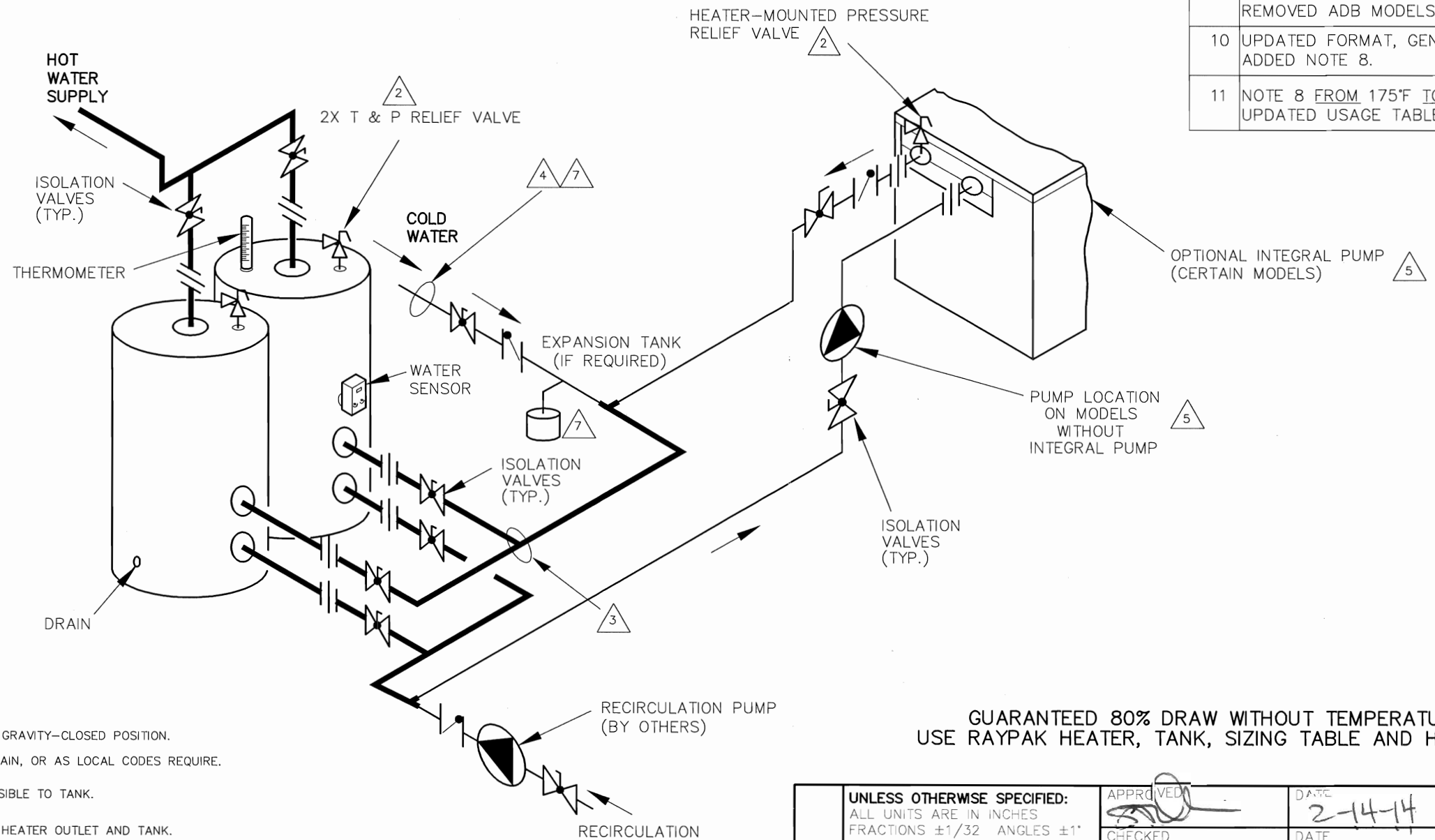


PIPE SIZES		
	HEATER	MAIN
RAYTHERM		
133	1-1/4"	1-1/2"
181-401	1-1/2"	2"
514-824	2"	2-1/2"
926-1826	2-1/2"	3"
2100-4001	3"	4"
MVB		
503-753	2"	2-1/2"
1003-2003	2-1/2"	3"
504-754	2"	2-1/2"
1104-2004	2-1/2"	3"
HI DELTA		
HD 101- HD 401	1-1/2"	2"
302-902 992-2342	2"	2-1/2"
	2-1/2"	3"

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

REVISIONS					
REV	DESCRIPTION	E.O.	BY	DATE	CHECK
4	UPDATED FORMAT. ADDED ISO VALVES. HTR WAS BOILER.		EA	10-7-02	DRB
5	UPDATED PIPE SIZE USAGE TABLE.		RAN	3-25-04	DRB
6	REVISE THE REC. LINE; GOING DIRECTLY INTO TANK.		EA	3-25-05	DRB
7	UPDATED THE PIPE SIZING TABLE FOR CURRENT MODELS.		RAN	10-23-06	DRB
8	UPDATED THE PIPE SIZING TABLE FOR MVB MODELS. REVISED PUMP LOCATION NOTES.		RAN	10-26-07	DRB
9	CORRECTED THE PIPE SIZING TABLE FOR ALL MODELS. REMOVED ADB MODELS.		RAN	10-26-07	DRB
10	UPDATED FORMAT, GENERAL UPDATES. ADDED NOTE 8.		DRB	3-2-09	DRB
11	NOTE 8 FROM 175°F TO 160°F. UPDATED USAGE TABLE, NOTE 5.		KA	2-3-14	<i>[Signature]</i>



KEY	
	PRESSURE RELIEF VALVE
	PUMP
	UNION
	CHECK VALVE
	BALL VALVE
	THERMOMETER

- 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. STANDARD PUMP SIZING BASED ON 75 EQUIVALENT FEET OF PIPING. IF DISTANCE IS GREATER, THE PUMP MUST BE SIZED TO ACCOMMODATE INCREASE IN PIPING-RELATED LOSSES.
  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. IF HIGH-TEMP HOT WATER SETPOINT EXCEEDS 160°F, SPECIFY "H" BOILERS INSTEAD OF "WH" WATER HEATERS.

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

ACAD: 8002.DWG

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

8002	UNLESS OTHERWISE SPECIFIED: ALL UNITS ARE IN INCHES FRACTIONS ±1/32 ANGLES ±1° X. = ±.12 X.X = ±.06 X.XX = ±.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 <i>[Signature]</i>	DATE 2-14-14	<b>Raypak</b> OXNARD, CALIFORNIA
	CHECKED D BALDWIN	DATE 10-26-95	E.O. SCALE SPR NONE	
	DRAWN D BALDWIN	DATE 10-26-95	SIZE B	THIS DRAWING SUBMITTED UNDER CONFIDENTIAL RELATIONSHIP, AS IT EMBODIES PROPRIETARY INFORMATION, WITH ALL RIGHTS RESERVED BY RAYPAK, INC.
TITLE <b>PIPING, UNI-TEMP 80: 1 HEATER, 2 V TANKS</b>				
11	MAT'L.	SERIES/MODEL WH	DWG. NO. 8002	REV 11