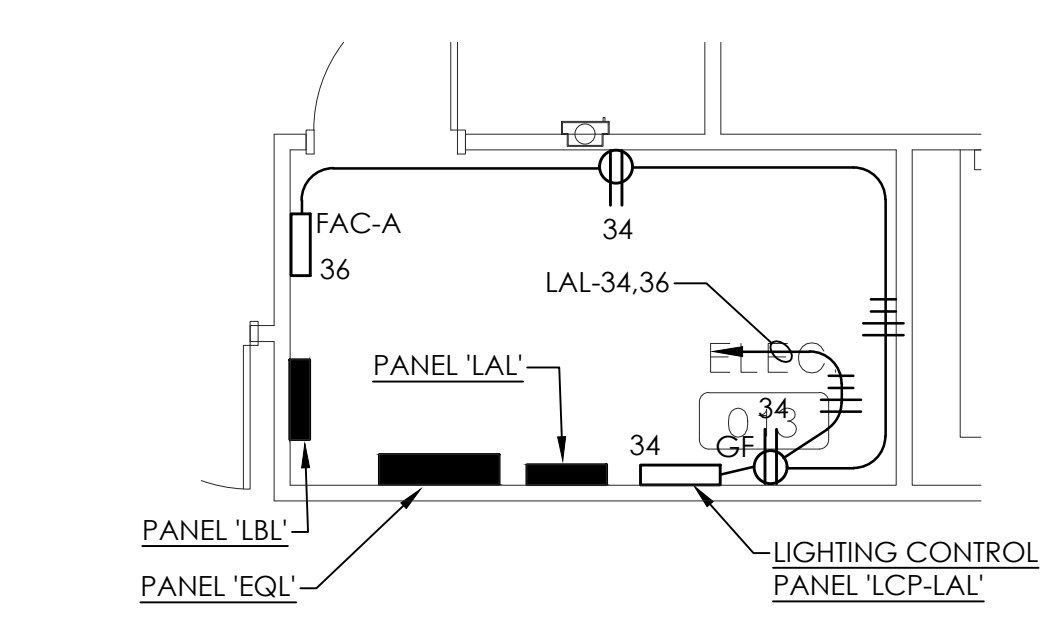
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Project No: 26-020

CODE EXCEPTION:
As we understand, the DCM allows engineers to take exceptions to the current ASHRAE 90.1 - 2013, Section 8.4.2.
Therefore, Mr. Jeremy Knox, Administrative Assistant to Superintendent of Pike County Board of Education, has elected to accept the DCM's exception to receptacle automatic controls (Section 8.4.2) as required in ASHRAE 90.1 - 2013 and not install the required control devices.



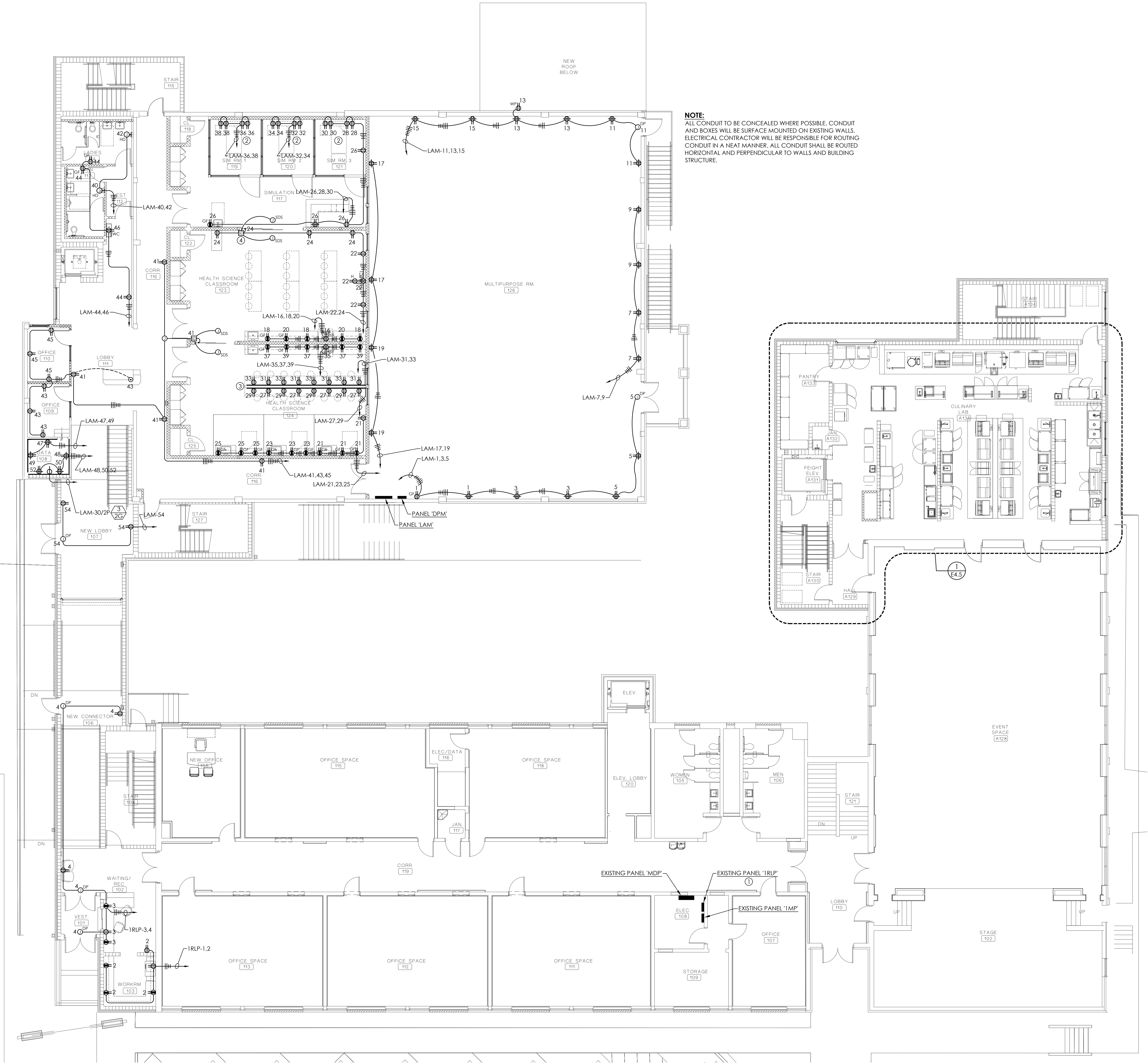
OVERALL LOWER LEVEL POWER FLOOR PLAN
SCALE: 1/8" = 1'-0"

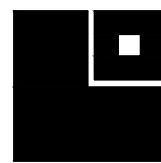


ELEC. 013 POWER PLAN
SCALE: 1/4" = 1'-0"

NOTE:
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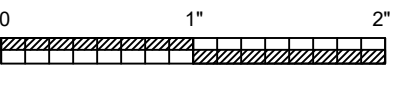
SHEET TITLE: OVERALL UPPER LEVEL POWER FLOOR PLAN



PROJ. MGR.:	RH
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DATE:	10-9-2026
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SHEET NO.	

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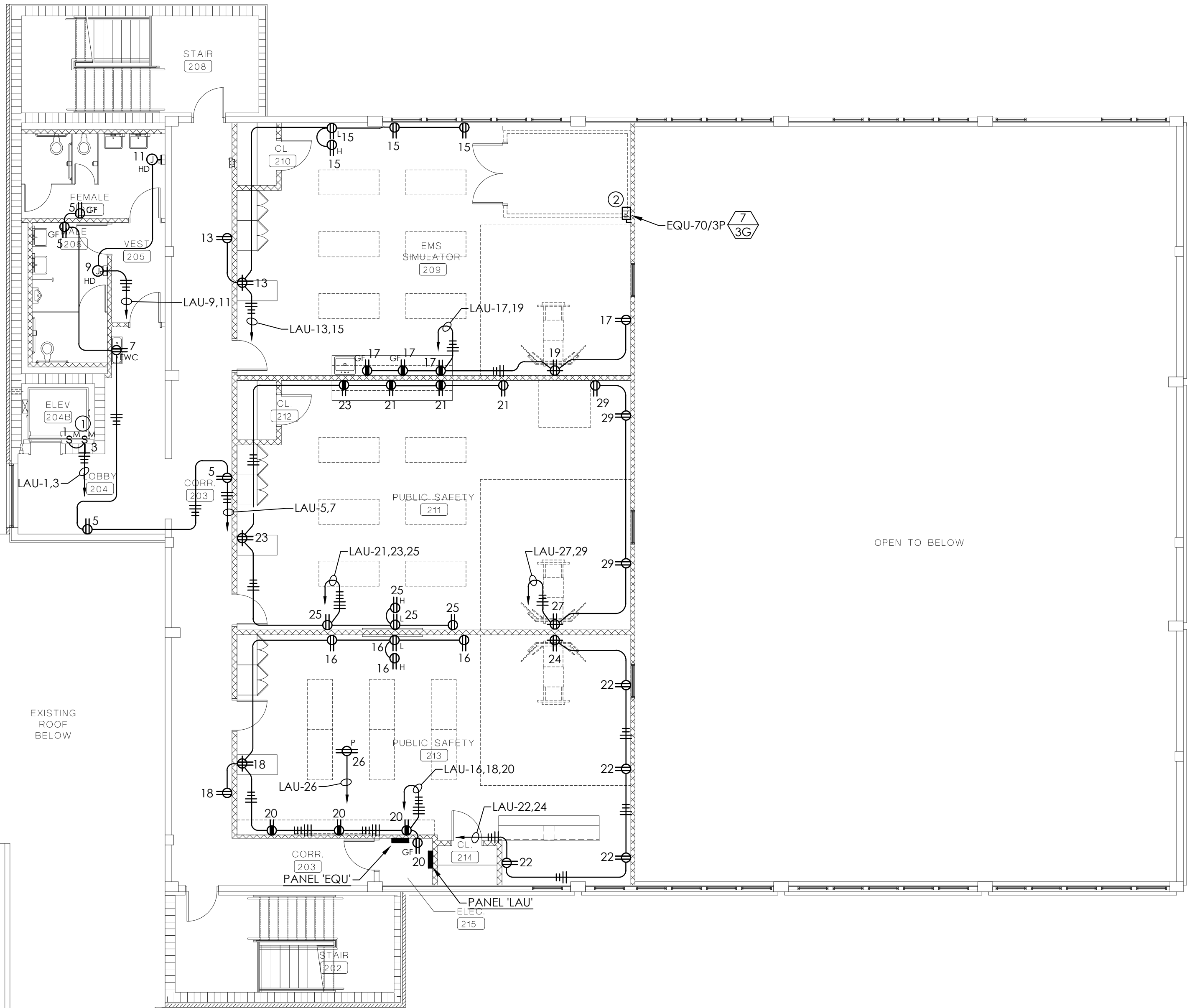
KEYED NOTES

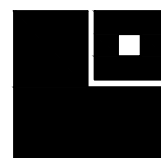
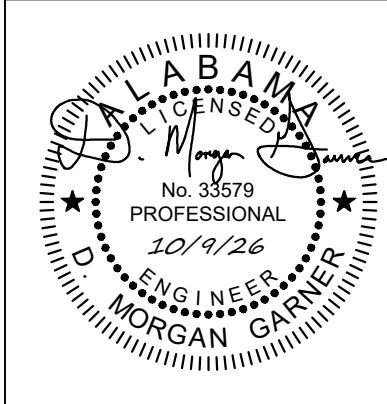
1. FEEDER CIRCUIT, DISCONNECT SWITCH AND CONNECTION TO ELEVATOR CONTROL CIRCUIT AND CAR LIGHT/FAN. VERIFY EXACT LOCATION AND COORDINATE EXACT REQUIREMENTS WITH ELEVATOR MANUFACTURER. DISCONNECT ARRANGEMENT TO MEET NEC 620.51.
2. CONNECTION FOR AMBULANCE SIMULATOR, COORDINATE LOCATION, CONNECTION AND EXACT REQUIREMENTS WITH SUPPLIER BEFORE ROUGH-IN.
3. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING SUPPORT STRUCTURE WITH VERTICAL AND HORIZONTAL MEMBERS FOR MOUNTING PANEL 'EQR' AND RECEPTACLE ON. COORDINATE WITH ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO ROUGH-IN.

GENERAL NOTES

1. ALL LOW-VOLTAGE CABLING SHALL BE INSTALLED IN CONDUIT.
2. ALL CONDUITS SURFACE MOUNTED SHALL BE ROUTED HORIZONTAL AND PERPENDICULAR TO BUILDING STRUCTURE AND PAINTED TO MATCH FINISH OF AREA.
3. ALL 120 VOLT CIRCUITS MORE THAN 7'5" LONG FROM PANEL TO FIRST OUTLET SHALL BE MINIMUM OF #10 AWG COPPER CONDUCTORS.
4. ALL RECEPTACLE WHERE SHALL BE TAMPER-RESISTANT STYLE DEVICE AS PER N.E.C., ARTICLE 406.12.
5. REFER TO ARCHITECTURAL SPECIFICATIONS FOR BASE BID AND ALTERNATE BID PACKAGES.

