

Energy Modeling & Analysis

Heat Pumps (FS09/FS06/Goodman)

Room	Conditioned Area (sq ft)	Proposed Equipment	Design Load (2F)	Heating						Cooling						
				Rated (47F) Rated Capacity % Design Load	Design (5F) Max Capacity % Design Load	Minimum (47F) Min Capacity % Design Load	Design Load (79F)	Rated (95F) Rated Capacity % Design Load	Design (82F) Max Capacity % Design Load	Minimum (82F) Min Capacity % Design Load						
Main Floor																
Zone 1																
Great Room	663		8,100					3,949								
	663	Mitsubishi FS09	8,100	9,600	119%	11,590	143%	1,600	20%	3,949	9,000	228%	13,000	329%	1,800	46%
Zone 2																
Bedroom - Primary	450		6,658					2,526								
Office - Becca	83		963					585								
Bathroom - Primary Ensuite	114		1,475					944								
	647	Mitsubishi FS06	9,096	8,700	96%	10,500	115%	1,600	18%	4,055	6,000	148%	9,700	239%	1,800	44%
Zone 3																
Bedroom - Girls	300		4,116					1,944								
	300	Mitsubishi FS06	4,116	8,700	211%	10,500	255%	1,600	39%	1,944	6,000	309%	9,700	499%	1,800	93%
Indirect																
Bathroom - Upstairs	100		1,347					532								
Bedroom - Grayson	141		1,468					693								
Bedroom - Teddy	141		1,468					693								
Hallway - Foyer	37		1,602					520								
Hallway - Upstairs	147		450					266								
	566	None	6,335	0	0%	0	0%	0	0%	2,704	0	0%	0	0%	0	0%
Main Floor Subtotal	2,176		27,647	27,000	98%	32,590	118%	4,800	17%	12,652	21,000	166%	32,400	256%	5,400	43%
Basement																
Zone 4																
Rec Room	300		3,422					1,256								
	300	Goodman MSH183E15	3,422	18,500	541%			1,256		18,000	1433%					
Indirect																
Bathroom - Downstairs	73		1,449					314								
Hallway - Downstairs	173		1,541					340								
Hallway - Stairs	33		101					60								
Laundry	73		1,410					311								
Office - Mark	220		2,199					618								
	572	None	6,700	0	0%			1,643		0	0%					
Basement Subtotal	872		10,122	18,500	183%			2,899		18,000	621%					
System total	2,482		37,769	45,500	120%			15,551		39,000	251%					