

**Project Information**

For: Atlanta, GA

**Design Information**

	<b>Htg</b>	<b>Clg</b>		<b>Infiltration</b>
Outside db (F)	23	91	Method	Blower door
Inside db (F)	70	75	Shielding / stories	3 (partial) / 1
Design TD (F)	47	16	Pressure / AVF	50 Pa / 3966 cfm
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	20	38		

**HEATING EQUIPMENT**

**COOLING EQUIPMENT**

Make  
 Trade  
 Model

Make  
 Trade  
 Cond  
 Coil

Efficiency 80 AFUE  
 Heating input 0 Btuh  
 Heating output 0 Btuh  
 Temperature rise 0 F  
 Actual air flow 1987 cfm  
 Air flow factor 0.031 cfm/Btuh  
 Static pressure 0.00 in H2O  
 Space thermostat

Efficiency 0 EER  
 Sensible cooling 0 Btuh  
 Latent cooling 0 Btuh  
 Total cooling 0 Btuh  
 Actual air flow 1987 cfm  
 Air flow factor 0.045 cfm/Btuh  
 Static pressure 0.00 in H2O  
 Load sensible heat ratio 0.87

ROOM NAME	Area (ft <sup>2</sup> )	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Master Suite	821	16401	11645	504	522
GuestRooms	1022	15707	9470	482	425
Main Floor	1770	32619	23199	1001	1040
(Unconditioned)	77	0	0	0	0
Entire House	3690	64727	43375	1987	1987
Other equip loads		3984	1331		
Equip. @ 0.96 RSM			42784		
Latent cooling			6845		
<b>TOTALS</b>	<b>3690</b>	<b>68711</b>	<b>49629</b>	<b>1987</b>	<b>1987</b>

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Outside db (F)	<b>Htg</b> 23	<b>Clg</b> 91	Method	<b>Infiltration</b>	Blower door
Inside db (F)	70	75	Shielding / stories		3 (partial) / 1
Design TD (F)	47	16	Pressure / AVF		50 Pa / 3966 cfm
Daily range	-	M			
Inside humidity (%)	30	50			
Moisture difference (gr/lb)	20	38			

**HEATING EQUIPMENT**

Make	n/a	
Trade	n/a	
Model	n/a	
Efficiency	n/a	
Heating input		
Heating output	0	Btuh
Temperature rise	0	F
Actual air flow	0	cfm
Air flow factor	0.000	cfm/Btuh
Static pressure	0.00	in H2O
Space thermostat	n/a	

**COOLING EQUIPMENT**

Make	n/a	
Trade	n/a	
Cond	n/a	
Coil	n/a	
Efficiency	n/a	
Sensible cooling	0	Btuh
Latent cooling	0	Btuh
Total cooling	0	Btuh
Actual air flow	0	cfm
Air flow factor	0.000	cfm/Btuh
Static pressure	0.00	in H2O
Load sensible heat ratio	0.00	

ROOM NAME	Area (ft <sup>2</sup> )	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Master 202	349	5911	6024	181	270
Bath 203 WC	44	1630	542	50	24
Bath 203	245	6230	4284	191	192
Hall 201b	124	2544	770	78	35
Laundry 205	60	86	25	3	1
Master Suite	821	16401	11645	504	522
Other equip loads		0	0		
Equip. @ 0.96 RSM			11144		
Latent cooling			1299		
<b>TOTALS</b>	<b>821</b>	<b>16401</b>	<b>12443</b>	<b>504</b>	<b>522</b>

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	<b>Htg</b>	<b>Clg</b>		<b>Infiltration</b>
Outside db (°F)	23	91	Method	Blower door
Inside db (°F)	70	75	Shielding / stories	3 (partial) / 1
Design TD (°F)	47	16	Pressure / AVF	50 Pa / 3966 cfm
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	20	38		