NOTE:
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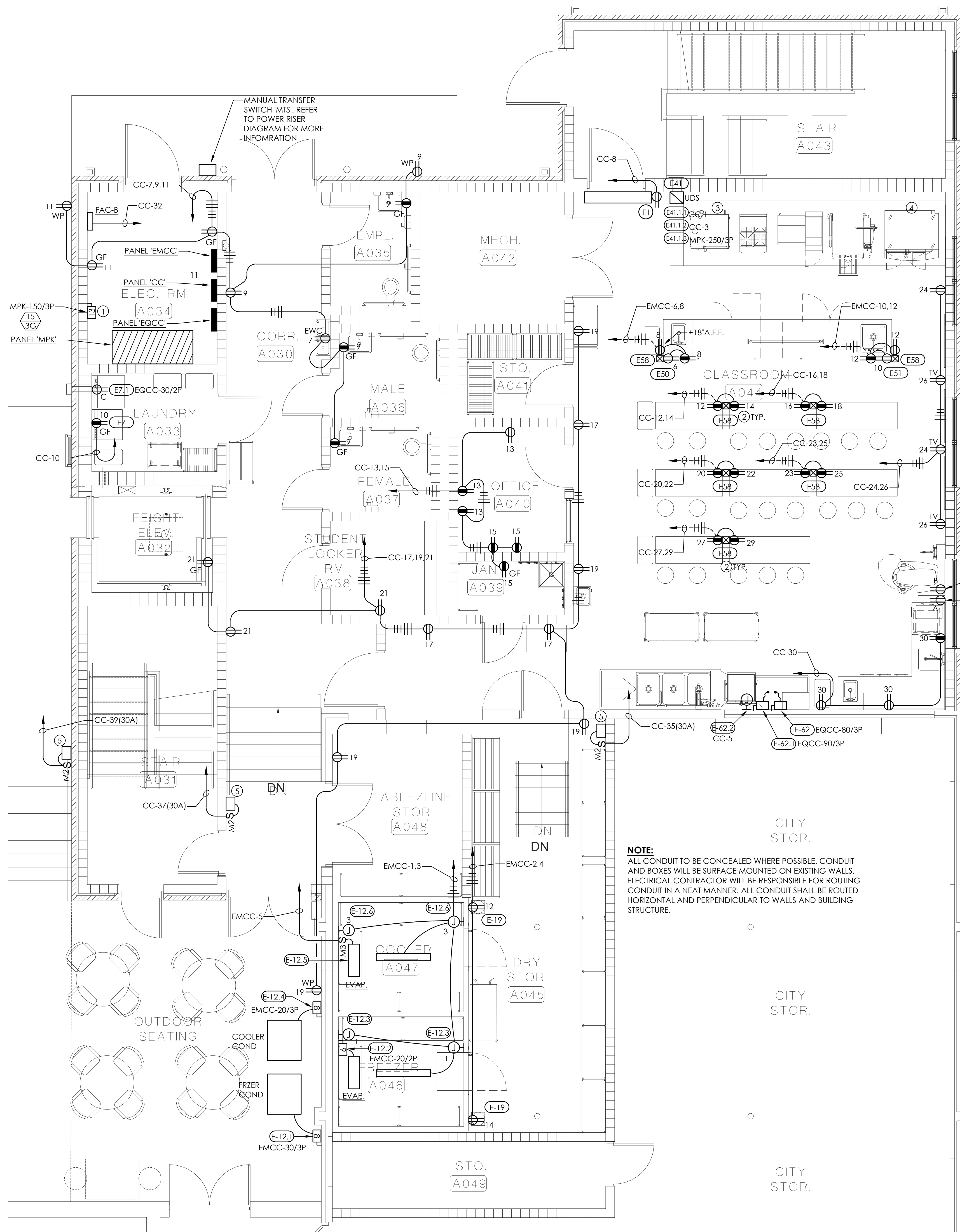
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Project No: 26-020

KITCHEN EQUIPMENT ELECTRICAL SCHEDULE

ITEM NO.	DESCRIPTION	VOLTS	PHASE	CIRCUIT	BREAKER	CONNECTION TYPE	REMARKS
E1	AIR CURTAIN	120	1	2#12 & 1#12(G)-3/4"C.	CC-20/1P(CIR. #8)	NEMA 5-20P	NEMA 5-20R RECEPTACLE FLUSH MOUNTED +86"A.F.F.
E7	WASHER	120	1	2#12 & 1#12(G)-3/4"C.	CC-20/1P(CIR. #10)	NEMA 5-20P	NEMA 5-20R RECEPTACLE FLUSH MOUNTED +48"A.F.F.
E7.1	DRYER	208	1	3#10 & 1#10(G)-3/4"C.	EQCC-30/2P	NEMA 14-30P	NEMA 14-30R RECEPTACLE FLUSH MOUNTED +48"A.F.F.
E12.1	FREEZER COND. UNIT	208	3	3#12 & 1#12(G)-3/4"C.	EMCC-20/3P	DISC. SW. 30A, N.F., NEMA 3R	FLEX CONNECTION TO CONDENSING UNIT
E12.2	FREEZER EVAP. COILS	208	1	2#12 & 1#12(G)-3/4"C.	EMCC-20/2P	DISC. SW. 30A, N.F., NEMA 4X	FLEX CONNECTION TO EVAP. UNIT. SURFACE MOUNT +86"A.F.F.
E12.3	FREEZER ACCESSORIES	120	1	2#12 & 1#12(G)-3/4"C.	EMCC-20/1P(CIR. #1)	JUNCTION BOX	DIRECT CONNECTION TO DOOR, HTR., LIGHTS CONTROLS AND HT. TAPE SURFACE MTD. +86"A.F.F.
E12.4	COOLER COND. UNIT	208	3	3#12 & 1#12(G)-3/4"C.	EMCC-20/3P	DISC. SW. 30A, N.F., NEMA 3R	FLEX CONNECTION TO CONDENSING UNIT
E12.5	COOLER EVAP. COILS	120	1	2#12 & 1#12(G)-3/4"C.	EMCC-20/1P(CIR. #5)	JUNCTION BOX	DIRECT CONNECTION TO EQUIPMENT. SURFACE MOUNTED +86"A.F.F.
E12.6	COOLER ACCESSORIES	120	1	2#12 & 1#12(G)-3/4"C.	EMCC-20/1P(CIR. #3)	JUNCTION BOX	DIRECT CONNECTION TO DOOR, HTR., LIGHTS CONTROLS. SURFACE MOUNTED. +86"A.F.F.
E19	EVAPORATION PANS	120	1	2#12 & 1#12(G)-3/4"C.	EMCC-20/1P(CIRS. #2,4)	NEMA 5-20P	NEMA 5-20R RECEPTACLE SURFACE MOUNTED +18"A.F.F.
E29	HOT WATER DISPENSER	208	1	2#10& 1#10(G)-3/4"C.	EQCC-30/2P	NEMA 6-30P	NEMA 6-30R RECEPTACLE FLUSH MOUNTED +48"A.F.F.
E30	60 QT. MIXER	208	3	3#12& 1#12(G)-3/4"C.	EQCC-20/3P	NEMA L15-20P	NEMA L14-20R RECEPTACLE FLUSH MOUNTED +48"A.F.F.
E41	UDS						
E41.1		120	1	2#12 & 1#12(G)-3/4"C.	CC-20/1P(CIR. #1)	DIRECT CONNECTION	CONDUIT STUBBED DOWN FROM ABOVE.
E41.12		120	1	2#12 & 1#12(G)-3/4"C.	CC-20/1P(CIR. #3)	DIRECT CONNECTION	CONDUIT STUBBED DOWN FROM ABOVE. FOR FUEL/SHUNT CONTROL
E41.13		120/208	3	4#3/0 & 1#6(G)-2" C.	MPK-200/3P SHUNT TRIP	SERVICE BREAKER	CONDUIT STUBBED DOWN FROM ABOVE.
E50	UNDERCTR. REFRIG	120	1	2#12 & 1#12(G)-3/4"C.	EMCC-20/1P (CIR. #6)	NEMA 5-20P	NEMA 5-20R RECEPTACLE FLUSH MOUNTED +18"A.F.F.
E51	UNDERCTR. FREEZER	120	1	2#12 & 1#12(G)-3/4"C.	EMCC-20/1P (CIR. #10)	NEMA 5-20P	NEMA 5-20R RECEPTACLE FLUSH MOUNTED +18"A.F.F.
E58	UTILITY POLES	120	1	2#12 & 1#12(G)-3/4"C.	CC-20/1P(CIRS. AS SHOWN)	NEMA 5-20P	CORD AND PLUG PROVIDED BY FSC AND INSTALLED BY ELECTRICAL CONTRACTOR.
E62	DISH MACHINE	208	3	3#4 & 1#8(G)-1 1/4" C.	EQCC-80/3P	DISC. SW. 100A, N.F., NEMA 4X	CONNECT TO DISH MACHINE VIA J-BOX (TANK HEAT. MOTOR, CONTROLS). MOUNT +18" A.F.F.
E62.1		208	3	3#3 & 1#8(G)-1 1/4" C.	EQCC-90/3P	DISC. SW. 100A, N.F., NEMA 4X	CONNECT TO DISH MACHINE VIA J-BOX (30KW BOOSTER HEATER). MOUNT +18" A.F.F.
E62.2		120	1	2#12 & 1#12(G)-3/4"C.	CC-20/1P(CIR. #5)	JUNCTION BOX	DETERGENT PUMP. MOUNT +18" A.F.F. NOTE: VERIFY EXACT LOCATION OF DISCONNECT SWITCHES AND MAINTAIN PROPER CLEARANCE.

GENERAL KITCHEN ELECTRICAL NOTES:

- REFER TO FOOD SERVICE KITCHEN ELECTRICAL ROUGH-IN DRAWING FOR ADDITIONAL REQUIREMENTS AND FOR RECEPTACLE MOUNTING LOCATIONS. REFER TO SHEET FS-401.
- REFER TO FOOD SERVICE KITCHEN ELECTRICAL ROUGH-IN DRAWING FOR MOUNTING HEIGHTS OF RECEPTACLES, DISCONNECT SWITCHES, JUNCTION BOXES, ... ETC.
- PROVIDE RECEPTACLES TO MATCH EQUIPMENT. ALL 120V KITCHEN RECEPTACLES ARE TO BE GROUND FAULT TYPE PER N.E.C. 210.8.B OR CONNECTED TO A GROUND FAULT TYPE CIRCUIT BREAKER.
- REFER TO MANUFACTURER'S UDS DRAWING FOR ADDITIONAL ELECTRICAL REQUIREMENTS REQUIRED FOR FIELD ASSEMBLY OF UDS AND ALL ELECTRICAL CONNECTIONS UNDER HOOD TO BE PROVIDE BY ELECTRICAL CONTRACTOR.
- ALL RECEPTACLE CIRCUITS TO HAVE A GROUND CONDUCTOR, SIZED AS PER N.E.C.
- HOOD EXTINGUISHING SYSTEM SHALL, UPON ACTIVATION, SHUNT TRIP POWER TO ALL ELECTRICAL EQUIPMENT UNDER HOOD AND SUPPLY FANS. ALSO ACTIVATION OF THIS SYSTEM SHALL CLOSE ELECTRICALLY OPERATED GAS VALVE FEEDING EQUIPMENT UNDER HOOD. PROVIDE ALL WIRING AND CONNECTIONS AS REQUIRED TO ACCOMPLISH OPERATION DESCRIBED HEREIN.
- ALL CONDUITS IN KITCHEN AREAS SHALL BE CONCEALED UNLESS APPROVED OTHERWISE BY ARCHITECT.
- REFER TO FOOD SERVICE DRAWINGS (FSC) FOR ADDITIONAL WIRING REQUIREMENTS.
- MINIMUM CONDUIT SIZE FOR RECEPTACLE IS 3/4".
- REFER TO FOOD SERVICE PLAN FOR EXACT MOUNTING LOCATIONS OF ALL RECEPTACLES IN KITCHEN AREA.
- PROVIDE 3-WIRE ELECTRICAL CIRCUIT FROM HOOD CONTROL PACKAGE TERMINALS "GAS, ST & KTS" TO UDS LIKE TERMINALS "GAS, ST & KTS" FOR UDS SHUT DOWN IN A FIRE CONDITION.
- ELECTRICAL CONTRACTOR SHALL MAKE ALL CONTROL CONNECTIONS FROM HOOD CONTROL PANEL TO ALL FANS AND ACCESSORY ITEMS. COORDINATE WITH HOOD SUPPLIER.
- PROVIDE RECEPTACLES TO MATCH EQUIPMENT. ALL 120V KITCHEN RECEPTACLES ARE TO BE GROUND FAULT TYPE PER N.E.C. 210.8.B OR CONNECTED TO A GROUND FAULT TYPE CIRCUIT BREAKER.
- ELECTRICAL CONTRACTOR TO MAKE ALL CONNECTIONS FROM UDS SYSTEM TO ALL EQUIPMENT AS REQUIRED. COORDINATE ALL WORK WITH FSC.
- VERIFY EXACT LOCATION AND MOUNTING HEIGHT FOR TANK FIRE SUPPRESSION BUTTON WITH HOOD SUPPLIER PRIOR TO ROUGH-IN. PROVIDE CONDUIT AS REQUIRED.
- VERIFY EXACT LOCATION OF GAS VALVE PRIOR TO ROUGH-IN AND ADJUST ACCORDINGLY.
- HOOD EXTINGUISHING SYSTEM SHALL, UPON ACTIVATION, SHUNT TRIP POWER TO ALL ELECTRICAL EQUIPMENT UNDER HOOD AND MUA-1. ALSO ACTIVATION OF THIS SYSTEM SHALL CLOSE ELECTRICALLY OPERATED GAS VALVE FEEDING EQUIPMENT UNDER HOOD. PROVIDE ALL WIRING AND CONNECTIONS AS REQUIRED TO ACCOMPLISH OPERATION DESCRIBED HEREIN.
- ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR ALL HARDWARE CONNECTIONS FROM UDS TO EQUIPMENT.**
- REFER TO ARCHITECTURAL SPECIFICATIONS FOR BASE BID AND ALTERNATE BID PACKAGES.



