10840 SW 67 Residence
HVAC Load Calculations

for

MIK Architecture

Elite Software

RHVAC Residential HVAC Loads

Digitally signed by Alejandro L Rivas Prieto
Date: 2025.05.05 14:10:20 -04'00'

Prepared By:

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Friday, February 28, 2025

Rhvac is an ACCA approved Manual J, D and S computer program.
Calculations are performed per ACCA Manual J 8th Edition, Version 2.50, and ACCA Manual D.

Project Report

General Project Information

Project Title:	10840 SW 67 Residence
Project Date:	Thursday, February 27, 2025
Client Name:	MIK Architecture
Company Name:	R&D Engineers LLC
Company Representative:	Alejandro L Rivas Prieto, PE
Company Address:	79225 NW 12th St Suite 227
Company City:	Doral, FL 33126
Company Phone:	786-359-4528

Design Data

Reference City:		Miami AP, Florida
Building Orientation:		Front door faces North
Daily Temperature Range:		Low
Latitude:	25	Degrees
Elevation:	11	ft.
Altitude Factor:	1.000	

	Outdoor Dry Bulb	Outdoor Wet Bulb	Outdoor Rel.Hum	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	50	46.92	n/a	n/a	70	n/a
Summer:	90	77	56%	50%	75	55

Check Figures

Total Building Supply CFM:	9,445	CFM Per Square ft.:	0.930
Square ft. of Room Area:	10,156	Square ft. Per Ton:	473
Volume (ft³):	131,901		

Building Loads

Total Heating Required Including Ventilation Air:	163,561	Btuh	163.561	MBH
Total Sensible Gain:	212,586	Btuh	83	%
Total Latent Gain:	44,827	Btuh	17	%
Total Cooling Required Including Ventilation Air:	257,413	Btuh	21.45	Tons (Based On Sensible + Latent)

Notes

Rhvac is an ACCA approved Manual J, D and S computer program.
Calculations are performed per ACCA Manual J 8th Edition, Version 2.50, and ACCA Manual D.
All computed results are estimates as building use and weather may vary.
Be sure to select a unit that meets both sensible and latent loads according to the manufacturer's performance data at your design conditions.

Miscellaneous Report

System 1 AC-1 Input Data	Outdoor Dry Bulb	Outdoor Wet Bulb	Outdoor Rel.Hum	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	50	46.92	80%	n/a	70	n/a
Summer:	90	77	56%	50%	75	54.56

System 2 AC-2 Input Data	Outdoor Dry Bulb	Outdoor Wet Bulb	Outdoor Rel.Hum	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	50	46.92	80%	n/a	70	n/a
Summer:	90	77	56%	50%	75	54.56

System 3 AC-3 Input Data	Outdoor Dry Bulb	Outdoor Wet Bulb	Outdoor Rel.Hum	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	50	46.92	80%	n/a	70	n/a
Summer:	90	77	56%	50%	75	54.56

System 4 AC-4 Input Data	Outdoor Dry Bulb	Outdoor Wet Bulb	Outdoor Rel.Hum	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	50	46.92	80%	n/a	70	n/a
Summer:	90	77	56%	50%	75	54.56

System 5 AC-5 Input Data	Outdoor Dry Bulb	Outdoor Wet Bulb	Outdoor Rel.Hum	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	50	46.92	80%	n/a	70	n/a
Summer:	90	77	56%	50%	75	54.56

System 6 AC-6 Input Data	Outdoor Dry Bulb	Outdoor Wet Bulb	Outdoor Rel.Hum	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	50	46.92	80%	n/a	70	n/a
Summer:	90	77	56%	50%	75	54.56

System 7 AC-7 Input Data	Outdoor Dry Bulb	Outdoor Wet Bulb	Outdoor Rel.Hum	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	50	46.92	80%	n/a	70	n/a
Summer:	90	77	56%	50%	75	54.56

Duct Sizing Inputs

	Main Trunk		Runouts	
Calculate:	Yes		Yes	
Use Schedule:	Yes		Yes	
Roughness Factor:	0.00300		0.01000	
Pressure Drop:	0.1000	in.wg./100 ft.	0.1000	in.wg./100 ft.
Minimum Velocity:	0	ft./min	0	ft./min
Maximum Velocity:	900	ft./min	750	ft./min
Minimum Height:	0	in.	0	in.
Maximum Height:	0	in.	0	in.

Outside Air Data

	Winter		Summer	
Infiltration Specified:	0.135	AC/hr	0.073	AC/hr
	298	CFM	160	CFM
Infiltration Actual:	0.344	AC/hr	0.320	AC/hr
Above Grade Volume:	X 131,901	Cu.ft.	X 131,901	Cu.ft.
	45,373	Cu.ft./hr	42,212	Cu.ft./hr
	X 0.0167		X 0.0167	
Total Building Infiltration:	756	CFM	704	CFM
Total Building Ventilation:	0	CFM	0	CFM

---System 1---

Infiltration & Ventilation Sensible Gain Multiplier: 16.49 = (1.10 X 1.000 X 15.00 Summer Temp. Difference)
Infiltration & Ventilation Latent Gain Multiplier: 37.09 = (0.68 X 1.000 X 54.56 Grains Difference)
Infiltration & Ventilation Sensible Loss Multiplier: 21.99 = (1.10 X 1.000 X 20.00 Winter Temp. Difference)
Winter Infiltration Specified: 0.210 AC/hr (31 CFM), Construction: Tight
Summer Infiltration Specified: 0.110 AC/hr (16 CFM), Construction: Tight

Miscellaneous Report (cont'd)

Outside Air Data

---System 2---
Infiltration & Ventilation Sensible Gain Multiplier: 16.49 = (1.10 X 1.000 X 15.00 Summer Temp. Difference)
Infiltration & Ventilation Latent Gain Multiplier: 37.09 = (0.68 X 1.000 X 54.56 Grains Difference)
Infiltration & Ventilation Sensible Loss Multiplier: 21.99 = (1.10 X 1.000 X 20.00 Winter Temp. Difference)
Winter Infiltration Specified: 0.130 AC/hr (58 CFM), Construction: Tight
Summer Infiltration Specified: 0.070 AC/hr (31 CFM), Construction: Tight

---System 3---
Infiltration & Ventilation Sensible Gain Multiplier: 16.49 = (1.10 X 1.000 X 15.00 Summer Temp. Difference)
Infiltration & Ventilation Latent Gain Multiplier: 37.09 = (0.68 X 1.000 X 54.56 Grains Difference)
Infiltration & Ventilation Sensible Loss Multiplier: 21.99 = (1.10 X 1.000 X 20.00 Winter Temp. Difference)
Winter Infiltration Specified: 0.130 AC/hr (71 CFM), Construction: Tight
Summer Infiltration Specified: 0.070 AC/hr (38 CFM), Construction: Tight

---System 4---
Infiltration & Ventilation Sensible Gain Multiplier: 16.49 = (1.10 X 1.000 X 15.00 Summer Temp. Difference)
Infiltration & Ventilation Latent Gain Multiplier: 37.09 = (0.68 X 1.000 X 54.56 Grains Difference)
Infiltration & Ventilation Sensible Loss Multiplier: 21.99 = (1.10 X 1.000 X 20.00 Winter Temp. Difference)
Winter Infiltration Specified: 0.130 AC/hr (40 CFM), Construction: Tight
Summer Infiltration Specified: 0.070 AC/hr (22 CFM), Construction: Tight

---System 5---
Infiltration & Ventilation Sensible Gain Multiplier: 16.49 = (1.10 X 1.000 X 15.00 Summer Temp. Difference)
Infiltration & Ventilation Latent Gain Multiplier: 37.09 = (0.68 X 1.000 X 54.56 Grains Difference)
Infiltration & Ventilation Sensible Loss Multiplier: 21.99 = (1.10 X 1.000 X 20.00 Winter Temp. Difference)
Winter Infiltration Specified: 0.130 AC/hr (40 CFM), Construction: Tight
Summer Infiltration Specified: 0.070 AC/hr (22 CFM), Construction: Tight

---System 6---
Infiltration & Ventilation Sensible Gain Multiplier: 16.49 = (1.10 X 1.000 X 15.00 Summer Temp. Difference)
Infiltration & Ventilation Latent Gain Multiplier: 37.09 = (0.68 X 1.000 X 54.56 Grains Difference)
Infiltration & Ventilation Sensible Loss Multiplier: 21.99 = (1.10 X 1.000 X 20.00 Winter Temp. Difference)
Winter Infiltration Specified: 0.130 AC/hr (18 CFM), Construction: Tight
Summer Infiltration Specified: 0.070 AC/hr (10 CFM), Construction: Tight

---System 7---
Infiltration & Ventilation Sensible Gain Multiplier: 16.49 = (1.10 X 1.000 X 15.00 Summer Temp. Difference)
Infiltration & Ventilation Latent Gain Multiplier: 37.09 = (0.68 X 1.000 X 54.56 Grains Difference)
Infiltration & Ventilation Sensible Loss Multiplier: 21.99 = (1.10 X 1.000 X 20.00 Winter Temp. Difference)
Winter Infiltration Specified: 0.130 AC/hr (39 CFM), Construction: Tight
Summer Infiltration Specified: 0.070 AC/hr (21 CFM), Construction: Tight

Duct Load Factor Scenarios for System 1

No.	Type	Description	Location	Attic Ceiling	Duct Leakage	Duct Insulation	Surface Area	From [T]MDD
1	Supply		Attic	16B	0.12	6	202	No
1	Return		Attic	16B	0.12	6	37	No

Duct Load Factor Scenarios for System 2

No.	Type	Description	Location	Attic Ceiling	Duct Leakage	Duct Insulation	Surface Area	From [T]MDD
1	Supply		Attic	16B	0.12	6	599	No
1	Return		Attic	16B	0.12	6	111	No

Duct Load Factor Scenarios for System 3

No.	Type	Description	Location	Attic Ceiling	Duct Leakage	Duct Insulation	Surface Area	From [T]MDD
1	Supply		Attic	16B	0.12	6	506	No

Miscellaneous Report (cont'd)

No.	Type	Description	Location	Attic Ceiling	Duct Leakage	Duct Insulation	Surface Area	From [T]MDD
1	Return		Attic	16B	0.12	6	94	No

Duct Load Factor Scenarios for System 4

No.	Type	Description	Location	Attic Ceiling	Duct Leakage	Duct Insulation	Surface Area	From [T]MDD
1	Supply		Attic	16B	0.12	6	415	No
1	Return		Attic	16B	0.12	6	77	No

Duct Load Factor Scenarios for System 5

No.	Type	Description	Location	Attic Ceiling	Duct Leakage	Duct Insulation	Surface Area	From [T]MDD
1	Supply		Attic	16B	0.12	6	420	No
1	Return		Attic	16B	0.12	6	78	No

Duct Load Factor Scenarios for System 6

No.	Type	Description	Location	Attic Ceiling	Duct Leakage	Duct Insulation	Surface Area	From [T]MDD
1	Supply		Attic	16B	0.12	6	192	No
1	Return		Attic	16B	0.12	6	36	No

Duct Load Factor Scenarios for System 7

No.	Type	Description	Location	Attic Ceiling	Duct Leakage	Duct Insulation	Surface Area	From [T]MDD
1	Supply		Attic	16B	0.12	6	202	No
1	Return		Attic	16B	0.12	6	37	No

Total Building Summary Loads

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
mik 2 glass: Glazing-Clear NOA Rated Glass, U-value 1.05, SHGC 0.34	2582.1	54,225	0	79,254	79,254
13A-5ocs: Wall-Block, board insulation only, R-5 board insulation, open core, siding finish, U-value 0.125	9425.2	23,568	0	22,736	22,736
Gorce Roof: Roof/Ceiling-Roof Deck (roofing, wood, insulation) or SIP Panels Supported on Beams, Custom, 8" concrete, R30 insulation board, U-value 0.032	6941.8	4,444	0	9,773	9,773
22A-ph: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, heavy moist soil, U-value 1.358	988	26,835	0	0	0
Subtotals for structure:		109,072	0	111,763	111,763
People:	42		8,400	9,660	18,060
Equipment:			3,716	19,081	22,797
Lighting:	5260			17,937	17,937
Ductwork:		37,860	6,621	29,114	35,735
Infiltration: Winter CFM: 756, Summer CFM: 704		16,629	26,090	11,605	37,695
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
Exhaust: Winter CFM: 680, Summer CFM: 680					
AED Excursion:		0	0	13,426	13,426
Total Building Load Totals:		163,561	44,827	212,586	257,413

Check Figures

Total Building Supply CFM:	9,445	CFM Per Square ft.:	0.930
Square ft. of Room Area:	10,156	Square ft. Per Ton:	473
Volume (ft³):	131,901		

Building Loads

Total Heating Required Including Ventilation Air:	163,561	Btuh	163.561	MBH
Total Sensible Gain:	212,586	Btuh	83	%
Total Latent Gain:	44,827	Btuh	17	%
Total Cooling Required Including Ventilation Air:	257,413	Btuh	21.45	Tons (Based On Sensible + Latent)