**HEATING EQUIPMENT**

Make n/a  
 Trade n/a  
 Model n/a

Efficiency n/a  
 Heating input  
 Heating output 0 Btuh  
 Temperature rise 0 °F  
 Actual air flow 0 cfm  
 Air flow factor 0.000 cfm/Btuh  
 Static pressure 0.00 in H2O  
 Space thermostat n/a

**COOLING EQUIPMENT**

Make n/a  
 Trade n/a  
 Cond n/a  
 Coil n/a

Efficiency n/a  
 Sensible cooling 0 Btuh  
 Latent cooling 0 Btuh  
 Total cooling 0 Btuh  
 Actual air flow 0 cfm  
 Air flow factor 0.000 cfm/Btuh  
 Static pressure 0.00 in H2O  
 Load sensible heat ratio 0.00

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bedroom 207	176	1521	557	47	25
Bedroom 208	177	1421	530	44	24
Bath 211	66	234	505	7	23
Guest 209	259	4250	2887	130	129
Bath 210	60	1435	630	44	28
Hall 201a	215	6167	2854	189	128
Stairs 2	70	679	1506	21	68
GuestRooms	1022	15707	9470	482	425
Other equip loads		0	0		
Equip. @ 0.96 RSM			9062		
Latent cooling			971		
<b>TOTALS</b>	<b>1022</b>	<b>15707</b>	<b>10033</b>	<b>482</b>	<b>425</b>

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	<b>Htg</b>	<b>Clg</b>		<b>Infiltration</b>	
Outside db (F)	23	91	Method		Blower door
Inside db (F)	70	75	Shielding / stories		3 (partial) / 1
Design TD (F)	47	16	Pressure / AVF		50 Pa / 3966 cfm
Daily range	-	M			
Inside humidity (%)	30	50			
Moisture difference (gr/lb)	20	38			

**HEATING EQUIPMENT**

Make	n/a		
Trade	n/a		
Model	n/a		
Efficiency	n/a		
Heating input			
Heating output	0	Btuh	
Temperature rise	0	F	
Actual air flow	0	cfm	
Air flow factor	0.000	cfm/Btuh	
Static pressure	0.00	in H2O	
Space thermostat	n/a		

**COOLING EQUIPMENT**

Make	n/a		
Trade	n/a		
Cond	n/a		
Coil	n/a		
Efficiency	n/a		
Sensible cooling	0	Btuh	
Latent cooling	0	Btuh	
Total cooling	0	Btuh	
Actual air flow	0	cfm	
Air flow factor	0.000	cfm/Btuh	
Static pressure	0.00	in H2O	
Load sensible heat ratio	0.00		

ROOM NAME	Area (ft <sup>2</sup> )	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Fitness 108	132	4218	4682	129	210
Breakfast 106	68	3578	3132	110	140
Powder 109	30	0	0	0	0
Hall 113	33	542	142	17	6
Hall/Stair 114	261	1007	638	31	29
Office 107	209	4198	2655	129	119
Kitchen	145	0	1352	0	61
Pantry 105	65	2074	969	64	43
Dining 103	312	5794	2134	178	96
Living 102	516	11207	7495	344	336

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Main Floor			d	1770	32619	23199	1001	1040
Other equip loads					0	0		
Equip. @	0.96	RSM				22201		
Latent cooling						2573		
TOTALS				1770	32619	24774	1001	1040

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**Design Information**

	<b>Htg</b>	<b>Clg</b>		<b>Infiltration</b>	
Outside db (F)	23	91	Method		Blower door
Inside db (F)	70	75	Shielding / stories		3 (partial) / 1
Design TD (F)	47	16	Pressure / AVF		50 Pa / 0 cfm
Daily range	-	M			
Inside humidity (%)	30	50			
Moisture difference (gr/lb)	20	38			

**HEATING EQUIPMENT**

Make n/a  
Trade n/a  
Model n/a

Efficiency n/a  
Heating input  
Heating output 0 Btuh  
Temperature rise 0 F  
Actual air flow 0 cfm  
Air flow factor 0.000 cfm/Btuh  
Static pressure 0.00 in H2O  
Space thermostat n/a

