

WATER SOURCE HEAT PUMP AIR HANDLER SCHEDULE																							
MARK	MANUFACTURER	MODEL #	ORIENTATION	AREA SERVED	SA CFM	OUTSIDE AIR (CFM)		O.A. DUCT SIZE	ESP (IN. W.C.)	COOLING				HEATING				COIL WATER SIDE		VOLTAGE/PHASE	MCA	MOCP	NOTES/ACCESSORIES
						THROUGH UNIT	DIRECT TO SPACE			EAT (DBWB)	EW (F)	SHC	THC (MBH)	EW (F)	EAT (F)	LAT (F)	THC (MBH)	FLOW (GPM)	PD (FT HD)				
HP1	FHP	EC012	HORIZONTAL	ROOM 232	372	40	-	4"	0.5	75/63	90	7.5	9.6	85	70.0	-	17.1	3.0	11.0	208V1	7.3	15	2.3,4,5,8
HP2	FHP	EC012	HORIZONTAL	ROOM 230	372	40	-	4"	0.5	75/63	90	7.5	9.6	85	70.0	-	17.1	3.0	11.0	208V1	7.3	15	2.3,4,5,8
HP3	FHP	EC012	HORIZONTAL	ROOM 228	372	40	-	4"	0.5	75/63	90	7.5	9.6	85	70.0	-	17.1	3.0	11.0	208V1	7.3	15	2.3,4,5,8

**GENERAL NOTES:**  
1. CAPACITY/COIL FLUID BASED ON A 20% PROPYLENE HEAT TRANSFER MIXTURE.  
**NOTES/ACCESSORIES:**  
1. VIBRATION ISOLATING HANGERS  
2. 2-WAY VALVE CONTROL VALVE PACKAGE WITH FLEXIBLE STAINLESS STEEL HOSE CONNECTIONS AND CIRCUIT SETTER. REFER TO SCHEDULE FOR BOXES REQUIRING 3-WAY VALVES.  
3. SPACE TEMPERATURE SENSOR WITH SETPOINT ADJUSTMENT. REFER TO TEMPERATURE CONTROL SPECIFICATIONS  
4. FACTORY CONDENSATE OVERFLOW SWITCH  
5. 24V ELECTRONIC CONTROLS FOR INTERFACE WITH CONTROL SYSTEM. REFER TO TEMPERATURE CONTROL SPECIFICATIONS  
6. AUXILIARY DRAIN PAN WITH MOISTURE SENSOR  
7. PROVIDE CONDENSATE REMOVAL PUMP POWERED FROM UNIT EQUIVALENT TO LITTLE GIANT MODEL VCC-20XLS WITH 0.5" RIGID PIPE CONNECTION  
8. SOME UNITS ARE SHOWN OFFSET FOR CLARITY ON PLANS. COORDINATE TO PROVIDE SERVICE CLEARANCES AS REQUIRED BY CODE AND RECOMMENDED BY MANUFACTURER.

FAN SCHEDULE										
MARK	MANUFACTURER	MODEL #	CFM	ESP (IN. W.C.)	MOUNTING	FINISH	DAMPER	VOLTAGE/PHASE	MOTOR HP/WATTS	NOTES
EFF1	BROAN	RDH4SDRDF	40	0.3	CEILING	WHITE	GBD	120V1	50 W	1,2

**NOTES:**  
1. PROVIDE WALL CAP TO MATCH EXTERIOR OF BUILDING.  
2. PROVIDE DISCONNECTING MEANS.

AIR DEVICE SCHEDULE												
MARK	MANUFACTURER	MODEL #	DUCT CONNECTION SIZE	SERVICE	MODULE SIZE	FRAME	FINISH	DAMPER	MAX NC	DELTA P (STATIC)	NOTES	
S1	HARTSCOOLEY	661	12x12 0-400CFM	SUPPLY	-	SURFACE	WHITE	OPD	30	0.08"	1,2,3,4	
R1	HARTSCOOLEY	94AH0V	12x12 0-400 CFM	RETURN	-	SURFACE	WHITE	-	-	0.05"	1,3,4	

**NOTES:**  
1. GRILLE/DIFFUSER NECK SHALL BE SAME SIZE AS BRANCH DUCTWORK UNLESS NOTED OTHERWISE ON PLAN.  
2. COORDINATE TO PROVIDE INTERNALLY LINED FACTORY OR FIELD INSTALLED PLENUM ON BACK OF DIFFUSER WITH ROUND DUCT TAP.  
3. GRILLE/DIFFUSER SHALL MATCH ADJACENT FINISHES UNLESS NOTED OTHERWISE. COORDINATE TO PAINT DIFFUSER AS REQUIRED.  
4. PROVIDE GRILLE/DIFFUSER WITH FACTORY COORDINATED OR INSTALLED CEILING RADIATION TYPE FIRE DAMPER.

