

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Street: 1256 Street: 1256 City, State, Zip: Mitch Brown Design Location: Brown Residence 14048 SW Scrubtwon Rd Ft White, FL 32038 Mitch Brown Design Location: FL, Gainesville	Builder Name: Permit Office: Columbia County Permit Number: Jurisdiction: 221000 County: (Florida Climate Zone 2)
1. New construction or existing New (From Plans) 2. Single family or multiple family Single-Family 3. Number of units, if multiple family 1 4. Number of bedrooms 3 5. Is this a worst case? No 6. Conditioned floor area above grade (ft²) 1470.00 Conditioned floor area below grade (ft²) 0 7. Windows (182 ft²) Description Area (ft²) a. U-Factor: Dbl, 0.350 164.60 SHGC: 0.29 b. U-Factor: Dbl, 0.320 177.79 SHGC: 0.22 c. U-Factor: SHGC: 0.22 d. U-Factor: SHGC: 0.22 shigh a worst case? No 6. Conditioned floor area below grade (ft²) 1470.00 Conditioned floor area below grade (ft²) 1470.00 Conditioned floor area below grade (ft²) 1470.00 Conditioned floor area above grade (ft	9. Wall types (1633 ft²) Insulation (R) Area (ft²) a. Siding 2x4 Wood Wall R13 13.0 1324.05 b. Wall 2x4 Adjacent To Garage R11 11.0 277.55 c. Shingle Vented Knee Wall R19 19.0 31.00 d. N/A 10. Ceiling types (1479 ft²) Insulation (R) Area (ft²) a. Shingle Vented Attic R30 30.0 1478.96 b. N/A c. N/A 11. Ducts a. Sup: System 1 Attic, Ret: System 1 Attic, AH: Uncord Garage 6.0 224.32 b. 12. Cooling systems kBtu/hr Efficiency a. Split air source heat pump 22.7 15.2 SEER2 b. 13. Heating systems kBtu/hr Efficiency a. Split air source heat pump 22.8 7.8 HSPF2 b. 14. Hot water systems a. Electric conventional (40 gal) Cap: 40 gal UEF: 0.92 b. Conservation features (None)
Glass/Floor area: 0.124 Total Proposed Modified Total Baseline	
I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. Prepared By Jonathan Jacobs Signature Date 10/30/23 I hereby certify that this building, as designed, is in compliance with the Florida Energy Code. Owner/Agent Name Signature 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 Name

- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.
- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires an envelope leakage test report with envelope leakage no greater than 6.0 ACH50 (R402.4.1.2).

Building Input Summary Report

						PRO	JECT								
# of Buil Pen Juri: Fan Yea	lding ner: Uni lder mit	Name: Office: Columbia zion: 221000 Type: Single-Fa disting: New (Fro onstruct: 2023	County		Bedroom Bathroom Condition Total Stor Worst Ca Rotate An Cross Ver Whole Ho Terrain: Shielding	ns: ned Area: nes: se: ngle: ntilation:	3 2 147 1 No No No No Sub Sub	70 ourba ourba	LIBIT (VC)C)	ot#: lock/Si latboo	s type: ubdivis k: te, Zip:	ion:		ess Gcrubtw . 32038	
						CLIM	ATE								
1		Design Location FL, Gainesville		TMY S			esign Ter 7.5 % 33	mp 2.5 % 94	Int De Winte 70	esign Te er Sur 7:		Heating Degree Days 1108	Design Moist	ure R	ly Temp Range Medium
					500-E	BLO	CKS					92.040.400.			
#		Name		Area	L	Volume									
1		System 1		1470.00	0 ft² 13	3752.28 ft ³									
						SPA	CES								
#			Area	Volum		Kitchen	Occupa	ints	Bedroo	ms Inf	il ID	Finished	Coole	d He	ated
1234567		M Bath Bed 3 Laundry Great_Kitchen Bed 2 Bath 2 Master Bed	82.50 ft ² 169.00 ft ² 38.50 ft ² 731.75 ft ² 162.25 ft ² 61.25 ft ² 220.00 ft ²	750.75 1537.90 350.35 7077.43 1476.48 557.38 2002.00	ft3 ft3 ft3 ft3 ft3 ft3	No No No Yes No No	0 1 0 0 1 0 2		0 1 0 1 0		1 1 1 1 1 1	Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes		res res res res res res
						FLO	ORS			(To	tal Ex	posed Are	a = 146	5 sq.ft.	.)
1	#	FI	oor Type			Space	Perim	eter F	R-Value	Ar	ea	U-Factor	Tile	Wood	Carpet
	1234567	Slab On Grade Slab On Grade			Gr M	M Bath Bed 3 Laundry eat Kitchen Bed 2 Bath 2 laster Bed	21 29 6 88 11 0 23	ft ft ft ft ft	000000	82.5 169.0 38.5 731.7 162.2 61.2 220.0	0 ft ² 0 ft ² 5 ft ² 5 ft ² 5 ft ²	0.989 0.989 0.989 0.989 0.989 0.989	000000	1.0 1.0 1.0 1.0 1.0	00000
						RO									
1	#	Туре	Mate	erials	Roof Area	Gable Area	Roof Color	Rad Barr		Solar bsor.	SA Tested	Emitt f	Emitt Tested	Deck Insul.	Pitch (deg)
	1	Gable or shed Gable or shed	Roof/ Roof/	Asph Asph	1587 ft² 418 ft²	305 ft² 80 ft²	Dark Dark	N	0).75).75	No No	0.90 0.90	No No	0	23 23
						ATT	IC								
1	#	Туре		Ventila			atio (1 in)		Area		RBS	IRCC			
	1	Full attic Full attic		Vente Vente		3	000 000		1465.25 385.50	oft²	N	N			
						CEIL	ING			(To	tal Exp	osed Are	a = 147	9 sq.ft.)
1	#	Ceiling Ty			Space	R-Value		actor		Are		Framing			s Type
	1 2 3 4 5 6 7	Shingle Vent Shingle Vent Shingle Vent Shingle Vent Shingle Vent Shingle Vent Shingle Vent	ed Attic R30 ed Attic R30 ed Attic R30 ed Attic R30 ed Attic R30 ed Attic R30 ed Attic R30	M E Grea E Ma:	M Bath Bed 3 aundry t_Kitchen Bed 2 Bath 2 ster Bed	30 30 30 30 30 30 30	0. 0. 0. 0. 0.	034 034 034 034 034 034 034		82.5 169.0 38.5 745.4 162.2 61.2 220.0	0 ft² 0 ft² 0 ft² 6 ft² 5 ft² 0 ft²	0.10 0.10 0.10 0.10 0.10 0.10		**************************************	ood ood ood ood ood ood

