BOILER SCHEDULE - HEATING HOT WATER

GENERAL NOTES
FUEL: NATURAL GAS
NATURAL GAS DELIVERY PRESSURE - 7" W.C.
BOILER RELIEF PRESSURE: 50 PSIG

UNIT	LOCATION	TYPE	GROSS INPUT (MBH)	GROSS OUTPUT (MBH)	GPM	E.W.T.	L.W.T.	MIN. EFF. (%)	INTAKE SIZE	FLUE SIZE	MAX WPD (FT. HEAD)	TURNDOWN RATION	ELECTRICAL			MANUFACTURER	MODEL NO.	NOTES
													V/PH	FLA	MOCP			
B-1	MECH. ROOM	CONDENSING WATERTUBE BOILER	1500	1425	95	160	130	95%	8"ø	8"ø	4	5:1	120/1	13.1	-	THERMAL SOLUTIONS	ARC-1500	ALL
B-2	MECH. ROOM	CONDENSING WATERTUBE BOILER	1500	1425	95	160	130	95%	8"ø	8"ø	4	5:1	120/1	13.1	-	THERMAL SOLUTION	ARC-1500	ALL

NOTES:

1. PROVIDE BOILER WITH ELECTRICAL DISCONNECT FROM MANUFACTURER.
2. BOILER TO BE PROVIDED WITH BACNET COMMUNICATIONS CARD.

HYDRONIC PUMPS SCHEDULE

2123

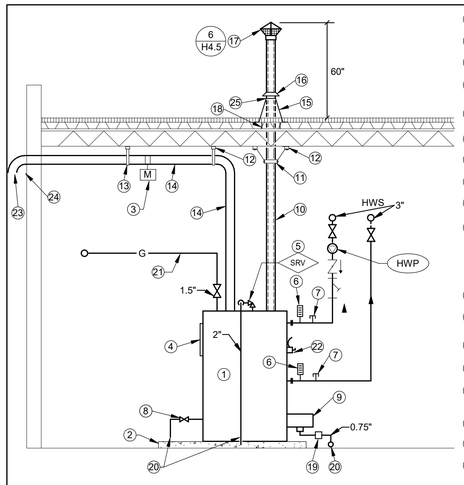
BASIS OF DESIGN - BELL & GOSSETT
EQUAL BY: ARMSTRONG, PATTERSON, PENTAIR, TACO, GRUNDFOS

NOTES:
1. VFD BY T.C.
2. SEE PUMP MOUNTING DETAIL - 3 , SHEET H4.5.

TAG	SERVICE	DESCRIPTION	MODEL NUMBER	CAPACITY		MOTOR				NOTES
				GPM	FT HD	RPM	BHP	HP	V/PH	
HWP-1	HEATING HOT WATER	INLINE CENTRIFUGAL	# e-90-2AAC	95	15	1800	0.5	0.75	208/3	
HWP-2	HEATING HOT WATER	INLINE CENTRIFUGAL	# e-90-2AAC	95	15	1800	0.5	0.75	208/3	
HWP-3	HEATING HOT WATER	BASE MOUNTED, END SUCTION CENTRIFUGAL PUMP	# e-1510-2AD-es	130	50	1800	1.99	3	460/3	1
HWP-4	HEATING HOT WATER	BASE MOUNTED, END SUCTION CENTRIFUGAL PUMP	# e-1510-2AD-es	130	50	1800	1.99	3	460/3	1

NOTES:

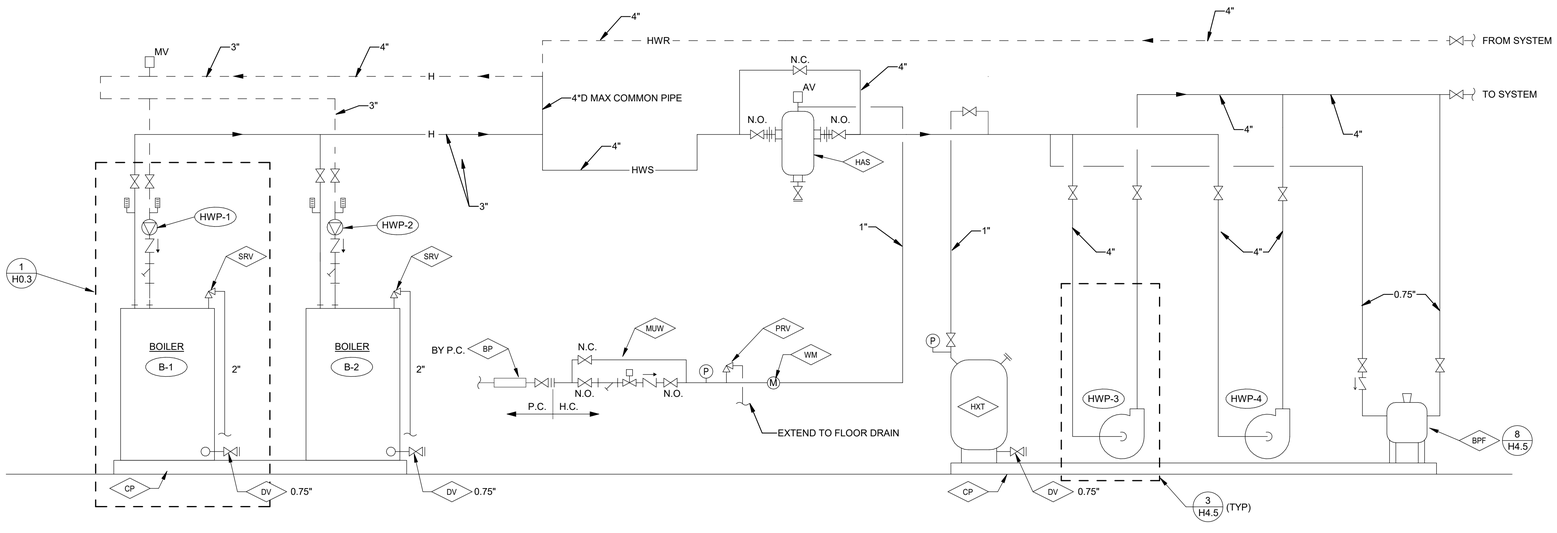
1. PUMP TO BE PROVIDED WITH VFD.



