

RESIDENTIAL ENERGY CONSERVATION CODE DOCUMENTATION CHECKLIST

Florida Department of Business and Professional Regulation Simulated Performance Alternative (Performance) Method

Applications for compliance with the 2022 Florida Building Code, Energy Conservation via the Residential Simulated Performance Alternative shall include:

- ☒ This checklist
- ☒ Form R405-2022 report
- ☒ Input summary checklist that can be used for field verification (usually four pages/may be greater)
- ☒ Energy Performance Level (EPL) Display Card (one page)
- ☒ HVAC system sizing and selection based on ACCA Manual S or per exceptions provided in Section R403.7
- ☒ Mandatory Requirements (five pages)

Required prior to CO:

- ☒ Air Barrier and Insulation Inspection Component Criteria checklist (Table R402.4.1.1 - one page)
- ☒ A completed 2022 Envelope Leakage Test Report (usually one page); exception in R402.4 allows dwelling units of R-2 Occupancies and multiple attached single family dwellings to comply with Section C402.5
- ☐ If Form R405 duct leakage type indicates anything other than "default leakage", then a completed 2020 Duct Leakage Test Report - Performance Method (usually one page)

Project Name: Pinecrest Residence				Builder Name:			
Street: 7725 Southwest 114th Street				Permit Office:			
City, State, Zip: Miami, FL, 33156				Permit Number:			
Owner:				Jurisdiction:			
Design Location: FL, Miami				County: Miami-Dade(Florida Climate Zone 1)			

1.	New construction or existing	New (From Plans)	
2.	Single family or multiple family	Detached	
3.	Number of units, if multiple family	1	
4.	Number of Bedrooms	6	
5.	Is this a worst case?	No	
6.	Conditioned floor area above grade (ft²)	6331	
	Conditioned floor area below grade (ft²)	0	
7.	Windows(2222.7 sqft.)	Description	Area
a.	U-Factor:	Sgl, U=1.05	2222.70 ft²
	SHGC:	SHGC=0.31	
b.	U-Factor:	N/A	ft²
	SHGC:		
c.	U-Factor:	N/A	ft²
	SHGC:		
	Area Weighted Average Overhang Depth:	8.553 ft	
	Area Weighted Average SHGC:	0.310	
8.	Skylights	Description	Area
	U-Factor:(AVG)	N/A	N/A ft²
	SHGC(AVG):	N/A	
9.	Floor Types	Insulation	Area
a.	Slab-On-Grade Edge Insulation	R= 0.0	6297.00 ft²
b.	N/A	R=	ft²
c.	N/A	R=	ft²
10.	Wall Types(7297.2 sqft.)	Insulation	Area
a.	Concrete Block - Int Insul, Exterior	R=5.0	7043.20 ft²
b.	Frame - Steel, Adjacent	R=19.0	254.00 ft²
c.	N/A		
d.	N/A		
11.	Ceiling Types(6331.0 sqft.)	Insulation	Area
a.	Roof Deck (Unvented)	R=0.0	3631.00 ft²
b.	Roof Deck (Unvented)	R=0.0	2700.00 ft²
c.	N/A		
12.	Roof(Flat tile/slate, Unvent)	Deck R=0.0	7034 ft²
13.	Ducts, location & insulation level	R	ft²
a.	Sup: AC 1, Ret: AC 1, AH: AC 1	6	100
b.	Sup: AC 2, Ret: AC 2, AH: AC 2	6	100
c.	1 additional duct system(s)	(see details)	
14.	Cooling Systems	kBtu/hr	Efficiency
a.	Central Unit	55.5	SEER2:15.20
b.	Central Unit	55.5	SEER2:15.20
c.	Central Unit	34.2	SEER2:15.20
15.	Heating Systems	kBtu/hr	Efficiency
a.	Electric Strip Heat	34.2	COP:1.00
b.	Electric Strip Heat	34.2	COP:1.00
c.	Electric Strip Heat	23.9	COP:1.00
16.	Hot Water Systems		
a.	PropaneTankless	Cap: 1 gallons	
		EF: 0.590	
	b. Conservation features		
		None	
17.	Credits	Pstat	

PASS

DATE: _____

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INPUT SUMMARY CHECKLIST REPORT

PROJECT														
Title:	Pinecrest Residence			Bedrooms:	6		Address type:	Street Address						
Building Type:	User			Conditioned Area:	6331		Lot #:	---						
Owner:				Total Stories:	1		Block/SubDivision:	---						
Builder Home ID:				Worst Case:	No		PlatBook:	---						
Builder Name:				Rotate Angle:	0		Street:	7725 Southwest 114th Street						
Permit Office:				Cross Ventilation:			County:	Miami-Dade						
Jurisdiction:				Whole House Fan:			City, State, Zip:	Miami, FL, 33156						
Family Type:	Detached			Terrain:	Suburban									
New/Existing:	New (From Plans)			Shielding:	Suburban									
Year Construct:														
Comment:														
CLIMATE														
✓ Design Location	Tmy Site			Design Temp 97.5% 2.5%		Int Design Temp Winter Summer		Heating Degree Days		Design Moisture		Daily temp Range		
___ FL, Miami	FL_MIAMI_INTL_AP			51 90		70 75		149.5		56		Low		
BLOCKS														
✓ Number	Name		Area		Volume									
___ 1	Block1		2191		26292 cu ft									
___ 2	Block2		2700		32400 cu ft									
___ 3	Block3		1440		17280 cu ft									
SPACES														
✓ Number	Name		Area		Volume		Kitchen		Occupants		Bedrooms		Finished Cooled Heated	
___ 1	AC 1		2191		26292		No		4		4		Yes Yes Yes	
___ 2	AC 2		2700		32400		Yes		0		0		Yes Yes Yes	
___ 3	AC 3		1440		17280		No		3		2		Yes Yes Yes	
FLOORS (Total Exposed Area = 6297 sq.ft.)														
✓ #	Floor Type		Space		Exposed Perim(ft)		Area		R-Value Perim. Joist		U-Factor		Slab Insul. Vert/Horiz Tile Wood Carpet	
___ 1	Slab-On-Grade Edge Ins		AC 1		252		2182 sqft		0.0 ---		0.636		0 (ft)/0 (ft) 0.50 0.00 0.50	
___ 2	Slab-On-Grade Edge Ins		AC 2		262		2675 sqft		0.0 ---		0.636		0 (ft)/0 (ft) 0.50 0.00 0.50	
___ 3	Slab-On-Grade Edge Ins		AC 3		193		1440 sqft		0.0 ---		0.636		0 (ft)/0 (ft) 0.50 0.00 0.50	
ROOF														
✓ #	Type		Materials		Roof Area		Gable Area		Framing. Fract.		Roof Color		Rad Barr Solar Absor. SA Tested Emitt Tested Deck Insul. Pitch (deg)	
___ 1	Hip		Flat tile/slate		7034 ft²		0 ft²		0.11		Medium		N 0.65 No 0.9 No 0 18.43	
ATTIC														
✓ #	Type		Ventilation		Vent Ratio (1 in)		Area		RBS		IRCC			
___ 1	Partial cathedral ceiling		Unvented		0		6673 ft²		N		N			

INPUT SUMMARY CHECKLIST REPORT

CEILING													(Total Exposed Area = 6331 sq.ft.)		
✓ #	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type							
___ 1	Flat ceiling under attic(Unvented)	AC 1	30.0	Blown	2191.0ft²	0.031	0.11	Metal							
___ 2	Sloped ceiling under attic(Unvented)	AC 2	30.0	Blown	2700.0ft²	0.030	0.11	Wood							
___ 3	Flat ceiling under attic(Unvented)	AC 3	30.0	Blown	1440.0ft²	0.031	0.11	Metal							

WALLS													(Total Exposed Area = 7297 sq.ft.)		
✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade
___ 1	S	Exterior	Conc. Blk - Int Ins	AC 3	5.0	19.0	6	12.0	0	234.0	0.132		0	0.15	0.0 %
___ 2	E	Exterior	Conc. Blk - Int Ins	AC 3	5.0	73.0	10	12.0	0	886.0	0.132		0	0.15	0.0 %
___ 3	N	Exterior	Conc. Blk - Int Ins	AC 3	5.0	19.0	6	12.0	0	234.0	0.132		0	0.15	0.0 %
___ 4	W	Exterior	Conc. Blk - Int Ins	AC 3	5.0	23.0	2	12.0	0	278.0	0.132		0	0.15	0.0 %
___ 5	W	Exterior	Conc. Blk - Int Ins	AC 3	5.0	11.0	6	12.0	0	138.0	0.132		0	0.15	0.0 %
___ 6	N	Exterior	Conc. Blk - Int Ins	AC 2	5.0	31.0	0	20.0	6	635.5	0.132		0	0.15	0.0 %
___ 7	E	Exterior	Conc. Blk - Int Ins	AC 2	5.0	28.0	4	12.0	0	340.0	0.132		0	0.15	0.0 %
___ 8	N	Exterior	Conc. Blk - Int Ins	AC 2	5.0	29.0	8	12.0	0	356.0	0.132		0	0.15	0.0 %
___ 9	E	Exterior	Conc. Blk - Int Ins	AC 1	5.0	17.0	4	12.0	0	208.0	0.132		0	0.15	0.0 %
___ 10	N	Exterior	Conc. Blk - Int Ins	AC 1	5.0	18.0	6	12.0	0	222.0	0.132		0	0.15	0.0 %
___ 11	W	Exterior	Conc. Blk - Int Ins	AC 1	5.0	30.0	6	12.0	0	366.0	0.132		0	0.15	0.0 %
___ 12	N	Exterior	Conc. Blk - Int Ins	AC 1	5.0	3.0	4	12.0	0	40.0	0.132		0	0.15	0.0 %
___ 13	W	Exterior	Conc. Blk - Int Ins	AC 1	5.0	18.0	6	12.0	0	222.0	0.132		0	0.15	0.0 %
___ 14	S	Exterior	Conc. Blk - Int Ins	AC 1	5.0	3.0	4	12.0	0	40.0	0.132		0	0.15	0.0 %
___ 15	W	Exterior	Conc. Blk - Int Ins	AC 1	5.0	14.0	6	12.0	0	174.0	0.132		0	0.15	0.0 %
___ 16	N	Exterior	Conc. Blk - Int Ins	AC 1	5.0	3.0	4	12.0	0	40.0	0.132		0	0.15	0.0 %
___ 17	W	Exterior	Conc. Blk - Int Ins	AC 1	5.0	18.0	6	12.0	0	222.0	0.132		0	0.15	0.0 %
___ 18	S	Exterior	Conc. Blk - Int Ins	AC 1	5.0	3.0	4	12.0	0	40.0	0.132		0	0.15	0.0 %
___ 19	W	Exterior	Conc. Blk - Int Ins	AC 1	5.0	15.0	5	12.0	0	185.0	0.132		0	0.15	0.0 %
___ 20	S	Garage	Frame - Steel	AC 1	19.0	21.0	2	12.0	0	254.0	0.108		0.1	0.01	0.0 %
___ 21	E	Exterior	Conc. Blk - Int Ins	AC 1	5.0	15.0	3	12.0	0	183.0	0.132		0	0.15	0.0 %
___ 22	S	Exterior	Conc. Blk - Int Ins	AC 2	5.0	6.0	2	12.0	0	74.0	0.132		0	0.15	0.0 %
___ 23	W	Exterior	Conc. Blk - Int Ins	AC 2	5.0	3.0	6	12.0	0	42.0	0.132		0	0.15	0.0 %
___ 24	S	Exterior	Conc. Blk - Int Ins	AC 2	5.0	19.0	6	12.0	0	234.0	0.132		0	0.15	0.0 %
___ 25	E	Exterior	Conc. Blk - Int Ins	AC 2	5.0	13.0	4	12.0	0	160.0	0.132		0	0.15	0.0 %
___ 26	S	Exterior	Conc. Blk - Int Ins	AC 2	5.0	6.0	9	20.0	6	138.4	0.132		0	0.15	0.0 %
___ 27	W	Exterior	Conc. Blk - Int Ins	AC 2	5.0	6.0	4	20.0	6	129.8	0.132		0	0.15	0.0 %
___ 28	S	Exterior	Conc. Blk - Int Ins	AC 2	5.0	17.0	6	20.0	6	358.8	0.132		0	0.15	0.0 %
___ 29	E	Exterior	Conc. Blk - Int Ins	AC 2	5.0	6.0	4	20.0	6	129.8	0.132		0	0.15	0.0 %
___ 30	S	Exterior	Conc. Blk - Int Ins	AC 2	5.0	6.0	9	20.0	6	138.4	0.132		0	0.15	0.0 %
___ 31	W	Exterior	Conc. Blk - Int Ins	AC 3	5.0	13.0	4	12.0	0	160.0	0.132		0	0.15	0.0 %
___ 32	E	Exterior	Conc. Blk - Int Ins	AC 2	5.0	26.0	4	8.0	6	223.8	0.132		0	0.15	0.0 %
___ 33	W	Exterior	Conc. Blk - Int Ins	AC 2	5.0	26.0	4	8.0	0	210.7	0.132		0	0.15	0.0 %