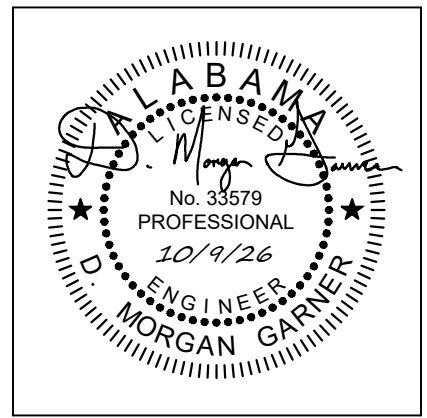
NOTE:
ALL CONDUIT TO BE CONCEALED WHERE POSSIBLE. CONDUIT AND BOXES WILL BE SURFACE MOUNTED ON EXISTING WALLS. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR ROUTING CONDUIT IN A NEAT MANNER. ALL CONDUIT SHALL BE ROUTED HORIZONTAL AND PERPENDICULAR TO WALLS AND BUILDING STRUCTURE.

CULINARY CLASSROOM POWER PLAN

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

KEYED NOTES

- FEEDER CIRCUIT, DISCONNECT SWITCH AND CONNECTION TO ELEVATOR. VERIFY EXACT LOCATION AND COORDINATE EXACT REQUIREMENTS WITH ELEVATOR MANUFACTURER. DISCONNECT ARRANGEMENT TO MEET NEC 620.51.
- STAINLESS STEEL CHASE AND RECEPTACLES BY FSC. CHASE INSTALLED BY OTHERS. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING RECEPTACLES. ROUTING OF CONDUITS BELOW SLAB AND CONNECTION. VERIFY EXACT LOCATIONS AND REQUIREMENTS PRIOR TO ROUGH-IN. REFER TO SHEET FS-401. ELECTRICAL CHASE DETAIL ITEM 58.
- PROVIDE 3#1 & 1#6(G) SEAL TIGHT FLEX CONNECTION FROM UDS TO EQUIPEMNT #45. COORDINATE WITH FSC PRIOR TO ROUGH-IN.
- PROVIDE 3#4 & 1#8(G) SEAL TIGHT FLEX CONNECTION FROM UDS TO EQUIPEMNT #46. COORDINATE WITH FSC PRIOR TO ROUGH-IN.
- PROVIDE 120V POWER CONNECTION TO CHAIR LIFT AS REQUIRED. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH ARCHITECT AND LIFT PROVIDER.



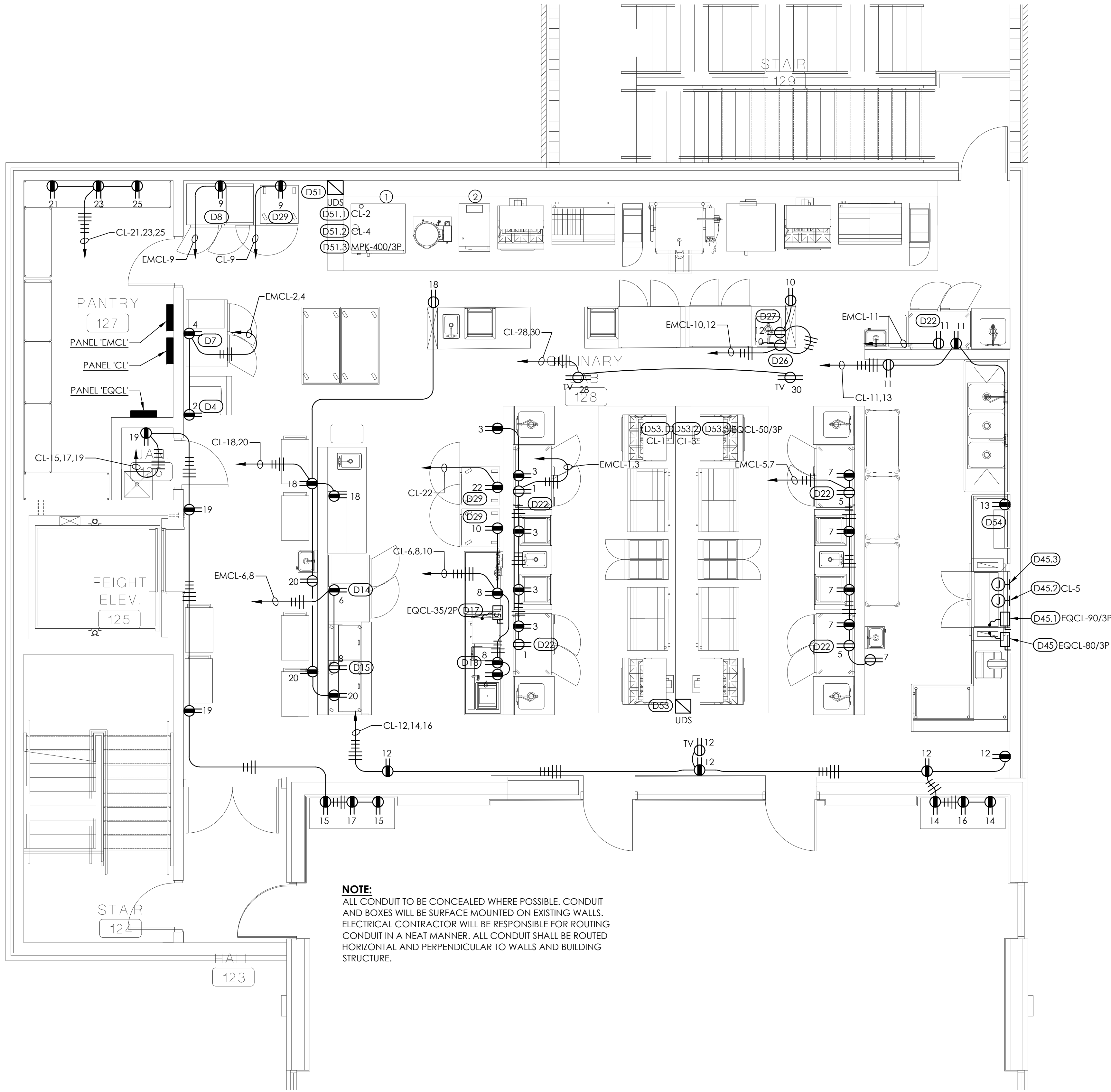
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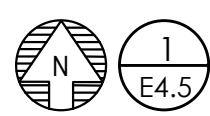
KITCHEN EQUIPMENT ELECTRICAL SCHEDULE							
ITEM NO.	DESCRIPTION	VOLTS	PHASE	CIRCUIT	BREAKER	CONNECTION TYPE	REMARKS
D4	ICE MACHINE	120	1	2#12 & 1#12(G)-3/4".	EMCL-20/1P (CIR. #2)	NEMA 5-20P	RECEPTACLE FLUSH MOUNTED +66"A.F.F.
D7	REACH-IN FREEZER	120	1	2#12 & 1#12(G)-3/4".	EMCL-20/1P (CIR. #4)	NEMA 5-20P	RECEPTACLE FLUSH MOUNTED +49"A.F.F.
D8	REACH-IN REFRIG.	120	1	2#12 & 1#12(G)-3/4".	EMCL-20/1P (CIR. #9)	NEMA 5-20P	RECEPTACLE FLUSH MOUNTED +49"A.F.F.
D14	REACH-IN REFRIG.	120	1	2#12 & 1#12(G)-3/4".	EMCL-20/1P (CIR. #6)	NEMA 5-20P	RECEPTACLE FLUSH MOUNTED +49"A.F.F.
D15	PREP REFRIG.	120	1	2#12 & 1#12(G)-3/4".	EMCL-20/1P (CIR. #8)	NEMA 5-20P	RECEPTACLE FLUSH MOUNTED +18"A.F.F.
D17	COFFEE BREWER	120/208	1	3#10 & 1#10(G)-3/4".	EQCL-35/2P	DISC. SW. 60A, N.F., NEMA 4X	BRANCH TO CONNECT TO COFFEE BREWER MOUNTED +49"
D18	TEA BREWER	120	1	2#12 & 1#12(G)-3/4".	CL-20/1P(CIR. #6)	NEMA 5-20P	RECEPTACLE FLUSH MOUNTED +49"A.F.F.
D22	REFRIG./FREEZER X5	120	1	2#12 & 1#12(G)-3/4".	EMCL-20/1P (CIRS. #1,5,11)	NEMA 5-20P	RECEPTACLE FLUSH MOUNTED +18"A.F.F.
D26	UNDERCTR. REFRIG.	120	1	2#12 & 1#12(G)-3/4".	EMCL-20/1P (CIR. #10)	NEMA 5-20P	RECEPTACLE FLUSH MOUNTED +18"A.F.F.
D27	UNDERCTR. FREEZER	120	1	2#12 & 1#12(G)-3/4".	EMCL-20/1P (CIR. #12)	NEMA 5-20P	RECEPTACLE FLUSH MOUNTED +18"A.F.F.
D29	HOLDING CABINET X3	120	1	2#12 & 1#12(G)-3/4".	CL-20/1P (CIRS. #9,10,22)	NEMA 5-20P	RECEPTACLE FLUSH MOUNTED +49"A.F.F.
D45	DISH MACHINE	208	3	3#4 & 1#8(G)-1 1/4" C.	EQCL-80/3P	DISC. SW. 100A, N.F., NEMA 4X	CONNECT TO DISH MACHINE VIA J-BOX (TANK HEAT, MOTOR, CONTROLS). MOUNT +66" A.F.F.
D45.1		208	3	3#3 & 1#8(G)-1 1/4" C.	EQCL-90/3P	DISC. SW. 100A, N.F., NEMA 4X	CONNECT TO DISH MACHINE VIA J-BOX (30KW BOOSTER HEATER). MOUNT +66" A.F.F.
D45.2		120	1	2#12 & 1#12(G)-3/4".	CL-20/1P(CIR. #5)	JUNCTION BOX	DETERGENT PUMP. MOUNT +66" A.F.F.
D45.3						JUNCTION BOX	EMPTY BOX FOR EXH. FAN CONTROL WIRING WITH CONDUIT SIZE AS REQUIRED. MOUNT +66" A.F.F. NOTE: VERIFY EXACT LOCATION OF DISCONNECT SWITCHES AND MAINTAIN PROPER CLEARANCE.
D51	UDS	120	1	2#12 & 1#12(G)-3/4".	CL-20/1P(CIR. #2)	DIRECT CONNECTION	CONDUIT STUBBED DOWN FROM ABOVE. FOR FUEL/SHUNT CONTROL
D51.1		120	1	2#12 & 1#12(G)-3/4".	CL-20/1P(CIR. #4)	DIRECT CONNECTION	CONDUIT STUBBED DOWN FROM ABOVE.
D51.2		120/208	3	4#500MCM & 1#3(G)-3 1/2" C.	MPK-400/3P SHUNT TRIP	SERVICE BREAKER	CONDUIT STUBBED DOWN FROM ABOVE.
D51.3							
D53	UDS	120	1	2#12 & 1#12(G)-3/4".	CL-20/1P(CIR. #1)	DIRECT CONNECTION	CONDUIT STUBBED DOWN FROM ABOVE. FOR FUEL/SHUNT CONTROL
D53.1		120	1	2#12 & 1#12(G)-3/4".	CL-20/1P(CIR. #3)	DIRECT CONNECTION	CONDUIT STUBBED DOWN FROM ABOVE.
D53.2		120/208	3	4#8 & 1#10(G)-3 1/2" C.	EQCL-50/3P SHUNT TRIP	SERVICE BREAKER	CONDUIT STUBBED DOWN FROM ABOVE.
D53.3							
D54	AMBIENT AIR DRYER	120	1	2#12 & 1#12(G)-3/4".	CL-20/1P(CIR. #13)	NEMA 5-20P	RECEPTACLE FLUSH MOUNTED +66"A.F.F.

GENERAL KITCHEN ELECTRICAL NOTES:

- REFER TO FOOD SERVICE KITCHEN ELECTRICAL ROUGH-IN DRAWING FOR ADDITIONAL REQUIREMENTS AND FOR RECEPTACLE MOUNTING LOCATIONS. REFER TO SHEET FS-400.
- REFER TO FOOD SERVICE KITCHEN ELECTRICAL ROUGH-IN DRAWING FOR MOUNTING HEIGHTS OF RECEPTACLES, DISCONNECT SWITCHES, JUNCTION BOXES, ... ETC.
- PROVIDE RECEPTACLES TO MATCH EQUIPMENT. ALL 120V KITCHEN RECEPTACLES ARE TO BE GROUND FAULT TYPE PER N.E.C. 210.8.8 OR CONNECTED TO A GROUND FAULT TYPE CIRCUIT BREAKER.
- REFER TO MANUFACTURER'S UDS DRAWING FOR ADDITIONAL ELECTRICAL REQUIREMENTS REQUIRED FOR FIELD ASSEMBLY OF UDS AND ALL ELECTRICAL CONNECTIONS UNDER HOOD TO BE PROVIDED BY ELECTRICAL CONTRACTOR.
- ALL RECEPTACLE CIRCUITS TO HAVE A GROUND CONDUCTOR, SIZED AS PER N.E.C.
- HOOD EXTINGUISHING SYSTEM SHALL, UPON ACTIVATION, SHUNT TRIP POWER TO ALL ELECTRICAL EQUIPMENT UNDER HOOD AND SUPPLY FANS. ALSO ACTIVATION OF THIS SYSTEM SHALL CLOSE ELECTRICALLY OPERATED GAS VALVE FEEDING EQUIPMENT UNDER HOOD. PROVIDE ALL WIRING AND CONNECTIONS AS REQUIRED TO ACCOMPLISH OPERATION DESCRIBED HEREIN.
- ALL CONDUITS IN KITCHEN AREAS SHALL BE CONCEALED UNLESS APPROVED OTHERWISE BY ARCHITECT.
- REFER TO FOOD SERVICE DRAWINGS (FSC) FOR ADDITIONAL WIRING REQUIREMENTS.
- MINIMUM CONDUIT SIZE FOR RECEPTACLE IS 3/4".
- REFER TO FOOD SERVICE PLAN FOR EXACT MOUNTING LOCATIONS OF ALL RECEPTACLES IN KITCHEN AREA.
- PROVIDE 3-WIRE ELECTRICAL CIRCUIT FROM HOOD CONTROL PACKAGE TERMINALS "GAS, ST & KTS" TO UDS LIKE TERMINALS "GAS, ST & KTS" FOR UDS SHUT DOWN IN A FIRE CONDITION.
- ELECTRICAL CONTRACTOR SHALL MAKE ALL CONTROL CONNECTIONS FROM HOOD CONTROL PANEL TO ALL FANS AND ACCESSORY ITEMS. COORDINATE WITH HOOD SUPPLIER.
- PROVIDE RECEPTACLES TO MATCH EQUIPMENT. ALL 120V KITCHEN RECEPTACLES ARE TO BE GROUND FAULT TYPE PER N.E.C. 210.8.8 OR CONNECTED TO A GROUND FAULT TYPE CIRCUIT BREAKER.
- ELECTRICAL CONTRACTOR TO MAKE ALL CONNECTIONS FROM UDS SYSTEM TO ALL EQUIPMENT AS REQUIRED. COORDINATE ALL WORK WITH FSC.
- VERIFY EXACT LOCATION AND MOUNTING HEIGHT FOR TANK FIRE SUPPRESSION BUTTON WITH HOOD SUPPLIER PRIOR TO ROUGH-IN. PROVIDE CONDUIT AS REQUIRED.
- VERIFY EXACT LOCATION OF GAS VALVE PRIOR TO ROUGH-IN AND ADJUST ACCORDINGLY.
- HOOD EXTINGUISHING SYSTEM SHALL, UPON ACTIVATION, SHUNT TRIP POWER TO ALL ELECTRICAL EQUIPMENT UNDER HOOD AND MUA-1. ALSO ACTIVATION OF THIS SYSTEM SHALL CLOSE ELECTRICALLY OPERATED GAS VALVE FEEDING EQUIPMENT UNDER HOOD. PROVIDE ALL WIRING AND CONNECTIONS AS REQUIRED TO ACCOMPLISH OPERATION DESCRIBED HEREIN.
- ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR ALL HARDWIRE CONNECTIONS FROM UDS TO EQUIPMENT.**
- REFER TO ARCHITECTURAL SPECIFICATIONS FOR BASE BID AND ALTERNATE BID PACKAGES.



