SPLIT SYSTEMS

SYMBOL	AREA SERVED BY UNIT	SUPPLY FAN	COOLING CAPACITY								ELECTRIC HEATING			ELECTRICAL SERVICE					OPERATING WEIGHT (LBS)		NOTES & ACCESSORIES	BASIS OF DESIGN
		CFM	NOM TONS	TOTAL MBH	SENS. MBH	ENT AIR DB	ENT AIR WB	AMB. AIR	EER	SEER	RFIG.	MBH	COP	HSPF	VOLTS	Ø	VA	MCA	MOCP	INDOOR	OUTDOOR		
IN 1 / OU 1	IT ROOM	500	2	24	21.2	80	67	95	11.5	19.515.2	410A	24	3.1	8.5	208 / 230	1	3125	18.8	25	33	132	1,2,3	DAIKIN FTX24WVJU9 & RXL24WMVJU9
IN 2 / OU 2	ELEVATOR SHAFT	512	2	24	21.8	80	67	95	10	15.2	410A	24	-	8.1	208 / 230	1	2496	12	20	82	109	1,3	DAIKIN FDMQ24WVJU9 & RX24WMVJU9

NOTES & ACCESSORIES
1. INDOOR AIR HANDING UNIT IS POWERED FROM OUTDOOR HEAT PUMP UNIT.
2. FACTORY PROVIDED CONDENSATE PUMP
3. UNITS TO BE MOUNTED OF 14" CURB RAILS

EXHAUST FAN SCHEDULE

SYMBOL	AREA SERVED BY UNIT	FAN INFORMATION			MOTOR			ELECTRICAL SERVICE					OPERATING WEIGHT (LBS)	NOTES & ACCESSORIES	BASIS OF DESIGN COOK
		CFM	STATIC PRESS.	TYPE	MAX RPM	DRIVE	WATTS or H.P.	VOLTS	Ø	VA	MCA	MOCP			
EF 1	BATHROOM	70	0.25" WC	CEILING	778	DIRECT	30	115	1	30	.313	15	16	1,2,3,4	GC-146
EF 2	WOMEN'S LOCKER ROOM	250	0.5" WC	ROOF	1550	DIRECT	1/8	115	1	78	3.8	15	52	1,2,4,5	90C15DM
EF 3	MEN'S LOCKER ROOM	380	0.5" WC	ROOF	1550	DIRECT	1/8	115	1	117	1.86	15	53	1,2,4,5	100C15DM
EF 4	SALLY PORT	300	0.55" WC	INLINE	1243	DIRECT	112	115	1	112	1.85	15	30	1,3,4	GN-642
EF 5	SECURE AREA	485	0.5" WC	ROOF	1750	DIRECT	1/8	115	1	117	1.86	15	54	1,2,4,5	101C15D
EF 6	EVIDENCE	250	0.5" WC	ROOF	1550	DIRECT	1/8	115	1	78	3.8	15	52	1,2,4,5	90C15DM

NOTES & ACCESSORIES
1. SOLID STATE SPEED CONTROL. MOUNT SPEED CONTROLLER ABOVE CEILING IN POSITION TO BALANCE FAN.
2. GRAVITY BACKDRAFT DAMPER
3. ISOLATION MOUNTING KIT.
4. NEMA 1 TOGGLE DISCONNECT SWITCH.
5. ROOF CURB- MIN 12" HIGH, W/ WOOD NAILER CONFIGURE W/ ROOF SO FAN MOUNTED PLUMB.

LOUVERS & MOTORIZED DAMPERS

TYPE	DESCRIPTION	SQFT	SIZE	VELOCITY f.p.m.	PRESSURE DROP (inches w.c.)	MODEL	ACCESSORIES
L 1	INTAKE LOUVER	.41	18W x 12H	<1000	0.07	POTTORFF EFD-637	1,2
L 2	EXHAUST LOUVER	.41	18W x 12H	<1000	0.07	POTTORFF EFD-637	1,2

NOTES & ACCESSORIES
1. CD-41 MOTOR OPERATED BACK DRAFT DAMPER, SAME VOLTAGE AS FAN
2. COLOR TO BE COORDINATED WITH ARCHITECT.

ELECTRIC HEATER SCHEDULE

UNIT NO.	KW HI	KW LOW	CFM HI	CFM LOW	ELECTRICAL DATA VOLTS/Ø	MCA	MOCP	ARRANGEMENT	MODEL	ACCESSORY	QUANTITY
EH 1	150W/FT		-		120V/1Ø	7.5	20	BASEBOARD	RUNTAL PED-72-120D	4	2
EH 2	5	-	350	-	208V/1Ø	24	30	WALL HUNG	QMARK MUH0581	3,4	2
EH 3	3	1.5	100	-	208V/1Ø	14.5	20	WALL MOUNTED	QMARK CWH3404F	1,2	1
EH 4	4	2	300	-	208V/1Ø	18	20	CEILING	QMARK CDFRE548	2	1
EH 5	3	-	300	-	208V/1Ø	14.5	20	WALL HUNG	QMARK MUH0381	3,4	1

NOTES & ACCESSORIES
1. TAMPER PROOF COVER
2. RECESSED MOUNTING KIT
3. WALL MOUNT KIT
4. MANUFACTURER PROVIDED THERMOSTAT

GRILLE, REGISTER, DIFFUSER SCHEDULE

TYPE — S1 — 299 — CFM TYPE — ST — 1000 — 300 — NECK

TYPE	MAKE	MODEL	USE	STYLE	MATERIAL	N/C	OPTIONS
S1	PRICE	AMD	SUPPLY	LOUVER	ALUMINUM	<25	1,2,3
S2	PRICE	MSPG	SUPPLY	SECURE	ALUMINUM	<25	1
R1	PRICE	80	RET / EXH	EGG	ALUMINUM	<25	1,2
R2	PRICE	635	TRANSFER	LOUVER	ALUMINUM	<25	1
E1	PRICE	635	RET / EXH	LOUVER	ALUMINUM	<25	1
E2	PRICE	MSPG	EXHAUST	SECURE	ALUMINUM	<25	1
TG1	PRICE	635	TRANSFER	LOUVER	ALUMINUM	<25	1

SUPPLY SYMBOLS					RETURN SYMBOL	EXHUAST SYMBOL
1-WAY	2-WAY STRAIGHT	2-WAY CORNER	3-WAY	4-WAY		
☒	☒	☒	☒	☒	☐	☒

1) B12 FINISH - WHITE POWDER COAT (VERIFY WITH ARCHITECT BEFORE ORDERING)
2) 24X24 MODULE FOR ALL DEVICES IN LAY-IN CEILING
3) SR8E - SQUARE-ROUND ADAPTOR + DAMPER

BRANCH DUCT SCHEDULE

DUCT SIZE (Ø)	4"	5"	6"	7"	8"	10"	12"	14"	16"	18"
MAX SUPPLY CFM	36	60	100	140	200	350	550	850	1200	1600
MAX RETURN CFM	30	55	90	130	185	320	510	800	1100	1450

SYMBOL LEGEND

M	MOTOR OPERATED DAMPER
	FIRE DAMPER
T	THERMOSTAT
1	DUCTWORK BRANCH TAKE OFF W/ VOL. DAMPER

ATC NOTES

1. HEATERS ARE TO HAVE WALL MOUNTED THERMOSTATS, UNLESS OTHERWISE INDICATED.
2. THE TOILET ROOM FANS ARE TO TURN ON AND OFF WITH THAT ROOM'S LIGHT SWITCH.
3. EF-4 AND LOUVERS AND DAMPERS SHALL OPERATE VIA VEHICLE EXHAUST CONTROL.
4. EF-5 & EF-6 SHALL RUN CONTINUOUSLY.
5. DOAS, CU-1, CU-2 AND ASSOCIATED INDOOR UNITS SHALL BE CONNECTED TO DAIKIN INTELLIGENT TOUCH MANAGER FOR CONTROLS. THE CONTROL PANEL LOCATION SHALL BE VERIFIED BY THE CLIENT PRIOR TO INSTALLATION.
6. PROVIDE MANUFACTURER 7 DAY / 24 HOUR COMMERCIAL THERMOSTAT WITH OCCUPIED/UNOCCUPIED MODE. FAN TO RUN CONTINUOUSLY IN OCCUPIED MODE. (FAN AUTO IS NOT ACCEPTABLE). OUTSIDE AIR DAMPERS SHALL CLOSE IN UNOCCUPIED MODE AND FAN SHALL CYCLE ON HEATING/COOLING DEMAND ONLY.
7. PROVIDE INTERCONNECT BETWEEN INDOOR UNITS AND THEIR OUTDOOR UNITS.
8. ALL TEMPERATURE SET POINTS ARE TO BE ADJUSTABLE UNLESS OTHERWISE NOTED.
9. SEQUENCES ARE DESCRIBED IN ONE DIRECTION. THE OPPOSITE SEQUENCE IS TO BE INCLUDED UNLESS SPECIFICALLY NOTED TO BE EXCLUDED.
10. ALL FUNCTIONS OR CONDITION READINGS ARE TO BE AUTOMATIC UNLESS SPECIFICALLY NOTED AS "MANUAL."
11. ALL CONTROL OPERATORS, DETECTORS, AND OTHER CONTROL SYSTEM DEVICES REQUIRING ELECTRICAL POWER ARE TO BE SELECTED TO USE CONTROL VOLTAGE UNLESS THE DEVICE IS ONLY AVAILABLE AT ELECTRIC POWER VOLTAGE.

    A. DURING BIDDING THE CONTROLS CONTRACTOR IS TO NOTIFY THE MECHANICAL CONTRACTOR IN WRITING OF ANY ITEMS THAT REQUIRE ELECTRIC POWER THAT ARE NOT INDICATED ON THE ELECTRICAL DRAWINGS. A MINIMUM OF FIVE DAYS BEFORE THE BID DUE DATE, THE MECHANICAL CONTRACTOR IS TO NOTIFY THE ARCHITECT IN WRITING OF THE NEED FOR ELECTRIC POWER FOR THESE ITEMS. THE FAILURE TO MAKE THESE NOTIFICATIONS WILL CAUSE THE NON-COMPLYING PARTY TO BEAR THE EXPENSES FOR THE ELECTRIC POWER WIRING TO THE ITEMS SO NEEDED THIS POWER.

10. CONTROL VOLTAGE LOADS ARE TO BE ACCOMMODATED BY ADEQUATE POWER CONVERSION DEVICES AT CONTROL PANELS.

MECHANICAL NOTES

1. CONDENSATE FROM EQUIPMENT SHALL BE GRAVITY DRAINED. WHERE GRAVITY DRAINAGE CANNOT BE ACCOMPLISHED PUMP/RECEIVER WILL BE USED. TRAPS SHALL BE PROVIDED AT EACH AIR CONDITIONING UNIT OR COOLING COIL TO MAINTAIN ATMOSPHERIC PRESSURE IN THE WASTE PIPING.
2. COMBUSTION AIR & COMBUSTION VENT PIPES TO BE SIZE, MATERIAL, AND TERMINATION REQUIRED BY EQUIPMENT MFR. FLASH ROOF OR WALL PENETRATIONS TO BE WEATHER TIGHT.
3. OUTSIDE AIR SHUTOFF DAMPER LEAKAGE RATES SHALL BE IN ACCORDANCE WITH SECTION C403.2.4.3 OF THE INTERNATIONAL ENERGY CONSERVATION CODE.
4. INSTALL PENETRATION FIRESTOPPING SYSTEMS TO COMPLY WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND PUBLISHED DRAWINGS FOR PRODUCTS AND APPLICATIONS WHERE ANY RATED BY BARRIERS,FLOORS,WALLS,PARTTIONS,ETC ARE PENETRATED.
5. MANUFACTURER TO SIZE LINE FOR DISTANCE AND ROUTING FOR THE REFRIGERANT PIPING.
6. USE DIELECTRIC UNIONS WITH TREADED OR SOLDER END CONNECTIONS OR DIELECTRICALLY ISOLATED FLANGES WHEN JOINING PIPES OF DISSIMILAR METALS.
7. ALL FIRE DAMPERS AND SMOKE/FIRE DAMPERS ARE TO HAVE ACCESS PANELS TO FACILITATE RESETTING AND SERVICING THE DAMPERS. THIS IS TO INCLUDE PANELS IN SURFACES NEEDED TO ACCESS THE DUCT. SURFACE ACCESS PANELS ARE TO HAVE SUITABLE FIRE RATING CONSISTENT WITH THE SURFACE'S RATING. ALL FIRE DAMPERS ARE TO E TYPE B DAMPERS U.O.N.
8. INCLUDE ALL MEANS OF ADJUSTMENT NEEDED TO OBTAIN AIR FLOW DESIGN. THIS INCLUDES BELTS AND SHEAVES, VARIABLE FREQUENCY DRIVES, SPEED CONTROLLERS, SPEED TAPS, DAMPERS, ORIFICE PLATES, DIFFUSION PLATES, ETC.
9. ALL EQUIPMENT HANGING FROM STRUCTURE SHALL HAVE VIBRATION ISOLATORS INSTALLED.

DEMOLITION NOTE

CONTRACTOR SHALL BE RESPONSIBLE FOR DRAINING AND RECLAIMING ANY REFRIGERANT PRIOR TO THE START OF DEMOLITION.

