



Manual S Compliance Report

Entire House

DL Williams Heating & Cooling LLC

Job:

Date: Mar 08, 2024

By:

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: Office@DLWilliamsHeatingandCooling.com

Project Information

For: Phillips addition, Mike Todd Construction
FL

Cooling Equipment

Design Conditions

Outdoor design DB:	91.0°F	Sensible gain:	4730	Btuh	Entering coil DB:	76.3°F
Outdoor design WB:	74.0°F	Latent gain:	1129	Btuh	Entering coil WB:	63.1°F
Indoor design DB:	75.0°F	Total gain:	5859	Btuh		
Indoor RH:	50%	Estimated airflow:	216	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Generic	Model:	SEER 15.0, HSPF 8.5
Actual airflow:	216	cfm	
Sensible capacity:	4540	Btuh	96% of load
Latent capacity:	1946	Btuh	172% of load
Total capacity:	6486	Btuh	111% of load SHR: 70%

Heating Equipment

Design Conditions

Outdoor design DB:	17.0°F	Heat loss:	12130	Btuh	Entering coil DB:	68.9°F
Indoor design DB:	70.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Generic	Model:	SEER 15.0, HSPF 8.5
Actual airflow:	216	cfm	
Output capacity:	6454	Btuh	53% of load
Supplemental heat required:	5675	Btuh	
Capacity balance:	38	°F	
Economic balance:	-99	°F	

Backup equipment type:	Elec strip		
Manufacturer:		Model:	
Actual airflow:	216	cfm	
Output capacity:	3.6	kW	100% of load Temp. rise: 50 °F

Meets all requirements of ACCA Manual S.



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DHW Report
Entire House
DL Williams Heating & Cooling LLC

Job:
Date: Mar 08, 2024
By:

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: Office@DLWilliamsHeatingandCooling.com

Project Information

For: Phillips addition, Mike Todd Construction
FL

Design Criteria

Occupants		Not occupied during the day	
Age	Number	Dishwasher	
0-5	0	Clothes washer	
6-13	2	Additional use (gpd)	0
14-59	2	Setpoint (°F)	120
60+	0	Daily use (gpd)	61

Gas conventional (40 gal, 0.60 EF)

Manufacturer	Tank size (gal)	40
Trade name	Energy factor	0.60
Model	Input (MBtuh)	0.0
AHRI ref. number	1st hour (gal)	60
	Recovery eff. (%)	77



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Residential Plans Examiner Review Form for HVAC System Design (Loads, Equipment, Ducts)

Form
RPER 1
15 Mar 09

Header Information

Contractor: **DL Williams Heating & Cooling LLC**
Derrick Williams
Mechanical license:
Building plan #:
Home address (Street or Lot#, Block, Subdivision): , Entire House

REQUIRED ATTACHMENTS
Manual J1 Form (and supporting worksheets):
or MJ1AE Form* (and supporting worksheets):
OEM performance data (heating, cooling, blower):
Manual D Friction Rate Worksheet:
Duct distribution sketch:

ATTACHED
Yes ☐ No ☐
Yes ☐ No ☐
Yes ☐ No ☐
Yes ☐ No ☐
Yes ☐ No ☐

HVAC LOAD CALCULATION (IRC M1401.3)

Design Conditions

Winter Design Conditions

Outdoor temperature: 17 °F
Indoor temperature: 70 °F
Total heat loss: 12130 Btuh

Summer Design Conditions

Outdoor temperature: 91 °F
Indoor temperature: 75 °F
Grains difference: 35 gr/lb @50% RH
Sensible heat gain: 4927 Btuh
Latent heat gain: 1176 Btuh
Total heat gain: 6103 Btuh

Building Construction Information

Building

Orientation: Front Door faces North
North, East, West, South, Northeast, Northwest, Southeast, Southwest

Number of bedrooms: 1
Conditioned floor area: 414 ft²
Number of occupants: 3

Windows

Eave overhang depth: 1.6 ft
Internal shade: blinds
Blinds, drapes, etc.
Number of skylights: 0