FORM R405-2023

										W	ALLS			(Total Ex	pose	d A	rea =	1633 s	sq.ft.)	1
1	#	Om		acent T	577	Wall Ty				Cavity R-Value	Width Ft In	Height Ft In	t Are		Sheathing R-Value		J- ctor	Fm. Frac.	SolarAb		Below rade%
	12345678911123145	\$02 · \$\$0mmz · z\$z		xterior xterior xterior artition artition xterior xterior xterior xterior xterior xterior xterior xterior xterior xterior xterior xterior	Sidil Sidil Sidil Wa Sidil Shi Sidil Wa Sidil Sidil Sidil Sidil	ng 2x4 W ng 2x4 W ng 2x4 Ac all 2x4 Ac ang 2x4 W ngle Ven ng 2x4 W ngle Ven ng 2x4 W ng 2x4 W ng 2x4 W ng 2x4 W	Jood W Jood W Jood W Jacent Jocent Jood W	M I Be Lau Great Great Great Great Great Great Great Maste	Bath Bath Ed 3 Ed 3 Indry Kitchen Kitchen Kitchen Kitchen Kitchen Kitchen Kitchen Ed 2 Er Bed Er Bed	133311139559931333	14 12 66 60 17 7 14 12 9 11 6 12 12 15 12 15 12 15 15 15 15 15 15 15 15 15 15 15 15 15	999999999999999999	136.5 50.0 127.4 131.9 50.0 27.3 15.5 141.1 414.0 118.3 95.6 1003.7 145.6	ft²	000000000000000000000000000000000000000	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	84 84 89 99 84 57 88 57 88 84 88 84	0.25 0.25 0.25 0.22 0.25 0.25 0.25 0.25	0.60 0.60 0.20 0.20 0.60 0.90 0.60 0.60 0.60 0.60		0000000000000000
										DC	ORS				(Total E			Area	= 38 s	q.ft.)	
1	#			Omt		D	oor Type)		Spa	ice	Storms	U-Value	е	Width Ft In	Hei Ft	ght In			Area	
	1 2			E		Solid	d Core N	/letal /letal		Great_l Great_l	Kitchen Kitchen	None None	0.088 0.088		3 0 2 8	6	8			20.1 17.9	ft² ft²
				,						WIN	DOWS				(Total Ex	cpos	ed A	\rea :	= 182 s	q.ft.)	
1	#		Omt	Wall ID	Frame	Pan	es N	IFRC	U-Facto	or SHGC	Impact	w	x H, Are	а	Ov Depth	erhan Sep	g parati		Interior Shade	Scr	eening
	123 45 67 89		Z\$ZWSZW\$	123891134 15	Vinyl Vinyl Vinyl Vinyl Vinyl Vinyl Vinyl Wood Vinyl	Low-E [Low-E [Low-E [Low-E [Low-E [Low-E [Low-E [Oouble Oouble Oouble Oouble Oouble Oouble Oouble Oouble	Yes Yes Yes Yes Yes Yes No Yes	0.350 0.350 0.350 0.350 0.350 0.350 0.350 0.350	0.29 0.29 0.29 0.29 0.29 0.29 0.29 0.22	No No No No No No No	2'0' 2'0' 3'0" 6'0" 6'0" 8'0" 2'8" 6'0'	' x 3'0", 1 ' x 3'0", 1 x 5'0", 3 x 5'0", 3 x 5'0", 3 x 6'8", 5 x 6'8", 1 x 6'8", 1	66 ft	1 ft 4 in 1 ft 4 in 1 ft 4 in 1 ft 4 in 2 1 ft 4 in 2 1 ft 4 in 2 7 ft 0 in 1 ft 4 in 2 1 ft 4 in 2 1 ft 4 in	1 1 1	ft 4 i ft 4 i ft 4 i ft 4 i ft 4 i ft 4 i ft 4 i	n n n n	None None None None None None None None	01 01 01	None None utdoor utdoor utdoor utdoor None None