GENERAL NOTES

1. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE, THE MECHANICAL CONTRACTOR SHALL INCLUDE ALL NEEDED OFFSETS, CHANGES IN DIRECTION, TRANSITIONS, ETC. NEEDED FOR COMPLETE AND OPERATIONAL SYSTEMS.
2. THE CONTRACTOR WILL VISIT THE SITE AND BE FAMILIAR WITH SITE CONDITIONS. NO EQUIPMENT OR MATERIAL IS TO BE ORDERED OR FABRICATED PRIOR TO FIELD VERIFICATION OF ALL MEASUREMENTS, CLEARANCES, POTENTIAL CONFLICTS WITH EXISTING CONDITIONS OR THAT OF OTHER TRADES ON THE JOB.
3. ALL WORK SHALL BE IN ACCORDANCE WITH THE N.J. UNIFORM CONSTRUCTION CODE & ITS SUB-CODES; INCLUDING BUT NOT LIMITED TO THE 2020 NATIONAL ELECTRIC CODE, THE 2021 INTERNATIONAL MECHANICAL CODE, 2021 INTERNATIONAL ENERGY CONSERVATION CODE, AND 2021 NATIONAL STANDARD PLUMBING CODE, (LATEST EDITIONS ADOPTED BY THE NJUCC), AND THE REQUIREMENTS OF THE LOCAL AUTHORITIES.
4. QUESTIONS REGARDING THESE DRAWINGS SHALL BE ADDRESSED TO THE ENGINEER PRIOR TO THE AWARDING OF THE CONTRACT. OTHERWISE THE ENGINEER'S INTERPRETATION OF THE MEANING AND INTENT OF THE DRAWINGS SHALL BE FINAL.
5. THE MECHANICAL CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE ENGINEER ON ALL MAJOR MECHANICAL EQUIPMENT (DOAS, FAN COIL UNITS, CONDENSING UNITS, SPLIT SYSTEMS, EXHAUST FANS, ROOF CURBS, FIRE STOPPING SYSTEMS, FIRE DAMPERS, SMOKE DAMPERS, SMOKE/FIRE DAMPERS, ETC.), CONTROLS WITH SEQUENCE OF OPERATIONS, DUCT SHOP DRAWINGS & TERMINAL DEVICES (GRILLES, REGISTERS, DIFFUSERS, ETC.) FOR REVIEW PRIOR TO PURCHASING.

    DIGITAL COPIES OF SUBMITTALS WILL BE NEEDED FOR FILE BY THE ENGINEER, ARCHITECT, GENERAL CONTRACTOR, AND OTHER AFFECTED CONTRACTORS. THE OTHER AFFECTED CONTRACTORS CAN INCLUDE ELECTRICAL, PLUMBING, STRUCTURAL, CARPENTRY, ETC. THE GENERAL CONTRACTOR IS TO PERFORM THE DOCUMENT DISTRIBUTION. IF THERE IS NO GC, THEN THIS CONTRACTOR IS TO DISTRIBUTE
6. IF CONFLICTS EXIST, PRIORITY OF LOCATION IN REFLECTED CEILING GRID SHALL BE AS FOLLOWS FROM HIGH TO LOW: LIGHTS, SPRINKLER, MECHANICAL, FIRE ALARM DEVICES.
7. WARRANTY: PROVIDE MINIMUM 1 YEAR WARRANTY ON ALL EQUIPMENT, MATERIAL AND LABOR. PROVIDE 10 YEAR WARRANTY FOR EQUIPMENT ONLY ON COMPRESSORS AND HEAT EXCHANGERS.
8. PROVIDE STAINLESS STEEL, LOCKABLE ACCESS PANELS FOR ANY DEVICES NEEDING SERVICE OR ADJUSTMENT THAT IS NOT READILY ACCESSIBLE OTHERWISE. ACCESS PANELS SHALL MAINTAIN FIRE, SMOKE, ETC, RATINGS OF ASSEMBLIES WHERE APPLICABLE.

START-UP & AIR BALANCING NOTES

1. ALL MECHANICAL EQUIPMENT SHALL BE INSPECTED AND RUN IN ACCORDANCE WITH INSTRUCTIONS OF EACH MANUFACTURERS' START-UP PROCEDURES. EQUIPMENT NOT OPERATING PROPERLY SHALL BE REPAIRED OR REPLACED. ALL EQUIPMENT REPLACEMENTS SHALL FIRST BE APPROVED BY MECHANICAL ENGINEER. ALL NEW SYSTEMS SHALL BE WARRANTED FOR MIN. ONE YEAR ON PARTS AND LABOR (MIN. 5 YEARS ON COMPRESSORS AND HEAT EXCHANGERS PARTS ONLY).
2. ALL DUCT OPENINGS SHALL BE PROTECTED DURING CONSTRUCTION TO AVOID DEBRIS FROM ENTERING THE MECHANICAL SYSTEMS.
3. DUCTS AND MECHANICAL EQUIPMENT SHALL BE THOROUGHLY CLEANED (INTERIOR AND EXTERIOR) UPON COMPLETION AND NEW FILTERS SHALL BE INSTALLED. SUPPLY OWNER WITH ONE SPARE FILTER FOR EACH FILTER INSTALLED.
4. EXAMINE ALL MECHANICAL SYSTEMS TO VERIFY THAT THEY ARE COMPLETE AND THAT TESTING, CLEANING, ADJUSTING AND ALL COMMISSIONING HAS BEEN COMPLETED.
5. EXAMINE THE OPERATION OF ALL THERMOSTATS, BALANCING DAMPERS, VOLUME DAMPERS, SYSTEMS CONTROLS, ETC. TO VERIFY PROPER OPERATION. CORRECTIONS SHALL BE MADE AS REQUIRED.
6. PROVIDE THREE BOUND INDEXED COPIES OF ALL EQUIPMENT SUBMITTALS, OPERATIONS, & MAINTENANCE TO THE OWNER.
7. MECHANICAL CONTRACTOR SHALL REVIEW ALL COMPONENTS OF THE SYSTEM AND THE PROPER OPERATION OF THE EQUIPMENT AND THE CONTROLS WITH THE OWNER. THE OWNER SHALL BE INFORMED HOW TO RESET THE SYSTEM AND PROGRAM THE SET POINTS IF APPLICABLE.
8. CHECK ALL CONDENSATE DRAINS FOR PROPER CONNECTIONS AND FUNCTIONING. MAKE REPAIRS AS REQUIRED.
9. THE CONTRACTOR SHALL BALANCE ALL AIR HANDLING EQUIPMENT, AIR OUTLETS, AND AIR INLETS.
10. TESTING AND BALANCING SHALL BE PERFORMED BY AN INDEPENDENT CONTRACTOR IN ACCORDANCE WITH THE LATEST AABC STANDARDS FOR FIELD MEASUREMENT AND INSTRUMENTATION, AS PUBLISHED BY THE ASSOCIATED AIR BALANCING COUNCIL.
11. THE SCOPE OF THE T&B WORK SHALL INCLUDE, BUT NOT LIMITED TO, AIR QUANTITIES AT EACH BLOWER OR FAN, OUTSIDE AIR, AIR PRESSURES, MOTOR RPM, MOTOR RUNNING LOAD AMPERAGES, VOLTAGE, INLET AND OUTLET TEMPERATURES AND AIR FLOW ACROSS ALL HEAT TRANSFER APPARATUS,VERIFICATION OF EQUIPMENT CAPACITIES, TABULATION OF ALL DESIGN AND ACTUAL DATA. TO VERIFY EQUIPMENT CAPACITIES, AIR OR WATER FLOW THROUGH THE EQUIPMENT, AND INLET AND OUTLET ENERGY CONDITIONS NEED TO BE DETERMINED. FOR HEATING EQUIPMENT THE ENERGY CONDITIONS CAN BE TEMPERATURE (AND PRESSURE FOR STEAM), AND FOR COOLING THIS NEEDS TO BE DRY-BULB AND WET-BULB TEMPERATURES. THE INLET SIDE CAN USE MIXED CONDITIONS OR RETURN AND OUTSIDE AIR.
12. DUCT LEAKAGE WILL BE DETERMINED BY THE TRAVERSE READINGS AT THE FAN FOR TOTAL CFM, LESS OUTLET AIRFLOW. SEE MECHANICAL NOTES FOR LEAKAGE LIMITS. ALL NON-COMPLYING DUCTS WILL BE CORRECTED AND RETESTED UNTIL THEY COMPLY.
13. MARK EQUIPMENT AND BALANCING DEVICE SETTINGS WITH PERMANENT IDENTIFICATION MATERIAL TO SHOW FINAL SETTINGS, AND/OR SEASONAL SETTINGS. RETURN AT SEASON CHANGE TO MAKE SEASONAL ADJUSTMENTS AND PERMANENT MARKINGS.

PETER M. HONEYFORD
PROFESSIONAL ENGINEER
NJ LICENSE NUMBER 33443
EXP: 04/30/2026

NJ COA NUMBER 24GA27940200

PMH ASSOCIATES, INC.
MECHANICAL, ELECTRICAL & FIRE PROTECTION ENGINEERING
1217 N CHURCH ST. STE B MOORESTOWN, NJ 08057
(856) 273-0564 ~ FAX: (856) 273-7701 ~ PMH@PMH-ASSOCIATES.COM

EIC: ____ PC: ____ PM: ____ DD: ____

CODE REVIEW:

CERTIFICATE:

spiezle

SPIEZLE ARCHITECTURAL GROUP INC.
121 MARKET STREET
CAMDEN, NJ 08102
PHONE: (866) 974 7666

SIGNATURE:

THOMAS S. PERRINO	21A01505400
SCOTT E. OWINNE	21A01674400
STEVEN LEONE	21A01170100
STEVEN G. SIEGEL	21A01564200
ANGELO ALBERTO	21A01040700
JOHN F. WRIGHT	21A01784200
SPIEZLE ARCHITECTURAL GROUP, INC.	21AG00063000

SEAL:

BID SET - 06/25/2024

PROJECT:

HADDONFIELD POLICE STATION

1 WALNUT STREET, HADDONFIELD, NJ 08033

FOR

CAMDEN COUNTY IMPROVEMENT AUTHORITY

520 MARKET STREET, 6TH FLOOR, CAMDEN, NEW JERSEY 08102

FOR CODE REVIEW: 02/23/24

REVISIONS:

#	REVISION NAME	DATE

FOR BID: 06/25/2024

DRAWING TITLE:

MECHANICAL NOTES & SCHEDULES

COMMISSION NUMBER:

23M014

DO NOT SCALE THE DRAWINGS

DRAWING NUMBER:

M0.1

THIS DRAWING IS FORMATTED TO BE PRINTED AT 24"x36"

1 1/2"=1'-0" 2' 1' 6" 0'
1"=1'-0" 3' 2' 1' 6" 0'
3/4"=1'-0" 2' 1' 6" 0'
1/8"=1'-0" 4' 0'
1/4"=1'-0" 24' 16' 8' 0'
1/8"=1'-0" 8' 4' 0'
1/16"=1'-0" 48' 32' 16' 8' 0'

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Autodesk Docs://23M014 - CCIA Haddonfield Police Complex/23M014 - Haddonfield Police Station - Central.rvt

DOAS/VRV SEQUENCE OF OPERATION

SEQUENCE OF OPERATION FOR DAIKIN VRF SYSTEM

1. GENERAL OVERVIEW

THE DAIKIN VRF SYSTEM CONSISTS OF OUTDOOR UNITS, MULTIPLE INDOOR UNITS, AND A CENTRALIZED CONTROL SYSTEM. THE VRF SYSTEM MODULATES REFRIGERANT FLOW TO EACH INDOOR UNIT, PROVIDING PRECISE TEMPERATURE CONTROL AND EFFICIENT OPERATION.

2. SYSTEM START-UP

2.1. PRE-START CHECKS

- VERIFY THAT ALL ELECTRICAL CONNECTIONS ARE SECURE AND CONFORM TO THE MANUFACTURER'S SPECIFICATIONS.
- ENSURE ALL REFRIGERANT PIPING IS CORRECTLY INSTALLED AND PRESSURE TESTED.
- CONFIRM THAT ALL INDOOR AND OUTDOOR UNITS ARE PROPERLY INSTALLED AND CONNECTED.
- CHECK THAT THE SYSTEM CONTROL WIRING IS CORRECTLY INSTALLED AND THAT COMMUNICATION BETWEEN UNITS IS FUNCTIONAL.

2.1. POWER ON

- APPLY POWER TO THE OUTDOOR UNITS.
- WAIT FOR THE OUTDOOR UNITS TO INITIALIZE AND ESTABLISH COMMUNICATION WITH THE INDOOR UNITS AND THE CENTRALIZED CONTROL SYSTEM.

3. OPERATION MODES

3.1. COOLING MODE

- **TEMPERATURE SETPOINT:** THE USER SETS THE DESIRED COOLING TEMPERATURE AT THE CENTRAL CONTROLLER OR INDIVIDUAL INDOOR UNIT CONTROLLERS.
- **COMPRESSOR OPERATION:** THE OUTDOOR UNIT'S INVERTER-DRIVEN COMPRESSOR ADJUSTS ITS SPEED TO MATCH THE COOLING DEMAND.
- **REFRIGERANT FLOW:** ELECTRONIC EXPANSION VALVES (EEVS) MODULATE REFRIGERANT FLOW TO EACH INDOOR UNIT BASED ON THE COOLING DEMAND AND TEMPERATURE SETPOINT.
- **INDOOR UNIT FANS:** INDOOR UNIT FANS OPERATE TO CIRCULATE CONDITIONED AIR. FAN SPEED CAN BE ADJUSTED MANUALLY OR AUTOMATICALLY BASED ON THE TEMPERATURE DIFFERENTIAL.

3.1. HEATING MODE

- **TEMPERATURE SETPOINT:** THE USER SETS THE DESIRED HEATING TEMPERATURE AT THE CENTRAL CONTROLLER OR INDIVIDUAL INDOOR UNIT CONTROLLERS.
- **COMPRESSOR OPERATION:** THE OUTDOOR UNIT'S INVERTER-DRIVEN COMPRESSOR ADJUSTS ITS SPEED TO MATCH THE HEATING DEMAND.
- **REFRIGERANT FLOW:** EEVS MODULATE REFRIGERANT FLOW TO EACH INDOOR UNIT BASED ON THE HEATING DEMAND AND TEMPERATURE SETPOINT.
- **INDOOR UNIT FANS:** INDOOR UNIT FANS OPERATE TO CIRCULATE CONDITIONED AIR. FAN SPEED CAN BE ADJUSTED MANUALLY OR AUTOMATICALLY BASED ON THE TEMPERATURE DIFFERENTIAL.

3.1. AUTO MODE

- THE SYSTEM AUTOMATICALLY SWITCHES BETWEEN COOLING AND HEATING MODES BASED ON THE INDOOR TEMPERATURE RELATIVE TO THE SETPOINT.
- THE SYSTEM ENSURES CONTINUOUS COMFORT BY MODULATING COMPRESSOR SPEED AND REFRIGERANT FLOW ACCORDINGLY.

3.1. FAN-ONLY MODE

- INDOOR UNIT FANS OPERATE WITHOUT COMPRESSOR ACTIVITY, PROVIDING AIR CIRCULATION ONLY.

