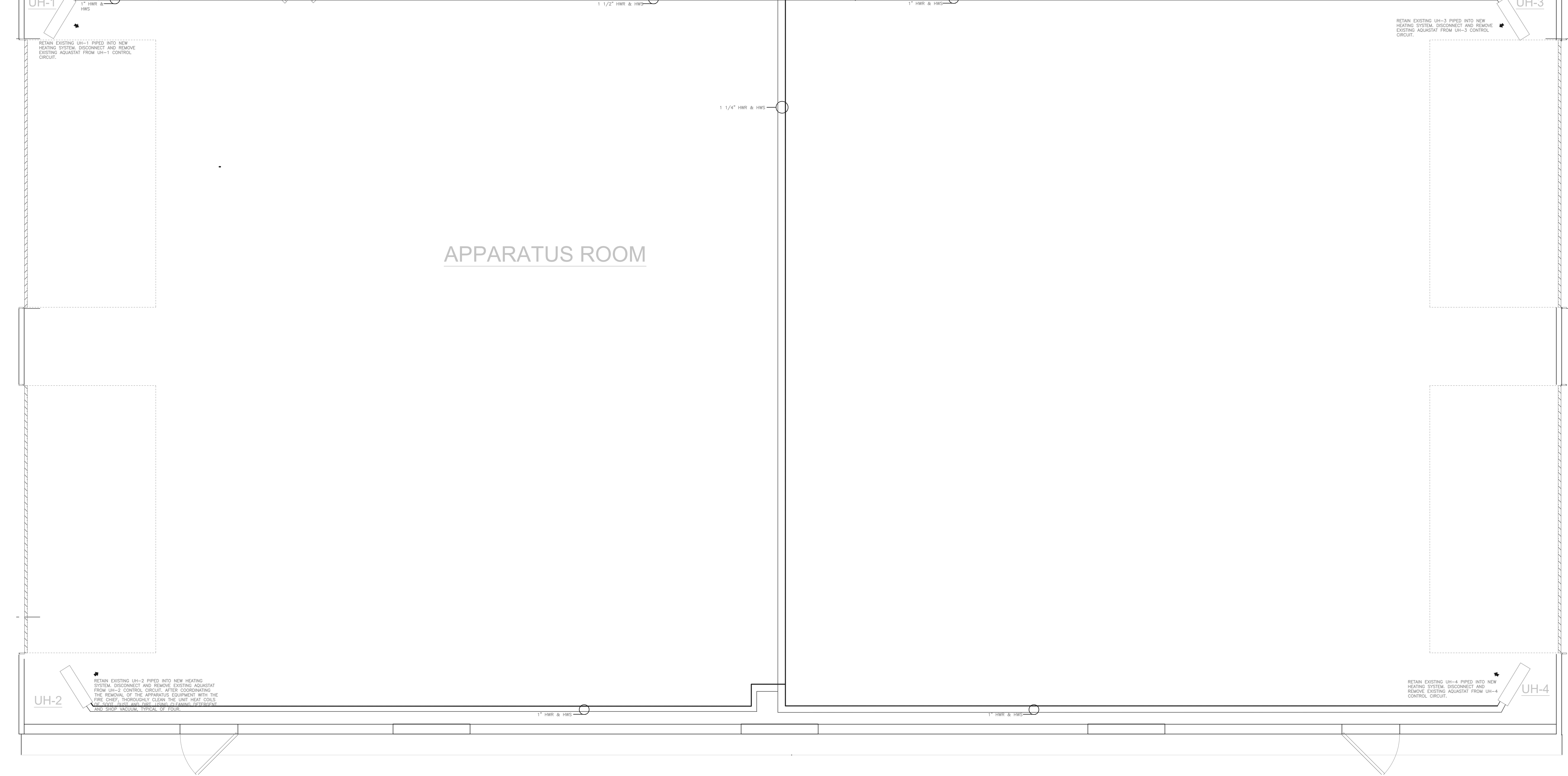
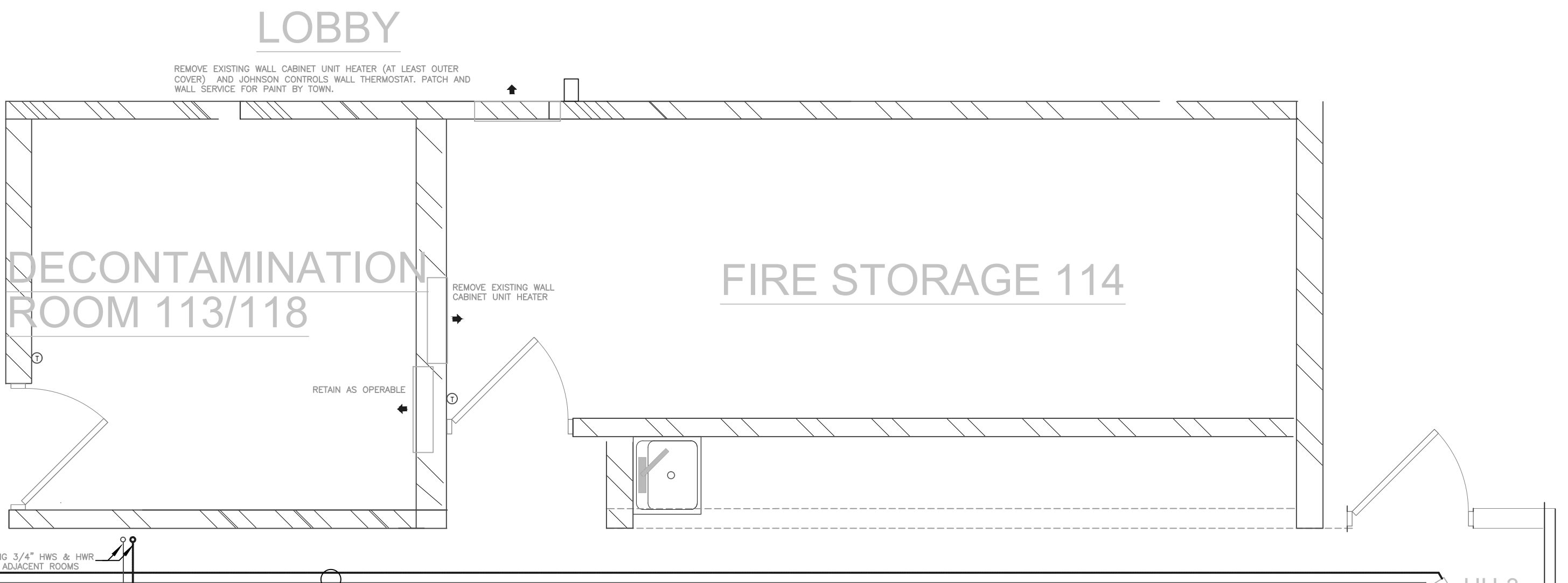
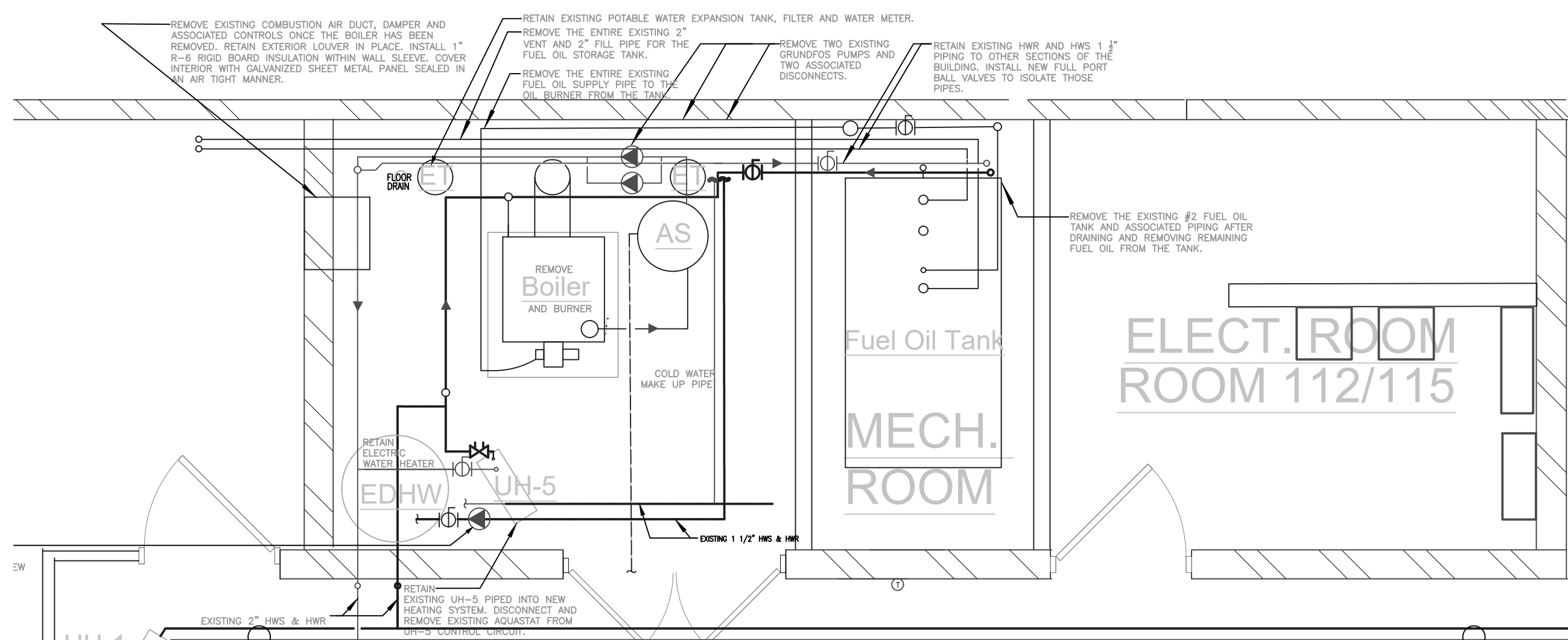