Notes

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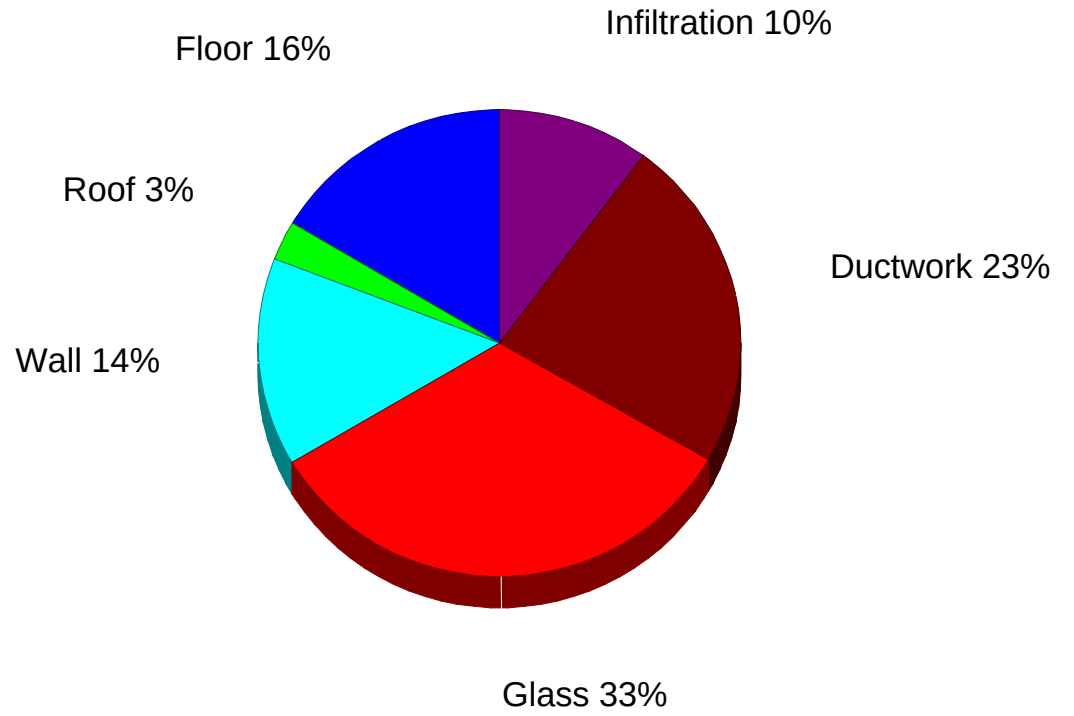
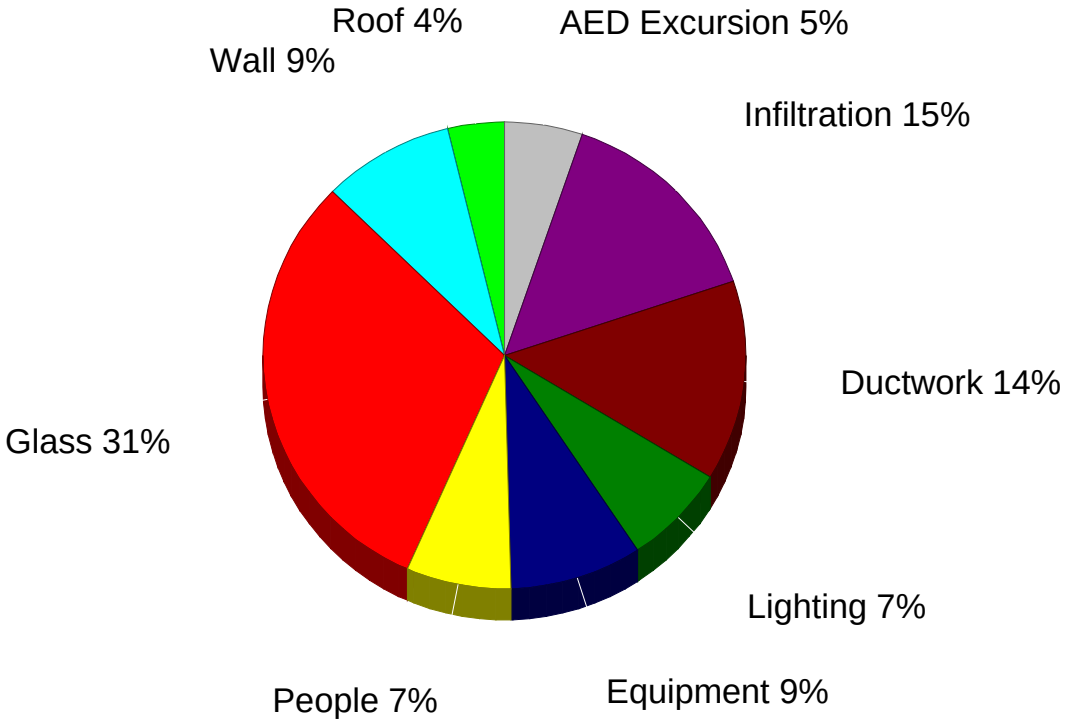
Calculations are performed per ACCA Manual J 8th Edition, Version 2.50, and ACCA Manual D.
All computed results are estimates as building use and weather may vary.
Be sure to select a unit that meets both sensible and latent loads according to the manufacturer's performance data at your design conditions.

Building Pie Chart





Manual S Performance Data - System 1 - AC-1

Loads and Design Conditions

Cooling:

Outdoor Dry Bulb:	90	Sensible Gain:	18.763
Outdoor Wet Bulb:	77	Latent Gain:	4.472
Indoor Dry Bulb:	75	Total Gain:	23.235
Indoor RH:	50	Load SHR:	0.81
Supply Airflow:	836	Entering Dry Bulb:	75.4
		Entering Wet Bulb:	62.7

Heating:

Outdoor Dry Bulb:	50	Sensible Loss:	15.149
Indoor Dry Bulb:	70	Entering Dry Bulb:	69.7
Indoor RH:	30	Supply Airflow:	196

Equipment Performance Data at System Design Conditions

This system's equipment was selected in accordance with ACCA Manual S.

Cooling:

Model Type: Air Source Heat Pump, Outdoor Model: 25VNA024A*030*, Indoor Model: FE4AN(B,F)005L+UI
, AHRI Reference Number: 9892522 Nominal Capacity: 24.800, Manufacturer: CARRIER

Entered Interpolation Data:

EWB °F	Air Flow CFM	ODB °F	Total Capacity MBtuh	Power Input kW	EDB 75.4 °F	
					S/T	Sensible Capacity MBtuh
62.651	836	90	24.8	0	0.75	18.6

Interpolation Results:

		Load	Percent of Load
Sensible Capacity:	18.600	18.763	99%
Latent Capacity:	6.200	4.472	139%
Total Capacity:	24.800	23.235	107%

Heating:

Model Type: Air Source Heat Pump, Model: 25VNA024A*030*, Nominal Capacity: 23.600, Manufacturer: CARRIER

Results:

		Load	Percent of Load
Heating Capacity:	23.600	15.149	156%

Manual S Performance Data - System 2 - AC-2

Loads and Design Conditions

Cooling:

Outdoor Dry Bulb:	90	Sensible Gain:	45.151
Outdoor Wet Bulb:	77	Latent Gain:	8.717
Indoor Dry Bulb:	75	Total Gain:	53.868
Indoor RH:	50	Load SHR:	0.84
Supply Airflow:	2,001	Entering Dry Bulb:	75.5
		Entering Wet Bulb:	62.7

Heating:

Outdoor Dry Bulb:	50	Sensible Loss:	35.928
Indoor Dry Bulb:	70	Entering Dry Bulb:	69.6
Indoor RH:	30	Supply Airflow:	464

Equipment Performance Data at System Design Conditions

This system's equipment was selected in accordance with ACCA Manual S.

Cooling:

Model Type: Air Source Heat Pump, Outdoor Model: 25VNA060A*030*, Indoor Model: FE4ANB006L+UI , AHRI Reference Number: 9892813 Nominal Capacity: 56.000, Manufacturer: CARRIER

Entered Interpolation Data:

EWB °F	Air Flow CFM	ODB °F	Total Capacity MBtuh	Power Input kW	EDB 75.5 °F	
					S/T	Sensible Capacity MBtuh
62.687	2001	90	56	0	0.75	42

Interpolation Results:

		Load	Percent of Load
Sensible Capacity:	42.000	45.151	93%
Latent Capacity:	14.000	8.717	161%
Total Capacity:	56.000	53.868	104%

Heating:

Model Type: Air Source Heat Pump, Model: 25VNA060A*030*, Nominal Capacity: 55.500, Manufacturer: CARRIER

Results:

		Load	Percent of Load
Heating Capacity:	55.500	35.928	154%

Manual S Performance Data - System 3 - AC-3

Loads and Design Conditions

Cooling:

Outdoor Dry Bulb:	90	Sensible Gain:	44.393
Outdoor Wet Bulb:	77	Latent Gain:	8.132
Indoor Dry Bulb:	75	Total Gain:	52.525
Indoor RH:	50	Load SHR:	0.85
Supply Airflow:	1,974	Entering Dry Bulb:	75.5
		Entering Wet Bulb:	62.7

Heating:

Outdoor Dry Bulb:	50	Sensible Loss:	26.102
Indoor Dry Bulb:	70	Entering Dry Bulb:	69.5
Indoor RH:	30	Supply Airflow:	337

Equipment Performance Data at System Design Conditions

This system's equipment was selected in accordance with ACCA Manual S.

Cooling:

Model Type: Air Source Heat Pump, Outdoor Model: 25VNA060A*030*, Indoor Model: FE4ANB006L+UI
, AHRI Reference Number: 9892813 Nominal Capacity: 56.000, Manufacturer: CARRIER

Entered Interpolation Data:

EWB °F	Air Flow CFM	ODB °F	Total Capacity MBtuh	Power Input kW	EDB 75.5 °F	
					S/T	Sensible Capacity MBtuh
62.66184	1974	90	56	0	0.75	42

Interpolation Results:

		Load	Percent of Load
Sensible Capacity:	42.000	44.393	95%
Latent Capacity:	14.000	8.132	172%
Total Capacity:	56.000	52.525	107%

Heating:

Model Type: Air Source Heat Pump, Model: 25VNA060A*030*, Nominal Capacity: 55.500, Manufacturer: CARRIER

Results:

		Load	Percent of Load
Heating Capacity:	55.500	26.102	213%

Manual S Performance Data - System 4 - AC-4

Loads and Design Conditions

Cooling:

Outdoor Dry Bulb:	90	Sensible Gain:	32.909
Outdoor Wet Bulb:	77	Latent Gain:	5.452
Indoor Dry Bulb:	75	Total Gain:	38.362
Indoor RH:	50	Load SHR:	0.86
Supply Airflow:	1,460	Entering Dry Bulb:	75.5
		Entering Wet Bulb:	62.7

Heating:

Outdoor Dry Bulb:	50	Sensible Loss:	24.671
Indoor Dry Bulb:	70	Entering Dry Bulb:	69.6
Indoor RH:	30	Supply Airflow:	319

Equipment Performance Data at System Design Conditions

This system's equipment was selected in accordance with ACCA Manual S.

Cooling:

Model Type: Air Source Heat Pump, Outdoor Model: 25HNB542A*031*, Indoor Model: FE4ANB006L+UI , AHRI Reference Number: 9159762 Nominal Capacity: 42.000, Manufacturer: CARRIER

Entered Interpolation Data:

EWB °F	Air Flow CFM	ODB °F	Total Capacity MBtuh	Power Input kW	EDB 75.5 °F	
					S/T	Sensible Capacity MBtuh
62.6783	1460	90	42	0	0.75	31.5

Interpolation Results:

		Load	Percent of Load
Sensible Capacity:	31.500	32.909	96%
Latent Capacity:	10.500	5.452	193%
Total Capacity:	42.000	38.362	109%

Heating:

Model Type: Air Source Heat Pump, Model: 25HNB542A*031*, Nominal Capacity: 42.000, Manufacturer: CARRIER

Results:

		Load	Percent of Load
Heating Capacity:	42.000	24.671	170%

Manual S Performance Data - System 5 - AC-5

Loads and Design Conditions

Cooling:

Outdoor Dry Bulb:	90	Sensible Gain:	26.547
Outdoor Wet Bulb:	77	Latent Gain:	5.295
Indoor Dry Bulb:	75	Total Gain:	31.842
Indoor RH:	50	Load SHR:	0.83
Supply Airflow:	1,170	Entering Dry Bulb:	75.6
		Entering Wet Bulb:	62.7

Heating:

Outdoor Dry Bulb:	50	Sensible Loss:	23.759
Indoor Dry Bulb:	70	Entering Dry Bulb:	69.6
Indoor RH:	30	Supply Airflow:	307

Equipment Performance Data at System Design Conditions

This system's equipment was selected in accordance with ACCA Manual S.

