



Manual S Compliance Report

AC1

E-Calcs Plus, Inc

Job: Clinton - 889 NW Blackb...
Date: Oct 26, 2023
By: E-Calcs Plus, Inc

Serving all of Florida Phone: 833.322.5271 Email: eric@ecalcsplus.com Web: www.ecalcsplus.com License: HERS Rater ID# 0757810

Project Information

For: Clinton - 889 NW Blackberry Ct, Tri R Mechanical
889 NW Blackberry Ct, Lake City, FL 32055

Cooling Equipment

Design Conditions

Outdoor design DB:	91.9°F	Sensible gain:	37321 Btuh	Entering coil DB:	77.6°F
Outdoor design WB:	76.2°F	Latent gain:	4742 Btuh	Entering coil WB:	63.8°F
Indoor design DB:	75.0°F	Total gain:	42064 Btuh		
Indoor RH:	50%	Estimated airflow:	1390 cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Carrier	Model:	25SCA548A00300+FJ4DNXC48L
Actual airflow:	1390 cfm		
Sensible capacity:	37287 Btuh	100% of load	
Latent capacity:	6823 Btuh	144% of load	
Total capacity:	44111 Btuh	105% of load	SHR: 85%

Heating Equipment

Design Conditions

Outdoor design DB:	33.0°F	Heat loss:	41813 Btuh	Entering coil DB:	70.0°F
Indoor design DB:	70.0°F				

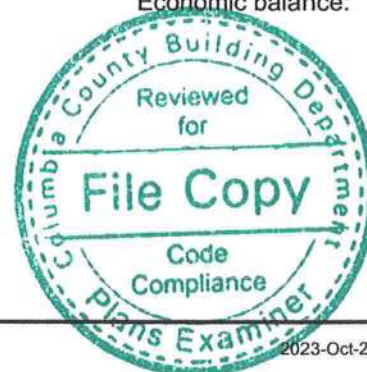
Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Carrier	Model:	25SCA548A00300+FJ4DNXC48L
Actual airflow:	0 cfm		
Output capacity:	37924 Btuh	91% of load	
Supplemental heat required:	3889 Btuh		

Capacity balance: 31 °F
Economic balance: -60 °F

Backup equipment type:	Elec strip		
Manufacturer:	Carrier	Model:	AFUE 100
Actual airflow:	0 cfm		
Output capacity:	10.0 kW	82% of load	Temp. rise: 20 °F

Meets all requirements of ACCA Manual S.



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Manual S Compliance Report

AC2

E-Calcs Plus, Inc

Job: Clinton - 889 NW Blackb...
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By: E-Calcs Plus, Inc

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Project Information

For: Clinton - 889 NW Blackberry Ct, Tri R Mechanical
889 NW Blackberry Ct, Lake City, FL 32055

Cooling Equipment

Design Conditions

Outdoor design DB:	91.9°F	Sensible gain:	16850	Btuh	Entering coil DB:	77.6°F
Outdoor design WB:	76.2°F	Latent gain:	2644	Btuh	Entering coil WB:	63.8°F
Indoor design DB:	75.0°F	Total gain:	19495	Btuh		
Indoor RH:	50%	Estimated airflow:	700	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Carrier	Model:	25SCA524A00300+FX4DNF025L
Actual airflow:	700	cfm	
Sensible capacity:	17830	Btuh	106% of load
Latent capacity:	3764	Btuh	142% of load
Total capacity:	21594	Btuh	111% of load SHR: 83%

Heating Equipment

Design Conditions

Outdoor design DB:	33.0°F	Heat loss:	27028	Btuh	Entering coil DB:	70.0°F
Indoor design DB:	70.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Carrier	Model:	25SCA524A00300+FX4DNF025L
Actual airflow:	0	cfm	
Output capacity:	22800	Btuh	84% of load
Supplemental heat required:	4228	Btuh	
Capacity balance:	38	°F	
Economic balance:	-54	°F	

Backup equipment type:	Elec strip		
Manufacturer:	Carrier	Model:	AFUE 100
Actual airflow:	0	cfm	
Output capacity:	7.5	kW	95% of load Temp. rise: 31 °F

Meets all requirements of ACCA Manual S.



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E-Calcs
Plus, Inc.