4. SYSTEM CONTROL AND MONITORING

4.1. CENTRAL CONTROLLER

- THE CENTRAL CONTROLLER DISPLAYS THE STATUS OF ALL CONNECTED INDOOR AND OUTDOOR UNITS.
- THE USER CAN SET AND ADJUST TEMPERATURE SETPOINTS, MODES OF OPERATION, AND SCHEDULES.
- THE CENTRAL CONTROLLER MONITORS SYSTEM PERFORMANCE AND ALERTS USERS TO ANY FAULTS OR MAINTENANCE NEEDS.

4.1. INDOOR UNIT CONTROLLERS

- INDIVIDUAL INDOOR UNIT CONTROLLERS ALLOW USERS TO SET TEMPERATURE, MODE, AND FAN SPEED FOR EACH SPECIFIC INDOOR UNIT.
- CONTROLLERS COMMUNICATE WITH THE CENTRAL CONTROLLER TO ENSURE SYNCHRONIZED OPERATION.

5. MODULATION AND ENERGY EFFICIENCY

5.1. INVERTER TECHNOLOGY

- THE INVERTER-DRIVEN COMPRESSOR IN THE OUTDOOR UNIT MODULATES ITS SPEED TO MATCH THE PRECISE COOLING OR HEATING DEMAND, REDUCING ENERGY CONSUMPTION AND IMPROVING EFFICIENCY.

5.1. VARIABLE REFRIGERANT FLOW

- EEVS IN EACH INDOOR UNIT ADJUST REFRIGERANT FLOW BASED ON REAL-TIME DEMAND, OPTIMIZING SYSTEM PERFORMANCE AND COMFORT.

6. DEFROST CYCLE (HEATING MODE)

6.1. AUTOMATIC DEFROST

- THE SYSTEM AUTOMATICALLY INITIATES A DEFROST CYCLE TO REMOVE ICE BUILDUP ON THE OUTDOOR UNIT'S HEAT EXCHANGER.
- DURING DEFROST, THE SYSTEM TEMPORARILY SWITCHES TO COOLING MODE TO REVERSE THE REFRIGERANT FLOW AND HEAT THE OUTDOOR COIL.
- INDOOR UNITS MAY TEMPORARILY STOP HEATING OR BLOW COOL AIR DURING THE DEFROST CYCLE.
- THE SYSTEM RETURNS TO NORMAL HEATING OPERATION ONCE DEFROST IS COMPLETE.

7. FAULT DETECTION AND DIAGNOSTICS

7.1. AUTOMATIC FAULT DETECTION

- THE SYSTEM CONTINUOUSLY MONITORS OPERATIONAL PARAMETERS AND DETECTS FAULTS.
- FAULT CODES ARE DISPLAYED ON THE CENTRAL CONTROLLER AND INDIVIDUAL INDOOR UNIT CONTROLLERS.
- USERS ARE ALERTED TO FAULTS, AND MAINTENANCE PERSONNEL CAN DIAGNOSE ISSUES BASED ON THE FAULT CODES.

7.1. REMOTE MONITORING

- THE SYSTEM CAN BE CONNECTED TO A REMOTE MONITORING SERVICE FOR ONGOING PERFORMANCE TRACKING AND PROACTIVE MAINTENANCE.

8. SYSTEM SHUTDOWN

8.1. NORMAL SHUTDOWN

- THE USER CAN INITIATE A SYSTEM SHUTDOWN FROM THE CENTRAL CONTROLLER.
- THE SYSTEM PERFORMS A CONTROLLED SHUTDOWN, STOPPING ALL INDOOR AND OUTDOOR UNITS SEQUENTIALLY.

8.1. EMERGENCY SHUTDOWN

- IN CASE OF AN EMERGENCY, THE SYSTEM CAN BE SHUT DOWN IMMEDIATELY USING THE EMERGENCY STOP BUTTON.
- ALL UNITS STOP OPERATION, AND THE SYSTEM REMAINS OFF UNTIL THE ISSUE IS RESOLVED AND THE SYSTEM IS MANUALLY RESTARTED.

DOAS SCHEDULE

DOAS Unit | Technical Data Sheet

Job Information — *Technical Data Sheet*

Job Name	Haddonfield Police Dept
Date	5/29/2024
Submitted By	Scott Knecht
Software Version	12.50
Unit Tag	DOAS Unit

Unit Overview

Unit

Model Number:	DPSC06B
Model Type:	Cooling
Heat Type:	Gas
Hot Gas Reheat:	MHGRH
Energy Recovery:	None
Application:	Constant Volume (100% OA; VAV capable SAF)
Controls:	Microtech
Outside Air:	100% Outside Air
Altitude:	0 ft
Approval	cETLus

Physical

Dimensions and Weight			
Length	**Height***	**Width**	**Weight***
84.5 in	69.5 in	53.3 in	1346 lb

Construction			
Exterior	**Insulation and Liners**	**Air Opening Location**	
		Return	**Supply**
Painted Galvanized Steel	1" Injected Foam, R-7, Galvanized Steel Liner	Bottom	Bottom

Electrical

Unit FLA	**MCA**	**MROPD**	**SCCR**
28.2 A	33.5 A	50 A	10 kAIC

Note: Use only copper supply wires with ampacity based on 75° C conductor rating. Connections to terminals must be made with copper lugs and copper wire.

Return/Outside/Exhaust Air

Outside Air Option		
Type	**Damper Pressure Drop**	**Exhaust Air Type**
None	0.04 inH_2O	None

Filter Section

Physical				
Type	**Quantity / Size**	**Face Area**	**Face Velocity**	**Air Pressure Drop**
COMBO RACK - 2" MERV8 filters from factory & blank 4" rack	4 / 16 in x 16 in x 2 in	7.1 ft²	140.8 ft/min	0.03

PYXB0C | Haddonfield Police Dept | 4 | 5/29/2024

DOAS Unit | Technical Data Sheet

DX Cooling Coil

Physical							
Coil Type	**Refrigerant Type**	**Fins per Inch**	**Rows**	**Face Area**	**Face Velocity**	**Air Pressure drop**	**Drain Pan Material**
Cu Tube/ Al Fin	R32	14	4	6.0 ft²	165.6 ft/min	0.09 inH_2O	Stainless Steel

Cooling Performance								
Capacity			**Indoor Air Temperature**					**Ambient air Temperature**
			Entering		**Leaving**			
Total Btu/hr	**Sensible** Btu/hr	**Moisture Removal** lb/h	**Dry Bulb** °F	**Wet Bulb** °F	**Dry Bulb** °F	**Wet Bulb** °F	**Dewpoint** °F	°F
67047	38119	25.7	93.4	75.0	55.6	53.7	52.3	95.0

Condensate Connection Size: 3/4 in. Male NPT

Hot Gas Reheat Coil Section

Type	Face Area	Air Pressure Drop	Total Capacity	Leaving Air Temperature	
				Dry Bulb	**Wet Bulb**
Aluminum Tube Micro-Channel	21.6 ft²	0.03 inH_2O	15588 Btu/hr	70.0 °F	59.1 °F

Fan Section

Fan			
Type	**Fan Wheel Diameter**	**Fan Series**	**Fan Isolation**
SWSI AF	12 in	Series II	None

Performance				
Airflow	**Total Static Pressure**	**Fan Speed**	**Brake Horsepower**	**Altitude**
1000 CFM	1.3 inH_2O	1833 rpm	0.35 HP	0 ft

Motor				Drive
Type	**Horsepower**	**Efficiency**	**FLA**	**Type**
ECM Motor	0.5	Premium	1.3 A	Direct Drive

Gas Heat Section

Physical				
Airflow	**Max Allowable Burner Temp Rise**	**Size**	**Connection (Qty) Size**	**Heat Exchanger Material**
1000 CFM	100.0 °F	120 MBH	(1) 0.75 in. Female NPT	Stainless Steel

Performance						
Capacity Btu/hr	**Air Temperature Dry Bulb**		**Air Pressure Drop** inH_2O	**Gas Pressure**		**Modulation**
	Entering °F	**Leaving** °F		**Minimum** inH_2O	**Maximum** inH_2O	
96000	13.8	102.3	0.08	5	14	Modulating 5:1 Turndown

Unit Discharge Conditions

AirTemperature				
Motor Heat Btu/hr	**Moisture Removal** lb/h	**Unit Leaving Dry Bulb** °F	**Unit Leaving Wet Bulb** °F	**Unit Leaving Dewpoint** °F
1023	25.7	56.6	54.0	52.3

Minimum Airflows	
Notes:	Refer to fan curve for applicability of approximate airflows

PYXB0C | Haddonfield Police Dept | 5 | 5/29/2024

DOAS Unit | Technical Data Sheet

Condensing Section

Compressor					
Type	**Quantity**	**Refrigerant Charge** lb	**Total Power**	**Capacity Control**	**Compressor Isolation**
Inverter Scroll	1	7.8	15.28 kW	Mod Control with Inverter Compressor	Rubber in Shear

Compressor Amps:	
Compressor 1	21.3 A

Condenser Coil		
Type	**Fins per Inch**	**Fin Material**
Copper Tube	23	Aluminum

Condenser Fan Motors	
Number of Motors*	**Full Load Current (Total)**
1	2.0 A

Internal Pressure Drop Calculation

External Static Pressure:	1.00 inH_2O
Filter:	0.03 inH_2O
Outside Air:	0.04 inH_2O
DX Coil:	0.09 inH_2O
Hot Gas Reheat:	0.03 inH_2O
Gas Heat:	0.08 inH_2O
Total Static Pressure:	1.28 inH_2O

Sound

	Sound Power (db)							
Frequency	**63 Hz**	**125 Hz**	**250 Hz**	**500 Hz**	**1 kHz**	**2 kHz**	**4 kHz**	**8 kHz**
Inlet	68	67	75	70	72	71	66	61
Discharge	68	70	78	75	78	77	74	69
Radiated*	82	82	78	75	74	69	72	66

Options

Electrical	
Field Connection:	Single Disconnect
Powered Receptacle:	Unit powered 115V GFI outlet
Controls	
Communication Card:	BACnet IP

Factory Installed Sensors

Leaving Coil/Entering Fan Temperature Sensor
Discharge Air Temperature sensor – Wired in unit, mounted in supply duct
Outside Air Temperature Sensor
Dirty Filter On/Off Switch
Supply Fan Air Proving Via Modbus

Warranty

Parts:	Additional Four Year, Five Year Total
Compressor:	Additional Four Year, Five Year Total
Gas Heat Exchanger:	Extended Nine Year, Ten Year Total

PYXB0C | Haddonfield Police Dept | 6 | 5/29/2024

DOAS Unit | Technical Data Sheet

Specials

Unit	
Specials Description:	

Notes

Forklift slots to remove unit from a truck bed. The fork lift slots are not to be used to place unit on a roof curb. Unit is to be lifted onto curb per IOM instructions.

Accessories

Optional	
Part Number	**Description**
910117585	14" Roof Curb, No ERW, Size 003 - 006

PYXB0C | Haddonfield Police Dept | 7 | 5/29/2024

CODE REVIEW:

CERTIFICATE:

SPIEZLE ARCHITECTURAL GROUP INC.
121 MARKET STREET
CAMDEN, NJ 08102
PHONE: (866) 974 7666

SIGNATURE:

THOMAS S. PERRINO	21A01505400
SCOTT E. DOWNIE	21A01674400
STEVEN LEONE	21A01172100
STEVEN G. SIEGEL	21A01564200
ANGELO ALBERTO	21A01564700
JOHN F. WRIGHT	21A01784200
SPIEZLE ARCHITECTURAL GROUP, INC.	21AC00083000

SEAL:

BID SET - 06/25/2024

PROJECT:

HADDONFIELD POLICE STATION

1 WALNUT STREET, HADDONFIELD, NJ 08033

FOR

CAMDEN COUNTY IMPROVEMENT AUTHORITY

520 MARKET STREET, 6TH FLOOR, CAMDEN, NEW JERSEY 08102

FOR CODE REVIEW: 02/23/24

REVISIONS:

	REVISION NAME	DATE
2		

FOR BID: 06/25/2024

DRAWING TITLE:

MECHANICAL SCHEDULES

COMMISSION NUMBER:

23M014

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DRAWING NUMBER:

M0.2

PETER M. HONEYFORD
PROFESSIONAL ENGINEER
NJ LICENSE NUMBER 33443
EXP: 04/30/2026

NJ COA NUMBER 24GA27940200

PMH ASSOCIATES, INC.
MECHANICAL, ELECTRICAL & FIRE PROTECTION ENGINEERING
1217 N CHURCH ST. STE B MOORESTOWN, NJ 08057
(856) 273-0554 ~ FAX: (856) 273-7701 ~ PMH@PMH-ASSOCIATES.COM

EIC: ____ PC: ____ PM: ____ DD: ____

THIS DRAWING IS FORMATTED TO BE PRINTED AT 24"x36"

1 1/2"=1'-0" 2' 1' 0' 6' 0' 1"=1'-0" 3' 2' 1' 6' 0' 3/4"=1'-0" 6' 4' 2' 0' 1/2"=1'-0" 2' 1' 0' 12' 8' 4' 2' 0' 1/4"=1'-0" 24' 16' 8' 0' 1/8"=1'-0" 4' 0' 48' 32' 16' 8' 0' 1/16"=1'-0"

UNSECURE VRV SPLIT SYSTEM INDOOR UNIT SCHEDULE

DAIKIN

Material list

Model	Quantity	Description
REYQ72AATJA	2	VRV EMERION (208-230V) (VRV EMERION (208-230V))
BS8Q54TVJ	1	Branch selector unit
BS10Q54TAVJ	1	Branch selector unit
FXMQ07PBVJU	10	FXMQ_PB - Ceiling Mounted Ducted (Medium Static)
FXMQ09PBVJU	5	FXMQ_PB - Ceiling Mounted Ducted (Medium Static)
FXMQ12PBVJU	2	FXMQ_PB - Ceiling Mounted Ducted (Medium Static)
DCM601B71	1	intelligent Touch Manager (iTM)
BRC1E73	17	new Navigation Remote Controller
KHFP26A100CA	1	Branch Selector Closed Pipe Kit