Cooling:

Model Type: Air Source Heat Pump, Outdoor Model: 25VNA036A*030*, Indoor Model: FE4ANB006L+UI
, AHRI Reference Number: 9892607 Nominal Capacity: 35.000, Manufacturer: CARRIER

Entered Interpolation Data:

EWB °F	Air Flow CFM	ODB °F	Total Capacity MBtuh	Power Input kW	EDB 75.6 °F	
					S/T	Sensible Capacity MBtuh
62.72319	1170	90	35	0	0.75	26.25

Interpolation Results:

		Load	Percent of Load
Sensible Capacity:	26.250	26.547	99%
Latent Capacity:	8.750	5.295	165%
Total Capacity:	35.000	31.842	110%

Heating:

Model Type: Air Source Heat Pump, Model: 25VNA036A*030*, Nominal Capacity: 33.400, Manufacturer: CARRIER

Results:

		Load	Percent of Load
Heating Capacity:	33.400	23.759	141%

Manual S Performance Data - System 6 - AC-6

Loads and Design Conditions

Cooling:

Outdoor Dry Bulb:	90	Sensible Gain:	19.989
Outdoor Wet Bulb:	77	Latent Gain:	3.817
Indoor Dry Bulb:	75	Total Gain:	23.806
Indoor RH:	50	Load SHR:	0.84
Supply Airflow:	892	Entering Dry Bulb:	75.4
		Entering Wet Bulb:	62.6

Heating:

Outdoor Dry Bulb:	50	Sensible Loss:	15.849
Indoor Dry Bulb:	70	Entering Dry Bulb:	69.7
Indoor RH:	30	Supply Airflow:	205

Equipment Performance Data at System Design Conditions

This system's equipment was selected in accordance with ACCA Manual S.

Cooling:

Model Type: Air Source Heat Pump, Outdoor Model: 25VNA024A*030*, Indoor Model: FE4AN(B,F)005L+UI
, AHRI Reference Number: 9892522 Nominal Capacity: 24.800, Manufacturer: CARRIER

Entered Interpolation Data:

EWB °F	Air Flow CFM	ODB °F	Total Capacity MBtuh	Power Input kW	EDB 75.4 °F	
					S/T	Sensible Capacity MBtuh
62.638	892	90	24.8	0	0.75	18.6

Interpolation Results:

		Load	Percent of Load
Sensible Capacity:	18.600	19.989	93%
Latent Capacity:	6.200	3.817	162%
Total Capacity:	24.800	23.806	104%

Heating:

Model Type: Air Source Heat Pump, Model: 25VNA024A*030*, Nominal Capacity: 23.600, Manufacturer: CARRIER

Results:

		Load	Percent of Load
Heating Capacity:	23.600	15.849	149%

Manual S Performance Data - System 7 - AC-7

Loads and Design Conditions

Cooling:

Outdoor Dry Bulb:	90	Sensible Gain:	24.834
Outdoor Wet Bulb:	77	Latent Gain:	8.942
Indoor Dry Bulb:	75	Total Gain:	33.776
Indoor RH:	50	Load SHR:	0.74
Supply Airflow:	1,112	Entering Dry Bulb:	75.3
		Entering Wet Bulb:	62.6

Heating:

Outdoor Dry Bulb:	50	Sensible Loss:	22.105
Indoor Dry Bulb:	70	Entering Dry Bulb:	69.8
Indoor RH:	30	Supply Airflow:	286

Equipment Performance Data at System Design Conditions

This system's equipment was selected in accordance with ACCA Manual S.

Cooling:

Model Type: Air Source Heat Pump, Outdoor Model: 25VNA036A*030*, Indoor Model: FE4ANB006L+UI
, AHRI Reference Number: 9892607 Nominal Capacity: 35.000, Manufacturer: CARRIER

Entered Interpolation Data:

EWB °F	Air Flow CFM	ODB °F	Total Capacity MBtuh	Power Input kW	EDB 75.3 °F	
					S/T	Sensible Capacity MBtuh
62.61536	1112	90	35	0	0.75	26.25

Interpolation Results:

		Load	Percent of Load
Sensible Capacity:	26.250	24.834	106%
Latent Capacity:	8.750	8.942	98%
Total Capacity:	35.000	33.776	104%

Heating:

Model Type: Air Source Heat Pump, Model: 25VNA036A*030*, Nominal Capacity: 33.400, Manufacturer: CARRIER

Results:

		Load	Percent of Load
Heating Capacity:	33.400	22.105	151%

Detailed Room Loads - Room 1 - GH - Guest Room (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	16.4	ft.	System Number:	1	
Room Width:	16.3	ft.	Zone Number:	1	
Area:	266.8	sq.ft.	Supply Air:	321	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	6.0	AC/hr
Volume:	3,201	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	3		Actual Winter Vent.:	0	CFM
Runout Air:	107	CFM	Percent of Supply.:	0	%
Runout Duct Size:	7	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	400	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	400	ft./min.	Actual Winter Infil.:	26	CFM
Actual Loss:	0.084	in.wg./100 ft.	Actual Summer Infil.:	25	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Wall-13A-5ocs 16.2 X 12	195	0.125	2.5	488	2.4	0	470
W -Wall-13A-5ocs 16.4 X 12	124	0.125	2.5	310	2.4	0	299
W -Gls-mik 2 glass shgc-0.34 25%S	73	1.050	21.0	1,533	41.9	0	3,056
UP-Roof-Gorce Roof 16.4 X 16.2	266.8	0.032	0.6	171	1.4	0	376
Floor-22A-ph 33 ft..Per.	33	1.358	27.2	896	0.0	0	0
Subtotals for Structure:				3,398		0	4,201
Infil.: Win.: 26.1, Sum.: 24.8	392		1.464	574	1.043	920	409
Ductwork:				963			736
AED Excursion:							228
People: 200 lat/per, 230 sen/per:	2					400	460
Equipment:						0	683
Lighting:	100						341
Room Totals:				4,935		1,320	7,058

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Color television	683	0	100	100	683	0
Total					683	0

Detailed Room Loads - Room 2 - GH - Family Kitchen (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	17.0	ft.	System Number:	1	
Room Width:	17.5	ft.	Zone Number:	1	
Area:	297.5	sq.ft.	Supply Air:	343	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	5.8	AC/hr
Volume:	3,570	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	4		Actual Winter Vent.:	0	CFM
Runout Air:	86	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	436	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	436	ft./min.	Actual Winter Infil.:	28	CFM
Actual Loss:	0.123	in.wg./100 ft.	Actual Summer Infil.:	26	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Wall-13A-5ocs 17.5 X 12	112	0.125	2.5	280	2.4	0	270
E -Wall-13A-5ocs 17 X 12	204	0.125	2.5	510	2.4	0	492
N -Gls-mik 2 glass shgc-0.34 100%S	98	1.050	21.0	2,058	23.0	0	2,251
UP-Roof-Gorce Roof 17 X 17.5	297.5	0.032	0.6	190	1.4	0	419
Floor-22A-ph 35 ft..Per.	35	1.358	27.2	951	0.0	0	0
Subtotals for Structure:				3,989		0	3,432
Infil.: Win.: 27.6, Sum.: 26.2	414		1.464	606	1.043	971	432
Ductwork:				1,114			786
AED Excursion:							243
Equipment:						504	1,961
Lighting:	200						682
Room Totals:				5,709		1,475	7,536

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Refrigerator or freezer - 12 cubic feet	700	0	100	100	700	0
Microwave	4949	1732	75	25	928	325
Cooking range no hood - four burners on high heat	13311	7167	10	25	333	179
Total					1961	504

Detailed Room Loads - Room 3 - GH - Guest Bath (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	6.8	ft.	System Number:	1	
Room Width:	10.8	ft.	Zone Number:	1	
Area:	73.5	sq.ft.	Supply Air:	61	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	4.2	AC/hr
Volume:	882	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	61	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	312	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	312	ft./min.	Actual Winter Infil.:	14	CFM
Actual Loss:	0.063	in.wg./100 ft.	Actual Summer Infil.:	13	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
W -Wall-13A-5ocs 6.8 X 12	82	0.125	2.5	205	2.4	0	198
S -Wall-13A-5ocs 10.8 X 12	129	0.125	2.5	323	2.4	0	311
UP-Roof-Gorce Roof 6.8 X 10.8	73.5	0.032	0.6	47	1.4	0	103
Floor-22A-ph 18 ft..Per.	18	1.358	27.2	489	0.0	0	0
Subtotals for Structure:				1,064		0	612
Infil.: Win.: 14.0, Sum.: 13.3	211		1.464	309	1.043	495	220
Ductwork:				333			140
AED Excursion:							43
Equipment:						62	125
Lighting:	60						205
Room Totals:				1,706		557	1,345

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
HAIR DRYER	1000	500	50	25	125	62
Total					125	62

Detailed Room Loads - Room 4 - GH - Guest WIC (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	6.8	ft.	System Number:	1	
Room Width:	6.1	ft.	Zone Number:	1	
Area:	41.6	sq.ft.	Supply Air:	24	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	2.8	AC/hr
Volume:	499	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	24	CFM	Percent of Supply.:	0	%
Runout Duct Size:	4	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	270	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	270	ft./min.	Actual Winter Infil.:	5	CFM
Actual Loss:	0.084	in.wg./100 ft.	Actual Summer Infil.:	5	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
S -Wall-13A-5ocs 6.1 X 12	73	0.125	2.5	182	2.4	0	176
UP-Roof-Gorce Roof 6.8 X 6.1	41.6	0.032	0.6	27	1.4	0	59
Floor-22A-ph 6 ft..Per.	6	1.358	27.2	163	0.0	0	0
Subtotals for Structure:				372		0	235
Infil.: Win.: 4.9, Sum.: 4.6	73		1.466	107	1.041	171	76
Ductwork:				116			54
AED Excursion:							17
Lighting:	40						136
Room Totals:				595		171	518

Detailed Room Loads - Room 5 - GH- Cabana Bath (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	6.8	ft.	System Number:	1	
Room Width:	9.9	ft.	Zone Number:	1	
Area:	67.8	sq.ft.	Supply Air:	87	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	6.4	AC/hr
Volume:	813	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	87	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	445	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	445	ft./min.	Actual Winter Infil.:	13	CFM
Actual Loss:	0.127	in.wg./100 ft.	Actual Summer Infil.:	13	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
S -Wall-13A-5ocs 9.9 X 12	119	0.125	2.5	298	2.4	0	287
E -Wall-13A-5ocs 6.8 X 12	59.5	0.125	2.5	149	2.4	0	144
E -Gls-mik 2 glass shgc-0.34 53%S	22.5	1.050	21.0	473	34.9	0	786
UP-Roof-Gorce Roof 6.8 X 9.9	67.8	0.032	0.6	43	1.4	0	95
Floor-22A-ph 17 ft..Per.	17	1.358	27.2	462	0.0	0	0
Subtotals for Structure:				1,425		0	1,312
Infil.: Win.: 13.4, Sum.: 12.7	201		1.463	294	1.045	472	210
Ductwork:				417			200
AED Excursion:							62
Lighting:	40						136
Room Totals:				2,136		472	1,921

Detailed Room Loads - Room 6 - 01 - Family (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	23.9	ft.	System Number:	2	
Room Width:	17.3	ft.	Zone Number:	1	
Area:	414.6	sq.ft.	Supply Air:	569	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	6.9	AC/hr
Volume:	4,975	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	6		Actual Winter Vent.:	0	CFM
Runout Air:	95	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	483	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	483	ft./min.	Actual Winter Infil.:	28	CFM
Actual Loss:	0.150	in.wg./100 ft.	Actual Summer Infil.:	24	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Wall-13A-5ocs 16.3 X 12	76	0.125	2.5	190	2.4	0	183
W -Wall-13A-5ocs 23.9 X 12	179	0.125	2.5	448	2.4	0	432
S -Wall-13A-5ocs 17.3 X 12	208	0.125	2.5	520	2.4	0	502
W -Gls-mik 2 glass shgc-0.34 100%S	108	1.050	21.0	2,268	23.0	0	2,481
N -Gls-mik 2 glass shgc-0.34 100%S	120	1.050	21.0	2,520	23.0	0	2,757
UP-Roof-Gorce Roof 23.9 X 17.3	414.6	0.032	0.6	265	1.4	0	584
Floor-22A-ph 58 ft..Per.	58	1.358	27.2	1,575	0.0	0	0
Subtotals for Structure:				7,786		0	6,939
Infil.: Win.: 27.9, Sum.: 24.2	691		0.887	613	0.579	899	400
Ductwork:				2,734			1,635
People: 200 lat/per, 230 sen/per:	8					1,600	1,840
Equipment:						0	683
Lighting:	300						1,023
Room Totals:				11,133		2,499	12,520

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Color television	683	0	100	100	683	0
Total					683	0