Project Summary

Entire House
E-Calcs Plus, Inc

Job: Clinton - 889 NW Blackb..
Date: Oct 26, 2023
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Serving all of Florida Phone: 833.322.5271 Email: eric@ecalcsplus.com Web: www.ecalcsplus.com License: HERS Rater ID# 0757810

Project Information

For: Clinton - 889 NW Blackberry Ct, Tri R Mechanical
889 NW Blackberry Ct, Lake City, FL 32055

Notes:

Design Information

Weather: Gainesville Rgnl, FL, US

Winter Design Conditions

Outside db	33 °F
Inside db	70 °F
Design TD	37 °F

Summer Design Conditions

Outside db	92 °F
Inside db	75 °F
Design TD	17 °F
Daily range	M
Relative humidity	50 %
Moisture difference	47 gr/lb

Heating Summary

Structure	60452 Btuh
Ducts	8389 Btuh
Central vent (0 cfm)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	68841 Btuh

Sensible Cooling Equipment Load Sizing

Structure	38010 Btuh
Ducts	16161 Btuh
Central vent (0 cfm)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	y
Rate/swing multiplier	1.00
Equipment sensible load	54172 Btuh

Infiltration

Method	Simplified
Construction quality	Semi-tight
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	3360 Btuh
Ducts	4027 Btuh
Central vent (0 cfm)	0 Btuh
Equipment latent load	7387 Btuh
Equipment Total Load (Sen+Lat)	61558 Btuh
Req. total capacity at 0.79 SHR	5.7 ton

	Heating	Cooling
Area (ft²)	3992	3992
Volume (ft³)	44648	44648
Air changes/hour	0.19	0.10
Equiv. AVF (cfm)	141	74

Heating Equipment Summary

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 Summary

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

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



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Notes:

Design Information

Weather: Gainesville Rgnl, FL, US

Winter Design Conditions

Outside db	33 °F
Inside db	70 °F
Design TD	37 °F

Summer Design Conditions

Outside db	92 °F
Inside db	75 °F
Design TD	17 °F
Daily range	M
Relative humidity	50 %
Moisture difference	47 gr/lb

Heating Summary

Structure	36075 Btuh
Ducts	5738 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	41813 Btuh

Sensible Cooling Equipment Load Sizing

Structure	26321 Btuh
Ducts	11000 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Blower	0 Btuh
Use manufacturer's data	y
Rate/swing multiplier	1.00
Equipment sensible load	37321 Btuh

Infiltration

Method	Simplified
Construction quality	Semi-tight
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	1985 Btuh
Ducts	2757 Btuh
Central vent (0 cfm)	0 Btuh
(none)	
Equipment latent load	4742 Btuh

	Heating	Cooling
Area (ft²)	2534	2534
Volume (ft³)	30068	30068
Air changes/hour	0.17	0.09
Equiv. AVF (cfm)	83	44

Equipment Total Load (Sen+Lat)	42064 Btuh
Req. total capacity at 0.80 SHR	3.9 ton

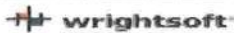
Heating Equipment Summary

Make	Carrier
Trade	COMFORT 15 SEER2 HP
Model	25SCA548A00300
AHRI ref	210998523
Efficiency	7.5 HSPF2
Heating input	
Heating output	46500 Btuh @ 47°F
Temperature rise	0 °F
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0.50 in H2O
Space thermostat	
Capacity balance point = 31 °F	
Backup: Carrier AFUE 100	
Input = 10 kW, Output = 34121 Btuh, 100 AFUE	

Cooling Equipment Summary

Make	Carrier
Trade	COMFORT 15 SEER2 HP
Cond	25SCA548A00300
Coil	FJ4DNXC48L
AHRI ref	210998523
Efficiency	12.0 EER2, 14.3 SEER2
Sensible cooling	36800 Btuh
Latent cooling	9200 Btuh
Total cooling	46000 Btuh
Actual air flow	1390 cfm
Air flow factor	0.037 cfm/Btuh
Static pressure	0.50 in H2O
Load sensible heat ratio	0.89

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



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E-Calcs
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Project Summary

AC2
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By: E-Calcs Plus, Inc

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Project Information

For: Clinton - 889 NW Blackberry Ct, Tri R Mechanical
889 NW Blackberry Ct, Lake City, FL 32055

Notes:

Design Information

Weather: Gainesville Rgnl, FL, US

Winter Design Conditions

Outside db 33 °F
Inside db 70 °F
Design TD 37 °F

Summer Design Conditions

Outside db 92 °F
Inside db 75 °F
Design TD 17 °F
Daily range M
Relative humidity 50 %
Moisture difference 47 gr/lb

Heating Summary

Structure 24377 Btuh
Ducts 2651 Btuh
Central vent (0 cfm)
(none) 0 Btuh
Humidification 0 Btuh
Piping 0 Btuh
Equipment load 27028 Btuh

