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Heat Load Detail Report for O'Rourke, Ryan

Room 7 of 12

Room Specifications: Playroom/Office

Room Length (Ft.) :	13	Sq. Ft windows facing NE & NW:	--	Watts Incandescent Light:	120
Room Width (Ft.) :	9	Sq. Ft windows facing South:	9	Watts Flourescent Light:	--
Room Height (Ft.) :	8	Sq. Ft windows facing SE & SW:	--	Duct Length from A/H to room:	--
Exposed Wall Length (Ft.) :	22	Number of Exterior Doors:	--	Number of Large Electric Motors:	--
Wall against unconditioned room (Ft.) :	--	Sq. Ft. Exterior Doors:	--	Average Electric Motor Horsepower:	--
Sq. Ft windows facing North:	--	Number of People in Room:	1	BTUH Appliance Sensible Heat:	--
Sq. Ft windows facing E & W:	9			BTUH Appliance Latent Heat:	--

Indoor/Outdoor Design Temperatures (degrees Farenheit)

Summer:		**Winter:**	
Inside (Thermostat setting) :	70	Inside (Thermostat setting) :	72
Outside (Above ground):	97	Outside (Above ground :	0
Outside (Below ground):	55	Outside (Below ground) :	55
Unconditioned Space :	97	Unconditioned Space :	40
Above Ceiling (Attic/Crawl Space) :	130	Above Ceiling (Attic/Crawl Space) :	40
Concrete Slab (Ground temperature) :	80	Concrete Slab (Ground temperature) :	40
Unconditioned Basement :	65	Unconditioned Basement :	50
Below Floor Crawl Space :	90	Below Floor Crawl Space :	50

Applicable Temperatures: Above Ceiling: Thermostat Setting Below Floor: Crawl Space Exposed Walls: Above Ground

Design Conditions

Occupant Sensible Load (BTUH per person) :	250
Occupant Latent Load (BTUH per person) :	200
Duct Insulation Factor :	1
Duct Temperature Difference (Summer) :	20
Duct Temperature Difference (Winter) :	45
Humidity Difference Inside/Outside % (Summer) :	20
Humidity Difference Inside/Outside %(Winter) :	15
Fresh Air Per Person (CFM) :	2
Air Change Factor (Air change per hour) :	.5
Space Shading Factor :	.4
Air Handler Design Cooling (CFM per ton) :	400
Hydronic Heat (BTUH per linear ft :	600

Insulation Values (U-Factors)

Exposed Walls (Above Ground) :	.080
Exposed Walls (Below Ground) :	.5
Partitions :	.075
Roof/Ceiling :	.055
Floor (Above basement) :	.083
Floor (Concrete slab) :	.001
Floor (Between conditioned spaces) :	.287
Doors :	.500
Windows :	.900

Calculated Room Results - Summer Heat Gains

Wall Heat Gain (BTUH) :	380	Appliance/Elec Motor Latent Heat Gain (BTUH) :	200
Ceiling or Roof Heat Gain (BTUH) :	0	Appliance/Elec Motor Sensible Heat Gain (BTUH) :	659
Floor Heat Gain (BTUH) :	194	Ventilation Latent Heat Gain (BTUH) :	105
Glass Heat Gain (BTUH) :	399	Ventilation Sensible Gain (BTUH) :	228
Exterior Door & North Window Heat Gain (BTUH) :	0	Summer Total Latent Heat Gain:	305
Solar Heat Gain (BTUH) :	774	Summer Total Sensible Heat Gain (BTUH) :	2634
Total Transmission Heat Gain (BTUH) :	1747	**TOTAL SUMMER COOLING LOAD (BTUH) :**	**2939**

Calculated Room Results - Winter Heat Losses

Transmission Heat Losses (BTUH) :	2290	Latent Ventilation Heat Losses (BTUH) :	79
Sensible Ventilation Heat Losses (BTUH) :	608	Hydronic Heat(Linear Ft.) :	5
		TOTAL WINTER HEATING LOAD (BTUH) :	**2976**