1				-			0 11				RAGE										
•	#				r Area 6 ft²		Ceiling 386	g Area 6 ft²	E	-	Vall Perim	neter	Avg		all Height		Exp	osed	Wall Ins	ulation	n
											RATIC	N		-	100	-					
#		Sco	ре		Meth	od		SLA		CFM 5		ELA	EqL	.A	AC	Н	-	ACH 5	50		
1		W	holeho	ouse	Blower	Door		0.0003		1375	S SYS	75.51 FERM	141	.8	0.4	47		6.00		_	
1	#	9			System	Tyne		_	Subt		3 3 1 3	Efficience	7/	_	Capacity				Bloc	le l	Ducts
	1			Split ai	r source	heat pu	mp					7.8 HSPI		2	22.8 kBtu/h	ır			1		sys#1
-											G SYS	TEM	11-								
1	#			711000000000000000000000000000000000000	System	Type heat pur	mn		Subt	ype	1	Efficience 5.2 SEE		Capa	200 1000	ir Flor		SHR			Ducts
				Opiit ai	Source	neat pu	ПР		НОТ	WAT	ER SYS		NZ ZZ	. 1 Kt	olu/III o	50 cfr	11	0.84	1_		sys#1
1	#				System	Туре	Subtyp	oe L	ocation	EF	Ca		Use		SetPnt				Conse	vation	ľ
	1		El	ectric co	onventio	nal				0.92 UE	F 40 g	jal	60 ga	1	120 °F				No	ne	
										DU	CTS										
1	#	-	Loca		upply R-Val	ue An	ea –	Locat	Retum tion	Area	Leakage	Туре	Air Handle	r	CFM 25 Out	Pero Leak		QN	RLF	HVA Heat	C# Cod
	1	0	vetam	1 Attic	6.0	224	f42 C	ystem	4 441.	250 ft ²	Default Lea		Uncond Gara		(Default)			0.08	100 ASS (W)	1	1

FORM R405-2023

					TEMP	ERAT	URES						
Programmable Therr	nostat: N	1) E		Ceiling	Fans:								
Cooling X Jan Heating X Jan Venting X Jan	X] Feb X] Feb X] Feb	X Mar X Mar X Mar	XXX	Apr X X Apr X X	May [May [May [X] Jun X] Jun X] Jun	X Jul X Jul X Jul	X Aug X Aug X Aug	[X X X	Sep X Sep X Sep X	Oct Oct Oct	X Nov X Nov X Nov	X Dec
Thermostat Schedule: Schedule Type	Florida E (2023)	Building Co	de, 8th 2	Edition 3	4	5	Hou 6		8	9	10	11	12
Cooling (WD)	AM	75	75	75	75	75	75	75	75	75	75	75	75
	PM	75	75	75	75	75	75	75	75	75	75	75	75
Cooling (WEH)	AM	75	75	75	75	75	75	75	75	75	75	75	75
	PM	75	75	75	75	75	75	75	75	75	75	75	75
Heating (WD)	AM	72	72	72	72	72	72	72	72	72	72	72	72
	PM	72	72	72	72	72	72	72	72	72	72	72	72
Heating (WEH)	AM	72	72	72	72	72	72	72	72	72	72	72	72
	PM	72	72	72	72	72	72	72	72	72	72	72	72

