

MECHANICAL GENERAL NOTES

1. THE WORK DESCRIBED HEREINAFTER SHALL BE INSTALLED SUBJECT TO THE NON TECHNICAL SPECIFICATIONS. THIS SECTION APPLIES TO ALL AIR CONDITIONING, SHEETMETAL PIPING, AND AUTOMATIC TEMPERATURE CONTROLS WORK.

2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE HIS WORK WITH THAT OF OTHER TRADES. SEE ARCHITECTURAL SECTIONS FOR A DESCRIPTION OF WORK AND SEQUENCE OF CONSTRUCTION. THE DRAWINGS ARE ESSENTIALLY DIAGNOMATIC IN NATURE. THEY ARE, HOWEVER, AS ACCURATE AS SCALE PERMITS AND THE CONTRACTOR SHALL FOLLOW THEM AS CLOSELY AS POSSIBLE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL CONDITIONS RELATING TO THE WORK IN THE FIELD PRIOR TO PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL VERIFY ALL WALLS, PARTITIONS, AND STRUCTURAL SYSTEMS BEFORE INSTALLATION AND FABRICATION OF ANY DUCTWORK OR PIPING SYSTEMS. ALL OFFSETS REQUIRED FOR INSTALLATION OF DUCTWORK, OR PIPING SHALL BE INCLUDED IN THE SCOPE OF WORK, AT NO ADDITIONAL COST TO THE OWNER. THE ENGINEER SHALL BE THE SOLE INTERPRETER OF THE DRAWINGS.

3. ALL MATERIALS SHALL BE NEW AND OF BEST QUALITY AND SHALL BE THE PRODUCTS OF REPUTABLE MANUFACTURERS. MATERIALS AND EQUIPMENT SHALL BE PROPERLY STORED AND PROTECTED FROM THE WEATHER AT ALL TIMES DURING CONSTRUCTION TO PREVENT UNNECESSARY CORROSION AND FOULING. ALL WORK SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER BY SKILLED AND COMPETENT MECHANICS. ANY WORKER CONSIDERED INCOMPETENT OR UNFIT FOR WORK ON THIS CONSTRUCTION PROJECT SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR UNDER THE DIRECTION OF THE ENGINEER.

4. THE WORK SHALL COMPLY WITH ALL APPLICABLE CODES, REGULATIONS, ORDINANCES, ETC. WHETHER FEDERAL, STATE OR LOCAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ANY PERMITS AND PAYING ANY FEES REQUIRED IN ORDER TO PROCEED WITH THE WORK.

5. THE CONTRACTOR IS REQUIRED TO ATTEND ALL CONSTRUCTION CONFERENCES INCLUDING THE PRE-BID CONFERENCE, THE PRE-CONSTRUCTION CONFERENCE AND THE OWNER'S PROGRESS MEETINGS AS SCHEDULED BY THE ARCHITECT OR THE OWNER. FAILURE TO MAKE REFERENCES IN THE SPECIFICATIONS TO ANY ITEMS OF THE WORK SHOWN BY THE DRAWINGS AND NECESSARY TO THE COMPLETION OF THE WORK SHALL NOT RELIEVE THE CONTRACTOR OF THE FULL RESPONSIBILITY TO FURNISH THE MATERIALS AND PERFORM THE WORK OF SUCH ITEMS IN A MANNER COMPARABLE TO OTHER ITEMS OF SIMILAR NATURE FOR WHICH DETAILED SPECIFICATIONS ARE INCLUDED. DRAWINGS AND SPECIFICATIONS ARE INTENDED TO CLEARLY SET FORTH ALL WORK AND THE DETAILED DESCRIPTION IS ADDED TO ASSIST IN ESTABLISHING THE SCOPE AND THE LOCATION OF THE SEVERAL PARTS OF THE WORK. COLLECTIVELY, THEY SHALL GOVERN AND CONTROL THE SCOPE, CHARACTER AND DESIGN OF THE WORK, AND ANY ITEM CALLED FOR IN ANY ONE OF THE DOCUMENTS SHALL BE AS THOUGH REQUIRED IN ALL.

6. ALL CUTTING AND PATCHING SHALL BE DONE BY WORKMEN SKILLED IN THE TRADES INVOLVED. ALL CUTTING SHALL BE DONE IN SUCH A MANNER AS NOT TO ENDANGER OR DAMAGE FACILITIES. ALL PATCHING SHALL FINISH FLUSH AND SMOOTH AND SHALL MATCH EXISTING ADJOINING SURFACES.

7. SEE GENERAL REQUIREMENTS FOR ELECTRICITY AND WATER. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL FUEL REQUIRED FOR THE OPERATION OF HIS CONSTRUCTION EQUIPMENT.

8. ALL FINISHED FIELD INSTALLED PRESSURE PIPING SYSTEMS SHALL BE TESTED.

9. WORK CONSISTS OF FURNISHING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, TRANSPORTATION, SCAFFOLDING, SERVICES, SUPERVISION, PLANT, AND PERFORMING ALL OPERATIONS REQUIRED TO PROPERLY COMPLETE ALL WORK IN ACCORDANCE WITH THESE SPECIFICATIONS AND AS INDICATED ON THE APPLICABLE DRAWINGS, SUBJECT TO TERMS AND CONDITIONS OF THE CONTRACT. THE CONTRACTOR IS REQUIRED TO HAVE A QUALIFIED AND EXPERIENCED GENERAL SUPERINTENDENT AND EXPERIENCED SUPERINTENDENT FOR EACH TRADE

10. THE LATEST EDITIONS OF THE ESTABLISHED STANDARDS OF THE FOLLOWING ORGANIZATIONS, AND INDIVIDUAL STANDARDS NAMED SHALL BE FOLLOWED THE SAME AS IF THEY WERE FULLY WRITTEN HEREIN AND CONSTITUTE A PART OF THE SPECIFICATION REQUIREMENTS EXCEPT WHERE OTHERWISE SPECIFIED:

- FLORIDA BUILDING CODE, 2023 8TH EDITION.
- FLORIDA PLUMBING CODE, 2023 8TH EDITION.
- FLORIDA MECHANICAL CODE, 2023 8TH EDITION.
- NFPA 70 NATIONAL ELECTRICAL CODE
- NFPA 101 LIFE SAFETY CODE
- NFPA 90A, STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATION SYSTEMS
- NFPA 85, STANDARD FOR THE INSTALLATION OF BLOWER AND EXHAUST SYSTEMS
- OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS.

THE FOREGOING RULES, STANDARDS, REGULATIONS, SPECIFICATIONS, RECOMMENDATIONS AND REQUIREMENTS SHALL BE FOLLOWED BY THE CONTRACTOR AS MINIMUM REQUIREMENTS. THEY SHALL NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING HIGHER GRADES OF MATERIALS AND WORKMANSHIP WHICH ARE SPECIFIED HEREIN OR INDICATED ON THE DRAWINGS.

11. THE INTERIOR FACE OF DUCTWORK HOUSING SUPPLY, RETURN OR EXHAUST AIR DIFFUSERS, REGISTERS OR GRILLES SHALL BE PAINTED "FLAT-BLACK" 80 WHEN VIEWED FROM BELOW AND ABOVE NOTHING BEYOND SURFACE OF AIR DEVICE IS VISIBLE.

12. THERMOSTAT/SENSOR WIRING TO BE RUN INSIDE WALLS/COLUMNS OR IN ATTIC SPACE. THE USE OF WIREMOLD OR EXTERNAL RACEWAY SHALL BE APPROVED BY THE ENGINEER.

