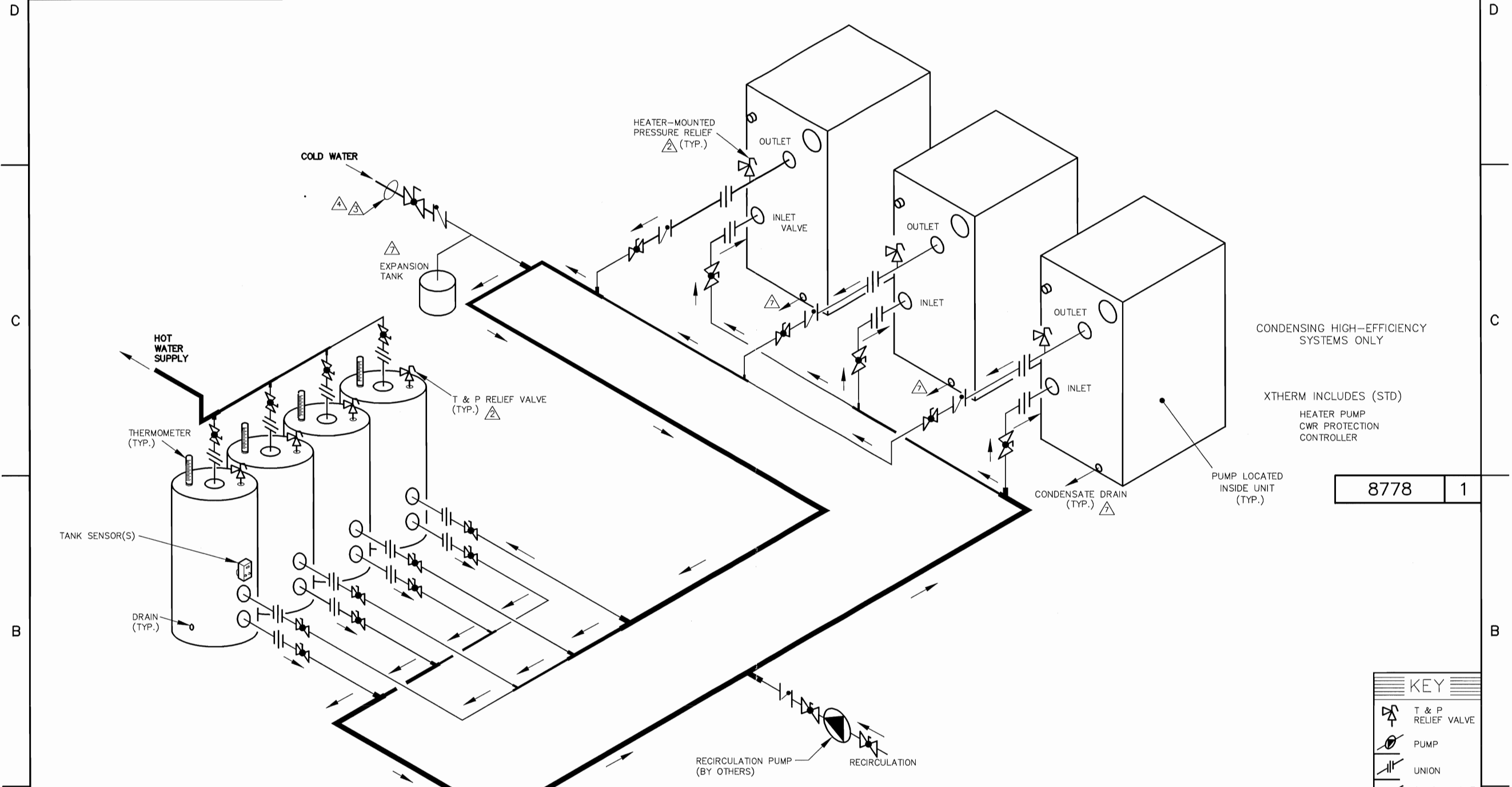


PIPE SIZES			
	1 HEATER	2 HEATERS	3 UNITS
1005-1505	2-1/2"	3"	4"
2005	2-1/2"	4"	5"

THIS PIPING DIAGRAM IS RAYPAK'S RECOMMENDATION AND IS NOT INTENDED TO REPLACE AN ENGINEERED PIPING SYSTEM DESIGNED BY A PROFESSIONAL ENGINEER.