DOORS													(Total Exposed Area = 23 sq.ft.)		
✓ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area				
___ 1	S	Garage	Insulated	AC 1	Metal	0.28	2.00	10	8.00	0	22.7ft²				

INPUT SUMMARY CHECKLIST REPORT

WINDOWS (Total Exposed Area = 2223 sq.ft.)																	
✓ #	Ornt	Wall ID	Frame	Panes	NFRC U-Factor	SHGC	Imp	Storm	Total Area (ft²)	Same Units	Width (ft)	Height (ft)	--Overhang-- Depth (ft) Sep. (ft)		Interior Shade	Screen	
___ 1	S	1	Metal	Single (Clear)	Y	1.05	0.31	Y	N	160.0	4	4.00	10.00	3.0	2.0	None	None
___ 2	E	2	Metal	Single (Clear)	Y	1.05	0.31	Y	N	45.0	3	3.00	5.00	3.0	4.0	None	None
___ 3	E	2	Metal	Single (Clear)	Y	1.05	0.31	Y	N	24.0	4	3.00	2.00	3.0	2.0	None	None
___ 4	E	2	Metal	Single (Clear)	Y	1.05	0.31	Y	N	24.0	3	2.00	4.00	3.0	4.0	None	None
___ 5	E	2	Metal	Single (Clear)	Y	1.05	0.31	Y	N	12.0	3	2.00	2.00	3.0	2.0	None	None
___ 6	E	2	Metal	Single (Clear)	Y	1.05	0.31	Y	N	24.0	1	3.00	8.00	3.0	4.0	None	None
___ 7	N	3	Metal	Single (Clear)	Y	1.05	0.31	Y	N	160.0	1	16.00	10.00	11.7	2.0	None	None
___ 8	W	4	Metal	Single (Clear)	Y	1.05	0.31	Y	N	15.0	1	3.00	5.00	3.0	4.0	None	None
___ 9	W	4	Metal	Single (Clear)	Y	1.05	0.31	Y	N	30.0	1	6.00	5.00	3.0	4.0	None	None
___ 10	W	4	Metal	Single (Clear)	Y	1.05	0.31	Y	N	18.0	3	3.00	2.00	3.0	2.0	None	None
___ 11	W	5	Metal	Single (Clear)	Y	1.05	0.31	Y	N	80.0	1	8.00	10.00	31.0	2.0	None	None
___ 12	N	6	Metal	Single (Clear)	Y	1.05	0.31	Y	N	200.0	1	20.00	10.00	11.5	10.5	None	None
___ 13	N	6	Metal	Single (Clear)	Y	1.05	0.31	Y	N	106.7	5	4.00	5.33	3.0	2.0	None	None
___ 14	E	7	Metal	Single (Clear)	Y	1.05	0.31	Y	N	80.0	1	8.00	10.00	31.0	2.0	None	None
___ 15	E	7	Metal	Single (Clear)	Y	1.05	0.31	Y	N	15.0	1	3.00	5.00	3.0	4.0	None	None
___ 16	E	7	Metal	Single (Clear)	Y	1.05	0.31	Y	N	6.0	1	3.00	2.00	3.0	2.0	None	None
___ 17	N	8	Metal	Single (Clear)	Y	1.05	0.31	Y	N	160.0	1	16.00	10.00	29.7	2.0	None	None
___ 18	N	10	Metal	Single (Clear)	Y	1.05	0.31	Y	N	24.0	1	3.00	8.00	3.0	4.0	None	None
___ 19	N	10	Metal	Single (Clear)	Y	1.05	0.31	Y	N	6.0	1	3.00	2.00	3.0	2.0	None	None
___ 20	N	10	Metal	Single (Clear)	Y	1.05	0.31	Y	N	8.0	1	2.00	4.00	3.0	4.0	None	None
___ 21	N	10	Metal	Single (Clear)	Y	1.05	0.31	Y	N	4.0	1	2.00	2.00	3.0	2.0	None	None
___ 22	W	11	Metal	Single (Clear)	Y	1.05	0.31	Y	N	15.0	1	3.00	5.00	3.0	4.0	None	None
___ 23	W	11	Metal	Single (Clear)	Y	1.05	0.31	Y	N	30.0	1	6.00	5.00	3.0	2.0	None	None
___ 24	W	11	Metal	Single (Clear)	Y	1.05	0.31	Y	N	18.0	3	3.00	2.00	3.0	2.0	None	None
___ 25	W	13	Metal	Single (Clear)	Y	1.05	0.31	Y	N	16.0	2	2.00	4.00	3.0	4.0	None	None
___ 26	W	13	Metal	Single (Clear)	Y	1.05	0.31	Y	N	8.0	2	2.00	2.00	3.0	2.0	None	None
___ 27	W	15	Metal	Single (Clear)	Y	1.05	0.31	Y	N	60.0	2	6.00	5.00	3.0	4.0	None	None
___ 28	W	15	Metal	Single (Clear)	Y	1.05	0.31	Y	N	24.0	4	3.00	2.00	3.0	2.0	None	None
___ 29	W	17	Metal	Single (Clear)	Y	1.05	0.31	Y	N	16.0	2	2.00	4.00	3.0	4.0	None	None
___ 30	W	17	Metal	Single (Clear)	Y	1.05	0.31	Y	N	8.0	2	2.00	2.00	3.0	2.0	None	None
___ 31	W	19	Metal	Single (Clear)	Y	1.05	0.31	Y	N	30.0	1	6.00	5.00	3.0	4.0	None	None
___ 32	W	19	Metal	Single (Clear)	Y	1.05	0.31	Y	N	12.0	1	3.00	4.00	3.0	4.0	None	None
___ 33	W	19	Metal	Single (Clear)	Y	1.05	0.31	Y	N	18.0	3	3.00	2.00	3.0	2.0	None	None
___ 34	E	21	Metal	Single (Clear)	Y	1.05	0.31	Y	N	30.0	2	3.00	5.00	3.0	4.0	None	None
___ 35	E	21	Metal	Single (Clear)	Y	1.05	0.31	Y	N	12.0	2	3.00	2.00	3.0	2.0	None	None
___ 36	S	24	Metal	Single (Clear)	Y	1.05	0.31	Y	N	160.0	4	4.00	10.00	3.0	2.0	None	None
___ 37	E	25	Metal	Single (Clear)	Y	1.05	0.31	Y	N	120.0	3	4.00	10.00	3.0	2.0	None	None
___ 38	S	26	Metal	Single (Clear)	Y	1.05	0.31	Y	N	60.0	2	3.00	10.00	3.0	10.5	None	None
___ 39	S	26	Metal	Single (Clear)	Y	1.05	0.31	Y	N	24.0	2	3.00	4.00	3.0	2.0	None	None
___ 40	S	28	Metal	Single (Clear)	Y	1.05	0.31	Y	N	60.0	1	6.00	10.00	11.5	10.5	None	None
___ 41	S	30	Metal	Single (Clear)	Y	1.05	0.31	Y	N	60.0	2	3.00	10.00	3.0	10.5	None	None
___ 42	S	30	Metal	Single (Clear)	Y	1.05	0.31	Y	N	24.0	2	3.00	4.00	3.0	2.0	None	None
___ 43	W	31	Metal	Single (Clear)	Y	1.05	0.31	Y	N	120.0	3	4.00	10.00	3.0	2.0	None	None
___ 44	E	32	Metal	Single (Clear)	Y	1.05	0.31	Y	N	48.0	4	3.00	4.00	3.0	2.0	None	None
___ 45	W	33	Metal	Single (Clear)	Y	1.05	0.31	Y	N	48.0	4	3.00	4.00	3.0	2.0	None	None

INFILTRATION										
✓ #	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)	Infiltration Test Volume
___ 1	Wholehouse	Proposed ACH(50)	0.00030	5065	277.87	521.67	0.0995	4.0	All	75972 cu ft

GARAGE								
✓ #	Floor Area	Length	Width	Roof Area	Exposed Perimeter	Area Under Uncond.	Avg. Wall Height	Exposed Wall Insulation
___ 1	800 ft²	32.0 ft²	25.0 ft²	800 ft²	98 ft	800 ft	12 ft	1

INPUT SUMMARY CHECKLIST REPORT

MASS													
✓ #	Mass Type	Area	Thickness	Furniture Fraction	Space								
___ 1	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	AC 1								
___ 2	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	AC 2								
___ 3	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	AC 3								

HEATING SYSTEM										
✓ #	System Type	Subtype	AHRI #	Efficiency	Capacity kBtu/hr	---Geothermal HeatPump---		Ducts	Block	
						Entry	Power	Volt	Current	
___ 1	Electric Strip Heat	None		COP: 1.00	34.2		0.00	0.00	0.00	sys#1 1
___ 2	Electric Strip Heat	None		COP: 1.00	34.2		0.00	0.00	0.00	sys#2 2
___ 3	Electric Strip Heat	None		COP: 1.00	23.9		0.00	0.00	0.00	sys#3 3