NOTE:
ALL CONDUIT TO BE CONCEALED WHERE POSSIBLE. CONDUIT AND BOXES WILL BE SURFACE MOUNTED ON EXISTING WALLS. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR ROUTING CONDUIT IN A NEAT MANNER. ALL CONDUIT SHALL BE ROUTED HORIZONTAL AND PERPENDICULAR TO WALLS AND BUILDING STRUCTURE.

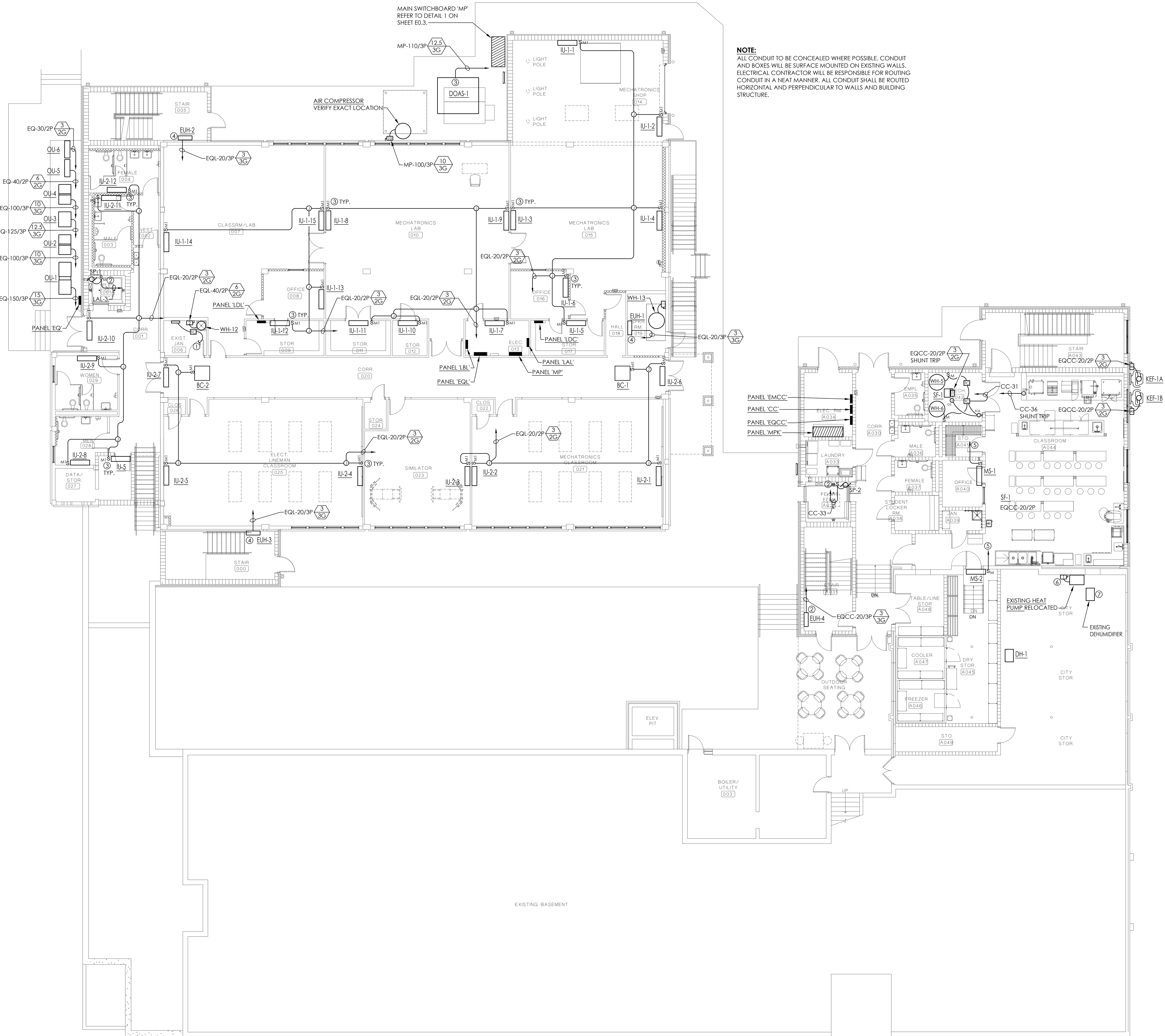


CULINARY DEMO EVENT POWER PLAN

KEYED NOTES

- PROVIDE 3#1 & 1#6(G) SEAL TIGHT FLEX CONNECTION FROM UDS TO EQUIPEMNT #D30. COORDINATE WITH FSC PRIOR TO ROUGH-IN.
- PROVIDE 2#12 & 1#12(G) SEAL TIGHT FLEX CONNECTION FROM UDS TO EQUIPEMNT #D32. COORDINATE WITH FSC PRIOR TO ROUGH-IN.

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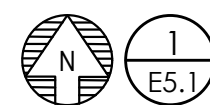


KEYED NOTES

1. CONNECT TO 120V CIRCUIT SERVING RECEPTACLE IN SAME ROOM.
2. MOUNT DISCONNECT MEANS IN A LOCATION TO AVOID ANY WATER IN PIT. COORDINATE WITH PLUMBING CONTRACTOR.
3. PROVIDE CONNECTION TO UNIT AS REQUIRED. COORDINATE WITH MECHANICAL CONTRACTOR.
4. CONNECT TO INTEGRAL DISCONNECT MEANS FURNISHED WITH HEATER.
5. PROVIDE WIRING TO OUTDOOR UNIT AS REQUIRED. OUTDOOR UNIT MOUNTED ON ROOF. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
6. PROVIDE NEW DISCONNECT SWITCH AND RECONNECT TO EXISTING 30A/2P CIRCUIT FROM EXISTING PANEL 'MP'. EXTEND EXISTING CONDUCTORS AS REQUIRED.
7. EXISTING DEHUMIDIFIER RELOCATED. EXTEND EXISTING 120V CIRCUIT FROM EXISTING PANEL 'MP' AND CONNECT AS REQUIRED.

GENERAL NOTES

1. ALL CONDUITS IN EXPOSED AREAS SHALL BE ROUTED HORIZONTAL AND PERPENDICULAR TO BUILDING STRUCTURE AND PAINTED TO MATCH FINISH OF AREA.
2. ALL 120 VOLT CIRCUITS MORE THAN 75' LONG FROM PANEL TO FIRST OUTLET SHALL BE MINIMUM OF #10 AWG COPPER CONDUCTORS.
3. ALL RECEPTACLE SHALL BE TAMPER-RESISTANT STYLE DEVICE AS PER N.E.C. ARTICLE 406.12.
4. REFER TO ARCHITECTURAL SPECIFICATIONS FOR BASE BID AND ALTERNATE BID PACKAGES.

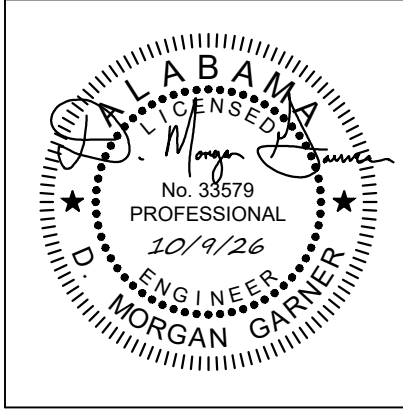


OVERALL LOWER LEVEL POWER FLOOR PLAN

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

GARNER
ASSOCIATES ENGINEERING
901 South Perry Street, Montgomery, AL 36104
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Project No: 26-020

SHEET TITLE: OVERALL LOWER LEVEL MECHANICAL POWER FLOOR PLAN

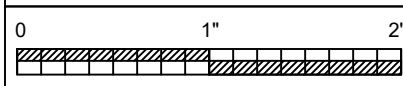


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JOB NO. 25-249

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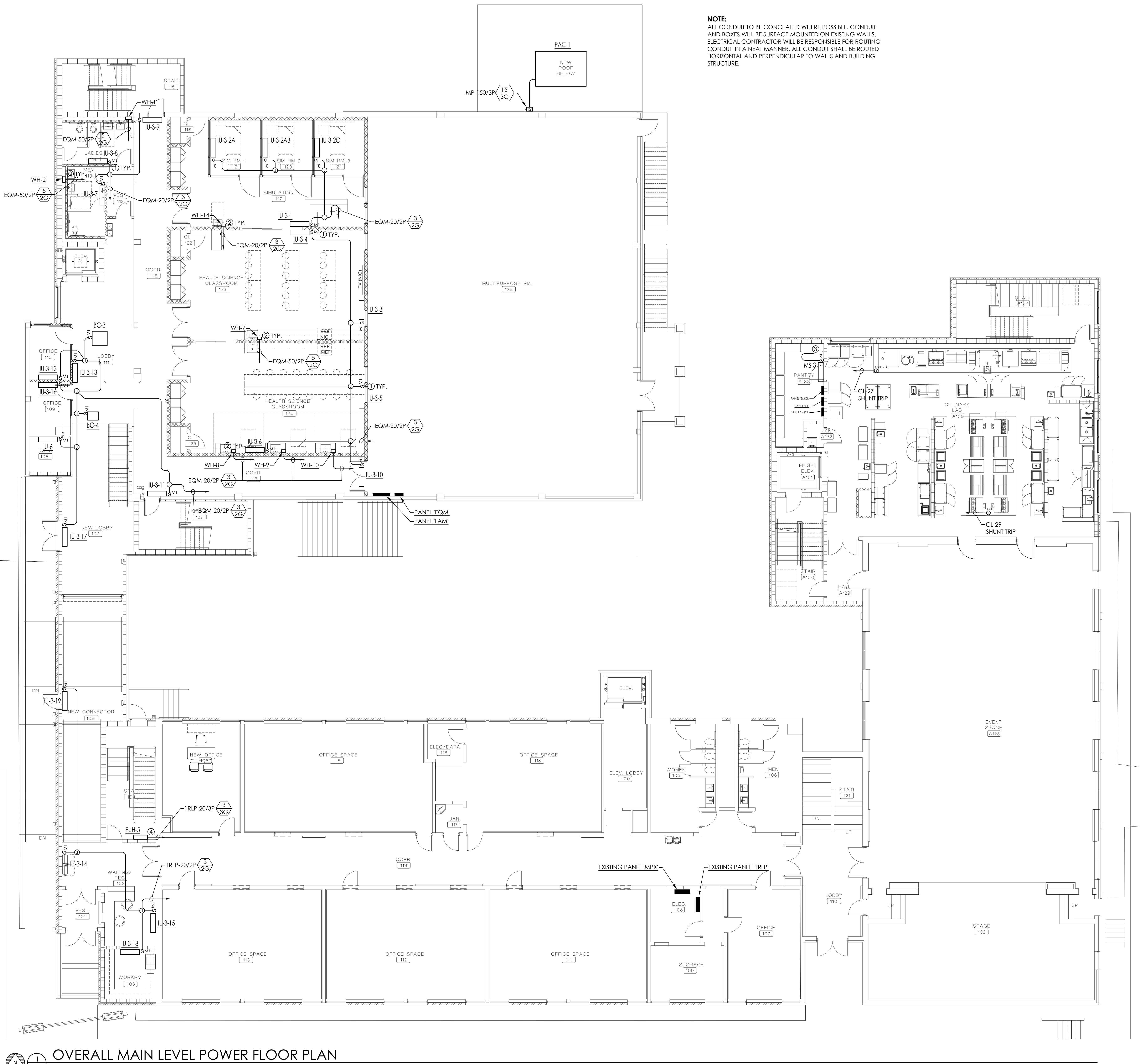
E5.1



LATHAN
McKEE
ARCHITECTS

Academy St. Career Innovation Academy
The Troy City & Pike County Board of Education
708 E. Academy St., Troy, AL 36081

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E5.3

OVERALL UPPER LEVEL POWER FLOOR PLAN

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

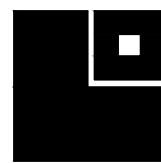
NOTE:
ALL CONDUIT TO BE CONCEALED WHERE POSSIBLE. CONDUIT AND BOXES WILL BE SURFACE MOUNTED ON EXISTING WALLS. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR ROUTING CONDUIT IN A NEAT MANNER. ALL CONDUIT SHALL BE ROUTED HORIZONTAL AND PERPENDICULAR TO WALLS AND BUILDING STRUCTURE.

