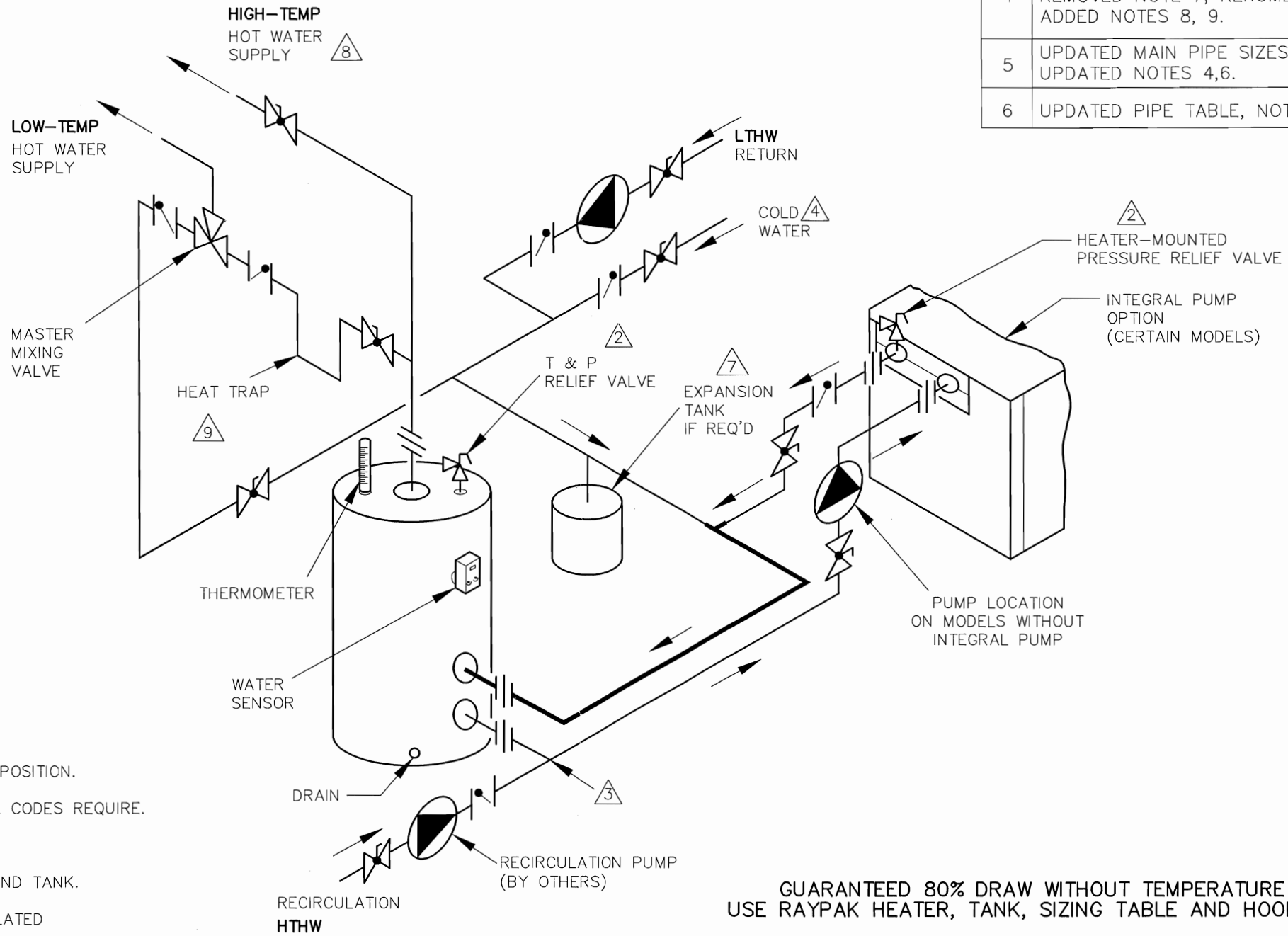


PIPE SIZES		
	HEATER	MAIN
RAYTHERM		
133	1-1/4"	1-1/2"
181-401	1-1/2"	2"
514-824	2"	2-1/2"
926-1826	2-1/2"	3"
2100-4001	3"	4"
MVB		
503-753	2"	2-1/2"
1003-2003	2-1/2"	3"
504-754	2"	2-1/2"
1104-2004	2-1/2"	3"
HI DELTA		
HD101-HD401	1-1/2"	2"
302-902	2"	2-1/2"
992-2342	2-1/2"	3"
DELTA LTD		
399-949	2"	2-1/2"
989-2339	2-1/2"	3"

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

REVISIONS					
REV	DESCRIPTION	E.O.	BY	DATE	CHECK
4	UPDATED FORMAT, MODELS, SYMBOLS. REMOVED NOTE 7, RENUMBERED. ADDED NOTES 8, 9.		DRB	3-17-09	DRB
5	UPDATED MAIN PIPE SIZES. UPDATED NOTES 4,6.		KA	1-18-11	DRB
6	UPDATED PIPE TABLE, NOTES 5 & 6.		KA	2-4-14	DRB



- 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 MAX 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.
 9. 24-INCH HEAT SINK REQUIRED PER RECOMMENDATIONS OF THE MANUFACTURER OR THE 3-WAY MIXING VALVE.

KEY	
	BALANCING VALVE
	PRESSURE RELIEF VALVE
	PUMP
	UNION
	CHECK VALVE
	BALL VALVE
	THERMOMETER

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

ACAD: 8039. DWG

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

8039	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 	DATE 2/13/14		OXNARD, CALIFORNIA
	CHECKED D BALDWIN	DATE 6-18-97	E.O. SPR	SCALE NONE		
	DRAWN D BALDWIN	DATE 6-18-97	SIZE B	THIS DRAWING SUBMITTED UNDER CONFIDENTIAL RELATIONSHIP, AS IT EMBODIES PROPRIETARY INFORMATION, WITH ALL RIGHTS RESERVED BY RAYPAK, INC.		
	TITLE PIPING, UNI-TEMP 80: 1 HEATER, 1 V TANK, 2 TEMP					
6	MAT'L.	SERIES/MODEL WH	DWG. NO. 8039	REV 6		