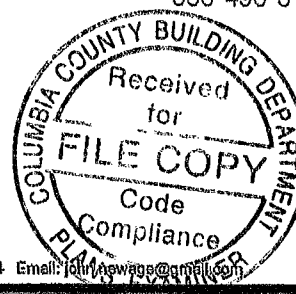




Load Short Form
Entire House
New Age Dimensions, LLC.



Job: Burke Residence
 Date: 04/05/2014
 By: John Pirkel
 Plan: Manual J

14000 S.E. 122nd Lane Road, Ocklawaha, FL 32179 Phone: (352) 288 - 0886 Fax: (352) 288 - 0884 Email: john.newage@gmail.com

Project Information

For: Touchstone Heating & Air, Inc.
 490 S.E. 3rd Avenue, Lake Butler, FL 32054
 Phone: (386) 496 - 3467 Fax: (386) 496 - 3147

24

Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	33	92	Method	Simplified
Inside db (°F)	68	75	Construction quality	Average
Design TD (°F)	35	17	Fireplaces	0
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	29	47		

HEATING EQUIPMENT

Make York
 Trade LX SERIES
 Model YHJD48S44S3
 AHRI ref 4483204

Efficiency 8.2 HSPF
 Heating input
 Heating output 45500 Btuh @ 47°F
 Temperature rise 26 °F
 Actual air flow 1600 cfm
 Air flow factor 0.042 cfm/Btuh
 Static pressure 0.51 in H2O
 Space thermostat

COOLING EQUIPMENT

Make York
 Trade LX SERIES
 Cond YHJD48S44S3
 Coil AHE48D++TXV
 AHRI ref 4483204

Efficiency 12.0 EER, 14 SEER
 Sensible cooling 30800 Btuh
 Latent cooling 13200 Btuh
 Total cooling 44000 Btuh
 Actual air flow 1600 cfm
 Air flow factor 0.051 cfm/Btuh
 Static pressure 0.51 in H2O
 Load sensible heat ratio 0.79

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bedroom #3	172	4929	1768	207	90
Bathrm #2	50	1038	612	44	31
Bedroom #2	161	2705	2245	114	114
Utility Room	179	1628	2970	68	151
Dining Room	255	6124	6106	257	310
Kitchen	139	204	2573	9	131
Den	140	3041	2984	128	152
Foyer	60	2195	1779	92	90
Great Room	400	3947	4792	166	244
Mstr Bedroom	245	6139	3541	258	180
Tlt	22	1036	542	44	28
Mstr Bathrm	116	3347	890	141	45
Mstr WIC	81	1719	672	72	34

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



Wrightsoft

Right-Software Universal 2013 13 0.08 RSL02050

...s\Wrightsoft HVAC\Touchstone\Burke Manual J.rup Calc = MJ8 Front Door faces: N

2014-Apr-07 07:58:54

Page 1

Entire House	2019	38051	31474	1600	1600
Other equip loads		4919	3565		
Equip. @ 0.97 RSM			33989		
Latent cooling			9343		
TOTALS	2019	42970	43331	1600	1600

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



++ wrightsoft

Right-Suite® Universal 2013 13.0.08 RSU02060
s\wrightsoft HVAC\Touchstone\Burke Manual J.rup Calc = MJ8 Front Door faces, N

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Page 2

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

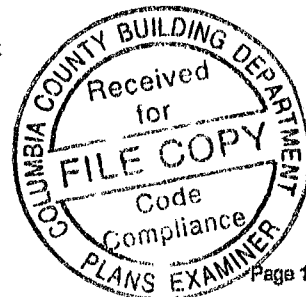
Project Name: Burke Residence Street: City, State, Zip: Lake City, FL, 32055- Owner: Burke Design Location: FL, Gainesville	Builder Name: Bryan Zecher Construction Permit Office: Columbia County Permit Number: Jurisdiction: 221000
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Glass/Floor Area: 0.112	Total Proposed Modified Loads: 26.41	PASS
	Total Standard Reference Loads: 42.34	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY: <u>T-G. Oelke</u> DATE: <u>4/5/14</u> I hereby certify that this building, as designed, is in compliance with the Florida Energy Code. OWNER/AGENT: _____ DATE: _____	Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.  BUILDING OFFICIAL: _____ DATE: _____
---	---

- Compliance requires completion of a Florida Air Barrier and Insulation Inspection Checklist



