

Radiant Panel Summary



Project #: 2014-035

Date: Aug 29, 2014

Prepared For: Optimal Building Systems LLC
David Butler

Bluewater Mechanical Inc 1048 Cox Cro Rd Toms River, NJ 08755
Prepared By: Richard McGrath Phone: 732-581-3833 Email: dmcgrath40@comcast.net

Total Area: 3,824 ft²

Total Heat Load: 33,610 Btu/hr

Total Flowrate: 6.7 USGPM

Maximum Head Loss: 1.2 ft(H₂O)

Floorplan 1

Room	Heating	Zone #	Heated Area	Unheated Area	Construction	Attachment Method	Tube Type	Tube Spacing	Ldr. Len	Loop Length	# Loops	Room Load per ft ²	Surface Temp	Design Temp Drop	Flowrate (Total)	Head Loss	Fluid Temp Req.	Fluid Temp Supplied
Kitchen	Floor	13	542	86	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	20	221	4	9.4	69.7	10	0.94	0.65	80	95
Great Room	Floor	2	329	75	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	15	250	2	6.9	68.4	10	0.37	0.50	76	95
Sun Room	Floor	11	152	35	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	15	132	2	19.8	74.9	10	0.50	0.43	95	95
Sauna Bath	Floor	3	160	13	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	20	147	2	10.7	75.3	10	0.34	0.25	86	95
Laundry	Floor	4	152	25	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	20	243	1	8.5	69.3	10	0.23	0.70	78	95
Utility Room	Floor	1	97	0	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	2	134	1	13.7	76.8	10	0.28	0.54	91	95
Garage	Floor	1	770	240	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	5	216	5	10.2	55.1	10	1.2	0.62	66	95
Dining Room	Floor	5	168	30	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	30	172	2	12.8	71.4	10	0.38	0.35	85	95
Foyer / Powder Room	Floor	14	145	7	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	15	224	1	8.2	69.1	10	0.24	0.70	78	95
Library	Floor	8	179	42	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	30	180	2	8.2	69.1	10	0.24	0.18	78	95
Bed Room 2	Floor	9	183	43	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	30	182	2	10.3	70.1	10	0.31	0.26	81	95

Area = ft²; Spacing = in; Length = ft; Unit Heat = Btu/hr/ft²; Temperature = °F; Flow Rate = USGPM; Head Loss = ft(H₂O)

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Bed 2 Bath	Floor	12	38	5	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	30	111	1	4.6	70.3	10	0.03	0.01	75	95
Bed Room 3	Floor	10	183	43	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	30	182	2	12	71	10	0.36	0.34	83	95
Bed 3 Bath	Floor	12	38	5	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	30	111	1	4.7	70.3	10	0.03	0.01	75	95
Interior Hall	Floor	12	129	0	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	30	232	1	3.5	66.8	10	0.10	0.16	70	95
Master Bath	Floor	6	241	34	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	30	221	2	13.4	76.7	10	0.59	0.97	91	95
Master Bedroom	Floor	7	309	67	Slab OG / Concrete	Embedded	MultiCor 1/2"	9	20	246	2	12.4	71.2	10	0.64	1.2	84	95

Area = ft²; Spacing = in; Length = ft; Unit Heat = Btu/hr/ft²; Temperature = °F; Flow Rate = USGPM; Head Loss = ft(H2O)