**COOLING EQUIPMENT**

Make n/a  
Trade n/a  
Cond n/a  
Coil n/a

Efficiency n/a  
Sensible cooling 0 Btuh  
Latent cooling 0 Btuh  
Total cooling 0 Btuh  
Actual air flow 0 cfm  
Air flow factor 0.000 cfm/Btuh  
Static pressure 0.00 in H2O  
Load sensible heat ratio 0.00

ROOM NAME	Area (ft <sup>2</sup> )	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Mech 204	41	0	0	0	0
Mech 110	36	0	0	0	0
(Unconditioned) Other equip loads Equip. @ 0.96 RSM	77	0	0	0	0
Latent cooling			0		
<b>TOTALS</b>	<b>77</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

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**Project Information**

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Notes:

**Design Information**

Weather: Atlanta, GA, US

**Winter Design Conditions**

Outside db 23 F  
 Inside db 70 F  
 Design TD 47 F

**Heating Summary**

Structure 61644 Btuh  
 Ducts 3082 Btuh  
 Central vent (80 cfm) **3984** Btuh  
 Humidification 0 Btuh  
 Piping 0 Btuh  
 Equipment load 68711 Btuh

**Infiltration**

Method Blower door  
 Shielding / stories 3 (partial) / 1  
 Pressure / AVF 50 Pa / 3966 cfm

	<b>Heating</b>	<b>Cooling</b>
Area (ft <sup>2</sup> )	3613	3613
Volume (ft <sup>3</sup> )	38490	38490
Air changes/hour	0.49	0.26
Equiv. AVF (cfm)	305	146

**Heating Equipment Summary**

Make  
 Trade  
 Model

Efficiency 80 AFUE  
 Heating input 0 Btuh  
 Heating output 0 Btuh  
 Temperature rise 0 F  
 Actual air flow 1987 cfm  
 Air flow factor 0.031 cfm/Btuh  
 Static pressure 0.00 in H2O  
 Space thermostat

**Summer Design Conditions**

Outside db 91 F  
 Inside db 75 F  
 Design TD 16 F  
 Daily range M  
 Relative humidity 50 %  
 Moisture difference 38 gr/lb

**Sensible Cooling Equipment Load Sizing**

Structure 42112 Btuh  
 Ducts 1263 Btuh  
 Central vent (80 cfm) **1337** Btuh  
 Blower 0 Btuh  
 Use manufacturer's data n  
 Rate/swing multiplier 0.96  
 Equipment sensible load 42784 Btuh

**Latent Cooling Equipment Load Sizing**

Structure 4843 Btuh  
 Ducts 0 Btuh  
 Central vent (80 cfm) 2003 Btuh  
 Equipment latent load 6845 Btuh  
 Equipment total load 49629 Btuh  
 Req. total capacity at 0.70 SHR 5.1 ton

**Cooling Equipment Summary**

Make  
 Trade  
 Cond  
 Coil

Efficiency 0 EER  
 Sensible cooling 0 Btuh  
 Latent cooling 0 Btuh  
 Total cooling 0 Btuh  
 Actual air flow 1987 cfm  
 Air flow factor 0.045 cfm/Btuh  
 Static pressure 0.00 in H2O  
 Load sensible heat ratio 0.87

*Bold/italic values have been manually overridden*

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Notes:

**Design Information**

Weather: Atlanta, GA, US

**Winter Design Conditions**

Outside db	23	F
Inside db	70	F
Design TD	47	F

**Summer Design Conditions**

Outside db	91	F
Inside db	75	F
Design TD	16	F
Daily range	M	
Relative humidity	50	%
Moisture difference	38	gr/lb

**Heating Summary**

Structure	15620	Btuh
Ducts	781	Btuh
Central vent (18 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	16401	Btuh

