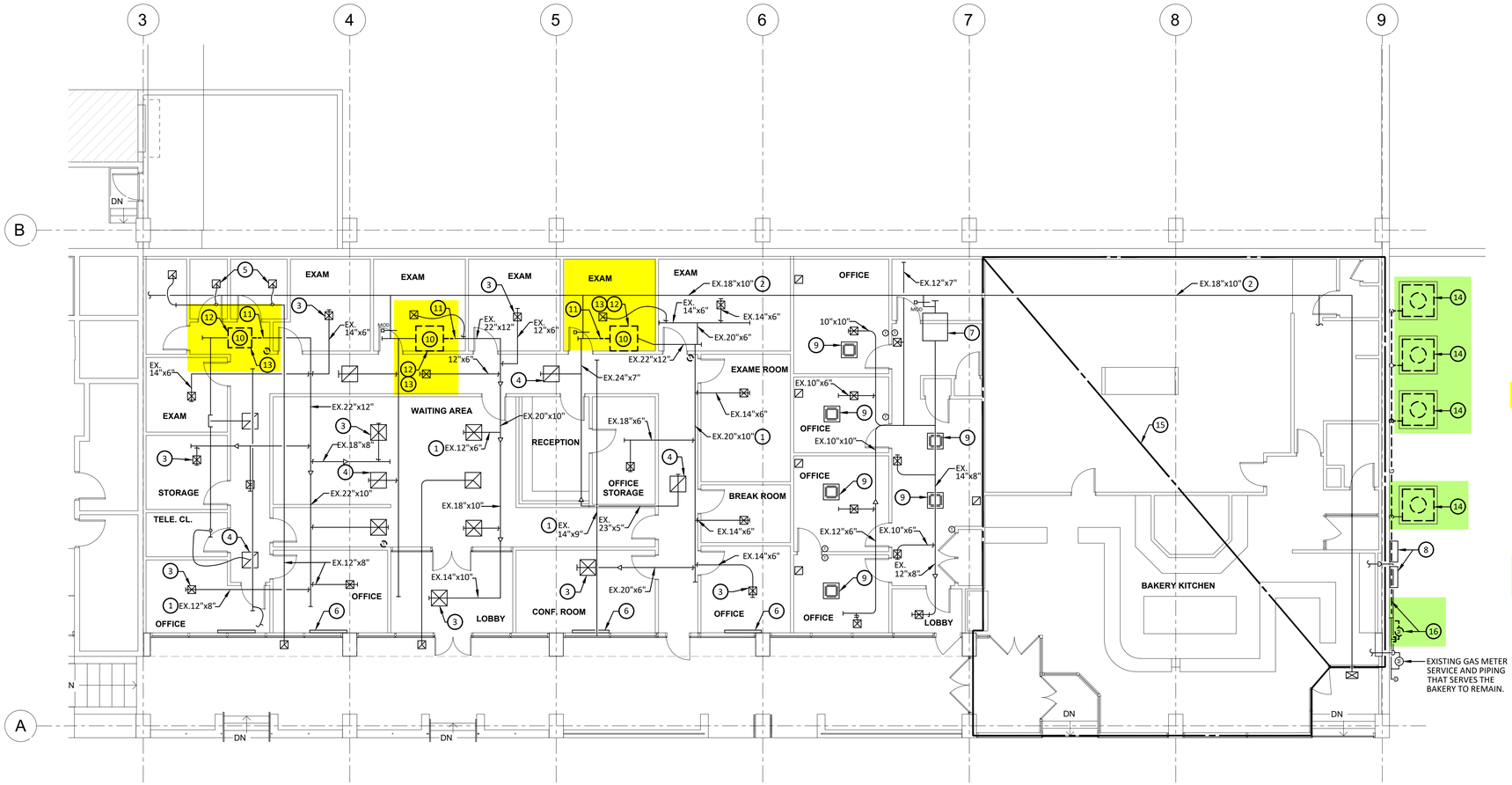
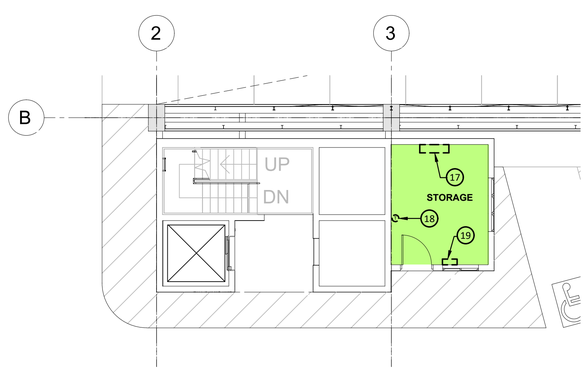