Sensible Cooling Equipment Load Sizing

Structure 11689 Btuh
Ducts 5161 Btuh
Central vent (0 cfm)
(none) 0 Btuh
Blower 0 Btuh
Use manufacturer's data y
Rate/swing multiplier 1.00
Equipment sensible load 16850 Btuh

Infiltration

Method Simplified
Construction quality Semi-tight
Fireplaces 0

	Heating	Cooling
Area (ft ²)	1458	1458
Volume (ft ³)	14580	14580
Air changes/hour	0.24	0.13
Equiv. AVF (cfm)	58	31

Latent Cooling Equipment Load Sizing

Structure 1375 Btuh
Ducts 1269 Btuh
Central vent (0 cfm)
(none) 0 Btuh
Equipment latent load 2644 Btuh

Equipment Total Load (Sen+Lat) 19495 Btuh
Req. total capacity at 0.75 SHR 1.9 ton

Heating Equipment Summary

Make Carrier
Trade COMFORT 15 SEER2 HP
Model 25SCA524A00300
AHRI ref 209691668
Efficiency 7.5 HSPF2
Heating input 22800 Btuh @ 47°F
Heating output 0 °F
Temperature rise 0 cfm
Actual air flow 0 cfm/Btuh
Air flow factor 0.50 in H2O
Static pressure
Space thermostat
Capacity balance point = 38 °F
Backup: Carrier AFUE 100
Input = 8 kW, Output = 25591 Btuh, 100 AFUE

Cooling Equipment Summary

Make Carrier
Trade COMFORT 15 SEER2 HP
Cond 25SCA524A00300
Coil FX4DNF025L
AHRI ref 209691668
Efficiency 12.0 EER2, 14.3 SEER2
Sensible cooling 17100 Btuh
Latent cooling 5700 Btuh
Total cooling 22800 Btuh
Actual air flow 700 cfm
Air flow factor 0.042 cfm/Btuh
Static pressure 0.50 in H2O
Load sensible heat ratio 0.86

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



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Load Short Form

Entire House

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Project Information

For: Clinton - 889 NW Blackberry Ct, Tri R Mechanical
889 NW Blackberry Ct, Lake City, FL 32055

Design Information

	Htg	Clg		Infiltration	
Outside db (°F)	33	92	Method		Simplified
Inside db (°F)	70	75	Construction quality		Semi-tight
Design TD (°F)	37	17	Fireplaces		0
Daily range	-	M			
Inside humidity (%)	50	50			
Moisture difference (gr/lb)	33	47			

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)
AC1	d	2534	41813	37321	0	1390
AC2	d	1458	27028	16850	0	700
Entire House	d	3992	68841	54172	0	2090
Other equip loads			0	0		
Equip. @ 1.00 RSM				54172		
Latent cooling				7387		
TOTALS		3992	68841	61558	0	2090

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



Load Short Form

AC1

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Project Information

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889 NW Blackberry Ct, Lake City, FL 32055

Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	33	92	Method	Simplified
Inside db (°F)	70	75	Construction quality	Semi-tight
Design TD (°F)	37	17	Fireplaces	0
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	33	47		

HEATING EQUIPMENT

Make Carrier
Trade COMFORT 15 SEER2 HP
Model 25SCA548A00300
AHRI ref 210998523
Efficiency 7.5 HSPF2
Heating input
Heating output 46500 Btuh @ 47°F
Temperature rise 0 °F
Actual air flow 0 cfm
Air flow factor 0 cfm/Btuh
Static pressure 0.50 in H2O
Space thermostat
Capacity balance point = 31 °F

Backup: Carrier AFUE 100

Input = 10 kW, Output = 34121 Btuh, 100 AFUE

COOLING EQUIPMENT

Make Carrier
Trade COMFORT 15 SEER2 HP
Cond 25SCA548A00300
Coil FJ4DNXC48L
AHRI ref 210998523
Efficiency 12.0 EER2, 14.3 SEER2
Sensible cooling 36800 Btuh
Latent cooling 9200 Btuh
Total cooling 46000 Btuh
Actual air flow 1390 cfm
Air flow factor 0.037 cfm/Btuh
Static pressure 0.50 in H2O
Load sensible heat ratio 0.89

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Kit Liv Din	1576	16269	17321	0	645
Sun	192	6078	5671	0	211
BR1	235	6751	4323	0	161
BA2	66	1256	987	0	37
Mud	228	8602	5236	0	195
Sitting	237	2858	3783	0	141