Detailed Room Loads - Room 7 - 01 - Kitchen (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	23.5	ft.	System Number:	2	
Room Width:	23.5	ft.	Zone Number:	1	
Area:	552.3	sq.ft.	Supply Air:	418	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	3.8	AC/hr
Volume:	6,627	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	4		Actual Winter Vent.:	0	CFM
Runout Air:	105	CFM	Percent of Supply.:	0	%
Runout Duct Size:	7	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	391	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	391	ft./min.	Actual Winter Infil.:	10	CFM
Actual Loss:	0.080	in.wg./100 ft.	Actual Summer Infil.:	8	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
S -Wall-13A-5ocs 19.8 X 12	177	0.125	2.5	443	2.4	0	427
S -Gls-mik 2 glass shgc-0.34 100%S	60	1.050	21.0	1,260	23.0	0	1,378
Floor-22A-ph 20 ft..Per.	20	1.358	27.2	543	0.0	0	0
Subtotals for Structure:				2,246		0	1,805
Infil.: Win.: 9.6, Sum.: 8.3	237		0.886	210	0.578	308	137
Ductwork:				799			1,201
People: 200 lat/per, 230 sen/per:	6					1,200	1,380
Equipment:						683	3,652
Lighting:	300						1,023
Room Totals:				3,255		2,191	9,198

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Refrigerator or freezer - 16 cubic feet	1000	0	100	100	1000	0
Refrigerator or freezer - 12 cubic feet	700	0	100	100	700	0
Microwave	4949	1732	75	25	928	325
Dishwasher	4096	1433	100	25	1024	358
Cooking range with hood - four burners on high heat	0	0	100	100	0	0
Total					3652	683

Detailed Room Loads - Room 8 - 01 - Pantry (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	17.5	ft.	System Number:	2	
Room Width:	8.1	ft.	Zone Number:	1	
Area:	141.5	sq.ft.	Supply Air:	4	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	0.1	AC/hr
Volume:	1,697	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	4	CFM	Percent of Supply.:	0	%
Runout Duct Size:	4	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	41	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	41	ft./min.	Actual Winter Infil.:	0	CFM
Actual Loss:	0.002	in.wg./100 ft.	Actual Summer Infil.:	0	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
Subtotals for Structure:				0		0	0
Infil.: Win.: 0.0, Sum.: 0.0	0		0	0	0	0	0
Ductwork:				0			10
Lighting:	20						68
Room Totals:				0		0	78

Detailed Room Loads - Room 9 - 01 - Corridor South (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	5.5	ft.	System Number:	2	
Room Width:	80.0	ft.	Zone Number:	1	
Area:	440.0	sq.ft.	Supply Air:	485	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	5.5	AC/hr
Volume:	5,280	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	5		Actual Winter Vent.:	0	CFM
Runout Air:	97	CFM	Percent of Supply.:	0	%
Runout Duct Size:	7	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	363	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	363	ft./min.	Actual Winter Infil.:	25	CFM
Actual Loss:	0.069	in.wg./100 ft.	Actual Summer Infil.:	21	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Wall-13A-5ocs 39 X 12	288	0.125	2.5	720	2.4	0	695
W -Wall-13A-5ocs 6 X 12	27.8	0.125	2.5	70	2.4	0	67
E -Wall-13A-5ocs 6 X 12	36	0.125	2.5	90	2.4	0	87
W -Gls-mik 2 glass shgc-0.34 26%S	44.2	1.050	21.0	927	41.8	0	1,846
N -Gls-mik 2 glass shgc-0.34 100%S	72	1.050	21.0	1,512	23.0	0	1,654
N -Gls-mik 2 glass shgc-0.34 100%S (3)	108	1.050	21.0	2,268	23.0	0	2,481
E -Gls-mik 2 glass shgc-0.34 0%S	36	1.050	21.0	756	48.5	0	1,746
Floor-22A-ph 51 ft..Per.	51	1.358	27.2	1,385	0.0	0	0
Subtotals for Structure:				7,728		0	8,576
Infil.: Win.: 24.7, Sum.: 21.5	612		0.887	543	0.578	796	354
Ductwork:				2,692			1,393
Lighting:	100						341
Room Totals:				10,963		796	10,664

Detailed Room Loads - Room 10 - 01 - Powder (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	8.5	ft.	System Number:	2	
Room Width:	7.2	ft.	Zone Number:	1	
Area:	60.9	sq.ft.	Supply Air:	4	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	0.3	AC/hr
Volume:	731	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	4	CFM	Percent of Supply.:	0	%
Runout Duct Size:	4	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	41	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	41	ft./min.	Actual Winter Infil.:	0	CFM
Actual Loss:	0.002	in.wg./100 ft.	Actual Summer Infil.:	0	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
Subtotals for Structure:				0		0	0
Infil.: Win.: 0.0, Sum.: 0.0	0		0	0	0	0	0
Ductwork:				0			10
Lighting:	20						68
Room Totals:				0		0	78

Detailed Room Loads - Room 11 - 01 - Low Voltage (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	3.0	ft.	System Number:	2	
Room Width:	6.0	ft.	Zone Number:	1	
Area:	18.0	sq.ft.	Supply Air:	4	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	1.0	AC/hr
Volume:	216	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	4	CFM	Percent of Supply.:	0	%
Runout Duct Size:	4	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	41	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	41	ft./min.	Actual Winter Infil.:	0	CFM
Actual Loss:	0.002	in.wg./100 ft.	Actual Summer Infil.:	0	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
Subtotals for Structure:				0		0	0
Infil.: Win.: 0.0, Sum.: 0.0	0		0	0	0	0	0
Ductwork:				0			10
Lighting:	20						68
Room Totals:				0		0	78

Detailed Room Loads - Room 12 - 01 - Laundry (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	9.8	ft.	System Number:	2	
Room Width:	16.3	ft.	Zone Number:	1	
Area:	160.6	sq.ft.	Supply Air:	114	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	3.5	AC/hr
Volume:	1,927	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	2		Actual Winter Vent.:	0	CFM
Runout Air:	57	CFM	Percent of Supply.:	0	%
Runout Duct Size:	5	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	418	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	418	ft./min.	Actual Winter Infil.:	9	CFM
Actual Loss:	0.145	in.wg./100 ft.	Actual Summer Infil.:	8	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Wall-13A-5ocs 12 X 12	102	0.125	2.5	255	2.4	0	246
E -Wall-13A-5ocs 7.5 X 12	90	0.125	2.5	225	2.4	0	217
N -Gls-mik 2 glass shgc-0.34 100%S	42	1.050	21.0	882	23.0	0	965
Floor-22A-ph 20 ft..Per.	20	1.358	27.2	543	0.0	0	0
Subtotals for Structure:				1,905		0	1,428
Infil.: Win.: 9.4, Sum.: 8.2	234		0.889	208	0.577	304	135
Ductwork:				688			327
Equipment:						0	478
Lighting:	40						136
Room Totals:				2,801		304	2,504

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Vented clothes dryer - 10 percent to space	1707	0	50	50	427	0
Clothes washing machine - 10 percent to space	205	0	50	50	51	0
Total					478	0

Detailed Room Loads - Room 13 - 01 - Flex Room (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	18.3	ft.	System Number:	2	
Room Width:	19.1	ft.	Zone Number:	1	
Area:	348.3	sq.ft.	Supply Air:	362	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	5.2	AC/hr
Volume:	4,179	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	4		Actual Winter Vent.:	0	CFM
Runout Air:	90	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	460	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	460	ft./min.	Actual Winter Infil.:	18	CFM
Actual Loss:	0.136	in.wg./100 ft.	Actual Summer Infil.:	16	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
E -Wall-13A-5ocs 18.2 X 12	115.5	0.125	2.5	289	2.4	0	279
S -Wall-13A-5ocs 19.1 X 12	229	0.125	2.5	572	2.4	0	552
E -Gls-mik 2 glass shgc-0.34 25%S	103.5	1.050	21.0	2,174	41.9	0	4,338
Floor-22A-ph 37 ft..Per.	37	1.358	27.2	1,005	0.0	0	0
Subtotals for Structure:				4,040		0	5,169
Infil.: Win.: 18.1, Sum.: 15.7	448		0.886	397	0.578	583	259
Ductwork:				1,444			1,038
People: 200 lat/per, 230 sen/per:	2					400	460
Equipment:						0	683
Lighting:	100						341
Room Totals:				5,881		983	7,950

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Color television	683	0	100	100	683	0
Total					683	0

Detailed Room Loads - Room 14 - 01 - Flex WIC (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	7.3	ft.	System Number:	2	
Room Width:	11.3	ft.	Zone Number:	1	
Area:	83.1	sq.ft.	Supply Air:	42	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	2.5	AC/hr
Volume:	997	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	42	CFM	Percent of Supply.:	0	%
Runout Duct Size:	5	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	309	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	309	ft./min.	Actual Winter Infil.:	9	CFM
Actual Loss:	0.080	in.wg./100 ft.	Actual Summer Infil.:	8	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
S -Wall-13A-5ocs 7.3 X 12	88	0.125	2.5	220	2.4	0	212
W -Wall-13A-5ocs 11.3 X 12	136	0.125	2.5	340	2.4	0	328
Floor-22A-ph 19 ft..Per.	19	1.358	27.2	516	0.0	0	0
Subtotals for Structure:				1,076		0	540
Infil.: Win.: 9.0, Sum.: 7.9	224		0.888	199	0.580	291	130
Ductwork:				415			121
Lighting:	40						136
Room Totals:				1,690		291	928

Detailed Room Loads - Room 15 - 01 - Great Room Dining (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	24.6	ft.	System Number:	3	
Room Width:	43.0	ft.	Zone Number:	1	
Area:	1,057.1	sq.ft.	Supply Air:	1,563	CFM
Ceiling Height:	16.0	ft.	Supply Air Changes:	5.5	AC/hr
Volume:	16,913	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	15		Actual Winter Vent.:	0	CFM
Runout Air:	104	CFM	Percent of Supply.:	0	%
Runout Duct Size:	7	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	390	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	390	ft./min.	Actual Winter Infil.:	45	CFM
Actual Loss:	0.079	in.wg./100 ft.	Actual Summer Infil.:	37	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
W -Wall-13A-5ocs 43 X 16	246	0.125	2.5	615	2.4	0	593
W -Gls-mik 2 glass shgc-0.34 72%S	240	1.050	21.0	5,040	29.9	0	7,167
W -Gls-mik 2 glass shgc-0.34 73%S	100	1.050	21.0	2,100	29.9	0	2,986
W -Gls-mik 2 glass shgc-0.34 77%S	72	1.050	21.0	1,512	28.8	0	2,071
W -Gls-mik 2 glass shgc-0.34 77%S	30	1.050	21.0	630	28.8	0	863
UP-Roof-Gorce Roof 24.6 X 43	1057.1	0.032	0.6	677	1.4	0	1,488
Floor-22A-ph 43 ft..Per.	43	1.358	27.2	1,168	0.0	0	0
Subtotals for Structure:				11,742		0	15,168
Infil.: Win.: 44.6, Sum.: 37.1	688		1.426	981	0.888	1,374	611
Ductwork:				4,971			3,842
AED Excursion:							8,673
People: 200 lat/per, 230 sen/per:	16					3,200	3,680
Equipment:						300	683
Lighting:	500						1,705
Room Totals:				17,694		4,874	34,362

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Color television	683	0	100	100	683	0
Plant - large	0	300	100	100	0	300
Total					683	300

Detailed Room Loads - Room 17 - 01 - Corridor East (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	5.0	ft.	System Number:	3	
Room Width:	67.0	ft.	Zone Number:	1	
Area:	335.0	sq.ft.	Supply Air:	103	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	1.5	AC/hr
Volume:	4,020	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	103	CFM	Percent of Supply.:	0	%
Runout Duct Size:	7	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	384	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	384	ft./min.	Actual Winter Infil.:	4	CFM
Actual Loss:	0.077	in.wg./100 ft.	Actual Summer Infil.:	3	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Wall-13A-5ocs 5 X 12	33	0.125	2.5	83	2.4	0	80
N -Gls-mik 2 glass shgc-0.34 100%S	27	1.050	21.0	567	23.0	0	620
Floor-22A-ph 5 ft..Per.	5	1.358	27.2	136	0.0	0	0
Subtotals for Structure:				786		0	700
Infil.: Win.: 3.9, Sum.: 3.2	60		1.433	86	0.883	120	53
Ductwork:				341			252
AED Excursion:							570
Lighting:	200						682
Room Totals:				1,213		120	2,257

Detailed Room Loads - Room 18 - 01 - Lobby (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	11.0	ft.	System Number:	3	
Room Width:	44.0	ft.	Zone Number:	1	
Area:	484.0	sq.ft.	Supply Air:	309	CFM
Ceiling Height:	24.0	ft.	Supply Air Changes:	1.6	AC/hr
Volume:	11,616	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	3		Actual Winter Vent.:	0	CFM
Runout Air:	103	CFM	Percent of Supply.:	0	%
Runout Duct Size:	7	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	385	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	385	ft./min.	Actual Winter Infil.:	58	CFM
Actual Loss:	0.078	in.wg./100 ft.	Actual Summer Infil.:	48	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Wall-13A-5ocs 30 X 24	720	0.125	2.5	1,800	2.4	0	1,737
S -Wall-13A-5ocs 7.3 X 24	176	0.125	2.5	440	2.4	0	425
UP-Roof-Gorce Roof 11 X 44	484	0.032	0.6	310	1.4	0	681
Floor-22A-ph 45 ft..Per.	45	1.358	27.2	1,222	0.0	0	0
Subtotals for Structure:				3,772		0	2,843
Infil.: Win.: 58.1, Sum.: 48.3	896		1.426	1,278	0.888	1,790	796
Ductwork:				1,973			760
AED Excursion:							1,715
Lighting:	200						682
Room Totals:				7,023		1,790	6,796