PLUMBING FIXTURE & EQUIPMENT SCHEDULE										
MARK	DESCRIPTION	MANUF.	MODEL #	DESCRIPTION / ACCESSORIES	PIPING CONNECTION SIZES				NOTES & ACCESSORIES	EQUIVALENT MANUFACTURERS
					COLD	HOT	DRAIN	VENT		
BT1	GUESTROOM BATHTUB	AMERICAN STANDARD	2390.202.020	AMERICAN STANDARD RT20SS VALVE, T385.501.WDX1.002 AND B888.055.002 BATH SHOWER TRIM KIT LESS SHOWERHEAD, 1160.711.002 1.5/2.0 GPM SHOWER HEAD, AND 1545.170.002 BATH WASTE TRIM	0.5"	0.5"	2"	SEE PLAN	7,8,9,10	KOHLER, MOEN
LV1	GUESTROOM UNDERCOUNTER LAVATORY	STERLING	442040	WHITE IN COLOR, AMERICAN STANDARD 2064.131.002 POLISHED CHROME SINGLE LEVER HANDLE FAUCET WITH 0.5 GPM AERATOR.	0.5"	0.5"	2"	1.5"	1,2,3,4,6	KOHLER
WC1	TANK TYPE ADA WATER CLOSET	AMERICAN STANDARD	211A.104.105	WHITE, VITREOUS CHINA, 1.28 GPF, 5324.019.020 SEAT	0.5"	-	4"	2"	5,6	KOHLER, TOTO, GERBER

**NOTES:**  
1. PROVIDE TRUEBRO HAND-LAY-GUARD INSULATION KIT. COLOR SHALL BE SELECTED BY THE ARCHITECT.  
2. PROVIDE 17 GA. CHROME PLATED BRASS WASTE, TAILPIECE AND P-TRAP. PROVIDE PLATED ESCUTCHEONS AT WALL PENETRATIONS.  
3. PROVIDE STAINLESS STEEL GRID STRAINER.  
4. PROVIDE SINK WITH FAUCET HOLE OPENINGS TO MATCH FAUCET.  
5. PROVIDE WITH ALTERNATE TANK AS REQUIRED FOR INSTALLATION WITH FLUSH LEVER ON OPEN SIDE OF FIXTURE FOR ADA COMPLIANCE.  
6. INSTALL ACCESSORIES AS RECOMMENDED BY MANUFACTURER FOR ADA COMPLIANCE.  
7. PROVIDE PROTECTION FOR FIXTURE DURING CONSTRUCTION. UNITS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY CONTRACTOR.  
8. PROVIDE RIGHT OR LEFT HAND CONFIGURATION AS REQUIRED BY PLAN. REFER TO ARCHITECTURAL DRAWINGS.  
9. REFER TO ARCHITECTURAL DRAWINGS FOR FOLD-DOWN SEAT, GRAB BARS, SHOWER HEAD/CONTROLS LOCATIONS AND ALL OTHER ADA EQUIPMENT SPECIFICATIONS REQUIRED.

**NOTE:** VERIFY ALL PLUMBING FIXTURE SELECTIONS AND REQUIREMENTS PRIOR TO ORDERING.

PIPING MATERIAL SCHEDULE													
SYSTEM	PIPING				FITTINGS				MAXIMUM WORKING		FIELD TEST		NOTES
	SIZE	TYPE	SCHEDULE	GRADE	ASTM	MATERIAL	TYPE	PRESSURE (PSI)	TEMP (DEG. F)	PRESSURE (PSI)	TIME (HOURS)		
DOMESTIC WATER ABOVE GRADE (WITHIN GUEST ROOMS ONLY)	0.5"-0.75"	PEX	-	-	F877	PEX	BRONZE	MJ	120	40-180	150	1	-
DOMESTIC WATER ABOVE GRADE	0.5"-3"	CPVC	80	-	D-1784	CPVC	CPVC	SW	150	120	150	1	-
FIRE PROTECTION	ALL	-	-	-	-	-	-	-	200	2	2	2	-
FIRE SPRINKLER SERVICE BELOW GRADE	ALL	-	-	-	-	-	-	-	200	2	2	2	-
SANITARY WASTE AND VENT ABOVE GRADE	ALL	NH	SS	-	A74	CI	CI	DRNH	10 FT	50-180	10 FT	1	1,3