MECHANICAL SYMBOL LEGEND

ALL ITEMS SHOWN ARE NOT NECESSARILY USED ON THIS PROJECT

GENERAL		PIPING		ABBREVIATIONS	
PS PRESSURE SENSOR TS DUCT MOUNTED TEMPERATURE SENSOR T WALL THERMOSTAT SD DUCT MOUNTED SMOKE DETECTOR CO CARBON MONOXIDE DETECTOR NO NO2 DETECTOR		COLD WATER HOT WATER HWS HEATING HOT WATER SUPPLY HWR HEATING HOT WATER RETURN C CONDENSATE DRAIN PIPE TURNING DOWN PIPE TURNING UP TEE OFF TOP TEE OFF BOTTOM DROP AND RUN DROP AND TURN TEE UP TEE DOWN VALVE IN RISER PIPE CAP CLEAN-OUT UNION (DIELECTRIC TYPE ON DISSIMILAR METALS) FLANGED (DIELECTRIC TYPE ON DISSIMILAR METALS) BALL VALVE GATE VALVE BUTTERFLY VALVE GLOBE VALVE 3-WAY VALVE CHECK VALVE (SWING TYPE) FLOW CHECK VALVE PRESSURE REDUCING VALVE PLUG VALVE CIRCUIT SETTER w/ GAGE PORT MULTI PURPOSE VALVE PUMP STRAINER w/ BLOW DOWN (INLINE) PIPE DRAIN w/ BALL VALVE & CAP EPDM FLEXIBLE CONNECTION FS FLOW SWITCH FLOW SENSOR TEMPERATURE SENSOR PRESSURE SENSOR SAFETY RELIEF VALVE PIPE TO FLOOR DRAIN VB VACUUM BREAKER T MANUAL NON-RISING MANUAL LEVER THERMOMETER w/ STOP PRESSURE GAGE w/ STOP AUTO. AIR VENT O S & Y VALVE GAS METER		AFF ABOVE FINISHED FLOOR AC AIR CONDITIONING UNIT AD ACCESS DOOR AFF ABOVE FINISHED FLOOR AHU AIR HANDLING UNIT AP ACCESS PANEL ATC AUTOMATIC TEMPERATURE CONTROL AS AIR SEPARATOR AV AIR VENT AWHP AIR TO WATER HEAT PUMP BD BAROMETRIC DAMPER (COUNTER BALANCED) BDD BACKDRAFT DAMPER BTU BRITISH THERMAL UNITS BTUH BTU PER HOUR BV BALL VALVE B BOILER CEF CEILING EXHAUST FAN CFM CUBIC FEET PER MINUTE CH CHILLER CP CONTROL PANEL CO CLEAN OUT CUH CABINET UNIT HEATER CWP CHILLED WATER PUMP CV CONVECTOR CU CONDENSING UNIT DDC DIRECT DIGITAL CONTROL DB DRY BULB DIA DIAMETER DIFF DIFFUSER DN DOWN DP DEW POINT DPS DIFFERENTIAL PRESSURE SWITCH DWG DRAWING EAT ENTERING AIR TEMPERATURE EFF EFFICIENCY EF EXHAUST FAN ELEC ELECTRICAL ELV ELEVATION ERV ENERGY RECOVERY UNIT ESP EXTERNAL STATIC PRESSURE ET EXPANSION TANK EWT ENTERING WATER TEMPERATURE EXH EXHAUST EXP EXPANSION °F DEGREES FAHRENHEIT FCU FAN COIL UNIT FD FIRE DAMPER FLA FULL LOAD AMPS FLEX FLEXIBLE FPI FINS PER INCH FPM FEET PER MINUTE FTR FINNED TUBE RADIATION FT FEET GAL GALLONS GC GENERAL CONTRACTOR GPM GALLONS PER MINUTE GV GATE VALVE HC HEATING COIL HP HORSEPOWER HVAC HEATING, VENTILATION, & AIR CONDITIONING HV HEATING & VENTILATING UNIT HWP HOT WATER PUMP HW HOT WATER HWR HOT WATER RETURN HWS HOT WATER SUPPLY HZ HERTZ IN INCHES KW KILOWATT LAT LEAVING AIR TEMPERATURE LRA LOCKED ROTOR AMPS LWT LEAVING WATER TEMPERATURE MAU MAKE-UP AIR UNIT MBH ONE THOUSAND BTU'S PER HOUR MCA MINIMUM CIRCUIT AMPS MD MOTORIZED DAMPER MDS MAGNETIC DIRT SEPARTOR MECH MECHANICAL MOP MAXIMUM OVER CORRECT PROTECTOR N/A NOT APPLICABLE NC NORMALLY CLOSED NEZV NONE ELECTRIC ZONE VALVE NIC NOT IN CONTRACT NO NORMALLY OPEN NTS NOT TO SCALE OA OUTSIDE AIR OAT OUTSIDE AIR TEMPERATURE P PUMP PD PRESSURE DROP PSI POUNDS PER SQUARE INCH GA. R RETURN RA RETURN AIR REF ROOF EXHAUST FAN REQD REQUIRED RG RETURN GRILLE RLA RATED LOAD AMPS RPM REVOLUTIONS PER MINUTE S SUPPLY SA SUPPLY AIR SAT SUPPLY AIR TEMPERATURE SD SMOKE DAMPER SF SQUARE FEET SFD SMOKE/FIRE DAMPER SP STATIC PRESSURE SQ SQUARE T THERMOSTAT TYP. TYPICAL UC UNDERCUT DOOR 3/4" (MIN) UH UNIT HEATER UV UNIT VENTILATOR VAV VARIABLE AIR VOLUME VB VACUUM BREAKER VD VOLUME DAMPER VFD VARIABLE FREQUENCY DRIVE W/ WITH W/O WITHOUT WB WET BULB TEMPERATURE WG WATER GAUGE WH WATER HEATER ZV ZONE VALVE	
DUCTWORK					
SUPPLY CEILING DIFFUSER THROW PATTERN RETURN/EXHAUST CEILING REGISTER SUPPLY DUCT UP SUPPLY DUCT DOWN RETURN/EXHAUST DUCT UP RETURN/EXHAUST DUCT DN. MITERED ELBOWS 90° w/ VANES MITERED ELBOWS 45° w/ VANES STANDARD DUCT TAKE-OFF W/ BRANCH DAMPERS BULLHEAD CONVERGE RETURN/EXHAUST HORIZONTAL OFFSET FLEXIBLE CONNECTION (6" NEOPRENE) LINED DUCT - SIZE INDICATES INSIDE DIMENSION 24x12 RECTANGULAR DUCT - FIRST FIGURE IS SIDE SHOWN 24x12 VOLUME DAMPER (OPPOSED BLADE TYPE) MD MOTORIZED CONTROL DAMPER BD BACK DRAFT DAMPER ACCESS PANEL ON BOTTOM OF DUCT ACCESS PANEL ON SIDE OF DUCT				<div><div data-cs="2" data-kind="parent">DUCTWORK, CONTINUED</div><div data-kind="ghost"></div></div> <div><div>TRANSITION - ECCENTRIC</div><div></div></div> <div><div>TRANSITION - CONCENTRIC</div><div></div></div> <div><div>RECTANGULAR TO ROUND TRANSITION</div><div></div></div> <div><div>EXHAUST/RETURN/INTAKE FLOW ARROW</div><div></div></div> <div><div>SUPPLY AIR FLOW DIRECTION</div><div></div></div>	<div><div data-cs="2" data-kind="parent">PIPING, CONTINUED</div><div data-kind="ghost"></div></div> <div><div></div><div>GAS SHUT OFF VALVE</div></div> <div><div></div><div>FLOAT & THERMOSTATIC STEAM TRAP</div></div> <div><div></div><div>BOILER FEED VALVE</div></div> <div><div></div><div>TRAPS, STEAM</div></div> <div><div></div><div>DIFFERENTIAL PRESSURE REGULATOR VALVE</div></div> <div><div></div><div>TWO-WAY AUTOMATIC CONTROL VALVE</div></div>