HVAC EQUIPMENT SELECTION (IRC M1401.3)

Heating Equipment Data

Equipment type: Split ASHP
Furnace, Heat pump, Boiler, etc.
Model: Generic
SEER 15.0, HSPF 8.5
Heating output capacity: 0 Btuh
Heat pumps - capacity at winter design outdoor conditions
Aux. heating output capacity: 12129 Btuh

Cooling Equipment Data

Equipment type: Split ASHP
Air Conditioner, Heat pump, etc.
Model: Generic
SEER 15.0, HSPF 8.5+
Total cooling capacity: 0 Btuh
Sensible cooling capacity: 0 Btuh
Latent cooling capacity: 0 Btuh

Blower Data

Heating cfm: 216
Cooling cfm: 216
Static pressure: 0.50 in H2O
Fan's rated external static pressure for design airflow

HVAC DUCT DISTRIBUTION SYSTEM DESIGN (IRC M1601.1)

Design airflow: 216 cfm
Equipment design ESP: 0.50 in H2O
Total device pressure losses: 0 in H2O
Available static pressure (ASP): 0.50 in H2O
Longest supply duct: 0 ft
Longest return duct: 0 ft
Total effective length (TEL): 0 ft
Friction rate: 0 in/100ft
Friction Rate = $ASP \div (TEL \times 100)$
Duct Materials Used
Trunk duct:
Branch duct: Sheet metal

I declare the load calculation, equipment, equipment selection and duct design were rigorously performed based on the building plan listed above. I understand the claims made on these forms will be subject to review and verification.

Contractor's printed name: _____

Contractor's signature: _____ Date: _____

Reserved for County, Town Municipality or Authority having jurisdiction use.

*Home qualifies for MJ1AE Form based on Abridged Edition Checklist

**TRANE**

Load Short Form

Entire House

DL Williams Heating & Cooling LLC

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PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: Office@DLWilliamsHeatingandCooling.com

Project Information

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FL

Design Information

	Htg	Clg	Infiltration	Simplified
Outside db (°F)	17	91	Method	Average
Inside db (°F)	70	75	Construction quality	0
Design TD (°F)	53	16	Fireplaces	
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	22	35		

HEATING EQUIPMENT

Make Generic
Trade
Model SEER 15.0, HSPF 8.5
AHRI ref
Efficiency 8.5 HSPF
Heating input
Heating output 6454 Btuh @ 47°F
Temperature rise 27 °F
Actual air flow 216 cfm
Air flow factor 0.018 cfm/Btuh
Static pressure 0.50 in H2O
Space thermostat
Capacity balance point = 38 °F

Backup:

Input = 4 kW, Output = 12129 Btuh, 100 AFUE

COOLING EQUIPMENT

Make Generic
Trade
Cond SEER 15.0, HSPF 8.5
Coil
AHRI ref
Efficiency 12.8 EER, 15 SEER
Sensible cooling 4540 Btuh
Latent cooling 1946 Btuh
Total cooling 6486 Btuh
Actual air flow 216 cfm
Air flow factor 0.046 cfm/Btuh
Static pressure 0.50 in H2O
Load sensible heat ratio 0.81

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
masterbed	276	12130	4730	216	216
bath	102	0	0	0	0
closet	36	0	0	0	0
Entire House	414	12130	4730	216	216
Other equip loads		0	0		
Equip. @ 0.96 RSM			4541		
Latent cooling			1129		
TOTALS	414	12130	5670	216	216

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

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Building Analysis

Entire House

DL Williams Heating & Cooling LLC

Job:
Date: Mar 08, 2024
By:

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: Office@DLWilliamsHeatingandCooling.com

Project Information

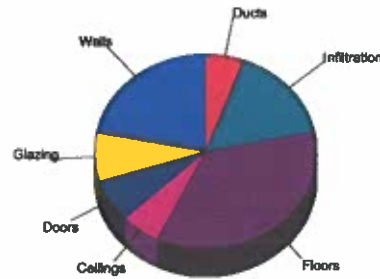
For: Phillips addition, Mike Todd Construction
FL

Design Conditions

Location: Washington National AP, DC, US Elevation: 0 ft Latitude: 38°N		Indoor: Indoor temperature (°F) Design TD (°F) Relative humidity (%) Moisture difference (gr/lb)		Heating 70 53 30 22.3	Cooling 75 16 50 34.7
Outdoor: Drybulb (°F) Daily range (°F) Wet bulb (°F) Wind speed (mph)		Heating 17 - - 15.0	Cooling 91 18 (M) 74 7.5	Infiltration: Method Construction quality Fireplaces	
				Simplified Average 0	

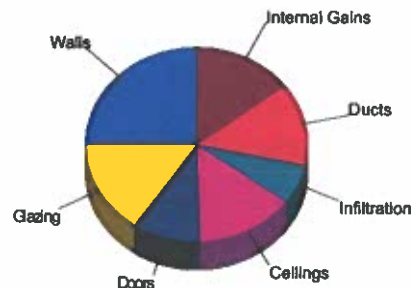
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	4.8	2668	22.0
Glazing	15.9	967	8.0
Doors	20.7	868	7.2
Ceilings	1.7	702	5.8
Floors	10.4	4298	35.4
Infiltration	3.0	1963	16.2
Ducts		663	5.5
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		12130	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	2.1	1183	25.0
Glazing	12.2	739	15.6
Doors	11.1	467	9.9
Ceilings	1.7	689	14.6
Floors	0	0	0
Infiltration	0.5	311	6.6
Ducts		651	13.8
Ventilation		0	0
Internal gains		690	14.6
Blower		0	0
Adjustments		0	0
Total		4730	100.0



Latent Cooling Load = 1129 Btuh
Overall U-value = 0.121 Btuh/ft²·°F, Window / Floor Area = 14.7 %

Data entries checked.



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Component Constructions

Entire House

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Project Information

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Design Conditions

Location:			Indoor:		Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)		70	75
Elevation: 0 ft			Design TD (°F)		53	16
Latitude: 38°N			Relative humidity (%)		30	50
Outdoor:			Moisture difference (gr/lb) <td>22.3</td> <td>34.7</td>		22.3	34.7
Heating		Cooling	Infiltration:			
Drybulb (°F)	17	91	Method	Simplified		
Dailyrange (°F)	-	18 (M)	Construction quality	Average		
Wet bulb (°F)	-	74	Fireplaces	0		
Wind speed (mph)	15.0	7.5				

Construction descriptions

	Or	Area ft²	U-value Btu/h/ft²-°F	Insul R ft²-°F/Btu/h	Htg HTM Btu/h/ft²	Loss Btu/h	Clg HTM Btu/h/ft²	Gain Btu/h
Walls								
12C-0sw: Frm wall, stucco ext, 3/8" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	n	163	0.091	13.0	4.82	786	2.14	349
	e	102	0.091	13.0	4.82	493	2.14	219
	s	144	0.091	13.0	4.82	695	2.14	308
	w	144	0.091	13.0	4.82	695	2.14	308
	all	553	0.091	13.0	4.82	2668	2.14	1183
Partitions (none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.23); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (4 ft window ht, 1 ft sep.); 6.67 ft head ht	e	16	0.300	0	15.9	254	19.4	310
	s	40	0.300	0	15.9	636	7.91	316
	all	56	0.300	0	15.9	890	11.2	627
4B5-2fv: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.23); 1.6 ft overhang (1.6 ft window ht, 1 ft sep.); 6.67 ft head ht	e	5	0.300	0	15.9	76	23.4	112
Doors								
11D0: Door, wd sc type	n	21	0.390	0	20.7	434	11.1	233
	e	21	0.390	0	20.7	434	11.1	233
	all	42	0.390	0	20.7	868	11.1	467
Ceilings								
16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 cell ins, 1/2" gypsum board int fnsh		414	0.032	30.0	1.70	702	1.66	689
Floors								
22A-tp1: Bg floor, light dry soil, on grade depth, carp 80% flr fnsh		82	0.989	0	52.4	4298	0	0



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Component Constructions
masterbed
DL Williams Heating & Cooling LLC

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Project Information

For: Phillips addition, Mike Todd Construction
FL

Design Conditions

Location:		Indoor:		Heating	Cooling
Washington National AP, DC, US		Indoor temperature (°F)		70	75
Elevation: 0 ft		Design TD (°F)		53	16
Latitude: 38°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		22.3	34.7
Outdoor:		Heating	Cooling		
Drybulb (°F)		17	91		
Dailyrange (°F)		-	18 (M)		
Wet bulb (°F)		-	74		
Wind speed (mph)		15.0	7.5		
		Infiltration:			
		Method		Simplified	
		Construction quality		Average	
		Fireplaces		0	

Construction descriptions

	Or	Area ft²	U-value Btu/h/ft²-°F	Insul R ft²-°F/Btu	Htg HTM Btu/h/ft²	Loss Btu/h	Clg HTM Btu/h/ft²	Gain Btu/h
Walls								
12C-0sw: Frm wall, stucco ext, 3/8" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	e	59	0.091	13.0	4.82	285	2.14	126
	s	144	0.091	13.0	4.82	695	2.14	308
	w	96	0.091	13.0	4.82	463	2.14	205
	all	299	0.091	13.0	4.82	1442	2.14	639
Partitions (none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.23); 50% blinds 45°, light; 50% outdoor insect screen; 1.6 ft overhang (4 ft window ht, 1 ft sep.); 6.67 ft head ht	e	16	0.300	0	15.9	254	19.4	310
	s	40	0.300	0	15.9	636	7.91	316
	all	56	0.300	0	15.9	890	11.2	627
Doors								
11D0: Door, wd sc type	e	21	0.390	0	20.7	434	11.1	233
Ceilings								
16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 cell ins, 1/2" gypsum board int fnsh		276	0.032	30.0	1.70	468	1.66	459
Floors								
22A-tpl: Bg floor, light dry soil, on grade depth, carp 80% flr fnsh		47	0.989	0	52.4	2464	0	0



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Component Constructions
bath
DL Williams Heating & Cooling LLC

Job:
Date: Mar 08, 2024
By:

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: Office@DLWilliamsHeatingandCooling.com

Project Information

For: Phillips addition, Mike Todd Construction
FL

Design Conditions

Location:			Indoor:		Heating	Cooling
Washington National AP, DC, US			Indoor temperature (°F)		70	75
Elevation: 0 ft			Design TD (°F)		53	16
Latitude: 38°N			Relative humidity (%)		30	50
Outdoor:			Moisture difference (gr/lb)		22.3	34.7
			Heating	Cooling		
Drybulb (°F)			17	91		
Daily range (°F)			-	18 (M)		
Wet bulb (°F)			-	74		
Wind speed (mph)			15.0	7.5		
			Infiltration:			
			Method		Simplified	
			Construction quality		Average	
			Fireplaces		0	

Construction descriptions

	Or	Area ft²	U-value Btu/h/ft²·°F	Insul R ft²·°F/Btu	Htg HTM Btu/h/ft²	Loss Btu/h	Clg HTM Btu/h/ft²	Gain Btu/h
Walls								
12C-0sw: Frm wall, stucco ext, 3/8" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	n	136	0.091	13.0	4.82	656	2.14	291
	e	43	0.091	13.0	4.82	208	2.14	92
	all	179	0.091	13.0	4.82	864	2.14	383
Partitions (none)								
Windows								
4B5-2fv: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/4" thk; NFRC rated (SHGC=0.23); 1.6 ft overhang (1.6 ft window ht, 1 ft sep.); 6.67 ft head ht	e	5	0.300	0	15.9	76	23.4	112
Doors (none)								
Ceilings								
16B-30ad: Attic ceiling, asphalt shingles roof mat, r-30 ceil ins, 1/2" gypsum board int fnsh		102	0.032	30.0	1.70	173	1.66	170
Floors								
22A-tpf: Bg floor, light dry soil, on grade depth, carp 80% flr fnsh		23	0.989	0	52.4	1206	0	0



Project Summary

Entire House

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Project Information

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Notes:

Design Information

Weather: Washington National AP, DC, US

Winter Design Conditions

Outside db 17 °F
Inside db 70 °F
Design TD 53 °F

Summer Design Conditions

Outside db 91 °F
Inside db 75 °F
Design TD 16 °F
Daily range M
Relative humidity 50 %
Moisture difference 35 gr/lb

Heating Summary

Structure 11466 Btuh
Ducts (R-6.0) 663 Btuh
Central vent (0 cfm)
(none) 0 Btuh
Humidification 0 Btuh
Piping 0 Btuh
Equipment load 12130 Btuh

Sensible Cooling Equipment Load Sizing

Structure 4079 Btuh
Ducts (R-6.0) 651 Btuh
Central vent (0 cfm)
(none) 0 Btuh
Blower 0 Btuh
Use manufacturer's data n
Rate/swing multiplier 0.96
Equipment sensible load 4541 Btuh

Infiltration

Method Simplified
Construction quality Average
Fireplaces 0

	Heating	Cooling
Area (ft ²)	414	414
Volume (ft ³)	3312	3312
Air changes/hour	0.61	0.32
Equiv. AVF (cfm)	34	18

Latent Cooling Equipment Load Sizing

Structure 1016 Btuh
Ducts 113 Btuh
Central vent (0 cfm)
(none) 0 Btuh
Equipment latent load 1129 Btuh
Equipment Total Load (Sen+Lat) 5670 Btuh
Req. total capacity at 0.70 SHR 0.5 ton

Heating Equipment Summary

Make Generic
Trade
Model SEER 15.0, HSPF 8.5
AHRI ref
Efficiency 8.5 HSPF
Heating input
Heating output 6454 Btuh @ 47°F
Temperature rise 27 °F
Actual air flow 216 cfm
Air flow factor 0.018 cfm/Btuh
Static pressure 0.50 in H2O
Space thermostat
Capacity balance point = 38 °F
Backup:
Input = 4 kW, Output = 12129 Btuh, 100 AFUE

Cooling Equipment Summary

Make Generic
Trade
Cond SEER 15.0, HSPF 8.5
Coil
AHRI ref
Efficiency 12.8 EER, 15 SEER
Sensible cooling 4540 Btuh
Latent cooling 1946 Btuh
Total cooling 6486 Btuh
Actual air flow 216 cfm
Air flow factor 0.046 cfm/Btuh
Static pressure 0.50 in H2O
Load sensible heat ratio 0.81

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



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AED Assessment

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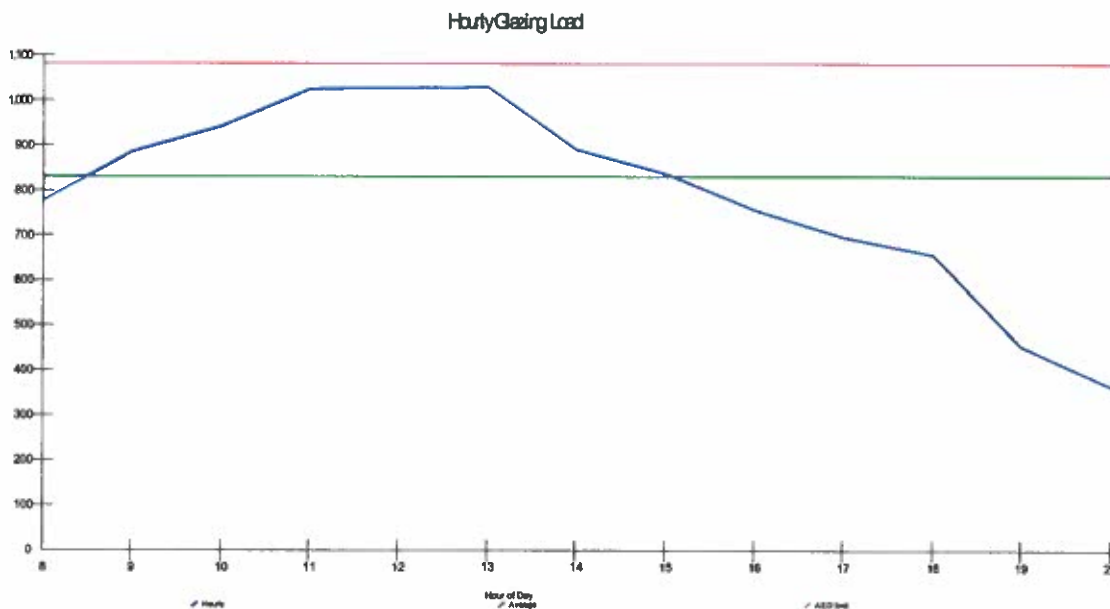
Project Information

For: Phillips addition, Mike Todd Construction
FL

Design Conditions

Location:		Indoor:		Heating	Cooling
Washington National AP, DC, US		Indoor temperature (°F)		70	75
Elevation: 0 ft		Design TD (°F)		53	16
Latitude: 38°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		22.3	34.7
Outdoor:		Heating	Cooling	Infiltration:	
Dry bulb (°F)		17	91		
Daily range (°F)		-	18 (M)		
Wet bulb (°F)		-	74		
Wind speed (mph)		15.0	7.5		

Test for Adequate Exposure Diversity



Maximum hourly glazing load exceeds average by 23.7%.

House has adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 0 Btuh



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Right-J® Worksheet
Entire House
DL Williams Heating & Cooling LLC

Job:
Date: Mar 08, 2024
By:

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: Office@DLWilliamsHeatingandCooling.com

1	Room name					Entire House					masterbed				
2	Exposed wall					82.0 ft					47.0 ft				
3	Room height					8.0 ft					8.0 ft				
4	Room dimensions					23.0 x 12.0					heat/cool				
5	Room area					414.0 ft²					276.0 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12C-0sw	0.091	n	4.82	2.14	184	163	786	349	0	0	0	0	
	D	11D0	0.390	n	20.67	11.11	21	21	434	233	0	0	0	0	
	W	12C-0sw	0.091	e	4.82	2.14	144	102	493	219	96	59	285	126	
11	G	4A5-2ov	0.300	e	15.90	19.39	16	1	254	310	16	1	254	310	
	G	4B5-2fv	0.300	e	15.90	23.40	5	1	78	112	0	0	0	0	
	D	11D0	0.390	e	20.67	11.11	21	21	434	233	21	21	434	233	
	W	12C-0sw	0.091	s	4.82	2.14	184	144	695	308	184	144	695	308	
	G	4A5-2ov	0.300	s	15.90	7.91	40	32	638	316	40	32	636	316	
	W	12C-0sw	0.091	w	4.82	2.14	144	144	695	308	96	96	463	205	
	C	16B-30ad	0.032	-	1.70	1.66	414	414	702	689	276	276	468	459	
	F	22A-tpl	0.989	-	52.42	0.00	414	82	4298	0	276	47	2464	0	
6	c) AED excursion									0				-1	
	Envelope loss/gain								9503	3078			5698	1958	
12	a) Infiltration								1963	311			1125	178	
	b) Room ventilation								0	0			0	0	
13	Internal gains: Occupants @ 230						3			690	1			230	
	Appliances/other									0				0	
	Subtotal (lines 6 to 13)								11466	4079			6823	2366	
	Less external load								0	0			0	0	
	Less transfer								0	0			0	0	
	Redistribution								0	0			4643	1713	
14	Subtotal								11466	4079			11466	4079	
15	Duct loads						6%	16%	663	651	6%	16%	663	651	
	Total room load								12130	4730			12130	4730	
	Air required (cfm)								216	216			216	216	

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



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Loads for Multiple Orientations

Entire House

DL Williams Heating & Cooling LLC

Job:

Date: Mar 08, 2024

By:

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: Office@DLWilliamsHeatingandCooling.com

Project Information

For: Phillips addition, Mike Todd Construction
FL

Design Conditions

Location:

Washington National AP, DC, US

Elevation: 0 ft

Latitude: 38°N

Outdoor:

Dry bulb (°F)

Heating 17

Cooling 91

Daily range (°F)

-

18 (M)

Wet bulb (°F)

-

74

Wind speed (mph)

15.0

7.5

Indoor:

Indoor temperature (°F)

Heating 70

Cooling 75

Design TD (°F)

53

16

Relative humidity (%)

30

50

Moisture difference (gr/lb)

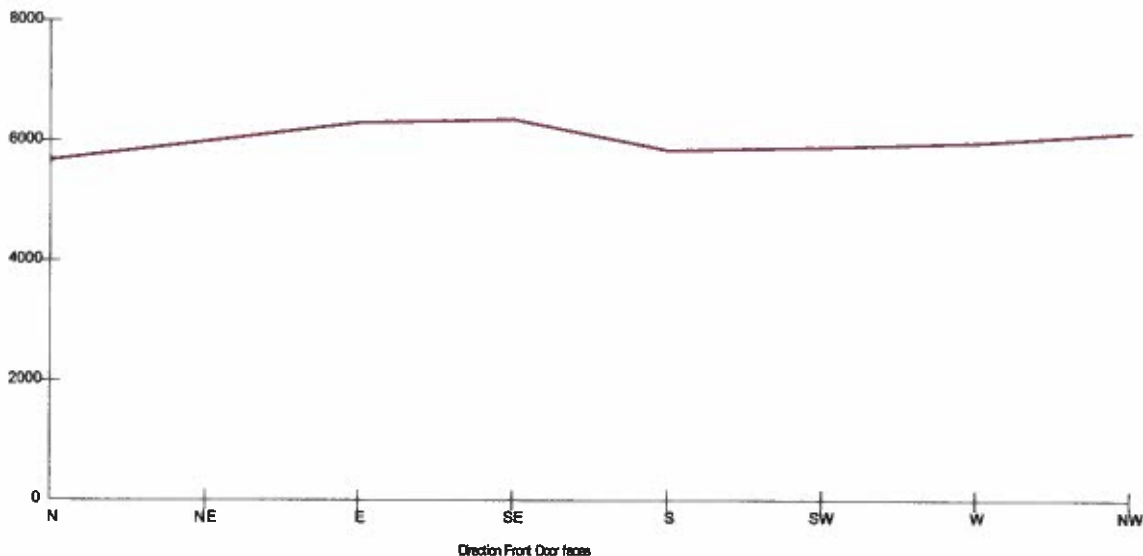
22.3

34.7

Infiltration:

Front Door	North	Northeast	East	Southeast	South	Southwest	West	Northwest
Sensible Load (Btuh)	4541	4851	5163	5222	4710	4761	4839	5010
Latent Load (Btuh)	1129	1129	1129	1129	1129	1129	1129	1129
Total Load (Btuh)	5670	5980	6293	6351	5840	5891	5969	6140
Heating AVF (cfm)	216	216	216	216	216	216	216	216
Cooling AVF (cfm)	216	216	216	216	216	216	216	216

Building Orientation Cooling Load



Current Orientation: Front Door faces North
Highest Cooling Load: Front Door faces Southeast

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



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J1 Form - Worksheet A
Entire House
DL Williams Heating & Cooling LLC

Job:
Date: Mar 08, 2024
By:

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987 Email: Office@DLWilliamsHeatingandCooling.com

Supporting Detail	
Project Name: Mike Todd Construction Phillips	Date: Mar 08, 2024
Address: FL	
Phone:	Job ID:

Worksheet A	
Location and Design Conditions	
Weather Location: Washington National AP, DC, US	Elevation = 0 Latitude = 38
Indoor Conditions, Heating: DB = 70 °F RH = 30 %	Indoor Conditions, Cooling: DB = 75 °F RH = 50 %
Table 1 Conditions 99% DB = 17 °F 1% DB = 91 °F Grains Difference = 35 gr/lb Daily Range = M	
Design Temperature Differences	HTD = 53 °F CTD = 16 °F

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



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