PROJECT											
Title:	Burke Residence	Bedrooms:	3	Address Type:	Lot Information						
Building Type:	User	Conditioned Area:	2018	Lot #	8						
Owner:	Burke	Total Stories:	1	Block/SubDivision:	Laurel Lakes						
# of Units:	1	Worst Case:	No	PlatBook:	Book 7 Page 9						
Builder Name:	Bryan Zecher Construction	Rotate Angle:	0	Street:							
Permit Office:	Columbia County	Cross Ventilation:		County:	Columbia						
Jurisdiction:	221000	Whole House Fan:		City, State, Zip:	Lake City , FL , 32055-						
Family Type:	Single-family										
New/Existing:	New (From Plans)										
Comment:											
CLIMATE											
✓	Design Location	TMY Site	IECC Zone	Design Temp 97.5 %	2.5 %	Int Design Temp Winter	Summer	Heating Degree Days	Design Moisture	Daily Temp Range	
_____	FL, Gainesville	FL_GAINESVILLE_REGI	2	32	92	70	75	1305.5	51	Medium	
BLOCKS											
	Number	Name	Area	Volume							
	1	Block1	2018	18162							
SPACES											
	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infill ID	Finished	Cooled	Heated
	1	Main	2018	18162	Yes	2	3	1	Yes	Yes	Yes
FLOORS											
✓	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet	
_____	1	Slab-On-Grade Edge Insulation	Main	198.5 ft	0	2018 ft²	----	0.2	0.4	0.4	
ROOF											
✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Hip	Composition shingles	2426 ft²	0 ft²	Medium	0.96	No	0.9	No	0 33.7
ATTIC											
✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC				
_____	1	Full attic	Vented	300	2018 ft²	N	N				
CEILING											
✓	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type				
_____	1	Under Attic (Vented)	Main	30	2018 ft²	0.11	Wood				

WALLS														
✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
1	NE	Exterior	Face Brick - Wood	Main	13	14	8	9		132.0 ft²	0	0.23	0.75	0
2	NE	Exterior	Face Brick - Wood	Main	13	19		9		171.0 ft²	0	0.23	0.75	0
3	NE	Exterior	Face Brick - Wood	Main	13	20	3	9		182.3 ft²	0	0.23	0.75	0
4	SE	Exterior	Face Brick - Wood	Main	13	40		9		360.0 ft²	0	0.23	0.75	0
5	SW	Exterior	Face Brick - Wood	Main	13	28		9		252.0 ft²	0	0.23	0.75	0
6	NW	Exterior	Face Brick - Block	Main	13	8	2	9		73.6 ft²	0	0	0.75	0
7	SW	Exterior	Face Brick - Wood	Main	13	26		9		234.0 ft²	0	0.23	0.75	0
8	NW	Exterior	Face Brick - Wood	Main	13	34	4	9		309.0 ft²	0	0.23	0.75	0

DOORS											
✓ #	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area	
1	NE	Insulated	Main	Metal	.46	6		8		48 ft²	
2	NE	Insulated	Main	Metal	.28	3		6	8	20 ft²	

WINDOWS														
Orientation shown is the entered, Proposed orientation.														
✓ #	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Area	Overhang Depth	Separation	Int Shade	Screening		
1	NE	1	Vinyl	Low-E Double	Yes	0.55	0.5	3.4 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None		
2	NE	1	Vinyl	Low-E Double	Yes	0.55	0.5	10.4 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None		
3	NE	2	Vinyl	Low-E Double	Yes	0.55	0.5	30.2 ft²	7 ft 0 in	0 ft 4 in	Drapes/blinds	None		
4	SE	4	Vinyl	Low-E Double	Yes	0.55	0.5	10.9 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None		
5	SE	4	Vinyl	Low-E Double	Yes	0.55	0.5	12.4 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None		
6	SE	4	Vinyl	Low-E Double	Yes	0.55	0.5	3.7 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None		
7	SW	6	Vinyl	Low-E Double	Yes	0.55	0.5	12.4 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None		
8	SW	5	Vinyl	Low-E Double	Yes	0.55	0.5	30.2 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None		
9	NW	6	Vinyl	Low-E Double	Yes	0.55	0.5	40.1 ft²	6 ft 0 in	0 ft 4 in	Drapes/blinds	None		
10	SW	7	Vinyl	Low-E Double	Yes	0.55	0.5	40.1 ft²	10 ft 0 in	0 ft 4 in	Drapes/blinds	None		
11	SW	7	Vinyl	Low-E Double	Yes	0.55	0.5	28.3 ft²	10 ft 0 in	0 ft 4 in	Drapes/blinds	None		
12	NW	8	Vinyl	Low-E Double	Yes	0.55	0.5	4.4 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None		

INFILTRATION								
#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Best Guess	.0005	2646.6	145.3	273.25	.385	8.7434

HEATING SYSTEM									
☒	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts		
☒	1	Electric Heat Pump	None	HSPF: 7.7	36 kBtu/hr	1	sys#1		

