

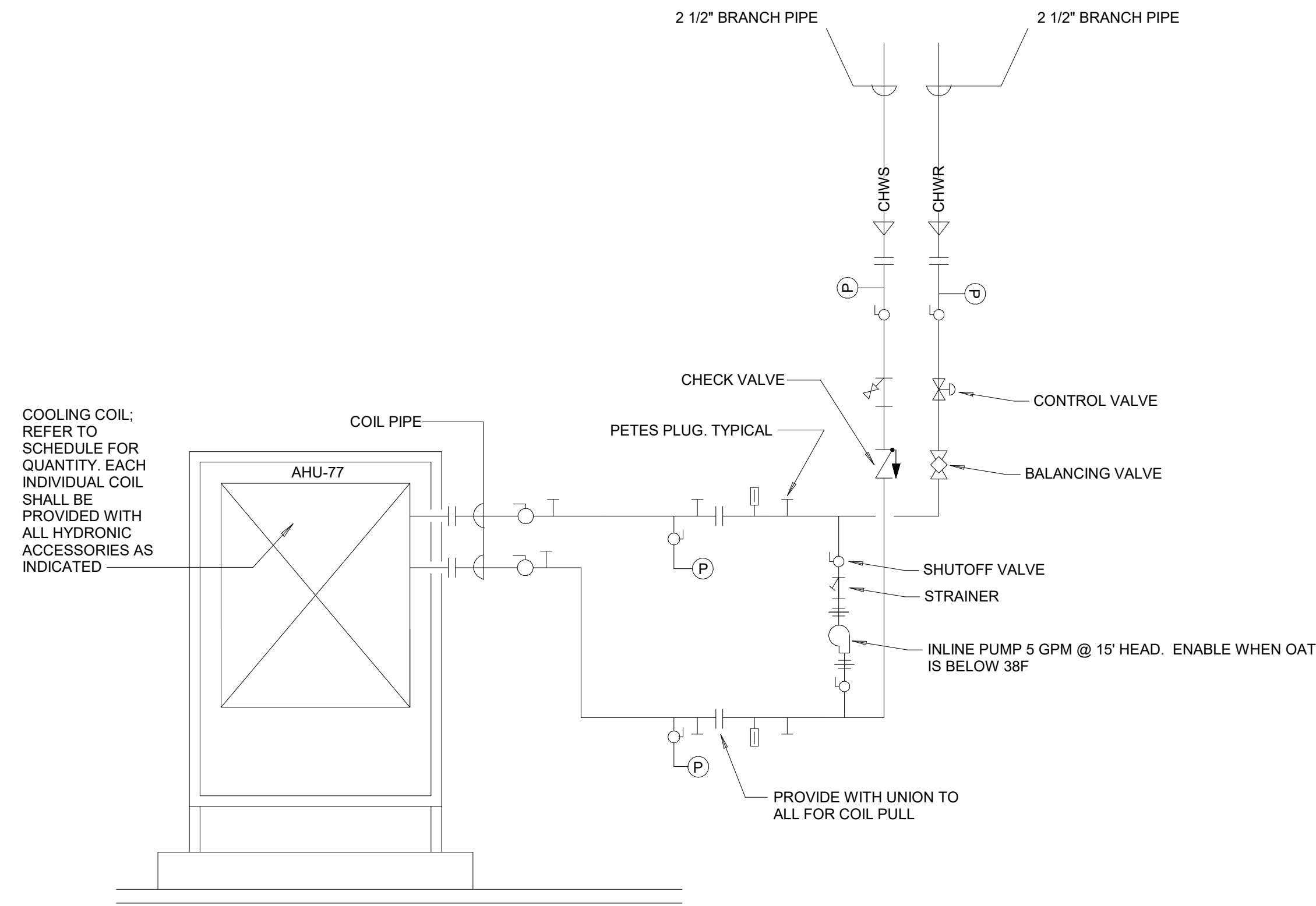
**GENERAL NOTES**

- A. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED IN ACCORDANCE WITH THE FOLLOWING CODES AND STANDARDS:
  - a. OHIO BUILDING CODE (2017)
  - b. OHIO MECHANICAL CODE (2017)
- B. CONTRACT DRAWINGS ARE DIAGRAMMATIC, INTENDED TO CONVEY SCOPE OF WORK, AND SHOW GENERAL ARRANGEMENT OF EQUIPMENT AND SERVICES. FIELD VERIFY DIMENSIONS AND EXISTING CONDITIONS PRIOR TO EXECUTION OF WORK. REFER TO DETAILS AND SCHEDULES FOR ADDITIONAL INFORMATION OR REQUIREMENTS.
- C. INSTALL DUCTWORK AND ACCESSORIES IN SUCH A MANNER FOR EASE OF BALANCING AND SERVICE. (FIELD VERIFY).
- D. FIELD COORDINATE FINAL LOCATION OF AIR DEVICES WITH WORK OF OTHER TRADES.
- E. EQUIPMENT SCHEDULES ARE PROVIDED FOR INFORMATION PURPOSES AND ARE SUPERSEDED BY SHOP DRAWINGS. REFER TO SHOP DRAWINGS FOR MANUFACTURER'S INSTALLATION AND OPERATION INSTRUCTIONS, AND PERFORMANCE CRITERIA.
- F. A SET OF CONSTRUCTION DRAWINGS SHALL BE MAINTAINED AT THE JOB SITE TO BE USED TO DOCUMENT DATA, INCLUDING BUT NOT LIMITED TO LOCATIONS AND EQUIPMENT SCHEDULES.
- G. TRENCHING, SAW CUTTING, CORING, FLASHING, OR STRUCTURAL WORK IS BY OTHERS. STRUCTURAL FRAMING AND SUPPORTS SHALL PROVIDE NECESSARY SUPPORT WITH A MINIMUM CLEARANCE OF 1/2 INCH IN ALL DIRECTIONS.
- H. ALL THERMOSTATS ARE TO BE ADJUSTED THROUGH THE BUILDING AUTOMATION SYSTEM. SEE CONTROLS SUBMITTALS FOR MOUNTING HEIGHTS.
- I. MAINTAIN 42 INCHES OF WORK SPACE CLEARANCE IN FRONT OF ALL SERVICE PANELS. WORK SPACE SHALL PERMIT HINGED SERVICE PANELS TO SWING OPEN AT LEAST 90 DEGREES.
- J. COVERINGS, LININGS, INSULATION, AND ADHESIVES INSTALLED UNDER THIS CONTRACT SHALL MEET FLAME SPREAD RATING OF 25 AND SMOKE DEVELOPED RATING OF 50 PER ASTM E84. THICKNESS OF INSULATION SHALL BE IN ACCORDANCE WITH THE 2017 OHIO BUILDING CODE - MECHANICAL, SECTION 604.
- K. FIRE RATED FLOOR AND WALL PENETRATIONS SHALL BE FIRE STOPPED WITH UL APPROVED MATERIALS MEETING THE TESTING REQUIREMENTS OF ASTM E814, OR IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION, FOR THE REQUIRED RATING OF THE STRUCTURE.
- L. ALL SHEETMETAL DUCTWORK, HANGERS, AND SUPPORTS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE 2017 OHIO BUILDING CODE - MECHANICAL SECTION 603 AND SMACNA "HVAC DUCT CONSTRUCTION STANDARDS".
- M. VENTILATION AIR SHALL BE PROVIDED TO THE FACILITY IN ACCORDANCE WITH THE REQUIREMENTS OF ASHRAE 62.1-2016.

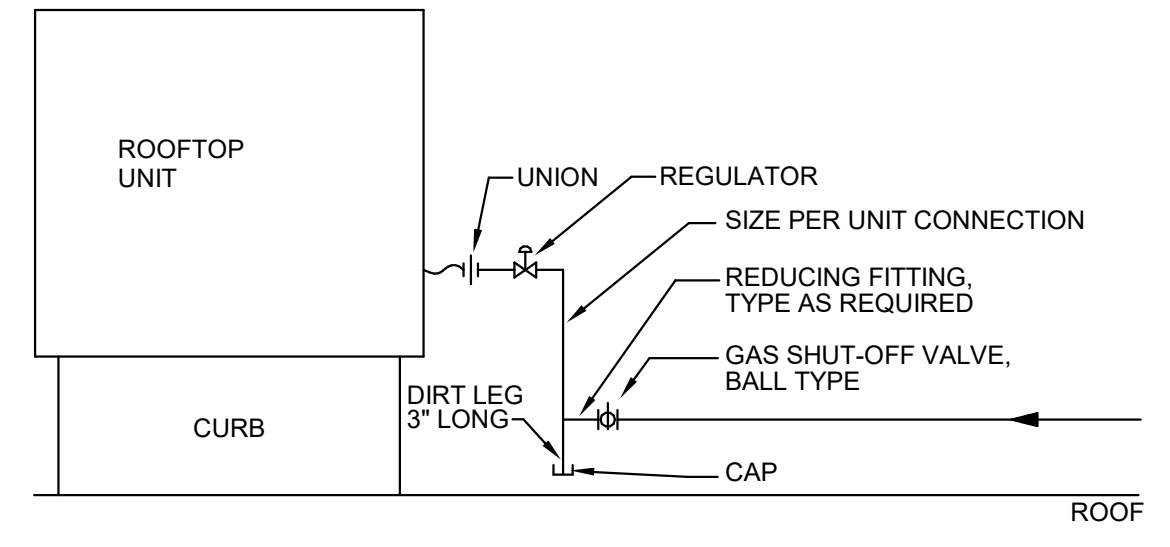
Unit #	Room Name	Room Area (sq ft)	Occupancy Classification	Toilet Units dry	Occupied Area (sq ft)	TBL 6-1 Occ Density (per 100 sq ft)	Pz Population	TBL 6-1 Rp per OA	TBL 6-1 Ra area OA	Vbz OA cfm	TBL 6-2 Ez air dist eff	Voz OA cfm	Exhaust cfm	Required Supply cfm	Calculated Supply cfm	Provided Supply cfm
1	101 - OFFICE	76	Office space		76	7	2	5	0.06	15	0.8	19	0	46	50	140
1	102 - ENDRINE ROOM	75	General manufacturing		75	7	2	10	0.18	34	0.8	42	0	51	60	140
1	105 - SAVORY EXPANSION	2665	General manufacturing		2665	7	10	10	0.18	580	0.8	735	4800	1074	1600	4520
<b>Totals</b>		<b>2,816</b>			<b>2,816</b>		<b>14</b>			<b>628</b>		<b>786</b>	<b>4,800</b>			<b>4,800</b>

Unit #	Unit Name	System Az Area (sq ft)	System Pz Population	System Vou OA cfm	System Voz cfm	Required Supply cfm	System Supply cfm	Maximum Zz OA %	Xs OA %	Ev Vent Eff	System Vzt OA cfm	System Provided OA cfm	System Exhaust cfm	System OA %
1	AHU-77	2,816	14	628	786	1173	4,800	84%	13%	0.29	786	4,800	4,800	100%
<b>Totals</b>		<b>2,816</b>	<b>14</b>	<b>628</b>	<b>786</b>	<b>1,173</b>	<b>4,800</b>				<b>786</b>	<b>4,800</b>	<b>4,800</b>	

REFERENCES FOR VENTILATION TABLES AND FORMULAS ARE FROM STANDARD 62.1-2016 FOR THE VENTILATION RATE PROCEDURE			
Az = Zone floor area (sq ft)	Vbz = Breathing zone outdoor air flow	Vou = sum(Rp * Pz) + sum(Ra * Az)	Ev = Ventilation efficiency
Pz = Zone population - maximum occupancy (table 6-1)	Ez = Zone air distribution effectiveness (table 6-2)	Xs = Average outdoor air ratio	Vot = Vou / Ev
Rp = Outdoor air flow rate per person (table 6-1)	Voz = Vbz / Ez	Zpz = Voz / Vpz	Vot = Total outdoor air flow (calculated)
Ra = Outdoor air flow rate per unit area (table 6-1)	Voz = Zone outdoor air flow	Zpz = Zone outdoor air ratio	
Vbz = (Rp * Pz) + (Ra * Az)	Vpz = Total zone supply air flow	Ev = 1 + Xs - Vpz_max	



1 Chilled Water Coil Connection  
NOT TO SCALE



4 Rooftop Unit Gas Connection  
NOT TO SCALE

- NOTES**
- SUPPORT PIPING AS REQUIRED.
  - REFERENCE PLAN DRAWINGS FOR PIPE SIZES AND ROUTING.

HVAC Tag	P&ID Tag	Material Tag	Description	Insulation
CHWR	CFR	S3	T304L STAINLESS STEEL PIPE SCH. 10S	1-1/2" RUBATEX WITH A POLY JACKET
CHWS	CFS	S3	T304L STAINLESS STEEL PIPE SCH. 10S	1-1/2" RUBATEX WITH A POLY JACKET
NG			CARBON STEEL MEGAPRESS	N/A

DUCTWORK SUMMARY							
TYPE/APPLICATION	SERVES	DUCT TYPE	PRESSURE CLASS	SEAL CLASS	INTERNAL INSULATION	EXTERNAL INSULATION	FLEX DUCT
CONCEALED SUPPLY	ALL	GALVANIZED	2" WC	A	N/A	1 1/2" FOIL BACKED FIBERGLASS WRAP	5 FT MAX
PROCESS EXHAUST	ALL	304 SS	4" WC	A	N/A	NONE	NO

AIR DEVICE SCHEDULE									
TAG	TYPE	FRAME SIZE (IN)	MOUNTING	PATTERN	MATERIAL	DAMPER TYPE	MANUFACTURER	MODEL	FINISH
S1	SUPPLY DIFFUSER	24"x24"	Lay-in	4-Way	304 SS	Opposed Blade	AJ Manufacturing	SFSD	By Architect
T1	TRANSFER GRILLE	12"x12"	Lay-in	45° Blades	304 SS	None	Titus	350RL-SS	By Architect
E1	EXHAUST REGISTER	24"x24"	Lay-in	45° Blades	304 SS	Opposed Blade	Titus	350RL-SS	By Architect

EXHAUST FAN SCHEDULE																	
TAG	QTY	TYPE	NECK SIZE (IN)	FRAME SIZE (IN)	MAX CFM	ESP (IN WC)	MOTOR HP	MOTOR RPM	NOISE (SONES)	V/P/C	PATTERN	MATERIAL	DAMPER TYPE	MANUFACTURER	MODEL	WEIGHT (LBS)	REMARKS/NOTES
EF-1	1	ROOF MOUNTED	29x15	35x68	3200	0.732	1.5	1725	15.8	460/3/60	CENTRIFUGAL	STEEL/ALUMINUM	BACKDRAFT	GREENHECK	FJI-18-BI-X	559	1, 2, 3

**Remarks/Notes:**

- VFD Motor
- GPFFL-35.2 Roof Curb
- Curb Cap Inlet Box Mounted to Roof Curb

AIR HANDLING UNIT SCHEDULE																					
TAG	AREA SERVED	AIRFLOW (CFM)	VENTILATION AIR (CFM)	FAN OPERATING BHP	FAN RPM	ESP (IN WG)	ENTER AIR		EXIT AIR DB (°F)	COOLING		HEATING INPUT (MBH)	HEATING OUTPUT (MBH)	ELECTRICAL			MANUFACTURER	MODEL	WEIGHT (LB)	ACCESSORIES	
							DB (°F)	WB (°F)		TOTAL (MBH)	SENSIBLE (MBH)			VOLT/PHASE	FLA	MCA/WVA					MOCP/OPD
AHU-77	SAVORY EXPANSION	4800	4800	2.40	1728	1	87.7	78.3	53.3	417.9	178.7	400	324	460-3-60	8.1	9.1	15	TRANE	OADG000A3	2741	1, 2, 3

**ACCESSORIES:**

- 14" Roof Curb
- Supply Duct Smoke Detector
- Programmable Thermostat

SYMBOL LEGEND	
	POINT OF CONNECTION
	THERMOSTAT
	PRESSURE SENSOR
	SMOKE DETECTOR
	FIRE DAMPER
	PLAN NOTE

DUCTWORK LEGEND	
	SUPPLY DUCTWORK
	EXHAUST DUCTWORK
	EXISTING TO REMAIN DUCTWORK
	DEMOLISHED DUCTWORK

MECHANICAL PIPING LEGEND	
	CHILLED WATER SUPPLY
	CHILLED WATER RETURN
	NATURAL GAS
	EXISTING TO REMAIN PIPING



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CINCINNATI, OH 45213  
TEL (513) 351-8100

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REV #	DATE	DESCRIPTION OF REVISION
0	02/29/24	PERMIT
1	06/19/24	ENGINEERING CHANGES

**PROJECT:** MANE SAVORY  
1000 Mane Way  
Lebanon, OH 45036

**SHEET TITLE:** HVAC INFORMATION

**DRAWN BY:** JMT

**JOB #:** ---

**FULL SHEET SIZE:** 30"X42"

**M000**