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX = 96

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

New home or addition	1. New (From Plans)	12. Ducts, location & insulation level	_	
2. Single-family or multiple-family	2. Single-Family	a. Supply ducts: b. Return ducts: c. AHU location:	R_ R_	6.0 6.0 Uncond Garage
3. Number of units, if multiple-family	31_		-	
4. Number of bedrooms	43	13. Cooling systems Capacii a. Split system: SEER b. Single package: SEER		22.7 15.20
5. Is this a worst case? (yes/no)	5. <u>No</u>	c. Ground/water source: SEER/C d. Room unit/PTAC: EER	COP _	
6. Conditioned floor area (fl²)	61470.00	e. Other:	=	
 7. Windows, type and area* a. U-Factor: b. Solar Heat Gain Coefficient (SHGC): c. Area (ft²) 8. Skylights a. U-Factor: b. Solar Heat Gain Coefficient (SHGC): 	7a. Dbl(Avg), 0.347 7b. 0.28 7c. 182 8a. 8b	14. Heating systems a. Split system heat pump: b. Single package heat pump: c. Electric resistance: d. Gas furnace, natural gas: e. Gas furnace, LPG: f. Other:	F	22.8 7.80
9. Floor type, insulation level a. Slab-on-grade (R-value): b. Wood, raised (R-value): c. Concrete, raised (R-value)	9a. 0.0 9b. 9c.	15. Water heating systemsa. Electric resistance:b. Gas fired, natrual gas:c. Gas fired, LPG:d. Solar system with tank:	-	0.92 UEF
10 Wall type and insulation: a. Exterior: 1. Wood/mtl frame (Insulation R-value): 2. Masonry (Insulation R-value): b. Adjacent: 1. Wood/mtl frame (Insulation R-value): 2. Masonry (Insulation R-value):	10a1. 13.0 10a2. 11.0 10b1. 11.0	g. Other: 16. HVAC credits claimed (Performance a. Ceiling fans: b. Cross ventilation: c. Whole house fan:	-	d)
Ceiling type and insulation level a. Under attic (R-value): b. Single assembly (R-value): c. Knee walls/skylight walls (R-value) d. Radiant barrier installed	11a. 30.0 11b. 11c. 19.0 11d. No	d. Multizone cooling credit: e. Multizone heating credit: f. Programmable thermostat:		
*Label required by Section R303.1.3 of the Florid	da Building Code, Energy	Conservation, if not DEFAULT.		
I certify that this home has complied with the Flor which will be installed (or exceeded) in this home based on installed Code compliant features.	rida Building Code, Energ e before final inspection.	y Conservation,through the above energy s Otherwise, a new EPL Display Card will be	saving to compl	features eted
Builder Signature:		Date:		
Address of New Home: 11018 SW Scrub	otwon Rd	City/FL Zip: Ft White, FL 32038	_	

Florida Building Code, Energy Conservation, 8th Edition (2023) Mandatory Requirements for Residential Performance, Prescriptive and ERI Methods

