FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: New Project Daniello Street: 1028 SW High field t City, State, Zip: LekeCity, FL, Owner: Daniello Design Location: FL, Gainesville		Builder Name: Americas Home place Permit Office: Permit Number: Jurisdiction: County: Columbia (Florida Clim	ate Zone 2)
1. New construction or existing 2. Single family or multiple family 3. Number of units, if multiple family 4. Number of Bedrooms 5. Is this a worst case? 6. Conditioned floor area above grade (ft²) Conditioned floor area below grade (ft²) 7. Windows (133.3 sqft.) Description a. U-Factor: Dbl, U=0.27 SHGC: SHGC=0.33 b. U-Factor: N/A SHGC: c. U-Factor: N/A	New (From Plans) Detached 1 3 No 1450 0 Area 133,33 ft² ft²	10. Wall Typeg(1376.0 sqft.) a. Frame - Wood, Exterior b. N/A c. N/A d. N/A 11. Ceiling Types (1450.0 sqft.) a. Under Attic (Vented) b. N/A c. N/A 12. Ducts a. Sup: Attic, Ret: Attic, AH: Attic 13. Cooling systems a. Central Unit	Insulation Area R=13.0 1376.00 ft² R= ft² R= ft² R= ft² Insulation Area R=38.0 1450.00 ft² R= ft² R= ft² R= ft² R= ft² R ft² SEER:16.00
SHGC: Area Weighted Average Overhang Depth: Area Weighted Average SHGC: 8. Skylights c. U-Factor:(AVG) N/A SHGC(AVG): N/A 9. Floor Types (1450.0 sqft.) a. Slab-On-Grade Edge Insulation b. N/A c. N/A	1.417 ft. 0.330 Area ft² Insulation Area R=0.0 1450.00 ft² R= ft² R= ft²	14. Heating systems a. Electric Heat Pump 15. Hot water systems a. Electric b. Conservation features None 16. Credits	kBtu/hr Efficiency 29.4 HSPF:8.20 Cap: 50 gallons EF: 0.980
Glass/Floor Area: ().092	Total Proposed Modifier Total Baseline		PASS
I hereby certify that the plans and specthis calculation are in compliance with Code. SUNCOAST I PREPARED BY: DATE: 3- INCOAST I WOODERLY (352) 47 I hereby certify that this pudding age with the Florida Energy Code. OWNER/AGENT DATE:	the Florida Energy NSULATORS 3rd Terrace FL 32669 2-8595	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:	THE STATE OF THE S

- 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 5.00 ACH50 (R402.4.1.2).

48754

FORM R405-2020 INPUT SUMMARY CHECKLIST REPORT **PROJECT** New Project Daniello Bedrooms: 3 Address Type: Street Address Title: **Building Type:** Conditioned Area: 1450 Lot# Daniello **Total Stories:** Block/Subdivision: Owner Name: 1 Worst Case: No PlatBook: # of Units: Americas Home place Rotate Angle: 1028 SV/ High field terr. Builder Name: 0 Street: Cross Ventilation: Permit Office: County: Columbia Whole House Fan: Jurisdiction: City, State, Zip: LakeCity, Family Type: Detached FL, New/Existing: New (From Plans) Comment: CLIMATE Design Temp Int Design Temp Heating Design Daily Temp TMY Site Design Location 97.5 % 2.5 % Winter Summer Degree Days Moisture Range FL_GAINESVILLE_REGI 32 FL, Gainesville 92 70 75 1305.5 Medium **BLOCKS** Volume Number Name Area 1450 11600 1 Blocki SPACES Name Volume Kitchen Number Area Occupants Bedrooms Infit ID Finished Cooled Heated Main 11600 1450 Yes 3 3 1 1 Yes YES Yes **FLOORS** Wood Carpet Floor Type Space Perimeter R-Value Area Tile 1 Slab-On-Grade Edge Insulation Main 144 R 0 1450 ft2 0 0 1 ROOF Roof Gable Roof Rad Solar SA Emitt Emitt Deck Pitch Materials Area Area Color Type Barr Absor. Tested Tested Insul. (deg) 1 Gable or shed Composition shingles 1571 ft2 302 fi² Medium 0.96 No 0.9 No 0 72.62 ATTIC # Ventilation Vent Ratio (1 in) Type Area RBS IRCC 1 Full attic Vented 150 1450 ਜੋ≥ N

3/1	8/2021	3.40	DIA
·N F	OIZUZ I	3.49	LM

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Celling Type

Under Attic (Vented)

CEILING

R-Value

38

Ins Type

Blown

Area

1450 ft²

Space

Main

Truss Type

Mood!

N

Framing Frac

0.11

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	_ 2	S	2	Vinyl	Double (Clear) Yes	0.27	0.33	N	18.0 ft²	1 ft 5 in	6 ft 0 in	Drapes/	blinds	Exterior
	_ 3	\$	2	Vinyi	Double (Clear) Yes	0.27	0.33	N	12.0 ft²	1 ft 5 in	6 ft 0 in	Drapes/	blinds	Exterior :
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FORM R405-2020 INPUT SUMMARY CHECKLIST REPORT SOLAR HOT WATER SYSTEM Storage FSEC Collector Company Name System Model # Collector Model # Cert # Area Volume FEF None DUCTS - Supply - Return AlT **CFM 25** CFM25 HVAC # R-Value Area # Location Location Area Leakage Type Handler TOT OUT QN RLF Heat Cool 1 Attic 6 209 ft² Attic 72.5 ft² Default Leakage Attic: (Default) c(Default) c 1 **TEMPERATURES** Programable Thermostat: Y Ceiling Fans: | Jan |X Jan | Jan X Jun Jun Jun X Jul X Dec Dec Dec Thermostat Schedule: HERS 2006 Reference Hours Schedule Type 3 4 5 6 8 9 10 11 12 Cooling (VVD) 78 80 78 80 78 78 78 78 78 78 78 78 78 78 80 78 78 78 80 Cooling (VVEH) 78 78 78 78 78 78 78 78 78 78 78 78 73 73 Heating (VVD) 66 68 68 68 68 68 68 68 68 68 Heating (VVEH) E-3 E-3 MASS Area Thickness

0 11

Oft2

Furniture Fraction

0.3

Space

Main

Mass Type

Default(8 lbs/sq.ft.

RESIDENTIAL ENERGY CONSERVATION CODE DOCUMENTATION CHECKLIST

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

Applications for compliance with the 2020 Florida Building Code, Energy Conservation via the Residential Simulated Performance Alternative shall include:

	This checklist				
0	Form R405-2020 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.				
	Mandatory Requirements (five pages)				
Re	quired prior to CO:				
	Air Barrier and Insulation Inspection Component Criteria checklist (Table R402.4.1.1 - one page)				
	A completed 2020 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				
D	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)				

ENERGY PERFORMANCE LEVEL (EPL.) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 100

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

1028 SW High field terr., LakeCity, FL.

2. 3. 4. 5.	2. Single family or multiple family 3. Number of units, if multiple family 4. Number of Bedrooms 5. Is this a worst case? I		ber of units, if multiple family ber of Bedrooms s a worst case? Detached 1 No			Insulation R=13.0 R= R= R= Insulation R=38.0 R=	1376.00 ft ² ft ² ft ²
	Windows** a. U-Factor: SHGC: b. U-Factor: SHGC: c. U-Factor: SHGC: d. U-Factor: SHGC: Area Weighted Average			Area 133.33 ft ² ft ² ft ² 1.417 ft. 0.330	c. N/A 12. Ducts, location & Insulation level a. Sup: Attic, Ret: Attic, AH: Attic 13. Cooling systems a. Central Unit 14. Heating systems a. Electric Heat Pump	R= kBtu/hr 24.5 kBtu/hr 29.4	R R R R 6 209 Efficiency SEER:16.00 Efficiency HSPF:8.20
	Skylights a. U-Factor(AVG): SHGC(AVG): Floor Types	Description N/A N/A	Insulation	Area ft²	Hot water systems a. Electric b. Conservation features	Ca	p: 50 gallons EF: 0.98
	a. Slab-On-Grade Edge b. N/A c. N/A	e Insulation	R=0.0 R= R=	1450.00 ft² ft² ft²	None Credits (Performance method)		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:

_____ DE

Address of New Home:

028 SW Higherield Terr

5. 3/29/21

22074



*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.

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 cellings 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. Fireplaces and stoves complying with Section R402.4.2 and Section R1006 of the Florida Building Code, Residential. 2 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 celling 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. All ducts, air handlers, filter boxes and building cavitles that form the primary air containment passageways for air R403.3.2 Sealing (Mandatory) 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. Air handlers shall have a manufacturer's designation for an air leakage of no more than 2 percent of the R403.3.2.1 Sealed air handler. 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: 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 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. 1. A duct air leakage test shall not be required where the ducts and air handlers are located entirely within the building thermal 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 Qn to the outside of less than 0.080 (where Qn = 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.
R40	3.5 Building cavities (Mandatory). Building framing cavities shall not be used as ducts or plenums.
R40: below	Mechanical system piping insulation (Mandatory). Mechanical system piping capable of carrying fluids above 105°F (41°C) or 55°F (13°C) shall be insulated to a minimum of R-3.
	R483.4.1 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 was system pumps shall start the pump based on the identification of a demand for hot water within the occupancy. The controls shall automatically to off the pump when the water in the circulation loop is at the desired temperature and when there is no demand for hot water.
	R403.6.1.2 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.
	system pumps shall start the pump based on the identification of a demand for hot water within the occupancy. The controls shall automs off the pump when the water in the circulation loop is at the desired temperature and when there is no demand for hot water. R403.6.1.2 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 tim

MANDATORY REQUIREMENTS - (Continued) R403.5.6 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 1/2 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). A separate switch or a clearly marked circuit breaker shall be provided to permit the power supplied to PA03.5.6.1.2 Shut down. 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. Water-heating equipment installed in residential units shall meet the minimum efficiencies of Table R403.5.6.2 Water-heating equipment. 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. R403.6.6.2.1 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, Inflitration 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: 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 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 lessed on the

R403.7.1 Equipment sizing (Mandatory). Heating and cooling equipment shall be sized in accordance with ACCA Manual Strand 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 F302.1. This Code close 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 8 (CFM/WATT)	AIRFLOW RATE HEXIMUN (CFM)
HRV or ERV	Any	1.2 ofm/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 ofm/watt	<90
Bathroom, utility room	90	2.8 cfm/watt	Any

For SI: 1 cfm = 28.3 L/min.

When tested in accordance with HVI Standard 916

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MA	ANDATORY 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:
	 Attached single- and multiple-family residential equipment sizing may be selected so that its cooling capacity is less than 80 percent of that load.
	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:
	 A separate cooling or heating system is utilized to provide cooling or heating to the major entertainment areas.
	 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).
	R403.16 Pools and permanent spa energy consumption (Mandatory). 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 (\$14 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.
	 Where public health standards require 24-hour pump operation. Pumps that operate solar- and waste-heat-recovery pool heating systems. Where pumps are powered exclusively from on-site renewable generation.

	R403.19.3 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 purrip 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.						
П	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/ kW/h if the total dehumidifier capacity for the house is less than 75 pints/day and greater than 2.38 liters/kW/h if the total dehumidifier capacity for the house is greater than or equal to 75 pints/day. 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. Conform to the following requirements: Ducted dehumidifiers shall, in addition to conforming to the requirements of Section R403.13,						
	 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. 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. 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. Ductwork associated with a dehumidifier located in unconditioned space shall be insulated to a minimum of R-6. 						
SECTION R404							
ELE	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 Lightling 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 AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA

Project Name: Street: City, State, Zlp: Owner: Design Location:	New Project Daniello 1028 SW High field terr. LakeCity , FL , Daniello FL, Gainesville Builder Nam Permit Offic Jurisdiction:			
COMPONENT	AIR BARRIER CRITERIA	INSULATION INSTALLATION CRITERIA		
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.		
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.			
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.	Γ	
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 crav/space 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 tube 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			
Concezied 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.		-	

Florida Building Code, Energy Conservation, 7th Edition (2020) Mandatory Requirements for Residential Performance, Prescriptive and ERI Methods

	SWICKS BCG	atory requires	1101100 101 141	coldelled ()	Portinance, 1 in	collipare and	PETZI IAIRATII/A/CO
	ADDRESS:	1028 SW High field LakeCity , FL ,			Permit Number:		
M	ANDATORY	REQUIREME	NTS - See in	dividual code s	ections for full d	etails.	
/			SE	CTION R401	GENERAL		
С	be completed Florida Statut The EPL disp official shall v	and certified by the bull es) requires the EPL dis lay card contains inform	der to be accurate applay card to be included indicating the sy card completed a	and correct before fine luded as an addendure energy performance and signed by the build	al approval of the buildi in to each sales contrac level and efficiencies o ler accurately reflects t	ng for occupancy. Florida at for both presold and no f components installed in	mance level (EPL) display card a law (Section 5:33,9085, inpresold residential buildings, a dwelling unit. The building ins submitted to demonstrate
		SEC	TION R402	BUILDING TH	IERMAL ENVE	ELOPE	
		akage (Mandatory). through R402.4.5.	The building the	ermal envelope shall be	constructed to limit at	ir leakage in accordance	with the requirements of Section
		Exception: Dwelling with Section C402.5.	units of R-2 Occup	ancles and multiple at	tached single family d	wellings shall be permitted	d to comply
	R402.4 sealing	.1 Building thermal er methods between dissi	nvelopethe building milar materials sha	g thermal envelope sha Il allow for differential (all comply with Sections expansion and contract	s R402.4.1.1 and R402.4 tion.	1.1.2. The
	J manufa	.1.1 Installation. The curren's instructions and an approved third party	the criteria listed i	n Table R402.4.1.1, a	s applicable to the met	R402,4.1.1 shall be instal hod of construction. Whe	led in accordance with the are required by the code
	hour in ANSI/R Section written	Climate Zones 1 and 2, ESNIET/ICC 380 and re 553.993(5) or (7), Flori	and three air chang eported at a pressu da Statutes, or indi ne test shall be sign	ges per hour in Climat re of 0.2 Inch w.g. (50 viduals licensed as se ned by the party condu	e Zones 3 through 8. T pascals), Testing shal t forth in Section 489.1 acting the test and prov	esting shall be conducted to be conducted by either 05(3)(f), (g) or (i) or an a	individuals as defined in
	Except which to	ion: Testing is not ne new construction is i				building thermal envelop	e of existing buildings in
	infiltrati 2. Dam Infiltrati 3. Interi 4. Exter 5. Heati	for windows and doors, on control measures.	intake, makeup air, he time of the test, ventilation systems i, if installed at the t	backdraft and flue da shall be open. s and heat recovery ve time of the test, shall b	mpers shall be closed, entilators shall be close turned off.	nd the intended weatherst but not sealed beyond in all and sealed.	
	tight-fitting do	places. New wood-bu ors on factory-built firep ight-fitting doors on ma	laces listed and lab	eled in accordance wi	th UL 127, the doors st	nd outdoor combustion ain hall be tested and listed fo ance with UL 907.	r. Where using or the fireplace.
	square foot (1	estration air leakage. .5 L/e/m2), and swingin 101/1.S.2/A440 by an ac	g doors no more th	an 0,5 cfm per square	foot (2.6 L/s/m2), whe	filtration rate of no more the tested according to NF manufacturer.	han 0.3 ofm per RC 400 or AAMA/
	Except	ion: Site-built wind	lows, skylights and	doors.			

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

Jurisdiction:	Permit #:					
Job Information						
Builder: Americas Home place Community:	Lot: NA					
Address: 1028 SW High field terr.						
City: LakeCity State	e: FL Zip:					
Air Leakage Test Results Passing results must meet	either the Parformance, Prescriptive, or ERI Method					
PRESCRIPTIVE METHOD-The building or dwelling unit shall be teste changes per hour at a pressure of 0.2 inch/w.g. (50 Pascals) in Climater	ed and verified as having an air leakage rate of not exceeding 7 air le Zones 1 and 2.					
PERFORMANCE or ERI METHOD-The building or dwelling unit shall the selected ACH(50) value, as shown on Form R405-2020 (Performance) or ACH(50) specified on Form R405-2020-Energy Calc	R406-2020 (ERI), section labeled as infiltration, sub-section ACH50.					
x 60 + 11600 = ACH(50) PASS	Mathod for calculating building volume: C) Retrieved from architectural plans Code software calculated					
When ACH(50) is less than 3, Mechanical Ventilation in must be verified by building department.	nstallation () Field measured and calculated					
R402.4.1.2 Testing. Testing shall be conducted in accordance with ANSI/RE Testing shall be conducted by either individuals as defined in Section 553.993 489.105(3)(f), (g), or (i) or an approved third party. A written report of the result provided to the code official. Testing shall be performed at any time after creating shall be performed.	(5) or (7), Florida Statues: or individuals licensed as set forth in Section its of the lest shall be signed by the party conducting the test and					
During testing: 1. Exterior windows and doors, fireplace and stove doors shall be closed, but i control measures. 2. Dampers including exhaust, intake, makeup air, back draft and flue damper.						
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: Inhereby 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:					