REVISIONS					
REV	ZONE	DESCRIPTION	E.O.	BY	DATE
1		RELOCATED COLD WATER INLET, REVISED NOTE 5. ADDED NOTE 9.		KA	3-25-14



CONDENSING HIGH-EFFICIENCY SYSTEMS ONLY

XTHERM INCLUDES (STD)

HEATER PUMP
CWR PROTECTION
CONTROLLER

8778 1

- NOTES:
1. PLUMB SWING CHECK VALVE IN GRAVITY-CLOSED POSITION.
 2. PIPE ALL RELIEF VALVES TO DRAIN, OR AS LOCAL CODES REQUIRE.
 3. LOCATE TEE AS CLOSE AS POSSIBLE TO TANK.
 4. INSTALL COLD WATER BETWEEN HEATER OUTLET AND TANK.
 5. SEE CHART "PIPE SIZES" FOR PIPE SIZES, CALCULATED AT MAXIMUM FLOW, NOT TO EXCEED 7.5 FT/SEC.
 6. PIPE SIZING BASED ON MAX EQUIVALENT LENGTH OF 100 FEET OF PIPE BETWEEN TANK AND HEATER. IF LONGER, CONSULT FACTORY FOR PROPER PIPE SIZE REQUIRED.
 7. PROVIDE FOR THERMAL EXPANSION OF HOT WATER IF A BACKFLOW PREVENTER, CHECK VALVE, WATER METER, OR PRESSURE REDUCING VALVE IS INSTALLED IN THE COLD WATER LINE.
 8. CONDENSATE MUST BE PIPED TO AN APPROVED DRAIN. LOCAL CODE MAY REQUIRE NEUTRALIZATION PRIOR TO DRAIN.
 9. IF HOT WATER SETPOINT EXCEEDS 150°F WITH MAX FLOW, SPECIFY "H" BOILERS INSTEAD OF "WH" WATER HEATERS.

GUARANTEED 80% DRAW WITHOUT TEMPERATURE DROP.
USE RAYPAK HEATER, TANK, SIZING TABLE AND HOOK-UP DATA

KEY	
	T & P RELIEF VALVE
	PUMP
	UNION
	CHECK VALVE
	BALL VALVE
	THERMOMETER

UNLESS OTHERWISE SPECIFIED:
ALL UNITS ARE IN INCHES
FRACTIONS ±1/32 ANGLES ±1°
X.X = ±.12 X.XX = ±.06
X.XXX = ±.03 X.XXX = ±.010
DRAFT WALL RADII
CONCENTRICITIES .020 DIA.
SQUARENESS .015 IN./IN.
BREAK EDGES .015 MAX.
SURFACE FINISH PER
ASME Y14.36M-1996

APPROVED 	DATE 4/1/14		OXNARD, CALIFORNIA
CHECKED D BALDWIN	DATE 10-23-12		
DRAWN R NASH	DATE 10-19-12	E.O. SPR	SCALE NONE
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TITLE PIPING, UNI-TEMP 80: 3 XTHERM, 4 V TANKS			
MAT'L.	SERIES/MODEL WH	SIZE C	DWG. NO. 8778
			REV 1

ACAD: 8778.DWG

HEATER SHOWN REPRESENTS VARIOUS MODELS. BECAUSE INDIVIDUAL MODELS WILL VARY IN DESIGN AND SIZING, SEE EACH SPECIFIC HEATER TYPE FOR DETAILS.