Detailed Room Loads - Room 16 - 01 - Bar (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	16.9	ft.	System Number:	4	
Room Width:	14.5	ft.	Zone Number:	1	
Area:	245.3	sq.ft.	Supply Air:	263	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	5.4	AC/hr
Volume:	2,944	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	3		Actual Winter Vent.:	0	CFM
Runout Air:	88	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	446	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	446	ft./min.	Actual Winter Infil.:	12	CFM
Actual Loss:	0.128	in.wg./100 ft.	Actual Summer Infil.:	11	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
W -Wall-13A-5ocs 14.5 X 16	137	0.125	2.5	343	2.4	0	331
W -Gls-mik 2 glass shgc-0.34 72%S	95	1.050	21.0	1,995	29.9	0	2,837
UP-Roof-Gorce Roof 16.9 X 14.5	245.3	0.032	0.6	157	1.4	0	345
Floor-22A-ph 15 ft..Per.	15	1.358	27.2	407	0.0	0	0
Subtotals for Structure:				2,902		0	3,513
Infil.: Win.: 11.9, Sum.: 11.1	232		1.134	263	0.789	410	183
Ductwork:				1,034			712
Equipment:						300	683
Lighting:	200						682
Room Totals:				4,199		710	5,773

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Color television	683	0	100	100	683	0
Plant - large	0	300	100	100	0	300
Total					683	300

Detailed Room Loads - Room 19 - 01 - Studio (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	15.4	ft.	System Number:	4	
Room Width:	14.2	ft.	Zone Number:	1	
Area:	218.4	sq.ft.	Supply Air:	280	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	6.4	AC/hr
Volume:	2,621	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	3		Actual Winter Vent.:	0	CFM
Runout Air:	93	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	475	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	475	ft./min.	Actual Winter Infil.:	13	CFM
Actual Loss:	0.145	in.wg./100 ft.	Actual Summer Infil.:	12	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
E -Wall-13A-5ocs 14.2 X 12	89	0.125	2.5	223	2.4	0	215
S -Wall-13A-5ocs 7.5 X 12	90	0.125	2.5	225	2.4	0	217
E -Gls-mik 2 glass shgc-0.34 25%S	81	1.050	21.0	1,701	41.9	0	3,395
UP-Roof-Gorce Roof 15.4 X 14.2	218.4	0.032	0.6	140	1.4	0	308
Floor-22A-ph 22 ft..Per.	22	1.358	27.2	598	0.0	0	0
Subtotals for Structure:				2,887		0	4,135
Infil.: Win.: 13.4, Sum.: 12.4	260		1.131	294	0.788	460	205
Ductwork:				1,039			758
Equipment:						0	538
Lighting:	150						512
Room Totals:				4,220		460	6,148

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Computer and monitor	1536	0	35	100	538	0
Total					538	0

Detailed Room Loads - Room 20 - 01 - Guest Room (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	17.8	ft.	System Number:	4	
Room Width:	15.7	ft.	Zone Number:	1	
Area:	278.1	sq.ft.	Supply Air:	383	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	6.9	AC/hr
Volume:	3,337	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	4		Actual Winter Vent.:	0	CFM
Runout Air:	96	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	487	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	487	ft./min.	Actual Winter Infil.:	15	CFM
Actual Loss:	0.152	in.wg./100 ft.	Actual Summer Infil.:	14	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Wall-13A-5ocs 4.5 X 12	54	0.125	2.5	135	2.4	0	130
E -Wall-13A-5ocs 15.7 X 12	80	0.125	2.5	200	2.4	0	193
S -Wall-13A-5ocs 4.5 X 12	54	0.125	2.5	135	2.4	0	130
E -Gls-mik 2 glass shgc-0.34 7%S	108	1.050	21.0	2,268	46.6	0	5,035
Floor-22A-ph 25 ft..Per.	25	1.358	27.2	679	0.0	0	0
Subtotals for Structure:				3,417		0	5,488
Infil.: Win.: 15.2, Sum.: 14.1	296		1.132	335	0.787	524	233
Ductwork:				1,226			1,038
People: 200 lat/per, 230 sen/per:	2					400	460
Equipment:						0	683
Lighting:	150						512
Room Totals:				4,978		924	8,413

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Color television	683	0	100	100	683	0
Total					683	0

Detailed Room Loads - Room 21 - 01 - Guest WC (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	9.4	ft.	System Number:	4	
Room Width:	6.3	ft.	Zone Number:	1	
Area:	58.9	sq.ft.	Supply Air:	7	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	0.6	AC/hr
Volume:	706	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	7	CFM	Percent of Supply.:	0	%
Runout Duct Size:	4	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	81	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	81	ft./min.	Actual Winter Infil.:	0	CFM
Actual Loss:	0.008	in.wg./100 ft.	Actual Summer Infil.:	0	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
Subtotals for Structure:				0		0	0
Infil.: Win.: 0.0, Sum.: 0.0	0		0	0	0	0	0
Ductwork:				0			19
Lighting:	40						136
Room Totals:				0		0	156

Detailed Room Loads - Room 22 - 01 - Massage (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	19.8	ft.	System Number:	4	
Room Width:	14.6	ft.	Zone Number:	1	
Area:	289.2	sq.ft.	Supply Air:	122	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	2.1	AC/hr
Volume:	3,471	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	2		Actual Winter Vent.:	0	CFM
Runout Air:	61	CFM	Percent of Supply.:	0	%
Runout Duct Size:	5	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	446	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	446	ft./min.	Actual Winter Infil.:	21	CFM
Actual Loss:	0.165	in.wg./100 ft.	Actual Summer Infil.:	20	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Wall-13A-5ocs 19.8 X 12	238	0.125	2.5	595	2.4	0	574
E -Wall-13A-5ocs 14.6 X 12	175	0.125	2.5	437	2.4	0	422
Floor-22A-ph 39 ft..Per.	39	1.358	27.2	1,059	0.0	0	0
Subtotals for Structure:				2,091		0	996
Infil.: Win.: 21.3, Sum.: 19.7	413		1.133	468	0.787	731	325
Ductwork:				836			330
Equipment:						0	683
Lighting:	100						341
Room Totals:				3,395		731	2,675

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Color television	683	0	100	100	683	0
Total					683	0

Detailed Room Loads - Room 23 - 01 - Gym (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	14.7	ft.	System Number:	4	
Room Width:	25.0	ft.	Zone Number:	1	
Area:	366.7	sq.ft.	Supply Air:	400	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	5.4	AC/hr
Volume:	4,400	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	4		Actual Winter Vent.:	0	CFM
Runout Air:	100	CFM	Percent of Supply.:	0	%
Runout Duct Size:	7	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	374	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	374	ft./min.	Actual Winter Infil.:	28	CFM
Actual Loss:	0.073	in.wg./100 ft.	Actual Summer Infil.:	26	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
E -Wall-13A-5ocs 5 X 12	60	0.125	2.5	150	2.4	0	145
N -Wall-13A-5ocs 25 X 12	228	0.125	2.5	570	2.4	0	550
W -Wall-13A-5ocs 14.7 X 12	104	0.125	2.5	260	2.4	0	251
N -Gls-mik 2 glass shgc-0.34 100%S	72	1.050	21.0	1,512	23.0	0	1,654
W -Gls-mik 2 glass shgc-0.34 81%S	72	1.050	21.0	1,512	27.8	0	2,001
Floor-22A-ph 45 ft..Per.	45	1.358	27.2	1,222	0.0	0	0
Subtotals for Structure:				5,226		0	4,601
Infil.: Win.: 27.6, Sum.: 25.6	536		1.132	607	0.787	948	422
Ductwork:				1,905			1,084
Equipment:						600	2,000
Lighting:	200						682
Room Totals:				7,738		1,548	8,789

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
EQUIPMENT	2000	0	100	100	2000	0
Plant - large	0	600	100	100	0	600
Total					2000	600

Detailed Room Loads - Room 24 - 01 - Gym Bathroom (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	6.9	ft.	System Number:	4	
Room Width:	11.8	ft.	Zone Number:	1	
Area:	81.3	sq.ft.	Supply Air:	7	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	0.4	AC/hr
Volume:	975	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	7	CFM	Percent of Supply.:	0	%
Runout Duct Size:	4	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	81	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	81	ft./min.	Actual Winter Infil.:	0	CFM
Actual Loss:	0.008	in.wg./100 ft.	Actual Summer Infil.:	0	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
Subtotals for Structure:				0		0	0
Infil.: Win.: 0.0, Sum.: 0.0	0		0	0	0	0	0
Ductwork:				0			19
Lighting:	40						136
Room Totals:				0		0	156

Detailed Room Loads - Room 25 - 02 - Bedroom 4 (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	23.2	ft.	System Number:	5	
Room Width:	14.4	ft.	Zone Number:	1	
Area:	334.0	sq.ft.	Supply Air:	260	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	3.9	AC/hr
Volume:	4,008	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	3		Actual Winter Vent.:	0	CFM
Runout Air:	87	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	441	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	441	ft./min.	Actual Winter Infil.:	19	CFM
Actual Loss:	0.125	in.wg./100 ft.	Actual Summer Infil.:	17	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Wall-13A-5ocs 17.7 X 12	212	0.125	2.5	530	2.4	0	511
S -Wall-13A-5ocs 12 X 12	65	0.125	2.5	163	2.4	0	157
S -Gls-mik 2 glass shgc-0.34 0%S	79	1.050	21.0	1,659	22.9	0	1,807
UP-Roof-Gorce Roof 23.2 X 14.4	334	0.032	0.6	214	1.4	0	470
Floor-22A-ph 30 ft..Per.	30	1.358	27.2	815	0.0	0	0
Subtotals for Structure:				3,381		0	2,945
Infil.: Win.: 18.6, Sum.: 17.2	356		1.149	409	0.798	638	284
Ductwork:				1,317			886
People: 200 lat/per, 230 sen/per:	1					200	230
Equipment:						0	683
Lighting:	200						682
Room Totals:				5,107		838	5,710

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Color television	683	0	100	100	683	0
Total					683	0

Detailed Room Loads - Room 26 - 02 - Bathroom 4 (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	11.5	ft.	System Number:	5	
Room Width:	7.3	ft.	Zone Number:	1	
Area:	83.4	sq.ft.	Supply Air:	82	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	4.9	AC/hr
Volume:	1,001	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	82	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	417	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	417	ft./min.	Actual Winter Infil.:	12	CFM
Actual Loss:	0.112	in.wg./100 ft.	Actual Summer Infil.:	11	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
S -Wall-13A-5ocs 7.2 X 12	75	0.125	2.5	188	2.4	0	181
W -Wall-13A-5ocs 11.5 X 12	138	0.125	2.5	345	2.4	0	333
S -Gls-mik 2 glass shgc-0.34 0%S	12	1.050	21.0	252	22.9	0	275
UP-Roof-Gorce Roof 11.5 X 7.2	83.4	0.032	0.6	53	1.4	0	117
Floor-22A-ph 19 ft..Per.	19	1.358	27.2	516	0.0	0	0
Subtotals for Structure:				1,354		0	906
Infil.: Win.: 11.8, Sum.: 10.9	225		1.147	258	0.796	403	179
Ductwork:				560			279
Equipment:						175	300
Lighting:	40						136
Room Totals:				2,172		578	1,801

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
HAIR DRYER	1200	700	50	50	300	175
Total					300	175

Detailed Room Loads - Room 27 - 02 - WIC 4 (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	7.3	ft.	System Number:	5	
Room Width:	12.3	ft.	Zone Number:	1	
Area:	89.4	sq.ft.	Supply Air:	51	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	2.9	AC/hr
Volume:	1,073	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	51	CFM	Percent of Supply.:	0	%
Runout Duct Size:	5	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	374	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	374	ft./min.	Actual Winter Infil.:	12	CFM
Actual Loss:	0.117	in.wg./100 ft.	Actual Summer Infil.:	11	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
W -Wall-13A-5ocs 12.3 X 12	148	0.125	2.5	370	2.4	0	357
N -Wall-13A-5ocs 7.2 X 12	87	0.125	2.5	218	2.4	0	210
UP-Roof-Gorce Roof 7.2 X 12.3	89.4	0.032	0.6	57	1.4	0	126
Floor-22A-ph 20 ft..Per.	20	1.358	27.2	543	0.0	0	0
Subtotals for Structure:				1,188		0	693
Infil.: Win.: 12.3, Sum.: 11.4	235		1.149	270	0.796	421	187
Ductwork:				507			174
Lighting:	20						68
Room Totals:				1,965		421	1,122

