

ROOMS	RADIATOR OUTPUTS HEAT LOADS EDR	RADIATOR OUTPUTS BTU/H @172.5° W. 15" DT	RADIATOR SUPPLEMENTA I HEAT REQUIREMENTS	RADIATOR ADDITIONS AND RELOCATIONS	ADDITIONAL BTU/H	AVERAGE WATER TEMP ADJUSTMENT FOR OVERSIZED RADS. EXISTING	AVERAGE WATER TEMP ADJUSTMENT FOR OVERSIZED RADS. ADDITIONAL	FINAL COMBINED OUTPUTS PER ROOM	FINAL HEAT LOAD TO RADIATOR OUTPUT DIFFERENCE	FLOW RATES FOR RADIATORS		TUBING LENGTHS FOR EXISTING RADS S/R FEET 1/2" UNLESS OTHERWISE NOTED	TUBING LENGTHS FOR ADDITIONAL RADS S/R FEET 1/2" UNLESS OTHERWISE NOTED	TOTAL HEAD LOSS INCLUDING VALVES EXISTING RADS	TOTAL HEAD LOSS INCLUDING VALVES ADDITIONAL RADS
										EXISTING	ADDITIONAL				
Sun Kitchen	22,078	127.5	19762.5	Sun kitchen and dining room		150° WATER 14,025 BTU/H 60°DT		22,025	-53	0.5		150		2.72	
Dining Room	802	80	12400	-2,316 are open to each other		150° WATER 8,800 BTU/H 60°DT		802	0	0.3		130		1.21	
Front Parlor	10,133	72	11160	1,027 Move Rad to Sun kitchen		167.2 WATER 10,440 BTU/H 25° DT		10,440	307	0.8		150		5.27	
Living Room	13,141	64	9920	Buterous Model 22, 20" x		3,620 170° WATER 9600 BTU/H 20° DT	170° WATER 3620 BTU/H 20° DT	13,220	79	1	0.5	105	80	5.83	1.95
Sitting Room	6,785	50	7750	-3,221 24" Hydronic Panel Radiator		965	165° WATER 7,000 BTU/H 30° DT	7000	215	0.5		50		1.66	
Sewing Room	7,558	45	6975	-983				6,975	-983	1.1		44		4.29	
Bed 1	10,415	48.75	7556.25	Buterous Model 22, 20" x		3,620 170° WATER 7313 BTU/H 20° DT	170° WATER 3620 BTU/H 20° DT	10,838.00	518	0.7	0.5	138	146	4.1	2.62
Master Bed	5,654	55	8525	-2,859 24" Hydronic Panel Radiator		2,871	150° WATER 6,050 BTU/H 60°DT	6,050	396	0.2		130		0.46	
Bed 2	11,886	65	10075	Buterous Model 22, 20" x		2,579 170° WATER 9750 BTU/H 20° DT	170° WATER 2579 BTU/H 20° DT	12,329	443	1	0.3 3/4"	182	174	3.49	1.41
Bed 3	9,159	70	10850	-1,811 24" Hydronic Panel Radiator		1,691	165° WATER 9,800 BTU/H 30° DT	9,800	641	0.7		118		3.76	
Laundry	8,010	56.25	8718.75	709		170° WATER 8437 BTU/H 20° DT		8,437.00	427	0.8		74		3.52	
Bed 4	5,603	35	5425	-178				5,415	378	0.7		62		3.73	
Bath2	2,904	20	3100	196		150° WATER 4,400 BTU/H 60°DT		3,100	196	0.4		86		1.5	
Hall	3,391	40	6200	2,809				4,400	1,009	0.2		100		0.68	
Bath	1,415	Rad Required Heated from other source		Buterous Model 22, 20" x	2398		170° WATER 2398 BTU/H 20° DT	2,398	983		0.2		158		0.79
Foyer	3,168			-1,415 16" Hydronic Panel Radiator											
TOTALS	122,502	828.5	128417.5					123,334		8.9	1.5	1327	558		

HEAT LOAD	122,502
SYSTEM FLOW RATE	10.4
AVERAGE SYSTEM DT	23.5
DISTRIBUTION MAX HEAD LOSS	5.83
TYPE M UP TO 30'	
EQUVALENT LENGTH-HEAD LOSS	0.62
S482 CALEFFI 1-1/4"DRICAL*	
DIRT SEPARATOR HEAD LOSS	0.43
SS1 CALEFFI 1-1/4" DISCAL*	
Air Separator HEAD LOSS	0.42
WHINISS Lochinvar BOILER HEAD LOSS	2.2
TOTAL HEAD LOSS	9.5
TOTAL LENGTH OF 1/2"	
FOSTAPEX	1703
TOTAL LENGTH OF 3/4"	
FOSTAPEX	182

Indirect water heater	
LOCHINVAR SQUIRE SITOSO	
FLOW RATE	14 GPM
HEAD LOSS	
NEAR BOILER PIPING 1-1/4"	5.3
TYPE M UP TO 30'	
EQUVALENT LENGTH-HEAD LOSS	1.24
S482 CALEFFI 1-1/4"DRICAL*	
DIRT SEPARATOR HEAD LOSS	0.58
SS1 CALEFFI 1-1/4" DISCAL*	
Air Separator HEAD LOSS	0.58
WHINISS Lochinvar BOILER HEAD LOSS	4
TOTAL HEAD LOSS	11.7