Calculated Totals for Entire Structure

Size of Structure (Sq. Ft.):	2527	Total Sensible Heat Gain (BTUH):	37337
Total Heat Loss (BTUH):	57102	Total Cooling Gain (BTUH):	43709
Total Hydronic Heat (Linear Ft.):	95.17	Total Cooling Requirement (Tons):	4.05
Total Latent Heat Gain (BTUH):	6370	Total Cooling CFM:	1458

Disclaimer

These computed results should be treated as estimates only and should be viewed as only one of the many tools required for a professional installation. The installing contractor's experience and expert judgement are also major factors in sizing and installing a complete system. The weather, customer usage, duct installation, and structure design may vary on each estimate and should be taken into account. Correct system sizing is based on the systems ability to meet both latent and sensible heat requirements, not just total BTUs.

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Heat Load Detail Report for O'Rourke, Ryan

Room 8 of 12

Room Specifications: Basement

Room Length (Ft.) :	34	Sq. Ft windows facing NE & NW:	--	Watts Incandescent Light:	120
Room Width (Ft.) :	17	Sq. Ft windows facing South:	--	Watts Flourescent Light:	--
Room Height (Ft.) :	8	Sq. Ft windows facing SE & SW:	--	Duct Length from A/H to room:	--
Exposed Wall Length (Ft.) :	102	Number of Exterior Doors:	--	Number of Large Electric Motors:	--
Wall against unconditioned room (Ft.) :	--	Sq. Ft. Exterior Doors:	--	Average Electric Motor Horsepower:	--
Sq. Ft windows facing North:	--	Number of People in Room:	2	BTUH Appliance Sensible Heat:	--
Sq. Ft windows facing E & W:	--			BTUH Appliance Latent Heat:	--

Indoor/Outdoor Design Temperatures (degrees Farenheit)

Summer:		Winter:	
Inside (Thermostat setting) :	70	Inside (Thermostat setting) :	72
Outside (Above ground):	97	Outside (Above ground :	0
Outside (Below ground):	55	Outside (Below ground) :	55
Unconditioned Space :	97	Unconditioned Space :	40
Above Ceiling (Attic/Crawl Space) :	130	Above Ceiling (Attic/Crawl Space) :	40
Concrete Slab (Ground temperature) :	80	Concrete Slab (Ground temperature) :	40
Unconditioned Basement :	65	Unconditioned Basement :	50
Below Floor Crawl Space :	90	Below Floor Crawl Space :	50

Applicable Temperatures: Above Ceiling: Thermostat Setting Below Floor: Concrete Slab Exposed Walls: Below Ground

Design Conditions

Occupant Sensible Load (BTUH per person) :	250
Occupant Latent Load (BTUH per person) :	200
Duct Insulation Factor :	1
Duct Temperature Difference (Summer) :	20
Duct Temperature Difference (Winter) :	45
Humidity Difference Inside/Outside % (Summer) :	20
Humidity Difference Inside/Outside %(Winter) :	15
Fresh Air Per Person (CFM) :	2
Air Change Factor (Air change per hour) :	.5
Space Shading Factor :	.4
Air Handler Design Cooling (CFM per ton) :	400
Hydronic Heat (BTUH per linear ft :	600

Insulation Values (U-Factors)

Exposed Walls (Above Ground) :	.080
Exposed Walls (Below Ground) :	.5
Partitions :	.075
Roof/Ceiling :	.055
Floor (Above basement) :	.083
Floor (Concrete slab) :	.001
Floor (Between conditioned spaces) :	.287
Doors :	.500
Windows :	.900

Calculated Room Results - Summer Heat Gains

Wall Heat Gain (BTUH) :	-6120	Appliance/Elec Motor Latent Heat Gain (BTUH) :	400
Ceiling or Roof Heat Gain (BTUH) :	0	Appliance/Elec Motor Sensible Heat Gain (BTUH) :	909
Floor Heat Gain (BTUH) :	6	Ventilation Latent Heat Gain (BTUH) :	54
Glass Heat Gain (BTUH) :	0	Ventilation Sensible Gain (BTUH) :	-65
Exterior Door & North Window Heat Gain (BTUH) :	0	Summer Total Latent Heat Gain:	454
Solar Heat Gain (BTUH) :	0	Summer Total Sensible Heat Gain (BTUH) :	-5270
Total Transmission Heat Gain (BTUH) :	-6114	**TOTAL SUMMER COOLING LOAD (BTUH) :**	**-4816**