1 M1.1 GROUND FLOOR PLAN - EXISTING CONDITIONS/DEMOLITION (HVAC)
SCALE: 1/8"=1'-0"



2 M1.1 TIER 2 FLOOR PLAN - EXISTING CONDITIONS/DEMOLITION (HVAC)
SCALE: 1/8"=1'-0"

DRAWING NOTES

1. EXISTING DUCTWORK ABOVE CEILING TO REMAIN (TYPICAL).
2. EXISTING OUTSIDE AIR DUCTWORK ABOVE CEILING TO REMAIN (TYPICAL).
3. EXISTING SUPPLY AIR DIFFUSER TO REMAIN. MAINTAIN EXISTING AIRFLOW (TYPICAL).
4. EXISTING RETURN AIR GRILLE TO REMAIN. MAINTAIN EXISTING AIRFLOW (TYPICAL).
5. EXISTING CEILING MOUNTED EXHAUST FAN TO REMAIN, ALONG WITH ASSOCIATED EXHAUST AIR DUCTWORK (TYPICAL).
6. EXISTING ELECTRIC BASEBOARD TO REMAIN (TYPICAL).
7. EXISTING AIR HANDLING UNIT AND ASSOCIATED DUCTWORK TO REMAIN.
8. EXISTING OUTDOOR HEAT PUMP UNIT MOUNTED WALL TO REMAIN.
9. EXISTING CEILING MOUNTED CASSETTE AIR HANDLING UNIT TO REMAIN, ALONG WITH EXISTING CONTROLS (TYPICAL).
10. REMOVE EXISTING CEILING MOUNTED AIR HANDING UNIT AS INDICATED, ALONG WITH EXISTING CONTROLS.
11. REMOVE EXISTING SUPPLY AND/OR RETURN AIR DUCTWORK BACK TO POINT INDICATED TO ACCOMMODATE NEW INSTALL AS NEEDED.
12. CONTRACTOR TO FIELD VERIFY/LOCATE EXISTING CHILLED/HEATING WATER SUPPLY AND RETURN PIPING ASSOCIATED WITH THE EXISTING AIR HANDLING UNITS AND REMOVE IN IT'S ENTIRETY.
13. CONTRACTOR TO FIELD VERIFY/LOCATE EXISTING CONDENSATE AND DISCONNECT FROM EXISTING AIR HANDLING UNIT AND MAINTAIN EXISTING CONNECTION FOR REUSE.
14. REMOVE EXISTING OUTDOOR CHILLER/BOILER UNIT, ALONG WITH ALL ASSOCIATED CHILLED/ HEATING WATER SUPPLY AND RETURN PIPING THROUGHOUT (TYPICAL).
15. AREA NOT IN CONTRACT.
16. REMOVE EXISTING GAS METER, ALONG WITH ALL EXISTING GAS PIPING MOUNTED ON WALL THAT SERVES OUTDOOR FURNACES AS INDICATED. COORDINATE THE REMOVAL OF THE GAS METER WITH LOCAL GAS COMPANY. PRIOR TO REMOVAL CONTRACTOR TO FIELD VERIFY THE GAS METER SOLELY SERVES THE OUTDOOR FURNACE AND NOT THE BAKERY.
17. REMOVE EXISTING DUCTLESS SPILT AIR HANDLING UNIT MOUNTED ON WALL. CONTRACTOR TO FIELD VERIFY/LOCATE EXISTING ASSOCIATED OUTDOOR UNIT, ALONG WITH ALL REFRIGERANT PIPING AND REMOVE AS WELL.
18. REMOVE EXISTING THERMOSTAT.
19. CONTRACTOR TO FIELD VERIFY/LOCATE EXISTING UNIT HEATER AND REMOVE.