AIR TO WATER HEAT PUMP SYSTEM
FIRE STATION #2,
454 STATE ROAD, WEST TISBURY, MA 02575

EXISTING SYSTEM DEMOLITION
MECHANICAL FLOOR PLAN
NOT FOR BIDDING OR CONSTRUCTION

RISE GROUP, INC.
1341 ELMWOOD AVE.,
CRANSTON, RI 02910



Project No: RIS87251012
Drawn By: RSH
Checked By: ADN
Scale: N/A
Date: 6-20-26

Drawing No:
M-1.0

OUTSIDE ON WALL



THE HWP-1 AND HWP-2 PUMPS SHALL EACH BE CONTROLLED TO ROTATE WITH ONE OPERATING AT A TIME. THE CONTROL WILL ALSO PROVIDE AN ALARM SIGNAL IF ONE PUMP SHOULD FAIL TO OPERATE.

Drawing No:

M-3.0

4.2 Positioning

Always install the pump with horizontal motor shaft.

- Pump installed correctly in a vertical pipe. See fig. 7, pos. A.
- Pump installed correctly in a horizontal pipe. See fig. 7, pos. B.
- Do not install the pump with vertical motor shaft. See fig. 7, pos. C and D.

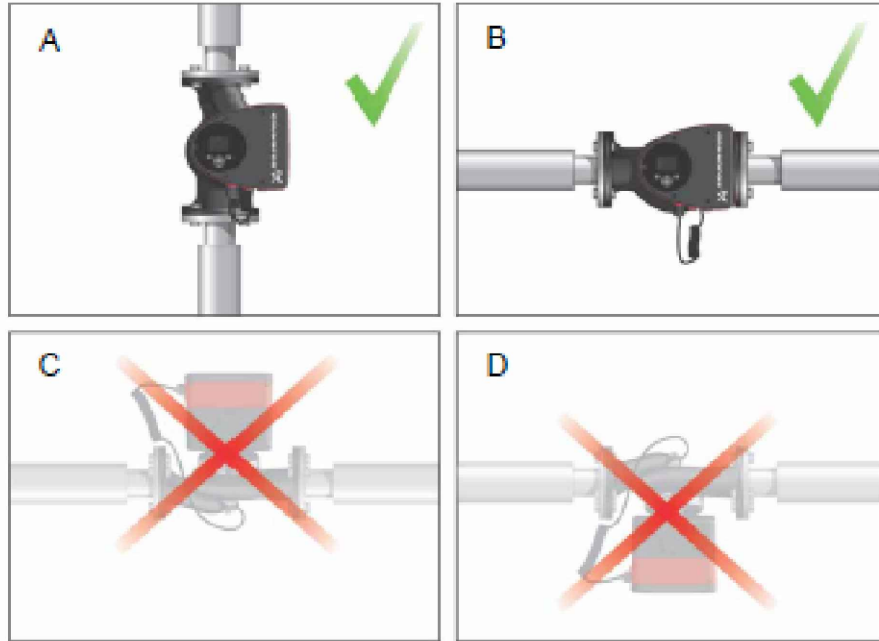
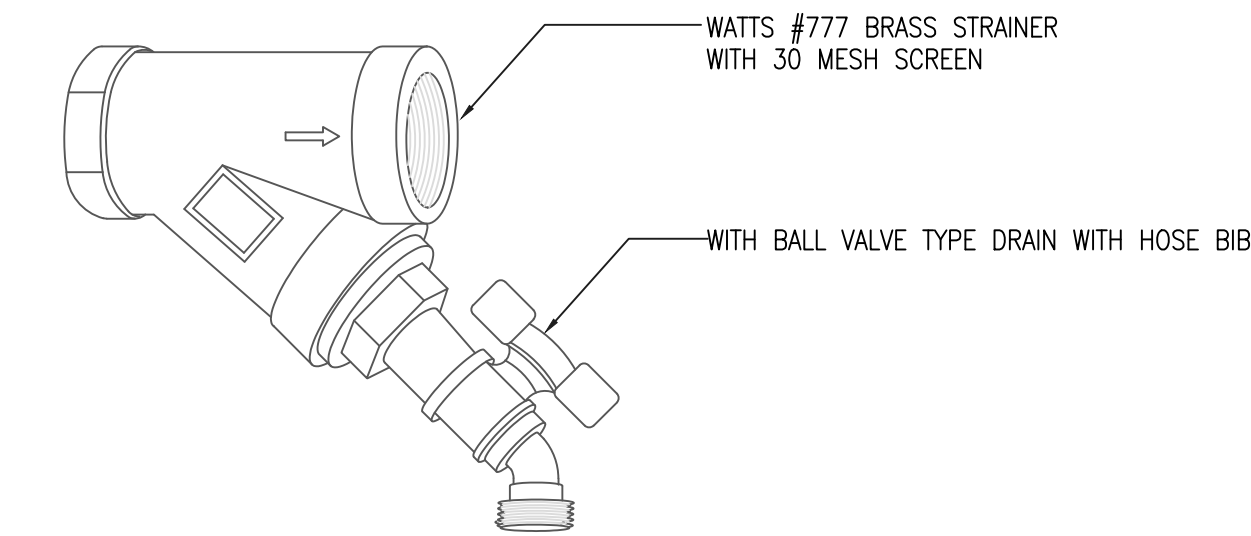
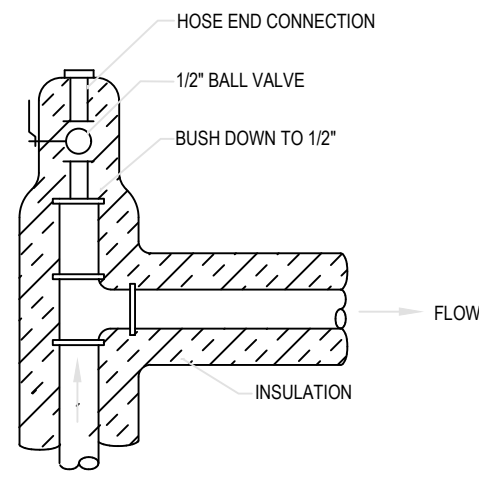