Calculated Room Results - Winter Heat Losses

Transmission Heat Losses (BTUH) :	6954	Latent Ventilation Heat Losses (BTUH) :	388
Sensible Ventilation Heat Losses (BTUH) :	709	Hydronic Heat(Linear Ft.) :	13
		TOTAL WINTER HEATING LOAD (BTUH) :	**8051**

Calculated Totals for Entire Structure

Size of Structure (Sq. Ft.):	2527	Total Sensible Heat Gain (BTUH):	37337
Total Heat Loss (BTUH):	57102	Total Cooling Gain (BTUH):	43709
Total Hydronic Heat (Linear Ft.):	95.17	Total Cooling Requirement (Tons):	4.05
Total Latent Heat Gain (BTUH):	6370	Total Cooling CFM:	1458

Disclaimer

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Heat Load Detail Report for O'Rourke, Ryan

Room 9 of 12

Room Specifications: Bedroom1

Room Length (Ft.) :	15	Sq. Ft windows facing NE & NW:	--	Watts Incandescent Light:	120
Room Width (Ft.) :	14	Sq. Ft windows facing South:	--	Watts Flourescent Light:	--
Room Height (Ft.) :	8	Sq. Ft windows facing SE & SW:	--	Duct Length from A/H to room:	--
Exposed Wall Length (Ft.) :	29	Number of Exterior Doors:	--	Number of Large Electric Motors:	--
Wall against unconditioned room (Ft.) :	--	Sq. Ft. Exterior Doors:	--	Average Electric Motor Horsepower:	--
Sq. Ft windows facing North:	9	Number of People in Room:	--	BTUH Appliance Sensible Heat:	--
Sq. Ft windows facing E & W:	--			BTUH Appliance Latent Heat:	--

Indoor/Outdoor Design Temperatures (degrees Farenheit)

Summer:		Winter:	
Inside (Thermostat setting) :	70	Inside (Thermostat setting) :	72
Outside (Above ground):	97	Outside (Above ground :	0
Outside (Below ground):	55	Outside (Below ground) :	55
Unconditioned Space :	97	Unconditioned Space :	40
Above Ceiling (Attic/Crawl Space) :	130	Above Ceiling (Attic/Crawl Space) :	40
Concrete Slab (Ground temperature) :	80	Concrete Slab (Ground temperature) :	40
Unconditioned Basement :	65	Unconditioned Basement :	50
Below Floor Crawl Space :	90	Below Floor Crawl Space :	50

Applicable Temperatures: Above Ceiling: Attic or Crawl Space Below Floor: Thermostat Setting Exposed Walls: Above Ground

Design Conditions

Occupant Sensible Load (BTUH per person) :	250
Occupant Latent Load (BTUH per person) :	200
Duct Insulation Factor :	1
Duct Temperature Difference (Summer) :	20
Duct Temperature Difference (Winter) :	45
Humidity Difference Inside/Outside % (Summer) :	20
Humidity Difference Inside/Outside %(Winter) :	15
Fresh Air Per Person (CFM) :	2
Air Change Factor (Air change per hour) :	.5
Space Shading Factor :	.4
Air Handler Design Cooling (CFM per ton) :	400
Hydronic Heat (BTUH per linear ft :	600

Insulation Values (U-Factors)

Exposed Walls (Above Ground) :	.080
Exposed Walls (Below Ground) :	.5
Partitions :	.075
Roof/Ceiling :	.055
Floor (Above basement) :	.083
Floor (Concrete slab) :	.001
Floor (Between conditioned spaces) :	.287
Doors :	.500
Windows :	.900