SYMBOLS LIST

⊠	SUPPLY AIR	F-1	EXHAUST FAN
⧄	RETURN AIR	TYP.	TYPICAL
AHU-1	AIR HANDLING UNIT	(1)	DRAWING NOTE
HPU-1	HEAT PUMP UNIT	⊘	FLOOR DRAIN
→←	DIRECTION OF AIR FLOW	FD	FLOOR DRAIN
Ⓣ	THERMOSTAT	CD	CONDENSATE DRAIN
EX.	EXISTING		CONNECT TO EXISTING

GENERAL NOTES (HVAC)

1. ALL ITEMS INDICATED BOLD SHALL BE CONSIDERED NEW UNLESS OTHERWISE NOTED.
2. ALL MANUFACTURES SHALL BE EQUAL TO THOSE INDICATED.
3. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS.
4. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH ALL APPLICABLE MUNICIPAL, STATE, AND COUNTY CITY CODES.
5. ALL REFRIGERANT PIPING TO BE INSULATED WITH 1/2" ARMAFLEX THROUGHOUT.
6. MECHANICAL CONTRACTOR IS TO FIELD VERIFY AND INSTALL ALL REFRIGERANT PIPING IS TO BE SIZED, TRAPPED/INSTALLED PER MANUFACTURER'S RECOMMEDATIONS.
7. MECHANICAL CONTRACTOR TO FIELD VERIFY AND EXTEND THE CONDENSATE DRAIN LINES FROM EACH AIR HANDLING (TRAP AT THE UNIT'S CONNECTION), BY GRAVITY AND/OR PUMPED, TO EXISTING DRAIN LINES IN PLACE.
8. CONTRACTOR TO TAKE TRAVERSE READINGS FROM THE EXISTING SUPPLY AIRFLOWS AT EACH AIR DEVICE AND UTILIZE THOSE READINGS TO PROPORTIONAL REBALANCE THE NEW AIRFLOWS FOR THE NEW AIR HANDLING UNITS' TOTAL CFMS AS NEEDED.

NOTICE TO CONTRACTORS

ALL CONTRACTORS PRIOR TO BID SUBMISSION PROCESS SHALL VISIT PROPOSED WORK SITE AND FIELD VERIFY ALL EXISTING CONDITIONS. ANY CONDITIONS THAT DIFFER FROM THAT SHOWN ON THIS PLAN SHALL BE REPORTED TO ARCHITECT/ENGINEER SO THAT NEW AND REVISED BID DRAWINGS OR INFORMATION MAY BE ISSUED. MODIFICATIONS TO SCOPE OF WORK WHICH RESULTS FROM CONTRACTORS NEGLECT TO VISIT THE SITE PRIOR TO SUBMITTING BID, SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY.

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PROJECT NO.
NBR20136.01

PROJECT

Yonkers GCG Restoration

PARKING GARAGE

118 New Main St,
Yonkers, NY 10701

SUBMISSIONS / REVISIONS

BID DOCUMENTS
04/11/2022

NO.	DESCRIPTION	DATE

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REVIEWED:	EE
DATE:	04/11/2022

SHEET TITLE:
GROUND TIER FLOOR PLAN - EXISTING CONDITIONS/ DEMOLITION (HVAC)

SHEET NO.
DM1.1

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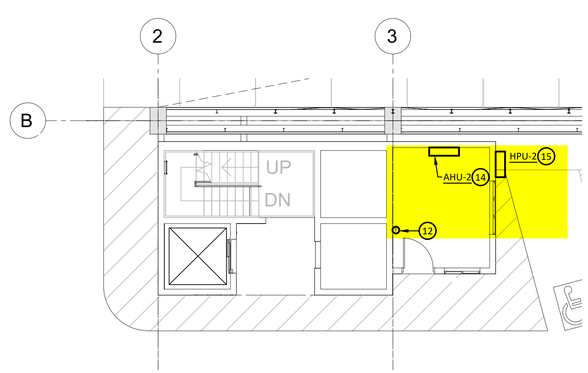
1 M1.1 GROUND FLOOR PLAN - EXISTING CONDITIONS/NEW WORK (HVAC)