COOLING SYSTEM									
✓ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	Air Flow cfm	SHR	Duct	Block
___ 1	Central Unit	Split/Single		SEER2:15.2	55.5	1665	0.75	sys#1	1
___ 2	Central Unit	Split/Single		SEER2:15.2	55.5	1665	0.75	sys#2	2
___ 3	Central Unit	Split/Single		SEER2:15.2	34.2	1026	0.75	sys#3	3

HOT WATER SYSTEM											
✓ #	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixt. Flow	Trap	Pipe Ins.	Pipe length
___ 1	Propane	Tankless	Exterior	0.59 (0.59)	1.0 gal	90 gal	120 deg	Standard	Yes	=>R-3	30

	Recirculation System	Recirc Control Type	Loop length	Branch length	Pump power	DWHR	Facilities Connected	Equal Flow	DWHR Eff	Other Credits
___ 1	No		NA	NA	NA	No	NA	NA	NA	None

DUCTS													
✓ Duct #	Location	Supply----- R-Value Area	Return----- Location R-Value Area	Leakage Type	AHU Location	CFM 25 TOT OUT	QN OUT	AHU SEALED	RLF	HVAC # Heat Cool			
___ 1	AC 1	6.0 100 ft²	AC 1 6.0 25 ft²	Default Leakage	AC 1	(Default) (Default)				1 1			
___ 2	AC 2	6.0 100 ft²	AC 2 6.0 0 ft²	Default Leakage	AC 2	(Default) (Default)				2 2			
___ 3	AC 3	6.0 100 ft²	AC 3 6.0 25 ft²	Default Leakage	AC 3	(Default) (Default)				3 3			

TEMPERATURES													
Programable Thermostat: Y				Ceiling Fans: N									
Cooling	[] Jan	[] Feb	[] Mar	[] Apr	[] May	[X] Jun	[X] Jul	[X] Aug	[X] Sep	[] Oct	[] Nov	[] Dec	
Heating	[X] Jan	[X] Feb	[X] Mar	[] Apr	[] May	[] Jun	[] Jul	[] Aug	[] Sep	[] Oct	[X] Nov	[X] Dec	
Venting	[] Jan	[] Feb	[X] Mar	[X] Apr	[] May	[] Jun	[] Jul	[] Aug	[] Sep	[X] Oct	[X] 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	
___ 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	

INPUT SUMMARY CHECKLIST REPORT

TEMPERATURES(Continued)

___ Heating (WD)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	68
___ Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	68

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 100

The lower the EnergyPerformance Index, the more efficient the home.

7725 Southwest 114th Street, Miami, FL, 33156

1. New construction or existing	New (From Plans)	10. Wall Types(7297.2 sqft.)	Insulation	Area
2. Single family or multiple family	Detached	a. Concrete Block - Int Insul, Exterior	R=5.0	7043.20 ft ²
3. Number of units, if multiple family	1	b. Frame - Steel, Adjacent	R=19.0	254.00 ft ²
4. Number of Bedrooms	6	c. N/A		
5. Is this a worst case?	No	d. N/A		
6. Conditioned floor area above grade (ft ²)	6331	11. Ceiling Types(6331.0 sqft.)	Insulation	Area
Conditioned floor area below grade (ft ²)	0	a. Roof Deck (Unvented)	R=0.0	3631.00 ft ²
7. Windows**	Description	b. Roof Deck (Unvented)	R=0.0	2700.00 ft ²
a. U-Factor:	Sgl, U=1.05	c. N/A		
SHGC:	SHGC=0.31	12. Roof(Flat tile/slate, Unvent)	Deck R=0.0	7034 ft ²
b. U-Factor:	N/A	13. Ducts, location & insulation level	R	ft ²
SHGC:		a. Sup: AC 1, Ret: AC 1, AH: AC 1		6 100
c. U-Factor:	N/A	b. Sup: AC 2, Ret: AC 2, AH: AC 2		6 100
SHGC:		c. 1 additional duct system(s)		(see details)
Area Weighted Average Overhang Depth:	8.553 ft	14. Cooling Systems	kBtu/hr	Efficiency
Area Weighted Average SHGC:	0.310	a. Central Unit	55.5	SEER2:15.20
8. Skylights	Description	b. Central Unit	55.5	SEER2:15.20
U-Factor:(AVG)	N/A	c. Central Unit	34.2	SEER2:15.20
SHGC(AVG):	N/A	15. Heating Systems	kBtu/hr	Efficiency
9. Floor Types	Insulation	a. Electric Strip Heat	34.2	COP:1.00
a. Slab-On-Grade Edge Insulation	R= 0.0	b. Electric Strip Heat	34.2	COP:1.00
b. N/A	R=	c. Electric Strip Heat	23.9	COP:1.00
c. N/A	R=	16. Hot Water Systems		
		a. Propane Tankless		Cap: 1 gallons
				EF: 0.590
		b. Conservation features		
		17. Credits		None
				Pstat

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: _____ Date: _____

Address of New Home: 7725 Southwest 114th Street City/FL Zip: Miami, FL, 33156



*Note: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida Energy Rating. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

Florida Building Code, Energy Conservation, 7th Edition (2020)

Mandatory Requirements for Residential Performance, Prescriptive and ERI Methods

ADDRESS:

, FL ,

Permit Number:

MANDATORY REQUIREMENTS - See individual code sections for full details.

SECTION R401 GENERAL

☒ **R401.3 Energy Performance Level (EPL) display card (Mandatory).** The building official shall require that an energy performance level (EPL) display card be completed and certified by the builder to be accurate and correct before final approval of the building for occupancy. Florida law (Section 553.9085, Florida Statutes) requires the EPL display card to be included as an addendum to each sales contract for both presold and nonpresold residential buildings. The EPL display card contains information indicating the energy performance level and efficiencies of components installed in a dwelling unit. The building official shall verify that the EPL display card completed and signed by the builder accurately reflects the plans and specifications submitted to demonstrate code compliance for the building. A copy of the EPL display card can be found in Appendix RD.

SECTION R402 BUILDING THERMAL ENVELOPE

☐ **R402.4 Air leakage (Mandatory).** The building thermal envelope shall be constructed to limit air leakage in accordance with the requirements of Sections R402.4.1 through R402.4.5.

Exception: Dwelling units of R-2 Occupancies and multiple attached single family dwellings shall be permitted to comply with Section C402.5.

☐ **R402.4.1 Building thermal envelope** The building thermal envelope shall comply with Sections R402.4.1.1 and R402.4.1.2. The sealing methods between dissimilar materials shall allow for differential expansion and contraction.

☐ **R402.4.1.1 Installation.** The components of the building thermal envelope as listed in Table R402.4.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria listed in Table R402.4.1.1, as applicable to the method of construction. Where required by the code official, an approved third party shall inspect all components and verify compliance.

☐ **R402.4.1.2 Testing.** The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding seven air changes per hour in Climate Zones 1 and 2, and three air changes per hour in Climate Zones 3 through 8. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380 and reported at a pressure of 0.2 inch w.g. (50 pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or (7), Florida Statutes, or individuals licensed as set forth in Section 489.105(3)(f), (g) or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope.

Exception: Testing is not required for additions, alterations, renovations, or repairs, of the building thermal envelope of existing buildings in which the new construction is less than 85 percent of the building thermal envelope.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.
2. Dampers including exhaust, intake, makeup air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
3. Interior doors, if installed at the time of the test, shall be open.
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.
5. Heating and cooling systems, if installed at the time of the test, shall be turned off.
6. Supply and return registers, if installed at the time of the test, shall be fully open.

☐ **R402.4.2 Fireplaces.** New wood-burning fireplaces shall have tight-fitting flue dampers or doors, and outdoor combustion air. Where using tight-fitting doors on factory-built fireplaces listed and labeled in accordance with UL 127, the doors shall be tested and listed for the fireplace. Where using tight-fitting doors on masonry fireplaces, the doors shall be listed and labeled in accordance with UL 907.

☐ **R402.4.3 Fenestration air leakage.** Windows, skylights and sliding glass doors shall have an air infiltration rate of no more than 0.3 cfm per square foot (1.5 L/s/m²), and swinging doors no more than 0.5 cfm per square foot (2.6 L/s/m²), when tested according to NFRC 400 or AAMA/WDMA/CSA 101/I.S.2/A440 by an accredited, independent laboratory and listed and labeled by the manufacturer.

Exception: Site-built windows, skylights and doors.

MANDATORY REQUIREMENTS - (Continued)

- ☐ **R402.4.4 Rooms containing fuel-burning appliances.** In Climate Zones 3 through 8, where open combustion air ducts provide combustion air to open combustion fuel burning appliances, the appliances and combustion air opening shall be located outside the building thermal envelope or enclosed in a room, isolated from inside the thermal envelope. Such rooms shall be sealed and insulated in accordance with the envelope requirements of Table R402.1.2, where the walls, floors and ceilings shall meet not less than the basement wall R-value requirement. The door into the room shall be fully gasketed and any water lines and ducts in the room insulated in accordance with Section R403. The combustion air duct shall be insulated where it passes through conditioned space to a minimum of R-8.

Exceptions:

1. Direct vent appliances with both intake and exhaust pipes installed continuous to the outside.
2. Fireplaces and stoves complying with Section R402.4.2 and Section R1006 of the Florida Building Code, Residential.

- ☐ **R402.4.5 Recessed lighting.** Recessed luminaires installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces. All recessed luminaires shall be IC-rated and labeled as having an air leakage rate not more than 2.0 cfm (0.944 L/s) when tested in accordance with ASTM E283 at a 1.57 psf (75 Pa) pressure differential. All recessed luminaires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling covering.

SECTION R403 SYSTEMS

R403.1 Controls.

- ☐ **R403.1.1 Thermostat provision (Mandatory).** At least one thermostat shall be provided for each separate heating and cooling system.

- ☐ **R403.1.3 Heat pump supplementary heat (Mandatory).** Heat pumps having supplementary electric-resistance heat shall have controls that, except during defrost, prevent supplemental heat operation when the heat pump compressor can meet the heating load.

- ☐ **R403.3.2 Sealing (Mandatory)** All ducts, air handlers, filter boxes and building cavities that 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 C403.2.9.2 of the Commercial Provisions of this code and shall be shown to meet duct tightness criteria below.

Duct tightness shall be verified by testing in accordance with ANSI/RESNET/ICC 380 by either individuals as defined in Section 553.993(5) or (7), Florida Statutes, or individuals licensed as set forth in Section 489.105(3)(f), (g) or (i), Florida Statutes, to be "substantially leak free" in accordance with Section R403.3.3.

