

Load Short Form

ENTIRE HOUSE

Project Information

For:

Design Information

	Htg	Clg	Infiltration	Simplified
Outside db (°F)	10	85	Method	Tight
Inside db (°F)	70	75	Construction quality	0
Design TD (°F)	60	10	Fireplaces	
Daily range	-	L		
Inside humidity (%)	40	50		
Moisture difference (gr/lb)	36	31		

HEATING EQUIPMENT

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

COOLING EQUIPMENT

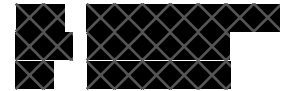
Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a
AHRI ref.	n/a
Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
ZONE 1	453	7660	4361	300	300
ZONE 2	857	9273	6862	500	500
ZONE 3	817	6993	4442	400	400
ZONE 4	817	8053	3680	300	300
ENTIRE HOUSE	2944	31980	18818	1500	1500
Other equip loads		6336	1053		
Equip. @ 1.00 RSM			19871		
Latent cooling			2421		
TOTALS	2944	38316	22292	1500	1500

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Load Short Form

ZONE 1



Project Information

For:

Design Information

	Htg	Clg	Infiltration	Simplified
Outside db (°F)	10	85	Method	Tight
Inside db (°F)	70	75	Construction quality	0
Design TD (°F)	60	10	Fireplaces	
Daily range	-	L		
Inside humidity (%)	40	50		
Moisture difference (gr/lb)	36	31		

HEATING EQUIPMENT

Make	Generic
Trade	
Model	SEER 18.0, HSPF 9.1
AHRI ref	
Efficiency	9.1 HSPF
Heating input	
Heating output	8955 Btuh @ 47°F
Temperature rise	27 °F
Actual air flow	300 cfm
Air flow factor	0.039 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	
Capacity balance point = 11 °F	

COOLING EQUIPMENT

Make	Generic
Trade	
Cond	SEER 18.0, HSPF 9.1
Coil	
AHRI ref	
Efficiency	14.7 EER, 18 SEER
Sensible cooling	6300 Btuh
Latent cooling	2700 Btuh
Total cooling	9000 Btuh
Actual air flow	300 cfm
Air flow factor	0.069 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.94

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
KITCHEN	303	7660	4361	300	300
LAUNDRY	39	0	0	0	0
POWDER	36	0	0	0	0
SIDE ENTRY	75	0	0	0	0
ZONE 1	453	7660	4361	300	300
Other equip loads		786	1837		
Equip. @ 1.00 RSM			6198		
Latent cooling			425		
TOTALS	453	8447	6623	300	300

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Load Short Form

ZONE 2

Project Information

For:

Design Information

	Htg	Clg	Infiltration	Simplified
Outside db (°F)	10	85	Method	Tight
Inside db (°F)	70	75	Construction quality	0
Design TD (°F)	60	10	Fireplaces	
Daily range	-	L		
Inside humidity (%)	40	50		
Moisture difference (gr/lb)	36	31		

HEATING EQUIPMENT

Make	Generic
Trade	
Model	SEER 18.0, HSPF 9.1
AHRI ref	
Efficiency	9.1 HSPF
Heating input	
Heating output	14925 Btuh @ 47°F
Temperature rise	27 °F
Actual air flow	500 cfm
Air flow factor	0.054 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	
Capacity balance point = 5 °F	

COOLING EQUIPMENT

Make	Generic
Trade	
Cond	SEER 18.0, HSPF 9.1
Coil	
AHRI ref	
Efficiency	14.7 EER, 18 SEER
Sensible cooling	10500 Btuh
Latent cooling	4500 Btuh
Total cooling	15000 Btuh
Actual air flow	500 cfm
Air flow factor	0.073 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.83

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
BATH	63	529	115	29	8
BEDROOM	149	2047	483	110	35
BUTLER'S	51	0	0	0	0
DINING ROOM	136	1589	745	86	54
ENTRY	60	0	0	0	0
FAMILY ROOM	218	3233	4144	174	302
HALL	50	0	0	0	0
LIVING ROOM	131	1875	1375	101	100

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

ZONE 2	857	9273	6862	500	500
Other equip loads		2521	2125		
Equip. @ 1.00 RSM			8987		
Latent cooling			1814		
TOTALS	857	11794	10802	500	500

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Load Short Form

ZONE 3

Project Information

For:

Design Information

	Htg	Clg	Method	Infiltration	Simplified
Outside db (°F)	10	85			
Inside db (°F)	70	75	Construction quality		Tight
Design TD (°F)	60	10	Fireplaces		0
Daily range	-	L			
Inside humidity (%)	40	50			
Moisture difference (gr/lb)	36	31			