	ADDRESS: 11018 SW Scrubtwon Rd Ft White, FL 32038	PERMIT #:
N	MANDATORY REQUIREMENTS - See individual code s	sections for full details.
,	SECTION R	401 GENERAL
<u></u>	R401.3 Energy Performance Level (EPL) display card (Mandatory). display card be completed and certified by the builder to be accurate and c (Section 553.9085, Florida Statues) requires the EPL display card to be inconpresold residential buildings. The EPL display card contains information installed in a dwelling unit. completed and signed by the builder The building plans and specifications submitted to demonstrate compliance for the building.	luded as an addendum to each sales contract for both presold and indicating the energy performance level and efficiencies of components of official shall verify that the EPL display card accurately reflects the
	SECTION R402 BUILD	NG THERMAL ENVELOP
	R402.4 Air leakage (Mandatory). The building thermal envelope shared sections R402.4.1 through R402.4.5.	all be constructed to limit air leakage in accordance with the requirements of
	Exception: Dwelling units of R-2 Occupancies and multiple att comply with Section C402.5.	ached single family dwellings shall be permitted to
	R402.4.1 Building thermal envelope. The building thermal envelope methods between dissimilar materials shall allow for differential expansion a	shall comply with Sections R402.4.1.1 and R402.4.1.2. The sealing and contraction.
	R402.4.1.1 Installation. The components of the building thermal envel with the manufacturer's instructions and the criteria listed in Table R402.4.1 by the code official, an approved third party shall inspect all components are	ope as listed in Table R402.4.1.1 shall be installed in accordance .1, as applicable to the method of construction. Where required and verify compliance.
	R402.4.1.2 Testing. The building or dwelling unit shall be tested and we per hour in Climate Zones 1 and 2, and three air changes per hour in Climate than three air changes per hour shall be provided with whole-house mecha and M1507.3 of the Florida Building Code, Residential. Testing shall be copressure of 0.2 inch wg. (50 pascals). Testing shall be conducted by either or individuals licensed as set forth in Section 489.105(3)(f), (g) or (i) or an all test shall be signed by the party conducting the test and provided to the coof all penetrations of the building thermal envelope.	nical ventilation in accordance with Section R403.6.1 of this code nducted in accordance with ANSI/RESNET/ICC 380 and reported at a individual as defined in Section 553.993(5) or (7), Florida Statutes, poroved third party. A written report of the results of the
	Exception: Testing is not required for additions, alterations, rembuildings in which the new construction is less than	novations, or repairs, of the building thermal envelope of existing 85 percent of the building thermal envelope.
	 During testing: Exterior windows and doors, fireplace and stove doors shall be weatherstripping or other infiltration control measures. Dampers including exhaust, intake, makeup air, backdraft and intended infiltration control measures. Interior doors, if installed at the time of the test, shall be open. Exterior doors for continuous ventilation systems and heat reconstructions. Heating and cooling systems, if installed at the time of the test. 	flue dampers shall be closed, but not sealed beyond overy ventilators shall be closed and sealed.
	6. Supply and return registers, if installed at the time of the test, s 7. If an attic is both air sealed and insulated at the roof deck, interest and the attic shall be opened during the test and the volume of reporting an infiltration volume and calculating the air leakage.	rior access doors and hatches between the conditioned space volume of the attic shall be added to the conditioned space volume for numbers
	R402.4.2 Fireplaces. New wood-burning fireplaces shall have tight-fittin using tight-fitting doors on factory-built fireplaces listed and labeledin according fireplaces. Where using tight-figging doors on masonry fireplaces, the doors	ng flue dampers or doors, and outdoor combustion air. Where lance with UL 127, the doors shall be tested and listed for the shall be listed and labeled in accordance with UL 907.
	R402.4.3 Fenestration air leakage. Windows, skylights and sliding g square foot (1.5 L/s/m2), and swinging doors no more than 0.5 cfm per squ AAMA/WDMA/CSA 101/I.S.2/A440 by an accredited, independent laborate	ass doors shall have an air infiltration rate of no more than 0.3 cfm per lare foot (2.6 L/s/m2), when tested according to NFRC 400 or ory and listed and labeled by the manufacturer.
	Exception: Site-built windows, skylights and doors.	
	R402.4.4 Rooms containing fuel-burning appliances. In Climate air to open combustion fuel burning appliances, the appliances and combustor enclosed in a room, isolated from inside the thermal envelope. Such roc requirements of Table R402.1.2, where the walls, floors and ceilings shall minto the room shall be fully gasketed and any water lines and ducts in the roair duct shall be insulated where it passes through conditioned space to a minute of the process of the conditioned space to a minute of the conditioned space.	oms shall be sealed and insulated in accordance with the envelope seet not less than the basement wall R-value requirement. The door soom insulated in accordance with Section R403. The combustion
	Exceptions:	alled analysis to the auticide
	 Direct vent appliances with both intake and exhaust pipes instances. Fireplaces and stoves complying with Section R402.4.2 and S 	