KEYED NOTES

1. PROVIDE CONNECTION TO UNIT AS REQUIRED. COORDINATE WITH MECHANICAL CONTRACTOR.
2. CONNECT TO INTEGRAL DISCONNECT MEANS FURNISHED WITH WATER HEATER.
3. CONNECT TO INTEGRAL DISCONNECT MEANS FURNISHED WITH UNIT.
4. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING SUPPORT STRUCTURE WITH VERTICAL AND HORIZONTAL MEMBERS FOR MOUNTING PANEL 'EQR' AND RECEPTACLE ON. COORDINATE WITH ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO ROUGH-IN.
5. PROVIDE A 150A/3P (3#1/0 & 1#6(G)-2" C.) TO PANEL 'EQR'. CONNECT TO MANUFACTURER'S INTEGRAL DISCONNECT MEANS AS REQUIRED. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
6. PROVIDE A 100A/3P (3#3 & 1#8(G)-1 1/4" C.) TO PANEL 'EQR'. CONNECT TO MANUFACTURER'S INTEGRAL DISCONNECT MEANS AS REQUIRED. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
7. PROVIDE A 70A/3P (SHUNT TRIP BREAKER), (3#4 & 1#8(G)-1 1/4" C.) TO PANEL 'EQR'. CONNECT TO MANUFACTURER'S INTEGRAL DISCONNECT MEANS AS REQUIRED. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
8. PROVIDE A 20A/3P (3#12 & 1#12(G)-3/4" C.) TO PANEL 'EQR'. CONNECT TO EQUIPMENT AS REQUIRED. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
9. PROVIDE A 20A/2P (2#12 & 1#12(G)-3/4" C.) TO PANEL 'EQR'. CONNECT TO EQUIPMENT AS REQUIRED. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
10. ALL CONDUIT ROUTING SHALL BE DONE IN A NEAT MANNER WITH CONDUIT RUNS BEING PERPENDICULAR AND HORIZONTAL TO BUILDING STRUCTURE AND MECHANICAL EQUIPMENT.
11. PROVIDE A 20A/2P (2#12 & 1#12(G)-3/4" C.) TO PANEL 'EQR'. CONNECT TO EQUIPMENT AS REQUIRED. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
12. BREAKER SERVING UNIT SHALL BE A LOCKABLE BREAKER.

GENERAL NOTES

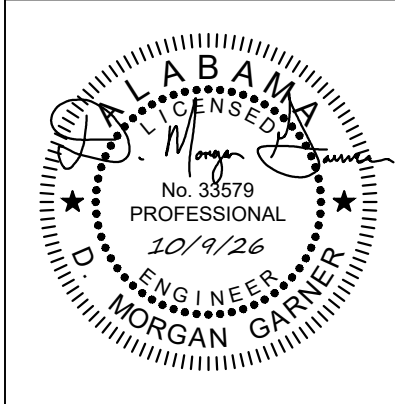
1. ALL CONDUITS IN EXPOSED AREAS SHALL BE ROUTED HORIZONTAL AND PERPENDICULAR TO BUILDING STRUCTURE AND PAINTED TO MATCH FINISH OF AREA.
2. ALL 120 VOLT CIRCUITS MORE THAN 75' LONG FROM PANEL TO FIRST OUTLET SHALL BE MINIMUM OF #10 AWG COPPER CONDUCTORS.
3. ALL RECEPTACLE SHALL BE TAMPER-RESISTANT STYLE DEVICE AS PER N.E.C. ARTICLE 406.12.
4. REFER TO ARCHITECTURAL SPECIFICATIONS FOR BASE BID AND ALTERNATE BID PACKAGES.



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SHEET TITLE: OVERALL UPPER LEVEL MECHANICAL POWER
FLOOR PLAN



PROJ. MGR.:	RH
DRAWN:	RH
DATE:	10-9-2026
REVISIONS	

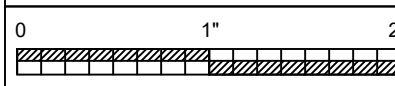
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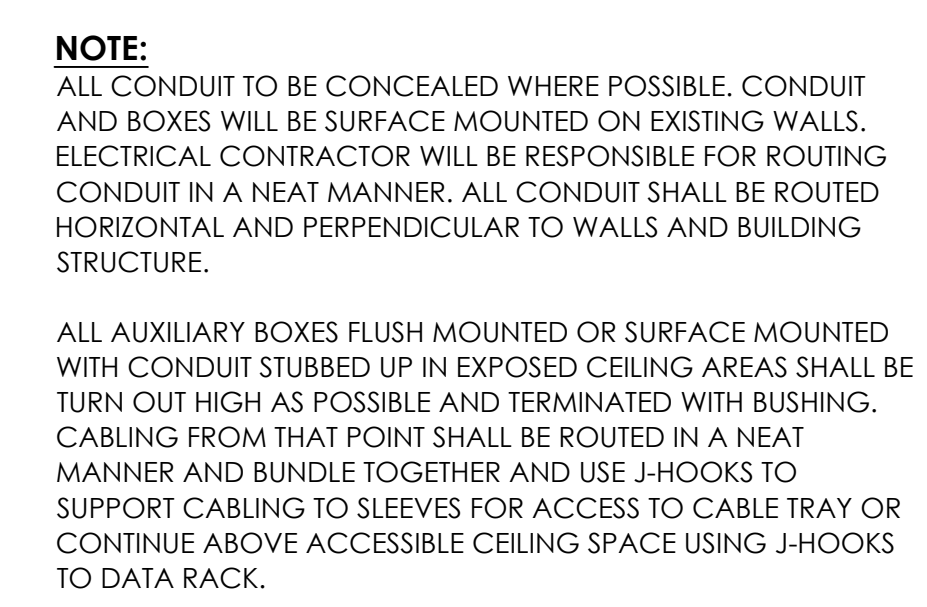
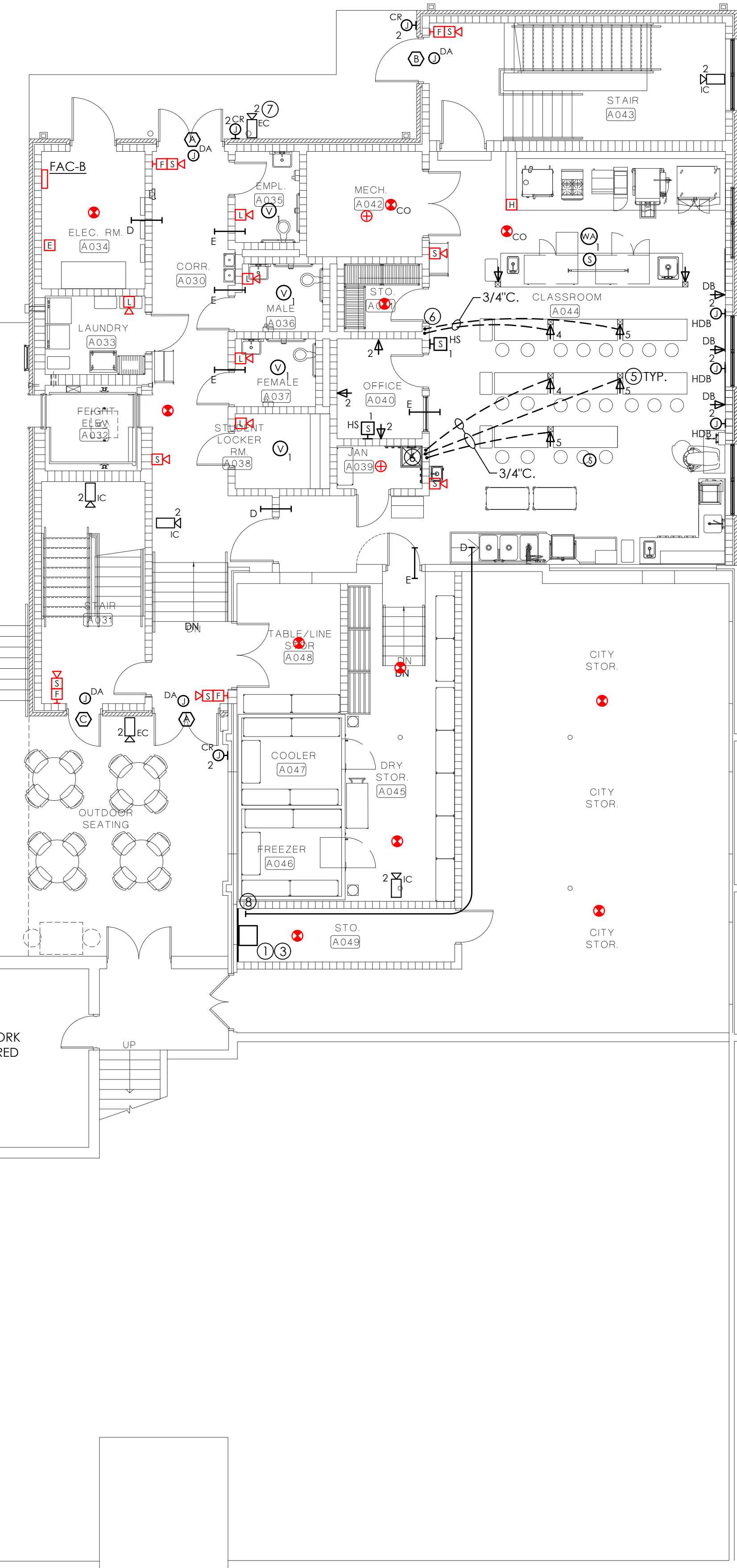
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Project No: 25-020





1. AUXILIARY SYSTEM BACKBOARD, PROVIDE 3/4" PLYWOOD PAINTED WITH 2 COATS OF FLAME RETARDANT PAINT ON BOTH SIDES AND EDGES FULL WIDTH AND HEIGHT OF WALL AS SHOWN.
2. PROVIDE FLOOR MOUNTED DATA RACK AS REQUIRED.
3. PROVIDE ENCLOSED/VENTILATED WALL MOUNTED DATA RACK. ENCLOSURE EQUAL TO CHATSWORTH PRODUCT #11840-724, 36"H x 24"W x 30"D 24U BLACK, PROVIDE ALL COMPONENTS IN CABINET AS REQUIRED FOR MOUNTING TWO (2) 48 PORT PATCH PANELS. PROVIDE PROPER CLEARANCE IN FRONT AND SIDES SO CABINET CAN OPEN COMPLETELY.
4. PROVIDE 12"W x 6"D CABLE TRAY. SECURE TO SIDE OF WALL, HIGH AS POSSIBLE AND PROVIDE ANGLE SUPPORT UNDERNEATH CABLE TRAY AS REQUIRED. FURNISH ALL COMPONENTS AS REQUIRED FOR A COMPLETE CABLE TRAY.
5. STAINLESS STEEL CHASE BY FSC, CHASE INSTALLED BY OTHERS. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING DATA OUTLETS, ROUTING OF CONDUITS BELOW SLAB AND CONNECTION. VERIFY EXACT LOCATIONS AND REQUIREMENTS PRIOR TO COILING-IN.
6. STUB CONDUIT UP CONCEALED IN WALL AND TURN OUT ABOVE ACCESSIBLE CEILING SPACE. TERMINATE WITH BUSHING.
7. VERIFY MOUNTING HEIGHT WITH SUPPLIER PRIOR TO ROUGH-IN.
8. TERMINATE AND SECURE CONDUIT TO TOP OF BACKBOARD.