Fig. 7 Pump installed with horizontal motor shaft

IN LINE PUMP PIPING INSTALLATION
POSITION DIAGRAM
NTS

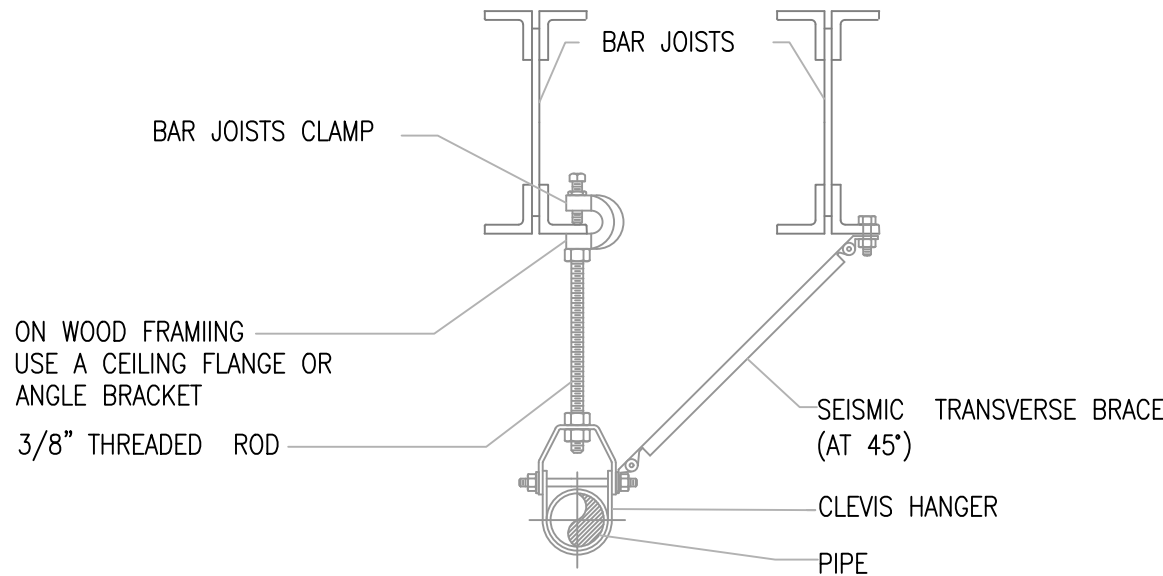


DETAIL OF STRAINER
FOR BOILER AND AWP RETURNS
NTS

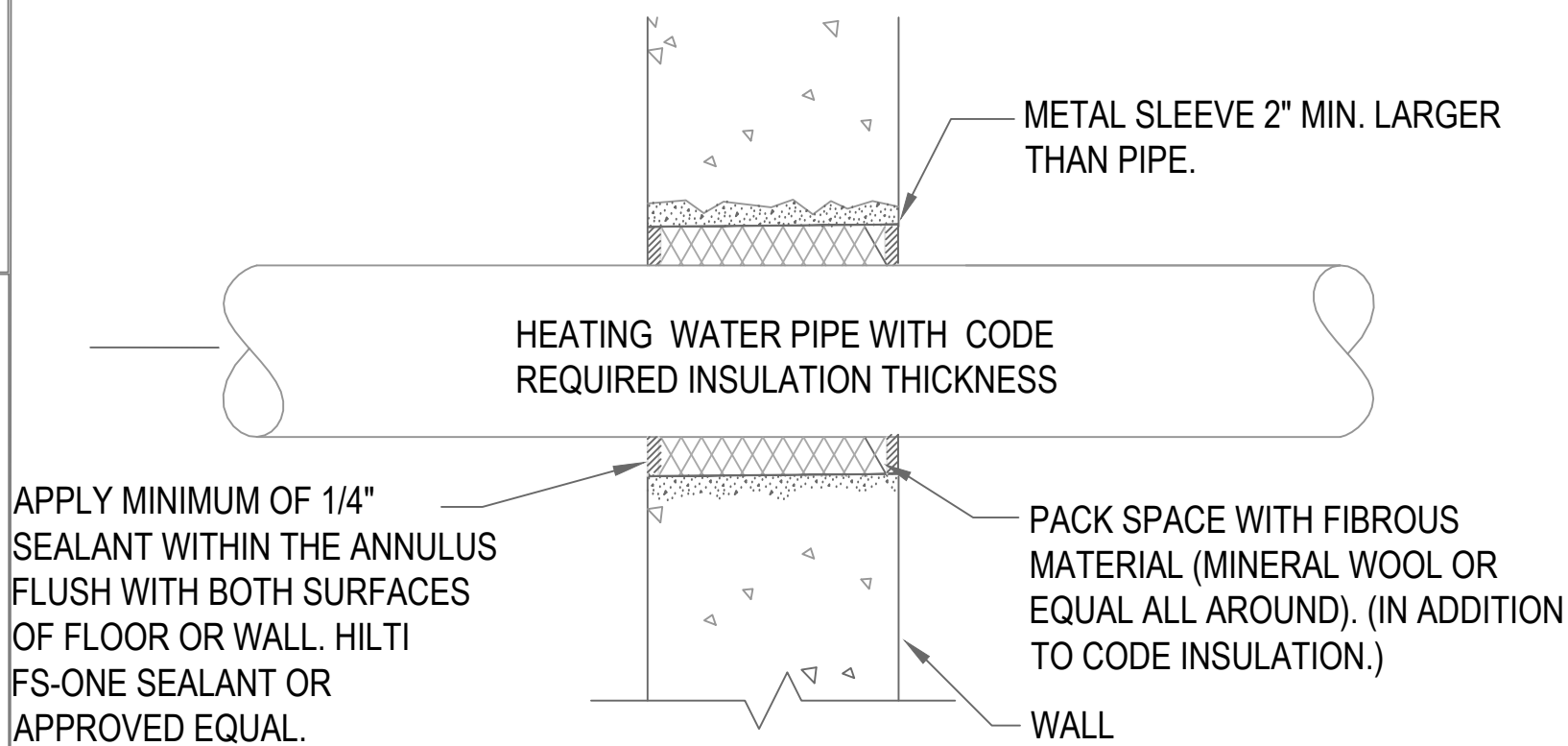


MANUAL AIR VENT DETAIL
NTS

NOTE:
PROVIDE SEISMIC RESTRAINTS FOR NATURAL GAS PIPING AS FOLLOWS:
-1" & 1-1/2" PIPES: 20 FT. ON CENTER
-2" & 2-1/2" PIPES: 30 FT. ON CENTER
-3", 4" & 6" PIPES: 40 FT. ON CENTER