HEATING EQUIPMENT

Make	Generic
Trade	
Model	SEER 18.0, HSPF 9.1
AHRI ref	
Efficiency	9.1 HSPF
Heating input	
Heating output	11940 Btuh @ 47°F
Temperature rise	27 °F
Actual air flow	400 cfm
Air flow factor	0.057 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	
Capacity balance point = 4 °F	

COOLING EQUIPMENT

Make	Generic
Trade	
Cond	SEER 18.0, HSPF 9.1
Coil	
AHRI ref	
Efficiency	14.7 EER, 18 SEER
Sensible cooling	8400 Btuh
Latent cooling	3600 Btuh
Total cooling	12000 Btuh
Actual air flow	400 cfm
Air flow factor	0.090 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.82

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
BATH 2	57	401	343	23	31
BEDROOM 2	156	1594	897	91	81
MASTER BATH	148	1573	685	90	62
MASTER BEDROOM	177	1834	1787	105	161
OFFICE	154	1593	731	91	66
STAIR HALL	125	0	0	0	0

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

ZONE 3	817	6993	4442	400	400
Other equip loads		2005	2039		
Equip. @ 1.00 RSM			6481		
Latent cooling			1466		
TOTALS	817	8998	7947	400	400

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Load Short Form

ZONE 4

Project Information

For:

Design Information

	Htg	Clg	Infiltration	Simplified
Outside db (°F)	10	85	Method	Tight
Inside db (°F)	70	75	Construction quality	0
Design TD (°F)	60	10	Fireplaces	
Daily range	-	L		
Inside humidity (%)	40	50		
Moisture difference (gr/lb)	36	31		

HEATING EQUIPMENT

Make	Generic
Trade	
Model	SEER 18.0, HSPF 9.1
AHRI ref	
Efficiency	9.1 HSPF
Heating input	
Heating output	8955 Btuh @ 47°F
Temperature rise	27 °F
Actual air flow	300 cfm
Air flow factor	0.037 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	
Capacity balance point = 14 °F	

COOLING EQUIPMENT

Make	Generic
Trade	
Cond	SEER 18.0, HSPF 9.1
Coil	
AHRI ref	
Efficiency	14.7 EER, 18 SEER
Sensible cooling	6300 Btuh
Latent cooling	2700 Btuh
Total cooling	9000 Btuh
Actual air flow	300 cfm
Air flow factor	0.082 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.88

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
ATTIC	817	8053	3680	300	300
ZONE 4	817	8053	3680	300	300
Other equip loads		1024	1877		
Equip. @ 1.00 RSM			5556		
Latent cooling			763		
TOTALS	817	9077	6319	300	300

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Building Analysis

ENTIRE HOUSE

Project Information

For: [REDACTED]

Design Conditions

Location:

Brookhaven AP, NY, US
 Elevation: 82 ft
 Latitude: 41°N

Outdoor:

Drybulb (°F)
 Daily range (°F)
 Wet bulb (°F)
 Wind speed (mph)

Heating

10
 -
 -
 15.0

Cooling

85
 15 ()
 72
 7.5

Indoor:

Indoor temperature (°F)
 Design TD (°F)
 Relative humidity (%)
 Moisture difference (gr/lb)

Heating

70
 60
 40
 36.3

Cooling

75
 10
 50
 31.1

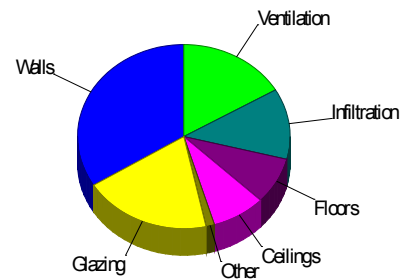
Infiltration:

Method
 Construction quality
 Fireplaces

Simplified
 Tight
 0

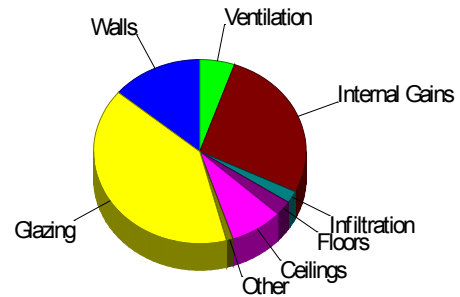
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.8	12970	33.8
Glazing	17.6	7474	19.5
Doors	10.2	498	1.3
Ceilings	2.2	3138	8.2
Floors	2.4	3136	8.2
Infiltration	1.2	4764	12.4
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		6336	16.5
Adjustments		0	0
Total		38316	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	0.8	2764	13.9
Glazing	18.8	7976	40.1
Doors	4.1	200	1.0
Ceilings	1.1	1602	8.1
Floors	0.4	514	2.6
Infiltration	0.1	422	2.1
Ducts		0	0
Ventilation		1053	5.3
Internal gains		5340	26.9
Blower		0	0
Adjustments		0	0
Total		19871	100.0



Latent Cooling Load = 2421 Btuh
 Overall U-value = 0.079 Btuh/ft²·°F, Window / Floor Area = 14.4 %

Data entries checked.