1. ALL LOW-VOLTAGE CABLING RUN IN GYM AND MULTI-PURPOSE AREA SHALL BE INSTALLED IN CONDUIT.
2. ALL CONDUITS SURFACE MOUNTED IN GYM AND MULTI-PURPOSE AREA SHALL BE ROUTED HORIZONTAL AND PERPENDICULAR TO BUILDING STRUCTURE AND PAINTED TO MATCH FINISH OF AREA.
3. **REFER TO ARCHITECTURAL SPECIFICATIONS FOR BASE BID AND ALTERNATE BID PACKAGES.**

SHEET TITLE: OVERALL LOWER LEVEL AUXILIARY FLOOR PLAN

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REVISIONS	

JOB NO. 25-249

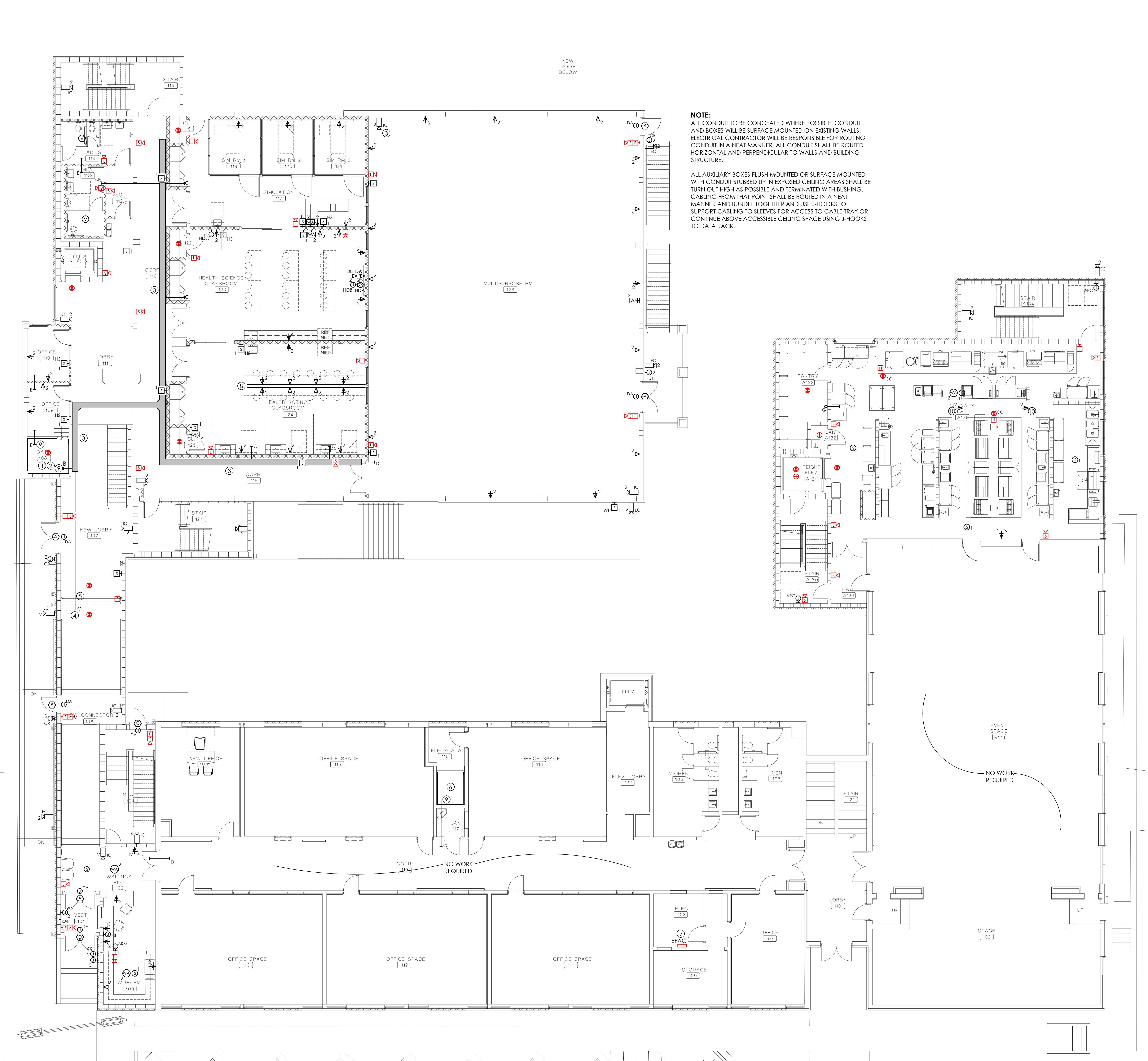
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0 1" 2"



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NOTE:
ALL CONDUIT TO BE CONCEALED WHERE POSSIBLE. CONDUIT AND BOXES WILL BE SURFACE MOUNTED ON EXISTING WALLS. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR ROUTING CONDUIT IN A NEAT MANNER. ALL CONDUIT SHALL BE ROUTED HORIZONTAL AND PERPENDICULAR TO WALLS AND BUILDING STRUCTURE.

ALL AUXILIARY BOXES FLUSH MOUNTED OR SURFACE MOUNTED WITH CONDUIT STUBBED UP IN EXPOSED CEILING AREAS SHALL BE TURN OUT HIGH AS POSSIBLE AND TERMINATED WITH BUSHING. CABLING FROM THAT POINT SHALL BE ROUTED IN A NEAT MANNER AND BUNDLE TOGETHER AND USE J-HOOKS TO SUPPORT CABLING TO SLEEVES FOR ACCESS TO CABLE TRAY OR CONTINUE ABOVE ACCESSIBLE CEILING SPACE USING J-HOOKS TO DATA RACK.

KEYED NOTES

1. AUXILIARY SYSTEM BACKBOARD, PROVIDE 3/4" PLYWOOD PAINTED WITH 2 COATS OF FLAME RETARDANT PAINT ON BOTH SIDES AND EDGES FULL WIDTH AND HEIGHT OF WALL AS SHOWN.
2. PROVIDE FLOOR MOUNTED DATA RACK AS REQUIRED.
3. PROVIDE 12"W x 6"D CABLE TRAY, SECURE TO SIDE OF WALL, HIGH AS POSSIBLE AND PROVIDE ANGLE SUPPORT UNDERNEATH CABLE TRAY AS REQUIRED. FURNISH ALL COMPONENTS AS REQUIRED FOR A COMPLETE CABLE TRAY.
4. TERMINATE CONDUIT ABOVE ACCESSIBLE CEILING SPACE WITH BUSHING.
5. PROVIDE PROPER FIRE RATED ASSEMBLY ON CONDUIT PENETRATION ON 3 HOUR FIRE RATED WALL.
6. EXISTING MAIN DATA RACK, COORDINATE WITH OWNER.
7. EXISTING FIRE ALARM CONTROL PANEL (EDWARDS I/O SERIES). PROVIDE ADDITIONAL WIRING AND COMPONENTS AS REQUIRED TO ADD ADDITIONAL DEVICES
8. SAME SURFACE MOUNTED CHANNEL AS SHOWN ON POWER PLAN. REFER TO LEGEND FOR ADDITIONAL INFORMATION.
9. TERMINATE AND SECURE CONDUIT TO TOP OF BACKBOARD.
10. PROVIDE DATA CONNECTION TO TV HUNG FROM CEILING, COORDINATE EXACT LOCATION AND REQUIREMENTS. LEAVE 10' OF SLACK IN CABLE ABOVE CEILING.

GENERAL NOTES

1. ALL LOW-VOLTAGE CABLING RUN IN GYM AND MULTI-PURPOSE AREA SHALL BE INSTALLED IN CONDUIT.
2. ALL CONDUITS SURFACE MOUNTED IN GYM AND MULTI-PURPOSE AREA SHALL BE ROUTED HORIZONTAL AND PERPENDICULAR TO BUILDING STRUCTURE AND PAINTED TO MATCH FINISH OF AREA.
3. REFER TO ARCHITECTURAL SPECIFICATIONS FOR BASE BID AND ALTERNATE BID PACKAGES.



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SHEET TITLE: OVERALL MAIN LEVEL AUXILIARY FLOOR PLAN

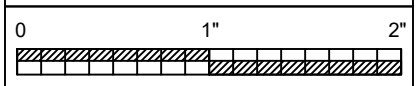
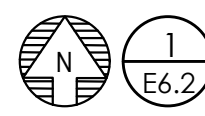


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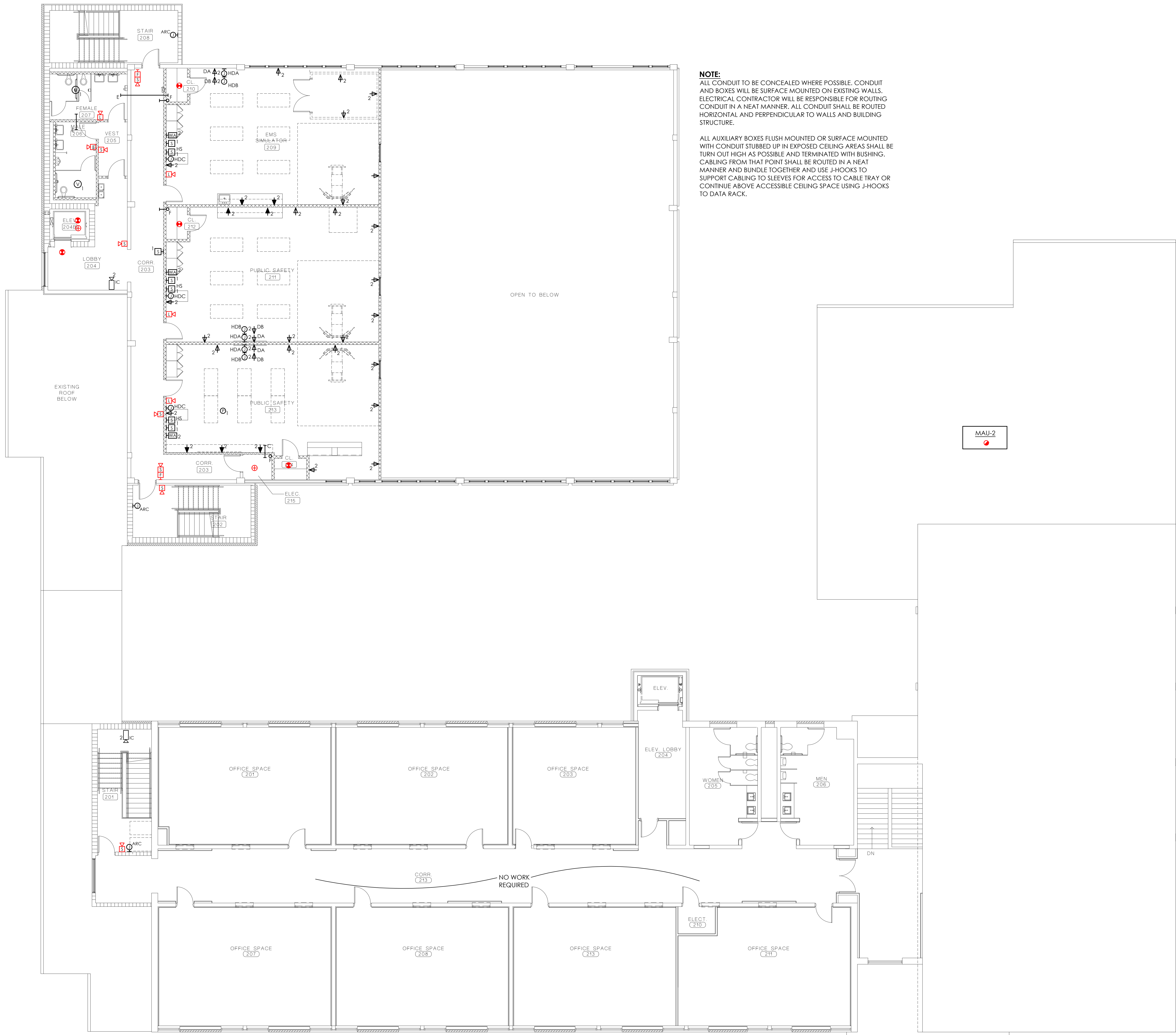
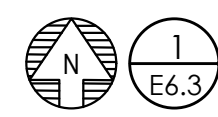


OVERALL MAIN LEVEL AUXILIARY FLOOR PLAN

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

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OVERALL UPPER LEVEL AUXILIARY FLOOR PLAN

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

KEYED NOTES

1. EXISTING FIRE ALARM CONTROL PANEL (EDWARDS IO SERIES).
2. EXISTING DATA RACK AND BACKBOARD WITH FIBER CONNECTION.

GENERAL NOTES

1. ALL LOW-VOLTAGE CABLING RUN IN GYM AND MULTI-PURPOSE AREA SHALL BE INSTALLED IN CONDUIT.
2. ALL CONDUITS SURFACE MOUNTED IN GYM AND MULTI-PURPOSE AREA SHALL BE ROUTED HORIZONTAL AND PERPENDICULAR TO BUILDING STRUCTURE AND PAINTED TO MATCH FINISH OF AREA.
3. REFER TO ARCHITECTURAL SPECIFICATIONS FOR BASE BID AND ALTERNATE BID PACKAGES.



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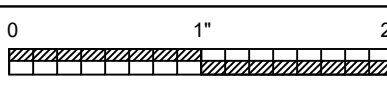
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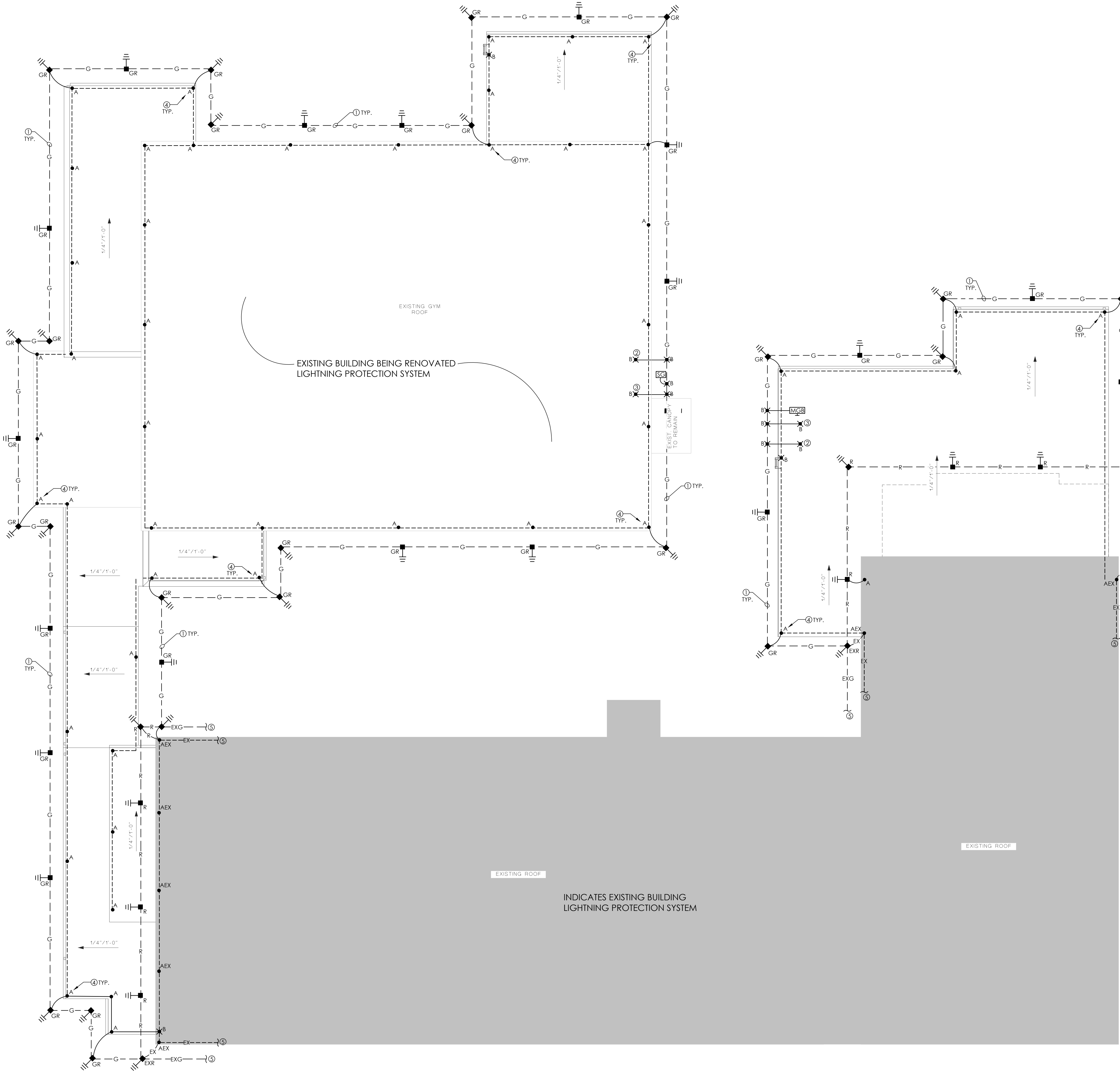
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LIGHTNING PROTECTION PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES

1. LIGHTNING PROTECTION INSTALLATION SHALL ABIDE BY TO THE NFPA 780 STANDARD AND WITH 2020 OBO ELECTRICAL CODE AMENDMENTS.
2. EQUIPMENT IS SHOWN AT AN APPROXIMATE LOCATION. COORDINATE LOCATION OF ALL EQUIPMENT.
3. ALL METAL PIPING ENTRANCES SHALL BE CONNECTED TO NEW COUNTERPOISE.
4. ALL LIGHTNING PROTECTION SYSTEM COMPONENTS SHALL BE COPPER CLASS I AND ALL CONDUCTORS SHALL BE SIZED PER NFPA 780 CLASS I.
5. GROUNDING RESISTANCE TO GROUND SHALL BE 10 OHMS OR LESS. IF NOT, PROVIDE ADDITIONAL GROUND RODS AS REQUIRED TIL THE VALUE OF RESISTANCE WILL BE ATTAINED.
6. LOCATE AIR TERMINALS AS SHOWN. TAKE CARE TO INSURE THAT ALL POINTS ARE WITHIN 2'-0" OF OUTSIDE BUILDING EDGE, OUTSIDE CORNERS, AND RIDGE ENDS, AND THAT MAXIMUM SPACING DOES NOT EXCEED 20'-0", AND THAT MINIMUM PROJECTION ABOVE OBJECT PROTECTED IS 10". (POINTS PROJECTING 24" MAY BE SPACED @ 25' MAX.
7. MAINTAIN HORIZONTAL OR DOWNWARD COURSE OF MAIN CONDUCTOR AND INSURE THAT ALL BENDS HAVE AT LEAST AN 8" RADIUS AND DO NOT EXCEED 90°.
8. ATTACH ALL EXPOSED ROOF, DOWN LEAD AND BONDING CABLES AT 3'-0" ON CENTER MAXIMUM. VERIFY COMPATIBILITY OF ADHESIVE ON MEMBRANE ROOF APPLICATIONS PRIOR TO INSTALLATION.
9. GROUND ELECTRODES SHALL BE INSTALLED AS SHOWN BUT IN NO INSTANCE SHALL THEY BE LESS THAN 1'-0" BELOW GRADE AND 2'-0" FROM FOUNDATION WALL DRIVEN RODS SHALL PENETRATE EARTH AT LEAST 10'-0".
10. BOND TO WATER SERVICE AND OTHER PIPING SYSTEMS AS SHOWN AND AS REQUIRED BY CODES.
11. INTERCONNECT LIGHTNING PROTECTION GROUND TO ELECTRIC, TELEPHONE, AND OTHER BUILDING GROUND SYSTEMS AS SHOWN OR AS REQUIRED BY CODE.
12. SYSTEM SHALL BE INSTALLED AS SHOWN TO INSURE PROPER CODE COMPLIANCE AND SYSTEM CERTIFICATION. ANY MAJOR VARIANCE SHALL ENTAIL RESUBMITAL AND NEW APPROVAL.
13. "AS-BUILT" DRAWINGS SHALL BE SUBMITTED IN ACCORDANCE WITH CERTIFICATION PROCEDURES.
14. ALL MATERIALS ARE UNDERWRITERS LABORATORIES APPROVED WITH LABELS ON CONDUCTORS @ 10'-0" INTERVALS AND LABELS ON ALL AIR TERMINALS.
15. ALL MATERIALS SHOWN AND INTENDED FOR USE, ARE TO BE AS MANUFACTURED BY THOMPSON LIGHTNING PROTECTION INC., 901 SIBLEY HWY. ST. PAUL, MN 55118 PHONE: 1-800-777-1230
16. SUBMITTALS SHALL BE STAMPED BY AN LPI MASTER INSTALLER DESIGNER, FIELD INSTALLERS TO BE LPI CERTIFIED.
17. ALL GROUND CONDUCTORS TO BE #4/0 BARE CU UNLESS NOTED OTHERWISE.
18. GROUND LOOP SHALL BE BURIED AT LEAST 30" BELOW GRADE. GROUND LOOP SHALL CONSTANTLY BE WITHIN 3-8 FEET FROM BUILDING. COORDINATE WITH ALL UTILITY TRADES PRIOR TO TRENCHING.
19. LIGHTNING SYSTEM TO BE BONDED AND CERTIFIED.

LIGHTNING SYSTEM LEGEND

- GR GROUNDING COUNTERPOISE SYSTEM - DRIVEN GROUND ROD.
- EXR EXISTING GROUNDING COUNTERPOISE SYSTEM - DRIVEN GROUND ROD. TO REMAIN.
- G - GROUNDING COUNTERPOISE SYSTEM - GROUNDING CONDUCTOR BELOW GRADE.
- EXG --- EXISTING GROUNDING COUNTERPOISE SYSTEM - GROUNDING CONDUCTOR BELOW GRADE TO REMAIN.
- ✕ B GROUNDING COUNTERPOISE SYSTEM - BONDING CONNECTION TO GROUNDING COUNTERPOISE.
- A AIR TERMINAL. REFER TO DETAILS 1 AND 3 ON SHEET E7.2.
- AEX EXISTING AIR TERMINAL TO REMAIN.
- MAIN CONDUCTOR MOUNTED ON ROOF.
- CONCEALED/PITCHED DOWNLEAD TO GROUND. REFER TO DETAIL 2 ON SHEET E7.2.
- R INDICATES EXISTING TO BE REMOVED.

KEYED NOTES:

1. INSTALL A CONTINUOUS GROUND CONDUCTOR THE PERIMETER OF THE BUILDING 30" BELOW GRADE (3'-8" FROM BUILDING). INSTALL GROUND RODS AS NOTED. INTER-CONNECT WITH #4/0 CU.
2. INSTALL A BONDING CONNECTION FROM THE METAL STEEL FRAMING SYSTEM TO EACH GROUND. USE #4/0 CU GROUND. WELD TO METAL FRAME 1'-0" A.F.F. WELD TO COUNTERPOISE BELOW GRADE. RUN #4/0 CU CONDUCTORS CONCEALED.
3. BOND CWP TO COUNTERPOISE - #4/0 CU GROUND.
4. TYPICAL AT ALL POINTS. RUN LIGHTNING GROUNDING CONDUCTOR UP TO ROOF AND MAKE CONNECTION TO LIGHTNING PROTECTION SYSTEM.
5. EXISTING LIGHTNING PROTECTION SYSTEM SHALL REMAIN AND NEW SYSTEM SHALL BE CONNECTED AS REQUIRED.



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SHEET TITLE: LIGHTNING PROTECTION PLAN

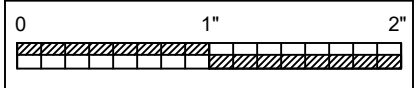


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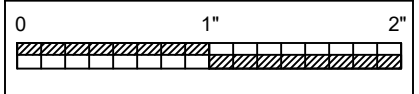
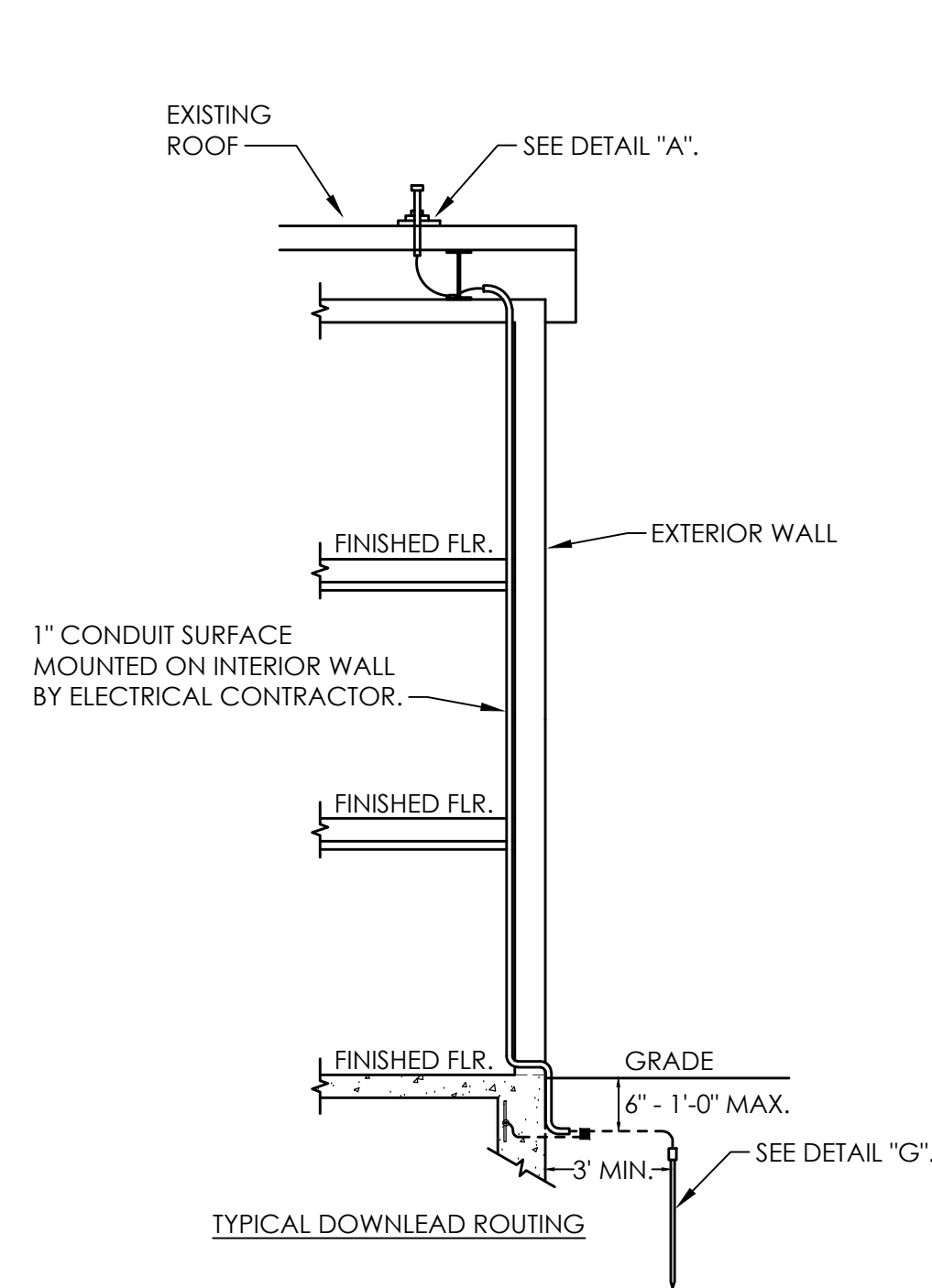