Calculated Room Results - Summer Heat Gains

Wall Heat Gain (BTUH) :	501	Appliance/Elec Motor Latent Heat Gain (BTUH) :	0
Ceiling or Roof Heat Gain (BTUH) :	693	Appliance/Elec Motor Sensible Heat Gain (BTUH) :	409
Floor Heat Gain (BTUH) :	0	Ventilation Latent Heat Gain (BTUH) :	188
Glass Heat Gain (BTUH) :	0	Ventilation Sensible Gain (BTUH) :	409
Exterior Door & North Window Heat Gain (BTUH) :	102	Summer Total Latent Heat Gain:	188
Solar Heat Gain (BTUH) :	0	Summer Total Sensible Heat Gain (BTUH) :	2114
Total Transmission Heat Gain (BTUH) :	1296	**TOTAL SUMMER COOLING LOAD (BTUH) :**	**2302**

Calculated Room Results - Winter Heat Losses

Transmission Heat Losses (BTUH) :	1978	Latent Ventilation Heat Losses (BTUH) :	141
Sensible Ventilation Heat Losses (BTUH) :	1091	Hydronic Heat(Linear Ft.) :	5
		TOTAL WINTER HEATING LOAD (BTUH) :	**3210**

Calculated Totals for Entire Structure

Size of Structure (Sq. Ft.):	2527	Total Sensible Heat Gain (BTUH):	37337
Total Heat Loss (BTUH):	57102	Total Cooling Gain (BTUH):	43709
Total Hydronic Heat (Linear Ft.):	95.17	Total Cooling Requirement (Tons):	4.05
Total Latent Heat Gain (BTUH):	6370	Total Cooling CFM:	1458

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Heat Load Detail Report for O'Rourke, Ryan

Room 10 of 12

Room Specifications: Girls Room

Room Length (Ft.) :	14	Sq. Ft windows facing NE & NW:	--	Watts Incandescent Light:	120
Room Width (Ft.) :	10	Sq. Ft windows facing South:	12	Watts Flourescent Light:	--
Room Height (Ft.) :	8	Sq. Ft windows facing SE & SW:	--	Duct Length from A/H to room:	--
Exposed Wall Length (Ft.) :	24	Number of Exterior Doors:	--	Number of Large Electric Motors:	--
Wall against unconditioned room (Ft.) :	--	Sq. Ft. Exterior Doors:	--	Average Electric Motor Horsepower:	--
Sq. Ft windows facing North:	--	Number of People in Room:	1	BTUH Appliance Sensible Heat:	--
Sq. Ft windows facing E & W:	--			BTUH Appliance Latent Heat:	--

Indoor/Outdoor Design Temperatures (degrees Farenheit)

Summer:		**Winter:**	
Inside (Thermostat setting) :	70	Inside (Thermostat setting) :	72
Outside (Above ground):	97	Outside (Above ground :	0
Outside (Below ground):	55	Outside (Below ground) :	55
Unconditioned Space :	97	Unconditioned Space :	40
Above Ceiling (Attic/Crawl Space) :	130	Above Ceiling (Attic/Crawl Space) :	40
Concrete Slab (Ground temperature) :	80	Concrete Slab (Ground temperature) :	40
Unconditioned Basement :	65	Unconditioned Basement :	50
Below Floor Crawl Space :	90	Below Floor Crawl Space :	50

Applicable Temperatures: Above Ceiling: Attic or Crawl Space Below Floor: Thermostat Setting Exposed Walls: Above Ground

Design Conditions

Occupant Sensible Load (BTUH per person) :	250
Occupant Latent Load (BTUH per person) :	200
Duct Insulation Factor :	1
Duct Temperature Difference (Summer) :	20
Duct Temperature Difference (Winter) :	45
Humidity Difference Inside/Outside % (Summer) :	20
Humidity Difference Inside/Outside %(Winter) :	15
Fresh Air Per Person (CFM) :	2
Air Change Factor (Air change per hour) :	.5
Space Shading Factor :	.4
Air Handler Design Cooling (CFM per ton) :	400
Hydronic Heat (BTUH per linear ft :	600

Insulation Values (U-Factors)

Exposed Walls (Above Ground) :	.080
Exposed Walls (Below Ground) :	.5
Partitions :	.075
Roof/Ceiling :	.055
Floor (Above basement) :	.083
Floor (Concrete slab) :	.001
Floor (Between conditioned spaces) :	.287
Doors :	.500
Windows :	.900