M	ANDA	ATORY REQUIREMENTS - (Continued)	
	between more tha	4.5 Recessed lighting. Recessed luminaires installed in the building thermal envelope shall be no conditioned and unconditioned spaces. All recessed luminaires shall be IC-rated and labeled a han 2.0 cfm (0.944 L/s) when tested in accordance with ASTM E283 at a 1.57 psf (75 Pa) pressuires shall be sealed with a gasket or caulk between the housing and the interior wall or ceiling cov	is having an air leakage rate not re differential. All recessed
	the build Air-seale	4.6 Air-Sealed Electrical and Communication Boxes. Air-sealed electrical and communiding thermal envelope shall be caulked, taped, gasketed, or otherwise sealed to the air barrier eleled boxes shall be buried in or surrounded by insulation. Air-sealed boxes shall be marked in accordance with the manufacturer's instructions.	nication boxes that penetrate the air barrier of lement being penetrated. Fordance with NEMA OS 4.
		SECTION R403 SYSTEMS	
	R403.1	1 Controls	
	R403.1.	1.1 Thermostat provision (Mandatory). At least one thermostat shall be provided for each	h separate heating and cooling system.
	R403.1. that limit	1.3 Heat pump supplementary heat (Mandatory). Heat pumps having supplementary e nit supplemental heat operation to only those times when one of the following applies:	electric-resistance heat shall have controls
		 The vapor compression cycle cannot provide the necessary heating energy to satisfy the th The heat pump is operating in defrost mode. The vapor compression cycle malfunctions. The thermostat malfunctions. 	nermostat setting.
_	for air dis C403.2.5 Duct tigh Florida S	3.2 Sealing (Mandatory). All ducts, air handlers, filter boxes and building cavities that form the distribution systems shall be considered ducts and plenum chambers, shall be constructed and sea. 2.9.2 of the Commercial Provisions of this code and shall be shown to meet duct tightness criteria ghtness shall be verified by testing in accordance with ANSI/RESNET/ICC 380 by either individua Statutes, or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i), Florida Statutes, to ance with Section R403.3.3.	ealed in accordance with Section below. Is as defined in Section 553.993(5) or (7).
		R403.3.2.1 Sealed air handler. Air handlers shall have a manufacturer's designation for a of the design air flow rate when tested in accordance with ASHRAE 193.	an air leakage of no more than 2 percent
	R403.3.3	3.3 Duct testing (Mandatory). Ducts shall be pressure tested to determine air leakage by on	ne of the following methods:
		 Rough-in test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. manufacturer's air handler enclosure if installed at the time of the test. All registers shall be Post construction test: Total leakage shall be measured with a pressure differential of 0.1 in entire system, including the manufacturer's air handler enclosure. All registers shall be tape 	taped or otherwise sealed during the test.
		Exceptions:	
		 A duct leakage test shall not be required where the ducts and air handlers are located entir Duct testing is not mandatory for buildings complying by Section 405 of this code. Duct leafor Section R405 compliance where credit is taken for leakage, and a duct air leakage Qn is than 0.080 (where Qn = duct leakage to the outside in cfm per 100 square feet of condition 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 p 	lkage testing is required to the outside of less ned floor area tested at 25 Pascals)
\neg	R403.3.	3.5 Building Cavities (Mandatory). Building framing cavities shall not be used as ducts or p	
	R403.4 I		e of carrying fluids above 105°F (41°C)
		R403.4.1 Protection of piping insulation. Piping insulation exposed to weather shall be caused by sunlight, moisture, equipment maintenance, and wind, and shall provide shielding for degradation of the material. Adhesive tape shall not be permitted.	pe protected from damage, including that from solar radiation that can cause
		R403.5.1 Heated water circulation and temperature maintenance systems (Mandatory). shall be in accordance with Section R403.5.1.1. Heat trace temperature maintenance system R403.5.1.2. Automatic controls, temperature sensors and pumps shall be accessible. Manual	Heated water circulation systems ns shall be in accordance with Section all controls shall be readily accessible.
		R403.5.1.1 Circulation systems. Heated water circulation systems shall be preturn pipe shall be dedicated return pipe or a cold water supply pipe. Gravity and the systems shall be prohibited. Controls for circulating hot water system pumps shall state of a demand for how water within the occupancy. The controls shall automatically turn circulation loop is at the desired temperature and when there is no demand for hot water within the occupancy.	art the pump based on the identification
		R403.5.1.2 Heat trace systems. Electric heat trace systems shall comply with I systems shall automatically adjust the energy input to the heat tracing to maintain the in accordance with the times when heated water is used in the occupancy.	EEE 515.1 or UL 515. Controls for such ne desired water temperature in the piping
		R403.5.2 Demand recirculation water systems (Mandatory). Where installed, de have controls that comply with both of the following:	emand recirculation water systems shall
		 The controls shall start the pump upon receiving a signal from the action of a user presence of a user of a fixture or sensing the flow of hot or tempered water to a fi 2. The controls shall limit the temperature of the water entering the cold water piping 	ixture fitting or appliance

MANDATORY REQUIREMENTS - (Continued)