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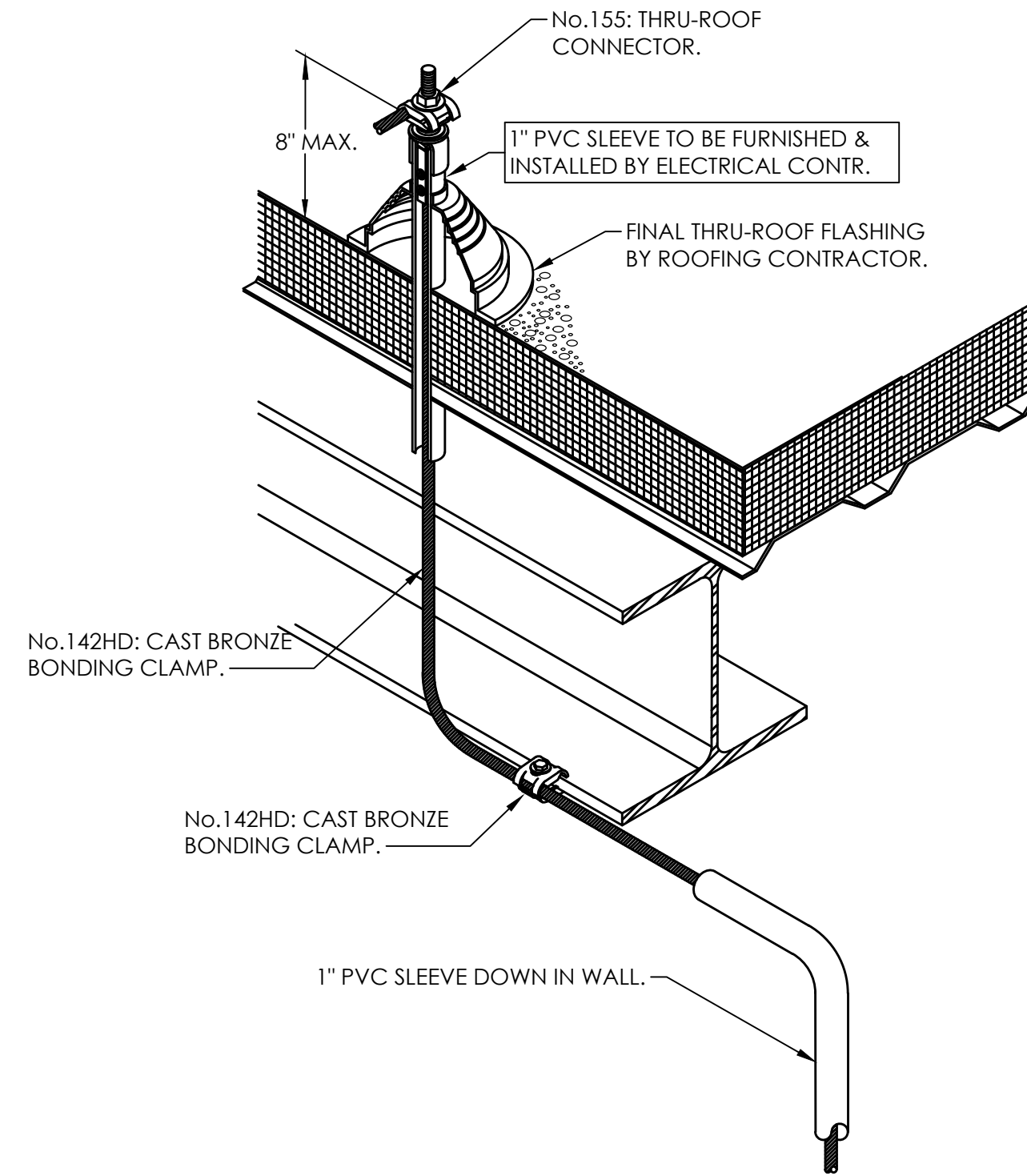
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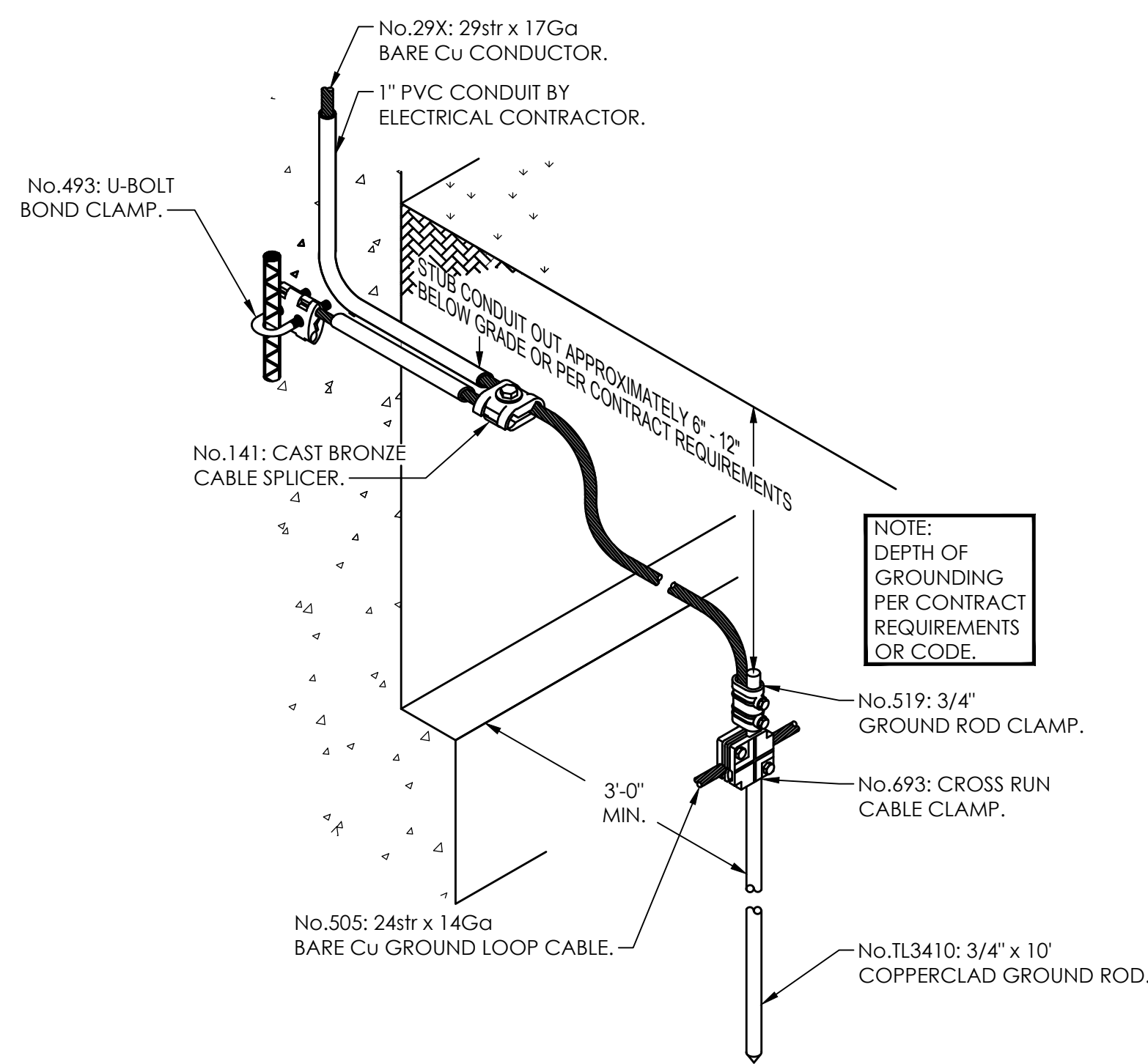
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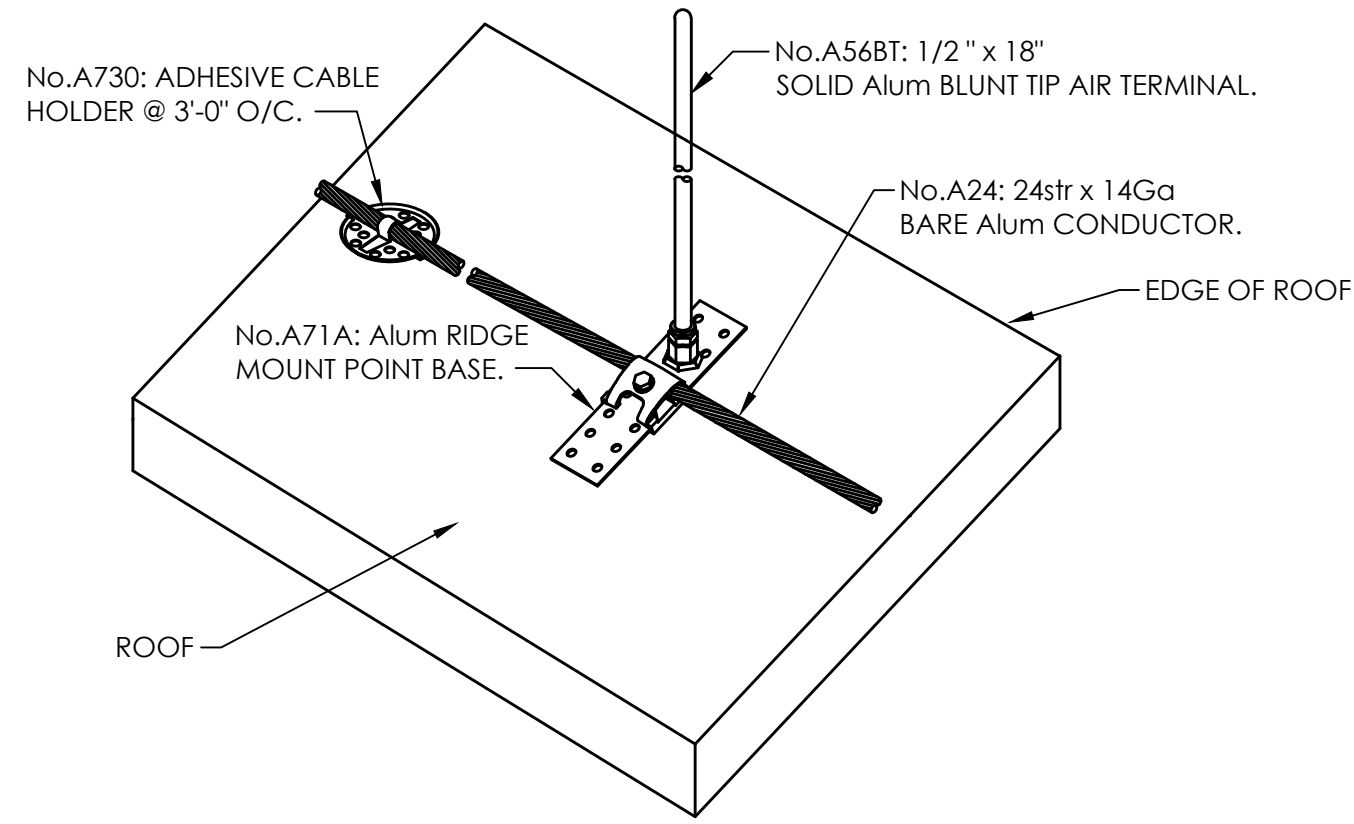
4
E7.2
TYPICAL DOWNLEAD ROUTING DETAIL
NOT TO SCALE;



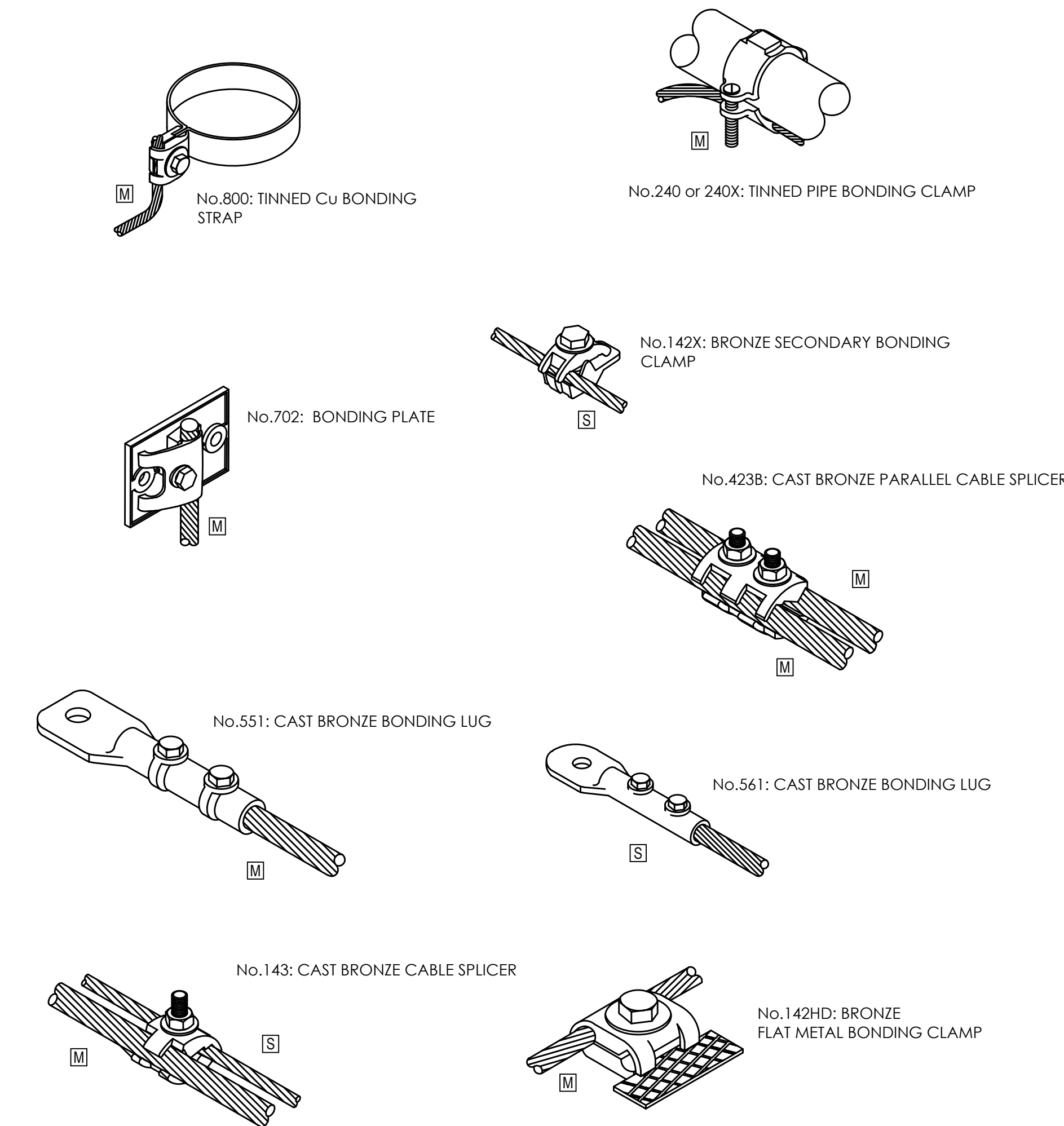
3
E7.2
AIR TERMINAL ROOF PENETRATION DETAIL
NOT TO SCALE;



2
E7.2
DOWNLEAD TO GROUND DETAIL
NOT TO SCALE;



1
E7.2
ROOF AIR TERMINAL DETAIL
NOT TO SCALE;



5
E7.2
TYPICAL BONDING & SPlicing DETAILS
NOT TO SCALE;
NOTES:
[M] = MAIN, FULL SIZE CABLE.
[S] = SECONDARY, SIZE CABLE.