**Sensible Cooling Equipment Load Sizing**

Structure	11305	Btuh
Ducts	339	Btuh
Central vent (18 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.96	
Equipment sensible load	11144	Btuh

**Infiltration**

Method	Blower door
Shielding / stories	3 (partial) / 1
Pressure / AVF	50 Pa / 3966 cfm

**Latent Cooling Equipment Load Sizing**

Structure	1299	Btuh
Ducts	0	Btuh
Central vent (18 cfm)	0	Btuh
Equipment latent load	1299	Btuh
Equipment total load	12443	Btuh
Req. total capacity at 0.70 SHR	1.3	ton

Area (ft <sup>2</sup> )	821	Heating	821	Cooling
Volume (ft <sup>3</sup> )	9855		9855	
Air changes/hour	0.56		0.27	
Equiv. AVF (cfm)	92		44	

**Heating Equipment Summary**

Make	n/a
Trade	n/a
Model	n/a

Efficiency	n/a
Heating input	
Heating output	0 Btuh
Temperature rise	0 F
Actual air flow	0 cfm
Air flow factor	0.000 cfm/Btuh
Static pressure	0.00 in H2O
Space thermostat	n/a

**Cooling Equipment Summary**

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a

Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0.000 cfm/Btuh
Static pressure	0.00 in H2O
Load sensible heat ratio	0.00

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**Design Information**

Weather: Atlanta, GA, US

**Winter Design Conditions**

Outside db	23	F
Inside db	70	F
Design TD	47	F

**Summer Design Conditions**

Outside db	91	F
Inside db	75	F
Design TD	16	F
Daily range	M	
Relative humidity	50	%
Moisture difference	38	gr/lb

**Heating Summary**

Structure	14959	Btuh
Ducts	748	Btuh
Central vent (23 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	15707	Btuh

**Sensible Cooling Equipment Load Sizing**

Structure	9194	Btuh
Ducts	276	Btuh
Central vent (23 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.96	
Equipment sensible load	9062	Btuh

**Infiltration**

Method	Blower door
Shielding / stories	3 (partial) / 1
Pressure / AVF	50 Pa / 3966 cfm

**Latent Cooling Equipment Load Sizing**

Structure	971	Btuh
Ducts	0	Btuh
Central vent (23 cfm)	0	Btuh
Equipment latent load	971	Btuh
Equipment total load	10033	Btuh
Req. total capacity at 0.70 SHR	1.1	ton

Area (ft <sup>2</sup> )	1022	Heating	1022	Cooling
Volume (ft <sup>3</sup> )	10048		10048	
Air changes/hour	0.49		0.23	
Equiv. AVF (cfm)	81		39	

**Heating Equipment Summary**

Make	n/a
Trade	n/a
Model	n/a

Efficiency	n/a
Heating input	
Heating output	0 Btuh
Temperature rise	0 F
Actual air flow	0 cfm
Air flow factor	0.000 cfm/Btuh
Static pressure	0.00 in H2O
Space thermostat	n/a

**Cooling Equipment Summary**

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a

Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0.000 cfm/Btuh
Static pressure	0.00 in H2O
Load sensible heat ratio	0.00

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Weather: Atlanta, GA, US

**Winter Design Conditions**

Outside db	23	F
Inside db	70	F
Design TD	47	F

**Summer Design Conditions**

Outside db	91	F
Inside db	75	F
Design TD	16	F
Daily range	M	
Relative humidity	50	%
Moisture difference	38	gr/lb

**Heating Summary**

Structure	31065	Btuh
Ducts	1553	Btuh
Central vent (39 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	32619	Btuh

**Sensible Cooling Equipment Load Sizing**

Structure	22523	Btuh
Ducts	676	Btuh
Central vent (39 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.96	
Equipment sensible load	22201	Btuh

**Infiltration**

Method	Blower door
Shielding / stories	3 (partial) / 1
Pressure / AVF	50 Pa / 3966 cfm