Building Analysis

ZONE 1

Project Information

For:

Design Conditions

Location:

Brookhaven AP, NY, US
 Elevation: 82 ft
 Latitude: 41°N

Outdoor:

Drybulb (°F)
 Daily range (°F)
 Wet bulb (°F)
 Wind speed (mph)

Heating

10
 -
 -
 15.0

Cooling

85
 15 (1)
 72
 7.5

Indoor:

Indoor temperature (°F)
 Design TD (°F)
 Relative humidity (%)
 Moisture difference (gr/lb)

Heating

70
 60
 40
 36.3

Cooling

75
 10
 50
 31.1

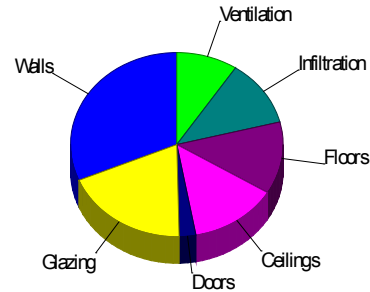
Infiltration:

Method
 Construction quality
 Fireplaces

Simplified
 Tight
 0

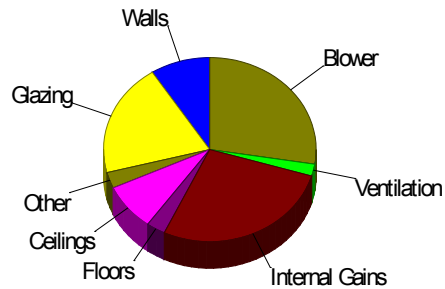
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.8	2647	31.3
Glazing	17.7	1606	19.0
Doors	10.2	214	2.5
Ceilings	2.2	1131	13.4
Floors	2.4	1072	12.7
Infiltration	1.2	991	11.7
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		786	9.3
Adjustments		0	
Total		8447	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	0.8	564	9.1
Glazing	13.6	1234	19.9
Doors	4.1	86	1.4
Ceilings	1.0	511	8.2
Floors	0.4	178	2.9
Infiltration	0.1	88	1.4
Ducts		0	0
Ventilation		131	2.1
Internal gains		1700	27.4
Blower		1707	27.5
Adjustments		0	
Total		6198	100.0



Latent Cooling Load = 425 Btuh
 Overall U-value = 0.097 Btuh/ft²-°F, Window / Floor Area = 20.0 %

Data entries checked.

Building Analysis

ZONE 2

Project Information

For: [REDACTED]

Design Conditions

Location:

Brookhaven AP, NY, US
 Elevation: 82 ft
 Latitude: 41°N

Outdoor:

Drybulb (°F)
 Daily range (°F)
 Wet bulb (°F)
 Wind speed (mph)

Heating	Cooling
10	85
-	15 ()
-	72
15.0	7.5

Indoor:

Indoor temperature (°F)
 Design TD (°F)
 Relative humidity (%)
 Moisture difference (gr/lb)

Heating

70
 60
 40
 36.3

Cooling

75
 10
 50
 31.1

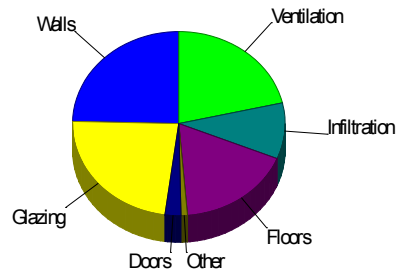
Infiltration:

Method
 Construction quality
 Fireplaces

Simplified
 Tight
 0

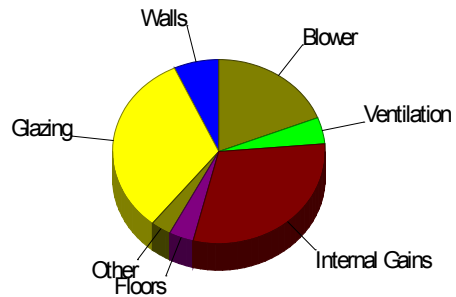
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.8	2903	24.6
Glazing	17.8	2748	23.3
Doors	10.2	285	2.4
Ceilings	2.2	114	1.0
Floors	2.4	2063	17.5
Infiltration	1.2	1160	9.8
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		2521	21.4
Adjustments		0	0
Total		11795	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	0.8	619	6.9
Glazing	18.8	2908	32.4
Doors	4.1	114	1.3
Ceilings	1.2	62	0.7
Floors	0.4	336	3.7
Infiltration	0.1	103	1.1
Ducts		0	0
Ventilation		419	4.7
Internal gains		2720	30.3
Blower		1707	19.0
Adjustments		0	0
Total		8987	100.0