13. A COMPLETE CERTIFIED TEST AND BALANCE REPORT SHALL BE SUPPLIED BY AN INDEPENDENT CERTIFIED TEST AND BALANCE AGENCY TO THE ENGINEER IN WRITING PER IAQC TEST AND BALANCE REPORT MANUAL (LATEST EDITION) PRIOR TO JOB ACCEPTANCE BY OWNER. THE REPORT SHALL BE SIGNED AND SEALED BY A REGISTERED ENGINEER IN THE STATE OF FLORIDA.

14. THE SUBMISSION OF A BID OR PROPOSAL WILL BE CONSIDERED AS EVIDENCE THAT THE CONTRACTOR HAS FAMILIARIZED HIMSELF/HERSELF WITH THE PLANS, SPECIFICATIONS AND BUILDING SITE. CLAIMS MADE SUBSEQUENT TO THE PROPOSAL FOR MATERIALS AND/OR LABOR DUE TO DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED, UNLESS DIFFICULTIES COULD NOT HAVE BEEN FORESEEN EVEN THOUGH PROPER EXAMINATION HAD BEEN MADE.

15. ALL POWER WIRING, RELAYS, PANELS, TRANSFORMERS, DISCONNECT SWITCHES FOR HVAC EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL CONTROL WIRING, RELAYS, PANELS, SENSORS (OR THERMOSTATS) SHALL BE FURNISHED AND INSTALLED BY THE HVAC CONTRACTOR. ALL MOTOR STARTERS SHALL BE FURNISHED BY THE HVAC CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

16. ALL DUCTS TO HAVE AIR EXTRACTORS (ADJUSTABLE TYPE) ON SQUARE OR RECTANGULAR TAKEOFFS WITH SPIN-IN VOLUME DAMPERS ON ROUND OR OVAL TAKE-OFFS. SPIRAL DUCT TAKE-OFFS HAVE NO EXTRACTORS. INSTALL FLEXIBLE DUCT CONNECTORS AT ALL FANS AND AIR HANDLING UNITS.

17. FLEXIBLE DUCTS MUST COMPLY WITH UL 181 AND SHALL NOT EXCEED EIGHT FEET IN LENGTH REMAINING BRANCH LINE SHALL BE GALVANIZED METAL WITH 2" EXTERNAL INSULATION. FLEXIBLE DUCTS SHALL HAVE FOIL BACKING (FSK TYPE).

18. ANY CONDENSATION ON SURFACES OF HVAC EQUIPMENT, DUCTWORK OR PIPING WILL BE CORRECTED BY THE CONTRACTOR. WRAP WITH INSULATING TAPE OR EXTERNAL INSULATION HAVING A VAPOR BARRIER.

19. INSULATION OUTSIDE OF THE BUILDING SHALL BE WRAPPED WITH ALUMINUM INSIDE ALL SUPPLY, RETURN, EXHAUST AND FRESH AIR DUCTS SHALL BE GALVANIZED METAL, COMPLETELY SEALED, FINISHED WITH 2" EXTERNAL INSULATION HAVING VAPOR RETARDING JACKET (FSK TYPE). INSULATION SHALL COMPLY WITH UL 181 AND MUST HAVE FLAME SPREAD RATING OF 25 AND A SMOKE DEVELOPED RATING NO HIGHER THAN 50.

20. ROOM SENSORS OR THERMOSTATS SHALL BE MOUNTED AT 48 INCHES ABOVE FINISHED FLOOR.

21. THERMOSTATS TO BE 7 DAY PROGRAMMABLE WITH DIGITAL DISPLAY. PROVIDE AND INSTALL A LOCK BOX FOR ALL THERMOSTATS.

22. SMOKE DETECTORS (SEE DRAWINGS) SHALL BE UL LISTED TYPE AS APPROVED BY THE ENGINEER. COORDINATE THE INSTALLATION WITH THE ELECTRICAL CONTRACTOR. CONTRACTOR SHALL VERIFY THAT DETECTORS ARE COMPATIBLE WITH FIRE ALARM SYSTEMS. IF UNIT SELECTION IS NOT COMPATIBLE THE CONTRACTOR SHALL PURCHASE AND INSTALL PROPER UNIT TO INSURE LIFE SAFETY PROTECTION. SMOKE DETECTORS SHALL AUTOMATICALLY SOUND AUDIBLE ALARM AND TURNOFF FANS.

23. FURNISH AND INSTALL ACCESS DOORS (18"X18" MINIMUM) IN ALL DRYWALL CEILING'S FOR ACCESS TO MECHANICAL EQUIPMENT.

24. COORDINATE THE INSTALLATION OF ALL AUX. COND. DRAINS LOCATED IN WALLS WITH THE GENERAL CONTRACTOR. COORDINATE THE INSTALLATION OF ALL MAIN COND. DRAINS LOCATED IN WALLS AND CHASES WITH THE PLUMBING CONTRACTOR.

25. THE CONTRACTOR SHALL NOT FABRICATE ANY AIR DISTRIBUTION DUCTWORK UNTIL IT HAS BEEN VERIFIED THAT SUFFICIENT CLEARANCES ARE AVAILABLE FOR THE INSTALLATION OF HVAC SYSTEMS CONSIDERING REQUIREMENTS FOR PIPING, LIGHT FIXTURES, CEILING SYSTEMS, FLOOR SYSTEMS, FOUNDATIONS, AND STRUCTURES. IF A CONFLICT ARISES CONTACT THE ENGINEER FOR PERMISSION TO REROUTE SYSTEM. ALL DUCTWORK SHALL BE ROUTED AT THE EXPENSE OF THE CONTRACTOR.

26. DEVIATION FROM MATERIALS METHODS, AND PROCEDURES SET FORTH HEREIN MUST BE APPROVED IN WRITING BY THE ENGINEER. APPROVAL WILL NOT BE GIVEN UNLESS THE ENGINEER IS SATISFIED THAT THE PROPOSED SYSTEMS ARE SUPERIOR IN PERFORMANCE, DURABILITY, LONGEVITY, AND RELIABILITY TO THAT SPECIFIED.

27. APPROVALS OF EQUIPMENT OR SYSTEMS OTHER THAN THAT SHOWN MUST BE WITHIN TEN (10) WORKING DAYS PRIOR TO BID DATE.

28. ALL DUCT AND PIPE SIZES SHOWN ARE CLEAR NET INSIDE DIMENSIONS.

29. ALL AIR DISTRIBUTION DUCTWORK SHALL BE AIR TIGHT AND FREE OF LEAKS, AND SHALL BE INSPECTED FOR LEAKS PRIOR TO INSTALLATION OF FAN UNITS OR FINISHED FLOOR/CEILING SYSTEM. DUCTWORK SHALL BE SEALED WITH AIR DUCT SEALER PER SMACNA STANDARDS AND UL RATING.

30. EQUIPMENT, DUCTWORK, DAMPERS, LOUVERS, GRILLES, REGISTERS, DIFFUSERS, OTHER AIR DISTRIBUTIONS EQUIPMENT AND MATERIALS SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING:

(A) ASHRAE
(B) SBCCI
(C) SMACNA
(D) NFPA
(E) AMCA STANDARD HANDBOOK 99
(F) AIR DIFFUSION COUNCIL TEST CODE 1062R3
(G) SBCCI STANDARD MECHANICAL CODE
(I) ANSI
(J) ASME
(K) ASH
(L) UL FIRE RESISTANCE DIRECTORY

31. INSULATE ALL REFRIGERANT LINES WITH 3/4" ARMAFLEX OR EQUIVALENT INSULATION. PROVIDE WITH WEATHERPROOF ALUMINUM JACKET ON LINES OUTSIDE.

32. ALL MATERIALS SHALL BE LISTED BY THE UNDERWRITERS LABORATORIES (UL) OR NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA).

33. REFRIGERANT PIPING SHALL BE SIZED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR LIQUID, VAPOR HORIZONTAL AND VAPOR RISERS.

34. TUBING SHALL BE INSTALLED WITH MOISTURE INDICATOR SIGHT GLASS LOCATED IN THE LIQUID LINE ADJACENT TO THE OUTDOOR UNIT.

35. THOROUGHLY CLEAN REFRIGERANT PIPE FITTINGS BEFORE ASSEMBLY. ALL JOINTS ARE TO BE MADE WITH SILVER ALLOY BRAZE MELTING ABOVE 1100 DEGREES F. NO ACID FLUX IS TO BE USED ON ANY JOINT.

36. ALL CONDENSATE DRAINS SHALL TERMINATE INTO ROOF GUTTER. SECURE TO ROOF SEAMS WITH APPROVED CLIP.

37. ALL WORK AND MATERIALS SHALL BE WARRANTED (PARTS AND LABOR) FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE BY OWNER. AN ADDITIONAL WARRANTY (PARTS ONLY) SHALL INCLUDE 4 YEARS ON ALL COMPRESSORS, WITH NINE YEARS ON ALL HEAT EXCHANGERS.

38. CONTRACTOR SHALL SUPPLY TO THE ENGINEER, 6 SETS OF SUBMITTALS ON THE FOLLOWING ITEMS:

A. AIR DISTRIBUTION (DIFFUSER, GRILLE AND REGISTERS)
B. HEATING/AIR CONDITIONING EQUIPMENT
C. DAMPERS
D. FANS
E. INSULATION MATERIALS
F. CONTROLS
G. PIPING

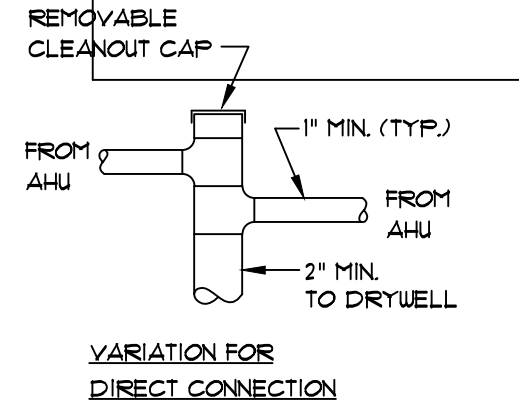
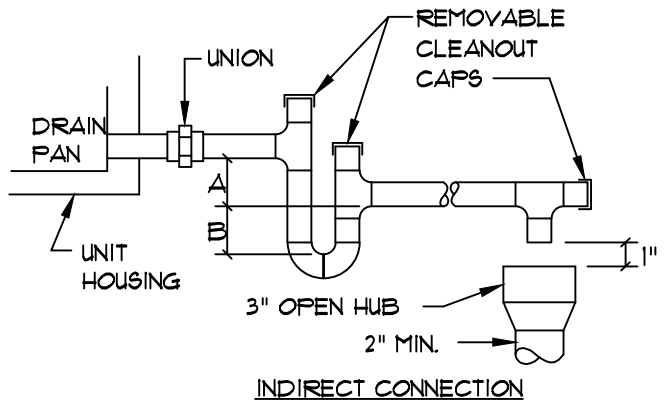
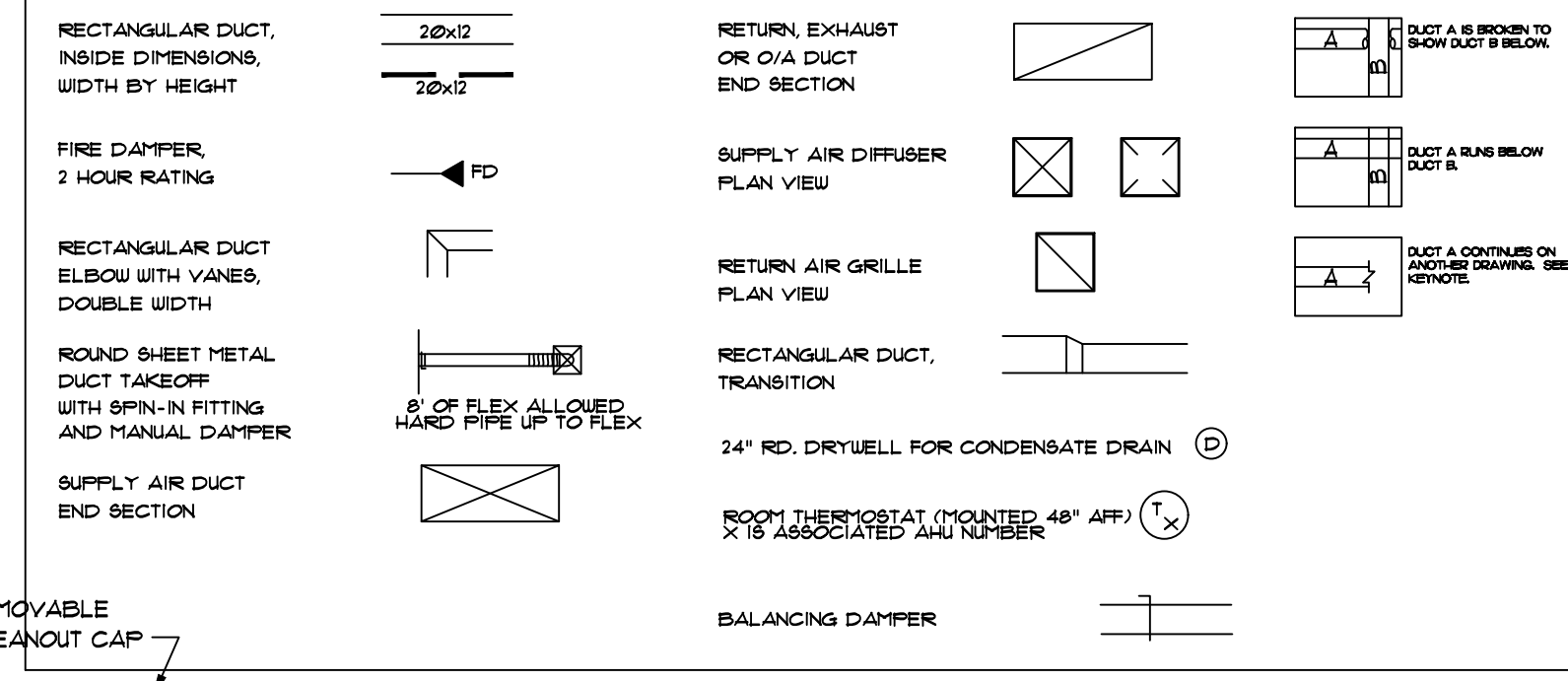
NOTE: THESE ITEMS MUST BE APPROVED BY THE ENGINEER PRIOR TO CONTRACTOR ORDERING.

39. ALL FEES, PERMITS, TAPS, LICENSE, INSURANCE, AND BONDS SHALL BE PAID BY THIS CONTRACTOR FOR ALL RELATED WORK.

40. ROUTE REFRIGERANT PIPING AS SHOWN ON DRAWINGS. MANUFACTURE TO SIZE REFRIGERANT PIPING.

41. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED UNLESS EMBOSSED AND THE SHA AUTHENTICATION CODE MUST BE VERIFIED ON ELECTRONIC COPIES.

MECHANICAL LEGEND



NOTES:
DRAIN LINE SHALL BE AT LEAST THE SAME SIZE AS THE CONNECTION ON THE DRAIN FAN (1" MIN.)
DRAIN LINE SHALL SLOPE 1/8" PER FOOT (MIN.)
SEE SPECIFICATIONS FOR PIPE AND INSULATION MATERIALS.

UNIT TYPE	A	B
DRAW-THRU	X PLUS 2"	X
BLOW-THRU	1" MIN.	2X

WHERE X=STATIC PRESSURE IN PAN

CEILING DIFFUSER SCHEDULE

SYMBOL	AIR QUANTITY	NECK SIZE	ROUND DUCT SIZE	FACE DIMENSION HARD CEILING	LAY-IN CEILING
☑	0 - 60	6"	8"	12 X 12	24 X 24
☑	65 - 150	8"	8"	16 X 16	24 X 24
☑	155 - 195	8"	10"	16 X 16	24 X 24
☑	200 - 250	10"	10"	20 X 20	24 X 24
☑	255 - 335	10"	12"	20 X 20	24 X 24
☑	400 - 550	12"	12"	24 X 24	24 X 24
☑	555 - 595	12"	14"	24 X 24	24 X 24
☑	600 - 745	14"	14"	24 X 24	24 X 24
☑	750 - 1000	16"	16"	30 X 30	30 X 30

CEILING RETURN AIR OR EXHAUST REGISTER SCHEDULE

SYMBOL	CFM	SIZE	ROUND SIZE
☑	0 - 75	8 X 6	10 X 6
☑	80 - 105	10 X 6	12 X 6
☑	110 - 175	10 X 10	12 X 8
☑	180 - 270	12 X 12	14 X 8
☑	275 - 325	18 X 12	20 X 8
☑	330 - 600	24 X 24	26 X 10
☑	605 - 1200	24 X 24	26 X 12
☑	1205 - 1500	24 X 24	26 X 14

* THESE SIZES ARE TO BE USED UNLESS OTHERWISE NOTED ON DRAWINGS.
† ALL COMPARTS TO BE WITHIN TYPE OR EQUAL, UNLESS NOTED TO THE CONTRARY.

CONDENSATE DRAIN DETAIL

HEAT PUMP SPLIT SYSTEM SCHEDULE

INDOOR UNIT DESIGNATION	AHU-1
OUTDOOR UNIT DESIGNATION	HP-1
AIR QUANTITIES	
TOTAL SUPPLY AIR	CFM 975
OUTSIDE AIR	CFM -
HEATING AND COOLING CAPACITIES	
TOTAL HEATING CAPACITY	BTUH 26,000
SENSIBLE HEATING CAPACITY	BTUH 22,500
TOTAL COOLING CAPACITY	BTUH 30,000
AIR TEMPERATURES	
COOLING COIL ENTERING	Fdb - Fdb 80-61
COOLING COIL LEAVING	Fdb - Fdb 55-54
HEATING COIL ENTERING AND LEAVING	Fdb - Fdb 52-95
INDOOR UNIT DATA	
EXTERNAL STATIC PRESSURE (INCL. FILTER)	IN. H2O 0.1
BLOWER MOTOR	HP 1/3
ELECTRICAL CHARACTERISTICS	V/PH 208-230/1
CONDENSATE DRAIN SIZE	IN. 3/4"
FILTER LOCATION	UNIT
ELECTRIC HEAT DATA	
HEATING TYPE	ELECTRIC
LOCATION	SUPPLY
ACTUAL HEATING CAPACITY (NOMINAL CAP.)	KW 5
VOLTAGE	V/PH 208-230/1
OUTDOOR UNIT DATA	
NUMBER OF COMPRESSORS/NUMBER OF STAGES	NO. 1
ELECTRICAL CHARACTERISTICS	V/PH 208-230/1
MCAMOCOP	AMPS (EACH) 17.8/30
UNIT WEIGHT	LBS. 201
REFRIGERANT TYPE	R-410A
REFRIGERANT SUCTION AND LIQUID LINE SIZES	IN.-IN. 1/2"
SEER/SEER2	14/15
COP (HEATING)	-
HSPF (HEATING)	82
MANUFACTURER	DAIKIN
MODEL NUMBER (INDOOR UNIT)	ARF30C
MODEL NUMBER (OUTDOOR UNIT)	D214SD30

NOTES:
1. ALL AHU'S TO BE VARIABLE SPEED WITH HUMIDITY CONTROL.
2. TSTAT TO BE HONEYWELL VISION PRO 8000 TYPE WITH HUMIDITY CONTROL.
3. PROVIDE SINGLE POINT OF POWER.
4. PROVIDE 2" FILTER 4 RACK.
5. MANUFACTURE TO PROVIDE TRANSFORMER FOR ELECTRIC HEATERS.
6. PROVIDE LONG LINE ACCESSORY FOR REFRIGERANT LINE IF NEEDED.
7. PROVIDE CONDENSATE PUMP FOR ALL AHU'S.
8. REFER TO MANUFACTURE FOR INSTALL AND SERVICE CLEARANCE.

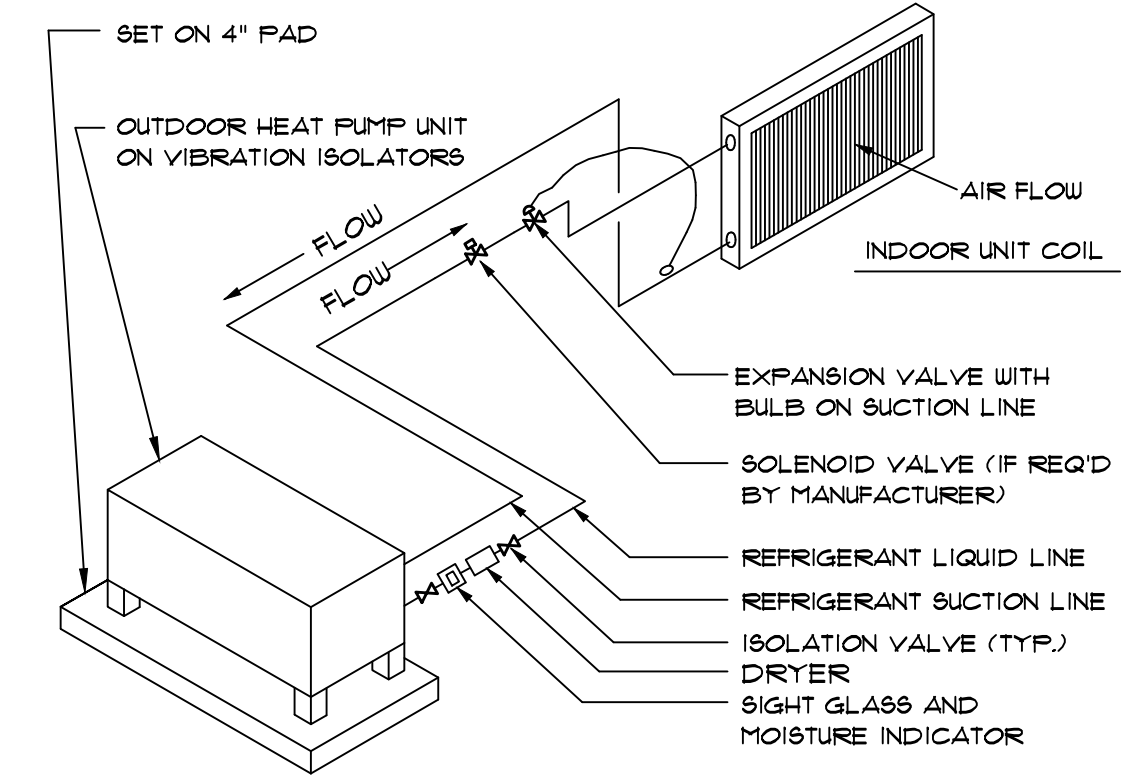
DH-1

PERFORMANCE	@ 80°F and 60%RH	@ 73°F and 60%RH
Water Removal	70 Pints / 8.75 Gallons	55 Pints / 6.875 Gallons
Efficiency	5.0 Pints/kWh	4.79 Pints/kWh
Energy Factor	2.4 LkWh	2.27 LkWh
Blower	150 CFM @ 0.0" WG 140 CFM @ 0.2" WG 130 CFM @ 0.4" WG	70 Watts
Fan	Operating Temperature 48°F Min., 95°F Max. Sizing Up to 1,800 Sq. Ft. / 18,000 Cu. Ft.	
ELECTRICAL	Power 580 watts @ 80°F and 60% RH Supply Voltage 115 volt - 1 phase - 60 Hz Current Draw 5.1 amps Power Cord 9' 115 VAC, Ground Circuit Requirement 15 Amps	* Plug Type B (USA, MEX, CAN, JPN)
SPECIFICATIONS	Duct Connections 8" Round Inlet, 8" Round Outlet Drain Connection 3/4" Threaded Female NPT Refrigerant R410A, 15 oz. Unit Dimensions 12"W x 12"H x 28"D Unit Weight 55 lbs.	

EXHAUST FAN SCHEDULE

UNIT DESIGNATION	EF-1
AIR FLOW	CFM 10
STATIC PRESSURE	IN. WC 0.5
FAN MOTOR POWER	HP 1/200W
FAN SPEED	RPM 132
DRIVE	DIRECT
SONES	SONES 15
WEIGHT	LBS 10
ELECTRICAL CHARACTERISTICS	V/PH 115/1
MANUFACTURER	GREENHECK
MODEL NUMBER	SP-B110

NOTES:
1. MOUNT ALL EXHAUST FANS IN ACCORDANCE WITH MFG INSTRUCTIONS.
2. PROVIDE FAN SPEED CONTROLLERS FOR ALL EXHAUST FANS.
3. WIRE EXHAUST FANS IN ROOM THEY SERVE TO LIGHT SWITCH.
4. PROVIDE BACK-DRAW DAMPER FOR ALL EXHAUST FANS.
5. BE TO HAVE THE CLOCK AND OVER RIDE SWITCH IN RR. OVER RIDE TO RUN FOR 15 MINUTES BEFORE SHUTTING OFF.



NOTES:
1. INSULATE SUCTION LINE.
2. FITCH ALL HORIZONTAL SUCTION PIPING A MINIMUM OF 1/2" IN 10 FEET IN DIRECTION OF FLOW.
3. EQUIPMENT MANUFACTURER SHALL DETERMINE THE REFRIGERANT PIPE SIZES, PROVIDE SOLENOID VALVE, ACCUMULATOR AND OTHER REFRIGERANT SPECIALTIES AS RECOMMENDED BY THE MANUFACTURER.
4. WHERE REFRIGERANT PIPING IS NOT SHOWN, ROUTE AS DIRECTLY AS POSSIBLE FROM OUTDOOR UNIT ABOVE GRADE THRU WALL OF MECHANICAL ROOM TO AHU.

REFRIGERANT PIPING SCHEMATIC- SPLIT SYSTEM HEAT PUMP

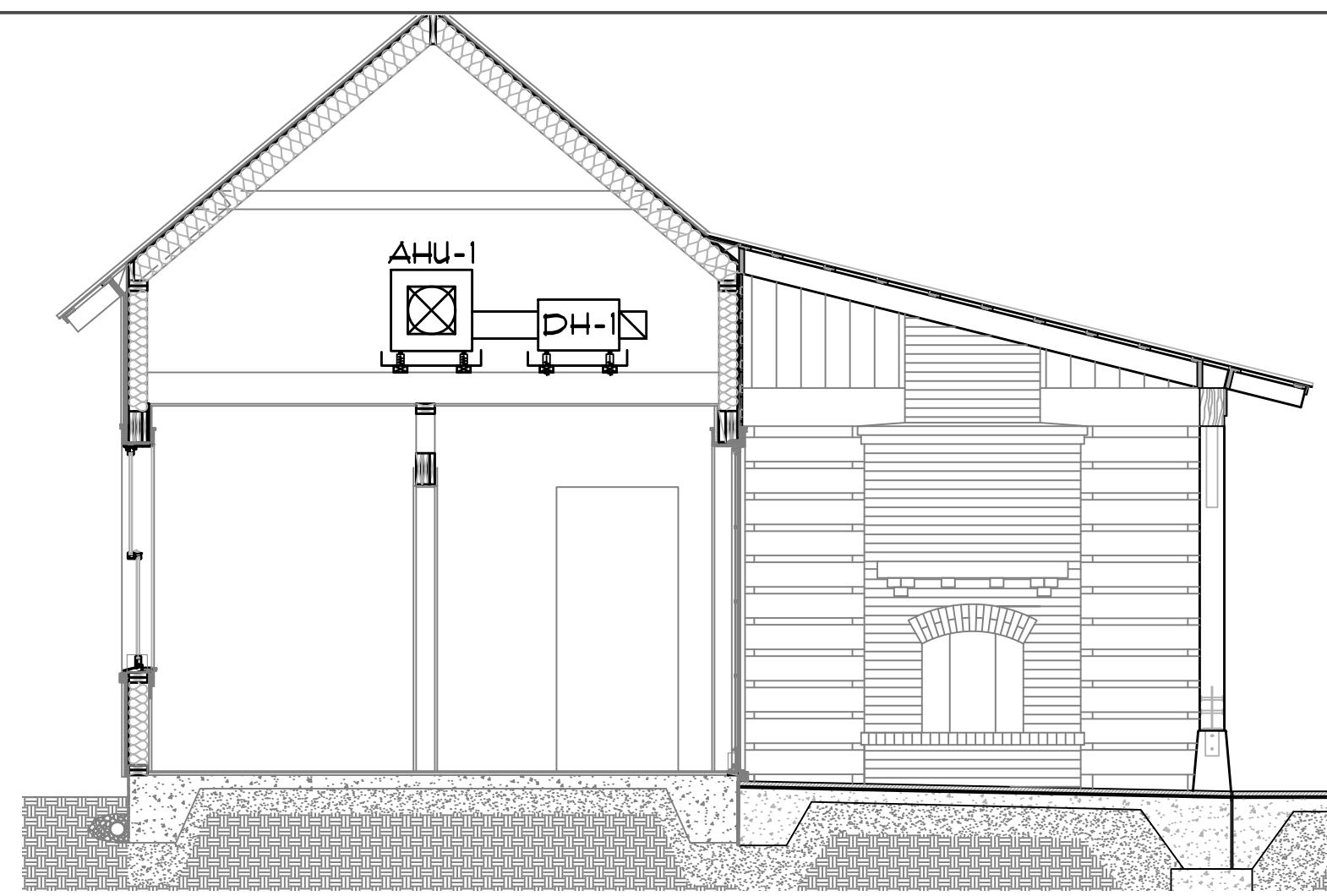
N.T.S.

MARTHA'S RETREAT POOL HOUSE

2023-101 Drawn By: RPW
Project # Checked By: RPW
28 JUNE 2024
Date

Revisions
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MECHANICAL NOTES



MECHANICAL SECTION

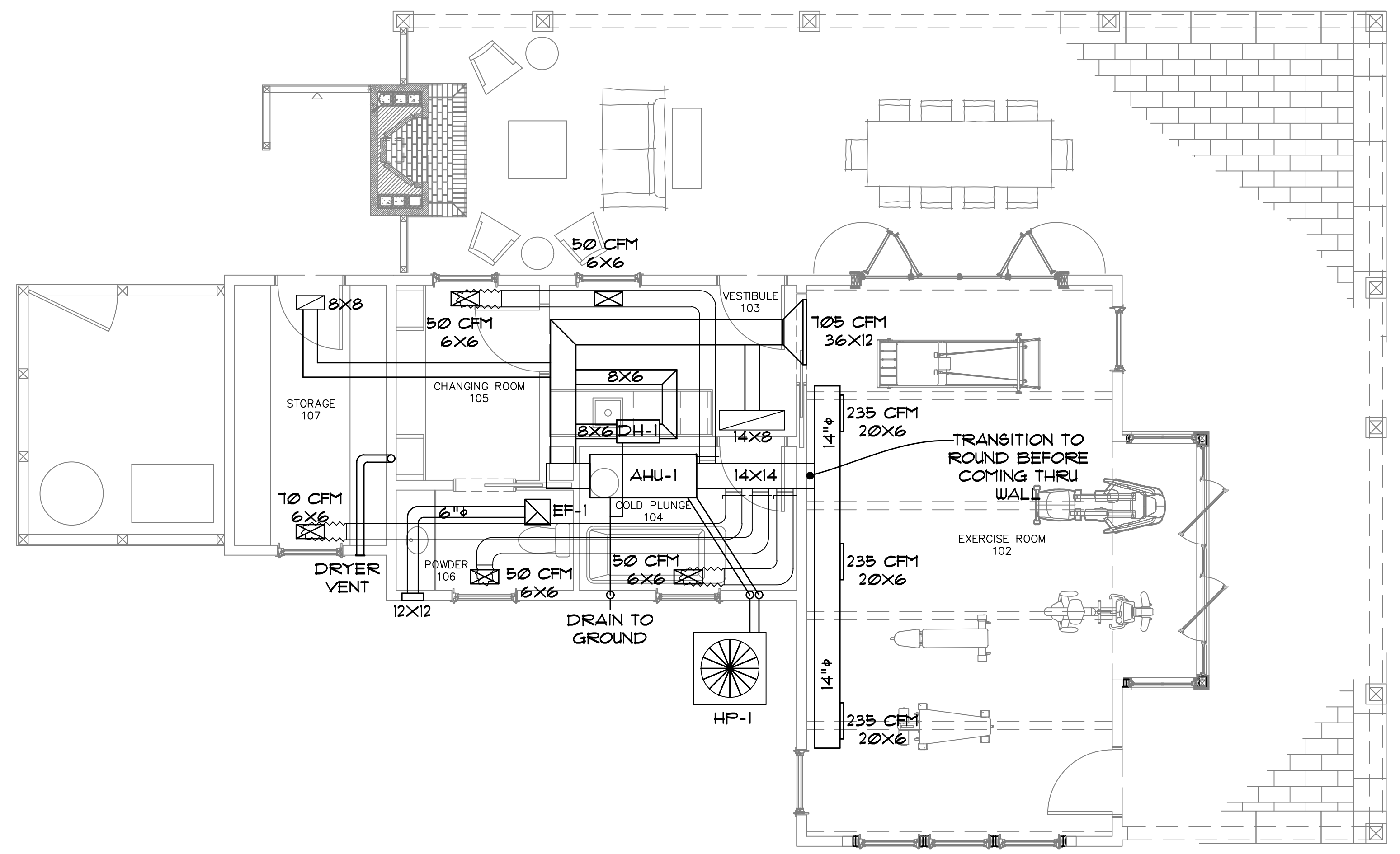
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DRYERBOX INSTALLATION

DRYER VENTING: MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR RUNNING ALL DUCTWORK FOR THE DRYER EXHAUST SYSTEM. ALL CONCEALED DRYER DUCTING MUST BE RIGID METAL (GALVANIZED OR ALUMINUM) MINIMUM OF 4" IN DIAMETER, SMOOTH 30 GA. CLEAN, UNOBSTRUCTED, FRICTIONLESS DUCTS (NO FLEXIBLE DUCT ALLOWED IN CONCEALED AREAS). SEAL ALL JOINTS WITH FOIL BACKED PRESSURE SENSITIVE DUCT TAPE MEETING THE REQUIREMENTS OF UL 181. DUCT JOINTS SHALL BE INSTALLED SO THAT THE MALE END OF THE DUCT POINTS IN THE DIRECTION OF THE AIRFLOW. DO NOT USE RIVETS OR SCREWS IN THE JOINTS OR ANYWHERE ELSE IN THE DUCT AS THESE WILL ENCOURAGE LINT COLLECTION.

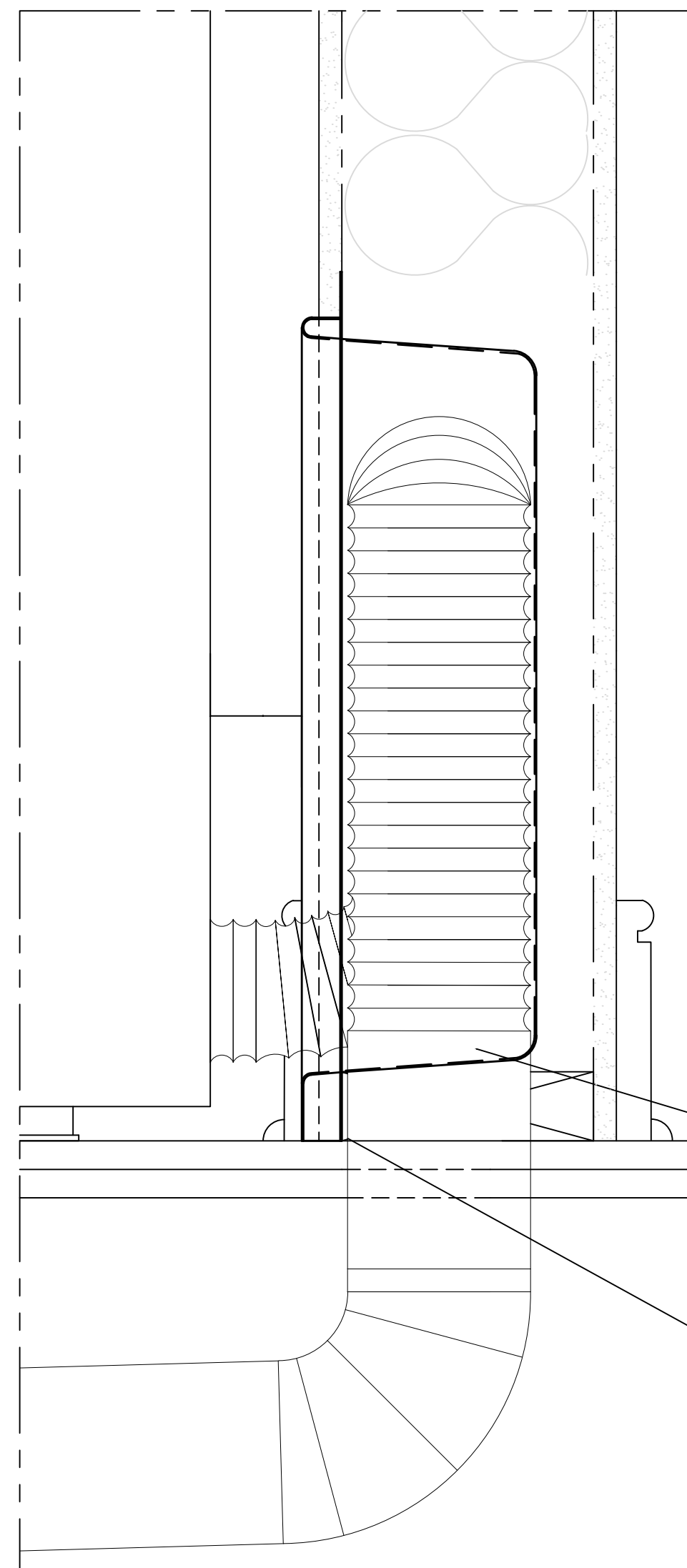
DRYERBOX@RECEPTACLE (WWW.DRYERBOX.COM) SHALL BE METAL AND BE INSTALLED AS LOW AS POSSIBLE AS TO PERMIT THE PROPER AND SAFE COLLECTION OF THE DRYER TRANSITION HOSE. DRYERBOX SHOULD BE RESTING ON THE BOTTOM PLATE AND BE LOCATED AT OR NEAR THE CENTERLINE OF THE PROPOSED DRYER APPLIANCE. RIGID DUCT SHOULD PENETRATE DRYERBOX PORT 2 INCHES TO PROVIDE FOR FUTURE CONNECTION AND STORAGE OF TRANSITION HOSE. BASEBOARD SHALL BE "BUTTED" UP TO THE FIXED EXTENSION RIM AND SLIGHTLY BACK-CUT. DRYERBOX SHOULD BE CAULKED AND THEN PAINTED WITH THE TRIM PAINT. FOR USAGE IN A ONE-HOUR WALL ASSEMBLY, UL REQUIRES THAT BATT INSULATION BE STUFFED AROUND THE DRYERBOX AND IN THE ENTIRE WALL CAVITY CELL.

LENGTH OF CONCEALED RIGID METAL DUCTING SHALL NOT EXCEED 35 FEET. DEDUCT 5 FEET FROM THE ALLOWABLE LENGTH FOR EVERY 3.5" RADIUS 90 DEGREE ELBOW AND TWO AND A HALF FEET FOR EVERY 45 DEGREE FITTING. DRYER VENTING SHALL BE INDEPENDENT OF ANY OTHER SYSTEMS (CHIMNEYS OR EXHAUST VENTS). TERMINATION OF DRYER VENTING MUST BE TO THE EXTERIOR WITH A PROPER HOOD OR ROOF JACK EQUIPPED WITH A BACK-DRAFT DAMPER. SMALL ORIFICE METAL SCREENING SHOULD NOT BE PART OF THE HOOD OR ROOF JACK AS THIS WILL ACCELERATE LINT ACCUMULATION AND BLOCKAGE. THE HOOD OPENING SHOULD POINT DOWN AND EXHIBIT 12 INCHES OF CLEARANCE BETWEEN THE BOTTOM OF THE HOOD AND THE GROUND OR OTHER OBSTRUCTION. VERIFY APPLIANCE MANUFACTURER'S RECOMMENDATIONS FOR ANY OTHER FACTORS.



MECHANICAL FLOOR PLAN

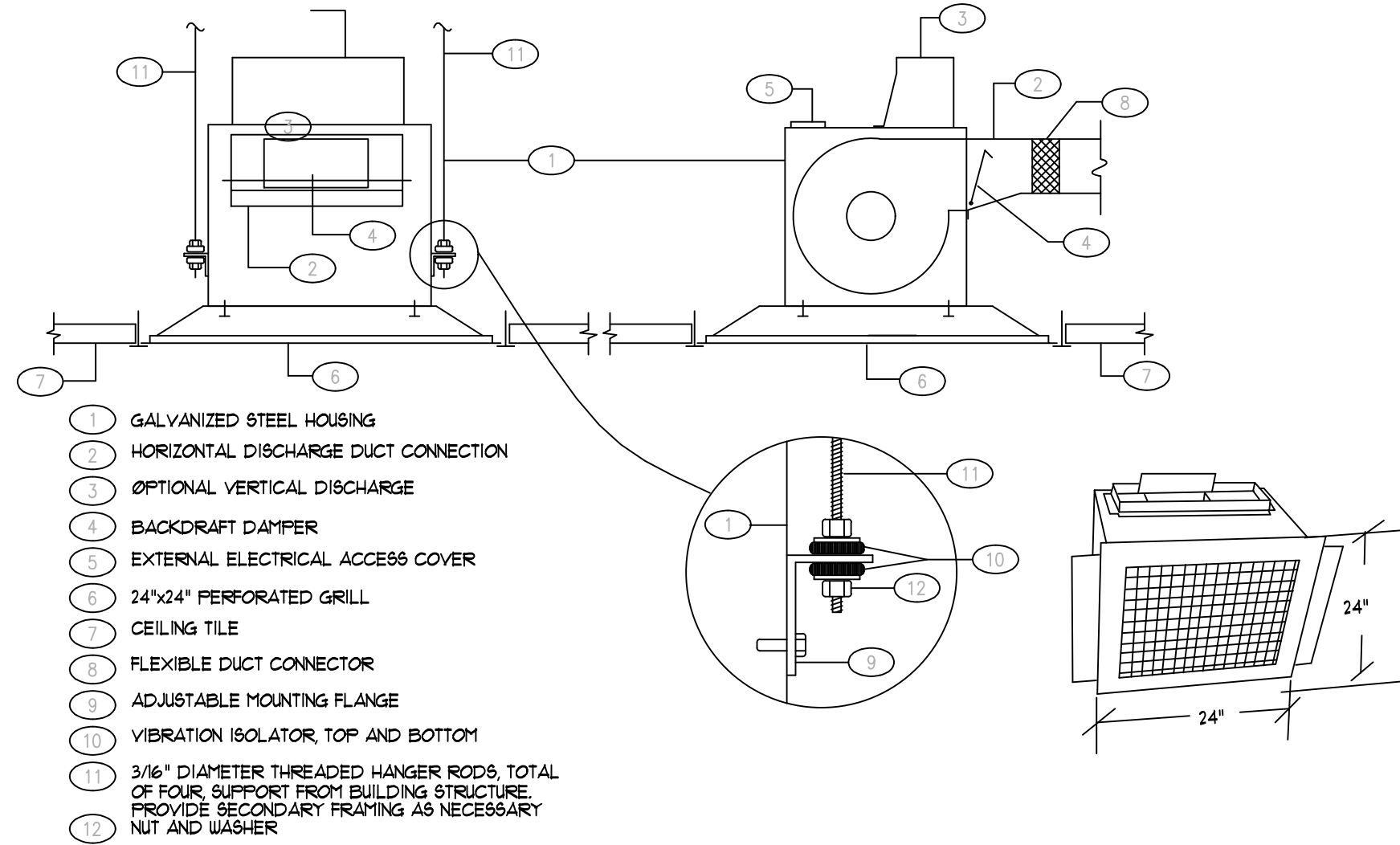
SCALE: 1/4" = 1'-0"



RIDGID PIPE NOT TO EXCEED 2" THROUGH DRYER BOX

MOUNT DRYERBOX AS LOW AS POSSIBLE UNLESS YOU HAVE A PEDASTAL OR STACKABLE DRYER

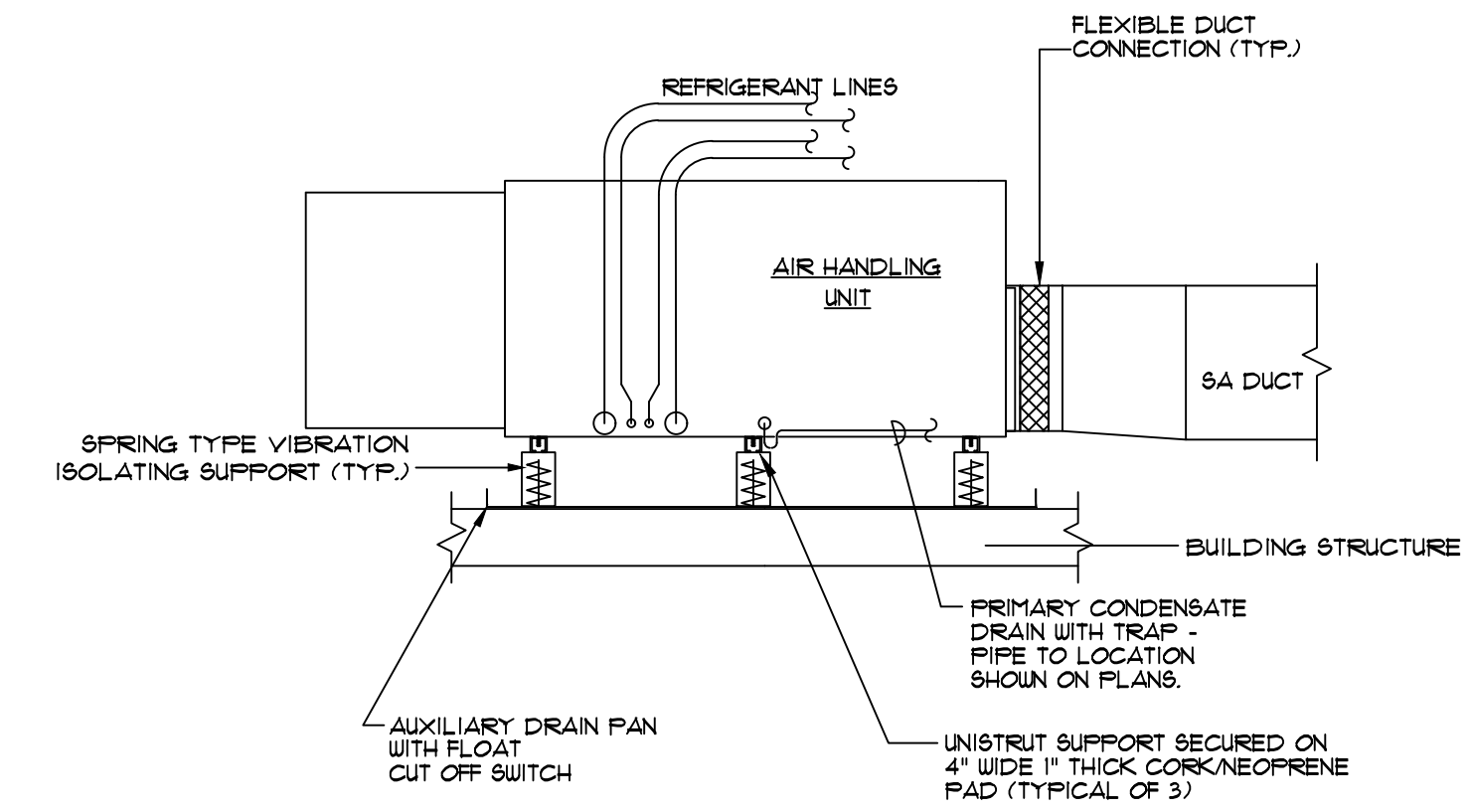
DRYERBOX DETAIL



CEILING EXHAUST FAN DETAIL

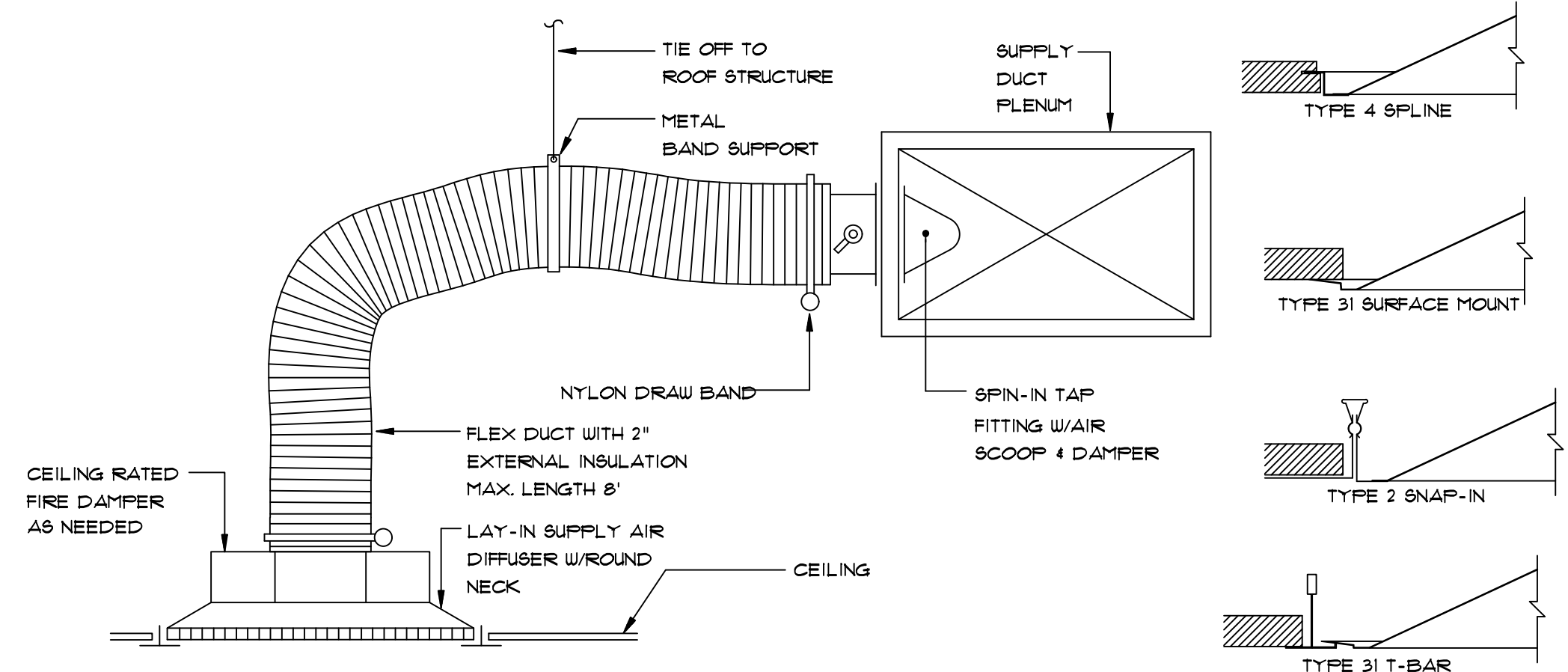
NOT TO SCALE

- 1 GALVANIZED STEEL HOUSING
- 2 HORIZONTAL DISCHARGE DUCT CONNECTION
- 3 OPTIONAL VERTICAL DISCHARGE
- 4 BACKDRAFT DAMPER
- 5 EXTERNAL ELECTRICAL ACCESS COVER
- 6 24"x24" PERFORATED GRILL
- 7 CEILING TILE
- 8 FLEXIBLE DUCT CONNECTOR
- 9 ADJUSTABLE MOUNTING FLANGE
- 10 VIBRATION ISOLATOR, TOP AND BOTTOM
- 11 3/8" DIAMETER THREADED HANGER RODS, TOTAL OF FOUR, SUPPORT FROM BUILDING STRUCTURE. PROVIDE SECONDARY FRAMING AS NECESSARY NUT AND WASHER
- 12



HORIZONTAL AIR HANDLING UNIT

N.T.S.



NOTE: FOR EXACT CEILING CONNECTION REFER TO CEILING TYPE DETAIL.

SUPPLY AIR DIFFUSER DETAIL

N.T.S.

WINTON ENGINEERING, PA
ROBIN WINTON, PE
2201 WOODBINE DR
TALLAHASSEE, FL 32309
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MARTHA'S RETREAT POOL HOUSE

2023-101 Drawn By: RPW
Project # Checked By: RPW
28 JUNE 2024
Date

- Revisions
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MECHANICAL PLAN