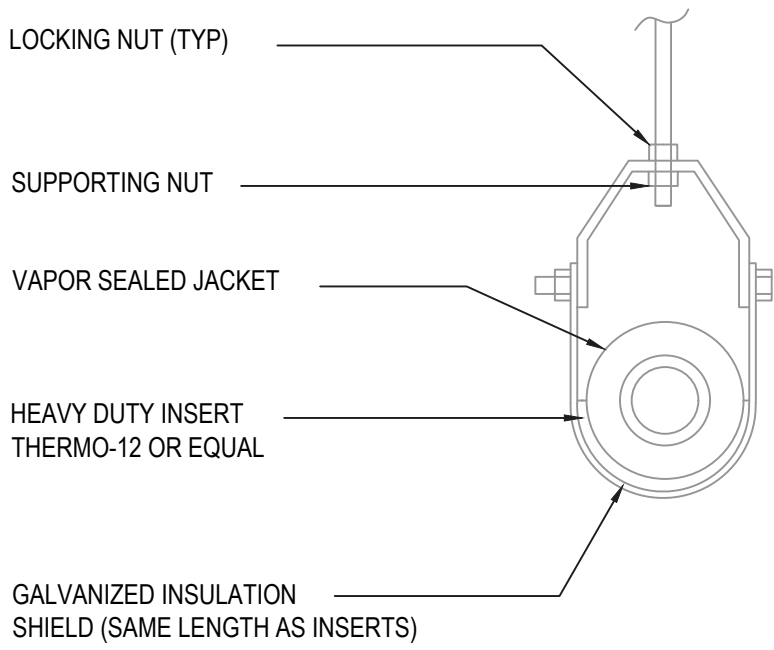


PIPE SUPPORT AND SEISMIC RESTRAINT DETAIL -
HORIZONTAL PIPING
NTS



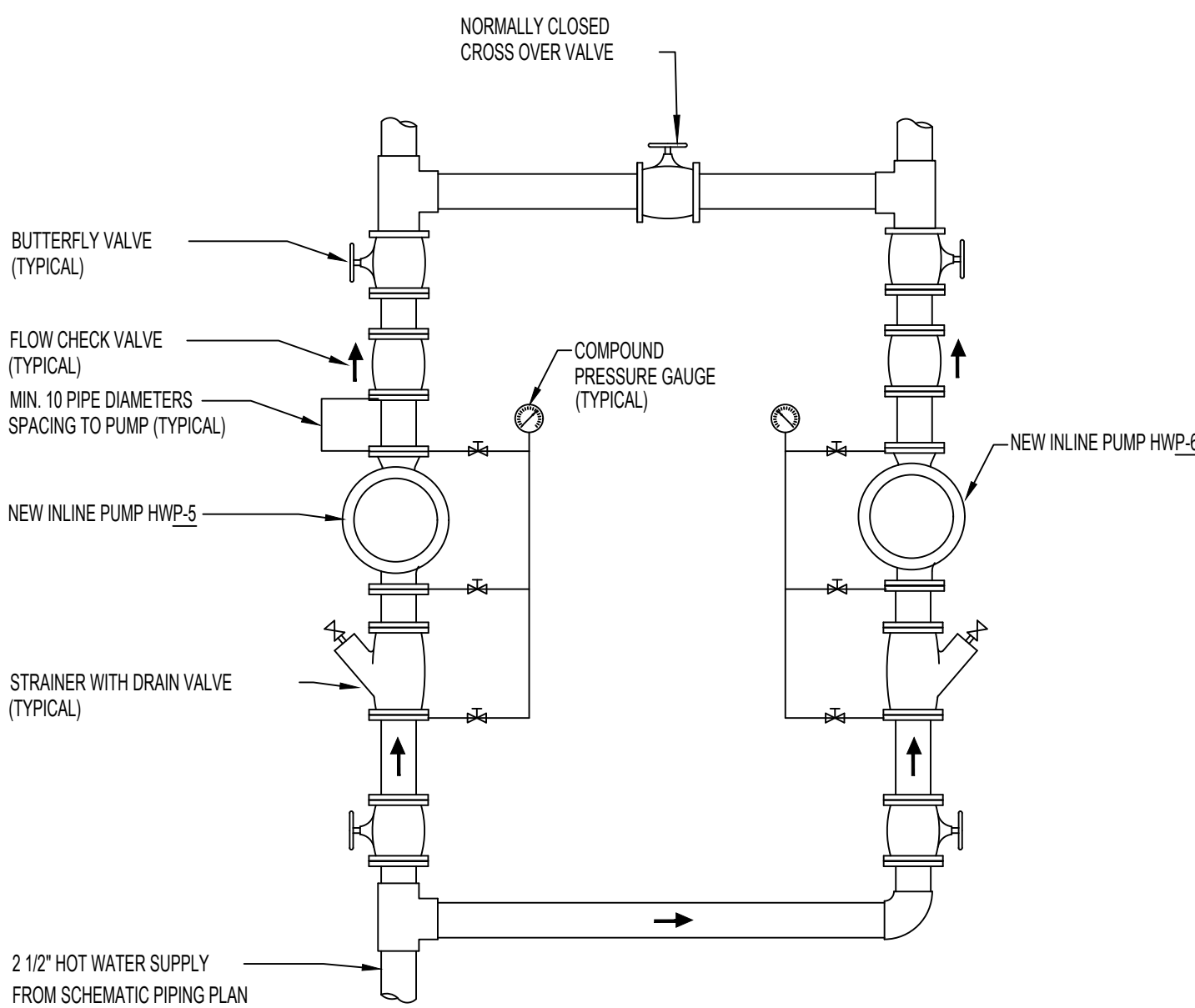
PIPE THROUGH WALL DETAIL NTS
PIPING INSTALLATION NOTES:

1. FIRESTOP SYSTEMS ARE NOT REQUIRED FOR PENETRATIONS THROUGH WALLS WHICH DO NOT HAVE A FIRE RESISTANCE RATING. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF WALLS WHICH HAVE A FIRE-RESISTANCE RATING. ALL VOIDS IN AND AROUND PIPE SLEEVES IN NON-RATED WALLS SHALL BE FILLED WITH MINERAL WOOL TO PREVENT THE MOVEMENT OF SMOKE.
2. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CLEARANCE AROUND ALL PIPING FOR SEISMIC PROTECTION AND PIPE SLEEVES WITH FIRESTOP MATERIALS.
3. PIPE SLEEVES SHALL HAVE A NOMINAL DIAMETER LARGE ENOUGH TO ACCOMMODATE CONTINUOUS PIPE INSULATION .
4. PIPE INSULATION MUST BE INSPECTED AND APPROVED BY RISE ENGINEERING BEFORE THE FINISHED WALL AND CEILING IS INSTALLED.
5. FLEXIBLE COUPLINGS ARE ACCEPTABLE ON EACH SIDE OF WALL BUT NOT WITHIN THE WALL. THE NOMINAL DIAMETER OF THE SLEEVE SHALL BE ONE PIPE SIZE LARGER THAN THE DIAMETER OF THE PIPE WHEN FLEXIBLE COUPLINGS ARE USED.
6. REFER TO SPECIFICATIONS FOR FIRE STOP MATERIALS TO BE USED. ALL SYSTEMS SHALL BE U.L. LISTED.
7. SLEEVES THROUGH LOAD BEARING WALLS SHALL BE SCHEDULE 40 BLACK STEEL PIPE. OTHER PIPE SLEEVE MATERIALS ARE ACCEPTABLE PROVIDED THEY HAVE BEEN TESTED AS PART OF THE FIRE RATED ASSEMBLY. ALL PIPE SLEEVES THROUGH EXTERIOR WALLS SHALL BE GALVANIZED STEEL.
8. INSTALL MANUAL AIR RELEASE VENTS AT ALL HIGH POINTS IN PIPING SYSTEM AND DRAIN VALVES AT ALL LOW POINTS.
9. CONTRACTOR SHALL CONSIDER THE ELECTRICAL, MECHANICAL, PLUMBING, STRUCTURAL, ARCHITECTURAL AND CIVIL DRAWINGS AS AN INTEGRAL PART OF HIS BID PACKAGE AND SHALL REVIEW ALL ASSOCIATED DRAWINGS AND DETAILS DURING THE BID PROCESS.

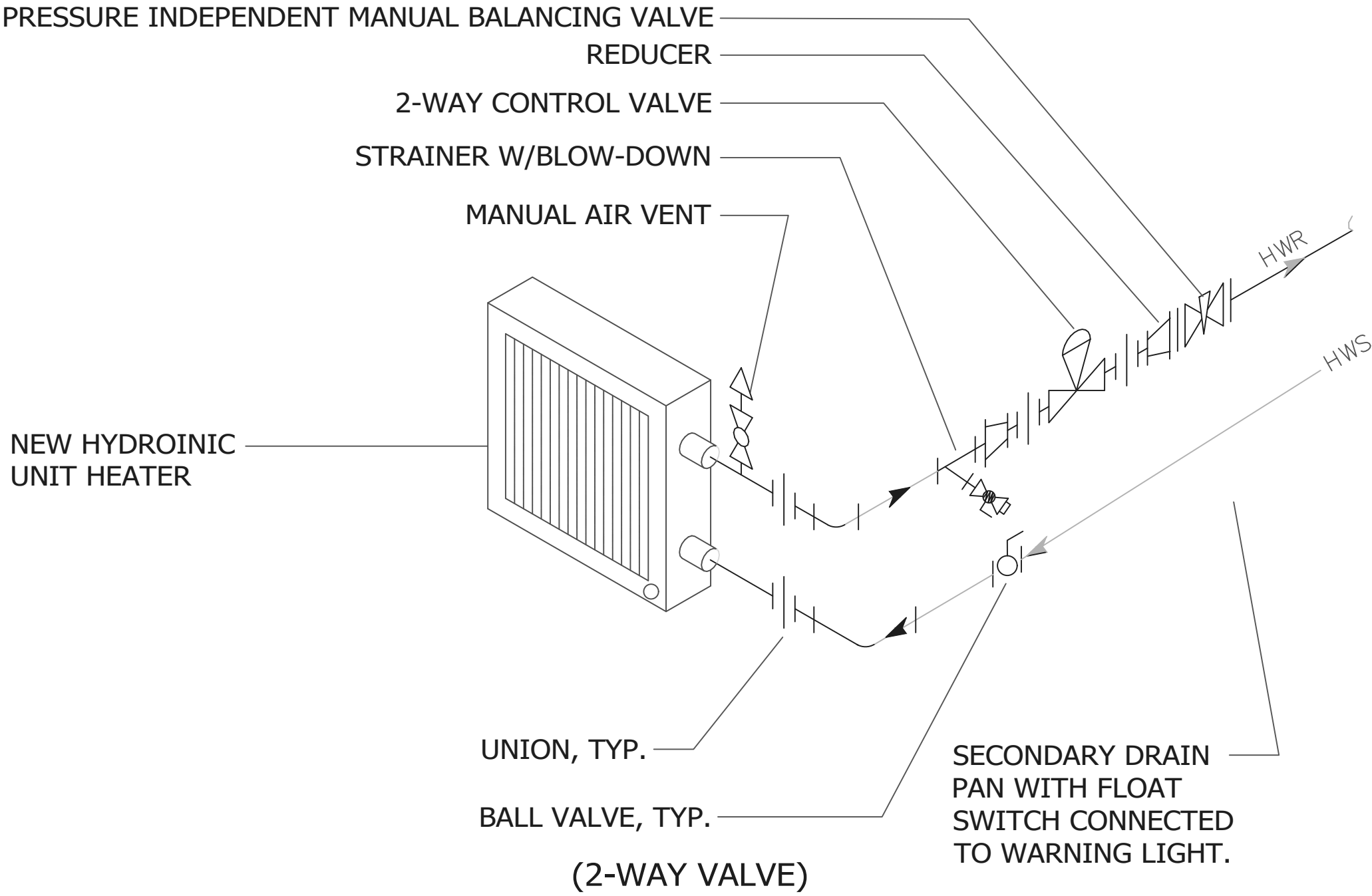


INSULATION INSERTS	
PIPE SIZE	LENGTH
1 1/2" TO 2 1/2"	10"
3" TO 6"	12"
8" TO 10"	16"
12" AND OVER	22"

