

**NOTES:**

- SEE SHEET M-001 FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES.
- SCOPE OF WORK REPRESENTED IS TYPICAL FOR BUILDINGS 12,17,25.
- CONTRACTOR SHALL FLUSH ALL EXISTING HYDRONIC PIPING AND PROVIDE WATER TREATMENT PER BOILER MANUFACTURER'S INSTRUCTIONS.

**BUILDING MANAGEMENT SYSTEM:**

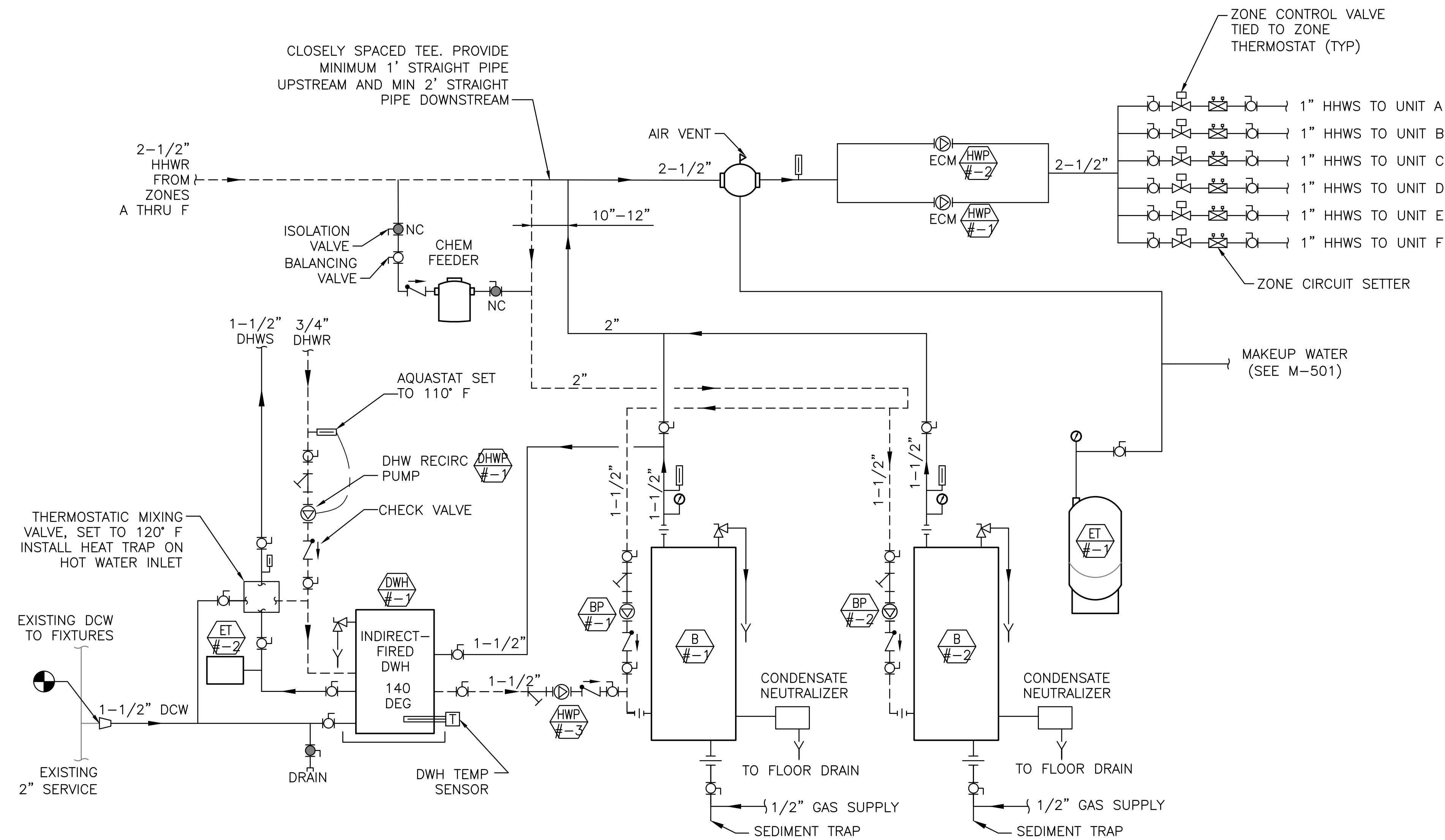
- CONTROLLERS SHALL BE STAND-ALONE AND INSTALLED IN THE BOILER ROOMS.
- ALARMS SHALL BE LOCAL.