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

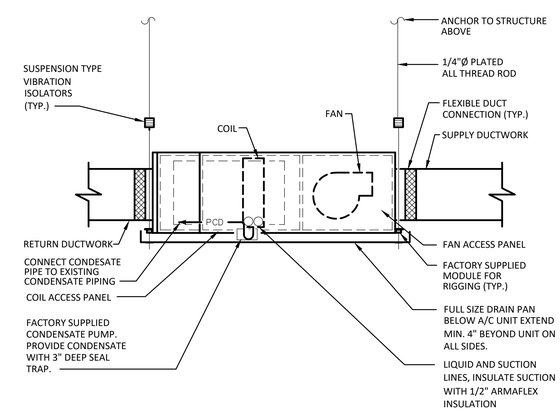


2 M1.1 TIER 2 FLOOR PLAN - EXISTING CONDITIONS/NEW WORK (HVAC)

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

DRAWING NOTES

1. EXISTING DUCTWORK ABOVE CEILING TO REMAIN (TYPICAL).
2. EXISTING OUTSIDE AIR DUCTWORK ABOVE CEILING TO REMAIN (TYPICAL).
3. EXISTING SUPPLY AIR DIFFUSER TO REMAIN. MAINTAIN EXISTING AIRFLOW (TYPICAL).
4. EXISTING RETURN AIR GRILLE TO REMAIN. MAINTAIN EXISTING AIRFLOW (TYPICAL).
5. EXISTING CEILING MOUNTED EXHAUST FAN TO REMAIN, ALONG WITH ASSOCIATED EXHAUST AIR DUCTWORK (TYPICAL).
6. EXISTING ELECTRIC BASEBOARD TO REMAIN (TYPICAL).
7. EXISTING AIR HANDLING UNIT AND ASSOCIATED DUCTWORK TO REMAIN.
8. EXISTING OUTDOOR HEAT PUMP UNIT MOUNTED WALL TO REMAIN.
9. EXISTING CEILING MOUNTED CASSETTE AIR HANDLING UNIT TO REMAIN, ALONG WITH EXISTING CONTROLS (TYPICAL).
10. OUTDOOR HEAT PUMP UNIT MOUNTED ON EXISTING CONCRETE PAD. REFER TO SHEET M2.1 FOR SIZE AND CAPACITY (TYPICAL).
11. AIR HANDLING UNIT SUPPORTED ABOVE CEILING. REFER TO SHEET M2.1 FOR SIZE AND CAPACITY AND DETAIL FOR INSTALL (TYPICAL).
12. THERMOSTAT TO BE MOUNTED 48" ABOVE FINISHED FLOOR TO SERVE NEW AIR HANDLING UNIT.
13. ELECTRIC BASEBOARD HEATER WITH INTEGRAL THERMOSTAT. REFER TO SHEET M2.1 FOR SIZE AND CAPACITY.
14. AIR HANDLING UNIT MOUNTED ON WALL ±90 ABOVE FINISHED FLOOR. REFER TO SHEET M2.1 FOR SIZE AND CAPACITY.
15. OUTDOOR HEAT PUMP UNIT MOUNTED ON WALL WITH FACTORY OPTION WALL HANGER ±60" ABOVE GARAGE FLOOR. REFER TO SHEET M2.1 FOR SIZE AND CAPACITY.



3 M2.1 HORIZONTAL AIR HANDLING UNIT MOUNTING DETAIL

NO SCALE

NOTE:

1. SUPPLY AND RETURN EXISTING DUCTWORK TO UNIT MOUNTED ABOVE CEILING. TRANSITION NEW DUCTWORK AS REQUIRED TO UNIT'S CONNECTIONS. PROVIDE FLEXIBLE CONNECTION AT DUCTWORK CONNECTION TO UNIT.

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SHEET TITLE:

GROUND TIER FLOOR PLAN - EXISTING CONDITIONS/ NEW WORK (HVAC)

SHEET NO.

M1.1

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HEAT PUMP SPLIT SYSTEM AIR HANDLING UNIT SCHEDULE

ITEM#	AREA SERVED	FAN DATA					COOLING DATA			HEAT PUMP HEATING DATA				ELECTRICAL DATA		ELECTRIC SERVICE INDOOR UNIT		ELECTRIC SERVICE OUTDOOR UNIT		WEIGHT (LBS.)		MODEL #		MANUFACTURER
										HI-TEMP. HEAT 47 O.A.T.		LOW-TEMP. HEAT 17 O.A.T.												
		C.F.M.	E.S.P.	H.P.	R.P.M.	C.F.M. O.A.	TOTAL BTU/HR	SENSIBLE BTU/HR	SEER	BTU/HR.	K.W.	BTU/HR.	K.W.	OUTDOOR UNIT	INDOOR UNIT	MCA	MOP	MCA	MOP	INDOOR UNIT	OUTDOOR UNIT	INDOOR UNIT	OUTDOOR UNIT	INDOOR/OUTDOOR
AHU-1/ HP-1	VA MEDICAL CENTER	1,400	.65"	-	MED.	280	48,000	36,100	14	54,000	2.76	54,000	-	208v/1Ø/60hz	208v/1Ø/60hz	3.4	15	29.1	35	105	225	FBQ48PVJU	RZQ48TAVJUA	DAIKIN/DAIKIN
AHU-2/ HP-2	STORAGE ROOM 2nd TIER	380	.20"	-	MED.	-	4,400-13,300	9,000	19	13,500	-	8,600	-	208v/1Ø/60hz	-	-	-	8.7	15	25	65	FTX12AXVJU	RX12AXVJU	DAIKIN/DAIKIN