- ☐ **R403.3.2.1 Sealed air handler.** Air handlers shall have a manufacturer's designation for an air leakage of no more than 2 percent of the design airflow rate when tested in accordance with ASHRAE 193.

- ☐ **R403.3.3 Duct testing (Mandatory).** Ducts shall be pressure tested to determine air leakage by one of the following methods:

1. Rough-in test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure if installed at the time of the test. All registers shall be taped or otherwise sealed during the test.
2. Postconstruction test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. Registers shall be taped or otherwise sealed during the test.

Exceptions:

1. A duct air leakage test shall not be required where the ducts and air handlers are located entirely within the building thermal envelope.
2. *Duct testing is not mandatory for buildings complying by Section 405 of this code. Duct leakage testing is required for Section R405 compliance where credit is taken for leakage, and a duct air leakage Q_n to the outside of less than 0.080 (where Q_n = duct leakage to the outside in cfm per 100 square feet of conditioned floor area tested at 25 Pascals) is indicated in the compliance report for the proposed design.*

A written report of the results of the test shall be signed by the party conducting the test and provided to the code official.

- ☐ **R403.3.5 Building cavities (Mandatory).** Building framing cavities shall not be used as ducts or plenums.

- ☐ **R403.4 Mechanical system piping insulation (Mandatory).** Mechanical system piping capable of carrying fluids above 105°F (41°C) or below 55°F (13°C) shall be insulated to a minimum of R-3.

- ☐ **R403.4.1 Protection of piping insulation.** Piping insulation exposed to weather shall be protected from damage, including that caused by sunlight, moisture, equipment maintenance and wind, and shall provide shielding from solar radiation that can cause degradation of the material. Adhesive tape shall not be permitted.

- ☐ **R403.5.1 Heated water circulation and temperature maintenance systems (Mandatory).** If heated water circulation systems are installed, they shall be in accordance with Section R403.5.1.1. Heat trace temperature maintenance systems shall be in accordance with Section R403.5.1.2. Automatic controls, temperature sensors and pumps shall be accessible. Manual controls shall be readily accessible.

- ☐ **R403.5.1.1 Circulation systems.** Heated water circulation systems shall be provided with a circulation pump. The system return pipe shall be a dedicated return pipe or a cold water supply pipe. Gravity and thermosiphon circulation systems shall be prohibited. Controls for circulating hot water system pumps shall start the pump based on the identification of a demand for hot water within the occupancy. The controls shall automatically turn off the pump when the water in the circulation loop is at the desired temperature and when there is no demand for hot water.

- ☐ **R403.5.1.2 Heat trace systems.** Electric heat trace systems shall comply with IEEE 515.1 or UL 515. Controls for such systems shall automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping in accordance with the times when heated water is used in the occupancy.

MANDATORY REQUIREMENTS - (Continued)

- ☐ **R403.5.5 Heat traps (Mandatory).** Storage water heaters not equipped with integral heat traps and having vertical pipe risers shall have heat traps installed on both the inlets and outlets. External heat traps shall consist of either a commercially available heat trap or a downward and upward bend of at least 3 ½ inches (89 mm) in the hot water distribution line and cold water line located as close as possible to the storage tank.
- R403.5.6 Water heater efficiencies (Mandatory).**
- ☐ **R403.5.6.1.1 Automatic controls.** Service water-heating systems shall be equipped with automatic temperature controls capable of adjustment from the lowest to the highest acceptable temperature settings for the intended use. The minimum temperature setting range shall be from 100°F to 140°F (38°C to 60°C).
- ☐ **R403.5.6.1.2 Shut down.** A separate switch or a clearly marked circuit breaker shall be provided to permit the power supplied to electric service systems to be turned off. A separate valve shall be provided to permit the energy supplied to the main burner(s) of combustion types of service water-heating systems to be turned off.
- ☐ **R403.5.6.2 Water-heating equipment.** Water-heating equipment installed in residential units shall meet the minimum efficiencies of Table C404.2 in Chapter 4 of the Florida Building Code, Energy Conservation, Commercial Provisions, for the type of equipment installed. Equipment used to provide heating functions as part of a combination system shall satisfy all stated requirements for the appropriate water-heating category. Solar water heaters shall meet the criteria of Section R403.5.6.2.1.
- ☐ **R403.5.6.2.1 Solar water-heating systems.** Solar systems for domestic hot water production are rated by the annual solar energy factor of the system. The solar energy factor of a system shall be determined from the Florida Solar Energy Center Directory of Certified Solar Systems. Solar collectors shall be tested in accordance with ISO Standard 9806, Test Methods for Solar Collectors, and SRCC Standard TM-1, Solar Domestic Hot Water System and Component Test Protocol. Collectors in installed solar water-heating systems should meet the following criteria:
1. Be installed with a tilt angle between 10 degrees and 40 degrees of the horizontal; and
 2. Be installed at an orientation within 45 degrees of true south.
- ☐ **R403.6 Mechanical ventilation (Mandatory).** The building shall be provided with ventilation that meets the requirements of the Florida Building Code, Residential, or Florida Building Code, Mechanical, as applicable, or with other approved means of ventilation including: Natural, Infiltration or Mechanical means. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating.
- ☐ **R403.6.1 Whole-house mechanical ventilation system fan efficacy.** When installed to function as a whole-house mechanical ventilation system, fans shall meet the efficacy requirements of Table R403.6.1.
- Exception:** Where an air handler that is integral to tested and listed HVAC equipment is used to provide whole-house mechanical ventilation, the air handler shall be powered by an electronically commutated motor.
- ☐ **R403.6.2 Ventilation air.** Residential buildings designed to be operated at a positive indoor pressure or for mechanical ventilation shall meet the following criteria:
1. The design air change per hour minimums for residential buildings in ASHRAE 62.2, Ventilation for Acceptable Indoor Air Quality, shall be the maximum rates allowed for residential applications.
 2. No ventilation or air-conditioning system make-up air shall be provided to conditioned space from attics, crawlspaces, attached enclosed garages or outdoor spaces adjacent to swimming pools or spas.
 3. If ventilation air is drawn from enclosed space(s), then the walls of the space(s) from which air is drawn shall be insulated to a minimum of R-11 and the ceiling shall be insulated to a minimum of R-19, space permitting, or R-10 otherwise.
- R403.7 Heating and cooling equipment.**
- ☐ **R403.7.1 Equipment sizing (Mandatory).** Heating and cooling equipment shall be sized in accordance with ACCA Manual S based on the equipment loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies, based on building loads for the directional orientation of the building. The manufacturer and model number of the outdoor and indoor units (if split system) shall be submitted along with the sensible and total cooling capacities at the design conditions described in Section R302.1. This Code does not allow designer safety factors, provisions for future expansion or other factors that affect equipment sizing. System sizing calculations shall not include loads created by local intermittent mechanical ventilation such as standard kitchen and bathroom exhaust systems. New or replacement heating and cooling equipment shall have an efficiency rating equal to or greater than the minimum required by federal law for the geographic location where the equipment is installed.

**TABLE R403.6.1
WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FAN EFFICACY**

FAN LOCATION	AIRFLOW RATE MINIMUM (CFM)	MINIMUM EFFICACY ^a (CFM/WATT)	AIRFLOW RATE MAXIMUM (CFM)
HRV or ERV	Any	1.2 cfm/watt	Any
Range hoods	Any	2.8 cfm/watt	Any
In-line fan	Any	2.8 cfm/watt	Any
Bathroom, utility room	10	1.4 cfm/watt	<90
Bathroom, utility room	90	2.8 cfm/watt	Any

For SI: 1 cfm = 28.3 L/min.

a. When tested in accordance with HVI Standard 916

MANDATORY REQUIREMENTS - (Continued)

- ☐ **R403.7.1.1 Cooling equipment capacity.** Cooling only equipment shall be selected so that its total capacity is not less than the calculated total load but not more than 1.15 times greater than the total load calculated according to the procedure selected in Section R403.7, or the closest available size provided by the manufacturer's product lines. The corresponding latent capacity of the equipment shall not be less than the calculated latent load.

The published value for AHRI total capacity is a nominal, rating-test value and shall not be used for equipment sizing. Manufacturer's expanded performance data shall be used to select cooling-only equipment. This selection shall be based on the outdoor design dry-bulb temperature for the load calculation (or entering water temperature for water-source equipment), the blower CFM provided by the expanded performance data, the design value for entering wet-bulb temperature and the design value for entering dry-bulb temperature.

Design values for entering wet-bulb and dry-bulb temperatures shall be for the indoor dry bulb and relative humidity used for the load calculation and shall be adjusted for return side gains if the return duct(s) is installed in an unconditioned space.

Exceptions:

1. Attached single- and multiple-family residential equipment sizing may be selected so that its cooling capacity is less than the calculated total sensible load but not less than 80 percent of that load.
2. When signed and sealed by a Florida-registered engineer, in attached single- and multiple-family units, the capacity of equipment may be sized in accordance with good design practice.

R403.7.1.2 Heating equipment capacity.

- ☐ **R403.7.1.2.1 Heat pumps.** Heat pump sizing shall be based on the cooling requirements as calculated according to Section R403.7.1.1, and the heat pump total cooling capacity shall not be more than 1.15 times greater than the design cooling load even if the design heating load is 1.15 times greater than the design cooling load.

- ☐ **R403.7.1.2.2 Electric resistance furnaces.** Electric resistance furnaces shall be sized within 4 kW of the design requirements calculated according to the procedure selected in Section R403.7.1.

- ☐ **R403.7.1.2.3 Fossil fuel heating equipment.** The capacity of fossil fuel heating equipment with natural draft atmospheric burners shall not be less than the design load calculated in accordance with Section R403.7.1.

- ☐ **R403.7.1.3 Extra capacity required for special occasions.** Residences requiring excess cooling or heating equipment capacity on an intermittent basis, such as anticipated additional loads caused by major entertainment events, shall have equipment sized or controlled to prevent continuous space cooling or heating within that space by one or more of the following options:

1. A separate cooling or heating system is utilized to provide cooling or heating to the major entertainment areas.
2. A variable capacity system sized for optimum performance during base load periods is utilized.

- ☐ **R403.8 Systems serving multiple dwelling units (Mandatory).** Systems serving multiple dwelling units shall comply with Sections C403 and C404 of the Florida Building Code, Energy Conservation—Commercial Provisions in lieu of Section R403.

- ☐ **R403.9 Snow melt and ice system controls (Mandatory)** Snow- and ice-melting systems, supplied through energy service to the building, shall include automatic controls capable of shutting off the system when the pavement temperature is above 50°F (10°C), and no precipitation is falling and an automatic or manual control that will allow shutoff when the outdoor temperature is above 40°F (4.8°C).

- ☐ **R403.10 Pools and permanent spa energy consumption (Mandatory).** The energy consumption of pools and permanent spas shall be in accordance with Sections R403.10.1 through R403.10.5.