**NOTES:**  
1. THE USE OF CELLULAR CORE PVC WASTE AND VENT PIPING IS STRICTLY PROHIBITED.  
2. THE USE OF CPVC AND POLYETHYLENE PIPING IS STRICTLY PROHIBITED.  
3. SANITARY WASTE, VENT AND ROOF DRAIN PIPING LOCATED WITHIN RETURN AIR PLENUMS SHALL BE CAST IRON.

**ABBREVIATIONS:**  
SS - BELL AND SPIGOT  
CI - CAST IRON  
CS - CARBON STEEL  
CW - CONTINUOUS WELD  
DI - DUCTILE IRON  
DR - DRAINAGE FITTING  
DWF - DRAINAGE WASTE AND VENT  
HDPE - HIGH DENSITY POLYETHYLENE  
MJ - MECHANICAL JOINT  
NO - NEOPRENE GASKET  
NH - NO-HUB  
SS - 95-S TIN-ANTIMONY SOLDER JOINT  
SJ - STANDARD STRENGTH / SERVICE WEIGHT  
SW - SOLVENT WELD

### FIRE PROTECTION GENERAL NOTES:

- GENERAL:**
- MODIFY AND IMPROVE EXISTING FIRE SPRINKLER SYSTEM FOR SERVICE TO AREAS AFFECTED BY THIS PROJECT. PROVIDE ENGINEERING, FABRICATION, MATERIALS, AND EQUIPMENT NECESSARY FOR MODIFICATIONS TO EXISTING AUTOMATIC FIRE SPRINKLER SYSTEM TO PROVIDE FULL COVERAGE FOR ALL AREAS OF THE BUILDING.
  - ALL PERMITS, LICENSES, TAP FEES, INSPECTIONS, ENGINEERING FEES, ETC. REQUIRED FOR THIS WORK SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR. CONTRACTOR SHALL ALSO PAY FOR ALL TAP FEES AND EQUIPMENT COSTS ASSOCIATED WITH THE FIRE SPRINKLER SYSTEM.
  - THE FIRE SPRINKLER SYSTEM DESIGN AND INSTALLATION SHALL COMPLY WITH NFPA 13, FACTORY MUTUAL, STATE AND LOCAL CODES AS ADOPTED BY THE AUTHORITIES HAVING JURISDICTION.
  - FIRE SPRINKLER WORK SHALL BE PERFORMED BY A QUALIFIED FIRE SPRINKLER CONTRACTOR WITH AT LEAST 5 YEARS OF INSTALLATION EXPERIENCE ON PROJECTS WITH FIRE PROTECTION WORK SIMILAR TO THAT REQUIRED FOR THE PROJECT.
  - THE FIRE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING HIS OWN FLOW READINGS FOR PURPOSES OF DESIGN.
  - SUBMIT DRAWINGS, CALCULATIONS, ETC. AS REQUIRED, TO LOCAL AUTHORITIES BEFORE PROCEEDING WITH INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL REQUIREMENTS OF LOCAL AUTHORITIES.
- PRODUCTS:**
- ALL SPRINKLER HEADS, VALVES, PIPING MATERIALS, SUPPORTS, ETC. SHALL BE U.L. LISTED. NO PLASTIC PIPING SHALL BE INSTALLED INSIDE BUILDING UNLESS ALLOWED BY CODE AND APPROVED BY OWNER.
  - UNLESS OTHERWISE APPROVED BY OWNER, SPRINKLER HEADS LOCATED IN CYSIUM AND LAY-IN CEILING AREAS SHALL BE CONCEALED TYPE WITH WHITE COVERPLATE. HEADS IN AREAS WITH EXPOSED STRUCTURE SHALL BE BRASS, UPRIGHT HEADS.
- EXECUTION:**
- CENTER SPRINKLER HEADS IN CEILING TILES.
  - ALL PIPING SHALL BE HYDROSTATICALLY TESTED FOR A PERIOD OF NOT LESS THAN TWO HOURS AT A PRESSURE NOT LESS THAN 200 PSI. IF LEAKS APPEAR, LINES SHALL BE DRAINED AND REPAIRED AND TEST SHALL BE REPEATED IN FULL. NO PIPING SHALL BE CONCEALED OR RENDERED INACCESSIBLE BEFORE BEING PROPERLY TESTED AND APPROVED. TESTS SHALL BE PERFORMED IN THE PRESENCE OF AN INSPECTOR FROM THE AUTHORITIES HAVING JURISDICTION.
  - UPON COMPLETION OF WORK, CONTRACTOR SHALL SUBMIT CERTIFICATION THAT THE SYSTEM HAS BEEN TESTED IN ACCORDANCE WITH NFPA 13 AND THAT SYSTEM IS COMPLETE, FULLY OPERATIONAL, AND FREE OF DEFECTS.
  - SEAL FIRE PENETRATIONS THROUGH FIRE RATED PARTITIONS WITH MULTI ELASTOMERIC FIRE STOP SEALANT. INSTALL IN ACCORDANCE WITH MULTI ELASTOMERIC FIRE STOP SEALANT MANUFACTURER'S DETAILS.