Calculated Room Results - Summer Heat Gains

Wall Heat Gain (BTUH) :	415	Appliance/Elec Motor Latent Heat Gain (BTUH) :	200
Ceiling or Roof Heat Gain (BTUH) :	462	Appliance/Elec Motor Sensible Heat Gain (BTUH) :	659
Floor Heat Gain (BTUH) :	0	Ventilation Latent Heat Gain (BTUH) :	125
Glass Heat Gain (BTUH) :	266	Ventilation Sensible Gain (BTUH) :	273
Exterior Door & North Window Heat Gain (BTUH) :	0	Summer Total Latent Heat Gain:	325
Solar Heat Gain (BTUH) :	0	Summer Total Sensible Heat Gain (BTUH) :	2074
Total Transmission Heat Gain (BTUH) :	1142	**TOTAL SUMMER COOLING LOAD (BTUH) :**	**2400**

Calculated Room Results - Winter Heat Losses

Transmission Heat Losses (BTUH) :	2061	Latent Ventilation Heat Losses (BTUH) :	94
Sensible Ventilation Heat Losses (BTUH) :	727	Hydronic Heat(Linear Ft.) :	5
		TOTAL WINTER HEATING LOAD (BTUH) :	**2882**

Calculated Totals for Entire Structure

Size of Structure (Sq. Ft.):	2527	Total Sensible Heat Gain (BTUH):	37337
Total Heat Loss (BTUH):	57102	Total Cooling Gain (BTUH):	43709
Total Hydronic Heat (Linear Ft.):	95.17	Total Cooling Requirement (Tons):	4.05
Total Latent Heat Gain (BTUH):	6370	Total Cooling CFM:	1458

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Heat Load Detail Report for O'Rourke, Ryan

Room 11 of 12

Room Specifications: Bath

Room Length (Ft.) :	8	Sq. Ft windows facing NE & NW:	--	Watts Incandescent Light:	60
Room Width (Ft.) :	7	Sq. Ft windows facing South:	6	Watts Flourescent Light:	--
Room Height (Ft.) :	8	Sq. Ft windows facing SE & SW:	--	Duct Length from A/H to room:	--
Exposed Wall Length (Ft.) :	7	Number of Exterior Doors:	--	Number of Large Electric Motors:	--
Wall against unconditioned room (Ft.) :	--	Sq. Ft. Exterior Doors:	--	Average Electric Motor Horsepower:	--
Sq. Ft windows facing North:	--	Number of People in Room:	--	BTUH Appliance Sensible Heat:	--
Sq. Ft windows facing E & W:	--			BTUH Appliance Latent Heat:	--

Indoor/Outdoor Design Temperatures (degrees Farenheit)

Summer:		Winter:	
Inside (Thermostat setting) :	70	Inside (Thermostat setting) :	72
Outside (Above ground):	97	Outside (Above ground :	0
Outside (Below ground):	55	Outside (Below ground) :	55
Unconditioned Space :	97	Unconditioned Space :	40
Above Ceiling (Attic/Crawl Space) :	130	Above Ceiling (Attic/Crawl Space) :	40
Concrete Slab (Ground temperature) :	80	Concrete Slab (Ground temperature) :	40
Unconditioned Basement :	65	Unconditioned Basement :	50
Below Floor Crawl Space :	90	Below Floor Crawl Space :	50

Applicable Temperatures: Above Ceiling: Attic or Crawl Space Below Floor: Thermostat Setting Exposed Walls: Above Ground

Design Conditions

Occupant Sensible Load (BTUH per person) :	250
Occupant Latent Load (BTUH per person) :	200
Duct Insulation Factor :	1
Duct Temperature Difference (Summer) :	20
Duct Temperature Difference (Winter) :	45
Humidity Difference Inside/Outside % (Summer) :	20
Humidity Difference Inside/Outside %(Winter) :	15
Fresh Air Per Person (CFM) :	2
Air Change Factor (Air change per hour) :	.5
Space Shading Factor :	.4
Air Handler Design Cooling (CFM per ton) :	400
Hydronic Heat (BTUH per linear ft :	600

Insulation Values (U-Factors)