**Latent Cooling Equipment Load Sizing**

Structure	2573	Btuh
Ducts	0	Btuh
Central vent (39 cfm)	0	Btuh
Equipment latent load	2573	Btuh
Equipment total load	24774	Btuh
Req. total capacity at 0.70 SHR	2.6	ton

Area (ft <sup>2</sup> )	<b>Heating</b> 1770	<b>Cooling</b> 1770
Volume (ft <sup>3</sup> )	18588	18588
Air changes/hour	0.43	0.20
Equiv. AVF (cfm)	132	63

**Heating Equipment Summary**

Make	n/a
Trade	n/a
Model	n/a

Efficiency	n/a
Heating input	
Heating output	0 Btuh
Temperature rise	0 F
Actual air flow	0 cfm
Air flow factor	0.000 cfm/Btuh
Static pressure	0.00 in H2O
Space thermostat	n/a

**Cooling Equipment Summary**

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a

Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0.000 cfm/Btuh
Static pressure	0.00 in H2O
Load sensible heat ratio	0.00

**Project Information**

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Weather: Atlanta, GA, US

**Winter Design Conditions**

Outside db 23 F  
 Inside db 70 F  
 Design TD 47 F

**Summer Design Conditions**

Outside db 91 F  
 Inside db 75 F  
 Design TD 16 F  
 Daily range M  
 Relative humidity 50 %  
 Moisture difference 38 gr/lb

**Heating Summary**

Structure 0 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Humidification 0 Btuh  
 Piping 0 Btuh  
 Equipment load 0 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 0 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Blower 0 Btuh  
 Use manufacturer's data n  
 Rate/swing multiplier 0.96  
 Equipment sensible load 0 Btuh

**Infiltration**

Method Blower door  
 Shielding / stories 3 (partial) / 1  
 Pressure / AVF 50 Pa / 0 cfm

	Heating	Cooling
Area (ft <sup>2</sup> )	0	0
Volume (ft <sup>3</sup> )	0	0
Air changes/hour	0.00	0.00
Equiv. AVF (cfm)	0	0

**Latent Cooling Equipment Load Sizing**

Structure 0 Btuh  
 Ducts 0 Btuh  
 Central vent (0 cfm) 0 Btuh  
 Equipment latent load 0 Btuh  
 Equipment total load 0 Btuh  
 Req. total capacity at 0.70 SHR 0.0 ton