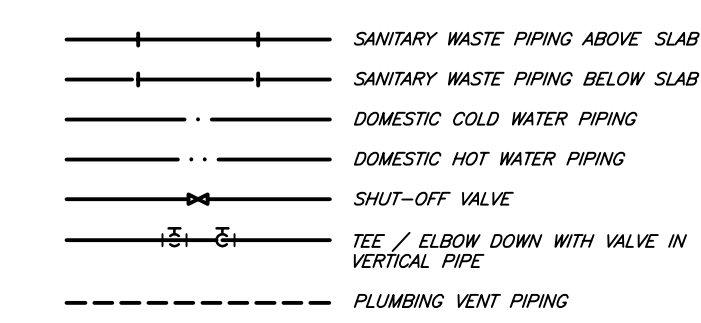
### KEYNOTES:

- GENERAL:**
- CONNECT NEW 4" WASTE TO EXISTING AT FIRST FLOOR. FIELD VERIFY EXACT LOCATION AND REQUIREMENTS.
  - 2" WASTE UP TO BATHTUB.
  - 2" WASTE UP TO LAVATORY.
  - 4" WASTE UP TO WATER CLOSET.
  - 0.5" HOT AND COLD WATER DOWN TO BATHTUB.
  - 1.5" VENT, 0.5" HOT AND COLD WATER DOWN TO LAVATORY.
  - 0.75" COLD WATER DOWN, TEE 0.5" COLD WATER TO EACH WATER CLOSET.
  - 0.5" COLD WATER DOWN TO WATER CLOSET.
  - CONNECT 0.75" HOT AND COLD WATER TO EXISTING. FIELD VERIFY EXACT LOCATION AND REQUIREMENTS.
  - 10" SUPPLY DUCT TRANSITION AND CONNECT TO EXISTING HEAT PUMP. FIELD COORDINATE EXACT ROUTING AND CONNECTION REQUIREMENTS. FIELD VERIFY EXACT INSTALLATION FOR HEAT PUMP TO ACCOMMODATE EXISTING CONDITIONS.
  - 12x12 RETURN AIR DUCT TO HORIZONTAL HEAT PUMP. FIELD COORDINATE EXACT ROUTING AND CONNECTION REQUIREMENTS.
  - 4" OUTSIDE AIR DUCT CONNECTION TO RETURN DUCT.
  - CONNECT NEW 2" VENT TO EXISTING 2" VENT STACK IN EXISTING CHASE. FIELD VERIFY EXACT LOCATION AND REQUIREMENTS.
  - CONNECT NEW 0.75" CONDENSER WATER SUPPLY AND RETURN TO EXISTING CONDENSER WATER SUPPLY AND RETURN PIPING. PROVIDE FULLY INSULATED CONDENSER DRAIN PIPING FROM HEAT PUMP TO DISCHARGE AT TAILPIECE OF CLOSET LAVATORY. OMITTED FROM DRAWING FOR CLARITY.
  - ROUTE 8" EXHAUST DUCT TO DISCHARGE AT WALL CAP AT EXTERIOR WALL. FIELD VERIFY ROUTING AND REQUIREMENTS PRIOR TO CONSTRUCTION. MAINTAIN MINIMUM 10"-0" SEPARATION BETWEEN DISCHARGE AND ALL FRESH AIR INTAKES.