Detailed Room Loads - Room 28 - 02 - Bedroom 3 (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	22.5	ft.	System Number:	5	
Room Width:	14.8	ft.	Zone Number:	1	
Area:	333.7	sq.ft.	Supply Air:	240	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	3.6	AC/hr
Volume:	4,005	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	3		Actual Winter Vent.:	0	CFM
Runout Air:	80	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	408	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	408	ft./min.	Actual Winter Infil.:	13	CFM
Actual Loss:	0.107	in.wg./100 ft.	Actual Summer Infil.:	12	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
S -Wall-13A-5ocs 14.8 X 12	99	0.125	2.5	247	2.4	0	239
E -Wall-13A-5ocs 5.4 X 12	65	0.125	2.5	163	2.4	0	157
S -Gls-mik 2 glass shgc-0.34 0%S	79	1.050	21.0	1,659	22.9	0	1,807
UP-Roof-Gorce Roof 22.5 X 14.8	333.7	0.032	0.6	214	1.4	0	470
Floor-22A-ph 20 ft..Per.	20	1.358	27.2	543	0.0	0	0
Subtotals for Structure:				2,826		0	2,673
Infil.: Win.: 12.7, Sum.: 11.7	243		1.148	279	0.798	435	194
Ductwork:				1,079			819
People: 200 lat/per, 230 sen/per:	1					200	230
Equipment:						0	683
Lighting:	200						682
Room Totals:				4,184		635	5,281

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Color television	683	0	100	100	683	0
Total					683	0

Detailed Room Loads - Room 29 - 02 - Bath 3 (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	6.3	ft.	System Number:	5	
Room Width:	11.0	ft.	Zone Number:	1	
Area:	69.7	sq.ft.	Supply Air:	55	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	4.0	AC/hr
Volume:	836	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	55	CFM	Percent of Supply.:	0	%
Runout Duct Size:	5	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	404	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	404	ft./min.	Actual Winter Infil.:	4	CFM
Actual Loss:	0.136	in.wg./100 ft.	Actual Summer Infil.:	4	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
S -Wall-13A-5ocs 6.3 X 12	64	0.125	2.5	160	2.4	0	154
S -Gls-mik 2 glass shgc-0.34 0%S	12	1.050	21.0	252	22.9	0	275
UP-Roof-Gorce Roof 6.3 X 11	69.7	0.032	0.6	45	1.4	0	98
Floor-22A-ph 6 ft..Per.	6	1.358	27.2	163	0.0	0	0
Subtotals for Structure:				620		0	527
Infil.: Win.: 4.0, Sum.: 3.7	76		1.145	87	0.803	136	61
Ductwork:				246			188
Equipment:						175	300
Lighting:	40						136
Room Totals:				953		311	1,212

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
HAIR DRYER	1200	700	50	50	300	175
Total					300	175

Detailed Room Loads - Room 30 - 03 - WIC (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	6.3	ft.	System Number:	5	
Room Width:	8.1	ft.	Zone Number:	1	
Area:	51.2	sq.ft.	Supply Air:	8	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	0.7	AC/hr
Volume:	614	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	8	CFM	Percent of Supply.:	0	%
Runout Duct Size:	4	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	86	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	86	ft./min.	Actual Winter Infil.:	0	CFM
Actual Loss:	0.009	in.wg./100 ft.	Actual Summer Infil.:	0	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
UP-Roof-Gorce Roof 6.3 X 8.1	51.2	0.032	0.6	33	1.4	0	72
Subtotals for Structure:				33		0	72
Infil.: Win.: 0.0, Sum.: 0.0	0		0	0	0	0	0
Ductwork:				11			26
Lighting:	20						68
Room Totals:				44		0	166

Detailed Room Loads - Room 31 - 02 - South Corridor (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	5.0	ft.	System Number:	5	
Room Width:	38.5	ft.	Zone Number:	1	
Area:	192.5	sq.ft.	Supply Air:	155	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	4.0	AC/hr
Volume:	2,310	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	2		Actual Winter Vent.:	0	CFM
Runout Air:	78	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	395	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	395	ft./min.	Actual Winter Infil.:	7	CFM
Actual Loss:	0.101	in.wg./100 ft.	Actual Summer Infil.:	7	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Wall-13A-5ocs 11.7 X 12	68	0.125	2.5	170	2.4	0	164
N -Gls-mik 2 glass shgc-0.34 100%S (3)	72	1.050	21.0	1,512	23.0	0	1,653
UP-Roof-Gorce Roof 5 X 38.5	192.5	0.032	0.6	123	1.4	0	271
Floor-22A-ph 12 ft..Per.	12	1.358	27.2	326	0.0	0	0
Subtotals for Structure:				2,131		0	2,088
Infil.: Win.: 7.3, Sum.: 6.8	140		1.150	161	0.800	251	112
Ductwork:				797			529
Lighting:	200						682
Room Totals:				3,089		251	3,411

Detailed Room Loads - Room 32 - 02 - Bedroom 2 (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	12.0	ft.	System Number:	5	
Room Width:	23.4	ft.	Zone Number:	1	
Area:	281.0	sq.ft.	Supply Air:	257	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	4.6	AC/hr
Volume:	3,372	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	3		Actual Winter Vent.:	0	CFM
Runout Air:	86	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	437	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	437	ft./min.	Actual Winter Infil.:	19	CFM
Actual Loss:	0.123	in.wg./100 ft.	Actual Summer Infil.:	18	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
E -Wall-13A-5ocs 15 X 12	180	0.125	2.5	450	2.4	0	434
S -Wall-13A-5ocs 15.4 X 12	106	0.125	2.5	265	2.4	0	256
S -Gls-mik 2 glass shgc-0.34 0%S	79	1.050	21.0	1,659	22.9	0	1,807
UP-Roof-Gorce Roof 12 X 23.4	281	0.032	0.6	180	1.4	0	396
Floor-22A-ph 30 ft..Per.	30	1.358	27.2	815	0.0	0	0
Subtotals for Structure:				3,369		0	2,893
Infil.: Win.: 19.1, Sum.: 17.6	365		1.148	419	0.797	654	291
Ductwork:				1,317			877
People: 200 lat/per, 230 sen/per:	1					200	230
Equipment:						0	683
Lighting:	200						682
Room Totals:				5,105		854	5,656

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Color television	683	0	100	100	683	0
Total					683	0

Detailed Room Loads - Room 33 - 02 - Bath 2 (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	11.0	ft.	System Number:	5	
Room Width:	6.3	ft.	Zone Number:	1	
Area:	69.7	sq.ft.	Supply Air:	55	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	4.0	AC/hr
Volume:	836	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	55	CFM	Percent of Supply.:	0	%
Runout Duct Size:	5	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	404	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	404	ft./min.	Actual Winter Infil.:	4	CFM
Actual Loss:	0.136	in.wg./100 ft.	Actual Summer Infil.:	4	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
S -Wall-13A-5ocs 6.3 X 12	64	0.125	2.5	160	2.4	0	154
S -Gls-mik 2 glass shgc-0.34 0%S	12	1.050	21.0	252	22.9	0	275
UP-Roof-Gorce Roof 11 X 6.3	69.7	0.032	0.6	45	1.4	0	98
Floor-22A-ph 6 ft..Per.	6	1.358	27.2	163	0.0	0	0
Subtotals for Structure:				620		0	527
Infil.: Win.: 4.0, Sum.: 3.7	76		1.145	87	0.803	136	61
Ductwork:				246			188
Equipment:						175	300
Lighting:	40						136
Room Totals:				953		311	1,212

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
HAIR DRYER	1200	700	50	50	300	175
Total					300	175

Detailed Room Loads - Room 34 - 02 - WIC 2 (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	6.3	ft.	System Number:	5	
Room Width:	8.1	ft.	Zone Number:	1	
Area:	51.2	sq.ft.	Supply Air:	8	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	0.7	AC/hr
Volume:	614	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	8	CFM	Percent of Supply.:	0	%
Runout Duct Size:	4	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	86	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	86	ft./min.	Actual Winter Infil.:	0	CFM
Actual Loss:	0.009	in.wg./100 ft.	Actual Summer Infil.:	0	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
UP-Roof-Gorce Roof 6.3 X 8.1	51.2	0.032	0.6	33	1.4	0	72
Subtotals for Structure:				33		0	72
Infil.: Win.: 0.0, Sum.: 0.0	0		0	0	0	0	0
Ductwork:				11			26
Lighting:	20						68
Room Totals:				44		0	166

Detailed Room Loads - Room 35 - 02 - Bedroom 1 (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	14.4	ft.	System Number:	6	
Room Width:	16.4	ft.	Zone Number:	1	
Area:	236.7	sq.ft.	Supply Air:	337	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	7.1	AC/hr
Volume:	2,840	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	4		Actual Winter Vent.:	0	CFM
Runout Air:	84	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	429	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	429	ft./min.	Actual Winter Infil.:	21	CFM
Actual Loss:	0.119	in.wg./100 ft.	Actual Summer Infil.:	20	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
E -Wall-13A-5ocs 12 X 12	65	0.125	2.5	163	2.4	0	157
S -Wall-13A-5ocs 16.4 X 12	197	0.125	2.5	493	2.4	0	475
E -Gls-mik 2 glass shgc-0.34 0%S	79	1.050	21.0	1,659	48.5	0	3,831
UP-Roof-Gorce Roof 14.4 X 16.4	236.7	0.032	0.6	151	1.4	0	333
Floor-22A-ph 28 ft..Per.	28	1.358	27.2	760	0.0	0	0
Subtotals for Structure:				3,226		0	4,796
Infil.: Win.: 20.7, Sum.: 20.3	341		1.334	455	0.982	753	335
Ductwork:				804			688
People: 200 lat/per, 230 sen/per:	1					200	230
Equipment:						0	683
Lighting:	200						682
Room Totals:				4,485		953	7,414

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Color television	683	0	100	100	683	0
Total					683	0

Detailed Room Loads - Room 36 - 02 - Bath 1 (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	7.3	ft.	System Number:	6	
Room Width:	9.5	ft.	Zone Number:	1	
Area:	69.7	sq.ft.	Supply Air:	61	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	4.4	AC/hr
Volume:	836	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	61	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	311	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	311	ft./min.	Actual Winter Infil.:	12	CFM
Actual Loss:	0.063	in.wg./100 ft.	Actual Summer Infil.:	12	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
S -Wall-13A-5ocs 7.3 X 12	88	0.125	2.5	220	2.4	0	212
W -Wall-13A-5ocs 9.5 X 12	114	0.125	2.5	285	2.4	0	275
UP-Roof-Gorce Roof 7.3 X 9.5	69.7	0.032	0.6	45	1.4	0	98
Floor-22A-ph 17 ft..Per.	17	1.358	27.2	462	0.0	0	0
Subtotals for Structure:				1,012		0	585
Infil.: Win.: 12.3, Sum.: 12.0	202		1.332	269	0.980	446	198
Ductwork:				280			125
Equipment:						175	300
Lighting:	40						136
Room Totals:				1,561		621	1,344

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
HAIR DRYER	1200	700	50	50	300	175
Total					300	175

Detailed Room Loads - Room 37 - 02 - Laundry (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	16.8	ft.	System Number:	6	
Room Width:	9.5	ft.	Zone Number:	1	
Area:	159.9	sq.ft.	Supply Air:	130	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	4.0	AC/hr
Volume:	1,919	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	2		Actual Winter Vent.:	0	CFM
Runout Air:	65	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	330	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	330	ft./min.	Actual Winter Infil.:	16	CFM
Actual Loss:	0.071	in.wg./100 ft.	Actual Summer Infil.:	16	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Wall-13A-5ocs 12.2 X 12	115.2	0.125	2.5	288	2.4	0	278
E -Wall-13A-5ocs 9.5 X 12	114	0.125	2.5	285	2.4	0	275
N -Gls-mik 2 glass shgc-0.34 100%S	31.8	1.050	21.0	668	23.0	0	731
UP-Roof-Gorce Roof 16.8 X 9.5	159.9	0.032	0.6	102	1.4	0	225
Floor-22A-ph 22 ft..Per.	22	1.358	27.2	598	0.0	0	0
Subtotals for Structure:				1,941		0	1,509
Infil.: Win.: 15.8, Sum.: 15.5	261		1.333	348	0.981	576	256
Ductwork:				500			264
Equipment:						0	478
Lighting:	100						341
Room Totals:				2,789		576	2,848

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Vented clothes dryer - 10 percent to space	1707	0	50	50	427	0
Clothes washing machine - 10 percent to space	205	0	50	50	51	0
Total					478	0

Detailed Room Loads - Room 38 - 02 - Corridor East (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	5.0	ft.	System Number:	6	
Room Width:	48.8	ft.	Zone Number:	1	
Area:	244.2	sq.ft.	Supply Air:	364	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	7.5	AC/hr
Volume:	2,930	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	4		Actual Winter Vent.:	0	CFM
Runout Air:	91	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	464	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	464	ft./min.	Actual Winter Infil.:	33	CFM
Actual Loss:	0.138	in.wg./100 ft.	Actual Summer Infil.:	33	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
W -Wall-13A-5ocs 48.8 X 8	343.8	0.125	2.5	859	2.4	0	829
E -Wall-13A-5ocs 13.2 X 12	111	0.125	2.5	278	2.4	0	268
W -Gls-mik 2 glass shgc-0.34 0%S (5)	46.9	1.050	21.0	985	48.5	0	2,275
E -Gls-mik 2 glass shgc-0.34 0%S	48	1.050	21.0	1,008	48.5	0	2,328
UP-Roof-Gorce Roof 5 X 48.8	244.2	0.032	0.6	156	1.4	0	344
Floor-22A-ph 62 ft..Per.	62	1.358	27.2	1,684	0.0	0	0
Subtotals for Structure:				4,970		0	6,044
Infil.: Win.: 33.3, Sum.: 32.7	550		1.334	733	0.982	1,214	540
Ductwork:				1,245			743
Lighting:	200						682
Room Totals:				6,948		1,214	8,009

Detailed Room Loads - Room 39 - 02 - Master Bedroom (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	27.3	ft.	System Number:	7	
Room Width:	19.2	ft.	Zone Number:	1	
Area:	522.3	sq.ft.	Supply Air:	520	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	5.0	AC/hr
Volume:	6,268	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	5		Actual Winter Vent.:	0	CFM
Runout Air:	104	CFM	Percent of Supply.:	0	%
Runout Duct Size:	7	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	389	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	389	ft./min.	Actual Winter Infil.:	80	CFM
Actual Loss:	0.079	in.wg./100 ft.	Actual Summer Infil.:	79	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
S -Wall-13A-5ocs 19.2 X 8	153.3	0.125	2.5	383	2.4	0	370
W -Wall-13A-5ocs 27.2 X 12	192	0.125	2.5	480	2.4	0	463
N -Wall-13A-5ocs 19.2 X 12	230	0.125	2.5	575	2.4	0	555
W -Gls-mik 2 glass shgc-0.34 71%S	135	1.050	21.0	2,835	30.1	0	4,070
UP-Roof-Gorce Roof 27.2 X 19.2	522.3	0.032	0.6	334	1.4	0	735
Floor-22A-ph 66 ft..Per.	66	1.358	27.2	1,793	0.0	0	0
Subtotals for Structure:				6,400		0	6,193
Infil.: Win.: 79.6, Sum.: 78.5	710		2.464	1,750	1.823	2,912	1,295
Ductwork:				1,303			909
AED Excursion:							877
People: 200 lat/per, 230 sen/per:	2					400	460
Equipment:						300	683
Lighting:	300						1,023
Room Totals:				9,453		3,612	11,440

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Color television	683	0	100	100	683	0
Plant - large	0	300	100	100	0	300
Total					683	300

Detailed Room Loads - Room 40 - 02 - Master Entry (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	7.2	ft.	System Number:	7	
Room Width:	20.7	ft.	Zone Number:	1	
Area:	148.1	sq.ft.	Supply Air:	58	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	2.0	AC/hr
Volume:	1,777	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	1		Actual Winter Vent.:	0	CFM
Runout Air:	58	CFM	Percent of Supply.:	0	%
Runout Duct Size:	5	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	424	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	424	ft./min.	Actual Winter Infil.:	12	CFM
Actual Loss:	0.150	in.wg./100 ft.	Actual Summer Infil.:	12	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
S -Wall-13A-5ocs 13.2 X 8	105.3	0.125	2.5	263	2.4	0	254
UP-Roof-Gorce Roof 7.2 X 20.7	148.1	0.032	0.6	95	1.4	0	209
Floor-22A-ph 13 ft..Per.	13	1.358	27.2	353	0.0	0	0
Subtotals for Structure:				711		0	463
Infil.: Win.: 11.8, Sum.: 11.6	105		2.459	259	1.823	432	192
Ductwork:				155			101
AED Excursion:							98
Equipment:						42	78
Lighting:	100						341
Room Totals:				1,125		474	1,273

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
Coffee maker - warmer	155	84	100	50	78	42
Total					78	42

Detailed Room Loads - Room 41 - 02 - Master Bathroom (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	16.9	ft.	System Number:	7	
Room Width:	21.7	ft.	Zone Number:	1	
Area:	366.5	sq.ft.	Supply Air:	199	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	2.7	AC/hr
Volume:	4,399	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	2		Actual Winter Vent.:	0	CFM
Runout Air:	100	CFM	Percent of Supply.:	0	%
Runout Duct Size:	7	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	373	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	373	ft./min.	Actual Winter Infil.:	29	CFM
Actual Loss:	0.073	in.wg./100 ft.	Actual Summer Infil.:	29	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Wall-13A-5ocs 21.7 X 12	193.8	0.125	2.5	484	2.4	0	467
N -Gls-mik 2 glass shgc-0.34 100%S	66.2	1.050	21.0	1,391	23.0	0	1,522
UP-Roof-Gorce Roof 16.9 X 21.7	366.5	0.032	0.6	235	1.4	0	516
Floor-22A-ph 22 ft..Per.	22	1.358	27.2	598	0.0	0	0
Subtotals for Structure:				2,708		0	2,505
Infil.: Win.: 29.1, Sum.: 28.7	260		2.462	640	1.823	1,066	474
Ductwork:				535			348
AED Excursion:							336
Equipment:						225	375
Lighting:	100						341
Room Totals:				3,883		1,291	4,379

Equipment Cooling Loads

Item Name	Cont. Output Sens. Btuh	Cont. Output Lat. Btuh	Avg. In-Use Output	Pct Used /Hour	Sens. Load Btuh	Lat. Load Btuh
HAIR DRYER	1500	900	50	50	375	225
Total					375	225

Detailed Room Loads - Room 42 - 02 - Master WIC (Average Load Procedure)

General

Calculation Mode:	Htg. & clg.		Occurrences:	1	
Room Length:	27.3	ft.	System Number:	7	
Room Width:	17.3	ft.	Zone Number:	1	
Area:	472.3	sq.ft.	Supply Air:	335	CFM
Ceiling Height:	12.0	ft.	Supply Air Changes:	3.5	AC/hr
Volume:	5,668	cu.ft.	Req. Vent. Clg:	0	CFM
Number of Registers:	4		Actual Winter Vent.:	0	CFM
Runout Air:	84	CFM	Percent of Supply.:	0	%
Runout Duct Size:	6	in.	Actual Summer Vent.:	0	CFM
Runout Air Velocity:	426	ft./min.	Percent of Supply:	0	%
Runout Air Velocity:	426	ft./min.	Actual Winter Infil.:	83	CFM
Actual Loss:	0.117	in.wg./100 ft.	Actual Summer Infil.:	82	CFM

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N -Wall-13A-5ocs 17.3 X 12	208	0.125	2.5	520	2.4	0	502
E -Wall-13A-5ocs 27.3 X 12	282	0.125	2.5	705	2.4	0	680
S -Wall-13A-5ocs 17.3 X 12	208	0.125	2.5	520	2.4	0	502
E -Gls-mik 2 glass shgc-0.34 0%S (2)	46	1.050	21.0	966	48.5	0	2,230
UP-Roof-Gorce Roof 27.2 X 17.3	472.3	0.032	0.6	302	1.4	0	665
Floor-22A-ph 62 ft..Per.	62	1.358	27.2	1,684	0.0	0	0
Subtotals for Structure:				4,697		0	4,579
Infil.: Win.: 83.3, Sum.: 82.2	744		2.464	1,833	1.823	3,050	1,356
Ductwork:				1,044			584
AED Excursion:							564
Lighting:	80						273
Room Totals:				7,574		3,050	7,356

System 1 Room Load Summary

No	Room Name	Area SF	Htg Sens Btuh	Min Htg CFM	Run Duct Size	Run Duct Vel	Clg Sens Btuh	Clg Lat Btuh	Min Clg CFM	Act Sys CFM
---Zone 1---										
1	GH - Guest Room	267	4,935	64	3-7	400	7,058	1,320	321	321
2	GH - Family Kitchen	298	5,709	74	4-6	436	7,536	1,475	343	343
3	GH - Guest Bath	73	1,706	22	1-6	312	1,345	557	61	61
4	GH - Guest WIC	42	595	8	1-4	270	518	171	24	24
5	GH- Cabana Bath	68	2,136	28	1-6	445	1,921	472	87	87
	Duct Latent							344		
	Return Duct		68				385	133		
	System 1 total	747	15,149	196			18,763	4,472	836	836

System 1 Main Trunk Size:	10x16	in.
Velocity:	752	ft./min
Loss per 100 ft.:	0.097	in.wg

Cooling System Summary

	Cooling Tons	Sensible/Latent Split	Sensible Btuh	Latent Btuh	Total Btuh
Net Required:	1.94	81% / 19%	18,763	4,472	23,235
Actual:	2.07	75% / 25%	18,600	6,200	24,800

Equipment Data

	Heating System	Cooling System
Type:	Air Source Heat Pump	Air Source Heat Pump
Model:	25VNA024A*030*	25VNA024A*030*
Indoor Model:		FE4AN(B,F)005L+UI
Brand:	INFINITY 20 HP with GREENSPEED INTELLIGENCE	INFINITY 20 HP with GREENSPEED INTELLIGENCE
Description:	Air Source Heat Pump	Air Source Heat Pump
Efficiency:	11.5 HSPF	20 SEER
Sound:	0	0
Capacity:	23,600 Btuh	24,800 Btuh
Sensible Capacity:	n/a	18,600 Btuh
Latent Capacity:	n/a	6,200 Btuh
AHRI Reference No.:	n/a	9892522

This system's equipment was selected in accordance with ACCA Manual S.
Manual S equipment sizing data: SODB: 90F, SOWB: 77F, WODB: 50F, SIDB: 75F, SIRH: 50%, WIDB: 70F, Sen. gain: 18,763 Btuh, Lat. gain: 4,472 Btuh, Sen. loss: 15,149 Btuh, Entering clg. coil DB: 75.4F, Entering clg. coil WB: 62.7F, Entering htg. coil DB: 69.7F, Clg. coil TD: 20F, Htg. coil TD: 70F, Req. clg. airflow: 836 CFM, Req. htg. airflow: 196 CFM

System 2 Room Load Summary

No	Room Name	Area SF	Htg Sens Btuh	Min Htg CFM	Run Duct Size	Run Duct Vel	Clg Sens Btuh	Clg Lat Btuh	Min Clg CFM	Act Sys CFM
---Zone 1---										
6	01 - Family	415	11,133	145	6-6	483	12,520	2,499	569	569
7	01 - Kitchen	552	3,255	42	4-7	391	9,198	2,191	418	418
8	01 - Pantry	141	0	0	1-4	41	78	0	4	4
9	01 - Corridor South	440	10,963	142	5-7	363	10,664	796	485	485
10	01 - Powder	61	0	0	1-4	41	78	0	4	4
11	01 - Low Voltage	18	0	0	1-4	41	78	0	4	4
12	01 - Laundry	161	2,801	36	2-5	418	2,504	304	114	114
13	01 - Flex Room	348	5,881	76	4-6	460	7,950	983	362	362
14	01 - Flex WIC	83	1,690	22	1-5	309	928	291	42	42
	Duct Latent							1,254		
	Return Duct		204				1,152	399		
	System 2 total	2,219	35,928	464			45,151	8,717	2,001	2,001

System 2 Main Trunk Size:	18x18	in.
Velocity:	889	ft./min
Loss per 100 ft.:	0.083	in.wg

Cooling System Summary

	Cooling Tons	Sensible/Latent Split	Sensible Btuh	Latent Btuh	Total Btuh
Net Required:	4.49	84% / 16%	45,151	8,717	53,868
Actual:	4.67	75% / 25%	42,000	14,000	56,000

Equipment Data

	Heating System	Cooling System
Type:	Air Source Heat Pump	Air Source Heat Pump
Model:	25VNA060A*030*	25VNA060A*030*
Indoor Model:		FE4ANB006L+UI
Brand:	INFINITY 20 HP with GREENSPEED INTELLIGENCE	INFINITY 20 HP with GREENSPEED INTELLIGENCE
Description:	Air Source Heat Pump	Air Source Heat Pump
Efficiency:	12 HSPF	18 SEER
Sound:	0	0
Capacity:	55,500 Btuh	56,000 Btuh
Sensible Capacity:	n/a	42,000 Btuh
Latent Capacity:	n/a	14,000 Btuh
AHRI Reference No.:	n/a	9892813

This system's equipment was selected in accordance with ACCA Manual S.
Manual S equipment sizing data: SODB: 90F, SOWB: 77F, WODB: 50F, SIDB: 75F, SIRH: 50%, WIDB: 70F, Sen. gain: 45,151 Btuh, Lat. gain: 8,717 Btuh, Sen. loss: 35,928 Btuh, Entering clg. coil DB: 75.5F, Entering clg. coil WB: 62.7F, Entering htg. coil DB: 69.6F, Clg. coil TD: 20F, Htg. coil TD: 70F, Req. clg. airflow: 2001 CFM, Req. htg. airflow: 464 CFM

System 3 Room Load Summary

No	Room Name	Area SF	Htg Sens Btuh	Min Htg CFM	Run Duct Size	Run Duct Vel	Clg Sens Btuh	Clg Lat Btuh	Min Clg CFM	Act Sys CFM
---Zone 1---										
15	01 - Great Room Dining	1,057	17,694	230	15-7	390	34,362	4,874	1,563	1,563
17	01 - Corridor East	335	1,213	16	1-7	384	2,257	120	103	103
18	01 - Lobby	484	7,023	91	3-7	385	6,796	1,790	309	309
	Duct Latent							1,009		
	Return Duct		172				978	338		
	System 3 total	1,876	26,102	337			44,393	8,132	1,974	1,974

System 3 Main Trunk Size:	18x18	in.
Velocity:	877	ft./min
Loss per 100 ft.:	0.081	in.wg

Cooling System Summary

	Cooling Tons	Sensible/Latent Split	Sensible Btuh	Latent Btuh	Total Btuh
Net Required:	4.38	85% / 15%	44,393	8,132	52,525
Actual:	4.67	75% / 25%	42,000	14,000	56,000

Equipment Data

	Heating System	Cooling System
Type:	Air Source Heat Pump	Air Source Heat Pump
Model:	25VNA060A*030*	25VNA060A*030*
Indoor Model:		FE4ANB006L+UI
Brand:	INFINITY 20 HP with GREENSPEED INTELLIGENCE	INFINITY 20 HP with GREENSPEED INTELLIGENCE
Description:	Air Source Heat Pump	Air Source Heat Pump
Efficiency:	12 HSPF	18 SEER
Sound:	0	0
Capacity:	55,500 Btuh	56,000 Btuh
Sensible Capacity:	n/a	42,000 Btuh
Latent Capacity:	n/a	14,000 Btuh
AHRI Reference No.:	n/a	9892813

This system's equipment was selected in accordance with ACCA Manual S.
Manual S equipment sizing data: SODB: 90F, SOWB: 77F, WODB: 50F, SIDB: 75F, SIRH: 50%, WIDB: 70F, Sen. gain: 44,393 Btuh, Lat. gain: 8,132 Btuh, Sen. loss: 26,102 Btuh, Entering clg. coil DB: 75.5F, Entering clg. coil WB: 62.7F, Entering htg. coil DB: 69.5F, Clg. coil TD: 20F, Htg. coil TD: 70F, Req. clg. airflow: 1974 CFM, Req. htg. airflow: 337 CFM

System 4 Room Load Summary

No	Room Name	Area SF	Htg Sens Btuh	Min Htg CFM	Run Duct Size	Run Duct Vel	Clg Sens Btuh	Clg Lat Btuh	Min Clg CFM	Act Sys CFM
---Zone 1---										
16	01 - Bar	245	4,199	55	3-6	446	5,773	710	263	263
19	01 - Studio	218	4,220	55	3-6	475	6,148	460	280	280
20	01 - Guest Room	278	4,978	65	4-6	487	8,413	924	383	383
21	01 - Guest WC	59	0	0	1-4	81	156	0	7	7
22	01 - Massage	289	3,395	44	2-5	446	2,675	731	122	122
23	01 - Gym	367	7,738	101	4-7	374	8,789	1,548	400	400
24	01 - Gym Bathroom	81	0	0	1-4	81	156	0	7	7
	Duct Latent							802		
	Return Duct		141				800	277		
	System 4 total	1,538	24,671	319			32,909	5,452	1,460	1,460

System 4 Main Trunk Size:	14x17	in.
Velocity:	883	ft./min
Loss per 100 ft.:	0.100	in.wg

Cooling System Summary

	Cooling Tons	Sensible/Latent Split	Sensible Btuh	Latent Btuh	Total Btuh
Net Required:	3.20	86% / 14%	32,909	5,452	38,362
Actual:	3.50	75% / 25%	31,500	10,500	42,000

Equipment Data

	Heating System	Cooling System
Type:	Air Source Heat Pump	Air Source Heat Pump
Model:	25HNB542A*031*	25HNB542A*031*
Indoor Model:		FE4ANB006L+UI
Brand:	INFINITY 15 HP	INFINITY 15 HP
Description:	Air Source Heat Pump	Air Source Heat Pump
Efficiency:	9 HSPF	16 SEER
Sound:	0	0
Capacity:	42,000 Btuh	42,000 Btuh
Sensible Capacity:	n/a	31,500 Btuh
Latent Capacity:	n/a	10,500 Btuh
AHRI Reference No.:	n/a	9159762

This system's equipment was selected in accordance with ACCA Manual S.
Manual S equipment sizing data: SODB: 90F, SOWB: 77F, WODB: 50F, SIDB: 75F, SIRH: 50%, WIDB: 70F, Sen. gain: 32,909 Btuh, Lat. gain: 5,452 Btuh, Sen. loss: 24,671 Btuh, Entering clg. coil DB: 75.5F, Entering clg. coil WB: 62.7F, Entering htg. coil DB: 69.6F, Clg. coil TD: 20F, Htg. coil TD: 70F, Req. clg. airflow: 1460 CFM, Req. htg. airflow: 319 CFM

System 5 Room Load Summary

No	Room Name	Area SF	Htg Sens Btuh	Min Htg CFM	Run Duct Size	Run Duct Vel	Clg Sens Btuh	Clg Lat Btuh	Min Clg CFM	Act Sys CFM
---Zone 1---										
25	02 - Bedroom 4	334	5,107	66	3-6	441	5,710	838	260	260
26	02 - Bathroom 4	83	2,172	28	1-6	417	1,801	578	82	82
27	02 - WIC 4	89	1,965	26	1-5	374	1,122	421	51	51
28	02 - Bedroom 3	334	4,184	54	3-6	408	5,281	635	240	240
29	02 - Bath 3	70	953	12	1-5	404	1,212	311	55	55
30	03 - WIC	51	44	1	1-4	86	166	0	8	8
31	02 - South Corridor	193	3,089	40	2-6	395	3,411	251	155	155
32	02 - Bedroom 2	281	5,105	66	3-6	437	5,656	854	257	257
33	02 - Bath 2	70	953	12	1-5	404	1,212	311	55	55
34	02 - WIC 2	51	44	1	1-4	86	166	0	8	8
	Duct Latent							815		
	Return Duct		143				809	281		
	System 5 total	1,556	23,759	307			26,547	5,295	1,170	1,170

System 5 Main Trunk Size:	12x17	in.
Velocity:	826	ft./min
Loss per 100 ft.:	0.099	in.wg

Cooling System Summary

	Cooling Tons	Sensible/Latent Split	Sensible Btuh	Latent Btuh	Total Btuh
Net Required:	2.65	83% / 17%	26,547	5,295	31,842
Actual:	2.92	75% / 25%	26,250	8,750	35,000

Equipment Data

	Heating System	Cooling System
Type:	Air Source Heat Pump	Air Source Heat Pump
Model:	25VNA036A*030*	25VNA036A*030*
Indoor Model:		FE4ANB006L+UI
Brand:	INFINITY 20 HP with GREENSPEED INTELLIGENCE	INFINITY 20 HP with GREENSPEED INTELLIGENCE
Description:	Air Source Heat Pump	Air Source Heat Pump
Efficiency:	13 HSPF	20.5 SEER
Sound:	0	0
Capacity:	33,400 Btuh	35,000 Btuh
Sensible Capacity:	n/a	26,250 Btuh
Latent Capacity:	n/a	8,750 Btuh
AHRI Reference No.:	n/a	9892607

This system's equipment was selected in accordance with ACCA Manual S.
Manual S equipment sizing data: SODB: 90F, SOWB: 77F, WODB: 50F, SIDB: 75F, SIRH: 50%, WIDB: 70F, Sen. gain: 26,547 Btuh, Lat. gain: 5,295 Btuh, Sen. loss: 23,759 Btuh, Entering clg. coil DB: 75.6F, Entering clg. coil WB: 62.7F, Entering htg. coil DB: 69.6F, Clg. coil TD: 20F, Htg. coil TD: 70F, Req. clg. airflow: 1170 CFM, Req. htg. airflow: 307 CFM

System 6 Room Load Summary

No	Room Name	Area SF	Htg Sens Btuh	Min Htg CFM	Run Duct Size	Run Duct Vel	Clg Sens Btuh	Clg Lat Btuh	Min Clg CFM	Act Sys CFM
---Zone 1---										
35	02 - Bedroom 1	237	4,485	58	4-6	429	7,414	953	337	337
36	02 - Bath 1	70	1,561	20	1-6	311	1,344	621	61	61
37	02 - Laundry	160	2,789	36	2-6	330	2,848	576	130	130
38	02 - Corridor East	244	6,948	90	4-6	464	8,009	1,214	364	364
	Duct Latent							323		
	Return Duct		67				374	129		
	System 6 total	710	15,849	205			19,989	3,817	892	892

System 6 Main Trunk Size: 10x17 in.
Velocity: 756 ft./min
Loss per 100 ft.: 0.095 in.wg

Cooling System Summary

	Cooling Tons	Sensible/Latent Split	Sensible Btuh	Latent Btuh	Total Btuh
Net Required:	1.98	84% / 16%	19,989	3,817	23,806
Actual:	2.07	75% / 25%	18,600	6,200	24,800

Equipment Data

	Heating System	Cooling System
Type:	Air Source Heat Pump	Air Source Heat Pump
Model:	25VNA024A*030*	25VNA024A*030*
Indoor Model:		FE4AN(B,F)005L+UI
Brand:	INFINITY 20 HP with GREENSPEED INTELLIGENCE	INFINITY 20 HP with GREENSPEED INTELLIGENCE
Description:	Air Source Heat Pump	Air Source Heat Pump
Efficiency:	11.5 HSPF	20 SEER
Sound:	0	0
Capacity:	23,600 Btuh	24,800 Btuh
Sensible Capacity:	n/a	18,600 Btuh
Latent Capacity:	n/a	6,200 Btuh
AHRI Reference No.:	n/a	9892522

This system's equipment was selected in accordance with ACCA Manual S.
Manual S equipment sizing data: SODB: 90F, SOWB: 77F, WODB: 50F, SIDB: 75F, SIRH: 50%, WIDB: 70F, Sen. gain: 19,989 Btuh, Lat. gain: 3,817 Btuh, Sen. loss: 15,849 Btuh, Entering clg. coil DB: 75.4F, Entering clg. coil WB: 62.6F, Entering htg. coil DB: 69.7F, Clg. coil TD: 20F, Htg. coil TD: 70F, Req. clg. airflow: 892 CFM, Req. htg. airflow: 205 CFM

System 7 Room Load Summary

No	Room Name	Area SF	Htg Sens Btuh	Min Htg CFM	Run Duct Size	Run Duct Vel	Clg Sens Btuh	Clg Lat Btuh	Min Clg CFM	Act Sys CFM
---Zone 1---										
39	02 - Master Bedroom	522	9,453	123	5-7	389	11,440	3,612	520	520
40	02 - Master Entry	148	1,125	15	1-5	424	1,273	474	58	58
41	02 - Master Bathroom	367	3,883	50	2-7	373	4,379	1,291	199	199
42	02 - Master WIC	472	7,574	98	4-6	426	7,356	3,050	335	335
	Duct Latent							382		
	Return Duct		69				386	133		
	System 7 total	1,509	22,105	286			24,834	8,942	1,112	1,112

System 7 Main Trunk Size:	12x16	in.
Velocity:	834	ft./min
Loss per 100 ft.:	0.104	in.wg

Cooling System Summary

	Cooling Tons	Sensible/Latent Split	Sensible Btuh	Latent Btuh	Total Btuh
Net Required:	2.81	74% / 26%	24,834	8,942	33,776
Actual:	2.92	75% / 25%	26,250	8,750	35,000

Equipment Data

	Heating System	Cooling System
Type:	Air Source Heat Pump	Air Source Heat Pump
Model:	25VNA036A*030*	25VNA036A*030*
Indoor Model:		FE4ANB006L+UI
Brand:	INFINITY 20 HP with GREENSPEED INTELLIGENCE	INFINITY 20 HP with GREENSPEED INTELLIGENCE
Description:	Air Source Heat Pump	Air Source Heat Pump
Efficiency:	13 HSPF	20.5 SEER
Sound:	0	0
Capacity:	33,400 Btuh	35,000 Btuh
Sensible Capacity:	n/a	26,250 Btuh
Latent Capacity:	n/a	8,750 Btuh
AHRI Reference No.:	n/a	9892607

This system's equipment was selected in accordance with ACCA Manual S.
Manual S equipment sizing data: SODB: 90F, SOWB: 77F, WODB: 50F, SIDB: 75F, SIRH: 50%, WIDB: 70F, Sen. gain: 24,834 Btuh, Lat. gain: 8,942 Btuh, Sen. loss: 22,105 Btuh, Entering clg. coil DB: 75.3F, Entering clg. coil WB: 62.6F, Entering htg. coil DB: 69.8F, Clg. coil TD: 20F, Htg. coil TD: 70F, Req. clg. airflow: 1112 CFM, Req. htg. airflow: 286 CFM