R403.5.	traps inst downwar	os (Mandatory). Storage water heaters not equipped with integral heat traps and having vertical pipe risers shall have heat alled on both the inlets and outlets. External heat traps shall consist of either a commercially available heat trap or a d and upward bend of at least 3 1/2 inches (89 mm) in the hot water distribution line and cold water line located as close as to the storage tank.
R403.5.6	6 Water he	ater efficiencies (Mandatory).
	R403.5.6	.1 Storage water heater temperature controls.
		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.
	Table C4 installed.	.2 Water heating equipment. Water heating equipment installed in residential units shall meet the minimum efficiencies of 04.2 in Chapter 4 of the Florida Building Code, Energy Conservation, Commercial Provisions, for the type of equipment Equipment used to provide heating functions as part of a combination system shall satisfy all stated requirements for the te water heating category. Solar water heaters shall met the criteria of Section R403.5.6.2.1.
		R403.5.6.2.1 Solar water heating system. 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:
		 Be installed with a tilt angle between 10 degrees and 40 degrees of the horizontal; and Be installed at an orientation within 45 degrees of true south.
Building (Natural, I	Code, Res	It ventilation (Mandatory). The building shall be provided with ventilation that meets the requirements of the Florida idential or Florida Building Code, Mechanical, as applicable, or with other approved means of ventilation, including: or Mechanical means. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the soot operating.
	R403.6.1 ventilation	Whole-house mechanical ventilation system fan efficacy. When installed to function as a whole-house mechanical system, fans shall meet the efficacy requirements of Table R403.6.1.
		Exception: Where mechanical ventilation fans are integral to tested and listed HVAC equipment, they shall be powered by an electronically commutated motor.
	R403.6.2 ventilation	Ventilation air. Residential buildings designed to be operated at a positive indoor pressure of for mechanical a shall meet the following criteria:
		 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. 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. If ventilation air is drawn from enclosed spaces(s), then the walls of the space(s) from which air is drawn shall be insulated to a minimum or R-11 and the ceiling shall be insulated to a minimum or R-19, space permitting, or R-10 otherwise.
R403.7 F	leating an	d cooling equipment.
	the equip based on indoor un described affect equas standa	Equipment sizing (Mandatory). Heating and cooling equipment shall be sized in accordance with ACCA Manual S based on ment loads calculated in accordance with ACCA Manual J or other approved methodologies, heating and cooling calculation building loads for the directional orientation of the building. The manufacturer and model number of the outdoor and its (if split system) shall be submitted along with the sensible and total cooling capacities at the design conditions in Section R302.1. This code does not allow designer safety factors, provisions for future expansion or other factors that hipment sizing. System sizing calculations shall not include loads created by local intermittent mechanical ventilation such rid kitchen and bathroom exhaust systems. New or replacement heating and cooling equipment shall have an efficiency teal 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	MINIMUM EFFICACY (a)	AIRFLOW RATE MAXIMUM
	CFM	CFM/WATT	CFM
HRV or ERV	Any	1.2 cfm/watt	Any
Range hoods	Any	2.8 cfm/watt	Any
In-line fan	Any	3.8 cfm/watt	Any
Bathroom, utility room	10	2.8 cfm/watt	< 90
Bathroom, utility room	90	3.5 cfm/watt	Any

For SI: 1 cfm - 28.3 L/min.

(a) When tested in accordance 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 403.7, 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. Electric resistance furnaces shall be sized within 4 kW of the design R403.7.1.2.2 Electric resistance furnaces. 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 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. Residences requiring excess cooling or heating equipment capacity on an R403.8 Systems serving multiple dwelling units (Mandatory). S C403 and C404 of the IECC—Commercial Provisions in lieu of Section R403. Systems serving multiple dwelling units shall comply with Sections 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). shall be in accordance with Sections R403.10.1 through R403.10.5. The energy consumption of pools and permanent spas 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. Time switches or other control methods that can automatically turn off and on according to a preset R403.10.2 Time switches. 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 operations. Pumps that operate solar- and waste-heat-recovery pool heating systems. 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.

FORM R405-2023

MANDATORY REQUIREMENTS

R403.11 Portable spas (Mandatory). requirements of APSP-14. The energy consumption of electric-powered portable spas shall be controlled by the R403.13 Dehumidifiers (Mandatory). If installed, a dehumidifier shall conform to the following requirements: 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 2. The dehumidifier shall be controlled by a sensor that is installed in a location where it is exposed to mixed house air. Any dehumidifier unit located in unconditioned space that treats air from conditioned space shall be insulated to a minimum of R-2. 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). All permanently installed luminaires, excluding those in kitche efficacy of at least 45 lumens-per-watt or shall utilize lamps with an efficacy of not less than 65 lumens-per-watt. All permanently installed luminaires, excluding those in kitchen appliances, shall have an Exception: Low-voltage lighting. R404.1.1 Lighting equipment (Mandatory). Fuel gas lighting systems shall not have continuously burning pilot lights.