Latent Cooling Load = 1814 Btuh
 Overall U-value = 0.078 Btuh/ft²·°F, Window / Floor Area = 18.0 %

Data entries checked.

Building Analysis

ZONE 3

Project Information

For:

Design Conditions

Location:

Brookhaven AP, NY, US
 Elevation: 82 ft
 Latitude: 41°N

Outdoor:

Drybulb (°F)
 Daily range (°F)
 Wet bulb (°F)
 Wind speed (mph)

Heating

10
 -
 -
 15.0

Cooling

85
 15 (1)
 72
 7.5

Indoor:

Indoor temperature (°F)
 Design TD (°F)
 Relative humidity (%)
 Moisture difference (gr/lb)

Heating

70
 60
 40
 36.3

Cooling

75
 10
 50
 31.1

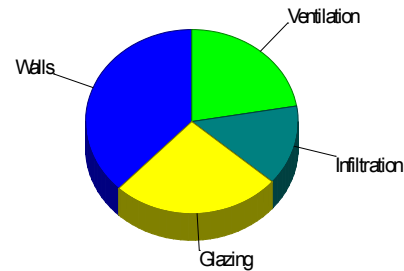
Infiltration:

Method
 Construction quality
 Fireplaces

Simplified
 Tight
 0

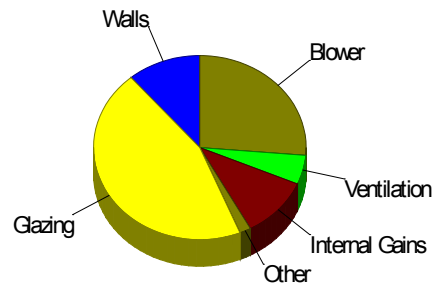
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.8	3412	37.9
Glazing	17.3	2316	25.7
Doors	0	0	0
Ceilings	0	0	0
Floors	0	0	0
Infiltration	1.2	1265	14.1
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		2005	22.3
Adjustments		0	0
Total		8998	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	0.8	727	11.2
Glazing	21.7	2913	44.9
Doors	0	0	0
Ceilings	0	0	0
Floors	0	0	0
Infiltration	0.1	112	1.7
Ducts		0	0
Ventilation		333	5.1
Internal gains		690	10.6
Blower		1707	26.3
Adjustments		0	0
Total		6481	100.0



Latent Cooling Load = 1466 Btuh
 Overall U-value = 0.093 Btuh/ft²·°F, Window / Floor Area = 16.4 %

Data entries checked.

Building Analysis

ZONE 4

Project Information

For:

Design Conditions

Location:

Brookhaven AP, NY, US
 Elevation: 82 ft
 Latitude: 41°N

Outdoor:

Drybulb (°F)
 Daily range (°F)
 Wet bulb (°F)
 Wind speed (mph)

Heating

10
 -
 -
 15.0

Cooling

85
 15 (1)
 72
 7.5

Indoor:

Indoor temperature (°F)
 Design TD (°F)
 Relative humidity (%)
 Moisture difference (gr/lb)

Heating

70
 60
 40
 36.3

Cooling

75
 10
 50
 31.1

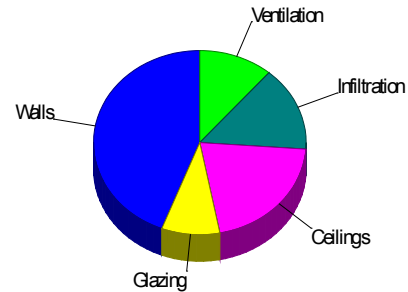
Infiltration:

Method
 Construction quality
 Fireplaces

Simplified
 Tight
 0

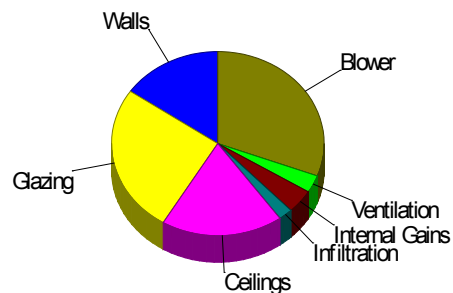
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.8	4008	44.2
Glazing	17.9	805	8.9
Doors	0	0	0
Ceilings	2.2	1893	20.9
Floors	0	0	0
Infiltration	1.2	1348	14.9
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		1024	11.3
Adjustments		0	0
Total		9077	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	0.8	854	15.4
Glazing	32.2	1447	26.0
Doors	0	0	0
Ceilings	1.2	1029	18.5
Floors	0	0	0
Infiltration	0.1	119	2.1
Ducts		0	0
Ventilation		170	3.1
Internal gains		230	4.1
Blower		1707	30.7
Adjustments		0	0
Total		5556	100.0



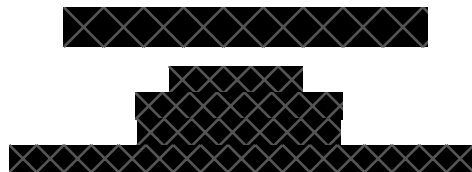
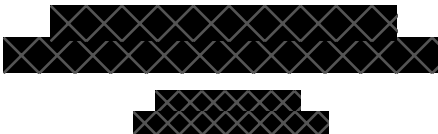
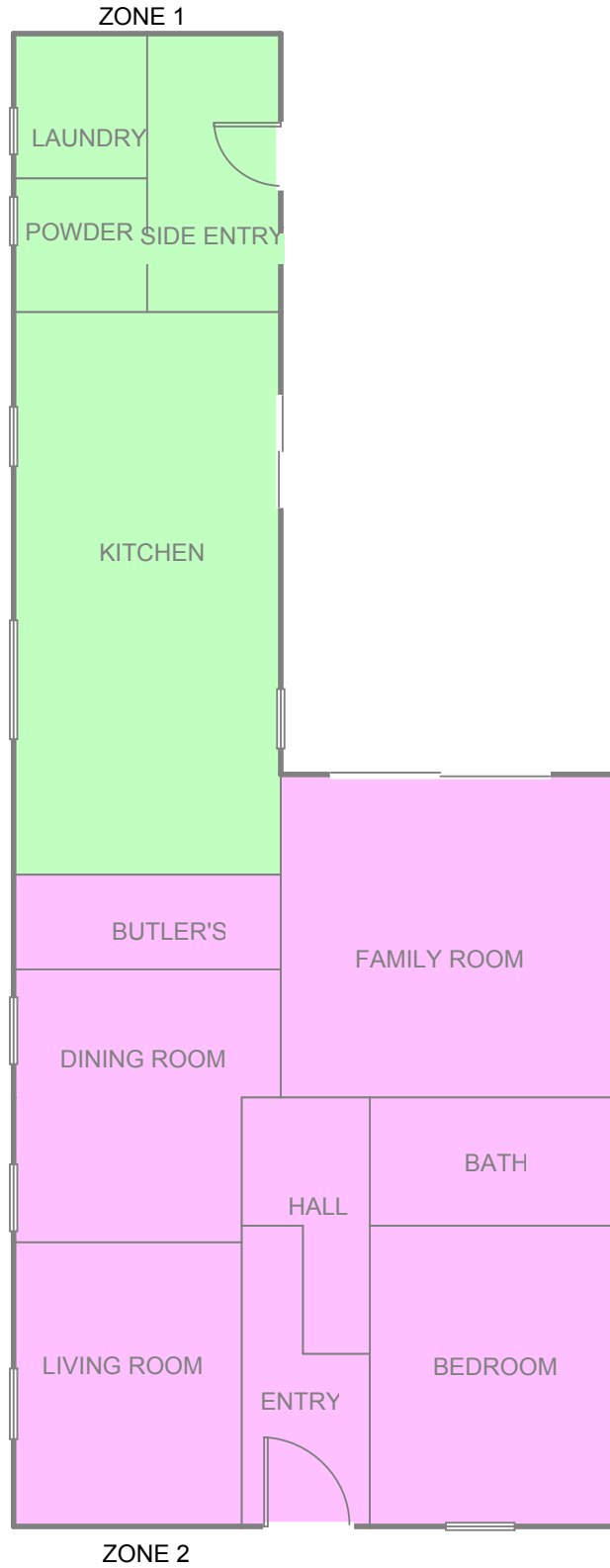
Latent Cooling Load = 763 Btuh

Overall U-value = 0.057 Btuh/ft²·°F, Window / Floor Area = 5.5 %

Data entries checked.



1ST FLOOR



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2ND FLOOR



ZONE 3