**HEATING HOT WATER SYSTEM SEQUENCE OF OPERATIONS**

- WHEN OA TEMPERATURE IS BELOW 68 DEG F AND THERE IS A CALL FOR HEATING AT ONE OR MORE ZONE THERMOSTATS, THE LEAD SPACE HEATING PUMP SHALL BE ENERGIZED AND THE ZONE THERMOSTAT(S) CALLING FOR HEAT SHALL BE OPENED. BOILERS SHALL CASCADE ON AND OFF IN ORDER TO MAINTAIN SUPPLY WATER SETPOINT. BOILER SUPPLY WATER SETPOINT SHALL VARY BASED ON AN OA TEMPERATURE RESET SCHEDULE PROGRAMMED INTO THE BOILER CONTROLLERS. SEE BOILER SPECIFICATION 235216 FOR DETAILS.
- WHEN THE SPACE TEMPERATURE IS SATISFIED IN A UNIT, THE ASSOCIATED ZONE VALVE SHALL CLOSE.

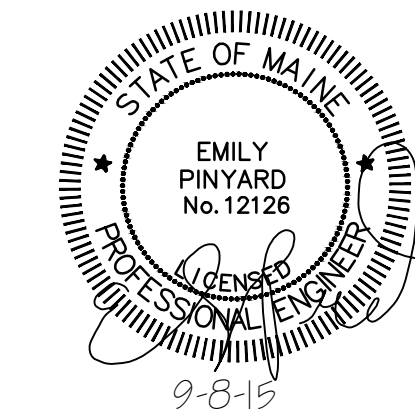
**DOMESTIC HOT WATER SYSTEM SEQUENCE OF OPERATIONS**

- A DIRECT ACTING AQUASTAT SET AT 140 DEGREES F AT THE INDIRECT WATER HEATER STARTS THE BOILER WATER CIRCULATING PUMP SERVING THE INDIRECT HEATER (HWP-#-3) ON A CALL FOR HEATING. THE BOILER TEMPERATURE GOES INTO DOMESTIC PRIORITY WHEN THE AQUASTAT IS CALLING FOR HEATING.
- THE DOMESTIC HOT WATER CIRCULATION PUMP (DHWP-#-1) SHALL BE ENERGIZED WHEN THE DOMESTIC WATER RETURN PIPE TEMPERATURE REACHES 110 DEG F (ADJUSTABLE) AND SHALL DE-ENERGIZE WHEN THE DHWR TEMPERATURE REACHES 115 DEG F (ADJUSTABLE).



**HEATING & DOMESTIC HOT WATER SCHEMATIC**

SCALE: NTS



				PORTLAND HOUSING AUTHORITY PORTLAND, MAINE	
				RIVERTON BOILER REPLACEMENTS BUILDING NOS 12,17,25	
				MECHANICAL SCHEMATICS	
0	ISSUED FOR CONSTRUCTION	CSS	ERP	9-8-15	
REV	DESCRIPTION	DWN	APP	DATE	

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SIZE:	ANSI D
DATE:	9-8-15
DES BY:	ERP
DWN BY:	CSS
CKD BY:	MIF



PROJECT NO.	218.011.001
DRAWING NO.	M-502
SHEET	12 OF 17

X:\218 Portland Housing Authority\218.011.001 - Riverton Boiler Replacements\Drawings\Phase 2\Sheets\M-502.dwg - 9/9/2015 8:57 AM - CRAIG SMITH