Exposed Walls (Above Ground) :	.080
Exposed Walls (Below Ground) :	.5
Partitions :	.075
Roof/Ceiling :	.055
Floor (Above basement) :	.083
Floor (Concrete slab) :	.001
Floor (Between conditioned spaces) :	.287
Doors :	.500
Windows :	.900

Calculated Room Results - Summer Heat Gains

Wall Heat Gain (BTUH) :	121	Appliance/Elec Motor Latent Heat Gain (BTUH) :	0
Ceiling or Roof Heat Gain (BTUH) :	185	Appliance/Elec Motor Sensible Heat Gain (BTUH) :	205
Floor Heat Gain (BTUH) :	0	Ventilation Latent Heat Gain (BTUH) :	50
Glass Heat Gain (BTUH) :	133	Ventilation Sensible Gain (BTUH) :	109
Exterior Door & North Window Heat Gain (BTUH) :	0	Summer Total Latent Heat Gain:	50
Solar Heat Gain (BTUH) :	0	Summer Total Sensible Heat Gain (BTUH) :	752
Total Transmission Heat Gain (BTUH) :	439	**TOTAL SUMMER COOLING LOAD (BTUH) :**	**802**

Calculated Room Results - Winter Heat Losses

Transmission Heat Losses (BTUH) :	775	Latent Ventilation Heat Losses (BTUH) :	38
Sensible Ventilation Heat Losses (BTUH) :	291	Hydronic Heat(Linear Ft.) :	2
		TOTAL WINTER HEATING LOAD (BTUH) :	**1104**

Calculated Totals for Entire Structure

Size of Structure (Sq. Ft.):	2527	Total Sensible Heat Gain (BTUH):	37337
Total Heat Loss (BTUH):	57102	Total Cooling Gain (BTUH):	43709
Total Hydronic Heat (Linear Ft.):	95.17	Total Cooling Requirement (Tons):	4.05
Total Latent Heat Gain (BTUH):	6370	Total Cooling CFM:	1458

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Heat Load Detail Report for O'Rourke, Ryan

Room 12 of 12

Room Specifications: Master Bedroom

Room Length (Ft.) :	24	Sq. Ft windows facing NE & NW:	--	Watts Incandescent Light:	120
Room Width (Ft.) :	15	Sq. Ft windows facing South:	12	Watts Flourescent Light:	--
Room Height (Ft.) :	8	Sq. Ft windows facing SE & SW:	--	Duct Length from A/H to room:	--
Exposed Wall Length (Ft.) :	54	Number of Exterior Doors:	--	Number of Large Electric Motors:	--
Wall against unconditioned room (Ft.) :	--	Sq. Ft. Exterior Doors:	--	Average Electric Motor Horsepower:	--
Sq. Ft windows facing North:	9	Number of People in Room:	2	BTUH Appliance Sensible Heat:	--
Sq. Ft windows facing E & W:	18			BTUH Appliance Latent Heat:	--

Indoor/Outdoor Design Temperatures (degrees Farenheit)

Summer:		**Winter:**	
Inside (Thermostat setting) :	70	Inside (Thermostat setting) :	72
Outside (Above ground):	97	Outside (Above ground :	0
Outside (Below ground):	55	Outside (Below ground) :	55
Unconditioned Space :	97	Unconditioned Space :	40
Above Ceiling (Attic/Crawl Space) :	130	Above Ceiling (Attic/Crawl Space) :	40
Concrete Slab (Ground temperature) :	80	Concrete Slab (Ground temperature) :	40
Unconditioned Basement :	65	Unconditioned Basement :	50
Below Floor Crawl Space :	90	Below Floor Crawl Space :	50

Applicable Temperatures: Above Ceiling: Attic or Crawl Space Below Floor: Thermostat Setting Exposed Walls: Above Ground

Design Conditions

Occupant Sensible Load (BTUH per person) :	250
Occupant Latent Load (BTUH per person) :	200
Duct Insulation Factor :	1
Duct Temperature Difference (Summer) :	20
Duct Temperature Difference (Winter) :	45
Humidity Difference Inside/Outside % (Summer) :	20
Humidity Difference Inside/Outside %(Winter) :	15
Fresh Air Per Person (CFM) :	2
Air Change Factor (Air change per hour) :	.5
Space Shading Factor :	.4
Air Handler Design Cooling (CFM per ton) :	400
Hydronic Heat (BTUH per linear ft :	600