**Heating Equipment Summary**

Make n/a  
 Trade n/a  
 Model n/a

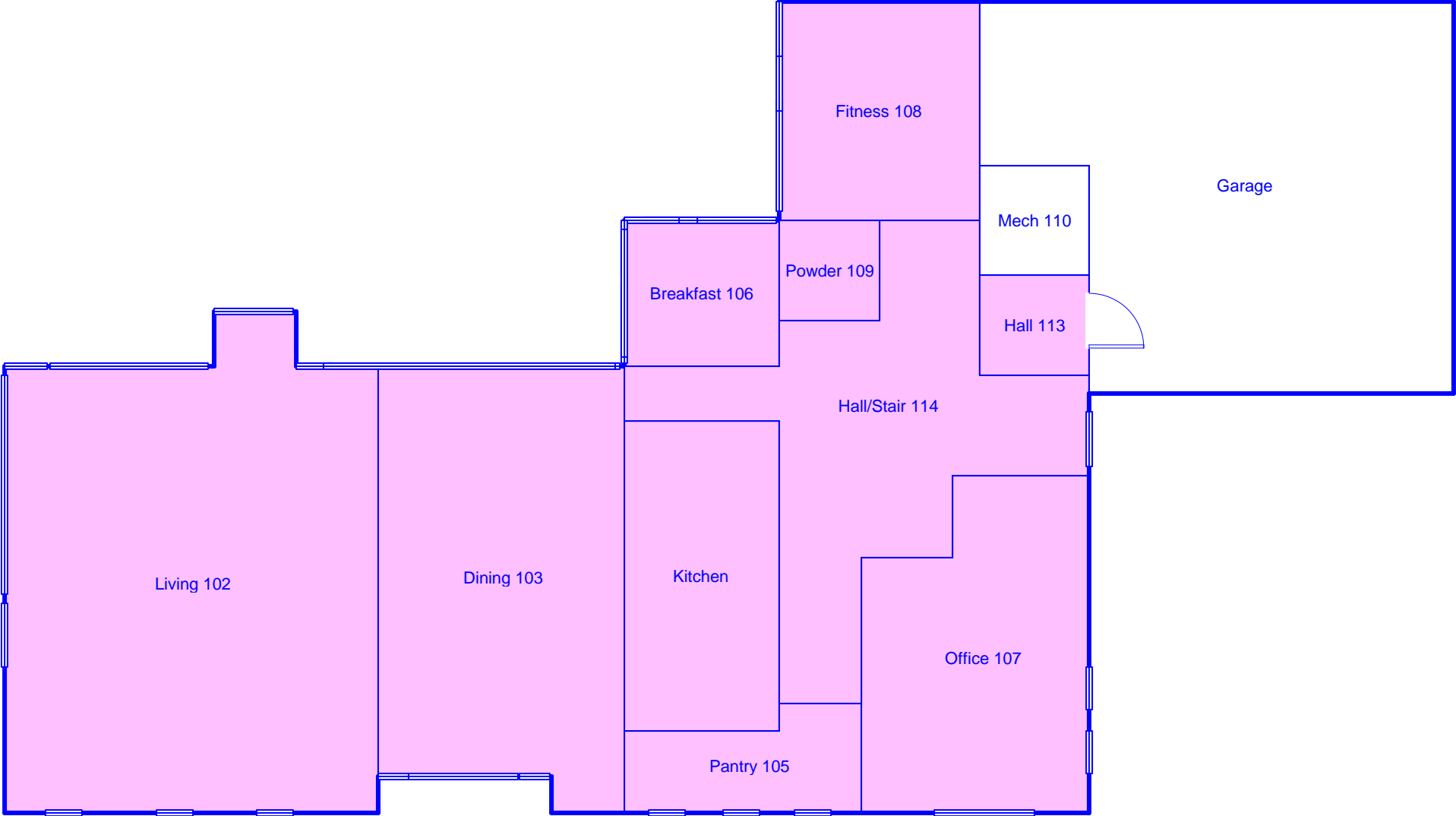
Efficiency n/a  
 Heating input 0 Btuh  
 Heating output 0 F  
 Temperature rise 0 cfm  
 Actual air flow 0.000 cfm/Btuh  
 Air flow factor 0.00 in H2O  
 Static pressure n/a  
 Space thermostat

**Cooling Equipment Summary**

Make n/a  
 Trade n/a  
 Cond n/a  
 Coil n/a

Efficiency n/a  
 Sensible cooling 0 Btuh  
 Latent cooling 0 Btuh  
 Total cooling 0 Btuh  
 Actual air flow 0 cfm  
 Air flow factor 0.000 cfm/Btuh  
 Static pressure 0.00 in H2O  
 Load sensible heat ratio 0.00