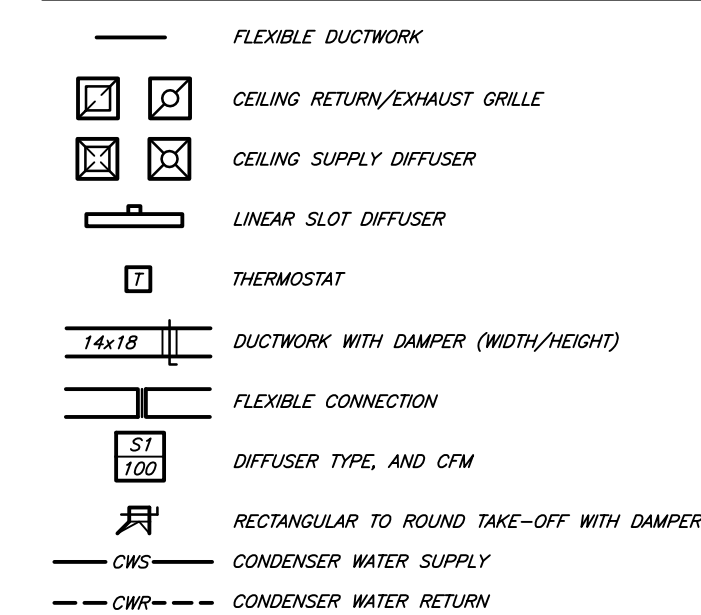
### MECHANICAL GENERAL NOTES:

- GENERAL:**
- COLVIN JONES DAVIS LLC, BEING THE AUTHOR OF THESE CONSTRUCTION DOCUMENTS, RESERVES THE RIGHT OF FINAL INTERPRETATION AS TO THEIR INTENT AND MEANING. ANY ADDITIONAL WORK OR COSTS RESULTING FROM THE CONTRACTORS OWN INTERPRETATION AS TO THE INTENT OF MEANING WITHOUT CONSULTATION WITH COLVIN JONES DAVIS LLC SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO COST TO OWNER OR A/E.
  - THE INTENT OF THE WORK INDICATED ON THESE CONSTRUCTION DOCUMENTS IS TO PROVIDE A FULLY FUNCTIONING SYSTEM IN COMPLETE WORKING ORDER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE CONTRACTORS SUBCONTRACTORS TO INCLUDE ALL ACCESSORIES, COMPONENTS, PARTS, ETC. THAT MAY NOT BE INDICATED ON THESE CONSTRUCTION DOCUMENTS TO PROVIDE SYSTEMS AND EQUIPMENT THAT OPERATE SATISFACTORILY AND INTENDED.
  - ALL MECHANICAL WORK SHALL BE PERFORMED BY LICENSED CONTRACTORS IN ACCORDANCE WITH THE 2010 MAINE STATE BUILDING, PLUMBING, AND MECHANICAL CODES AS ADOPTED BY THE AUTHORITIES HAVING JURISDICTION.
  - PLANS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO CIVIL, STRUCTURAL AND ARCHITECTURAL DRAWINGS AND EXISTING CONDITIONS FOR DIMENSIONS. FIELD VERIFY DIMENSIONS.
  - THE CONTRACTOR SHALL VERIFY ALL EXISTING CONSTRUCTION PRIOR TO SUBMITTING HIS BID. NO EXTRAS WILL BE PAID DUE TO UNANTICIPATED EXISTING CONDITIONS.
  - PIPING AND DUCTWORK LAYOUTS ARE DIAGRAMMATIC. FIELD COORDINATE EXACT LOCATIONS AND ROUTINGS WITH STRUCTURE, PIPING, DUCTWORK, ETC. FINAL RESULT SHALL BE EQUIVALENT TO THAT INDICATED ON DRAWINGS.
  - COORDINATE CLOSELY WITH ALL OTHER TRADES TO EXPEDITE CONSTRUCTION AND AVOID INTERFERENCES AND CONFLICTS. BEFORE ANY PIPING, DUCTWORK, CONDUIT, ETC. IS INSTALLED, IT SHALL BE COORDINATED CAREFULLY BETWEEN ALL TRADES.
  - MAINTAIN ALL CLEARANCES REQUIRED BY MECHANICAL AND ELECTRICAL EQUIPMENT. COORDINATE WITH PLUMBING AND HVAC CONTRACTORS TO MAINTAIN ALL CLEARANCES REQUIRED FOR EQUIPMENT. DO NOT ROUTE PIPING, DUCTWORK, ETC. ABOVE ELECTRICAL PANELS.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING COSTS TO CUT, PATCH AND REPAIR EXISTING WALL, FLOOR AND CEILING CONSTRUCTION AS REQUIRED TO INSTALL NEW PLUMBING FIXTURES, PIPING, ETC. ARE INCLUDED IN THE BID PRICE.
  - THE CONTRACTOR SHALL SUBMIT A MINIMUM OF SIX (6) COPIES ON ALL FIXTURES AND EQUIPMENT FURNISHED UNDER THIS CONTRACT.
  - THE CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT, ACCESSORIES, AND MATERIAL FURNISHED BY HIM FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE AGAINST ALL DEFECTS.