NOTES:

1. AIR COOLED HEAT PUMP UNITS TO BE PROVIDED WITH LOW AMBIENT CONTROLS DOWN TO 0° F, TXV (THERMAL EXPANSION VALVES) AND FACTORY SUPPLIED WALL MOUNTED PROGRAMABLE THERMOSTAT.
2. ALL REFRIGERANT PIPING TO BE SIZED AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
3. AIR HANDLING UNITS TO BE PROVIDED WITH FACTORY OPTION CONDENSATE PUMP (HARD WIRED THRU UNIT) TO BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
4. AIR HANDLING UNIT (AHU-1) TO BE PROVIDED WITH BUILT-IN CONDENSATE PUMP.
5. AIR COOLED DUCTLESS SPLIT HEAT PUMP OUTDOOR UNIT (HPU-2) WILL HAVE A SINGLE POINT POWER CONNECTION.

MISCELLANEOUS ELECTRIC HEATING SCHEDULE

ITEM#	AREA SERVED	HEATER TYPE	HTG. ACTIVE LENGTH	K.W.	BTU/HR	ELEC. DATA	STEPS OF CONTROL	CONTROL	MANUFACTURER/ MODEL #	NOTES
BBR-1	ELEVATOR LOBBY& STAIRS	ELECTRIC BASEBOARD RADIATION	5-0"	1.2	3,413	208v-1Ø	1	INTEGRAL THERMOSTAT	DESIGN ARCHITECTURAL/ SB5T	1, 2, 3, 4, 5

NOTES:

1. ALL EQUIPMENT SHALL BE AS SCHEDULED OR EQUAL.
2. ELECTRIC BASEBOARD HEATER TO HAVE 250 W PER LF (ACTIVE SECTION), BOTTOM INTAKE / SLOPED TO DISCHARGE, FINISH TO BE SELECTED BY ARCHITECT, END CAPS 6" ADDITIONAL FOR CONTROL SECTION, AND FUSED DISCONNECT SWITCH.
3. ELECTRICAL BASEBOARD HEATER WITH HAVE 2" HIGH ADJUSTABLE CAST PEDESTALS.
4. ELECTRIC BASEBOARD HEATER WILL HAVE INTEGRAL THERMOSTAT CONTROL.
5. PRIOR TO PURCHASE OF ELECTRIC BASEBOARD HEATERS CONTRACTOR MUST REFER TO ARCHITECT DRAWINGS FOR COLOR SELECTION.

GENERAL NOTES (HVAC)