PIPE HANGER DETAIL
NTS



CH-1 INLINE PUMP INSTALLATION DETAIL
NTS



NEW HYDRONIC UNIT HEATER PIPING DIAGRAM



AIR TO WATER HEAT PUMP SYSTEM
FIRE STATION #2,
454 STATE ROAD, WEST TISBURY, MA 02575

MECHANICAL AWP SYSTEM DETAILS
NOT FOR BIDDING OR CONSTRUCTION

THE RISE GROUP,
1341 ELMWOOD AVE.,
CRANSTON, RI 02910



Project No: RIS87251012
Drawn By: RSH
Checked By: ADN
Scale: N/A
Date: 6-20-26

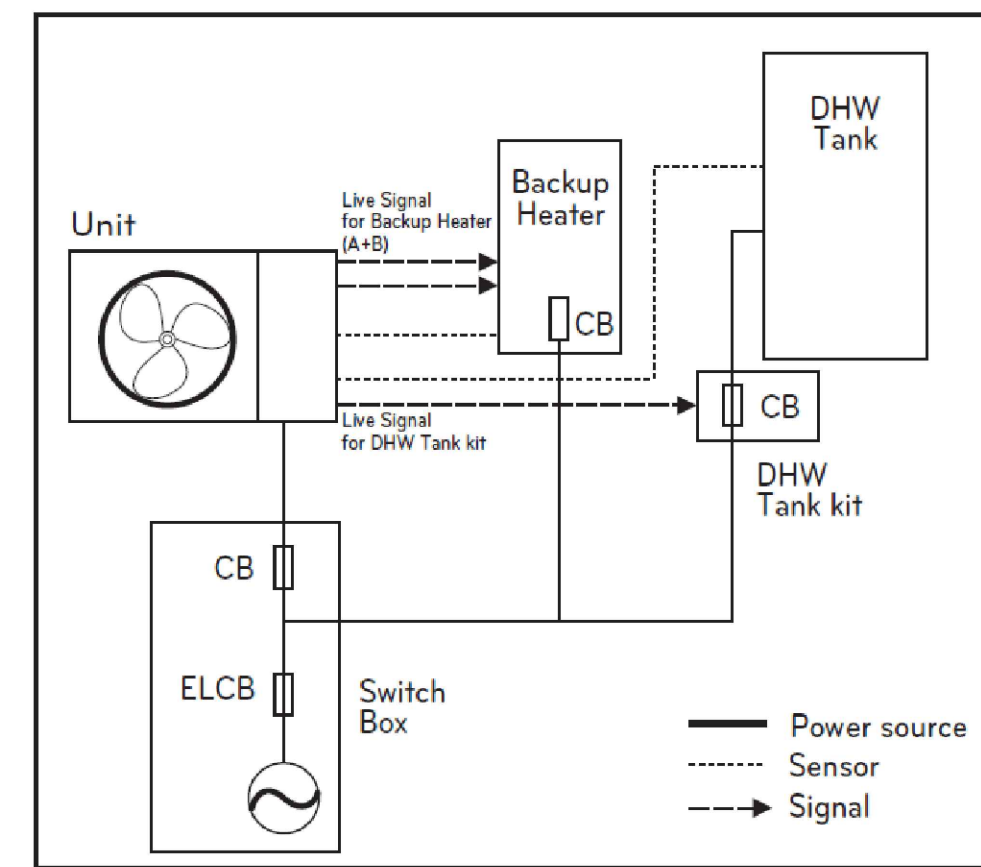
Drawing No:

M-4.0

INSTALLATION NOTES RELATIVE TO THE AWHP BASIS OF DESIGN

Circuit Breaker Specification

- Perform the electrical wiring work according to the electrical wiring connection.
- All wiring must comply with local requirements.
 - Select a power source that is capable of supplying the current required by the appliance.
 - Use a recognized ELCB(Electric Leakage Circuit Breaker) between the power source and the unit. A disconnection device to adequately disconnect all supply lines must be fitted.
 - Model of circuit breaker recommended by authorized personnel Only.
 - Select a circuit breaker suitable for the current specification.
- * Refer to the Q label for the maximum current of the product.



*CB : Circuit Breaker
*ELCB : Electric Leakage Circuit Breaker

THESE PLANS MUST BE SUPPLEMENTED BY THE WRITTEN SPECIFICATIONS FOR A FULL UNDERSTANDING OF THE SCOPE OF WORK FOR THIS PROJECT. BOTH PLANS AND WRITTEN SPECIFICATIONS MUST BE PROVIDED TO INSTALLERS.

THE DETAILS ON THESE PLANS PERTAIN TO THE AWHPS BASIS OF DESIGN ON THE EQUIPMENT SCHEDULE. SEE THE SCHEDULE FOR THE BRANCH CIRCUITS REQUIRED AND THE SCOPE OF WORK. THESE PLANS ARE NOT FOR CONSTRUCTION UNTIL ELECTRICAL SYSTEM BACK UP DETAILS ARE FULLY DEVELOPED BY THE TOWN OF WEST TISBURY.

!

CAUTION

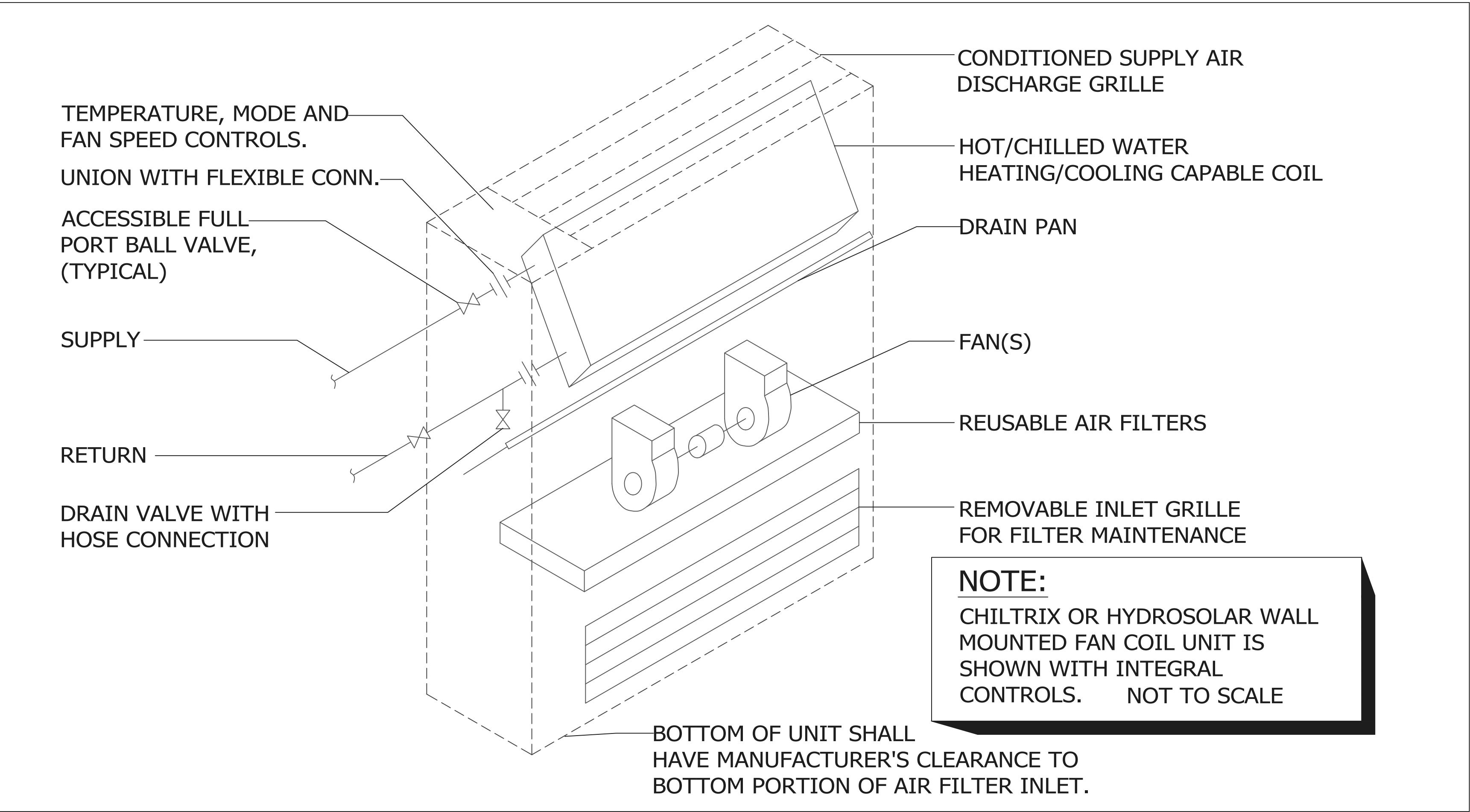
- Be sure to correct the unit to earth. Do not connect earth line to any gas pipe, liquid pipe, lightening rod or telephone earth line. If earth is incomplete, it may cause an electric shock.