### PLUMBING SYMBOLS:

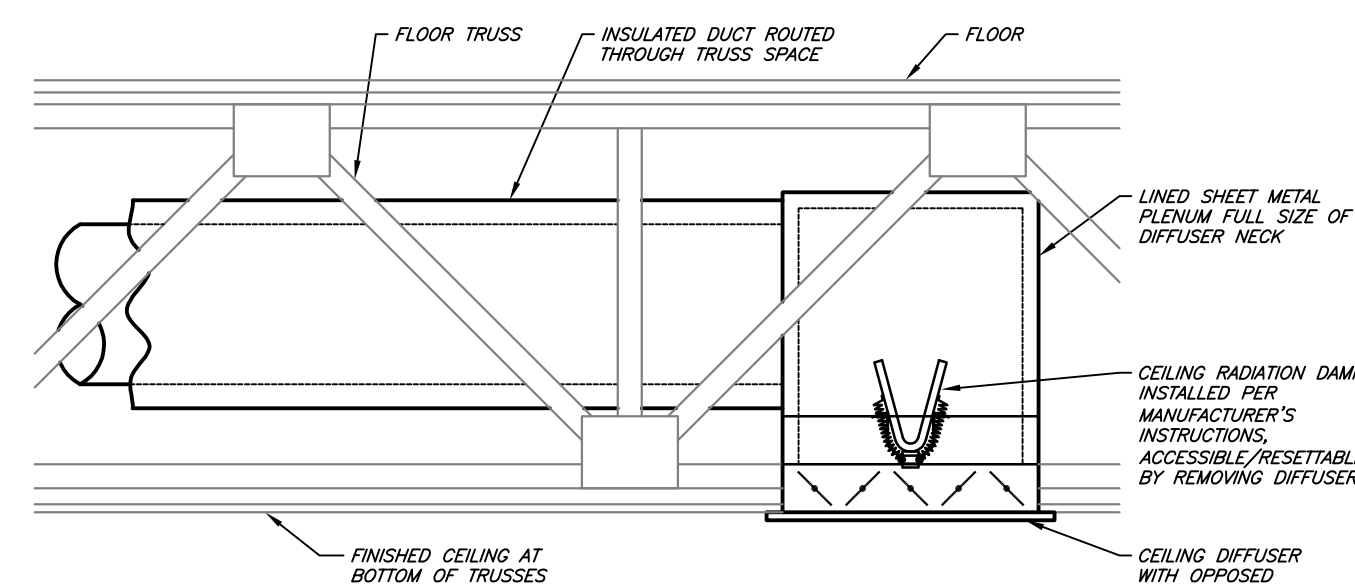


### HVAC SYMBOLS:

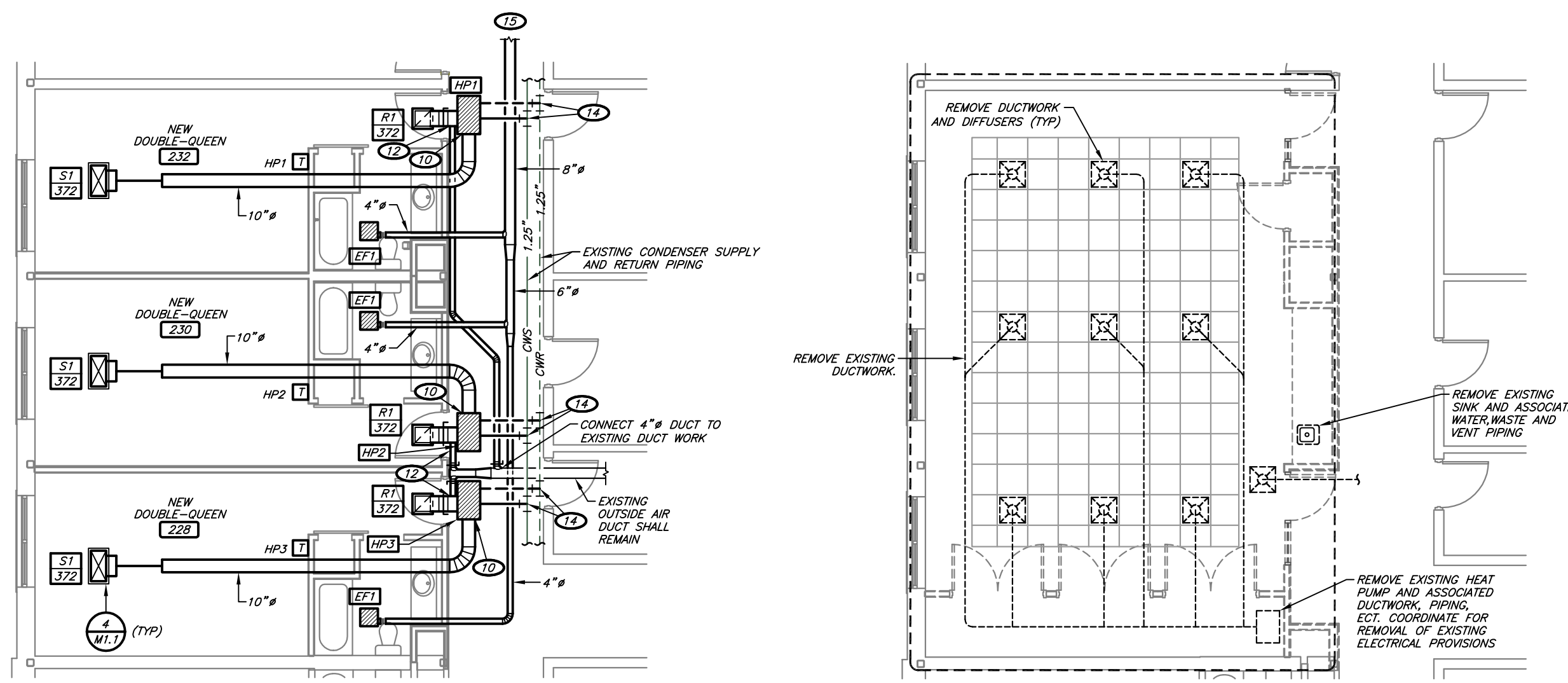


### SPECIAL NOTES:

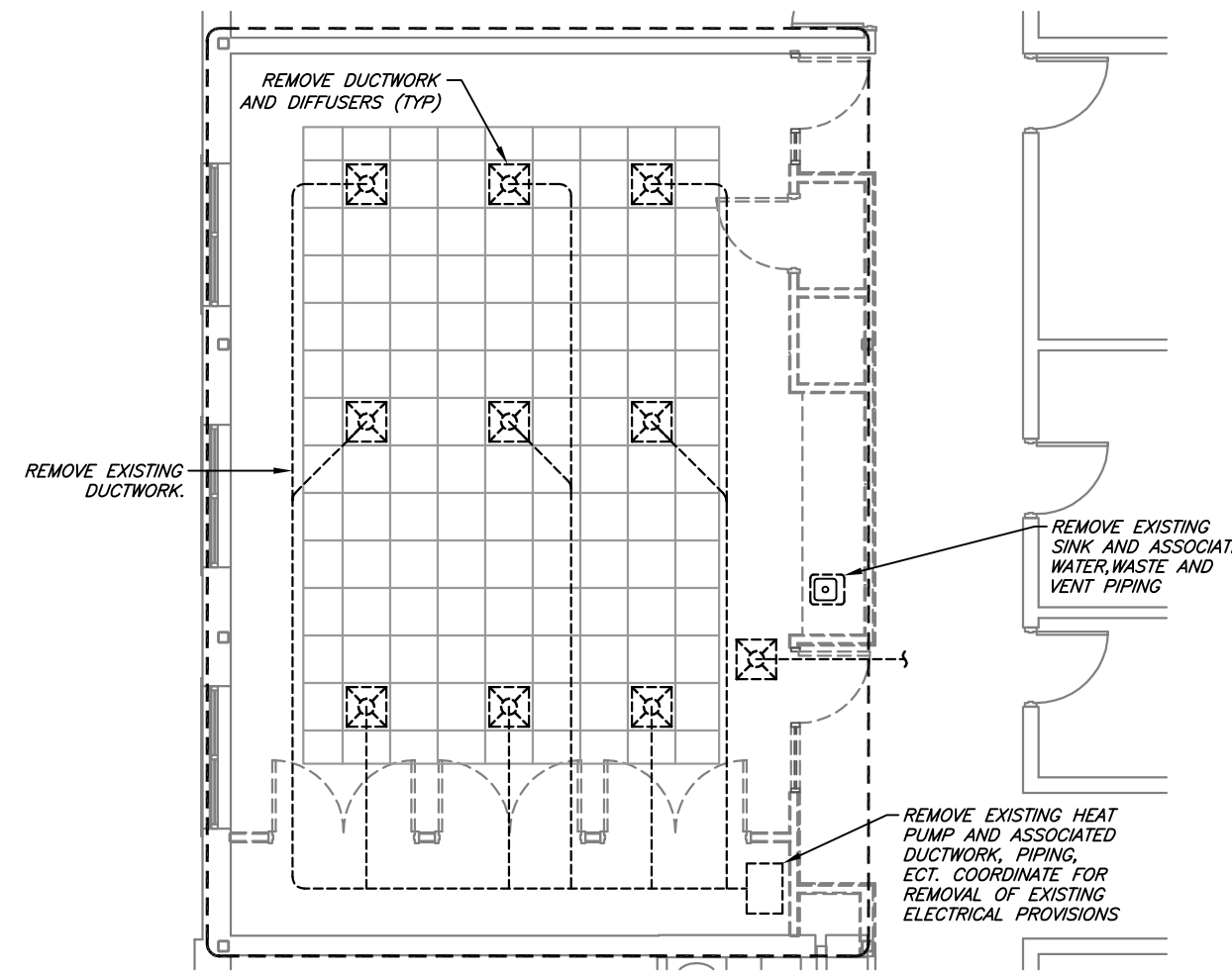
- REFER TO ARCHITECTURAL DRAWINGS AND FIELD VERIFY EXACT SCOPE OF DEMOLITION FOR MECHANICAL AND PLUMBING SYSTEMS TO ACCOMMODATE OVERALL SCOPE OF PROJECT.
- FIELD VERIFY EXISTING CONDITIONS. CONSULT WITH ENGINEER FOR ADJUSTMENTS TO DRAWINGS AS REQUIRED.
- FIELD VERIFY SPACE AVAILABLE FOR NEW PIPING, DUCTWORK, EQUIPMENT, ETC., AND ADJUST EXACTLY LAYOUTS, ROUTINGS, ETC. AS REQUIRED.
- COORDINATE FOR REMOVAL AND REPAIR OF EXISTING FINISHES AND GENERAL CONSTRUCTION AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW SYSTEMS AND COMPONENTS.
- CONTRACTOR SHALL CONSULT WITH LOCAL PLAN REVIEWER AND OR MECHANICAL INSPECTOR FOR APPROVAL OF FIRE AND FIRE-SMOKE DAMPERS AS LOCATED ON PLANS. CONTACT ENGINEER FOR RESOLUTION OF CONFLICTS.



4 CEILING REGISTER DETAIL  
NO SCALE



3 PARTIAL SECOND FLOOR HVAC IMPROVEMENT PLAN  
1/8" = 1'-0"



1 PARTIAL SECOND FLOOR MECHANICAL DEMOLITION PLAN  
1/8" = 1'-0"

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### REVISIONS

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02-27-15  
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**M1.1**