Insulation Values (U-Factors)

Exposed Walls (Above Ground) :	.080
Exposed Walls (Below Ground) :	.5
Partitions :	.075
Roof/Ceiling :	.055
Floor (Above basement) :	.083
Floor (Concrete slab) :	.001
Floor (Between conditioned spaces) :	.287
Doors :	.500
Windows :	.900

Calculated Room Results - Summer Heat Gains

Wall Heat Gain (BTUH) :	933	Appliance/Elec Motor Latent Heat Gain (BTUH) :	400
Ceiling or Roof Heat Gain (BTUH) :	1188	Appliance/Elec Motor Sensible Heat Gain (BTUH) :	909
Floor Heat Gain (BTUH) :	0	Ventilation Latent Heat Gain (BTUH) :	322
Glass Heat Gain (BTUH) :	664	Ventilation Sensible Gain (BTUH) :	701
Exterior Door & North Window Heat Gain (BTUH) :	102	Summer Total Latent Heat Gain:	722
Solar Heat Gain (BTUH) :	1548	Summer Total Sensible Heat Gain (BTUH) :	6046
Total Transmission Heat Gain (BTUH) :	4435	**TOTAL SUMMER COOLING LOAD (BTUH) :**	**6768**

Calculated Room Results - Winter Heat Losses

Transmission Heat Losses (BTUH) :	5165	Latent Ventilation Heat Losses (BTUH) :	242
Sensible Ventilation Heat Losses (BTUH) :	1870	Hydronic Heat(Linear Ft.) :	12
		TOTAL WINTER HEATING LOAD (BTUH) :	**7277**

Calculated Totals for Entire Structure

Size of Structure (Sq. Ft.):	2527	Total Sensible Heat Gain (BTUH):	37337
Total Heat Loss (BTUH):	57102	Total Cooling Gain (BTUH):	43709
Total Hydronic Heat (Linear Ft.):	95.17	Total Cooling Requirement (Tons):	4.05
Total Latent Heat Gain (BTUH):	6370	Total Cooling CFM:	1458

Disclaimer

These computed results should be treated as estimates only and should be viewed as only one of the many tools required for a professional installation. The installing contractor's experience and expert judgement are also major factors in sizing and installing a complete system. The weather, customer usage, duct installation, and structure design may vary on each estimate and should be taken into account. Correct system sizing is based on the systems ability to meet both latent and sensible heat requirements, not just total BTUs.

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Heat Load Summary Report for O'Rourke, Ryan

Room Name	Square Ft.	Heating Loss BTUH	Hydronic Heat Linear Ft.	Latent / Sensible Gain BTUH	Cooling Gain BTUH	Cooling Tons	Cooling CFM
Dining Room	132	2910	4.85	518 / 2741	3259	0.27	109
Bath	48	912	1.52	43 / 535	578	0.05	19
Living Room	312	9749	16.25	1349 / 4298	5647	0.47	188
Hallway	27	158	0.26	24 / 53	77	0.01	3
Kitchen	253	11348	18.91	1696 / 17588	19285	1.61	643
Fireplace Room	294	6525	10.87	696 / 3772	4468	0.37	149
Playroom/Office	117	2976	4.96	305 / 2634	2939	0.24	98
Basement	578	8051	13.42	454 /-5270	-4816	0.	-161
Bedroom1	210	3210	5.35	188 / 2114	2302	0.19	77
Girls Room	140	2882	4.8	325 / 2074	2400	0.2	80
Bath	56	1104	1.84	50 / 752	802	0.07	27
Master Bedroom	360	7277	12.13	722 / 6046	6768	0.56	226
TOTALS	**2527**	**57102**	**95.17**	**6370 / 37337**	**43709**	**4.05**	**1458**

24 36

30 30

985
x3 = 2955
+294 = 240

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Prepared 11/06/2015 using O'Brien Quick Loads Pro - Version 1.01 - SN: QP-070101-42942