!

CAUTION

- This product have reversed phase protection detector that only works when the power is turned on. If there exists black out or the power goes on and off which the product is operating, attach a reversed phase protection circuit locally. running the product in reversed phase may break the compressor and other parts.
- Use the 2-core shield cables for communication lines. Never use them together with power lines.
- The conductive shielding layer of cable should be grounded to the metal part of both units.
- Never use multi-core cable
- As this unit is equipped with an inverter, to install a phase leading capacitor not only will deteriorate power factor improvement effect, but also may cause capacitor abnormal heating. Therefore, never install a phase leading capacitor.
- Make sure that the power unbalance ratio is not greater than 2 %. If it is greater, the unit's lifespan will be reduced.
- Introducing with a missing N-phase or with a mistaken N-phase will break the equipment

- ADDITIONAL NOTES:
- Confirm that electrical capacity is sufficient.
 - Be sure that the starting voltage is maintained at more than 90 percent of the rated voltage marked on the name plate.
 - Confirm that the cable thickness is as specified in the power sources specification. (Particularly note the relation between cable length and thickness.)
 - Provide an ELB (electric leakage breaker) when the installation place is wet or moist.
- This installation will require three step up transformers, one for each AWHP, located in between the outside all-weather disconnect and the AWHP unit. Mount the outside-rated transformers to the outside of the building wall, not on the AWHP units.



AWHP																																
AIR-TO-WATER HEAT PUMP SCHEDULE																																
TAG NO.	LOCATION/ SYSTEM SERVED	NOMINAL MAX./MIN. CAPACITY (TONS)	HEATING CAPACITY @122 HWS (MBH)	REFRIG TYPE AND QUANTITY	EVAPORATOR					HEATING/COOLING FIGURES					CONDENSER		COMPRESSOR		EFFICIENCY		DIMENSIONS		ELECTRICAL DATA						OPERAT. WEIGHT (LBS)	MANUFACTURER MODEL NUMBER	NOTES	
					GPM	FLUID	EW T (°F)	LWT (°F)	WPD (FT)	MIN. GPM	MAX. GPM	FANS QUANT.	DESIGN (°F)	LENGTH, HEIGHT & WIDTH (IN.)	# OF ELEC. FEEDERS	MOP	MCA	KW MAX			V	PH	HZ									
AWHP-1	EXTERIOR WALL MOUNT/ APPARATUS ROOM	4.6	46.6	R-32 4.41 LBS	12	35%PROP GLYCOL	100 54	122 44	4.6	5	12	2	5 95	1	SCROLL	3.7/ 2.7*	13.75	48.8" X 54.3" X 13"		ONE	40	35	-	208- 240	1	60	263	LG KPHTC551M MONOBLOC OR APPROVED EQUAL	1,2,3,4,5,6,7			
AWHP-2	EXTERIOR WALL MOUNT/ APPARATUS ROOM	4.6	46.6	R-32 4.41 LBS	12	35%PROP GLYCOL	100 54	122 44	4.6	5	12	2	5 95	1	SCROLL	3.7/ 2.7*	13.75	48.8" X 54.3" X 13"		ONE	40	35	-	208- 240	1	60	263	LG KPHTC551M MONOBLOC OR APPROVED EQUAL	1,2,3,4,5,6,7			
AWHP-3	EXTERIOR WALL MOUNT/ APPARATUS ROOM	4.6	46.6	R-32 4.41 LBS	12	35%PROP GLYCOL	100 54	122 44	4.6	5	12	2	5 95	1	SCROLL	3.7/ 2.7*	13.75	48.8" X 54.3" X 13"		ONE	40	35	-	208- 240	1	60	263	LG KPHTC551M MONOBLOC OR APPROVED EQUAL	1,2,3,4,5,6,7			
NOTES: 1 – FIELD INSTALLED DISCONNECT SWITCH WITH CIRCUIT PROTECTION; 2 – FIELD INSTALLED POWER SURGE SUPPRESSION DEVICE; 3 – FIELD INSTALLED UNIT GROUND FAULT PROTECTION; 4 – ONE PROGRAMMED LG VUCQMS8650 CONTROL FOR THREE UNITS; 5– UNIT INCLUDES VARIABLE SPEED PUMP; 6 – SEE ELECTRICAL SCOPE FOR FIELD INSTALLED SERVICE OUTLET; 7 – FIELD INSTALLED PROTECTIVE RAIN/SNOW/ICE DEFLECTION OVER EACH AWHP. *COP FIGURES PROVIDED AT 122 HWS TEMPERATURE.																																

ANY CHANGES FROM THE SPECIFIED MAKE AND MODEL EQUIPMENT SHOWN ON THE PLANS MAY RESULT IN NECESSARY CHANGES TO THE SIZE OR CONFIGURATION OF THE ANCILLARY SUPPORTING EQUIPMENT TO ALLOW THE SYSTEM TO WORK AS A COORDINATED WHOLE.

P HYDRONIC PUMP SCHEDULE														
TAG NO.	LOCATION	SYSTEM SERVED	TYPE	MAX. GPM	HEAD (FT.)	MAX. FLUID TEMP °F	MAX. AMP.	ELECTRICAL DATA				MANUFACTURER MODEL NUMBER	REMARKS	
								MOTORM WATTS	MOTOR RPM	V	PH			HZ
P-1	MECHANICAL RM.	HEATING LOOP	IN-LINE	36	45	140	6.1	883		200-240	1	60	GRUNDFOS MAGNA 3 65-150 GF	1, 2, 3, 4, 5
P-2	MECHANICAL RM.	HEATING LOOP	IN-LINE	36	45	140	6.1	883		200-240	1	60	GRUNDFOS MAGNA 3 65-150 GF	1, 2, 3, 4, 5
THESE REDUNDANT PUMPS ARE FOR THE TWO-PIPE AHWP LOOP WHEN OPERAING ONE AT A TIME. IF NECESSARY TO BACK UP THE REMAINDER OF THE BUILDING DURING A FAILURE OF THAT AIR-TO-AIR HEAT PUMP SYSTEM, BOTH PUMPS CAN BE MANUALLY OPERATED TOGETHER AFTER THE BALL VALVE FOR THAT SYSTEM IS MANUALLY OPENNED.														
REMARKS: 1. VARIABLE FREQUENCY DRIVE SUPPIED INTEGRAL WITH EACH PUMP; 2. CAST IRON VOLUTE HOUSING; 3. SELF PRESSURE SENSING PUMPS; 4. WITH VOLUTE INSULATION. 5. FOR USE WITH AND PERFORMANCE BASED UPON 35% PROP. GLYCOL														
OR APPROVED EQUAL BRAND AND MODEL														

MDS										
MAGNETIC DIRT SEPARATOR										
TAG NO.	LOCATION	SERVICE	SYS TEMP (°F)		CONSTRUCTION		CONNECTIONS	PRESSURE RATING (PSIG)	MANUFACTURER MODEL NUMBER	REMARKS
			MIN	MAX	BODY	MAGNETS				
MDS-1	MECHANICAL ROOM	HEATING COOLING	36	135	STEEL	NEODYMIUM	PRESS FIT	72.5	FERNOX TF1 SIGMA FILTER	1" PRESS FIT
									OR APPROVED EQUAL	

PIPE INSULATION SCHEDULE									
PIPE SIZE 1/2" TO 1" = 1" THICK INSULATION					SEE PROJECT SPECIFICATIONS FOR MANUFACTURER AND ADDITIONAL INFORMATION.				
PIPE SIZE 1-1/4" TO 4" = 1-1/2" THICK INSULATION									
FLUID DESIGN OPERATION TEMPERATURE RANGE, F	INSULATION CONDUCTIVITY			NOMINAL PIPE DIAMETER (IN.)					
	CONDUCTIVITY RANGE BTU x IN./ (H x FT x °F)		MEAN RATING TEMPERATURE °F	1" AND LESS	1-1/4" TO 2"	2-1/2" TO 4"	5"-6"	8"-UP	
	HEATING SYSTEMS (HOT WATER) AND COOLING SYSTEMS (CHILLED WATER)								
105-140 & 41-60	0.24-0.28		100		1.0	1.5	1.5	1.5	1.5