DAIKIN

CU-1 - REYQ72AATJA

Capacity data at conditions and connection ratio (78) as entered

Name	FCU	Cooling						
		Tmp C °F (DBT/WBT)	Rq TC BTU/h	Rv TC BTU/h	Max TC BTU/h	Rq SC BTU/h	Tevap °F	Tdis C °F	Max SC BTU/h
FCU-1	FXMQ09PBVJU	78.8/65.5	n/a	0	8,993	n/a	42.8	57.9	7,307
FCU-2	FXMQ07PBVJU	78.8/65.5	n/a	0	7,110	n/a	42.8	61.5	6,042
FCU-3	FXMQ07PBVJU	78.8/65.5	n/a	0	7,110	n/a	42.8	61.5	6,042
FCU-4	FXMQ07PBVJU	78.8/65.5	n/a	0	7,110	n/a	42.8	61.5	6,042
FCU-5	FXMQ07PBVJU	78.8/65.5	n/a	0	7,110	n/a	42.8	61.5	6,042
FCU-6	FXMQ07PBVJU	78.8/65.5	n/a	0	7,110	n/a	42.8	61.5	6,042
FCU-7	FXMQ09PBVJU	78.8/65.5	n/a	0	8,993	n/a	42.8	57.9	7,307
			0						

Name	FCU	Heating						
		Tmp H °F	Rq HC BTU/h	Max HC BTU/h	Tdis H °F	Min coil in³	Max coil in³	Air Flow Rate cfm
FCU-1	FXMQ09PBVJU	68.0	n/a	10,885	99.2	n/a	n/a	317
FCU-2	FXMQ07PBVJU	68.0	n/a	8,803	93.2	n/a	n/a	317
FCU-3	FXMQ07PBVJU	68.0	n/a	8,803	93.2	n/a	n/a	317
FCU-4	FXMQ07PBVJU	68.0	n/a	8,803	93.2	n/a	n/a	317
FCU-5	FXMQ07PBVJU	68.0	n/a	8,803	93.2	n/a	n/a	317
FCU-6	FXMQ07PBVJU	68.0	n/a	8,803	93.2	n/a	n/a	317
FCU-7	FXMQ09PBVJU	68.0	n/a	10,885	99.2	n/a	n/a	317
			n/a					

Name	FCU	Room	Sound dBA	PS	MCA A	MOP	WxHxD inch	Weight lbs
FCU-1	FXMQ09PBVJU		29 - 33	208-230V 1ph	0.6	15A	21.7 x 11.8 x 27.6	55.1
FCU-2	FXMQ07PBVJU		29 - 33	208-230V 1ph	0.6	15A	21.7 x 11.8 x 27.6	55.1
FCU-3	FXMQ07PBVJU		29 - 33	208-230V 1ph	0.6	15A	21.7 x 11.8 x 27.6	55.1
FCU-4	FXMQ07PBVJU		29 - 33	208-230V 1ph	0.6	15A	21.7 x 11.8 x 27.6	55.1
FCU-5	FXMQ07PBVJU		29 - 33	208-230V 1ph	0.6	15A	21.7 x 11.8 x 27.6	55.1
FCU-6	FXMQ07PBVJU		29 - 33	208-230V 1ph	0.6	15A	21.7 x 11.8 x 27.6	55.1
FCU-7	FXMQ09PBVJU		29 - 33	208-230V 1ph	0.6	15A	21.7 x 11.8 x 27.6	55.1

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 53,535BTU/h for cooling and 65,786BTU/h for heating. However, the outdoor unit selection uses reduced load values for cooling of 26,767BTU/h (=50%) and for heating of 32,893BTU/h (=50%). Be aware that unrealistic reductions may lead to reduced comfort levels, different noise levels or increased wear and tear.

Outdoor vs. indoor position

Outdoor unit placed 10.0ft above the indoor units.

CU-2 - REYQ72AATJA

Capacity data at conditions and connection ratio (125) as entered

DAIKIN

Name	FCU	Cooling						
		Tmp C °F (DBT/WBT)	Rq TC BTU/h	Rv TC BTU/h	Max TC BTU/h	Rq SC BTU/h	Tevap °F	Tdis C °F	Max SC BTU/h
FCU-8	FXMQ09PBVJU	78.8/65.5	n/a	0	8,993	n/a	42.8	57.9	7,307
FCU-9	FXMQ09PBVJU	78.8/65.5	n/a	0	8,993	n/a	42.8	57.9	7,307
FCU-10	FXMQ12PBVJU	78.8/65.5	n/a	0	11,372	n/a	42.8	60.4	9,106
FCU-11	FXMQ12PBVJU	78.8/65.5	n/a	0	11,372	n/a	42.8	60.4	9,106
FCU-12	FXMQ07PBVJU	78.8/65.5	n/a	0	7,110	n/a	42.8	61.5	6,042
FCU-13	FXMQ07PBVJU	78.8/65.5	n/a	0	7,110	n/a	42.8	61.5	6,042
FCU-14	FXMQ09PBVJU	78.8/65.5	n/a	0	8,993	n/a	42.8	57.9	7,307
FCU-15	FXMQ07PBVJU	78.8/65.5	n/a	0	7,110	n/a	42.8	61.5	6,042
FCU-16	FXMQ07PBVJU	78.8/65.5	n/a	0	7,110	n/a	42.8	61.5	6,042
FCU-17	FXMQ07PBVJU	78.8/65.5	n/a	0	7,110	n/a	42.8	61.5	6,042
			0						

Name	FCU	Heating						
		Tmp H °F	Rq HC BTU/h	Max HC BTU/h	Tdis H °F	Min coil in³	Max coil in³	Air Flow Rate cfm
FCU-8	FXMQ09PBVJU	68.0	n/a	10,885	99.2	n/a	n/a	317
FCU-9	FXMQ09PBVJU	68.0	n/a	10,885	99.2	n/a	n/a	317
FCU-10	FXMQ12PBVJU	68.0	n/a	13,990	96.2	n/a	n/a	450
FCU-11	FXMQ12PBVJU	68.0	n/a	13,990	96.2	n/a	n/a	450
FCU-12	FXMQ07PBVJU	68.0	n/a	8,803	93.2	n/a	n/a	317
FCU-13	FXMQ07PBVJU	68.0	n/a	8,803	93.2	n/a	n/a	317
FCU-14	FXMQ09PBVJU	68.0	n/a	10,885	99.2	n/a	n/a	317
FCU-15	FXMQ07PBVJU	68.0	n/a	8,803	93.2	n/a	n/a	317
FCU-16	FXMQ07PBVJU	68.0	n/a	8,803	93.2	n/a	n/a	317
FCU-17	FXMQ07PBVJU	68.0	n/a	8,803	93.2	n/a	n/a	317
			n/a					

Name	FCU	Room	Sound dBA	PS	MCA A	MOP	WxHxD inch	Weight lbs
FCU-8	FXMQ09PBVJU		29 - 33	208-230V 1ph	0.6	15A	21.7 x 11.8 x 27.6	55.1
FCU-9	FXMQ09PBVJU		29 - 33	208-230V 1ph	0.6	15A	21.7 x 11.8 x 27.6	55.1
FCU-10	FXMQ12PBVJU		35 - 39	208-230V 1ph	1.4	15A	27.6 x 11.8 x 27.6	61.7
FCU-11	FXMQ12PBVJU		35 - 39	208-230V 1ph	1.4	15A	27.6 x 11.8 x 27.6	61.7
FCU-12	FXMQ07PBVJU		29 - 33	208-230V 1ph	0.6	15A	21.7 x 11.8 x 27.6	55.1
FCU-13	FXMQ07PBVJU		29 - 33	208-230V 1ph	0.6	15A	21.7 x 11.8 x 27.6	55.1
FCU-14	FXMQ09PBVJU		29 - 33	208-230V 1ph	0.6	15A	21.7 x 11.8 x 27.6	55.1
FCU-15	FXMQ07PBVJU		29 - 33	208-230V 1ph	0.6	15A	21.7 x 11.8 x 27.6	55.1
FCU-16	FXMQ07PBVJU		29 - 33	208-230V 1ph	0.6	15A	21.7 x 11.8 x 27.6	55.1
FCU-17	FXMQ07PBVJU		29 - 33	208-230V 1ph	0.6	15A	21.7 x 11.8 x 27.6	55.1

Remarks

Reduced operational load

The sum of the required indoor unit capacities is 85,272BTU/h for cooling and 104,650BTU/h for heating. However, the outdoor unit selection uses reduced load values for cooling of 42,636BTU/h (=50%) and for heating of 52,325BTU/h (=50%). Be aware that unrealistic reductions may lead to reduced comfort levels, different noise levels or increased wear and tear.

VRV OUTSIDE AIR REQUIREMENTS

TAG	AREA SERVED	OUTSIDE AIR		SUPPLY CFM
		CFM	%OA	
FCU 1	FIRST FLOOR LOBBY	20	6%	315
FCU 2	GYM	100	31%	315
FCU 3	CORRIDOR	20	6%	315
FCU 4	WOMEN'S LOCKEROOM	50	16%	315
FCU 5	PARKING	10	3%	315
FCU 6	MEN'S LOCKEROOM	50	16%	315
FCU 7	SQUAD ROOM	100	31%	315
FCU 8	SECOND FLOOR LOBBY	20	6%	315
FCU 9	RECORDS ROOM	25	8%	315
FCU 10	BREAK ROOM	100	22%	450
FCU 11	CHIEF'S OFFICE	30	6%	450
FCU 12	CORRIDOR	20	6%	315
FCU 13	OFFICE	10	3%	315
FCU 14	CONFERENCE	105	33%	315
FCU 15	DETECTIVE'S OFFICE	25	8%	315
FCU 16	LT #2	15	5%	315
FCU 17	LT #1	15	5%	315

PETER M. HONEYFORD
PROFESSIONAL ENGINEER
NJ LICENSE NUMBER 33443
EXP: 04/30/2026

NJ COA NUMBER 24GA27940200

PMH ASSOCIATES, INC.
MECHANICAL, ELECTRICAL & FIRE PROTECTION ENGINEERING
1217 N CHURCH ST. STE B MOORESTOWN, NJ 08057
(856) 273-0054 - FAX: (856) 273-7701 - PMH@PMH-ASSOCIATES.COM
☐ EIC: ___ ☐ PC: ___ ☐ PM: ___ ☐ DD: ___

CODE REVIEW:

CERTIFICATE:

spiezle

SPIEZLE ARCHITECTURAL GROUP INC.
121 MARKET STREET
CAMDEN, NJ 08102
PHONE: (866) 974 7666

SIGNATURE:

THOMAS S. PERRINO	21A01505400
SCOTT E. DOWNIE	21A01674400
STEVEN LEONE	21A01170100
STEVEN G. SIEGEL	21A01564200
ANGELO ALBERTO	21A01564700
JOHN F. WRIGHT	21A01784200
SPIEZLE ARCHITECTURAL GROUP, INC.	21AG00083000

SEAL:

BID SET - 06/25/2024

PROJECT:

HADDONFIELD POLICE STATION

1 WALNUT STREET, HADDONFIELD, NJ 08033

FOR

CAMDEN COUNTY IMPROVEMENT AUTHORITY

520 MARKET STREET, 6TH FLOOR, CAMDEN, NEW JERSEY 08102

FOR CODE REVIEW: 02/23/24

REVISIONS:

#	REVISION NAME	DATE

FOR BID: 06/25/2024

DRAWING TITLE:

MECHANICAL SCHEDULES

COMMISSION NUMBER:

23M014

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1"=1'-0" 3' 2' 1' 6" 0'
3/4"=1'-0" 3' 2' 1' 6" 0'
1/2"=1'-0" 2' 1' 0'
1/4"=1'-0" 12' 8' 4' 2' 0'
1/8"=1'-0" 24' 16' 8' 4' 0'
1/16"=1'-0" 48' 32' 16' 8' 0'

UNSECURE VRV SPLIT SYSTEM OUTDOOR UNIT SCHEDULE

DAIKIN

Outdoor details

Name	Model	CR	Cooling			Heating			Piping
			Tmp C	CC	Rq CC	Tmp H	HC	Rq HC	
		%	°F	BTU/h	BTU/h	°F (DBT/WBT)	BTU/h	BTU/h	ft
CU-1	REYQ72AATJA	78.5	84.2	67,478	26,767	32.0/30.7	73,451	32,893	24.6
CU-2	REYQ72AATJA	125.0	84.2	77,664	42,636	32.0/30.7	86,356	52,325	24.6
Name	**Model**	**CR**	**Cooling**			**Heating**			**Piping**
			Tmp C	**CC**	**Rq CC**	**Tmp H**	**HC**	**Rq HC**	
		%	**°F**	**BTU/h**	**BTU/h**	**°F (DBT/WBT)**	**BTU/h**	**BTU/h**	**ft**

Name	Model	PS	MCA A	MOP A	RLA A	FLA A	WxHxD inch	Weight lbs
CU-1	REYQ72AATJA	208V - 230V 3ph	27.3	30.0	11.1		36.6 x 65.4 x 30.1	509.3
Branch selector box	BS8Q54TVJ	208-230V 1ph	0.8	15.0			22.8 x 11.7 x 18.9	72.8
CU-2	REYQ72AATJA	208V - 230V 3ph	27.3	30.0	11.1		36.6 x 65.4 x 30.1	509.3
Branch selector 2	BS10Q54TAVJ	208-230V 1ph	1.0	15.0			32.3 x 11.7 x 18.9	101.4

Name	Efficiency Metrics - Ducted									
	EER	EER2	IEER	COP47	COP17	SCHE	SEER	SEER2	HSPF	HSPF2
CU-1	12.8		23	3.58	2.4	22				
CU-2	12.8		23	3.58	2.4	22				

Name	Efficiency Metrics - Non Ducted									
	EER	EER2	IEER	COP47	COP17	SCHE	SEER	SEER2	HSPF	HSPF2
CU-1	15.7		28	4.35	2.5	26.1				
CU-2	15.7		28	4.35	2.5	26.1				

DAIKIN

Sound Data

Name	Model	Sound Power		Sound Pressure	
		Cooling dBA	Heating dBA	Cooling dBA	Heating dBA
CU-1	REYQ72AATJA	-	-	58	-
CU-2	REYQ72AATJA	-	-	58	-

Refrigerant information

Name	Model	Refrigerant type	GWP	Base charge lbs	Extra charge lbs	Total refrigerant charge lbs	Total CO2 equivalent tonnes
CU-1	REYQ72AATJA	R410A	2087.5	23.37	unknown	unknown	22.13
CU-2	REYQ72AATJA	R410A	2087.5	23.37	unknown	unknown	22.13

The system(s) contain fluorinated greenhouse gases.