1. ALL ITEMS INDICATED BOLD SHALL BE CONSIDERED NEW UNLESS OTHERWISE NOTED.
2. ALL MANUFACTURES SHALL BE EQUAL TO THOSE INDICATED.
3. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS.
4. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH ALL APPLICABLE MUNICIPAL, STATE, AND ORANGE EAST CODES.
5. COORDINATE ALL THERMOSTAT LOCATIONS WITH OWNER AND FINAL PARTITION/FURNITURE LAYOUT.
6. THE CONTRACTOR IS TO REVIEW THE WEIGHTS AND MOUNTING LOCATIONS OF THE NEW HVAC EQUIPMENT WITH A STRUCTURAL ENGINEER PRIOR TO INSTALLATION.
7. ALL REFRIGERANT PIPING TO BE INSULATED WITH 1/2" ARMAFLEX THROUGHOUT.
8. PRIOR TO PURCHASING THE HVAC EQUIPMENT THE MECHANICAL CONTRACTOR MUST COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR PROPER POWER SELECTION EACH PIECE OF HVAC EQUIPMENT TO BE INSTALLED.
9. PRIOR TO PURCHASING AND/OR INSTALLING ANY EQUIPMENT, DUCTWORK, ETC. MECHANICAL CONTRACTOR MUST COORDINATE WITH ALL OTHERS TRADES TO AVOID ANY CONFLICTS.
10. DRAWINGS SHALL BE CONSIDERED SCHEMATIC IN NATURE AND SHALL REPRESENT A COMPLETED PROJECT. ACTUAL INSTALLATION AND METHODS OF ACHIEVING A SATISFACTORY AND INTENDED INSTALLATION ARE THE RESPONSIBILITY OF THE CONTRACTOR. LOCATIONS OF EQUIPMENT ARE INTENDED TO SHOW A GENERAL ARRANGEMENT AND INTENDED FUNCTION. COORDINATE WITH ALL CONTRACT DOCUMENTS, OWNER-PROVIDED EQUIPMENT (IF ANY), EQUIPMENT DRAWINGS, ARCHITECTURAL, STRUCTURAL, AND ELECTRICAL CONTRACT DOCUMENTS. COORDINATE WITH OTHER TRADES. AS DRAWINGS ARE SCHEMATIC IN NATURE, DO NOT SCALE DRAWINGS. MINOR MODIFICATIONS OF WORK TO COMPLY SHALL BE PROVIDED.
11. MECHANICAL AND PLUMBING CONTRACTOR ARE TO COORDINATE WITH THE GENERAL CONTRACTOR AND PROVIDE/INSTALL ANY FIRE STOP CAULK AS REQUIRED TO PROPERLY MAINTAIN FIRE RATING AT WALL PENETRATION (AROUND FIRE DAMPER AND PIPE PENETRATIONS).
12. ALL REFRIGERANT PIPING IS TO BE SIZED, TRAPPED/INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
13. MECHANICAL CONTRACTOR IS TO FIELD VERIFY AND INSTALL ALL REFRIGERANT PIPING TO BE SIZED, TRAPPED/INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. PRIOR TO INSTALL THE MECHANICAL CONTRACTOR MUST COORDINATE THE REFRIGERANT PIPE RUNS WITH THE GENERAL CONTRACTOR AND ARCHITECT FOR THEIR APPROVAL. THE MECHANICAL CONTRACTOR MUST VERIFY THE HEAT PUMP UNIT EXACT MOUNTING LOCATION AT THE WALL LOCATIONS WITH THE ELECTRICAL CONTRACTOR AND ARCHITECT PRIOR TO THEIR WORK BEGINNING.
14. MECHANICAL CONTRACTOR TO FIELD VERIFY AND EXTEND THE CONDENSATE DRAIN LINES FROM EACH AIR HANDLING (TRAP AT THE UNIT'S CONNECTION), BY GRAVITY AND/OR PUMPED, TO A PROPER DISCHARGE LOCATION. CONDENSATE PUMP NOT SHOWN ON THE DRAWINGS. CONTRACTOR MUST PROVIDE AND INSTALL CONDENSATE PUMP AS REQUIRED. SLOPE AWAY FROM THE AIR HANDLING UNIT. PRIOR TO INSTALL THE MECHANICAL CONTRACTOR IS TO COORDINATE THE CONDENSATE PIPE RUN WITH THE GENERAL CONTRACTOR AND ARCHITECT FOR THEIR APPROVAL. CONDENSATE LINES MUST BE CONCEALED. THE CONDENSATE INSTALLATION AND LAYOUT TO BE DESIGNED BY THE MECHANICAL CONTRACTOR. ALSO PROVIDE THE PROPER INDIVIDUAL CONDENSATE DRAIN PIPE SIZE FOR EACH AIR HANDLING UNIT TONNAGE AND THE OVERALL COLLECTIVE PIPES SIZES (MULTIPLE UNITS SHARING ONE CONDENSATE PIPE).

DUCTLESS SPLIT SYSTEM AHU/HEAT PUMP UNITS

1. DURING PERIODS AS PROGRAMMED ON ASSOCIATED AHU THERMOSTAT, SYSTEM SHALL OPERATE AS FOLLOW:
2. ON A CALL FOR HEATING, IF ALL SAFETIES ARE SENSED, THEN COMPRESSOR SHALL BE ENERGIZED, THE UNITS HEATING CYCLE SHALL RUN UNTIL SETPOINT IS SATISFIED.
3. ON A CALL FOR COOLING, THE UNIT MOUNTED CONTROLS SHALL ENERGIZE OUTDOOR COMPRESSOR (MECHANICAL COOLING) SHALL BE ENERGIZED. THE UNIT COOLING CYCLE SHALL RUN UNTIL SETPOINT IS SATISFIED.

MISCELLANEOUS HEAT

1. ELECTRIC BASEBOARD HEATER SHALL BE CONTROLLED VIA UNIT/FACTORY MOUNTED INTEGRAL THERMOSTAT. HEATER SHALL BE ENERGIZED UPON A CALL FOR HEAT. UPON REACHING SETPOINT HEATER SHALL DE-ENERGIZE. OFFICE SETPOINT HEATER SHALL DE-ENERGIZE. (OFFICE BASEBOARD HEATERS ONLY).

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