GF GLYCOL FEEDER TANK SCHEDULE									
UNIT REF.	MAKE AND MODEL No.	GPM		SIZE: L X H X D	INLET /OUTLET CONN.	ELECT. AMPS.	ELECT. H.P.	ELECT. V/PH /HZ.	NOTES
		MAX.	PSI SET TO:						
GF-1	SKIDMORE S-16-PEFS-P	1.1 @40 PSI	30	14.25" X 20.4" X 18"	1/4"	3.0	-	115/1/60	1,2
OR APPROVED EQUAL MODEL BY ADVANTAGE OR NEPTUNE.		USE PRE-MIXED 35% PROP. GLYCOL WITH 65% DISTILLED WATER. DO NOT USE SITE WATER FOR MIXTURE WITH P.G..							
NOTES: 1.) FIELD INSTALLED 0-100 PSI PRESSURE GAUGE; 2.) 16 GALLON POLY TANK.									

BT BUFFER TANK SCHEDULE												
TAG NO.	LOCATION		SERVICE	DIAM.	HT.	TANK (PSIG)	TANK MATERIAL	TANK VOLUME (GAL)	VOLT./PHASE	KW ELECT. BACK UP ELEMENT	MANUFACTURER MODEL NUMBER	REMARKS
BT-1	MECHANICAL ROOM		HVAC	28"	68.25"	150 ASME	316L SS	119	N/A	N/A	LOCKINVAR SBT0119	SENSOR WELL, (4) 2" CONNS. R-13.4 INSUL., 5 YR. WAR.
BT-2	MECHANICAL ROOM		HVAC	28"	68.25"	150 ASME	316L SS	119	N/A	N/A	LOCKINVAR SBT0119	SENSOR WELL, (4) 2" CONNS. R-13.4 INSUL., 5 YR. WAR.

QUANTITY AND SIZING OF THE BUFFER TANKS PERTAINS TO THE PARTICULAR BASIS OF DESIGN AWHP SYSTEM SPECIFIED ABOVE. A GREATER TOTAL GALLONS MAY BE REQUIRED WITH OTHER AWHPs. OR APPROVED EQUAL

WALL MOUNTED FAN COIL UNIT AND HYDRONIC UNIT HEATER SCHEDULE									
UNIT REF / ROOM LOCATION	MODEL No.	CFM		SIZE: L X H X D	COIL GPM	COIL FT. H2O P DROP	FAN ELECT. WATTS	ELECT. V/PH /HZ.	NOTES
		MAX.	MIN.						
FCU-1/ FIRE STOR.	CHILTRIX MODEL CX134	94		27.6" X 25.8"X 5.1"	1.2 MIN.	3.6'	14 WATTS	120/1/60	1, 3, 4, 6, 7
FCU-2/ CORRIDOR	CHILTRIX MODEL CX134	94		27.6" X 25.8"X 5.1"	1.2 MIN.	3.6'	14 WATTS	120/1/60	1, 3, 4, 6, 7
HUH- 1/ APPARATUS	MODINE LOTRONICS HCH 67	1,150		29" X 22.7"X 9.7"	6.7 MIN.	2.6'	1.2 AMP 1/2 HP MOTOR	120/1/60	1, 5, 6, 7, 8
HUH-2/ APPARATUS	MODINE LOTRONICS HCH 67	1,150		29" X 22.7"X 9.7"	6.7 MIN.	2.6'	1.2 AMP 1/2 HP MOTOR	120/1/60	1, 5, 6, 7, 8
	OR APPROVED	EQUALS							

NOTES:

1.) HYDRONIC COIL SIZING IS BASED UPON EWT = 120°F, LWT = 100°F IN THE HEATING MODE.

2.) HYDRONIC COIL SIZING IS BASED UPON EWT = 44°F, LWT = 54°F IN THE COOLING MODE. COIL GPM BASED UPON COOLING MODE.

3.) FULLY INSULATED PIPING TO CONNECT TO THE FAN COIL AT THE REAR THROUGH PARTITION WALL WHEN POSSIBLE. SEE MANUFACTURER'S REQUIRED ANCILLARY PIPE FITTINGS.

4.) FAN COILS TO BE MOUNTED ON WALL WITH SUPPLY OUTLET AT LEAST 12" BELOW CEILING LEVEL. FLOOR MOUNT IF ACCEPTABLE TO CHIEF.

5) TWO HUHS ARE TO BE WIRED TO A SINGLE WALL MOUNTED DIGITAL PROGRAMMABLE THERMOSTAT.

6) SEE SEQUENCE OF OPERATIONS FOR DETAILS. FCUS WILL OPERATE OFF INTEGRAL RETURN AIR THERMOSTAT.

7) THESE UNITS ARE DESIGNED FOR POTENTIAL USE FOR AIR CONDITIONING BUT THIS PROJECT SCOPE OF WORK DOES NOT INVOLVE THE SYSTEM PROVIDING CHILLED WATER FOR COOLING PURPOSES AND THEREFORE, NO CONDENSATE DRAIN FROM THESE UNITS IS REQUIRED.

8) FIELD INSTALLED VARIABLE SPEED FAN CONTROL MOUNTED ON WALL.

ET										
TAG NO.	LOCATION	SERVICE	SYS TEMP (°F) BASIS OF DESIGN		SYS PRESS (PSIG)		TANK ACCEPTANCE VOLUME (GAL)	ASME RATING (PSIG)	MANUFACTURER MODEL NUMBER	REMARKS
			MIN	MAX	MIN	MAX				
ET-1	MECHANICAL ROOM	HEAT/COOL	30	140	15		75	23	125	BELL & GOSSETT B-85
							OR APPROVED EQUAL BY BELL & GOSSETT OR ARMSTRONG.			REPLACEABLE BLADDER ASME SEC. VIII, DIV. 1

SEE SPECIFICATIONS AND PLANS FOR ADDITIONAL MINOR EQUIPMENT ITEMS.

SYSTEM DESIGN STATUS DISCLAIMERS

PLEASE NOTE THAT THE BUFFER TANKS ARE NOT CURRENTLY SPECIFIED WITH AN ELECTRIC BACK UP HEATER SINCE THE METHOD OF DETERMINING BACK UP (AND EMERGENCY POWER OUTAGE BACK UP) TO THE AWHPS HAS NOT BEEN FINALIZED BY THE TOWN OF WEST TISBURY. THE TANK AND/OR AWHPS COULD BE SPECIFIED WITH ELECTRIC RESISTANCE BACK UP BUT THE TOWN MAY NEED TO UPGRADE THE ELECTRICAL SYSTEM. THAT INSTALLATION MUST BE FULLY COORDINATED WITH THE FINAL VERSION OF THE AWHP INSTALLATION. THE AWHPS WERE SIZED TO HANDLE THE PEAK HEATING LOAD OF THE APPARATUS SECTION OF THE BUILDING. THE AWHPS DO NOT HAVE SUFFICIENT CAPACITY TO PROVIDE BACK UP PEAK LOAD HEATING TO THE REMAINDER OF THE BUILDING WHICH CURRENTLY IS HEATED BY AN AIR-TO-AIR HEAT PUMP SYSTEM WITH THE EXISTING OIL-FIRED BOILER AS BACK UP. THIS PLAN DOES INCLUDE A DESIGN TO PROVIDE COOLING TO THE BUILDING BUT HAVE THE CAPABILITY TO PROVIDE COOLING WITH SOME MODIFICATIONS. ADDITIONALLY, THIS DESIGN DOES NOT ADDRESS THE TESTING AND SUITABILITY OF THE EXISITING APARATUS BAY VENTILATION SYSTEM. THIS DESIGN IS NOT FOR BIDDING OR CONSTRUCTION.



AIR TO WATER HEAT PUMP SYSTEM
FIRE STATION #2,
454 STATE ROAD, WEST TISBURY, MA 02575

MECHANICAL EQUIPMENT SCHEDULE
NOT FOR BIDDING OR CONSTRUCTION

RISE GROUP, INC.
1341 ELMWOOD AVE.,
CRANSTON, RI 02910



Project No: RIS87251012
Drawn By: RSH
Checked By: ADN
Scale: N/A
Date: 6-20-26

Drawing No:

M-5.0