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AC1	d	2534	41813	37321	0	1390
Other equip loads			0	0		
Equip. @ 1.00 RSM				37321		
Latent cooling				4742		
TOTALS		2534	41813	42064	0	1390

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Load Short Form

AC2

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Project Information

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Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	33	92	Method	Simplified
Inside db (°F)	70	75	Construction quality	Semi-tight
Design TD (°F)	37	17	Fireplaces	0
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	33	47		

HEATING EQUIPMENT

Make Carrier
Trade COMFORT 15 SEER2 HP
Model 25SCA524A00300
AHRI ref 209691668
Efficiency 7.5 HSPF2
Heating input
Heating output 22800 Btuh @ 47°F
Temperature rise 0 °F
Actual air flow 0 cfm
Air flow factor 0 cfm/Btuh
Static pressure 0.50 in H2O
Space thermostat
Capacity balance point = 38 °F

Backup: Carrier AFUE 100

Input = 8 kW, Output = 25591 Btuh, 100 AFUE

COOLING EQUIPMENT

Make Carrier
Trade COMFORT 15 SEER2 HP
Cond 25SCA524A00300
Coil FX4DNF025L
AHRI ref 209691668
Efficiency 12.0 EER2, 14.3 SEER2
Sensible cooling 17100 Btuh
Latent cooling 5700 Btuh
Total cooling 22800 Btuh
Actual air flow 700 cfm
Air flow factor 0.042 cfm/Btuh
Static pressure 0.50 in H2O
Load sensible heat ratio 0.86

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
MBA	340	5331	3267	0	136
MWIC	300	6866	2895	0	120
MBR	340	4934	4531	0	188
Library	368	8123	5069	0	211
BA1	110	1774	1088	0	45
AC2	1458	27028	16850	0	700
Other equip loads		0	0		
Equip. @ 1.00 RSM			16850		
Latent cooling			2644		
TOTALS	1458	27028	19495	0	700

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Building Analysis

Entire House

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Project Information

For: Clinton - 889 NW Blackberry Ct, Tri R Mechanical
889 NW Blackberry Ct, Lake City, FL 32055

Design Conditions

Location:

Gainesville Rgnl, FL, US
Elevation: 164 ft
Latitude: 30°N

Outdoor:

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

Heating

33
-
-
15.0

Cooling

92
18 (M)
76
7.5

Indoor:

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

Heating

70
37
50
32.8

Cooling

75
17
50
46.9

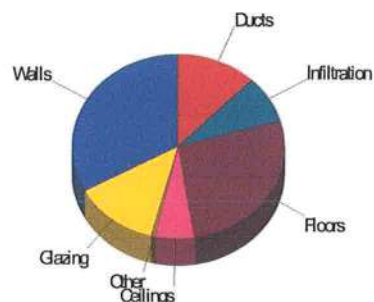
Infiltration:

Method
Construction quality
Fireplaces

Simplified
Semi-tight
0

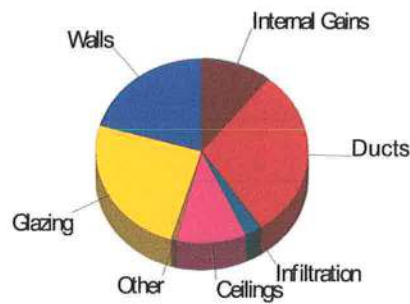
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	6.1	22745	33.0
Glazing	10.3	8877	12.9
Doors	22.2	446	0.6
Ceilings	1.0	4087	5.9
Floors	4.7	18576	27.0
Infiltration	1.3	5720	8.3
Ducts		8389	12.2
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		68841	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	3.0	11137	20.6
Glazing	15.6	13444	24.8
Doors	11.2	225	0.4
Ceilings	1.5	5838	10.8
Floors	0.0	191	0.4
Infiltration	0.3	1375	2.5
Ducts		16161	29.8
Ventilation		0	0
Internal gains		5800	10.7
Blower		0	0
Adjustments		0	0
Total		54172	100.0



Latent Cooling Load = 7387 Btuh

Overall U-value = 0.118 Btuh/ft²-°F, Window / Floor Area = 21.5 %

Data entries checked.



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Building Analysis

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Project Information

For: Clinton - 889 NW Blackberry Ct, Tri R Mechanical
889 NW Blackberry Ct, Lake City, FL 32055

Design Conditions

Location:

Gainesville Rgnl, FL, US
Elevation: 164 ft
Latitude: 30°N

Outdoor:

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

Heating

33
-
15.0

Cooling

92
18 (M)
76
7.5

Indoor:

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

Heating

70
37
50
32.8

Cooling

75
17
50
46.9

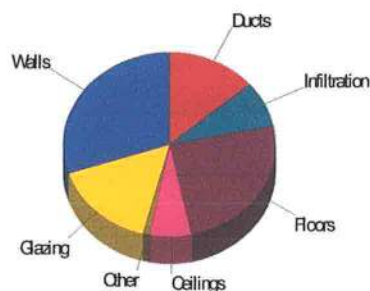
Infiltration:

Method
Construction quality
Fireplaces

Simplified
Semi-tight
0

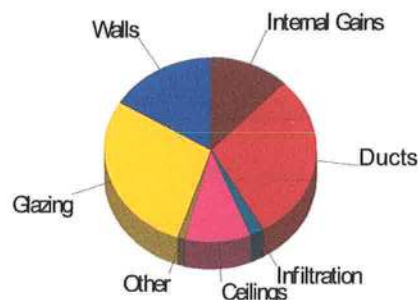
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	6.0	12559	30.0
Glazing	10.4	6623	15.8
Doors	22.2	446	1.1
Ceilings	1.1	2678	6.4
Floors	4.1	10412	24.9
Infiltration	1.3	3358	8.0
Ducts		5738	13.7
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		41813	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	3.0	6141	16.5
Glazing	16.6	10593	28.4
Doors	11.2	225	0.6
Ceilings	1.5	3825	10.2
Floors	0.1	191	0.5
Infiltration	0.3	807	2.2
Ducts		11000	29.5
Ventilation		0	0
Internal gains		4540	12.2
Blower		0	0
Adjustments		0	0
Total		37321	100.0



Latent Cooling Load = 4742 Btuh

Overall U-value = 0.114 Btuh/ft²·°F, Window / Floor Area = 25.2 %

WARNING: window to floor area ratio = 25.2% - more than 25%.



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E-Calcs
Plus, Inc.

Building Analysis

AC2

E-Calcs Plus, Inc

Job: Clinton - 889 NW Blackb...
Date: Oct 26, 2023
By: E-Calcs Plus, Inc

Serving all of Florida Phone: 833.322.5271 Email: eric@ecalcsplus.com Web: www.ecalcsplus.com License: HERS Rater ID# 0757810

Project Information

For: Clinton - 889 NW Blackberry Ct, Tri R Mechanical
889 NW Blackberry Ct, Lake City, FL 32055

Design Conditions

Location:

Gainesville Rgnl, FL, US
Elevation: 164 ft
Latitude: 30°N

Outdoor:

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

Heating

33
-
-
15.0

Cooling

92
18 (M)
76
7.5

Indoor:

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

Heating

70
37
50
32.8

Cooling

75
17
50
46.9

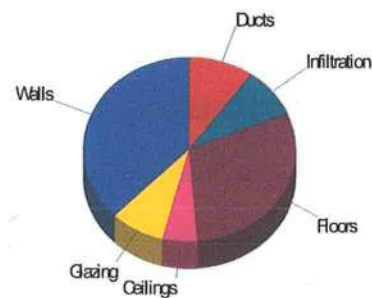
Infiltration:

Method
Construction quality
Fireplaces

Simplified
Semi-tight
0

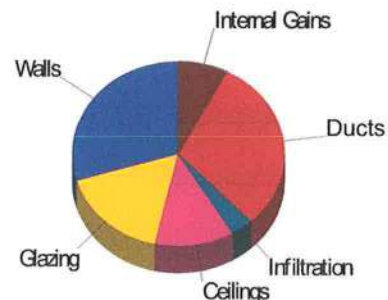
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	6.2	10186	37.7
Glazing	10.2	2254	8.3
Doors	0	0	0
Ceilings	1.0	1409	5.2
Floors	5.6	8164	30.2
Infiltration	1.3	2363	8.7
Ducts		2651	9.8
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		27028	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	3.0	4997	29.7
Glazing	12.9	2852	16.9
Doors	0	0	0
Ceilings	1.4	2013	11.9
Floors	0	0	0
Infiltration	0.3	568	3.4
Ducts		5161	30.6
Ventilation		0	0
Internal gains		1260	7.5
Blower		0	0
Adjustments		0	0
Total		16850	100.0



Latent Cooling Load = 2644 Btuh

Overall U-value = 0.124 Btuh/ft²·°F, Window / Floor Area = 15.2 %

Data entries checked.



wrightsoft

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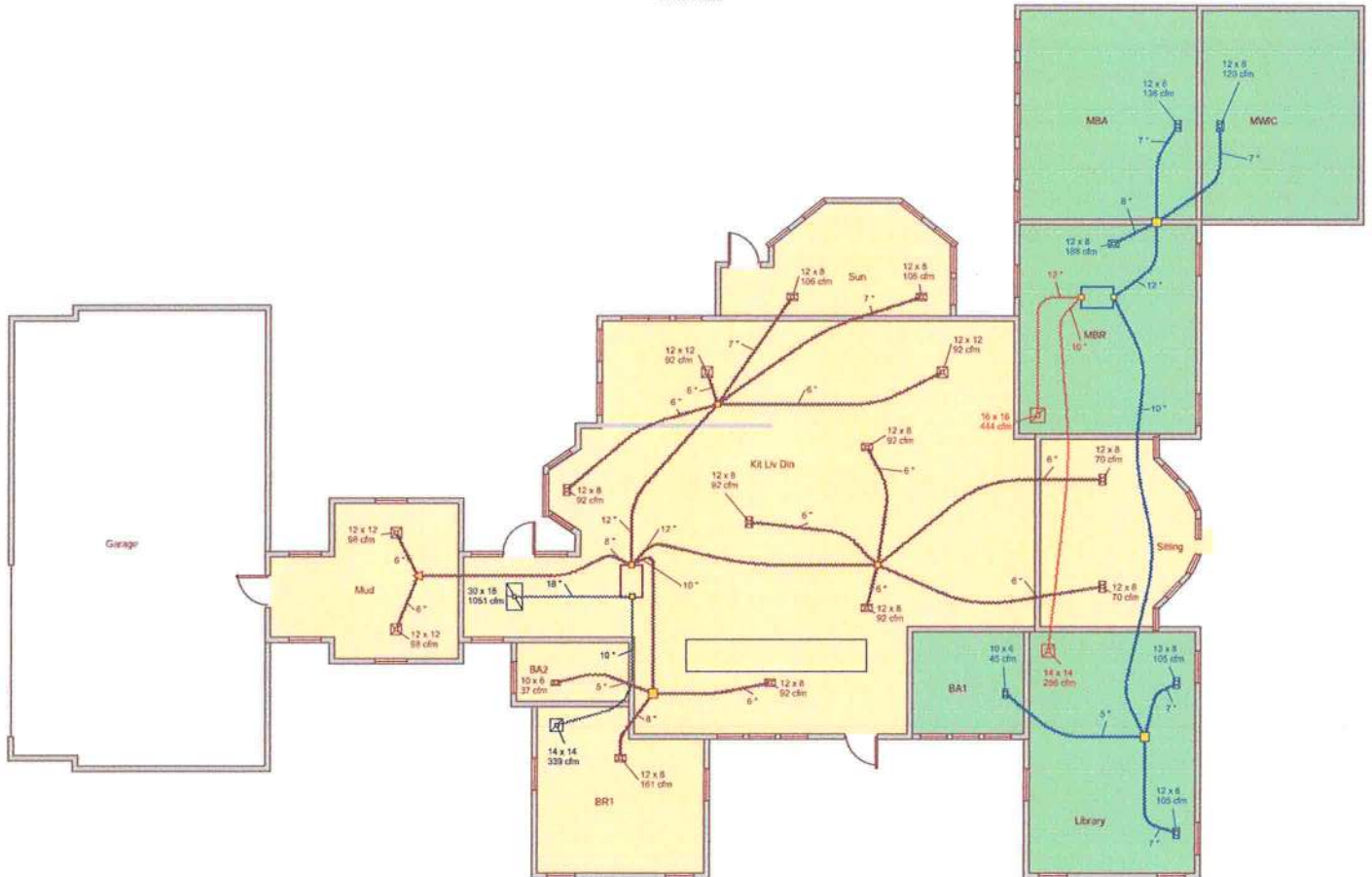
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First Floor



Job #: Clinton - 889 NW Blackberry Ct
Performed by E-Calcs Plus, Inc for:
Clinton - 889 NW Blackberry Ct
889 NW Blackberry Ct
Lake City, FL 32055

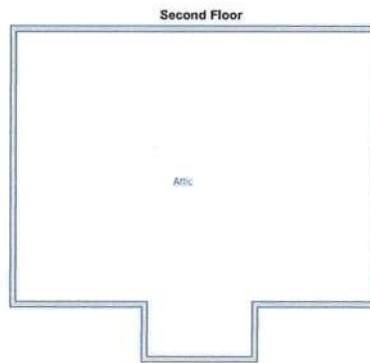
E-Calcs Plus, Inc

Serving all of Florida

Phone: 833.322.5271 License: HERS Rater ID# 0757810
www.ecalcsplus.com eric@ecalcsplus.com

Scale: 1 : 210

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... NW Blackberry Ct 10.27.2023.rup



Job #: Clinton - 889 NW Blackberry Ct
Performed by E-Calcs Plus, Inc for:

Clinton - 889 NW Blackberry Ct
889 NW Blackberry Ct
Lake City, FL 32055

E-Calcs Plus, Inc

Serving all of Florida

Phone: 833.322.5271 License: HERS Rater ID# 0757810
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Scale: 1 : 210

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... NW Blackberry Ct 10.27.2023.rup



Duct System Summary

AC1

E-Calcs Plus, Inc

Job: Clinton - 889 NW Blackb...
Date: Oct 26, 2023
By: E-Calcs Plus, Inc

Serving all of Florida Phone: 833.322.5271 Email: eric@ecalcsplus.com Web: www.ecalcsplus.com License: HERS Rater ID# 0757810

Project Information

For: Clinton - 889 NW Blackberry Ct, Tri R Mechanical
889 NW Blackberry Ct, Lake City, FL 32055

	Heating	Cooling
External static pressure	0.50 in H2O	0.50 in H2O
Pressure losses	0.16 in H2O	0.16 in H2O
Available static pressure	0.34 in H2O	0.34 in H2O
Supply / return available pressure	0.232 / 0.108 in H2O	0.232 / 0.108 in H2O
Lowest friction rate	0.131 in/100ft	0.131 in/100ft
Actual air flow	0 cfm	1390 cfm
Total effective length (TEL)	260 ft	

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
BA2	c 987	0	37	0.150	5.0	0x0	VIFx	24.7	130.0	st6
BR1-A	c 4323	0	161	0.153	8.0	0x0	VIFx	22.2	130.0	st6
Kit Liv Din	c 2474	0	92	0.165	6.0	0x0	VIFx	21.2	120.0	st3
Kit Liv Din-A	c 2474	0	92	0.149	6.0	0x0	VIFx	26.3	130.0	st6
Kit Liv Din-B	c 2474	0	92	0.141	6.0	0x0	VIFx	39.8	125.0	st3
Kit Liv Din-C	c 2474	0	92	0.146	6.0	0x0	VIFx	34.6	125.0	st3
Kit Liv Din-D	c 2474	0	92	0.152	6.0	0x0	VIFx	28.2	125.0	st4
Kit Liv Din-E	c 2474	0	92	0.140	6.0	0x0	VIFx	35.7	130.0	st4
Kit Liv Din-F	c 2474	0	92	0.139	6.0	0x0	VIFx	37.4	130.0	st4
Mud	c 2618	0	98	0.154	6.0	0x0	VIFx	26.1	125.0	st5
Mud-A	c 2618	0	98	0.155	6.0	0x0	VIFx	25.2	125.0	st5
Sitting	c 1892	0	70	0.132	6.0	0x0	VIFx	46.1	130.0	st4
Sitting-A	c 1892	0	70	0.131	6.0	0x0	VIFx	47.9	130.0	st4
Sun	c 2836	0	106	0.155	7.0	0x0	VIFx	30.3	120.0	st3
Sun-A	c 2836	0	106	0.141	7.0	0x0	VIFx	39.8	125.0	st3

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st3	Peak AVF	0	488	0.141	621	12.0	0 x 0	VinIFlx	
st4	Peak AVF	0	417	0.131	531	12.0	0 x 0	VinIFlx	
st5	Peak AVF	0	195	0.154	559	8.0	0 x 0	VinIFlx	
st6	Peak AVF	0	290	0.149	532	10.0	0 x 0	VinIFlx	

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb4	0x 0	0	339	82.3	0.131	621	10.0	0x 0		VIFx	
rb2	0x 0	0	1051	71.0	0.151	595	18.0	0x 0		VIFx	



Duct System Summary

AC2

E-Calcs Plus, Inc

Job: Clinton - 889 NW Blackb...
Date: Oct 26, 2023
By: E-Calcs Plus, Inc

Serving all of Florida Phone: 833.322.5271 Email: eric@ecalcsplus.com Web: www.ecalcsplus.com License: HERS Rater ID# 0757810

Project Information

For: Clinton - 889 NW Blackberry Ct, Tri R Mechanical
889 NW Blackberry Ct, Lake City, FL 32055

