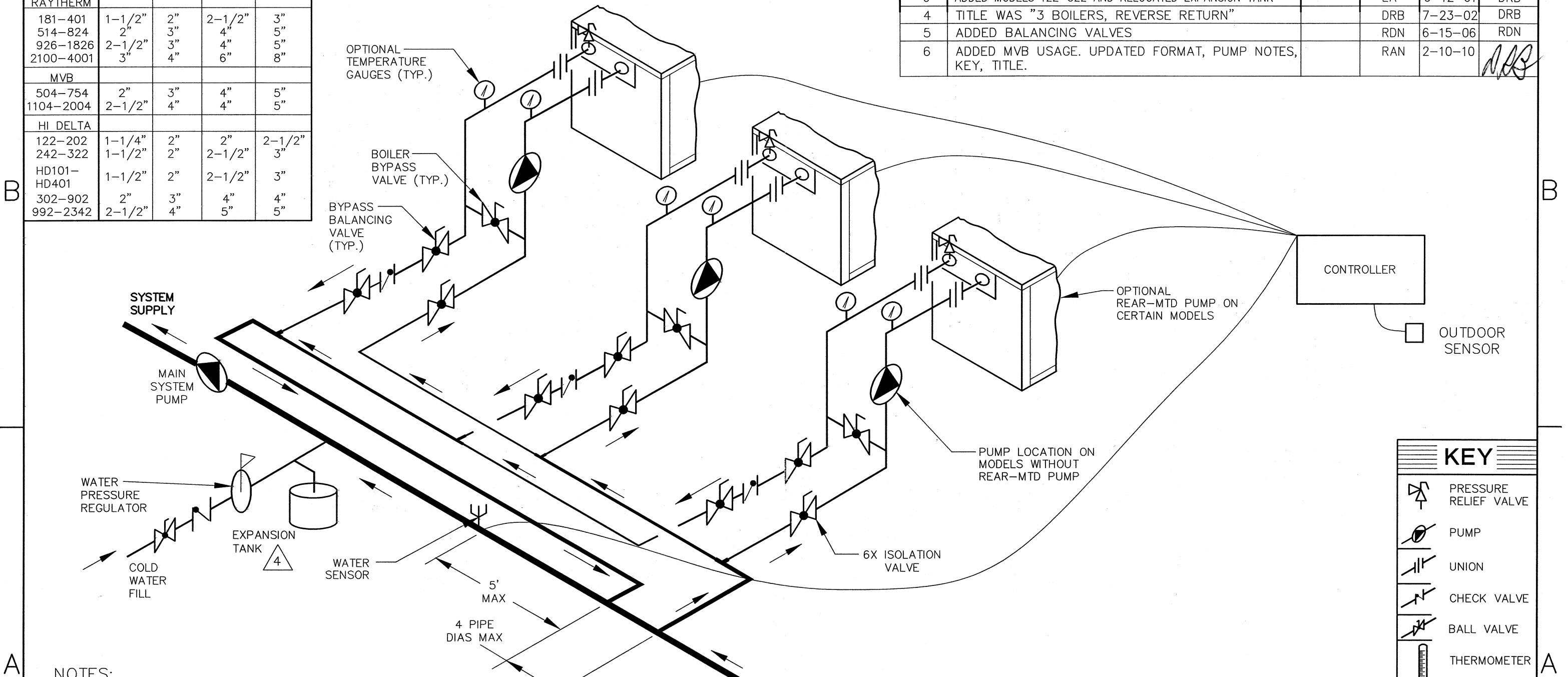


PIPE SIZES ³				
	BOILER	2 HTR	3 HTR	MAIN
RAYTHERM				
181-401	1-1/2"	2"	2-1/2"	3"
514-824	2"	3"	4"	5"
926-1826	2-1/2"	3"	4"	5"
2100-4001	3"	4"	6"	8"
MVB				
504-754	2"	3"	4"	5"
1104-2004	2-1/2"	4"	4"	5"
HI DELTA				
122-202	1-1/4"	2"	2"	2-1/2"
242-322	1-1/2"	2"	2-1/2"	3"
HD101-HD401	1-1/2"	2"	2-1/2"	3"
302-902	2"	3"	4"	4"
992-2342	2-1/2"	4"	5"	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	DESCRIPTION	E.O.	BY	DATE	CHECK
3	ADDED MODELS 122-322 AND RELOCATED EXPANSION TANK		EA	9-12-01	DRB
4	TITLE WAS "3 BOILERS, REVERSE RETURN"		DRB	7-23-02	DRB
5	ADDED BALANCING VALVES		RDN	6-15-06	RDN
6	ADDED MVB USAGE. UPDATED FORMAT, PUMP NOTES, KEY, TITLE.		RAN	2-10-10	<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. SEE CHART FOR PIPE SIZES, CALCULATED FOR MAXIMUM FLOW.
 4. 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.
 5. THIS DRAWING APPLIES TO ON-OFF UNITS. MODULATING OR STAGED UNITS FOR HEAT-PUMP APPLICATIONS MUST USE CWR OPTION.

ACAD: 8188.DWG
 BOILERS SHOWN REPRESENT VARIOUS MODELS. BECAUSE INDIVIDUAL MODELS WILL VARY IN DESIGN AND SIZING, SEE EACH SPECIFIC BOILER TYPE FOR DETAILS.

00100	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 10-25-10	Raypak OXNARD, CALIFORNIA
	CHECKED D BALDWIN	DATE 3-25-99	E.O. SPR	
	DRAWN G HAHN	DATE 3-25-99	SIZE B	THIS DRAWING SUBMITTED UNDER CONFIDENTIAL RELATIONSHIP, AS IT EMBODIES PROPRIETARY INFORMATION, WITH ALL RIGHTS RESERVED BY RAYPAK, INC.
TITLE PIPING, HYDRONIC: 3 BOILER, WATER SOURCE HEAT PUMP				
MAT'L.	SERIES/MODEL H4	DWG. NO. 8188	REV 6	