- ☐ **R403.10.1 Heaters.** The electric power to heaters shall be controlled by a readily accessible on-off switch that is an integral part of the heater mounted on the exterior of the heater, or external to and within 3 feet (914 mm) of the heater. Operation of such switch shall not change the setting of the heater thermostat. Such switches shall be in addition to a circuit breaker for the power to the heater. Gas-fired heaters shall not be equipped with continuously burning ignition pilots.

- ☐ **R403.10.2 Time switches.** Time switches or other control methods that can automatically turn off and on according to a preset schedule shall be installed for heaters and pump motors. Heaters and pump motors that have built-in time switches shall be in compliance with this section.

Exceptions:

1. Where public health standards require 24-hour pump operation.
2. Pumps that operate solar- and waste-heat-recovery pool heating systems.
3. Where pumps are powered exclusively from on-site renewable generation.

- ☐ **R403.10.3 Covers.** Outdoor heated swimming pools and outdoor permanent spas shall be equipped with a vapor-retardant cover on or at the water surface or a liquid cover or other means proven to reduce heat loss.
- Exception:** Where more than 70 percent of the energy for heating, computed over an operation season, is from site-recovered energy, such as from a heat pump or solar energy source, covers or other vapor-retardant means shall not be required.
- ☐ **R403.10.4 Gas- and oil-fired pool and spa heaters.** All gas- and oil-fired pool and spa heaters shall have a minimum thermal efficiency of 82 percent for heaters manufactured on or after April 16, 2013, when tested in accordance with ANSI Z 21.56. Pool heaters fired by natural or LP gas shall not have continuously burning pilot lights.
- ☐ **R403.10.5 Heat pump pool heaters.** Heat pump pool heaters shall have a minimum COP of 4.0 when tested in accordance with AHRI 1160, Table 2, Standard Rating Conditions-Low Air Temperature. A test report from an independent laboratory is required to verify procedure compliance. Geothermal swimming pool heat pumps are not required to meet this standard.
- ☐ **R403.11 Portable spas (Mandatory).** The energy consumption of electric-powered portable spas shall be controlled by the requirements of APSP-14.
- ☐ **R403.13 Dehumidifiers (Mandatory)** If installed, a dehumidifier shall conform to the following requirements:
1. The minimum rated efficiency of the dehumidifier shall be greater than 1.7 liters/ kWh if the total dehumidifier capacity for the house is less than 75 pints/day and greater than 2.38 liters/kWh if the total dehumidifier capacity for the house is greater than or equal to 75 pints/day.
 2. The dehumidifier shall be controlled by a sensor that is installed in a location where it is exposed to mixed house air.
 3. Any dehumidifier unit located in unconditioned space that treats air from conditioned space shall be insulated to a minimum of R-2.
 4. Condensate disposal shall be in accordance with Section M1411.3.1 of the Florida Building Code, Residential.
- ☐ **R403.13.1 Ducted dehumidifiers.** Ducted dehumidifiers shall, in addition to conforming to the requirements of Section R403.13, conform to the following requirements:
1. If a ducted dehumidifier is configured with return and supply ducts both connected into the supply side of the cooling system, a backdraft damper shall be installed in the supply air duct between the dehumidifier inlet and outlet duct.
 2. If a ducted dehumidifier is configured with only its supply duct connected into the supply side of the central heating and cooling system, a backdraft damper shall be installed in the dehumidifier supply duct between the dehumidifier and central supply duct.
 3. A ducted dehumidifier shall not be ducted to or from a central ducted cooling system on the return duct side upstream from the central cooling evaporator coil.
 4. Ductwork associated with a dehumidifier located in unconditioned space shall be insulated to a minimum of R-6.

SECTION R404

ELECTRICAL POWER AND LIGHTING SYSTEMS

- ☐ **R404.1 Lighting equipment (Mandatory).** Not less than 90 percent of the lamps in permanently installed luminaires shall have an efficacy of at least 45 lumens-per-watt or shall utilize lamps with an efficacy of not less than 65 lumens-per-watt.

R404.1.1 Lighting equipment (Mandatory). Fuel gas lighting systems shall not have continuously burning pilot lights.

2020 - AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA-TABLE 402.4.1.1^a

Project Name: Pinecrest Residence		Builder Name:	
Street: 7725 Southwest 114th Street		Permit Office:	
City, State, Zip: Miami, FL, 33156		Permit Number:	
Owner:		Jurisdiction:	
Design Location: FL, Miami		County: Miami-Dade(Florida Climate Zone 1)	
COMPONENT	AIR BARRIER CRITERIA	INSULATION INSTALLATION CRITERIA	ICC
General requirements	A continuous air barrier shall be installed in the building envelope. The exterior thermal envelope contains a continuous air barrier. Breaks or joints in the air barrier shall be sealed.	Air-permeable insulation shall not be used as a sealing material.	10
Ceiling/attic	The air barrier in any dropped ceiling/soffit shall be aligned with the insulation and any gaps in the air barrier shall be sealed. Access openings, drop down stairs or knee wall doors to unconditioned attic spaces shall be sealed.	The insulation in any dropped ceiling/soffit shall be aligned with the air barrier.	
Walls	The junction of the foundation and sill plate shall be sealed. The junction of the top plate and the top of exterior walls shall be sealed. Knee walls shall be sealed.	Cavities within corners and headers of frame walls shall be insulated by completely filling the cavity with a material having a thermal resistance of R-3 per inch minimum. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier.	
Windows, skylights and doors	The space between window/door jambs and framing, and skylights and framing shall be sealed.		
Rim joists	Rim joists shall include the air barrier.	Rim joists shall be insulated.	
Floors (including above-garage and cantilevered floors)	The air barrier shall be installed at any exposed edge of insulation.	Floor framing cavity insulation shall be installed to maintain permanent contact with the underside of subfloor decking, or floor framing cavity insulation shall be permitted to be in contact with the top side of sheathing, or continuous insulation installed on the underside of floor framing and extends from the bottom to the top of all perimeter floor framing members.	
Crawl space walls	Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.	Where provided instead of floor insulation, insulation shall be permanently attached to the crawlspace walls.	
Shafts, penetrations	Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.		
Narrow cavities		Batts in narrow cavities shall be cut to fit, or narrow cavities shall be filled by insulation that on installation readily conforms to the available cavity spaces.	
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.		
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be sealed to the finished surface.	Recessed light fixtures installed in the building thermal envelope shall be air tight and IC rated.	
Plumbing and wiring		Batt insulation shall be cut neatly to fit around wiring and plumbing in exterior walls, or insulation that on installation readily conforms to available space shall extend behind piping and wiring.	
Shower/tub on exterior wall	The air barrier installed at exterior walls adjacent to showers and tubs shall separate them from the showers and tubs.	Exterior walls adjacent to showers and tubs shall be insulated.	
Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical or communication boxes or air-sealed boxes shall be installed.		
HVAC register boots	HVAC supply and return register boots that penetrate building thermal envelope shall be sealed to the sub-floor, wall covering or ceiling penetrated by the boot.		
Concealed sprinklers	When required to be sealed, concealed fire sprinklers shall only be sealed in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings.		

a. In addition, inspection of log walls shall be in accordance with the provisions of ICC-400.

3/24/2025 10:46:05 AM

EnergyGauge® USA 7.0 - FlaRes2020 FBC 7th Edition (2020) Compliant Software

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Envelope Leakage Test Report (Blower Door Test)
Residential Prescriptive, Performance or ERI Method Compliance
2020 and 2022 Supplement Florida Building Code, Energy Conservation, 7th Edition

Jurisdiction:	Permit #:		
Job Information			
Builder:	Community:	Lot:	NA
Address: 7725 Southwest 114th Street			
City: Miami	State: FL	Zip: 33156	
Air Leakage Test Results <i>Passing results must meet either the Performance, Prescriptive, or ERI Method</i>			
☐ PRESCRIPTIVE METHOD-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 7 air changes per hour at a pressure of 0.2 inch w.g. (50 Pascals) in Climate Zones 1 and 2. ☒ PERFORMANCE or ERI METHOD-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding the selected ACH(50) value, as shown on Form R405-2020 (Performance) or R406-2020 (ERI), section labeled as infiltration, sub-section ACH50. ACH(50) specified on Form R405-2020-Energy Calc (Performance) or R406-2020 (ERI): 4.000			
$\frac{\text{CFM}(50)}{\text{Building Volume}} \times 60 \div \frac{75972}{\text{ACH}(50)} =$ PASS ☐ When ACH(50) is less than 3, Mechanical Ventilation installation must be verified by building department. Method for calculating building volume: ☐ Retrieved from architectural plans ☒ Code software calculated ☐ Field measured and calculated			
R402.4.1.2 Testing. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or (7), <i>Florida Statutes</i>, or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the <i>code official</i>. Testing shall be performed at any time after creation of all penetrations of the <i>building thermal envelope</i>. During testing: 1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures. 2. Dampers including exhaust, intake, makeup air, back draft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures. 3. Interior doors, if installed at the time of the test, shall be open. 4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed. 5. Heating and cooling systems, if installed at the time of the test, shall be turned off. 6. Supply and return registers, if installed at the time of the test, shall be fully open.			
Testing Company			
Company Name: _____Phone: _____ I hereby verify that the above Air Leakage results are in accordance with the 2020 7th Edition Florida Building Code Energy Conservation requirements according to the compliance method selected above. Signature of Tester: _____Date of Test: _____ Printed Name of Tester: _____ License/Certification #: _____Issuing Authority: _____			

System Sizing Calculations - Winter

Residential Load - Room by Room Component Details

7725 Southwest 114th Street
Miami, FL 33156

Project Title:
Pinecrest Residence
Building Type: User

3/24/2025

Reference City: Miami, FL (Defaults) Winter Temperature Difference: 21.0 °F (TMY3 99%)
Winter Setpoint: 70 °F (Required Manual J default)

Component Loads for Room #1: AC 1

Window	Panes/Type	Frame	U	Orientation	Area(sqft)	X	HTM=	Load
18	1, NFRC 0.31	Metal	1.05	N	24.0		22.0	529 Btuh
19	1, NFRC 0.31	Metal	1.05	N	6.0		22.0	132 Btuh
20	1, NFRC 0.31	Metal	1.05	N	8.0		22.0	176 Btuh
21	1, NFRC 0.31	Metal	1.05	N	4.0		22.0	88 Btuh
22	1, NFRC 0.31	Metal	1.05	W	15.0		22.0	331 Btuh
23	1, NFRC 0.31	Metal	1.05	W	30.0		22.0	662 Btuh
24	1, NFRC 0.31	Metal	1.05	W	18.0		22.0	397 Btuh
25	1, NFRC 0.31	Metal	1.05	W	16.0		22.0	353 Btuh
26	1, NFRC 0.31	Metal	1.05	W	8.0		22.0	176 Btuh
27	1, NFRC 0.31	Metal	1.05	W	60.0		22.0	1323 Btuh
28	1, NFRC 0.31	Metal	1.05	W	24.0		22.0	529 Btuh
29	1, NFRC 0.31	Metal	1.05	W	16.0		22.0	353 Btuh
30	1, NFRC 0.31	Metal	1.05	W	8.0		22.0	176 Btuh
31	1, NFRC 0.31	Metal	1.05	W	30.0		22.0	662 Btuh
32	1, NFRC 0.31	Metal	1.05	W	12.0		22.0	265 Btuh
33	1, NFRC 0.31	Metal	1.05	W	18.0		22.0	397 Btuh
34	1, NFRC 0.31	Metal	1.05	E	30.0		22.0	662 Btuh
35	1, NFRC 0.31	Metal	1.05	E	12.0		22.0	265 Btuh
Window Total					339.0(sqft)			7475 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
9	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	208		2.76	575 Btuh
10	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	180		2.76	497 Btuh
11	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	303		2.76	837 Btuh
12	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	40		2.76	111 Btuh
13	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	198		2.76	547 Btuh
14	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	40		2.76	111 Btuh
15	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	90		2.76	249 Btuh
16	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	40		2.76	111 Btuh
17	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	198		2.76	547 Btuh
18	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	40		2.76	111 Btuh
19	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	125		2.76	345 Btuh
20	Frame - Steel - Adj		(0.100)	19.0/0.0	231		2.11	488 Btuh
21	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	141		2.76	390 Btuh
Wall Total					1834(sqft)			4917 Btuh
Doors	Type	Storm	Ueff.		Area	X	HTM=	Load
1	Insulated - Garage, m		(0.280)		23		5.9	133 Btuh
Door Total					23(sqft)			133Btuh
Ceilings	Type/Color/Surface		Ueff.	R-Value	Area	X	HTM=	Load
1	Flat ceil/D/Tile		(0.032)	30.0/0.0	2191		0.67	1465 Btuh
Ceiling Total					2191(sqft)			1465Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

7725 Southwest 114th Street
Miami, FL 33156

Project Title:
Pinecrest Residence
Building Type: User

3/24/2025

Floors 1	Type Slab On Grade Floor Total	Ueff. (1.180)	R-Value 0.0	Size X 252.0 ft(perim.) 2182 sqft	HTM= 24.8	Load 6245 Btuh 6245 Btuh
	Room Envelope Subtotal:					20235 Btuh
Infiltration	Type Natural	Wholehouse ACH 0.20	Room Volume 26292	Wall Ratio 0.36	CFM= 92.0	2122 Btuh
Duct load	Average sealed, Supply(R6.0-Cond.), Return(R6.0-Cond.) (DLM of 0.000)					0 Btuh
Room #1	Sensible Room Subtotal					22357 Btuh

Component Loads for Room #2: AC 2

Window	Panes/Type	Frame	U	Orientation	Area(sqft)	X	HTM=	Load
12	1, NFRC 0.31	Metal	1.05	N	200.0		22.0	4410 Btuh
13	1, NFRC 0.31	Metal	1.05	N	106.7		22.0	2352 Btuh
14	1, NFRC 0.31	Metal	1.05	E	80.0		22.0	1764 Btuh
15	1, NFRC 0.31	Metal	1.05	E	15.0		22.0	331 Btuh
16	1, NFRC 0.31	Metal	1.05	E	6.0		22.0	132 Btuh
17	1, NFRC 0.31	Metal	1.05	N	160.0		22.0	3528 Btuh
36	1, NFRC 0.31	Metal	1.05	S	160.0		22.0	3528 Btuh
37	1, NFRC 0.31	Metal	1.05	E	120.0		22.0	2646 Btuh
38	1, NFRC 0.31	Metal	1.05	S	60.0		22.0	1323 Btuh
39	1, NFRC 0.31	Metal	1.05	S	24.0		22.0	529 Btuh
40	1, NFRC 0.31	Metal	1.05	S	60.0		22.0	1323 Btuh
41	1, NFRC 0.31	Metal	1.05	S	60.0		22.0	1323 Btuh
42	1, NFRC 0.31	Metal	1.05	S	24.0		22.0	529 Btuh
44	1, NFRC 0.31	Metal	1.05	E	48.0		22.0	1058 Btuh
45	1, NFRC 0.31	Metal	1.05	W	48.0		22.0	1058 Btuh
	Window Total				1171.7(sqft)			25835 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

7725 Southwest 114th Street
Miami, FL 33156

Project Title:
Pinecrest Residence
Building Type: User

3/24/2025

Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area X	HTM=	Load
6	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	329	2.76	909 Btuh
7	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	239	2.76	660 Btuh
8	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	196	2.76	542 Btuh
22	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	74	2.76	204 Btuh
23	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	42	2.76	116 Btuh
24	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	74	2.76	204 Btuh
25	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	40	2.76	111 Btuh
26	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	54	2.76	150 Btuh
27	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	130	2.76	359 Btuh
28	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	299	2.76	825 Btuh
29	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	130	2.76	359 Btuh
30	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	54	2.76	150 Btuh
32	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	176	2.76	486 Btuh
33	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	163	2.76	449 Btuh
	Wall Total				2000(sqft)		5524 Btuh
Ceilings	Type/Color/Surface		Ueff.	R-Value	Area X	HTM=	Load
2	Sloped ce/D/Tile		(0.032)	30.0/0.0	2700	0.67	1806 Btuh
	Ceiling Total				2700(sqft)		1806Btuh
Floors	Type		Ueff.	R-Value	Size X	HTM=	Load
2	Slab On Grade		(1.180)	0.0	262.0 ft(perim.)	24.8	6492 Btuh
	Floor Total				2675 sqft		6492 Btuh
	Room Envelope Subtotal:						39658 Btuh
Infiltration	Type	Wholehouse	ACH	Room Volume	Wall Ratio	CFM=	
	Natural		0.20	32400	0.40	100.2	2313 Btuh
Duct load	Average sealed, Supply(R6.0-Cond.), Return(R6.0-Cond.) (DLM of 0.000)						0 Btuh
Room #2	Sensible Room Subtotal						41971 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

7725 Southwest 114th Street
Miami, FL 33156

Project Title:
Pinecrest Residence
Building Type: User

3/24/2025

Component Loads for Room #3: AC 3

Window	Panes/Type	Frame	U	Orientation	Area(sqft)	X	HTM=	Load
1	1, NFRC 0.31	Metal	1.05	S	160.0		22.0	3528 Btuh
2	1, NFRC 0.31	Metal	1.05	E	45.0		22.0	992 Btuh
3	1, NFRC 0.31	Metal	1.05	E	24.0		22.0	529 Btuh
4	1, NFRC 0.31	Metal	1.05	E	24.0		22.0	529 Btuh
5	1, NFRC 0.31	Metal	1.05	E	12.0		22.0	265 Btuh
6	1, NFRC 0.31	Metal	1.05	E	24.0		22.0	529 Btuh
7	1, NFRC 0.31	Metal	1.05	N	160.0		22.0	3528 Btuh
8	1, NFRC 0.31	Metal	1.05	W	15.0		22.0	331 Btuh
9	1, NFRC 0.31	Metal	1.05	W	30.0		22.0	662 Btuh
10	1, NFRC 0.31	Metal	1.05	W	18.0		22.0	397 Btuh
11	1, NFRC 0.31	Metal	1.05	W	80.0		22.0	1764 Btuh
43	1, NFRC 0.31	Metal	1.05	W	120.0		22.0	2646 Btuh
Window Total					712.0(sqft)			15700 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
1	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	74		2.76	204 Btuh
2	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	757		2.76	2091 Btuh
3	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	74		2.76	204 Btuh
4	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	215		2.76	594 Btuh
5	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	58		2.76	160 Btuh
31	Conc Blk,Hollow - Ext		(0.132)	5.0/0.0	40		2.76	111 Btuh
Wall Total					1218(sqft)			3365 Btuh
Ceilings	Type/Color/Surface		Ueff.	R-Value	Area	X	HTM=	Load
3	Flat ceil/D/Tile		(0.032)	30.0/0.0	1440		0.67	963 Btuh
Ceiling Total					1440(sqft)			963Btuh
Floors	Type		Ueff.	R-Value	Size	X	HTM=	Load
3	Slab On Grade		(1.180)	0.0	193.0 ft(perim.)		24.8	4783 Btuh
Floor Total					1440 sqft			4783 Btuh
Room Envelope Subtotal:								24810 Btuh
Infiltration	Type	Wholehouse	ACH	Room Volume	Wall Ratio	CFM=		
	Natural		0.20	17280	0.24	61.1		1409 Btuh
Duct load	Average sealed, Supply(R6.0-Cond.), Return(R6.0-Cond.) (DLM of 0.000)							0 Btuh
Room #3	Sensible Room Subtotal							26219 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

7725 Southwest 114th Street
Miami, FL 33156

Project Title:
Pinecrest Residence
Building Type: User

3/24/2025

SYSTEM GROUPS (BLOCK LOADS)

Heating Loads For System(s):1 Block #1:Block1 Serving Rooms: 1	Block load	22357 Btuh
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Heating Loads For System(s):2 Block #2:Block2 Serving Rooms: 2	Block load	41971 Btuh
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Heating Loads For System(s):3 Block #3:Block3 Serving Rooms: 3	Block load	26219 Btuh
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WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss Ventilation Sens. Heat Loss (Ex:0 cfm; Sup:0 cfm) Total Heat Loss	90547 Btuh 0 Btuh 90547 Btuh
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EQUIPMENT

1. Electric Strip Heat		34170 Btuh
2. Electric Strip Heat		34170 Btuh
3. Electric Strip Heat		23900 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

7725 Southwest 114th Street
Miami, FL 33156

Project Title:
Pinecrest Residence
Building Type: User

3/24/2025

Key: Window types - NFRC (Requires U-Factor and Shading coefficient(SHGC) of glass as numerical values)
or - Glass as 'Clear' or 'Tint' (Uses U-Factor and SHGC defaults)
U - (Window U-Factor)
HTM - (ManualJ Heat Transfer Multiplier)



Version 8

System Sizing Calculations - Summer

Residential Load - Room by Room Component Details

7725 Southwest 114th Street
Miami, FL 33156

Project Title:
Pinecrest Residence

3/24/2025

Reference City: Miami, FL (Defaults)
Humidity difference: 56gr.

Temperature Difference: 17.0F(TMY3 99%)
Summer Setpoint: 75 °F (Required Manual J default)

Component Loads for Room #1: AC 1

Window	Type*						Overhang		Window Area(sqft)			HTM		Load	
	Panes	SHGC	U	InSh	IS	Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded		
18	1 NFRC	0.31, 1.05	No	No	N		3.0ft.	4.0ft.	24.0	0.0	24.0	25	25	590	Btuh
19	1 NFRC	0.31, 1.05	No	No	N		3.0ft.	2.0ft.	6.0	0.0	6.0	25	25	147	Btuh
20	1 NFRC	0.31, 1.05	No	No	N		3.0ft.	4.0ft.	8.0	0.0	8.0	25	25	197	Btuh
21	1 NFRC	0.31, 1.05	No	No	N		3.0ft.	2.0ft.	4.0	0.0	4.0	25	25	98	Btuh
22	1 NFRC	0.31, 1.05	No	No	W		3.0ft.	4.0ft.	15.0	0.0	15.0	25	48	721	Btuh
23	1 NFRC	0.31, 1.05	No	No	W		3.0ft.	2.0ft.	30.0	2.9	27.1	25	48	1373	Btuh
24	1 NFRC	0.31, 1.05	No	No	W		3.0ft.	2.0ft.	18.0	4.4	13.6	25	48	762	Btuh
25	1 NFRC	0.31, 1.05	No	No	W		3.0ft.	4.0ft.	16.0	0.0	16.0	25	48	769	Btuh
26	1 NFRC	0.31, 1.05	No	No	W		3.0ft.	2.0ft.	8.0	2.0	6.0	25	48	339	Btuh
27	1 NFRC	0.31, 1.05	No	No	W		3.0ft.	4.0ft.	60.0	0.0	60.0	25	48	2885	Btuh
28	1 NFRC	0.31, 1.05	No	No	W		3.0ft.	2.0ft.	24.0	5.9	18.1	25	48	1016	Btuh
29	1 NFRC	0.31, 1.05	No	No	W		3.0ft.	4.0ft.	16.0	0.0	16.0	25	48	769	Btuh
30	1 NFRC	0.31, 1.05	No	No	W		3.0ft.	2.0ft.	8.0	2.0	6.0	25	48	339	Btuh
31	1 NFRC	0.31, 1.05	No	No	W		3.0ft.	4.0ft.	30.0	0.0	30.0	25	48	1442	Btuh
32	1 NFRC	0.31, 1.05	No	No	W		3.0ft.	4.0ft.	12.0	0.0	12.0	25	48	577	Btuh
33	1 NFRC	0.31, 1.05	No	No	W		3.0ft.	2.0ft.	18.0	4.4	13.6	25	48	762	Btuh
34	1 NFRC	0.31, 1.05	No	No	E		3.0ft.	4.0ft.	30.0	0.0	30.0	25	48	1442	Btuh
35	1 NFRC	0.31, 1.05	No	No	E		3.0ft.	2.0ft.	12.0	2.9	9.1	25	48	508	Btuh
	Window Total								339 (sqft)					14735 Btuh	
Walls	Type						U-Value	R-Value	Area(sqft)		HTM		Load		
							Cav/Sheath								
	9	Concrete Blk,Hollow - Ext					0.13	5.0/0.0	208.0		2.8		583 Btuh		
	10	Concrete Blk,Hollow - Ext					0.13	5.0/0.0	180.0		2.8		504 Btuh		
	11	Concrete Blk,Hollow - Ext					0.13	5.0/0.0	303.0		2.8		849 Btuh		
	12	Concrete Blk,Hollow - Ext					0.13	5.0/0.0	40.0		2.8		112 Btuh		
	13	Concrete Blk,Hollow - Ext					0.13	5.0/0.0	198.0		2.8		555 Btuh		
	14	Concrete Blk,Hollow - Ext					0.13	5.0/0.0	40.0		2.8		112 Btuh		
	15	Concrete Blk,Hollow - Ext					0.13	5.0/0.0	90.0		2.8		252 Btuh		
	16	Concrete Blk,Hollow - Ext					0.13	5.0/0.0	40.0		2.8		112 Btuh		
	17	Concrete Blk,Hollow - Ext					0.13	5.0/0.0	198.0		2.8		555 Btuh		
	18	Concrete Blk,Hollow - Ext					0.13	5.0/0.0	40.0		2.8		112 Btuh		
	19	Concrete Blk,Hollow - Ext					0.13	5.0/0.0	125.0		2.8		350 Btuh		
	20	Frame - Steel - Adj					0.10	19.0/0.0	231.3		1.7		395 Btuh		
21	Concrete Blk,Hollow - Ext					0.13	5.0/0.0	141.0		2.8		395 Btuh			
	Wall Total								1834 (sqft)					4887 Btuh	
Doors	Type								Area (sqft)		HTM		Load		
	1	Insulated - Garage							22.7		4.8		109 Btuh		
	Door Total								23 (sqft)					109 Btuh	
Ceilings	Type/Color/Surface						U-Value	R-Value	Area(sqft)		HTM		Load		
	1	Unvented Attic/DarkTile					0.032	30.0/0.0	2191.0		2.42		5303 Btuh		
	Ceiling Total								2191 (sqft)					5303 Btuh	
Floors	Type						R-Value		Size		HTM		Load		
	1	Slab On Grade					0.0		2182 (ft-perimeter)		0.0		0 Btuh		
	Floor Total								2182.0 (sqft)					0 Btuh	
	Zone Envelope Subtotal:												25034 Btuh		

Manual J Summer Calculations

Residential Load - Component Details (continued)

7725 Southwest 114th Street
Miami, FL 33156

Project Title:
Pinecrest Residence

Climate:FL_MIAAMI_INTL_AP

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Infiltration	Type Natural	Wholehouse ACH 0.05	Volume(cuft) 26292	Wall Ratio 0.36	CFM= 23.0	Load 429 Btuh
Internal gain		Occupants 4	Btuh/occupant X 230	Appliance +	15000	Load 15920 Btuh
	Sensible Envelope Load:					41383 Btuh
Duct load	Average sealed, Supply(R6.0-Cond.), Return(R6.0-Cond.) (DGM of 0.000)					0 Btuh
	Sensible Zone Load					41383 Btuh

Component Loads for Room #2: AC 2

Window	Type*					Overhang		Window Area(sqft)			HTM		Load		
	Panes	SHGC	U	InSh	IS Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded			
12	1 NFRC	0.31	1.05	No	No	N	11.5f	10.5f	200.0	0.0	200.0	25	25	4914	Btuh
13	1 NFRC	0.31	1.05	No	No	N	3.0ft.	2.0ft.	106.7	0.0	106.7	25	25	2621	Btuh
14	1 NFRC	0.31	1.05	No	No	E	31.0f	2.0ft.	80.0	80.0	0.0	25	48	1966	Btuh
15	1 NFRC	0.31	1.05	No	No	E	3.0ft.	4.0ft.	15.0	0.0	15.0	25	48	721	Btuh
16	1 NFRC	0.31	1.05	No	No	E	3.0ft.	2.0ft.	6.0	1.5	4.5	25	48	254	Btuh
17	1 NFRC	0.31	1.05	No	No	N	29.7f	2.0ft.	160.0	0.0	160.0	25	25	3932	Btuh
36	1 NFRC	0.31	1.05	No	No	S	3.0ft.	2.0ft.	160.0	160.0	0.0	25	26	3932	Btuh
37	1 NFRC	0.31	1.05	No	No	E	3.0ft.	2.0ft.	120.0	5.9	114.1	25	48	5631	Btuh
38	1 NFRC	0.31	1.05	No	No	S	3.0ft.	10.5f	60.0	60.0	0.0	25	26	1474	Btuh
39	1 NFRC	0.31	1.05	No	No	S	3.0ft.	2.0ft.	24.0	24.0	0.0	25	26	590	Btuh
40	1 NFRC	0.31	1.05	No	No	S	11.5f	10.5f	60.0	60.0	0.0	25	26	1474	Btuh
41	1 NFRC	0.31	1.05	No	No	S	3.0ft.	10.5f	60.0	60.0	0.0	25	26	1474	Btuh
42	1 NFRC	0.31	1.05	No	No	S	3.0ft.	2.0ft.	24.0	24.0	0.0	25	26	590	Btuh
44	1 NFRC	0.31	1.05	No	No	E	3.0ft.	2.0ft.	48.0	5.9	42.1	25	48	2170	Btuh
45	1 NFRC	0.31	1.05	No	No	W	3.0ft.	2.0ft.	48.0	5.9	42.1	25	48	2170	Btuh
	Window Total							1172 (sqft)					33912		Btuh
Walls	Type	U-Value	R-Value	Area(sqft)	HTM	Load									
6	Concrete Blk,Hollow - Ext	0.13	5.0/0.0	328.8	2.8	921	Btuh								
7	Concrete Blk,Hollow - Ext	0.13	5.0/0.0	239.0	2.8	670	Btuh								
8	Concrete Blk,Hollow - Ext	0.13	5.0/0.0	196.0	2.8	549	Btuh								
22	Concrete Blk,Hollow - Ext	0.13	5.0/0.0	74.0	2.8	207	Btuh								
23	Concrete Blk,Hollow - Ext	0.13	5.0/0.0	42.0	2.8	118	Btuh								
24	Concrete Blk,Hollow - Ext	0.13	5.0/0.0	74.0	2.8	207	Btuh								
25	Concrete Blk,Hollow - Ext	0.13	5.0/0.0	40.0	2.8	112	Btuh								
26	Concrete Blk,Hollow - Ext	0.13	5.0/0.0	54.4	2.8	152	Btuh								
27	Concrete Blk,Hollow - Ext	0.13	5.0/0.0	129.8	2.8	364	Btuh								
28	Concrete Blk,Hollow - Ext	0.13	5.0/0.0	298.8	2.8	837	Btuh								
29	Concrete Blk,Hollow - Ext	0.13	5.0/0.0	129.8	2.8	364	Btuh								
30	Concrete Blk,Hollow - Ext	0.13	5.0/0.0	54.4	2.8	152	Btuh								
32	Concrete Blk,Hollow - Ext	0.13	5.0/0.0	175.8	2.8	493	Btuh								
33	Concrete Blk,Hollow - Ext	0.13	5.0/0.0	162.7	2.8	456	Btuh								
	Wall Total			1999 (sqft)		5603		Btuh							
Ceilings	Type/Color/Surface	U-Value	R-Value	Area(sqft)	HTM	Load									
2	Unvented Attic/DarkTile	0.032	30.0/0.0	2700.0	2.42	6535	Btuh								
	Ceiling Total			2700 (sqft)		6535		Btuh							

Manual J Summer Calculations

Residential Load - Component Details (continued)

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Miami, FL 33156

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Floors 2	Type Slab On Grade Floor Total	R-Value 0.0	Size 2675 (ft-perimeter) 2675.0 (sqft)	HTM 0.0	Load 0 Btuh 0 Btuh	
	Zone Envelope Subtotal:				46050 Btuh	
Infiltration	Type Natural	Wholehouse ACH 0.05	Volume(cuft) 32400	Wall Ratio 0.40	CFM= 25.1	Load 468 Btuh
Internal gain		Occupants 0	Btuh/occupant X 230	Appliance +	500	Load 500 Btuh
	Sensible Envelope Load:				47018 Btuh	
Duct load	Average sealed, Supply(R6.0-Cond.), Return(R6.0-Cond.) (DGM of 0.000)				0 Btuh	
	Sensible Zone Load				47018 Btuh	

Component Loads for Room #3: AC 3

Window	Type*						Overhang		Window Area(sqft)			HTM		Load	
	Panes	SHGC	U	InSh	IS	Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded		
1	1 NFRC	0.31,	1.05	No	No	S	3.0ft.	2.0ft.	160.0	160.0	0.0	25	26	3932	Btuh
2	1 NFRC	0.31,	1.05	No	No	E	3.0ft.	4.0ft.	45.0	0.0	45.0	25	48	2163	Btuh
3	1 NFRC	0.31,	1.05	No	No	E	3.0ft.	2.0ft.	24.0	5.9	18.1	25	48	1016	Btuh
4	1 NFRC	0.31,	1.05	No	No	E	3.0ft.	4.0ft.	24.0	0.0	24.0	25	48	1154	Btuh
5	1 NFRC	0.31,	1.05	No	No	E	3.0ft.	2.0ft.	12.0	2.9	9.1	25	48	508	Btuh
6	1 NFRC	0.31,	1.05	No	No	E	3.0ft.	4.0ft.	24.0	0.0	24.0	25	48	1154	Btuh
7	1 NFRC	0.31,	1.05	No	No	N	11.7f	2.0ft.	160.0	0.0	160.0	25	25	3932	Btuh
8	1 NFRC	0.31,	1.05	No	No	W	3.0ft.	4.0ft.	15.0	0.0	15.0	25	48	721	Btuh
9	1 NFRC	0.31,	1.05	No	No	W	3.0ft.	4.0ft.	30.0	0.0	30.0	25	48	1442	Btuh
10	1 NFRC	0.31,	1.05	No	No	W	3.0ft.	2.0ft.	18.0	4.4	13.6	25	48	762	Btuh
11	1 NFRC	0.31,	1.05	No	No	W	31.0f	2.0ft.	80.0	80.0	0.0	25	48	1966	Btuh
43	1 NFRC	0.31,	1.05	No	No	W	3.0ft.	2.0ft.	120.0	5.9	114.1	25	48	5631	Btuh
Window Total									712 (sqft)					24380 Btuh	
Walls	Type	U-Value		R-Value		Area(sqft)		HTM		Load					
				Cav/Sheath											
1	Concrete Blk,Hollow - Ext	0.13		5.0/0.0		74.0		2.8		207 Btuh					
2	Concrete Blk,Hollow - Ext	0.13		5.0/0.0		757.0		2.8		2121 Btuh					
3	Concrete Blk,Hollow - Ext	0.13		5.0/0.0		74.0		2.8		207 Btuh					
4	Concrete Blk,Hollow - Ext	0.13		5.0/0.0		215.0		2.8		602 Btuh					
5	Concrete Blk,Hollow - Ext	0.13		5.0/0.0		58.0		2.8		163 Btuh					
31	Concrete Blk,Hollow - Ext	0.13		5.0/0.0		40.0		2.8		112 Btuh					
Wall Total						1218 (sqft)				3413 Btuh					
Ceilings	Type/Color/Surface	U-Value		R-Value		Area(sqft)		HTM		Load					
3	Unvented Attic/DarkTile	0.032		30.0/0.0		1440.0		2.42		3485 Btuh					
Ceiling Total						1440 (sqft)				3485 Btuh					
Floors	Type	R-Value		Size		HTM		Load							
3	Slab On Grade	0.0		1440 (ft-perimeter)		0.0		0 Btuh							
Floor Total						1440.0 (sqft)				0 Btuh					

Manual J Summer Calculations

Residential Load - Component Details (continued)

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	Zone Envelope Subtotal:					31278 Btuh
Infiltration	Type Natural	Wholehouse ACH 0.05	Volume(cuft) 17280	Wall Ratio 0.24	CFM= 15.3	Load 285 Btuh
Internal gain		Occupants 3	Btuh/occupant X 230	Appliance +	0	Load 690 Btuh
	Sensible Envelope Load:					32254 Btuh
Duct load	Average sealed, Supply(R6.0-Cond.), Return(R6.0-Cond.) (DGM of 0.000)					0 Btuh
	Sensible Zone Load					32254 Btuh

The following window Excursion will be assigned to the system loads.

Windows	July excursion for System 1	1201 Btuh
	July excursion for System 2	0 Btuh
	July excursion for System 3	0 Btuh
	Excursion Subtotal:	1201 Btuh
Duct load		0 Btuh
	Sensible Excursion Load	1201 Btuh

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Residential Load - Component Details (continued)

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Pinecrest Residence

Climate:FL_MIAAMI_INTL_AP

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SYSTEM GROUPS (BLOCK LOADS)

Cooling Loads For System(s): 1 Block #1:Block1 Serving Zones: 1	Sensible Envelope Load	41383 Btuh
	Window Excursion	1201 Btuh
	Sensible Duct Load (duct gain multiplier of 0.000) (Includes 0 Btuh due to window excursion)	0 Btuh
	Sensible ventilation (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Zone Sensible gain	42584 Btuh
	Latent infiltration/ventilation gain	875 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain	800 Btuh
	Latent other gain	4500 Btuh
	Total block load	48759 Btuh
Cooling Loads For System(s): 2 Block #2:Block2 Serving Zones: 2	Sensible Envelope Load	47018 Btuh
	Window Excursion	0 Btuh
	Sensible Duct Load (duct gain multiplier of 0.000)	0 Btuh
	Sensible ventilation (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Zone Sensible gain	47018 Btuh
	Latent infiltration/ventilation gain	953 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain	0 Btuh
	Latent other gain	1500 Btuh
	Total block load	49471 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

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Project Title:
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Climate:FL_MIAMI_INTL_AP

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SYSTEM GROUPS (BLOCK LOADS)

Cooling Loads For System(s): 3 Block #3:Block3 Serving Zones: 3	Sensible Envelope Load	32254 Btuh
	Window Excursion	0 Btuh
	Sensible Duct Load (duct gain multiplier of 0.000)	0 Btuh
	Sensible ventilation (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Zone Sensible gain	32254 Btuh
	Latent infiltration/ventilation gain	581 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain	600 Btuh
	Latent other gain	0 Btuh
	Total block load	33434 Btuh

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	121856 Btuh
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	121856 Btuh
	Sensible ventilation (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Blower	0 Btuh
	Total sensible gain	121856 Btuh
	Latent infiltration gain (for 56 gr. humidity difference)	2409 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (7.0 people @ 200 Btuh per person)	1400 Btuh
	Latent other gain	6000 Btuh
	Latent total gain	9809 Btuh
	TOTAL GAIN	131665 Btuh

EQUIPMENT

1. Central Unit	#	55500 Btuh
2. Central Unit	#	55500 Btuh
3. Central Unit	#	34200 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

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*Key: Window types (Panels - Number and type of panes of glass)
(SHGC - Shading coefficient of glass as SHGC numerical value)
(U - Window U-Factor)
(InSh - Interior shading device: none(No), Blinds(B), Draperies(D) or Roller Shades(R))
- For Blinds: Assume medium color, half closed
For Draperies: Assume medium weave, half closed
For Roller shades: Assume translucent, half closed
(IS - Insect screen: none(N), Full(F) or Half($\frac{1}{2}$))
(Ornt - compass orientation)



Version 8

Residential System Sizing Calculation

Summary

7725 Southwest 114th Street
Miami, FL 33156

Project Title:
Pinecrest Residence

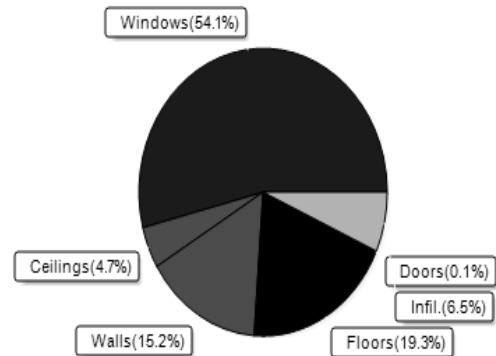
3/24/2025

Location for weather data: Miami, FL - Defaults: Latitude(25.82) Altitude(30 ft.) Temp Range(L)					
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(56gr.)					
Winter design temperature(TMY3 99%)	49	F	Summer design temperature(TMY3 99%)	92	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	21	F	Summer temperature difference	17	F
Total heating load calculation	90547	Btuh	Total cooling load calculation	131665	Btuh
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Strip Heat)	101.9	92240	Sensible (SHR = 0.75)	89.4	108900
			Latent	370.1	36300
			Total	110.3	145200

WINTER CALCULATIONS

Winter Heating Load (for 6331 sqft)

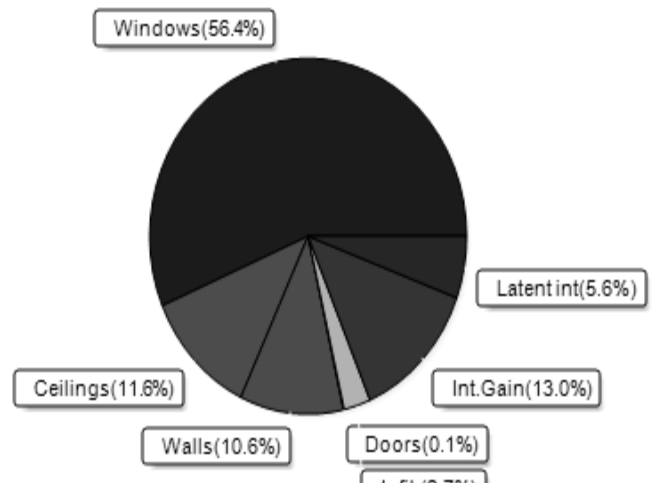
Load component	Load
Window total 2223 sqft	49010 Btuh
Wall total 5052 sqft	13806 Btuh
Door total 23 sqft	133 Btuh
Ceiling total 6331 sqft	4234 Btuh
Floor total See detail report	17519 Btuh
Infiltration 253 cfm	5844 Btuh
Duct loss	0 Btuh
Subtotal	90547 Btuh
Ventilation Ex:0 cfm; Sup:0 cfm	0 Btuh
TOTAL HEAT LOSS	90547 Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 6331 sqft)

Load component	Load
Window total 2223 sqft	74228 Btuh
Wall total 5052 sqft	13903 Btuh
Door total 23 sqft	109 Btuh
Ceiling total 6331 sqft	15323 Btuh
Floor total	0 Btuh
Infiltration 63 cfm	1183 Btuh
Internal gain	17110 Btuh
Duct gain	0 Btuh
Sens.Ventilation Ex:0 cfm; Sup:0 cfm	0 Btuh
Blower Load	0 Btuh
Total sensible gain	121856 Btuh
Latent gain(ducts)	0 Btuh
Latent gain(infiltration)	2409 Btuh
Latent gain(ventilation)	0 Btuh
Latent gain(internal/occupants/other)	7400 Btuh
Total latent gain	9809 Btuh
TOTAL HEAT GAIN	131665 Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY: _____

DATE: _____