1. HOT WATER CONDENSING BOILER.
2. NEW CONCRETE EQUIPMENT PAD.
3. NOTE NOT USED.
4. BOILER CONTROL PANEL.
5. SAFETY RELIEF VALVE PROVIDED WITH BOILER. PIPE DISCHARGE TO FLOOR DRAIN.
6. THERMOMETER.
7. PRESSURE/TEMPERATURE TEST PLUG.
8. 1.5" DRAIN VALVE.
9. CONDENSATE DRAIN ASSEMBLY.
10. 8"∅ DOUBLE WALL STAINLESS STEEL. INNER WALL, TYPE AL29-4C; OUTER WALL, TYPE 304. VENT AND DRAIN VERTICAL OFFSETSD PER MANUFACTURER'S RECOMMENDATION. TRAP 90 DEG VERTICAL TEES. CPVC TRAP PIPING TO CONDENSATE NEUTRALIZER.
11. STEEL SUPPORT RING.
12. UNISTRUT SUPPORTS. ATTACH TO STRUCTURAL STEEL JOISTS. DO NOT SUPPORT FROM DECK.
13. STEEL BAND HANGER.
14. 8"∅ COMBUSTION AIR INTAKE.
15. ADJUSTABLE ALUMINUM FLASHING CONE. SLOPED FOR PITCHED ROOF. ATTACH TO ROOF DECK.
16. ALUMINUM STORM COLLAR.
17. VENT CAP WITH BIRDSCREEN.
18. OPENING IN ROOF DECK. SEAL AS REQUIRED FOR PENETRATION.
19. CONDENSATE NEUTRALIZER CARTRIDGE.
20. EXTEND PIPE TO DRAIN.
21. GAS PIPE TO GAS TRAIN WITH INTEGRAL SHUTOFF VALVE AND DIRT LEG CLEANOUT BY P.C.
22. ELECTRICAL POWER CONNECTION. BY E.C.
23. PROVIDE WIRE MESH BIRDSCREEN OVER FACE OF DUCTWORK.
24. S.S. ESCUTCHEON TON FACE OF WALL. SEAL PIPE THRU WALL AND PERIMETER OF ESCUTCHEON.
25. SEALANT.

NOTE: DIAGRAMATIC IN NATURE. BOILER VENT, COMBUSTION
AIR, GAS, HYDRONIC CONNECTIONS AND OUTING MAY VARY BY MANUFACTURER AND INSTALLATION.

1 **CONDENSING HOT WATER BOILER**
N.T.S.



EQUIPMENT NOTES

#	
HXT	HOT WATER EXPANSION TANK FULL ACCEPTANCE VOLUME - 79 GAL. BLADDER TYPE - WESSELS #NLA-300 REQUIRED TANK VOLUME - 60.8 GAL. DIMENSIONS - 24" DIA x 55"H INITIAL SYSTEM PRESSURE - 23 PSIG, FILL IN FIELD. FINAL PRESSURE - 45 PSIG
BPF	BYPASS FILTER FEEDER 5 GALLON CAPACITY - SEE SPECFICATIONS
HAS	HOT WATER AIR/DIRT SEPARATOR 4" SIZE - 190 GPM CAPACITY @ 3 FT. HD WPD MAX. SEE SPECIFICATIONS.
DV	DRAIN VALVE - SIZE AS INDICATED ON PLAN ROUTE TO LOCAL FLOOR DRAIN
SRV	SAFETY RELIEF VALVE 50 PSIG - FLOW AND CAPACITY ROUTE TO LOCAL FLOOR DRAIN
CP	4" CONCRETE EQUIPMENT PAD. REFER TO DETAIL.
PRV	PRESSURE RELIEF VALVE
MUW	MAKEUP WATER ASSEMBLY 0.75" AUTO. VALVE (EQUAL TO B&G B7-12, SET @ 20 PSI) PROVIDE N.C. VALVED 1" BY-PASS FOR FILL.
BP	BACKFLOW PREVENTER BY P.C.
WM	WATER METER - MECHANIICAL TYPE. SEE SPECIFICATIONS.

PIPING SCHEMATIC - HEATING HOT WATER SYSTEM

N.T.S

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EXPIRATION DATE 12/21/2023

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1	JULY 31, 2023	ADDENDUM 1

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TITLE
HEATING HOT WATER SCHEDULES & PIPING DIAGRAM

SHEET NO.
H0.3

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