FORM R405-2020

# FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

| | | | |
|---|---|---|---|
| Project Name: | Red Door - Mayer Residence | Builder Name: | Red Door |
| Street: | 213 SW Heather Ct | Permit Office: | |
| City, State, Zip: | Ft White, FL, | Permit Number: | |
| Owner: | | Jurisdiction: | |
| Design Location: | FL, Gainesville | County: | Columbia(Florida Climate Zone 2) |

| | | | | |
|---|---|---|---|---|
| 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 | 3 | | | |
| 5. Is this a worst case? | No | | | |
| 6. Conditioned floor area above grade (ft²) | 1704 | | | |
| Conditioned floor area below grade (ft²) | 0 | | | |
| 7. Windows(148.3 sqft.) | Description | | Area | |
| a. U-Factor: | Dbl, U=0.34 | | 148.33 ft² | |
| SHGC: | SHGC=0.23 | | | |
| b. U-Factor: | N/A | | ft² | |
| SHGC: | | | | |
| c. U-Factor: | N/A | | ft² | |
| SHGC: | | | | |
| Area Weighted Average Overhang Depth: | | | 1.500 ft | |
| Area Weighted Average SHGC: | | | 0.230 | |
| 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 | 1704.00 ft² | |
| b. N/A | | R= | ft² | |
| c. N/A | | R= | ft² | |

| | | | |
|---|---|---|---|
| 10. Wall Types(1576.0 sqft.) | Insulation | Area | |
| a. Frame - Wood, Exterior | R=13.0 | 1224.00 ft² | |
| b. Frame - Wood, Adjacent | R=13.0 | 352.00 ft² | |
| c. N/A | R= | ft² | |
| d. N/A | R= | ft² | |
| 11. Ceiling Types(1704.0 sqft.) | Insulation | Area | |
| a. Under Attic (Vented) | R=38.0 | 1704.00 ft² | |
| b. N/A | R= | ft² | |
| c. N/A | R= | ft² | |
| 12. Ducts, location & insulation level | R | ft² | |
| a. a. Sup: Attic, Ret: Attic, AH: Garage | 6 | 265.3 | |
| b. | | | |
| c. | | | |
| 13. Cooling Systems | kBtu/hr | Efficiency | |
| a. Central Unit | 27.2 | SEER:14.50 | |
| 14. Heating Systems | kBtu/hr | Efficiency | |
| a. Electric Heat Pump | 26.6 | HSPF:8.50 | |
| 15. Hot Water Systems | | | |
| a. Electric | | Cap: 40 gallons<br>EF: 0.920 | |
| b. Conservation features | | None | |
| 16. Credits | | CF, Pstat | |

Glass/Floor Area:0.087

Total Proposed Modified Loads: 45.89

Total Baseline Loads: 45.72

**PASS**

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: Nichole Lewis

DATE: 9/30/2022

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: Jason T Huddleston Verified by pdfFiller

DATE: 10.03.22

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.

BUILDING OFFICIAL: _____

DATE: _____

**- Compliance requires 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 with a proposed duct leakage Qn requires a PERFORMANCE Duct Leakage Test Report confirming duct leakage to outdoors, tested in accordance with ANSI/RESNET/ICC 380, is not greater than 0.000 Qn for whole house.**

**- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires a PERFORMANCE envelope leakage test report with envelope leakage no greater than 5.00 ACH50 (R402.4.1.2).**

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# INPUT SUMMARY CHECKLIST REPORT

## PROJECT

| | | | | | |
|---|---|---|---|---|---|
| Title: | Red Door - Mayer Residence | | | Address type: | Street Address |
| Building Type: | User | Bedrooms: | 3 | Lot #: | --- |
| Owner: | | Conditioned Area: | 1704 | Block/SubDivision: | --- |
| | | Total Stories: | 1 | PlatBook: | --- |
| Builder Name: | Red Door | Worst Case: | No | Street: | 213 SW Heather Ct |
| Permit Office: | | Rotate Angle: | 0 | County: | Columbia |
| Jurisdiction: | | Cross Ventilation: | | City, State, Zip: | Ft White, |
| Family Type: | Detached | Whole House Fan: | | | FL, |
| New/Existing: | New (From Plans) | Terrain: | Suburban | | |
| Year Construct: | 2022 | Shielding: | Suburban | | |
| Comment: | | | | | |

## CLIMATE

| ✓ | Design Location | Tmy Site | Design Temp 97.5% | Design Temp 2.5% | Int Design Temp Winter | Int Design Temp Summer | Heating Degree Days | Design Moisture | Daily temp Range |
|---|---|---|---|---|---|---|---|---|---|
| ___ | FL, Gainesville | FL_GAINESVILLE_REGIONA | 32 | 92 | 70 | 75 | 1305.5 | 51 | Medium |

## BLOCKS

| ✓ | Number | Name | Area | Volume |
|---|---|---|---|---|
| ___ | 1 | Block1 | 1704 | 13632 |

## SPACES

| ✓ | Number | Name | Area | Volume | Kitchen | Occupants | Bedrooms | Finished | Cooled | Heated |
|---|---|---|---|---|---|---|---|---|---|---|
| ___ | 1 | Main | 1704 | 13632 | Yes | 3 | 3 | Yes | Yes | Yes |

## FLOORS (Total Exposed Area = 1704 sq.ft.)

| ✓ | # | Floor Type | Space | Exposed Perim | Perimeter R-Value | Area | U-Factor | Joist R-Value | Tile | Wood | Carpet |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ___ | 1 | Slab-On-Grade Edge Ins | Main | 197 | 0 | 1704 ft | 0.547 | --- | 0.22 | 0.22 | 0.56 |

## ROOF

| ✓ | # | Type | Materials | Roof Area | Gable Area | Roof Color | Rad Barr | Solar Absor. | SA Tested | Emitt | Emitt Tested | Deck Insul. | Pitch (deg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ___ | 1 | Hip | Metal | 1905 ft² | 0 ft² | Medium | N | 0.96 | No | 0.9 | No | 0 | 26.57 |

## ATTIC

| ✓ | # | Type | Ventilation | Vent Ratio (1 in) | Area | RBS | IRCC |
|---|---|---|---|---|---|---|---|
| ___ | 1 | Full attic | Vented | 300 | 1704 ft² | N | N |

## CEILING (Total Exposed Area = 1704 sq.ft.)

| ✓ | # | Ceiling Type | Space | R-Value | Ins. Type | Area | U-Factor | Framing Frac. | Truss Type |
|---|---|---|---|---|---|---|---|---|---|
| ___ | 1 | Under Attic(Vented) | Main | 38.0 | Blown | 1704.0ft² | 0.024 | 0.11 | Wood |

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# INPUT SUMMARY CHECKLIST REPORT

## WALLS (Total Exposed Area = 1576 sq.ft.)

| √ # | Ornt | Adjacent To | Wall Type | Space | Cavity R-Value | Width Ft | Width In | Height Ft | Height In | Area sq.ft. | U-Factor | Sheath R-Value | Frm. Frac. | Solar Absor. | Below Grade |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ___1 | S | Exterior | Frame - Wood | Main | 13.0 | 29.0 | 0 | 8.0 | 0 | 232.0 | 0.084 | | 0.23 | 0.20 | 0 % |
| ___2 | W | Exterior | Frame - Wood | Main | 13.0 | 44.0 | 0 | 8.0 | 0 | 352.0 | 0.084 | | 0.23 | 0.20 | 0 % |
| ___3 | N | Exterior | Frame - Wood | Main | 13.0 | 50.0 | 0 | 8.0 | 0 | 400.0 | 0.084 | | 0.23 | 0.20 | 0 % |
| ___4 | E | Exterior | Frame - Wood | Main | 13.0 | 30.0 | 0 | 8.0 | 0 | 240.0 | 0.084 | | 0.23 | 0.20 | 0 % |
| ___5 | S | Garage | Frame - Wood | Main | 13.0 | 21.0 | 0 | 8.0 | 0 | 168.0 | 0.084 | | 0.23 | 0.20 | 0 % |
| ___6 | E | Garage | Frame - Wood | Main | 13.0 | 23.0 | 0 | 8.0 | 0 | 184.0 | 0.084 | | 0.23 | 0.20 | 0 % |

## DOORS (Total Exposed Area = 60 sq.ft.)

| √ # | Ornt | Adjacent To | Door Type | Space | Storms | U-Value | Width Ft | Width In | Height Ft | Height In | Area |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ___1 | S | Exterior | Insulated | Main | None | 0.46 | 3.00 | 0 | 6.00 | 8 | 20.0ft² |
| ___2 | N | Exterior | Insulated | Main | None | 0.46 | 3.00 | 0 | 6.00 | 6 | 19.5ft² |
| ___3 | S | Garage | Insulated | Main | None | 0.46 | 3.00 | 0 | 6.00 | 8 | 20.0ft² |

## WINDOWS (Total Exposed Area = 148 sq.ft.)

| √ # | Ornt | Wall ID | Frame | Panes | NFRC | U-Factor | SHGC | Imp | Storm | Area | -----Overhang----- Depth | Separation | Interior Shade | Screening |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ___1 | S | 1 | Vinyl | Low-E Double | Yes | 0.34 | 0.23 | N | N | 60.0ft² | 1.0 ft 6 in | 1.0 ft 6 in | Drapes/blinds | None |
| ___2 | W | 2 | Vinyl | Low-E Double | Yes | 0.34 | 0.23 | N | N | 15.0ft² | 1.0 ft 6 in | 1.0 ft 6 in | Drapes/blinds | None |
| ___3 | N | 3 | Vinyl | Low-E Double | Yes | 0.34 | 0.23 | N | N | 13.3ft² | 1.0 ft 6 in | 1.0 ft 6 in | Drapes/blinds | None |
| ___4 | N | 3 | Vinyl | Low-E Double | Yes | 0.34 | 0.23 | N | N | 60.0ft² | 1.0 ft 6 in | 1.0 ft 6 in | Drapes/blinds | None |

## INFILTRATION

| √ # | Scope | Method | SLA | CFM50 | ELA | EqLA | ACH | ACH50 | Space(s) |
|---|---|---|---|---|---|---|---|---|---|
| ___1 | Wholehouse | Proposed ACH(50) | 0.00025 | 1136 | 62.32 | 117.01 | 0.0980 | 5.0 | All |

## GARAGE

| √ # | Floor Area | Roof Area | Exposed Wall Perimeter | Avg. Wall Height | Exposed Wall Insulation |
|---|---|---|---|---|---|
| ___1 | 457 ft² | 457 ft² | 64 ft | 8 ft | 1 |

## MASS

| √ # | Mass Type | Area | Thickness | Furniture Fraction | Space |
|---|---|---|---|---|---|
| ___1 | Default(8 lbs/sq.ft.) | 0 ft² | 0 ft | 0.30 | Main |

## HEATING SYSTEM

| √ # | System Type | Subtype/Speed | AHRI # | Efficiency | Capacity kBtu/hr | ----GeothermalHeatPump---- Entry | Power | Volt | Current | Ducts | Block |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ___1 | Electric Heat Pump | None/Single | | HSPF: 8.50 | 26.6 | | 0.00 | 0.00 | 0.00 | sys#1 | 1 |

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# INPUT SUMMARY CHECKLIST REPORT

## COOLING SYSTEM

| ✓ | # | System Type | Subtype/Speed | AHRI # | Efficiency | Capacity kBtu/hr | Air Flow cfm | SHR | Duct | Block |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | Central Unit | None/Single | | SEER:14.5 | 27.2 | 816 | 0.82 | sys#1 | 1 |

## HOT WATER SYSTEM

| ✓ | # | System Type | Subtype | Location | EF(UEF) | Cap | Use | SetPnt | Fixture Flow | Pipe Ins. | Pipe length |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | Electric | None | Garage | 0.92 (0.92) | 40.00 gal | 60 gal | 120 deg | Standard | None | 99 |

| | | 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 # | Supply Location | Supply R-Value | Supply Area | Return Location | Return R-Value | Return Area | Leakage Type | Air Handler | CFM 25 TOT | CFM 25 OUT | QN | RLF | HVAC # Heat | HVAC # Cool |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | Attic | 6.0 | 265 ft² | Attic | 6.0 | 35 ft² | DefaultLeakage | Garage | (Default) | (Default) | | | 1 | 1 |

## TEMPERATURES

Programable Thermostat: Y  Ceiling Fans: N

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cooling | [ ] | [ ] | [ ] | [ ] | [ ] | [X] | [X] | [X] | [X] | [ ] | [ ] | [ ] |
| Heating | [X] | [X] | [X] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [ ] | [X] | [X] |
| Venting | [ ] | [ ] | [X] | [X] | [ ] | [ ] | [ ] | [ ] | [ ] | [X] | [X] | [ ] |

| ✓ | Thermostat Schedule: HERS 2006 Reference Schedule Type | | Hours 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cooling (WD) | AM | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 80 | 80 | 80 | 80 |
| | | PM | 80 | 80 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 |
| | Cooling (WEH) | AM | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 |
| | | PM | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 |
| | 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 | 66 |
| | 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 | 66 |

· FORM R405-2020

# ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

## ESTIMATED ENERGY PERFORMANCE INDEX* = 100

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

213 SW Heather Ct,Ft White,FL,

| | | |
|---|---|---|
| 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 | | 3 |
| 5. Is this a worst case? | | No |
| 6. Conditioned floor area above grade (ft²) | | 1704 |
| Conditioned floor area below grade (ft²) | | 0 |

| 7. Windows** | Description | Area |
|---|---|---|
| a. U-Factor: | Dbl, U=0.34 | 148.33 ft² |
| SHGC: | SHGC=0.23 | |
| b. U-Factor: | N/A | ft² |
| SHGC: | | |
| c. U-Factor: | N/A | ft² |
| SHGC: | | |
| Area Weighted Average Overhang Depth: | | 1.500 ft |
| Area Weighted Average SHGC: | | 0.230 |

| 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 | 1704.00 ft² |
| b. N/A | R= | ft² |
| c. N/A | R= | ft² |

| 10. Wall Types(1576.0 sqft.) | Insulation | Area |
|---|---|---|
| a. Frame - Wood, Exterior | R=13.0 | 1224.00 ft² |
| b. Frame - Wood, Adjacent | R=13.0 | 352.00 ft² |
| c. N/A | R= | ft² |
| d. N/A | R= | ft² |

| 11. Ceiling Types(1704.0 sqft.) | Insulation | Area |
|---|---|---|
| a. Under Attic (Vented) | R=38.0 | 1704.00 ft² |
| b. N/A | R= | ft² |
| c. N/A | R= | ft² |

| 12. Ducts, location & insulation level | R | ft² |
|---|---|---|
| a. a. Sup: Attic, Ret: Attic, AH: Garage | 6 | 265.3 |
| b. | | |
| c. | | |

| 13. Cooling Systems | kBtu/hr | Efficiency |
|---|---|---|
| a. Central Unit | 27.2 | SEER:14.50 |

| 14. Heating Systems | kBtu/hr | Efficiency |
|---|---|---|
| a. Electric Heat Pump | 26.6 | HSPF:8.50 |

| | |
|---|---|
| 15. Hot Water Systems | |
| a. Electric | Cap: 40 gallons<br>EF: 0.920 |
| b. Conservation features | None |
| 16. Credits | CF, 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: Jason T Huddleston Verified by pdfFiller Date: 10.03.22

Address of New Home: 213 SW Heather Ct City/FL Zip: Ft White,FL,

*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.

# 2020 - AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA

## TABLE 402.4.1.1

## AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA[a]

| | | | | |
|---|---|---|---|---|
| Project Name: | Red Door - Mayer Residence | Builder Name: | Red Door | |
| Street: | 213 SW Heather Ct | Permit Office: | | |
| City, State, Zip: | Ft White, FL, | Permit Number: | | |
| Owner: | | Jurisdiction: | | |
| Design Location: | FL, Gainesville | County: | Columbia(Florida Climate Zone 2) | |

| COMPONENT | AIR BARRIER CRITERIA | INSULATION INSTALLATION CRITERIA | CHECK |
|---|---|---|---|
| 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. | 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 andcantilevered 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. | |
| Garageseparation | 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/phonebox 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 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.

# 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: Red Door | Community: | Lot: NA |
|---|---|---|
| Address: 213 SW Heather Ct | | |
| City: Ft White | State: FL | Zip: |

**Air Leakage Test Results** *Passing results must meet either the Performance, Prescriptive, or ERI Method*

○ **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):* 5.000

_____ (CFM(50)) x 60 ÷ 13632 (Building Volume) = _____ (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), *Florida Statues*.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*.

During testing:
1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration controlmeasures.
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: _____

# 2020 - AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA

## TABLE 402.4.1.1

## AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA[a]

| | | | | |
|---|---|---|---|---|
| Project Name: | Red Door - Mayer Residence | Builder Name: | Red Door | |
| Street: | 213 SW Heather Ct | Permit Office: | | |
| City, State, Zip: | Ft White, FL, | Permit Number: | | |
| Owner: | | Jurisdiction: | | |
| Design Location: | FL, Gainesville | County: | Columbia(Florida Climate Zone 2) | CHECK |

| 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. | 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 andcantilevered 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. | | |
| Narrowcavities | | 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. | |
| Garageseparation | Air sealing shall be provided between the garage and conditionedspaces. | | |
| 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/phonebox 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 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.