When extra refrigerant charge requirements are not calculated, TCO2 equivalent is calculated only considering the base refrigerant charge. Depending on the field pipe length extra refrigerant needs to be added which will increase the TCO2 equivalent.

CU-1 - REYQ72AATJA

Model	Quantity	Description
REYQ72AATJA	1	VRV EMERION (208-230V) (VRV EMERION (208-230V))
BS8Q54TVJ	1	Branch selector unit
FXMQ07PBVJU	5	FXMQ_PB - Ceiling Mounted Ducted (Medium Static)
FXMQ09PBVJU	2	FXMQ_PB - Ceiling Mounted Ducted (Medium Static)
BRC1E73	7	new Navigation Remote Controller
KHFP26A100CA	1	Branch Selector Closed Pipe Kit

Refrigerant information

Refrigerant type	GWP	Base charge lbs	Extra charge lbs	Total refrigerant charge lbs	Total CO2 equivalent tonnes
R410A	2087.5	23.37	unknown	unknown	22.13

The system(s) contain fluorinated greenhouse gases.

When extra refrigerant charge requirements are not calculated, TCO2 equivalent is calculated only considering the base refrigerant charge. Depending on the field pipe length extra refrigerant needs to be added which will increase the TCO2 equivalent.

DAIKIN

Piping limitations

Description	Value
Maximum total length	3,280.8ft
Maximum longest actual length	541.3ft
Maximum longest equivalent length	623.4ft
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit(size up of intermediate pipes required if longer)	131.2ft
Maximum length first branch to indoor unit	295.3ft
Maximum length of indoor units to nearest branch	131.2ft
Maximum length difference between longest and shortest distance to indoor units	131.2ft
Maximum height difference, outdoor unit below indoor units	360.9ft
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	360.9ft
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	131.2ft
Maximum height difference in technical cooling, outdoor unit above indoor units	360.9ft
Maximum height difference between indoor units	98.4ft
Connection ratio range	50.0% - 200.0%
Refrigerant pipe diameters	1/2" (liquid) x 3/4" (gas) x 5/8" (discharge)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	295.3ft
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

CU-2 - REYQ72AATJA

Model	Quantity	Description
REYQ72AATJA	1	VRV EMERION (208-230V) (VRV EMERION (208-230V))
BS10Q54TAVJ	1	Branch selector unit
FXMQ07PBVJU	5	FXMQ_PB - Ceiling Mounted Ducted (Medium Static)
FXMQ09PBVJU	3	FXMQ_PB - Ceiling Mounted Ducted (Medium Static)
FXMQ12PBVJU	2	FXMQ_PB - Ceiling Mounted Ducted (Medium Static)
BRC1E73	10	new Navigation Remote Controller

Refrigerant information

Refrigerant type	GWP	Base charge lbs	Extra charge lbs	Total refrigerant charge lbs	Total CO2 equivalent tonnes
R410A	2087.5	23.37	unknown	unknown	22.13

The system(s) contain fluorinated greenhouse gases.

When extra refrigerant charge requirements are not calculated, TCO2 equivalent is calculated only considering the base refrigerant charge. Depending on the field pipe length extra refrigerant needs to be added which will increase the TCO2

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equivalent.

Pipe capacities

Maximum Connection Index	Diameters
53.9	3/8"x5/8"x1/2"
71.9	3/8"x3/4"x5/8"
110.9	3/8"x7/8"x3/4"
161.9	1/2"x1 1/8"x3/4"
229.9	5/8"x1 1/8"x1 1/8"
299.9	3/4"x1 3/8"x1 1/8"
> 299.9	3/4"x1 5/8"x1 1/8"
Main pipe size up	1/2"x3/4"x5/8"

Piping limitations

Description	Value
Maximum total length	3,280.8ft
Maximum longest actual length	541.3ft
Maximum longest equivalent length	623.4ft
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit(size up of intermediate pipes required if longer)	131.2ft
Maximum length first branch to indoor unit	295.3ft
Maximum length of indoor units to nearest branch	131.2ft
Maximum length difference between longest and shortest distance to indoor units	131.2ft
Maximum height difference, outdoor unit below indoor units	360.9ft
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	360.9ft
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	131.2ft
Maximum height difference in technical cooling, outdoor unit above indoor units	360.9ft
Maximum height difference between indoor units	98.4ft
Connection ratio range	50.0% - 200.0%
Refrigerant pipe diameters	1/2" (liquid) x 3/4" (gas) x 5/8" (discharge)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	295.3ft
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

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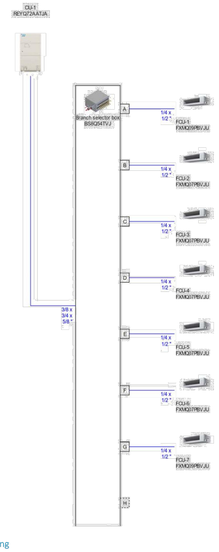
Piping diagrams

Piping CU-1



Piping

Warning: The pipe diameter values are purely indicative. Depending on the required pipe lengths, a different pipe diameter might be required.

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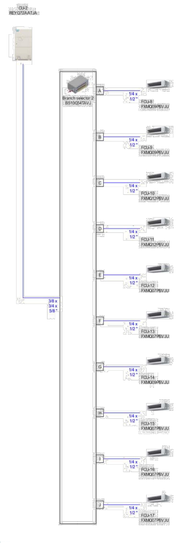
Piping CU-2



Piping

Warning: The pipe diameter values are purely indicative. Depending on the required pipe lengths, a different pipe diameter might be required.

PETER M. HONEYFORD
PROFESSIONAL ENGINEER
NJ LICENSE NUMBER 33443
EXP: 04/30/2026

NJ COA NUMBER 24GA27940200

PMH ASSOCIATES, INC.
MECHANICAL, ELECTRICAL & FIRE PROTECTION ENGINEERING
1217 N CHURCH ST. STE B MOORESTOWN, NJ 08057
(856) 273-0554 ~ FAX: (856) 273-7701 ~ PMH@PMH-ASSOCIATES.COM

☐ EIC: ____ ☐ PC: ____ ☐ PM: ____ ☐ DD: ____

CODE REVIEW:

CERTIFICATE:

spiezle

SPIEZLE ARCHITECTURAL GROUP INC.
121 MARKET STREET
CAMDEN, NJ 08102
PHONE: (866) 974 7666

SIGNATURE:

THOMAS S. PERRINO	21A01505400
SCOTT E. DOWNIE	21A01674400
STEVEN LEONE	21A01170100
STEVEN G. SIEGEL	21A01564200
ANGELO ALBERTO	21A01540700
JOHN F. WRIGHT	21A01784200
SPIEZLE ARCHITECTURAL GROUP, INC.	21AG00063000

SEAL:

BID SET - 06/25/2024

PROJECT:

HADDONFIELD POLICE STATION

1 WALNUT STREET, HADDONFIELD, NJ 08033

FOR

CAMDEN COUNTY IMPROVEMENT AUTHORITY

520 MARKET STREET, 6TH FLOOR, CAMDEN, NEW JERSEY 08102

FOR CODE REVIEW: 02/23/24

REVISIONS:

	REVISION NAME	DATE

FOR BID: 06/25/2024

DRAWING TITLE:

MECHANICAL SCHEDULES

COMMISSION NUMBER:

23M014

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DRAWING NUMBER:

M0.4

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1 1/2"=1'-0" 2' 1' 0' 6" 0' 3' 2' 1' 6" 0' 3/4"=1'-0" 6" 0' 6' 4' 2' 0' 1/2"=1'-0" 1' 0' 12' 8' 4' 2' 0' 1/4"=1'-0" 24' 16' 8' 0' 1/8"=1'-0" 8' 4' 0' 48' 32' 16' 1/16"=1'-0" 8' 0'

SECURE AREA VRV SPLIT SYSTEM SCHEDULE

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Material list

Model	Quantity	Description
RXSQ36TAVJU	1	RXSQ-TA (208-230V) (obsolete)
FXMQ07PBVJU	1	FXMQ_PB - Ceiling Mounted Ducted (Medium Static)
FXMQ30PBVJU	1	FXMQ_PB - Ceiling Mounted Ducted (Medium Static)
KHRP26A22TA	1	Refnet branch piping kit
BRC1E73	2	new Navigation Remote Controller

Remarks

Note: Upon depletion of inventory of current REFNET models, order of current REFNET models will be substituted with the new upgraded -A models with no additional fee.

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CU-3 - RXSQ36TAVJU

Capacity data at conditions and connection ratio (104) as entered

Name	FCU	Cooling										
		Tmp C	Rq TC	Rv TC	Max TC	Rq SC	Tevap	Tdis C	Max SC	Min coil	Max coil	Air Flow Rate
		°F (DBT/WBT)	BTU/h	BTU/h	BTU/h	BTU/h	°F	°F	BTU/h	in²	in²	cfm
FCU-18	FXMQ07PBVJU	78.8/65.5	n/a	0	7,110	n/a	42.8	61.5	6,042	n/a	n/a	317
FCU-19	FXMQ30PBVJU	78.8/65.5	n/a	0	28,408	n/a	42.8	60.3	22,303	n/a	n/a	1,094
			0									

Name	FCU	Gas furnace heating			Heating			
		Input	Output	AFUE	Tmp H	Rq HC	Max HC	Tdis H
		BTU/h	BTU/h	%	°F	BTU/h	BTU/h	°F
FCU-18	FXMQ07PBVJU	n/a	n/a	n/a	68.0	n/a	8,803	93.2
FCU-19	FXMQ30PBVJU	n/a	n/a	n/a	68.0	n/a	35,247	97.3
						n/a		

Name	FCU	Room	Sound	PS	MCA	MOP	WxHxD	Weight
			dBA		A		inch	lbs
FCU-18	FXMQ07PBVJU		29 - 33	208-230V 1ph	0.6	15A	21.7 x 11.8 x 27.6	55.1
FCU-19	FXMQ30PBVJU		39 - 43	208-230V 1ph	2.8	15A	55.1 x 11.8 x 27.6	101.4

Remarks

Under capacity

The sum of the required indoor unit capacities is 44,051BTU/h for heating. However, the selected outdoor unit has a heating capacity of 36,394BTU/h (= -17.4%). Be aware that an undersized system may lead to reduced comfort levels, different noise levels or increased wear and tear.

Outdoor vs. indoor position

Outdoor unit placed at the same level as the indoor units.

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Outdoor details

Name	Model	Cooling			Heating			
		Tmp C	CC	Rq CC	Tmp H	IDU HC	Rq IDU HC	Balance point temp
		°F	BTU/h	BTU/h	°F (DBT/WBT)	BTU/h	BTU/h	°F
CU-3	RXSQ36TAVJU▼	84.2	35,518	35,517	10.0/30.7	36,394	44,051	

Name	Model	Refrigerant tank	CR	Piping
		°F	%	ft
CU-3	RXSQ36TAVJU▼	n/a	104.2	24.6

Name	Model	PS	MCA	MOP	RLA	FLA	WxHxD	Weight
			A	A	A	A	inch	lbs
CU-3	RXSQ36TAVJU	208-230V 1ph	16.5	25.0	15.3		37.0 x 39.0 x 12.6	172.0

Name	Efficiency Metrics - Ducted									
	EER	EER2	IEER	COP47	COP17	SCHE	SEER	SEER2	HSPF	HSPF2
CU-3	10						16		9	

Name	Efficiency Metrics - Non Ducted									
	EER	EER2	IEER	COP47	COP17	SCHE	SEER	SEER2	HSPF	HSPF2
CU-3	12						18		10.3	

Sound Data

Name	Model	Sound Power		Sound Pressure	
		Cooling	Heating	Cooling	Heating
		dBA	dBA	dBA	dBA
CU-3	RXSQ36TAVJU	-	-	58	-

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Refrigerant information

Name	Model	Refrigerant type	GWP	Base charge lbs	Extra charge lbs	Total refrigerant charge lbs	Total CO2 equivalent tonnes
CU-3	RXSQ36TAVJU	R410A	2087.5	6.39	unknown	unknown	6.05

The system(s) contain fluorinated greenhouse gases.

When extra refrigerant charge requirements are not calculated, TCO2 equivalent is calculated only considering the base refrigerant charge. Depending on the field pipe length extra refrigerant needs to be added which will increase the TCO2 equivalent.

CU-3 - RXSQ36TAVJU

Model	Quantity	Description
RXSQ36TAVJU	1	RXSQ-TA (208-230V) (obsolete)
FXMQ07PBVJU	1	FXMQ_PB - Ceiling Mounted Ducted (Medium Static)
FXMQ30PBVJU	1	FXMQ_PB - Ceiling Mounted Ducted (Medium Static)
KHRP26A22TA	1	Refnet branch piping kit
BRC1E73	2	new Navigation Remote Controller

Refrigerant information

Refrigerant type	GWP	Base charge lbs	Extra charge lbs	Total refrigerant charge lbs	Total CO2 equivalent tonnes
R410A	2087.5	6.39	unknown	unknown	6.05

The system(s) contain fluorinated greenhouse gases.

When extra refrigerant charge requirements are not calculated, TCO2 equivalent is calculated only considering the base refrigerant charge. Depending on the field pipe length extra refrigerant needs to be added which will increase the TCO2 equivalent.

Remarks

Chosen outdoor unit size differs from default proposed size. Be aware that this might lead to reduced comfort levels, increased noise levels, wear and tear. In case of doubt, contact your sales representative.