**Main Floor**

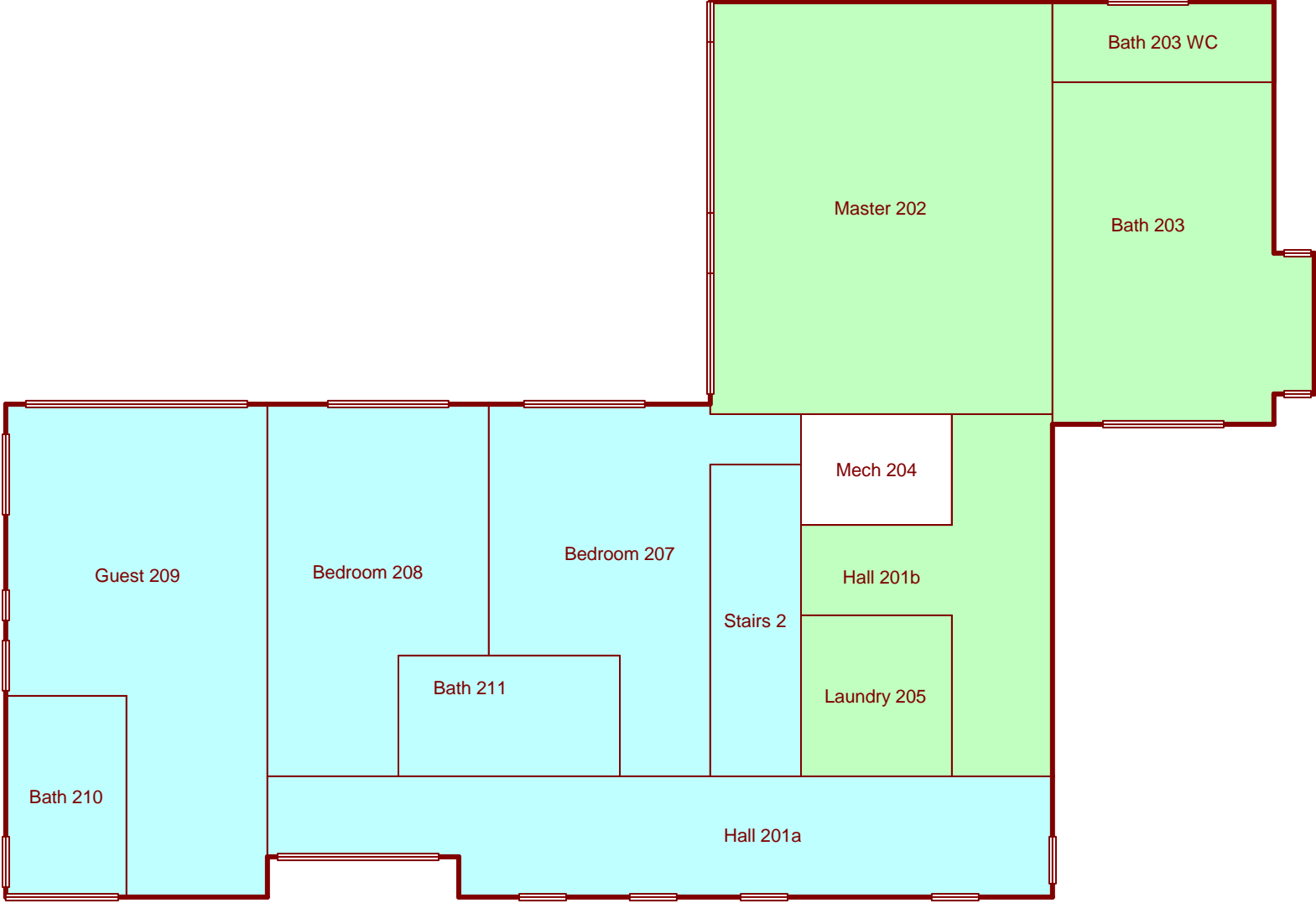


**Job #:**  
**Performed for:**  
  
Atlanta, GA

**Southface Energy Institute**  
  
241 Pine St., NE  
Atlanta, GA 30308  
Phone: 404-872-3549 Fax: 404-872-5009  
www.southface.org

Scale: 1/8" = 1'0"  
Page 1  
Right-Suite Residential  
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**Second Floor**



**Job #:**  
**Performed for:**  
  
Atlanta, GA

**Southface Energy Institute**  
  
241 Pine St., NE  
Atlanta, GA 30308  
Phone: 404-872-3549 Fax: 404-872-5009  
www.southface.org

Scale: 1/8" = 1'0"  
Page 2  
Right-Suite Residential  
6.0.115 RSR31558  
2008-Feb-05 12:57:03  
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