- (Continued)

TABLE 402.4.1.1 AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA

I City, State, Zip: F	1018 SW Scrubtwon Rd t White, FL 32038	Builder Name Permit Office: Columbia County Permit Number: Jurisdiction: 221000	
COMPONENT	AIR BARRIER CRITERIA	INSULATION INSTALLATION CRITERIA	1
General requirements	A continuous air barrier shall be installed in the building envelope. The exterior thermal envelope contains a continuous barrier. Breaks or joints in the air barrier shall be sealed.	Air-permeable insulation shall not be used as a sealing material.	
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 attics paces 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 with 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 are insulated and include an 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 sideof 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 in lieu of floor insulation, insulation shall be permanently attached to the crawlspace walls.	
Shafts, penetrations	Duct shafts, utility penetrations, and flue shaft openings 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 shall be installed behind electrical or communication boxes or air-sealed boxes shall be installed.	Exterior walls adjacent to showers and tubs shall be insulated.	
Electrical, communication, and other equipment boxes, housings, and enclosures	Boxes, housings, and enclosures that penetrate the air barrier shall be caulked, taped, gasketed, or otherwise sealed to the air barrier element being penetrated. All concealed openings into the box, housing, or enclosure shall be sealed. The continuity of the air barrier shall be maintained around boxes, housings, and enclosures that penetrate the air barrier. Alternatively, air-sealed boxes shall be installed in accordance with R402.4.6.	Boxes, housings, and enclosures shall be buried in or surrounded by tightly fitted insulation.	
HVAC register boots	HVAC supply and return register boots that penetrate building thermal envelope shall be sealed to the subfloor, 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.



Right-Suite® Universal 2023 23.0.04 RSU00000 Right-Energy® Florida 2023 ...MISC Builders\Brown - 11018 SW Scrubtown Rd.rup Calc = MJ8 Building Front faces: E

Section R405.4.1 Compliant Software 2023-Oct-30 11:43:21
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Envelope Leakage Test Report (Blower Do Residential Prescriptive, Performance or ERI Method Compliance (Blower Door Test)

2023 Florida Building Code, Energy Conservation, 8th Edition

Jurisdiction: 221000		Permit Number:
Job Information		
Builder: Com	nmunity:	Lot:
Address: 11018 SW Scrubtwon R	Unit:	
City: Ft White	State: FL	Zip: 32038
Air Leakage Test Results	Passing results must meet eithe	er the Performance, Prescriptive, or ERI Method.
PRESCRIPTIVE METHOD The builty a air ch	ilding or dwelling unit shall be to anges per hour at a pressure o	ested and verified as having an air leakage rate of not exceeding of 0.2 inch w.g. (50 pascals) in Climate Zones 1 and 2.
PERFORMANCE or ERI METHOD	exceeding the selected AC R406-2023 (ERI), section I	it shall be tested and verified as having an air leakage rate of not H(50) value, as shown on FORM R405-2023 (Performance) or abeled as Infiltration, sub-section ACH50.
ACH(50) specified on Form R405-202	3-Energy Calc (Performance)	or R406-2023 (ERI): 6.000
x 60 ÷ 13752	_=	Method for calculating building volume:
CFM(50) Building Volum	ACH(50)	Retrieved from architectural plans
□ PASS		Code software calculated
When ACH(50) is less than 3, Mech	anical Ventilation installati	Field measured and calculated
must be verified by building department	nent.	OII
Section R403.6.1 of this code and M1507.3 of the ANSI/RESNET/ICC 380 and reported at a press defined in Section 553.993(5) or (7), Florida Stat approved third party. A written report of the result code official. Testing shall be performed at any the Exception: Testing is not required for additional existing buildings in which the new construction During testing: 1. Exterior windows and doors, fireplace and other infiltration control measures. 2. Dampers including exhaust, intake, make infiltration control measures. 3. Interior doors, if installed at the time of the exterior doors for continuous ventilation systems, if installed at 5. Supply and return registers, if installed at 7. If an attic is both air sealed and insulated space volume and the attic shall be openspace volume for purposes of reporting and cesting Company.	he Florida Building Code, Resisure of 0.2 inch wg. (50 pascal utes, or individuals licensed as its of the test shall be signed by time after creation of all penetricitions, alterations, renovations, ion is less than 85 percentof the stove doors shall be closed, but up air, back draft and flue dame test, shall be open. The time of the test, shall be the time of the test, shall be the time of the test, shall be fur at the roof deck, interior accessed during the test and the volumentifiltration volume and calculations.	In the party conducting the test and provided to the ations of the building thermal envelope. or repairs, of the building thermal envelope of the building thermal envelope. ut not sealed, beyond the intended weatherstripping or the pers shall be closed, but not sealed beyond intended to the closed and sealed. It was a sealed to the conditioned the person of the attic shall be added to the conditioned the person of the attic shall be added to the conditioned the person of the attic shall be added to the conditioned the person of the attic shall be added to the conditioned the person of the perso
Company Name:		
hereby verify that the above Air Leakage re nergy Conservation requirements accordi	esults are in accordance wing to the compliance mether	ith the 2023 8th Edition Florida Building Code nod selected above.
ignature of Tester:	- Maria de Propinsion de la compansion d	Date of Test:
rinted Name of Tester:		
		ssuing Authority:
icense/Certification #:	Is	ssuing Authority: