



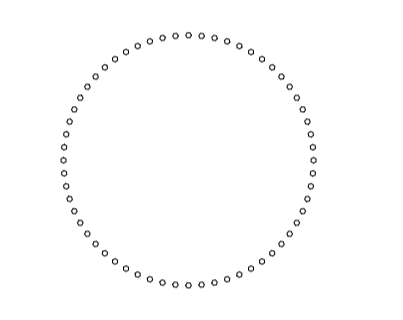
Edgecomb County Animal Shelter
TARBORO



PO Box 161
Davidson, NC 28036
ph. 704.756.3540
RLArchitecture.com



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RALEIGH, NC 27605
NC FIRM # C-3824
KPG PROJECT # 223547



DRAWING TITLE:

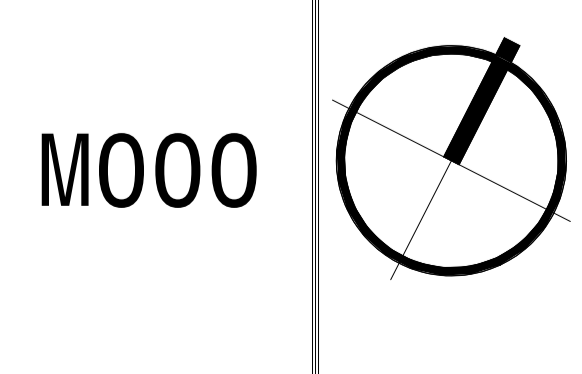
HVAC TITLE SHEET

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CONSTRUCTION DOCUMENTS

Table with columns: NO., DATE, DESCRIPTION. Includes a REVISIONS section.

ISSUE DATE: 07-18-2024



GENERAL MECHANICAL SYMBOLS. Includes symbols for revision number, point where new connects to existing, number of detail on sheet, keynotes, continuation symbol, room name and number, item to be demolished, area not in contract, pipe size tag, pipe slope tag, pipe invert elevation tag, and piping being demolished.

ABBREVIATIONS. Table with two columns listing abbreviations and their corresponding full names for various mechanical components like round, above, air conditioning, ductwork, valves, etc.

EQUIPMENT ABBREVIATIONS. Table listing abbreviations for various HVAC units and equipment like air conditioning unit, fan coil unit, fire pump, etc.

HVAC SYMBOLS. Includes symbols for square duct size tag, oval duct size tag, round duct size tag, existing duct tag, duct being demolished, supply air, conditioned outside air, outside air, return air, transfer air, exhaust air, relief air, grease exhaust air, condensate exhaust air, smoke exhaust air, exhaust gas flue, and combustion air.

GRILLES, REGISTERS & DIFFUSERS TAG. Includes symbols for 3-cone diffuser, perforated diffuser, round diffuser, louvered double deflection grille, linear bar grille, and linear slot diffuser.

MECHANICAL EQUIPMENT TAGS. Includes symbols for heating coil, flow, vav box, vav, vav-xx, and vav-xx with operating weight and nominal cooling capacity.

EQUIPMENT BY OTHERS. Includes symbols for equipment by other disciplines like electrical, plumbing, etc., with a note to refer to other disciplines for additional information.

DATA DEVICE TAGS. Includes symbols for various sensors and detectors like temperature sensor, humidity sensor, CO2 detector, NO2 detector, and smoke detectors.

PIPING SYMBOLS. Includes symbols for chilled water return, chilled water supply, condensate drainage, condensate water return, condenser water supply, geothermal water return, heating water return, heating water supply, natural gas, propane gas, refrigerant-liquid, refrigerant-suction, refrigerant-hot gas, steam, condensate return, pipe drop, pipe rise, pipe tee, and pipe cap.

PIPE ACCESSORY TAGS. Includes symbols for shut-off ball valve, locked lock shield valve, balancing valve, butterfly valve, check valve, strainer, gas control, quick opening, gate valve, globe valve, and press regulator.

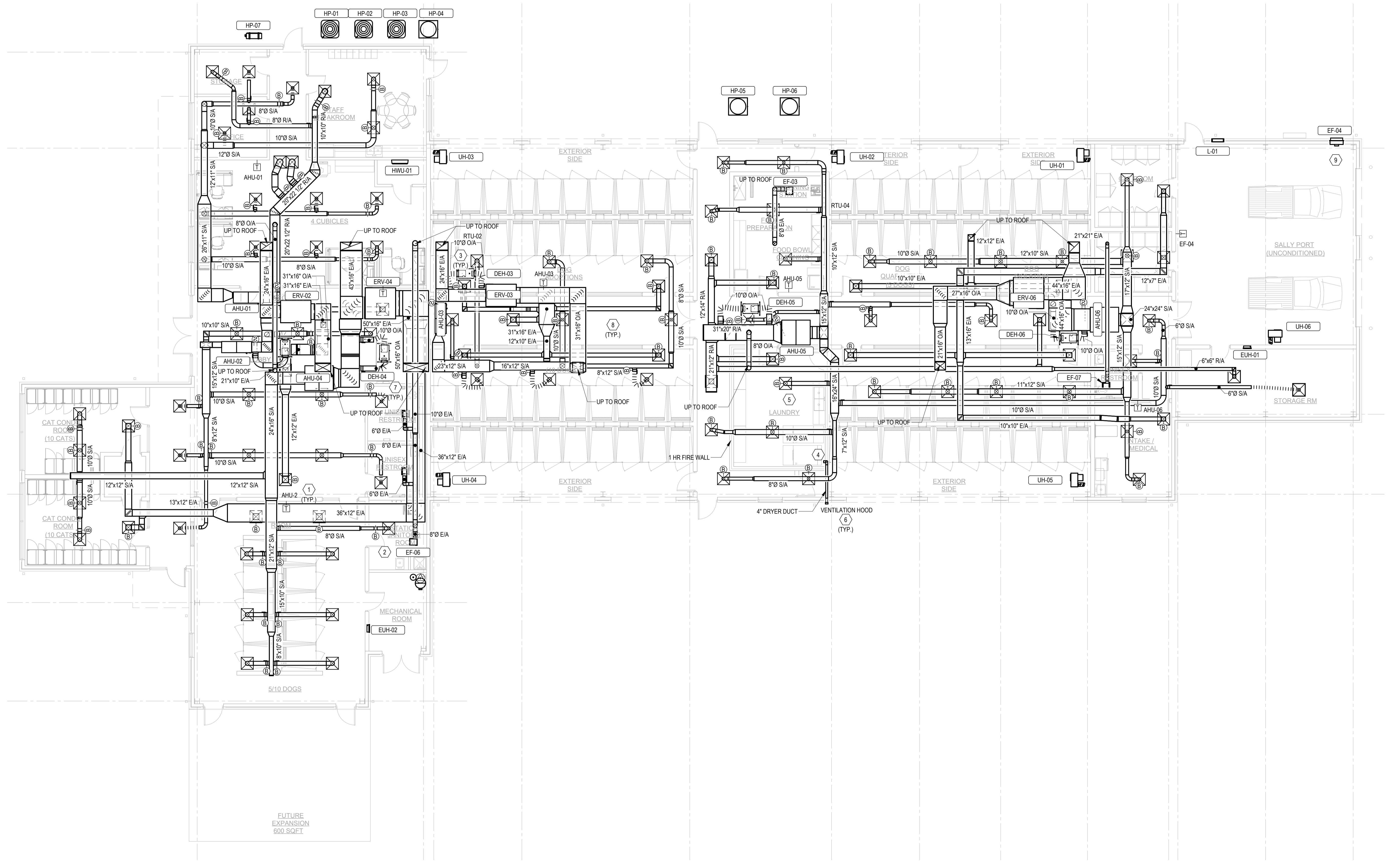
* NOTE * ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET. THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

MECHANICAL NOTES. A. MECHANICAL PLANS ARE INTENDED TO PROVIDE INFORMATION FOR INSTALLATION OF A COMPLETE OPERATING MECHANICAL SYSTEM. B. CONTRACTOR SHALL REVIEW AND BECOME FAMILIAR WITH THE WORK OF ALL TRADES FOR PURPOSES OF COORDINATION AND ROUTING. C. ALL WORK SHALL COMPLY WITH LOCAL, STATE, AND NATIONAL CODES. D. FABRICATE AND INSTALL DUCT PER SMACNA STANDARDS FOR 2-INCH WC WITH GALVANIZED METAL. E. ALL DUCT JOINTS, SEAMS AND BRANCH TAKEOFFS SHALL BE SEALED AIR-TIGHT WITH DUCT SEALANT. F. ROUND RUNOUTS SHALL HAVE SPIN-INS WITH DAMPERS. G. FLEX DUCT SHALL HAVE METALIZED VAPOR BARRIERS. H. RIGID ROUND AND RECTANGULAR DUCT SHALL BE EXTERNALLY INSULATED. I. COORDINATE THE EXACT LOCATION OF ALL CEILING DIFFUSERS, REGISTERS, AND GRILLES. J. CONDENSATE DRAINS SHALL BE SUPPLIED FOR ALL COOLING EQUIPMENT. K. REFRIGERANT PIPING SHALL BE TYPE ACR COPPER WITH SILVER SOLDERED JOINTS. L. GAS PIPING SHALL BE A-53 SCHEDULE 40 BLACK STEEL WITH MALLEABLE FITTINGS. M. ALL PIPING SHALL BE SUPPORTED AND SECURED WITH SUITABLE HANGERS, STRAPS OR PIPE STANDS. N. POWER WIRING, DISCONNECTS AND STARTERS NOT FURNISHED WITH HVAC EQUIPMENT AND FINAL CONNECTIONS SHALL BE BY THE E.C. O. CONTROL WIRING, RELAYS AND INTERLOCKING DEVICES SHALL BE PROVIDED BY THE M.C. P. UL LISTED DUCT SMOKE DETECTORS SHALL BE FURNISHED. Q. TEMPERATURE CONTROLS FOR EACH HEATING-COOLING SYSTEM SHALL CONSIST OF AN ELECTRONIC PROGRAMMABLE HEATING-COOLING THERMOSTAT. R. INSTALL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE AND REPAIR. S. PROVIDE FLEX CONNECTORS AT ALL DUCT TO EQUIPMENT CONNECTIONS. T. CONTRACTOR SHALL BALANCE AIR SYSTEM TO QUANTITIES INDICATED ON PLANS. U. ALL EQUIPMENT AND SYSTEMS SHALL BE WASHED. V. CONTRACTOR SHALL INSTALL A NEW SET OF PLEATED FILTERS. W. CONTRACTOR SHALL PROVIDE BUILDING OWNER WITH A COMPLETE OPERATING AND MAINTENANCE MANUAL.

Mechanical notes A through W detailing installation and compliance requirements.

HVAC SHEET INDEX. Table listing sheet numbers (M000-M005) and their corresponding titles (HVAC TITLE SHEET, FIRST FLOOR FLOOR PLAN, etc.).

- KEYNOTES**
- CONTRACTOR TO INSTALL THERMOSTAT, AND ALSO INSTALL VISIBLE/AUDIBLE ALARM WITH KEY SWITCH AND TESTING FUNCTION FOR EACH DUCT MOUNTED SMOKE DETECTOR. SMOKE DETECTORS NEED TO BE DUCT MOUNTED ON UNITS 5 TONS OR GREATER. THERMOSTAT TO BE HONEYWELL TCS60A COMMERCIAL THERMOSTAT OR EQUAL.
 - HVAC CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR SO FAN IS WIRED TO RUN CONTINUOUSLY.
 - DEHUMIDIFIER TO BE INTERLOCKED WITH RTU AND ERV SO DEHUMIDIFIER ONLY RUNS WHEN RTU & ERV ARE RUNNING. WIRE MOTORIZED DAMPER TO OPEN WHEN DEHUMIDIFIER IS RUNNING. DEHUMIDIFIER TO BE CONTROLLED BY THERMOSTAT OR SEPARATE CONTROLLER LOCATED NEXT TO THERMOSTAT FOR THAT UNIT. DEHUMIDIFIER CONDENSATE LINE SHALL BE RUN TO GRADE, SLOPE PER MANUFACTURE. MC SHALL PROVIDE A CONDENSATE PUMP IF ONE IS NEEDED.
 - DRYER DUCT TO BE WRAPPED WITH "FIREWRAP DPS INSULATION" OR EQUAL WHERE DUCT PENETRATES A FIRE RATED STRUCTURE.
 - ALL DUCT IN THIS ROOM TO PENETRATE FIRE RATED CEILING. MC TO INSTALL FIRE/SMOKE DAMPERS WHERE DUCT PENETRATES FIRE RATED STRUCTURE.
 - M.C. TO ROUTE EXHAUST FANS TO OUTSIDE. COORDINATE WITH ARCHITECT AND G.C. AS TO WHETHER THEY PENETRATE THE WALL OR THE ROOF STRUCTURE. M.C. TO PROVIDE PROPER RAIN CAP.
 - EXHAUST FAN SHALL BE SWITCHED WITH LIGHT. M.C. TO COORDINATE SWITCHING WITH E.C.
 - FLEXIBLE AIR DUCTS, BOTH METALLIC AND NONMETALLIC, SHALL BE TESTED IN ACCORDANCE WITH UL 181. SUCH DUCTS SHALL BE LISTED AND LABELED AS CLASS 0 OR CLASS 1 FLEXIBLE AIR DUCTS AND SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 304.1 FLEXIBLE DUCTS SHALL BE UNLIMITED IN LENGTH. FLEXIBLE AIR CONNECTORS SHALL BE LIMITED IN LENGTH TO SIX FEET.
 - EF-04 TO BE INTERLOCKED WITH MOTORIZED DAMPERS ON L-01. M.C. SHALL WIRE A CONSPICUOUS COND. SENSOR INTO THE FAN CONTROL SO FAN WILL COME ON AUTOMATICALLY. M.C. TO COORDINATE POWER WITH EC. MOUNT EF-04 AT SAME ELEVATION OF L-01.



1 LEVEL 1 HVAC PLAN
1/8" = 1'-0"

DRAWING TITLE:
HVAC FIRST FLOOR FLOOR PLAN

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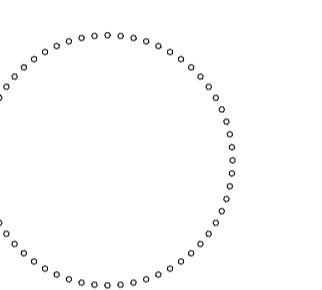


Edgecombe County Animal Shelter
TARBORO

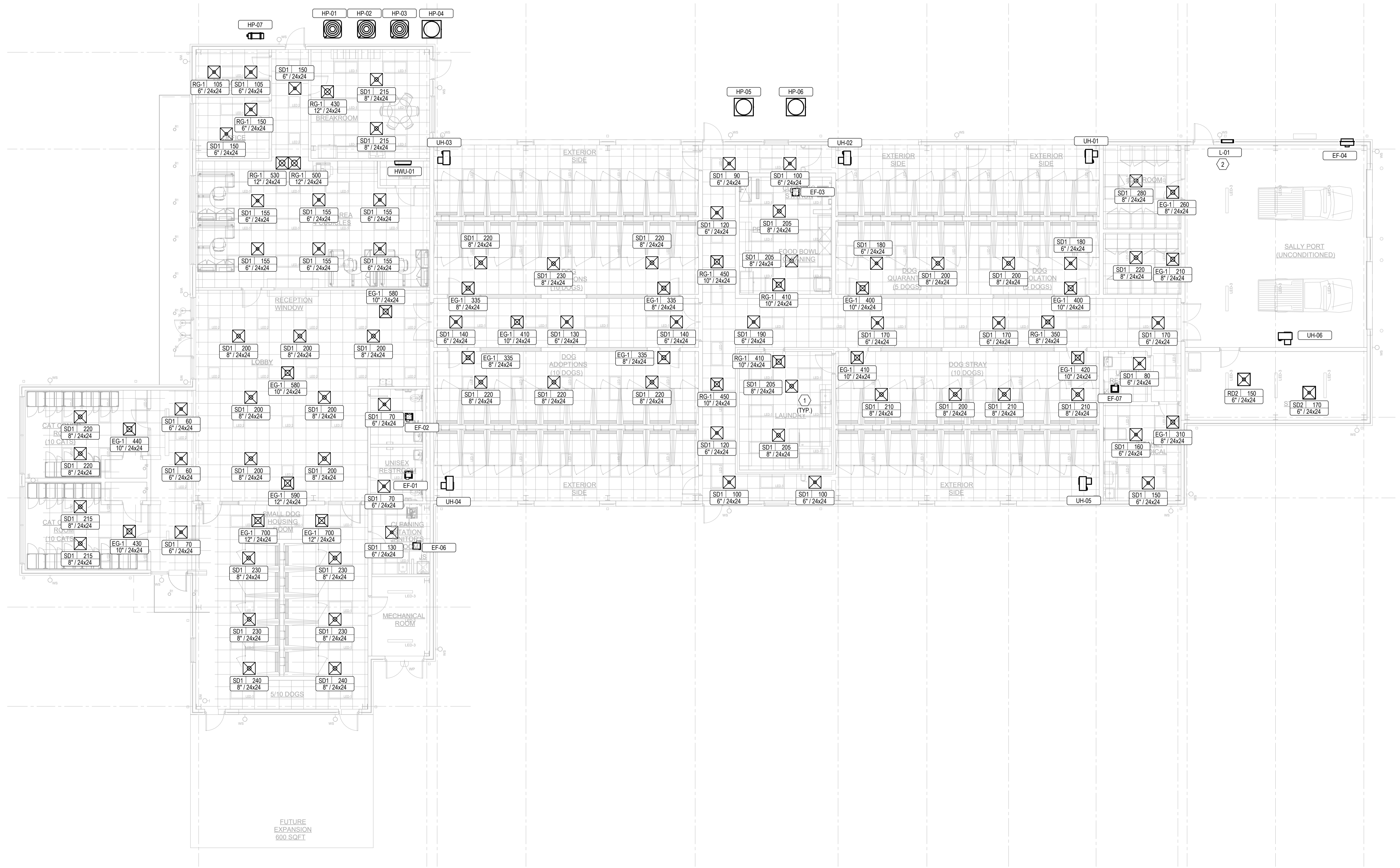
VETERINARY ARCHITECTURE
Unleashed
A Division of RL Architecture, PLLC

PO Box 161
Davidson, NC 28036
ph. 704.756.3540
RLArchitecture.com

KAIROS PROJECT GROUP, INC.
120 SOMMERVILLE PARK ROAD
RALEIGH, NC 27603
NC FIRM # C-3824
KPG PROJECT # 223S47



KEYNOTES
1 ALL DIFFUSERS AND GRILLES PENETRATING THE FIRE RATED CEILING AND ALL DUCTWORK PENETRATING FIRE RATED WALLS SHALL HAVE A SELF-CLOSING SMOKE AND DRAFT CONTROL ASSEMBLY HAVING A FIRE PROTECTION RATING OF NOT LESS THAN ONE HOUR.
2 HVAC CONTRACTOR TO COORDINATE LOCATION AND INSTALLATION OF LOUVERS WITH GC. MOUNT LOUVER 12" BELOW THE FINISHED CEILING.



1 LEVEL 1 RCP
1/8" = 1'-0"

DRAWING TITLE:
HVAC FIRST FLOOR RCP

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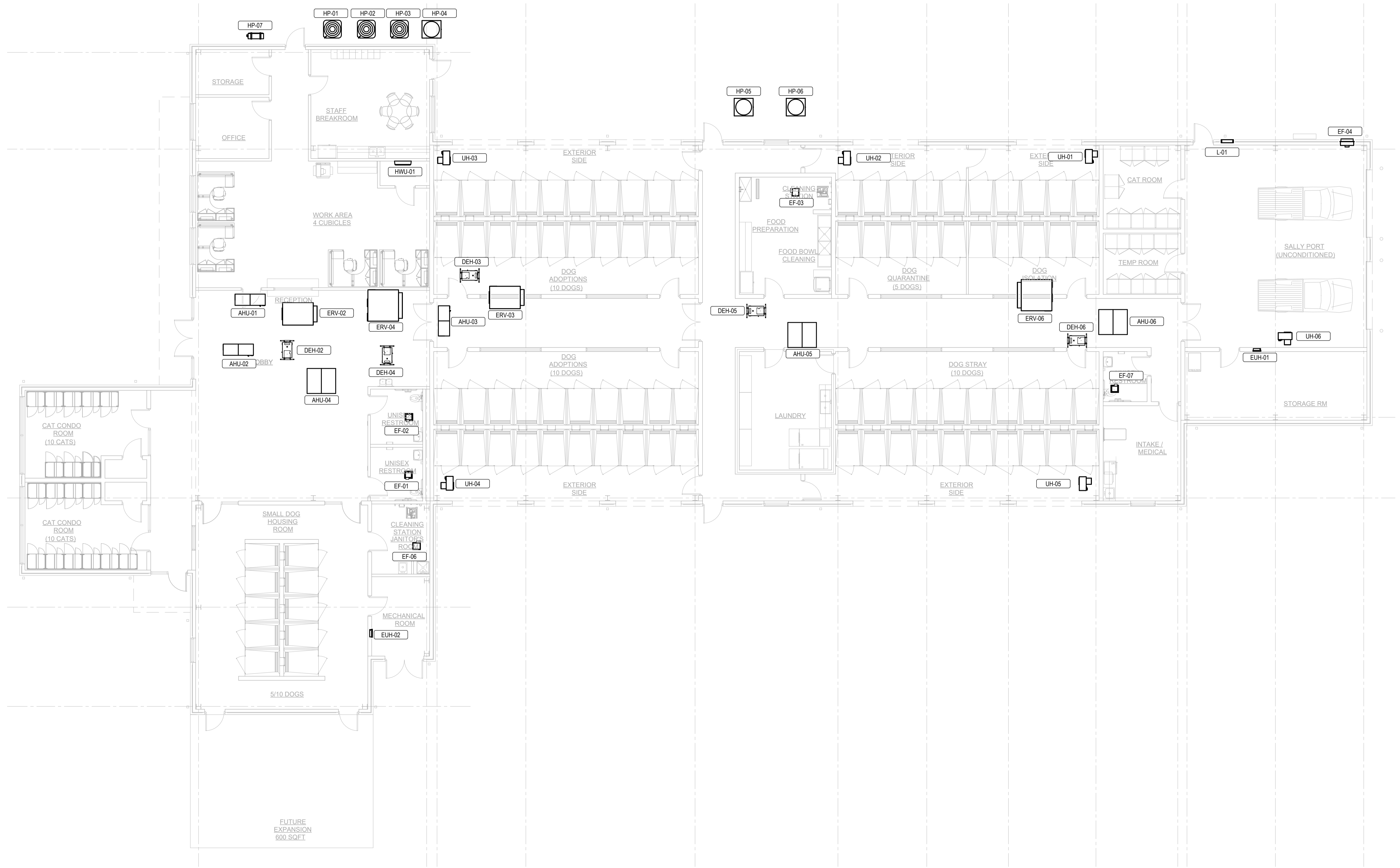
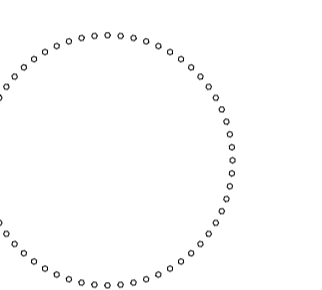
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M102



1 LEVEL 1 HVAC EQUIPMENT PLAN
M103 1/8" = 1'-0"

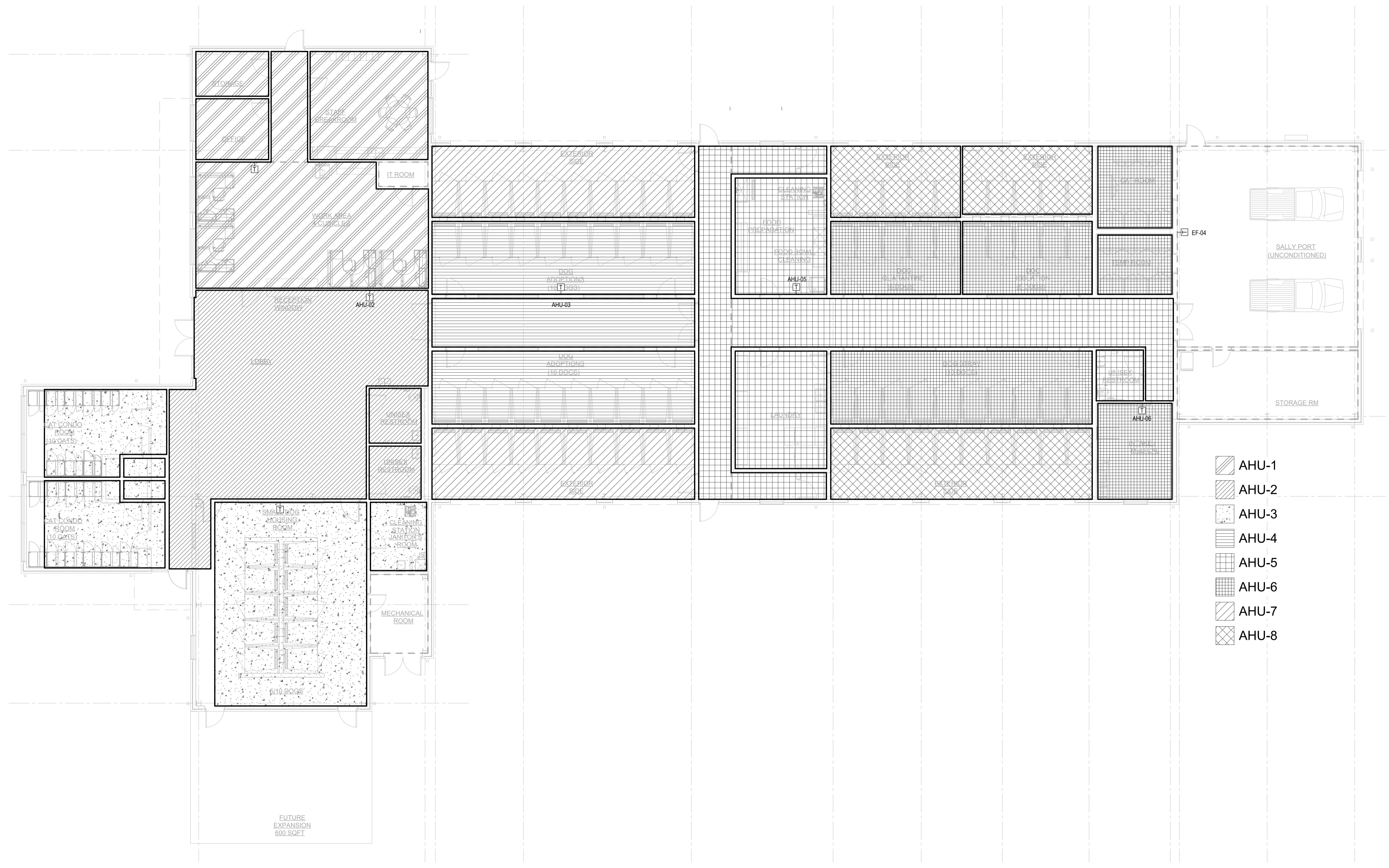
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**HVAC FIRST FLOOR FLOOR
EQUIPMENT PLAN**

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- ▲ AHU-1
- ▲ AHU-2
- ▲ AHU-3
- ▲ AHU-4
- ▲ AHU-5
- ▲ AHU-6
- ▲ AHU-7
- ▲ AHU-8

1 ZONE PLAN
M104
1/8" = 1'-0"

DRAWING TITLE:
HVAC ZONE PLAN

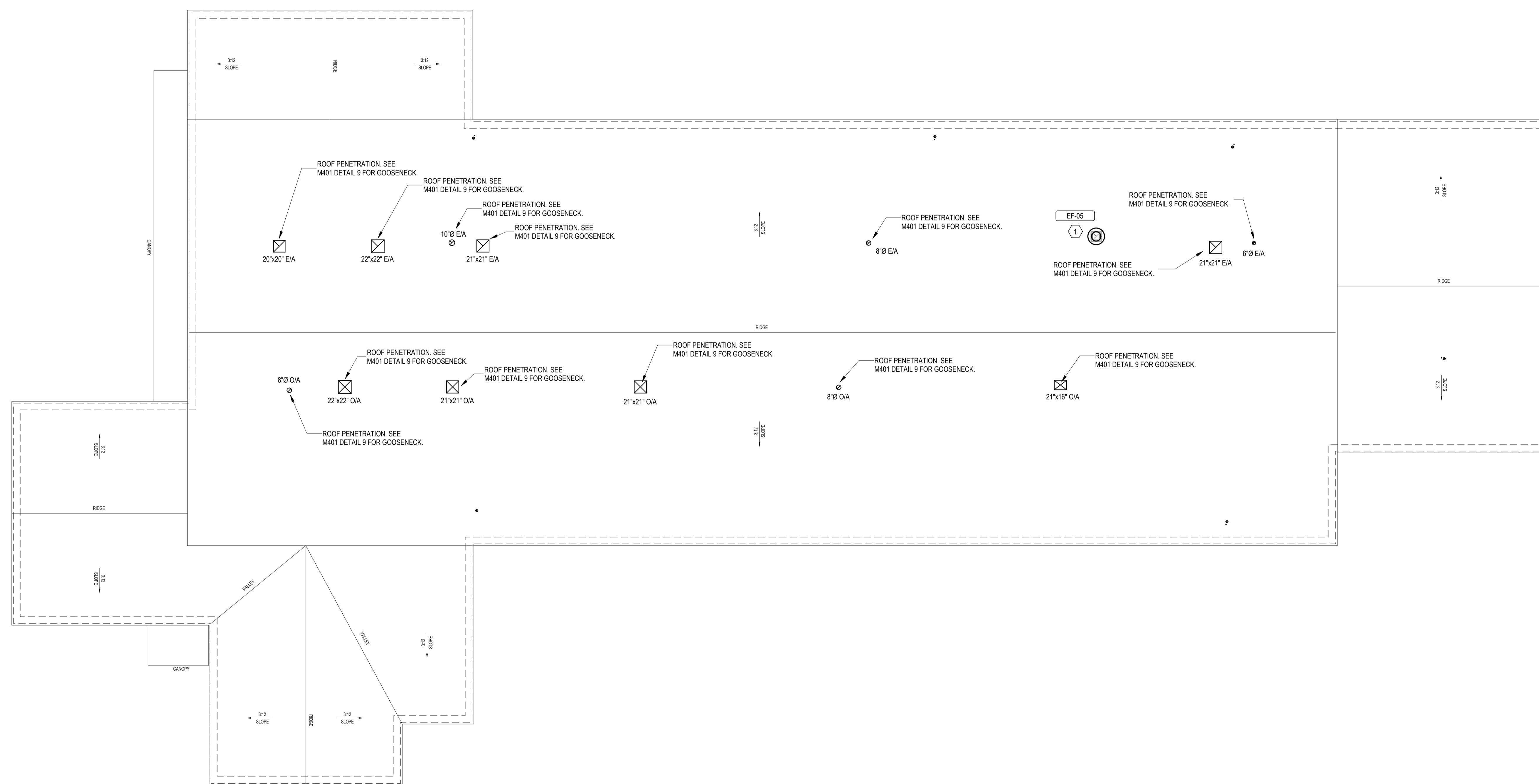
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KEYNOTES
1 EF-05 SHALL BE INTERLOCKED WITH AHU-06 AND RUN WHEN EVER THE FAN FOR AHU-06 IS RUNNING. MC TO COORDINATE POWER WITH EC.



1 HVAC ROOF PLAN
M105 1/8" = 1'-0"

DRAWING TITLE:
HVAC ROOF PLAN

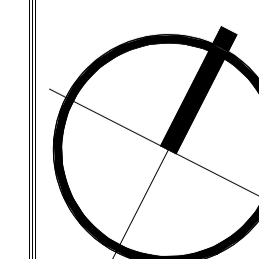
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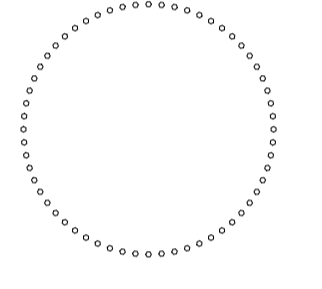
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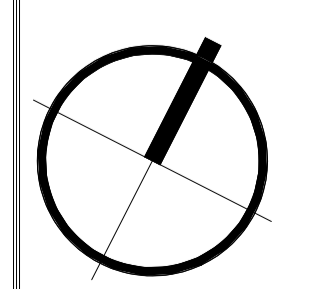
M105





CONSTRUCTION DOCUMENTS

REVISIONS		
NO.	DATE	DESCRIPTION



2018 NCMC VENTILATION CALCULATIONS													
AHU-1													
ROOM NAME	OCCUPANCY CLASS	AREA (A _z)	OCCUPANCY DENSITY (PEOPLE / 1000 FT ²)	OCCUPANCY (P _z)	OCCUPANCY BASED		AREA BASED		BREATHING ZONE OUTDOOR AIRFLOW (V _b = R _p *P _z + R _a *A _z)	ZONE AIR DISTRIBUTION EFFECTIVENESS	ZONE OUTDOOR AIRFLOW (V _{oz} = V _{bz} / E _z)	EXHAUST RATE (CFM)	PET SHOP EXHAUST 0.9
					CFM / PERSON (R _p)	CFM (R _p *P _z)	CFM / SF (R _a)	CFM (R _a *A _z)					
STAFF BREAKROOM 116	OFFICES-RECEPTION AREAS	344	30	11	5	55	0.06	20.64	75.64	0.8	95	0	0
CORRIDOR #1 115	PUBLIC SPACES-CORRIDORS	109	0	0	0	0	0.06	6.54	6.54	0.8	9	0	0
SUPPLY STORAGE 114	RETAIL-STORAGE	88	0	0	0	0	0.12	10.56	10.56	0.8	14	0	0
OFFICE113	OFFICES-OFFICES	120	5	1	5	5	0.06	7.2	12.2	0.8	16	0	0
ADMIN OPEN OFFICE 111	OFFICES-OFFICES	756	5	4	5	20	0.06	45.36	65.36	0.8	82	0	0
TOTALS		1417		16							216	0	0

OUTDOOR AIR INTAKE FLOW RATE:	216
PET SHOP EXHAUST FLOW RATE:	0
EXHAUST FLOW RATE PLUS 8% FOR PRESSURIZATION	0
FINAL VENT. AIR REQUIREMENT (GREATER OF THE ABOVE):	216

BALANCE AHU-01 TO PROVIDE 220 CFM OF OUTSIDE AIR.

2018 NCMC VENTILATION CALCULATIONS													
AHU-2													
ROOM NAME	OCCUPANCY CLASS	AREA (A _z)	OCCUPANCY DENSITY (PEOPLE / 1000 FT ²)	OCCUPANCY (P _z)	OCCUPANCY BASED		AREA BASED		BREATHING ZONE OUTDOOR AIRFLOW (V _b = R _p *P _z + R _a *A _z)	ZONE AIR DISTRIBUTION EFFECTIVENESS	ZONE OUTDOOR AIRFLOW (V _{oz} = V _{bz} / E _z)	EXHAUST RATE (CFM)	PET SHOP EXHAUST 0.9
					CFM / PERSON (R _p)	CFM (R _p *P _z)	CFM / SF (R _a)	CFM (R _a *A _z)					
LOBBY / RECEPTION AREA 101	PET SHOPS (ANIMAL AREAS)	1284	10	13	7.5	97.5	0.18	231.12	328.62	0.8	411	0	1155.6
UNSEX RESTROOM 109	PUBLIC SPACES- TOILETS	77	0	0	0	0	0	0	0	0.8	0	80	0
UNSEX RESTROOM 110	PUBLIC SPACES- TOILETS	75	0	0	0	0	0	0	0	0.8	0	80	0
TOTALS		1436		13							411	160	1155.6

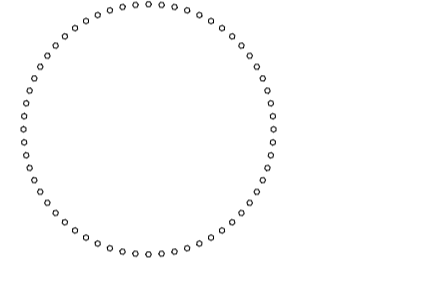
OUTDOOR AIR INTAKE FLOW RATE:	411
PET SHOP EXHAUST FLOW RATE:	1155.6
EXHAUST FLOW RATE PLUS 8% FOR PRESSURIZATION	172.8
FINAL VENT. AIR REQUIREMENT (GREATER OF THE ABOVE):	1156

BALANCE AHU-02 TO PROVIDE 0 CFM OF OUTSIDE AIR.
BALANCE ERV-02 TO PROVIDE 1750 CFM OF OUTSIDE AIR.

2018 NCMC VENTILATION CALCULATIONS													
AHU-3													
ROOM NAME	OCCUPANCY CLASS	AREA (A _z)	OCCUPANCY DENSITY (PEOPLE / 1000 FT ²)	OCCUPANCY (P _z)	OCCUPANCY BASED		AREA BASED		BREATHING ZONE OUTDOOR AIRFLOW (V _b = R _p *P _z + R _a *A _z)	ZONE AIR DISTRIBUTION EFFECTIVENESS	ZONE OUTDOOR AIRFLOW (V _{oz} = V _{bz} / E _z)	EXHAUST RATE (CFM)	PET SHOP EXHAUST 0.9
					CFM / PERSON (R _p)	CFM (R _p *P _z)	CFM / SF (R _a)	CFM (R _a *A _z)					
DOG ADOPTION INTERIOR SIDE 120	PET SHOPS(ANIMAL AREAS)	519	10	6	7.5	45	0.18	93.42	138.42	0.8	174	0	467.1
CORRIDOR #2 119	PUBLIC SPACES-CORRIDORS	346	0	0	0	0	0.06	20.76	20.76	0.8	26	0	0
DOG ADOPTION INTERIOR SIDE 118	PET SHOPS(ANIMAL AREAS)	519	10	6	7.5	45	0.18	93.42	138.42	0.8	174	0	467.1
TOTALS		1384		12							374	0	934.2

OUTDOOR AIR INTAKE FLOW RATE:	374
PET SHOP EXHAUST FLOW RATE:	934.2
EXHAUST FLOW RATE PLUS 8% FOR PRESSURIZATION	0
FINAL VENT. AIR REQUIREMENT (GREATER OF THE ABOVE):	940

BALANCE AHU-03 TO PROVIDE 0 CFM OF OUTSIDE AIR.
BALANCE ERV-03 TO PROVIDE 1750 CFM OF OUTSIDE AIR.



DRAWING TITLE:
HVAC SCHEDULES

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M302

2018 NCMC VENTILATION CALCULATIONS
AHU-4

ROOM NAME	OCCUPANCY CLASS	AREA (A _z)	OCCUPANCY DENSITY (PEOPLE / 1000 FT ²)	OCCUPANCY (P _z)	OCCUPANCY BASED		AREA BASED		BREATHING ZONE OUTDOOR AIRFLOW (V _b = Rp*Pz + Ra*A _z)	ZONE AIR DISTRIBUTION EFFECTIVENESS	ZONE OUTDOOR AIRFLOW (V _{oz} = Vbz / Ez)	EXHAUST RATE (CFM)	PET SHOP EXHAUST
					CFM / PERSON (Rp)	CFM (Rp*Pz)	CFM / SF (Ra)	CFM (Ra*A _z)					
CAT CONDO 102	PET SHOP-(ANIMAL AREA)	261	10	3	7.5	22.5	0.18	46.98	69.48	0.8	87	0	234.9
CLOSET 103	RETAIL STORE-STORAGE ROOMS	21	0	0	0	0	0.06	1.26	1.26	0.8	2	0	0
CAT CONDO 104	PET SHOP-(ANIMAL AREA)	258	15	4	7.5	30	0.18	46.44	76.44	0.8	96	0	232.2
CLOSET 105	RETAIL STORE-STORAGE ROOMS	20	0	0	7.5	0	0.06	1.2	1.2	0.8	2	0	0
SMALL DOG HOUSING ROOM 106	PET SHOP-(ANIMAL AREA)	837	10	9	7.5	67.5	0.18	150.66	218.16	0.8	273	0	753.3
CLEANING STATION / JC 108	ASHRAE 62.1-JC	104	0	0	0	0	0	0	0	0.8	0	50	104
MECHANICAL ROOM 107	RETAIL STORE-STORAGE ROOMS	122	0	0	0	0	0.06	7.32	7.32	0.8	10	0	0
TOTALS ---->		1623		16							470	50	1324.4
OUTDOOR AIR INTAKE FLOW RATE:		470											
PET SHOP EXHAUST FLOW RATE:		1324.4											
EXHAUST FLOW RATE PLUS 8% FOR PRESSURIZATION		51											
FINAL VENT. AIR REQUIREMENT (GREATER OF THE ABOVE):		1324											

BALANCE AHU-04 TO PROVIDE 0 CFM OF OUTSIDE AIR.
BALANCE ERV-04 TO PROVIDE 2400 CFM OF OUTSIDE AIR.

2018 NCMC VENTILATION CALCULATIONS
AHU-5

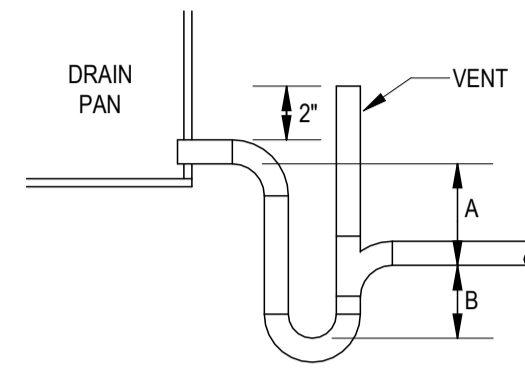
ROOM NAME	OCCUPANCY CLASS	AREA (A _z)	OCCUPANCY DENSITY (PEOPLE / 1000 FT ²)	OCCUPANCY (P _z)	OCCUPANCY BASED		AREA BASED		BREATHING ZONE OUTDOOR AIRFLOW (V _b = Rp*Pz + Ra*A _z)	ZONE AIR DISTRIBUTION EFFECTIVENESS	ZONE OUTDOOR AIRFLOW (V _{oz} = Vbz / Ez)	EXHAUST RATE (CFM)	PET SHOP EXHAUST
					CFM / PERSON (Rp)	CFM (Rp*Pz)	CFM / SF (Ra)	CFM (Ra*A _z)					
CORRIDOR #3 122	PUBLIC SPACES-CORRIDORS	310	0	0	7.5	0	0.06	18.6	18.6	0.8	24	0	0
CORRIDOR #4 123	PUBLIC SPACES-CORRIDORS	69	0	0	7.5	0	0.06	4.14	4.14	0.8	6	0	0
CORRIDOR #5 124	PUBLIC SPACES-CORRIDORS	72	0	0	7.5	0	0.06	4.32	4.32	0.8	6	0	0
CORRIDOR #6 125	PUBLIC SPACES-CORRIDORS	621	0	0	7.5	0	0.06	37.26	37.26	0.8	47	0	0
LAUNDRY 127	DRY CLEANER-COMMERCIAL LAUNDRY	291	10	3	25	75	0	0	75	0.8	94	0	0
FOOD PREP AREA 126	ASHRAE 62.1-2019-BREAK ROOM	288	25	8	5	40	0.06	17.28	57.28	0.8	72	0	0
UNISEX TOILET 135	PUBLIC SPACES-TOILETS	65	0	0	0	0	0.06	3.9	3.9	0.8	5	0	0
TOTALS ---->		1716		11							254	0	0
OUTDOOR AIR INTAKE FLOW RATE:		254											
PET SHOP EXHAUST FLOW RATE:		0											
EXHAUST FLOW RATE PLUS 8% FOR PRESSURIZATION		0											
FINAL VENT. AIR REQUIREMENT (GREATER OF THE ABOVE):		254											

BALANCE AHU-05 TO PROVIDE 260 CFM OF OUTSIDE AIR.

2018 NCMC VENTILATION CALCULATIONS
AHU-6

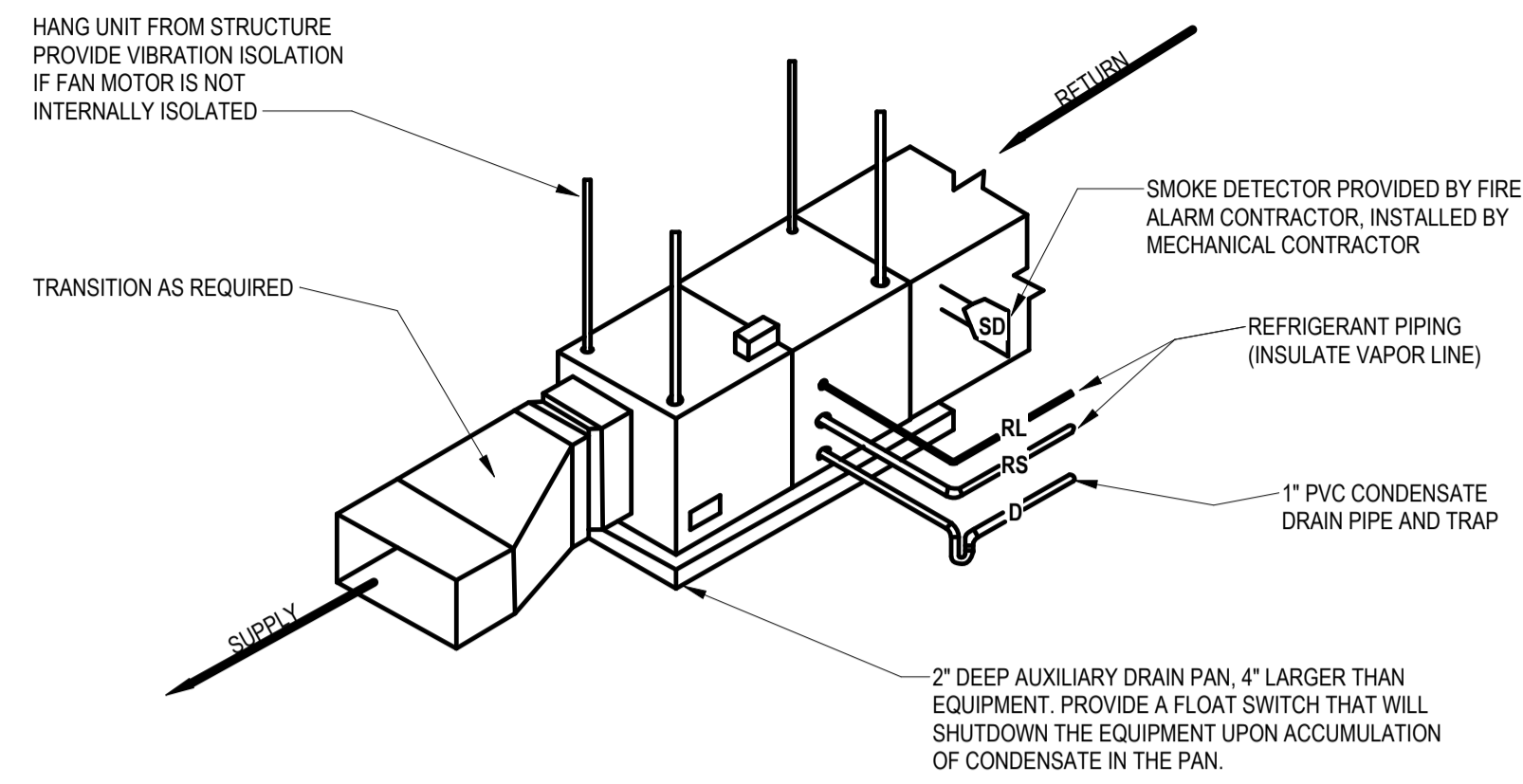
ROOM NAME	OCCUPANCY CLASS	AREA (A _z)	OCCUPANCY DENSITY (PEOPLE / 1000 FT ²)	OCCUPANCY (P _z)	OCCUPANCY BASED		AREA BASED		BREATHING ZONE OUTDOOR AIRFLOW (V _b = Rp*Pz + Ra*A _z)	ZONE AIR DISTRIBUTION EFFECTIVENESS	ZONE OUTDOOR AIRFLOW (V _{oz} = Vbz / Ez)	EXHAUST RATE (CFM)	PET SHOP EXHAUST
					CFM / PERSON (Rp)	CFM (Rp*Pz)	CFM / SF (Ra)	CFM (Ra*A _z)					
DOG STRAY INTERNAL SIDE 132	PET SHOPS (ANIMAL AREAS)	516	10	6	7.5	45	0.18	92.88	137.88	0.8	173	0	464.4
DOG QUARTINE INTERNAL SIDE 129	PET SHOPS (ANIMAL AREAS)	256	10	3	7.5	22.5	0.18	46.08	68.58	0.8	86	0	230.4
DOG ISO INTERNAL SIDE 131	PET SHOPS (ANIMAL AREAS)	256	10	3	7.5	22.5	0.18	46.08	68.58	0.8	86	0	230.4
INTAKE/MEDICAL 134	PET SHOPS (ANIMAL AREAS)	192	10	2	7.5	15	0.18	34.56	49.56	0.8	62	0	172.8
CAT ROOM 137	PET SHOPS (ANIMAL AREAS)	164	10	2	7.5	15	0.18	29.52	44.52	0.8	56	0	147.6
TEMP ROOM 136	PET SHOPS (ANIMAL AREAS)	119	10	2	7.5	15	0.18	21.42	36.42	0.8	46	0	107.1
TOTALS ---->		1503		18							509	0	1352.7
OUTDOOR AIR INTAKE FLOW RATE:		509											
PET SHOP EXHAUST FLOW RATE:		1352.7											
EXHAUST FLOW RATE PLUS 8% FOR PRESSURIZATION		0											
FINAL VENT. AIR REQUIREMENT (GREATER OF THE ABOVE):		1353											

BALANCE AHU-06 TO PROVIDE 0 CFM OF OUTSIDE AIR.
BALANCE ERV-06 TO PROVIDE 2400 CFM OF OUTSIDE AIR.

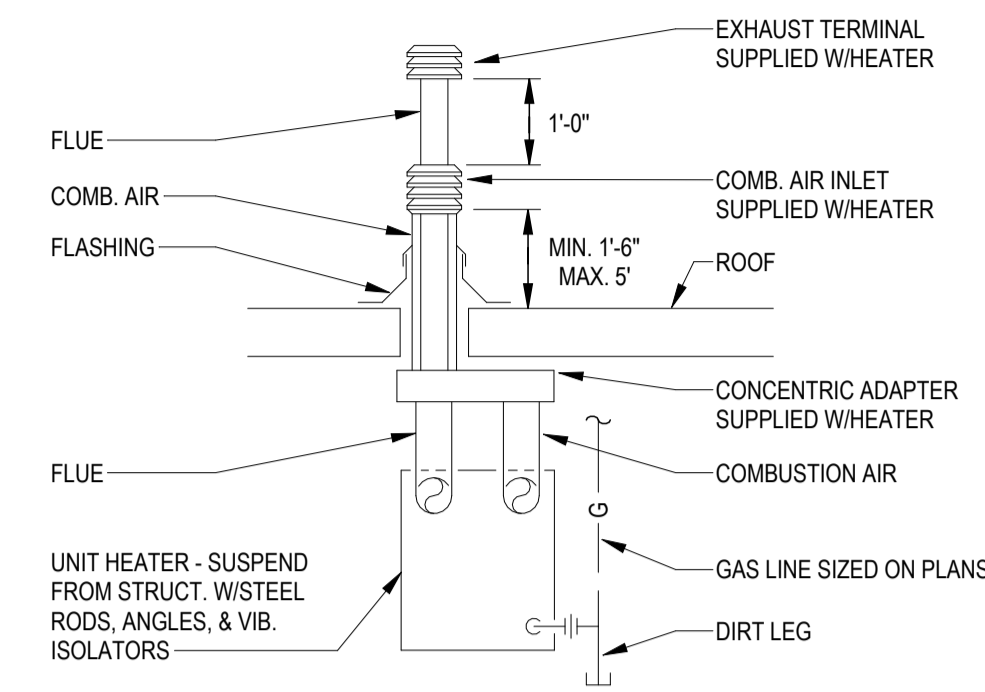


A= SCHEDULED FAN STATIC PLUS ONE INCH
B= 1/2 OF SCHEDULED FAN STATIC

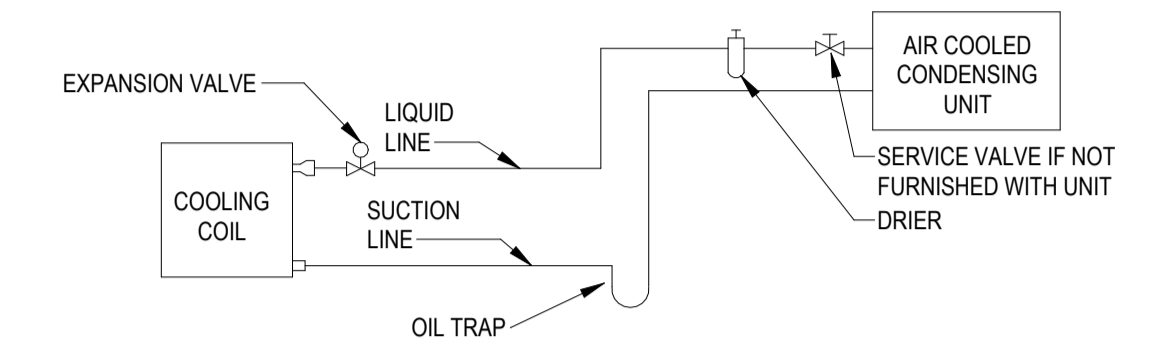
4 M401 COOLING COIL CONDENSATE DRAIN DETAIL
NOT TO SCALE



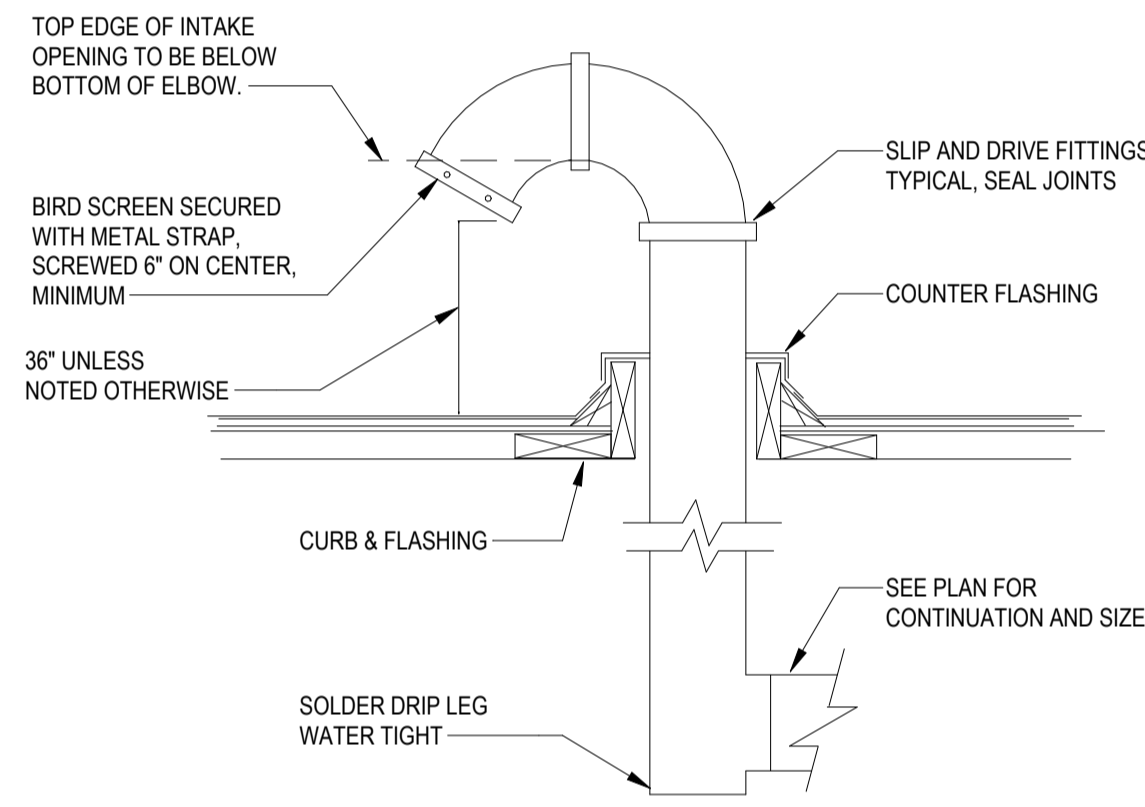
3 M401 AHU HORIZONTAL MOUNTING
NOT TO SCALE



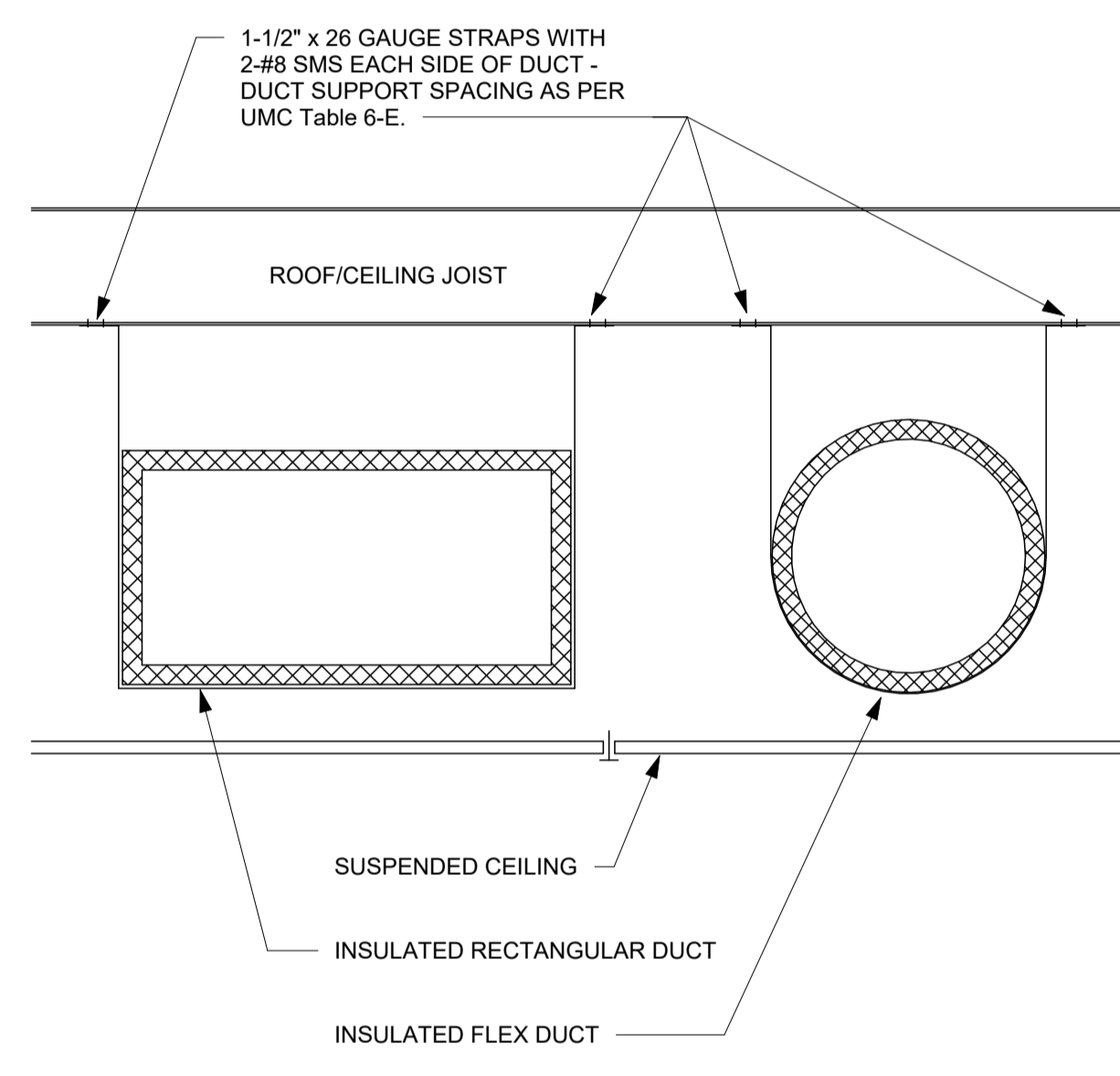
2 M401 GAS FIRED UNIT HEATER DETAIL
NOT TO SCALE



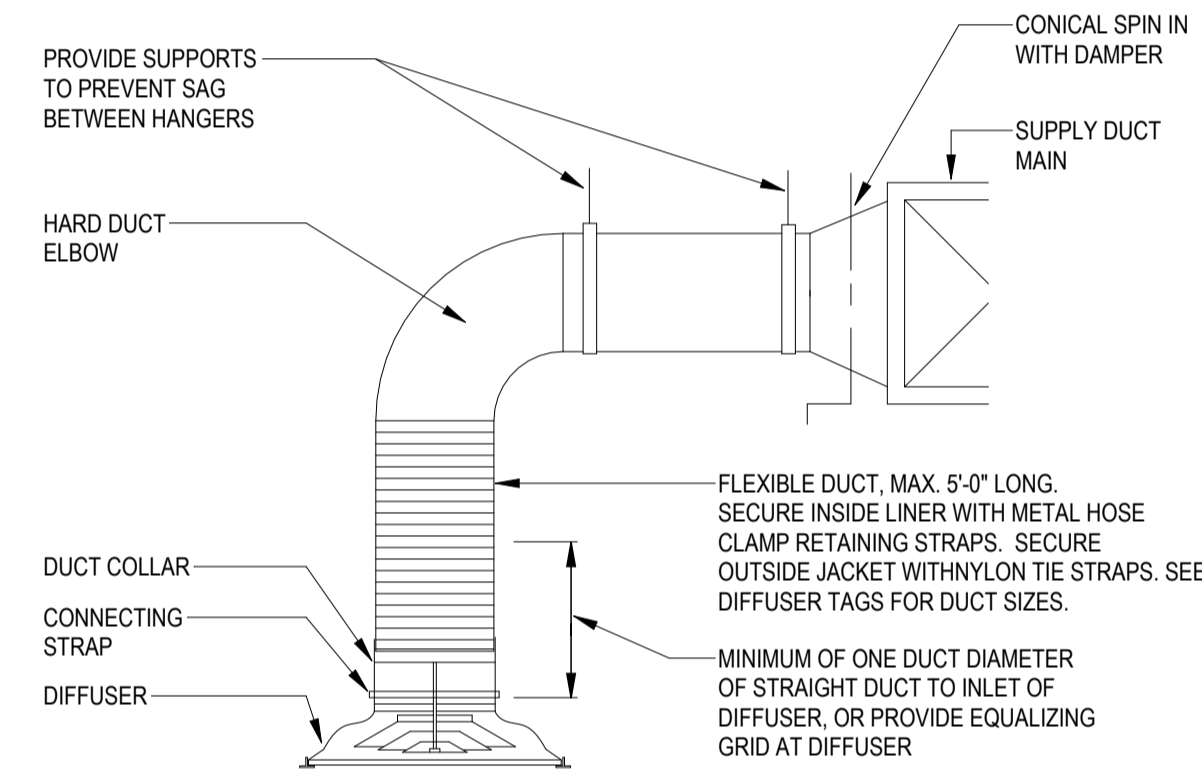
1 M401 SPLIT SYSTEM FAN COIL UNIT PIPING SCHEMATIC
NOT TO SCALE



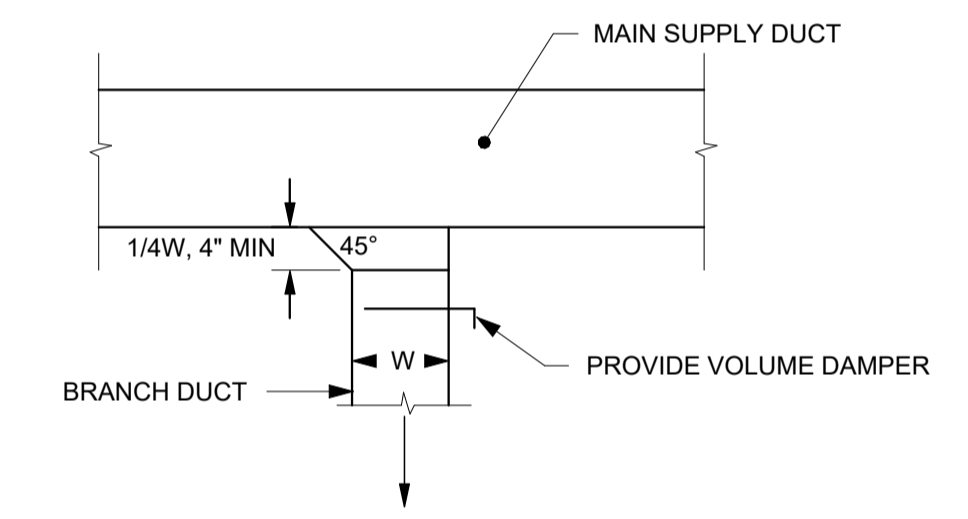
8 M401 INTAKE OR EXHAUST GOOSENECK
NOT TO SCALE



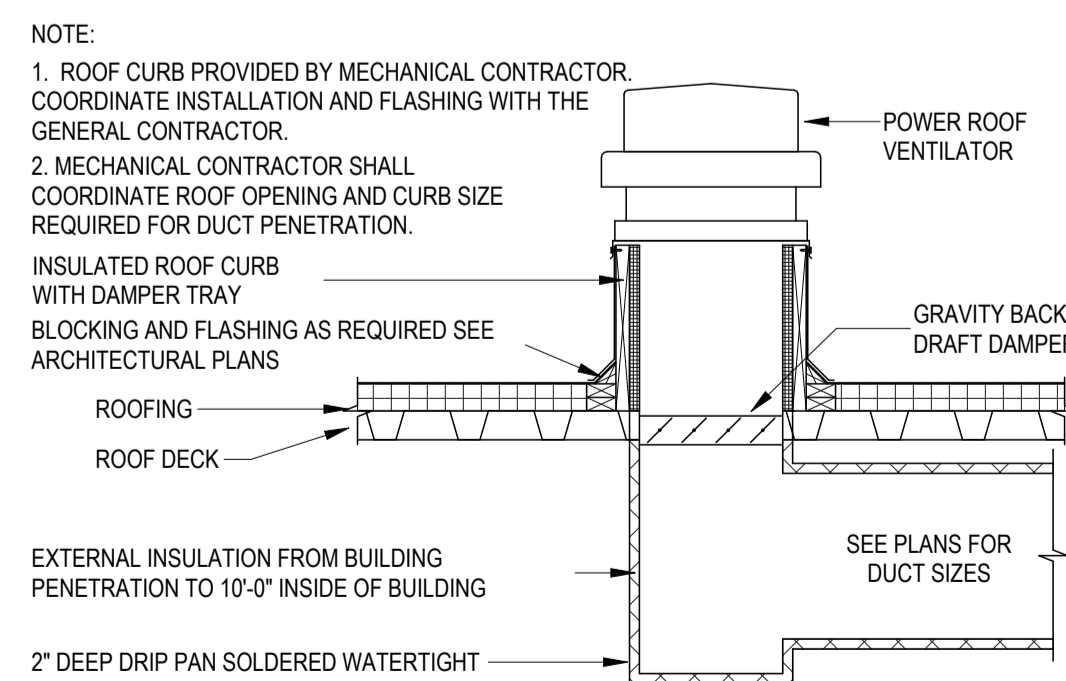
7 M401 DUCT SUPPORT DETAIL
NOT TO SCALE



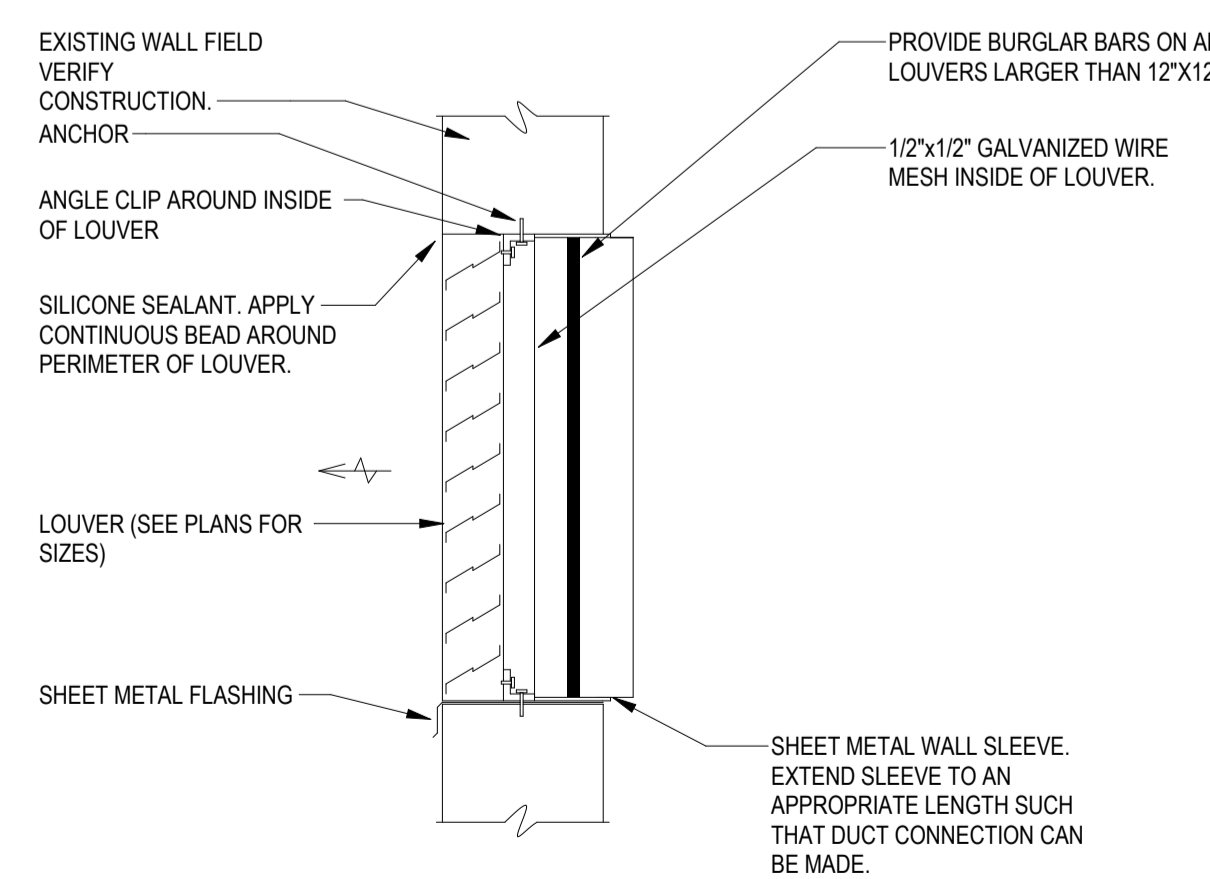
6 M401 DIFFUSER FLEXIBLE DUCT CONNECTION
NOT TO SCALE



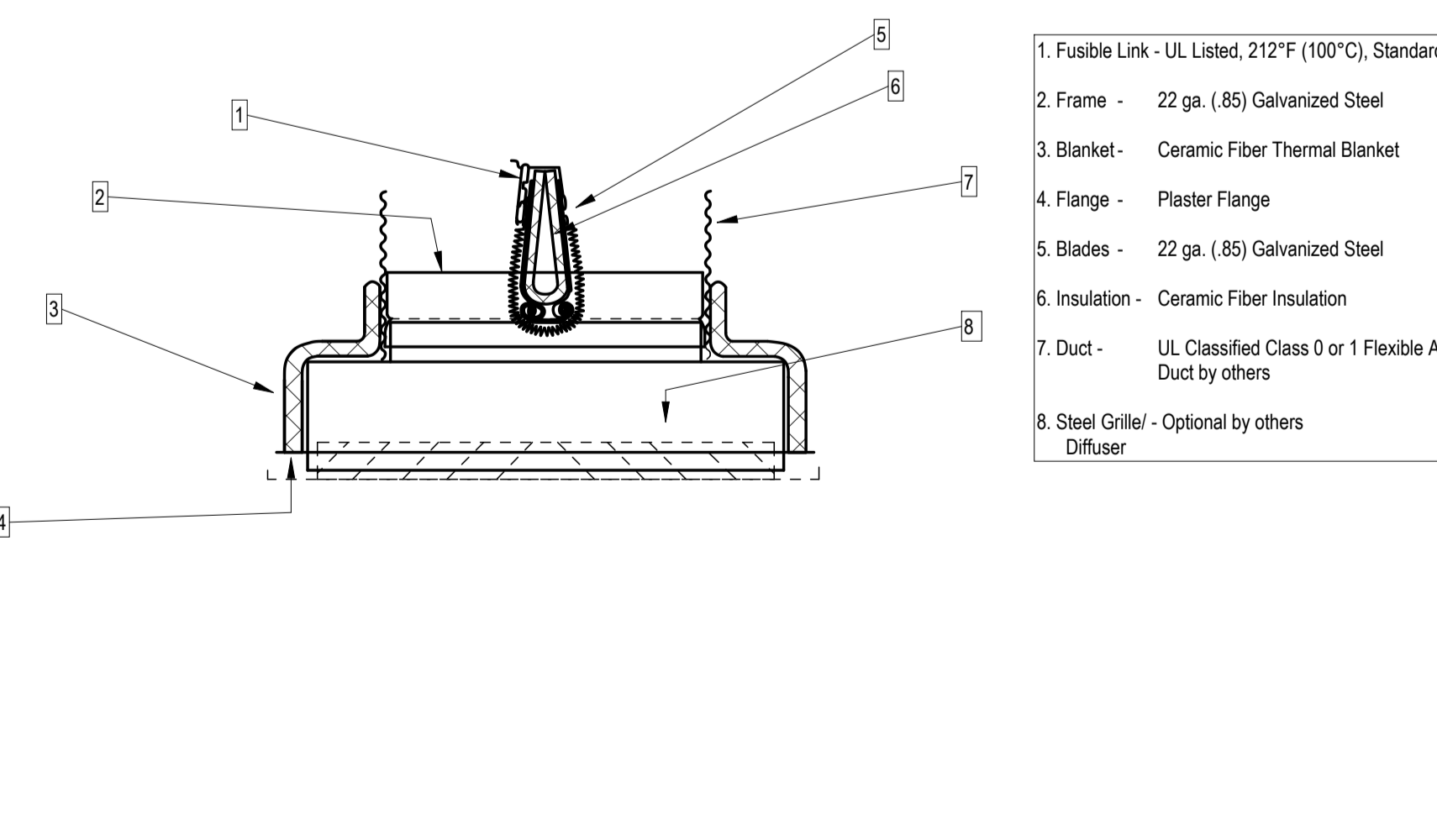
5 M401 DUCT TAKE-OFF DETAIL
NOT TO SCALE



12 M401 POWER ROOF VENTILATOR DETAIL
NOT TO SCALE

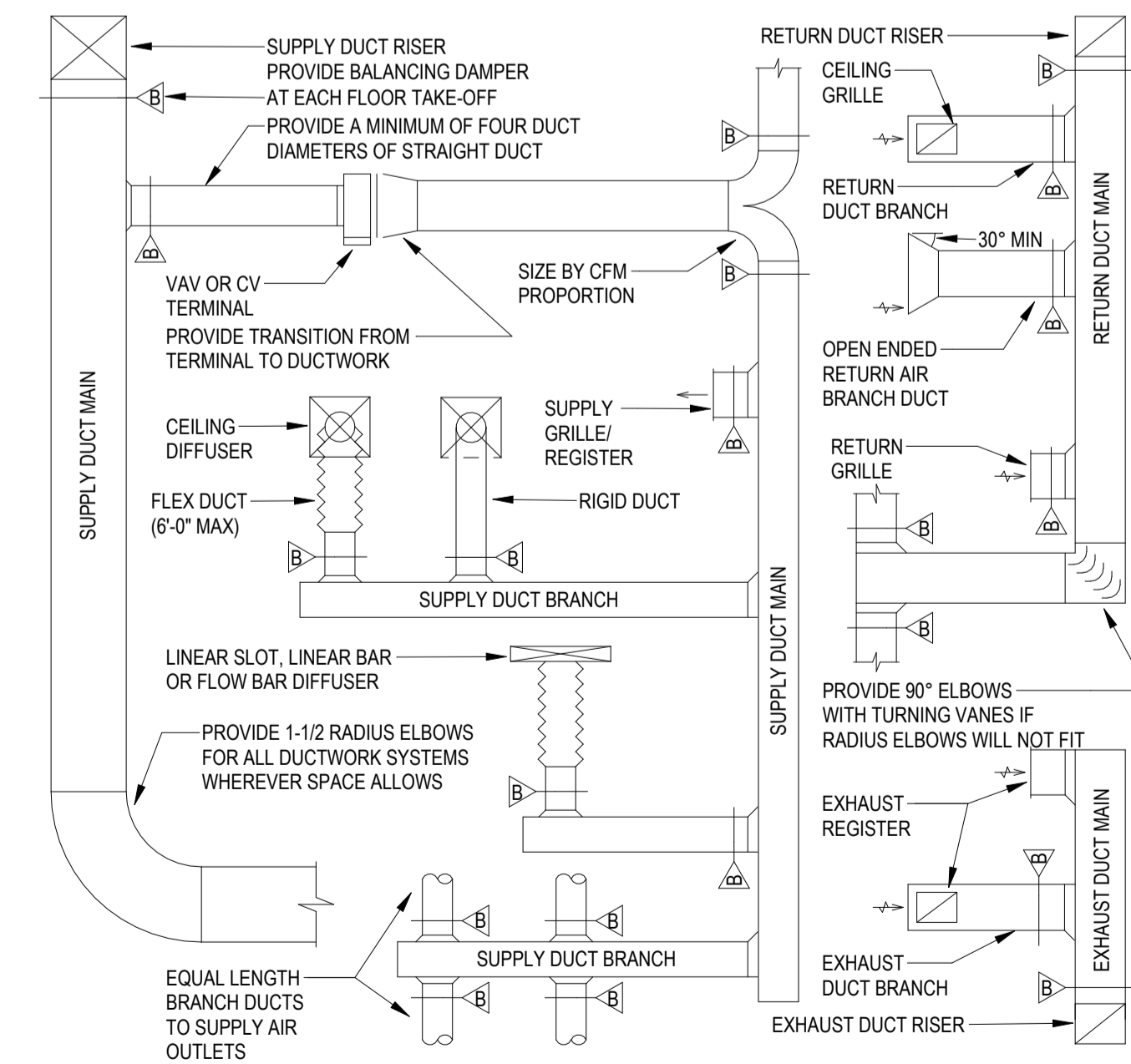


11 M401 LOUVER ASSEMBLY DETAIL
NOT TO SCALE



10 M401 DUCT TAKE-OFF DETAIL
NOT TO SCALE

- NOTES:
- REFER TO HVAC FLOOR PLANS FOR DUCT SIZES
 - REFER TO HVAC FLOOR PLANS FOR GRILLES, REGISTERS, DIFFUSERS AND TERMINAL SIZES AND TYPES
 - PROVIDE A MANUAL TYPE BALANCING DAMPER FOR EACH SUPPLY OUTLET, EXHAUST INLET, AND RETURN INLET
 - ALL DUCT RUNOUTS TO DIFFUSERS SHALL BE THE SAME SIZE AS DIFFUSER NECK SIZE, UNLESS OTHERWISE NOTED
 - FLEX DUCT WILL NOT BE ALLOWED ON RETURN OR EXHAUST DUCTWORK SYSTEMS
 - PROVIDE 12" AIR CUSHION AT THE END OF EACH SUPPLY MAIN AND BRANCH DUCT
 - INDIVIDUAL BRANCH BALANCING DAMPERS NOT REQUIRED FOR SUPPLY OR EXHAUST REGISTERS



9 M401 DUCTWORK INSTALLATION DIAGRAM
NOT TO SCALE

DRAWING TITLE:
HVAC DETAILS

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CONSTRUCTION DOCUMENTS

REVISIONS		
NO.	DATE	DESCRIPTION

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