COOLING SYSTEM									
☒	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
☒	1	Central Unit	Split	SEER: 14	36 kBtu/hr	1080 cfm	0.75	1	sys#1

HOT WATER SYSTEM									
☒	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
☒	1	Propane	Tankless	Exterior	0.59	1 gal	60 gal	120 deg	None

SOLAR HOT WATER SYSTEM									
☒	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF		
☒	None	None			ft²				

DUCTS													
☒	#	--- Supply ---		--- Return ---		Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC #	
		Location	R-Value	Area	Location	Area						Heat	Cool
☒	1	Attic	6	403.6 ft²	Attic	100.9 ft²	Default Leakage	Main	(Default) c	(Default) c		1	1

TEMPERATURES													
Programmable Thermostat: Y						Ceiling Fans:							
Cooling	☒ Jan	☒ Feb	☒ Mar	☐ Apr	☐ May	☒ Jun	☒ Jul	☒ Aug	☒ Sep	☐ Oct	☐ Nov	☒ Dec	
Heating	☒ Jan	☒ Feb	☒ Mar	☒ Apr	☐ May	☐ Jun	☐ Jul	☐ Aug	☐ Sep	☒ Oct	☒ Nov	☒ Dec	
Venting	☒ Jan	☒ Feb	☒ Mar	☒ Apr	☐ May	☐ Jun	☐ Jul	☐ Aug	☐ Sep	☒ Oct	☒ Nov	☒ Dec	
Thermostat Schedule: HERS 2006 Reference													
Schedule Type		1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM PM	78 80	78 80	78 78	78 78	78 78	78 78	78 78	78 78	80 78	80 78	80 78	80 78
Cooling (WEH)	AM PM	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78
Heating (WD)	AM PM	66 68	66 68	66 68	66 68	66 68	68 68	68 68	68 68	68 68	68 68	68 66	68 66
Heating (WEH)	AM PM	66 68	66 68	66 68	66 68	66 68	68 68	68 68	68 68	68 68	68 68	68 66	68 66

Florida Code Compliance Checklist Florida Department of Business and Professional Regulations Residential Whole Building Performance Method

ADDRESS:

Lake City, FL, 32055-

PERMIT #:

MANDATORY REQUIREMENTS SUMMARY - See individual code sections for full details.

COMPONENT	SECTION	SUMMARY OF REQUIREMENT(S)	CHECK
Air leakage	402.4	To be caulked, gasketed, weatherstripped or otherwise sealed. Recessed lighting IC-rated as meeting ASTM E 283. Windows and doors = 0.30 cfm/sq.ft. Testing or visual inspection required. Fireplaces: gasketed doors & outdoor combustion air. Must complete envelope leakage report or visually verify Table 402.4.2.	✓
Thermostat & controls	403.1	At least one thermostat shall be provided for each separate heating and cooling system. Where forced-air furnace is primary system, programmable thermostat is required. Heat pumps with supplemental electric heat must prevent supplemental heat when compressor can meet the load.	✓
Ducts	403.2.2	All ducts, air handlers, filter boxes and building cavities which form the primary air containment passageways for air distribution systems shall be considered ducts or plenum chambers, shall be constructed and sealed in accordance with Section 503.2.7.2 of this code.	✓
	403.3.3	Building framing cavities shall not be used as supply ducts.	
Water heaters	403.4	Heat trap required for vertical pipe risers. Comply with efficiencies in Table 403.4.3.2. Provide switch or clearly marked circuit breaker (electric) or shutoff (gas). Circulating system pipes insulated to = R-2 + accessible manual OFF switch.	✓
Mechanical ventilation	403.5	Homes designed to operate at positive pressure or with mechanical ventilation systems shall not exceed the minimum ASHRAE 62 level. No make-up air from attics, crawlspaces, garages or outdoors adjacent to pools or spas.	✓
Swimming Pools & Spas	403.9	Pool pumps and pool pump motors with a total horsepower (HP) of = 1 HP shall have the capability of operating at two or more speeds. Spas and heated pools must have vapor-retardant covers or a liquid cover or other means proven to reduce heat loss except if 70% of heat from site-recovered energy. Off/timer switch required. Gas heaters minimum thermal efficiency=78% (82% after 4/16/13). Heat pump pool heaters minimum COP= 4.0.	N/A
Cooling/heating equipment	403.6	Sizing calculation performed & attached. Minimum efficiencies per Tables 503.2.3. Equipment efficiency verification required. Special occasion cooling or heating capacity requires separate system or variable capacity system. Electric heat >10kW must be divided into two or more stages.	✓
Ceilings/knee walls	405.2.1	R-19 space permitting.	✓