Pipe capacities

Maximum Connection Index	Diameters
> 0	3/8"x5/8"
Main pipe size up	3/8"x3/4"

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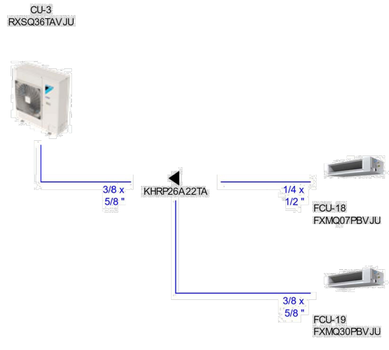
Piping limitations

Description	Value
Maximum total length	328.1ft
Maximum longest actual length	100.1ft
Maximum longest equivalent length	124.7ft
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit(size up of intermediate pipes required if longer)	131.2ft
Maximum length first branch to indoor unit	100.1ft
Maximum length of indoor units to nearest branch	131.2ft
Maximum length difference between longest and shortest distance to indoor units	131.2ft
Maximum height difference, outdoor unit below indoor units	98.4ft
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	98.4ft
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	98.4ft
Maximum height difference in technical cooling, outdoor unit above indoor units	98.4ft
Maximum height difference between indoor units	32.8ft
Connection ratio range	50.0% - 130.0%
Refrigerant pipe diameters	3/8" (liquid) x 3/4" (gas)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	100.1ft
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

DAIKIN

Piping diagrams

Piping CU-3



Piping

Warning: The pipe diameter values are purely indicative. Depending on the required pipe lengths, a different pipe diameter might be required.

VRV OUTSIDE AIR REQUIREMENTS

TAG	AREA SERVED	OUTSIDE AIR		SUPPLY CFM
		CFM	%OA	
FCU 18	EVIDENCE/ARMORY	25	12%	205
FCU 19	SECURE	175	16%	1075

PETER M. HONEYFORD
PROFESSIONAL ENGINEER
NJ LICENSE NUMBER 33443
EXP: 04/30/2026

NJ COA NUMBER 24GA27940200

PMH ASSOCIATES, INC.
MECHANICAL, ELECTRICAL & FIRE PROTECTION ENGINEERING
1217 N CHURCH ST. STE B MOORESTOWN, NJ 08057
(856) 273-0554 ~ FAX: (856) 273-7701 ~ PMH@PMH-ASSOCIATES.COM

EIC: ____ PC: ____ PM: ____ DD: ____

CODE REVIEW:

CERTIFICATE:

SPIEZLE ARCHITECTURAL GROUP INC.
121 MARKET STREET
CAMDEN, NJ 08102
PHONE: (866) 974 7666

SIGNATURE:

THOMAS S. PERRINO	21A01505400
SCOTT E. DOWNIE	21A01674400
STEVEN LEONE	21A01170100
STEVEN G. SIEGEL	21A01564200
ANGELO ALBERTO	21A01564700
JOHN F. WRIGHT	21A01784200
SPIEZLE ARCHITECTURAL GROUP, INC.	21AG00083000

SEAL:

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1 WALNUT STREET, HADDONFIELD, NJ 08033

FOR

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FOR CODE REVIEW: 02/23/24

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FOR BID: 06/25/2024

DRAWING TITLE:

MECHANICAL SCHEDULES

COMMISSION NUMBER:

23M014

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DRAWING NUMBER:

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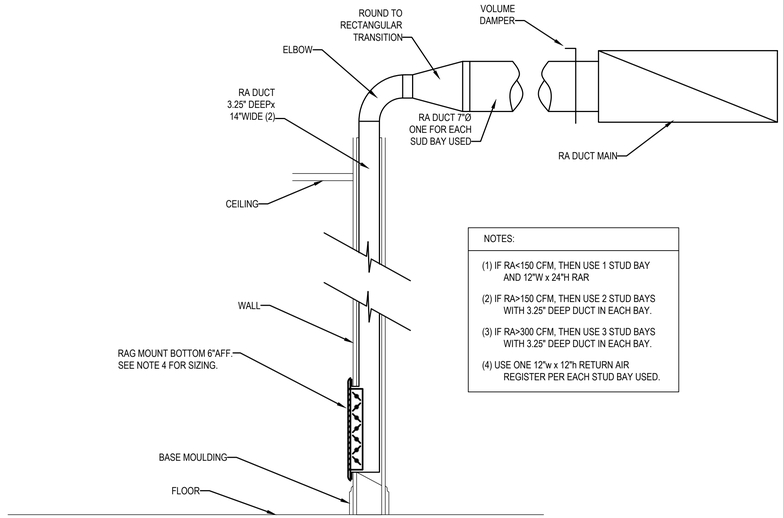


NOTES:

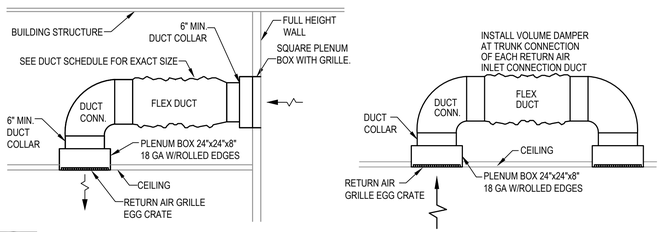
(1) IF RA<150 CFM, THEN USE 1 STUD BAY AND 12"W x 24"H RAR

(2) IF RA>150 CFM, THEN USE 2 STUD BAYS WITH 3.25" DEEP DUCT IN EACH BAY.

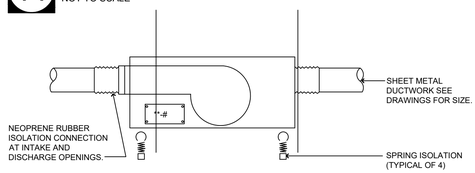
(3) IF RA>300 CFM, THEN USE 3 STUD BAYS WITH 3.25" DEEP DUCT IN EACH BAY.

(4) USE ONE 12"w x 12"h RETURN AIR REGISTER PER EACH STUD BAY USED.

10 LOW RETURN DETAIL
NOT TO SCALE

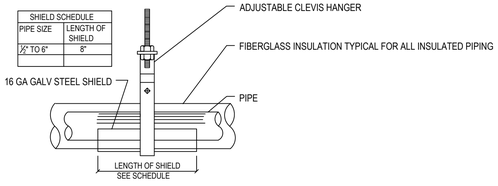


11 TRANSFER DUCT DETAIL
NOT TO SCALE



12 INLINE EXHAUST FAN DETAIL
NOT TO SCALE

SHIELD SCHEDULE	
PIPE SIZE	LENGTH OF SHIELD
½" TO 6"	8"



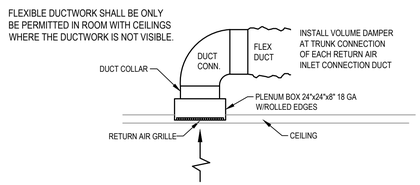
SEISMIC NOTES:
SEISMIC BRACING SHALL BE INSTALLED UNDER THE FOLLOWING CONDITIONS:
1. GAS PIPING 1" DIAMETER AND GREATER.
2. ALL PIPING 2½" DIAMETER AND GREATER.
3. EXCEPTION: ALL PIPING SUSPENDED BY INDIVIDUAL HANGERS 12" OR LESS IN LENGTH FROM THE TOP OF PIPE TO THE POINT OF ATTACHMENT OF THE HANGER TO THE STRUCTURE DOES NOT REQUIRE SEISMIC BRACING.

THE SIZE, TYPE, SPACING, AND METHOD OF INSTALLATION OF SEISMIC BRACING SHALL BE IN ACCORDANCE WITH THE LATEST "SMACNA SEISMIC RESTRAINT MANUAL-GUIDELINES FOR MECHANICAL SYSTEMS". GAS PIPING IS TO BE CLASSIFIED UNDER "SEISMIC HAZARD LEVEL A" AND ALL OTHER PIPING SYSTEMS "SEISMIC HAZARD LEVEL C" IN THE SMACNA MANUAL.

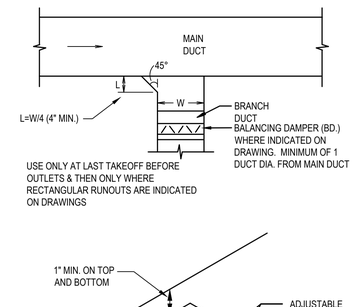
DETAIL IS PROVIDE AS A COURTESIES, REFER TO THE CURRENT EDITION OF THE ANSI/SMANCA "SEISMIC RESTRAINT MANUAL - GUIDELINES FOR MECHANICAL SYSTEMS" FOR CORRECT SIZING, PLACEMENT AND SUPPORT.

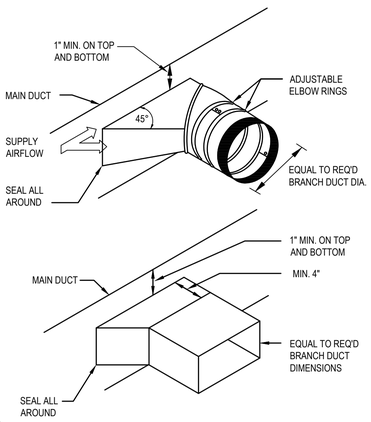
13 PIPE SUPPORT DETAIL
NOT TO SCALE

5 SUPPLY DUCT DETAIL
NOT TO SCALE

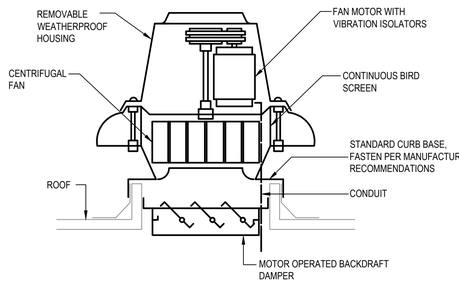


6 DUCTED RETURN DETAILS
NOT TO SCALE

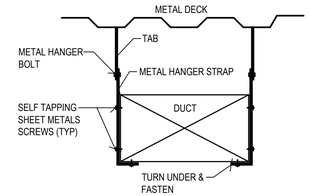




7 TYPICAL BRANCH TAKE-OFF DETAILS
NOT TO SCALE

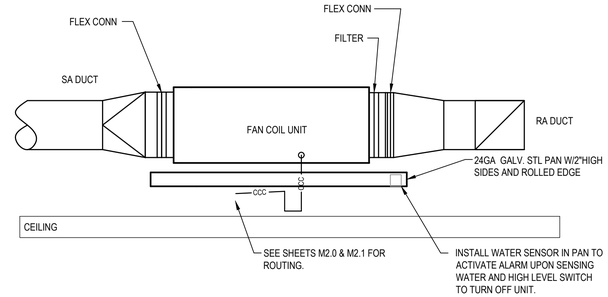


9 EXHAUST FAN DETAIL
NOT TO SCALE

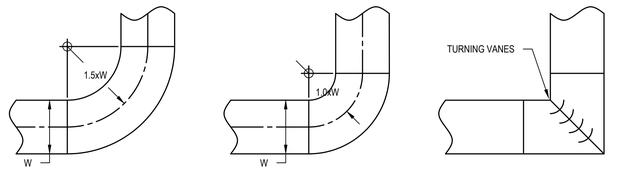


NOTES:
1) DISTANCE BETWEEN DUCT HANGERS SHALL BE IN ACCORDANCE WITH LATEST SMACNA HVAC DUCT CONSTRUCTION STANDARDS: CHAPTER 4 - HANGERS & SUPPORTS.
2) DUCTS SHALL NOT BE HUNG FROM OR SUPPORTED BY HUNG CEILING. MUST BE HUNG FROM BUILDING STRUCTURE.
3) FOR DUCTS NOT EXCEEDING 2 SQFT IN CROSS-SECTION AREA, HANGERS SHALL BE OF METAL NOT LESS THAN 1/16".
4) FOR DUCTS LARGER THAN 2 SQFT IN CROSS-SECTION AREA, HANGERS SHALL BE OF METAL NOT LESS THAN 1" BY 1/8".
5) ALL DUCT HANGERS SHALL BE TURNED UNDER AND FASTEN TO THE BOTTOM OF DUCT AS SHOWN ABOVE.
6) WHERE CROSS - SECTION AREA OF DUCT EXCEEDS 8 SQFT HANGERS SHALL BE SPACED NOT MORE THAN 4 FT ON CENTER.

8 METAL DUCT SUPPORT DETAIL
NOT TO SCALE

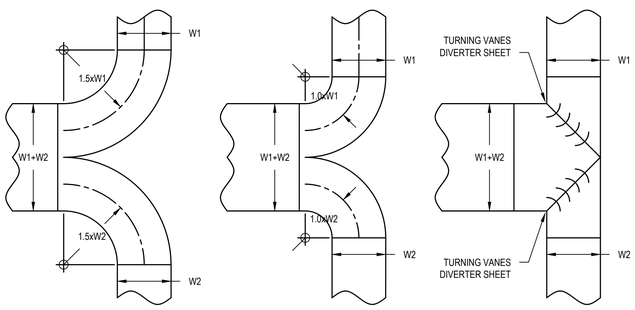


1 DRAIN PAN DETIAL
NOT TO SCALE



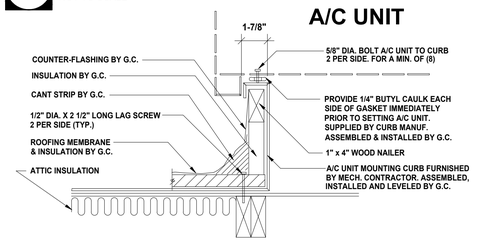
NO.1 PREFERRED | NO.2 IF NO. 1 CANNOT FIT | NO.3 IF NO. 2 CANNOT FIT

2 PERMITTED DUCT ELBOWS
NOT TO SCALE



NO.1 PREFERRED | NO.2 IF NO. 1 CANNOT FIT | NO.3 IF NO. 2 CANNOT FIT

3 PERMITTED DUCT TEES
NOT TO SCALE



4 CURB DETAIL
NOT TO SCALE

PETER M. HONEYFORD
PROFESSIONAL ENGINEER
NJ LICENSE NUMBER 33443
EXP: 04/30/2026

NJ COA NUMBER 24GA27940200

PMH ASSOCIATES, INC.
MECHANICAL, ELECTRICAL & FIRE PROTECTION ENGINEERING
1217 N CHURCH ST. STE B MOORESTOWN, NJ 08057
(856) 273-0554 ~ FAX: (856) 273-7701 ~ PMH@PMH-ASSOCIATES.COM

EIC: ____ PC: ____ PM: ____ DD: ____

CODE REVIEW:

CERTIFICATE:

SPIEZLE ARCHITECTURAL GROUP INC.
121 MARKET STREET
CAMDEN, NJ 08102
PHONE: (866) 974 7666

SIGNATURE:

THOMAS S. PERRINO	21A01505400
SCOTT E. DOWNIE	21A01674400
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JOHN F. WRIGHT	21A01784200
SPIEZLE ARCHITECTURAL GROUP, INC.	21AC00063000

SEAL:

BID SET - 06/25/2024

PROJECT:

HADDONFIELD POLICE STATION

1 WALNUT STREET, HADDONFIELD, NJ 08033

FOR

CAMDEN COUNTY IMPROVEMENT AUTHORITY

520 MARKET STREET, 6TH FLOOR, CAMDEN, NEW JERSEY 08102

FOR CODE REVIEW: 02/23/24

REVISIONS:

#	REVISION NAME	DATE

FOR BID: 06/25/2024

DRAWING TITLE:

MECHANICAL DETAILS

COMMISSION NUMBER:

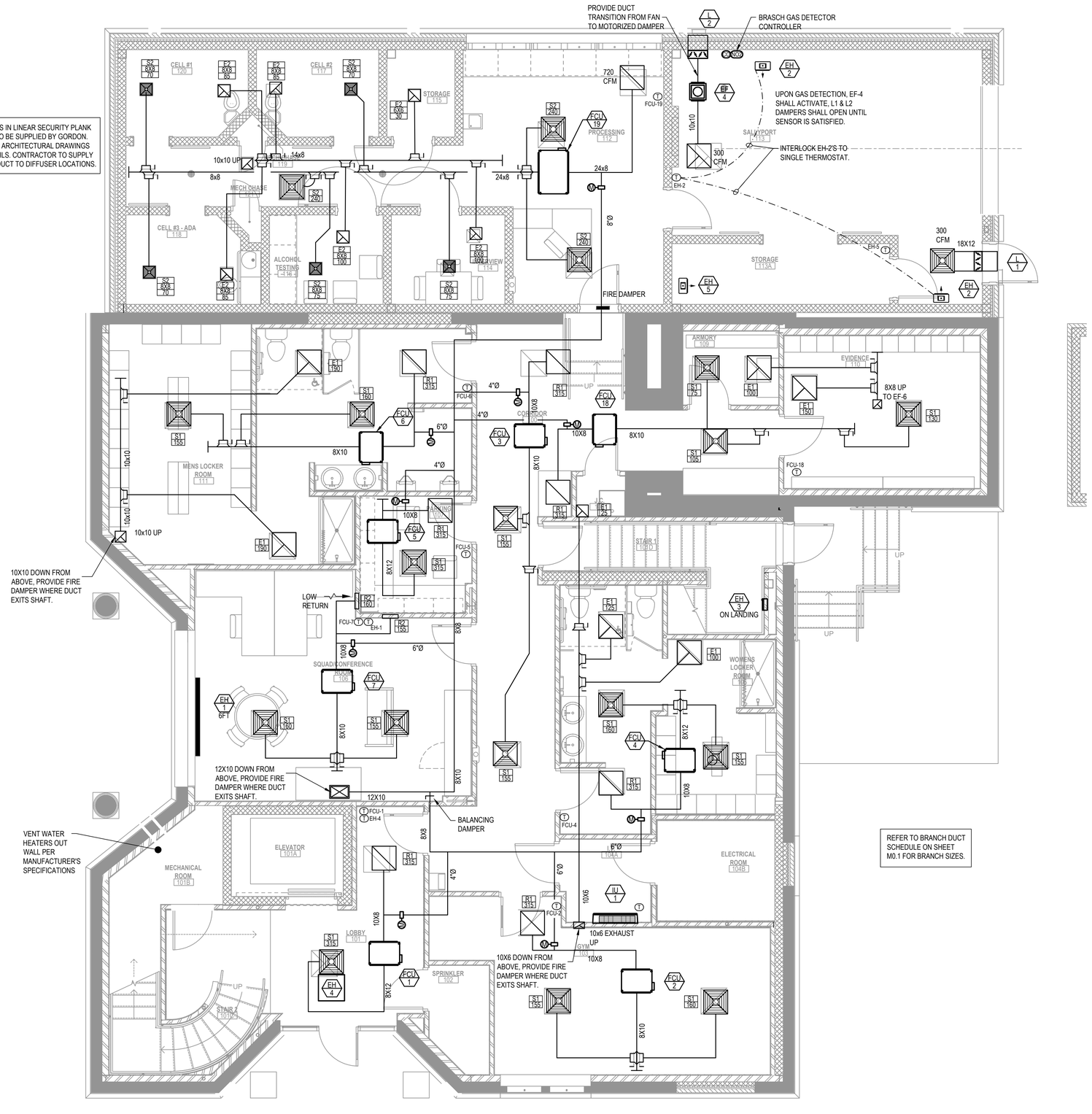
23M014

DO NOT SCALE THE DRAWINGS

DRAWING NUMBER:

M0.6

THIS DRAWING IS FORMATTED TO BE PRINTED AT 24"x36"



1 MECHANICAL FIRST FLOOR PLAN

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

PETER M. HONEYFORD
PROFESSIONAL ENGINEER
NJ LICENSE NUMBER 33443
EXP: 04/30/2026

NJ COA NUMBER 24GA27940200

PMH ASSOCIATES, INC.
MECHANICAL, ELECTRICAL & FIRE PROTECTION ENGINEERING
1217 N CHURCH ST. STE B MOORESTOWN, NJ 08057
(856) 273-0554 – FAX. (856) 273-7701 – PMH@PMH-ASSOCIATES.COM
☐ EIC: ____ ☐ PC: ____ ☐ PM: ____ ☐ DD: ____

CODE REVIEW:

CERTIFICATE:

spiezle

SPIEZLE ARCHITECTURAL GROUP INC.
121 MARKET STREET
CAMDEN, NJ 08102
PHONE: (866) 974 7666

SIGNATURE:

THOMAS S. PERRINO	21A01505400
SCOTT E. DOWNIE	21A01674400
STEVEN LEONE	21A01170100
STEVEN G. SIEGEL	21A01564200
ANGELO ALBERTO	21A01040700
JOHN F. WRIGHT	21A01784200
SPIEZLE ARCHITECTURAL GROUP, INC.	21AC000630000

SEAL:

BID SET - 06/25/2024

PROJECT:

HADDONFIELD POLICE STATION

1 WALNUT STREET, HADDONFIELD, NJ 08033

FOR

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DRAWING TITLE:

FIRST FLOOR MECHANICAL PLAN

COMMISSION NUMBER:

23M014

DO NOT SCALE THE DRAWINGS

DRAWING NUMBER:

M1.0

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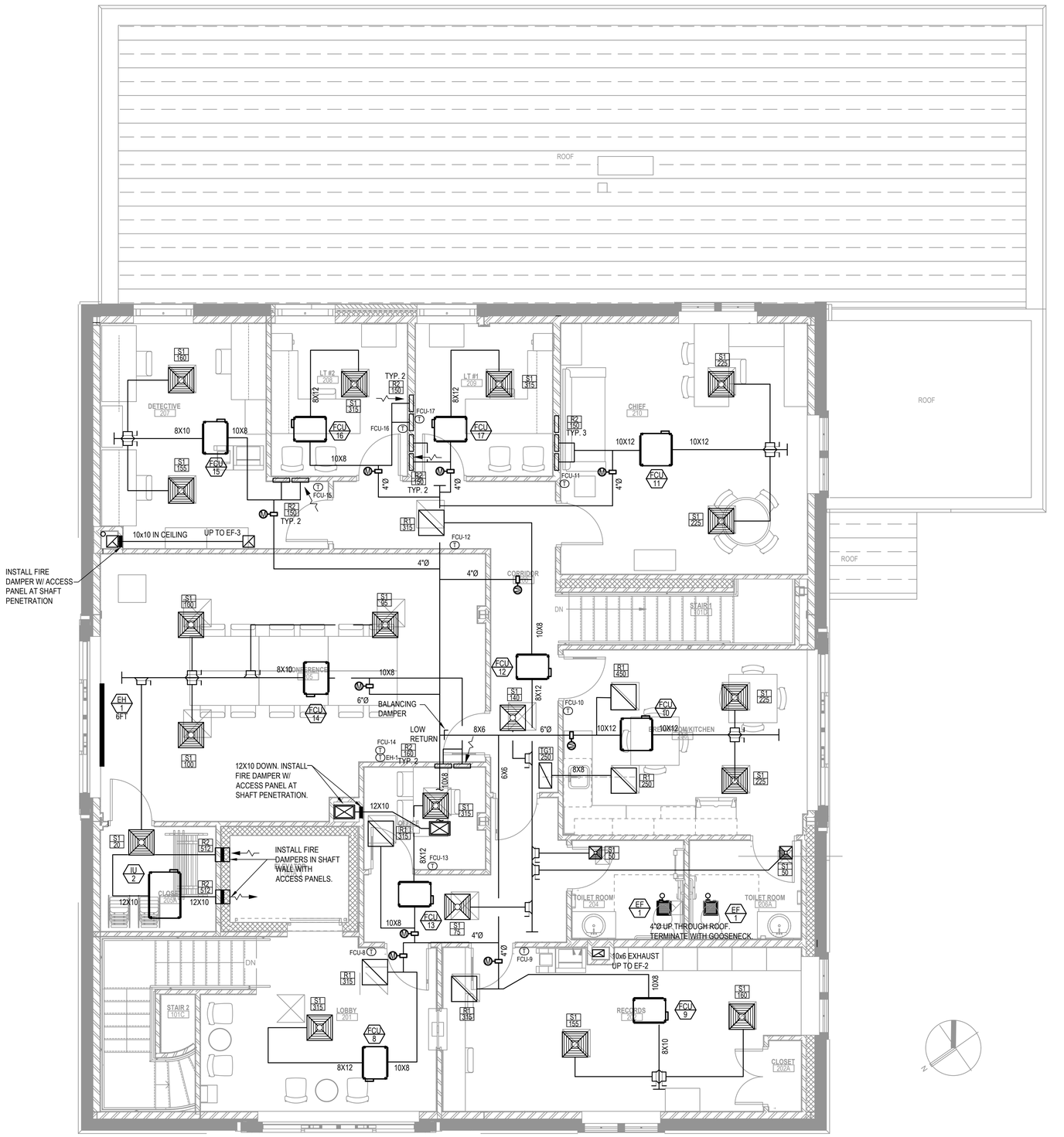

1 MECHANICAL SECOND FLOOR PLAN

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

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DRAWING TITLE:

SECOND FLOOR MECHANICAL PLAN

COMMISSION NUMBER:

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NJ COA NUMBER 24GA27940200

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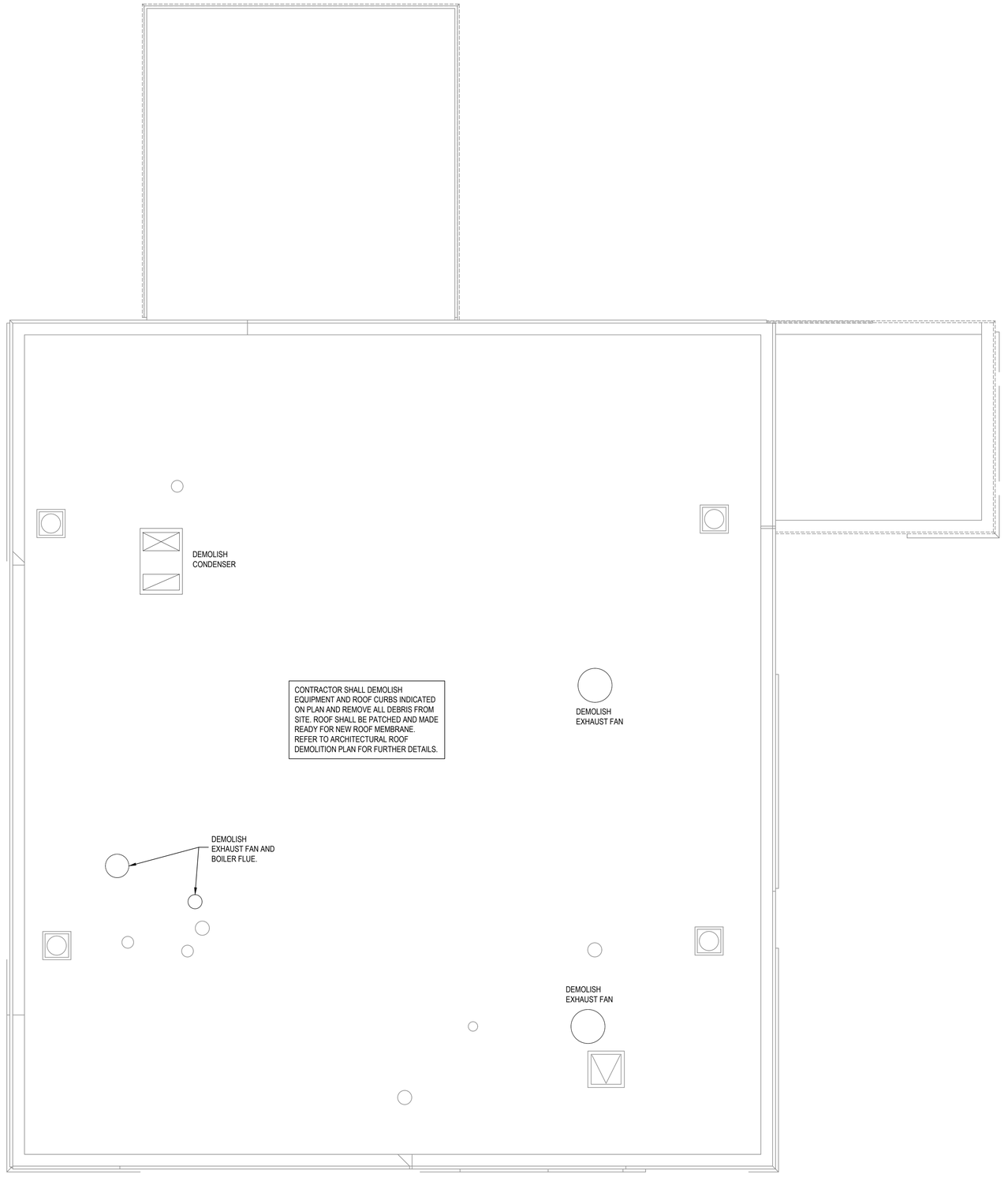