	Heating	Cooling
External static pressure	0.50 in H2O	0.50 in H2O
Pressure losses	0.16 in H2O	0.16 in H2O
Available static pressure	0.34 in H2O	0.34 in H2O
Supply / return available pressure	0.223 / 0.117 in H2O	0.223 / 0.117 in H2O
Lowest friction rate	0.113 in/100ft	0.113 in/100ft
Actual air flow	0 cfm	700 cfm
Total effective length (TEL)	301 ft	

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
BA1	c 1088	0	45	0.113	5.0	0x0	VIFx	57.2	140.0	st1
Library	c 2534	0	105	0.118	7.0	0x0	VIFx	49.2	140.0	st1
Library-A	c 2534	0	105	0.115	7.0	0x0	VIFx	54.0	140.0	st1
MBA	c 3267	0	136	0.155	7.0	0x0	VIFx	18.6	125.0	st2
MBR-A	c 4531	0	188	0.167	8.0	0x0	VIFx	13.5	120.0	st2
MWIC	c 2895	0	120	0.152	7.0	0x0	VIFx	21.2	125.0	st2

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st1	Peak AVF	0	256	0.113	469	10.0	0 x 0	VinIFlx	
st2	Peak AVF	0	444	0.152	566	12.0	0 x 0	VinIFlx	

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb3	0x0	0	444	80.0	0.147	566	12.0	0x 0		VIFx	
rb5	0x0	0	256	104.0	0.113	469	10.0	0x 0		VIFx	



Static Pressure and Friction Rate

AC1

E-Calcs Plus, Inc

Job: Clinton - 889 NW Blackb...
Date: Oct 26, 2023
By: E-Calcs Plus, Inc

Serving all of Florida Phone: 833.322.5271 Email: eric@ecalcsplus.com Web: www.ecalcsplus.com License: HERS Rater ID# 0757810

Project Information

For: Clinton - 889 NW Blackberry Ct, Tri R Mechanical
889 NW Blackberry Ct, Lake City, FL 32055

Available Static Pressure

	Heating (in H2O)	Cooling (in H2O)
External static pressure	0.50	0.50
Pressure losses		
Coil	0	0
Heat exchanger	0	0
Supply diffusers	0.03	0.03
Return grilles	0.03	0.03
Filter	0.10	0.10
Humidifier	0	0
Balancing damper	0	0
Other device	0	0
Available static pressure	0.34	0.34

Total Effective Length

	Supply (ft)	Return (ft)
Measured length of run-out	24	17
Measured length of trunk	24	0
Equivalent length of fittings	130	65
Total length	178	82
Total effective length		260

Friction Rate

	Heating (in/100ft)		Cooling (in/100ft)	
Supply Ducts	0.131	OK	0.131	OK
Return Ducts	0.131	OK	0.131	OK

Fitting Equivalent Length Details

Supply	4AD=60, 11A=20, 11G=5, 1A=35, 11G=5, 11G=5: TotalEL=130
Return	5D=40, 6M=20, 11G=5: TotalEL=65



E-Calcs
Plus, Inc.

Static Pressure and Friction Rate

AC2

E-Calcs Plus, Inc

Job: Clinton - 889 NW Blackb...

Date: Oct 26, 2023

By: E-Calcs Plus, Inc

Serving all of Florida Phone: 833.322.5271 Email: eric@ecalcsplus.com Web: www.ecalcsplus.com License: HERS Rater ID# 0757810

Project Information

For: Clinton - 889 NW Blackberry Ct, Tri R Mechanical
889 NW Blackberry Ct, Lake City, FL 32055

Available Static Pressure

	Heating (in H2O)	Cooling (in H2O)
External static pressure	0.50	0.50
Pressure losses		
Coil	0	0
Heat exchanger	0	0
Supply diffusers	0.03	0.03
Return grilles	0.03	0.03
Filter	0.10	0.10
Humidifier	0	0
Balancing damper	0	0
Other device	0	0
Available static pressure	0.34	0.34

Total Effective Length

	Supply (ft)	Return (ft)
Measured length of run-out	14	34
Measured length of trunk	43	0
Equivalent length of fittings	140	70
Total length	197	104
Total effective length		301

Friction Rate

	Heating (in/100ft)		Cooling (in/100ft)	
Supply Ducts	0.113	OK	0.113	OK
Return Ducts	0.113	OK	0.113	OK

Fitting Equivalent Length Details

Supply	11A=20, 4AD=60, 11G=5, 1A=35, 11G=5, 11G=5, 11G=5, 11G=5: TotalEL=140
Return	6M=20, 5D=40, 11G=5, 11G=5: TotalEL=70



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...t\Clinton - 889 NW Blackberry Ct 10.27.2023.rup Calc = MJ8 Front Door faces: SE

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