1 MECHANICAL ROOF DEMOLITION PLAN
SCALE: 1/4"=1'-0"

CODE REVIEW:

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DRAWING TITLE:

MECHANICAL ROOF DEMOLITION PLAN

COMMISSION NUMBER:

23M014

DO NOT SCALE THE DRAWINGS

DRAWING NUMBER:

M1.2

PETER M. HONEYFORD
PROFESSIONAL ENGINEER
NJ LICENSE NUMBER 33443
EXP: 04/30/2026

NJ COA NUMBER 24GA27940200

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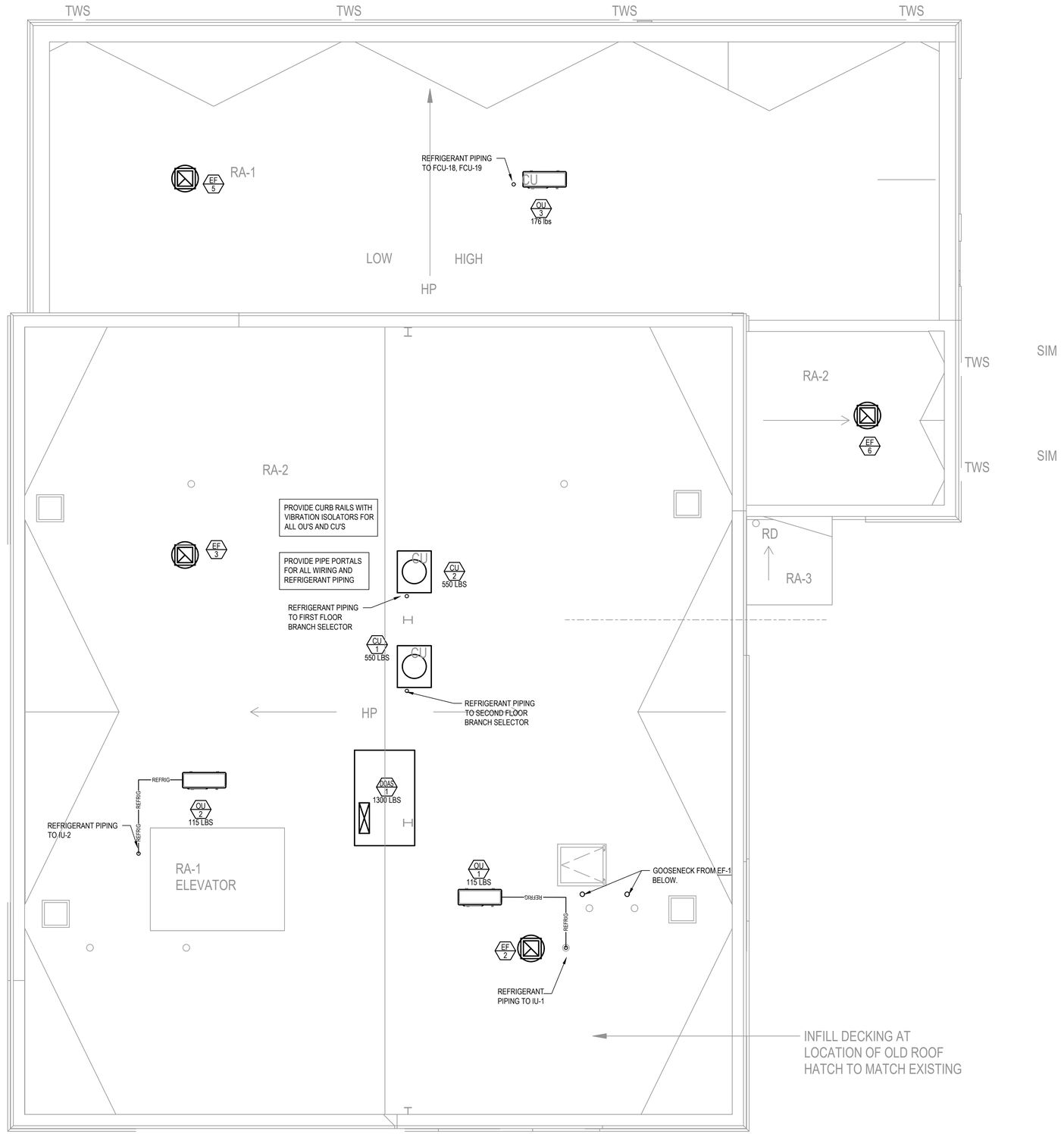

1 MECHANICAL ROOF PLAN
SCALE: 1/4"=1'-0"

1 1/2"=1'-0" 1" 1/2"=1'-0" 3/4"=1'-0" 1/2"=1'-0" 1/4"=1'-0" 1/8"=1'-0" 1/16"=1'-0"

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MECHANICAL ROOF PLAN

COMMISSION NUMBER:

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DRAWING NUMBER:

M1.3

PETER M. HONEYFORD
PROFESSIONAL ENGINEER
NJ LICENSE NUMBER 33443
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NJ COA NUMBER 24GA27940200

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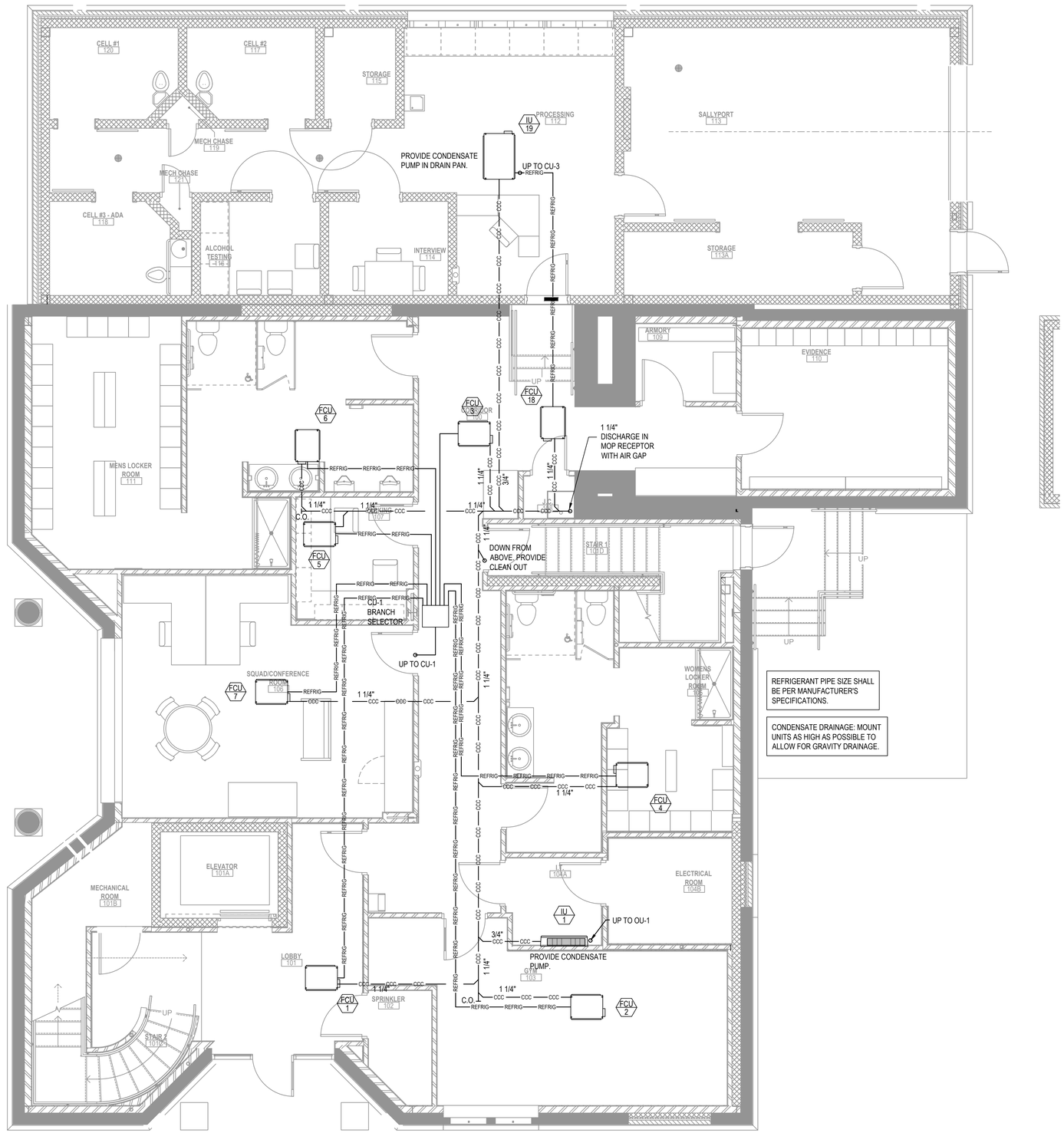

1 MECHANICAL CONDENSATE & REFRIGERANT FIRST FLOOR PIPING PLAN
SCALE: 1/4"=1'-0"

PETER M. HONEYFORD
PROFESSIONAL ENGINEER
NJ LICENSE NUMBER 33443
EXP: 04/30/2026

NJ COA NUMBER 24GA27940200

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DRAWING TITLE:

FIRST FLOOR MECHANICAL PIPING PLAN

COMMISSION NUMBER:

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DO NOT SCALE THE DRAWINGS

DRAWING NUMBER:

M2.0

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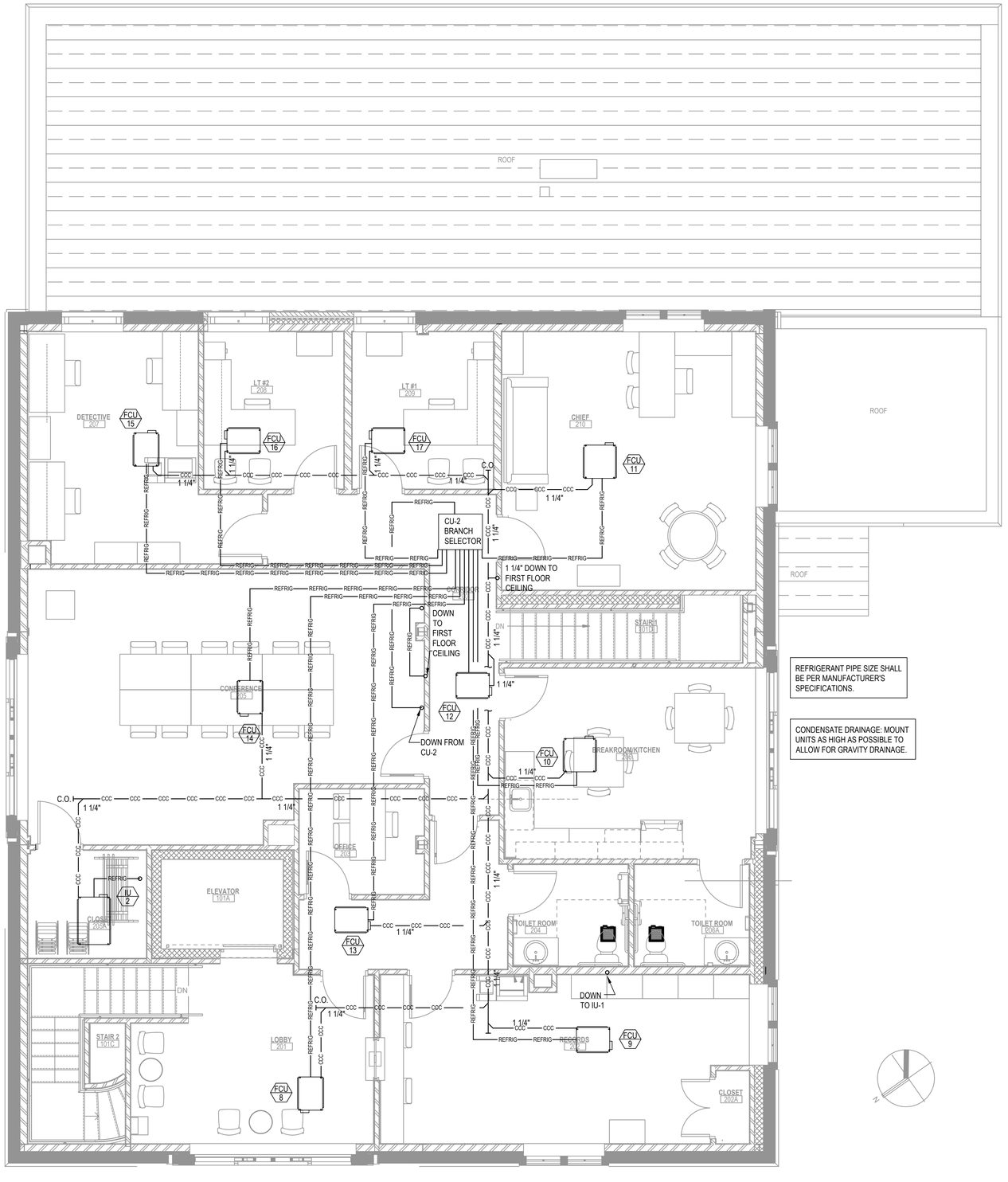

REFRIGERANT PIPE SIZE SHALL BE PER MANUFACTURER'S SPECIFICATIONS.

CONDENSATE DRAINAGE: MOUNT UNITS AS HIGH AS POSSIBLE TO ALLOW FOR GRAVITY DRAINAGE.

1 MECHANICAL CONDENSATE & REFRIGERANT SECOND FLOOR PIPING PLAN

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

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PROFESSIONAL ENGINEER
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SECOND FLOOR MECHANICAL PIPING PLAN

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1 1/2"=1'-0" 1" 6" 0"
1"=1'-0" 3" 2" 1" 6" 0"
3/4"=1'-0" 3" 2" 1" 6" 0"
1/2"=1'-0" 6" 4" 2" 1" 0"
1/4"=1'-0" 12' 8" 4" 2" 0"
1/8"=1'-0" 24' 16' 8" 4" 0"
1/16"=1'-0" 48' 32' 16' 8" 0"

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