

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: GW HOMES

Community:

Lot:

Address: 108 SW Bluebird Court

Unit:

City: Fort White, FL

State: FL

Zip: 32038

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):

$$\frac{1560}{\text{CFM}(50)} \times 60 \div \frac{46935}{\text{Building Volume}} = 1.99 \text{ ACH}(50)$$



☐ 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 Statutes*, or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the *code official*. Testing shall be performed at any time after creation of all penetrations of the *building thermal envelope*.

During testing:

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

Testing Company

Company Name: Infinite Energy Solutions Inc Phone: 727-534-3592

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: Ali I. Mohammad Date of Test: 9/2/22

Printed Name of Tester: Ali Mohammad

License/Certification #: RLQB3B Issuing Authority: RESNET

Duct Leakage Test Report

Residential Prescriptive, Performance or ERI Method Compliance 2020 Florida Building Code, Energy Conservation, 7th Edition

Jurisdiction:	Permit #:															
Job Information																
Builder: GW HOMES	Community: Lot: NA															
Address: 108 SW Bluebird Court																
City: Fort White, FL	State: FL Zip: 32038															
Duct Leakage Test Results																
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">System 1</td><td style="text-align: center; padding: 2px;">36.50</td><td style="padding: 2px;">cfm25</td></tr> <tr><td style="padding: 2px;">System 2</td><td style="text-align: center; padding: 2px;"> </td><td style="padding: 2px;">cfm25</td></tr> <tr><td style="padding: 2px;">System 3</td><td style="text-align: center; padding: 2px;">0</td><td style="padding: 2px;">cfm25</td></tr> <tr><td style="padding: 2px;">Sum of others</td><td style="text-align: center; padding: 2px;">0</td><td style="padding: 2px;">cfm25</td></tr> <tr><td style="padding: 2px;">Total of all</td><td style="text-align: center; padding: 2px;">0.012</td><td style="padding: 2px;">cfm25</td></tr> </table> <div style="display: flex; align-items: center;"> <div style="text-align: right; margin-right: 10px;"> $\frac{36.5}{3129} = 0.012$ <small>Total of all systems Total Conditioned Square Footage</small> </div> <div>Qn</div> </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <input checked="" type="checkbox"/> PASS </div> <div style="text-align: center;"> <input type="checkbox"/> FAIL </div> </div>	System 1	36.50	cfm25	System 2		cfm25	System 3	0	cfm25	Sum of others	0	cfm25	Total of all	0.012	cfm25	<div style="background-color: #f0f0f0; padding: 10px; border: 1px solid #ccc;"> <p><input checked="" type="radio"/> Prescriptive Method cfm25 (Total)</p> <p>To qualify as "substantially leak free" Qn Total must be less than or equal to 0.04 if air handler unit is installed. If air handler unit is not installed, Qn Total must be less than or equal to 0.03. This testing method meets the requirements in accordance with Section R403.3.3.</p> <p>Is the air handler unit installed during testing? <input checked="" type="checkbox"/> YES (^{= .04}_{Qn}) <input type="checkbox"/> NO (^{= .03}_{Qn})</p> </div> <div style="background-color: #f0f0f0; padding: 10px; border: 1px solid #ccc;"> <p><input type="radio"/> Performance/ERI Method cfm25 (Out or Total)</p> <p>To qualify using this method, Qn must not be greater than the proposed duct leakage Qn specified on Form R405-2020 or R406-2020.</p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div>Leakage Type selected on Form R405-2020 (EnergyCalc) or R406-2020</div> <div>Qn specified on Form R405-2020 (EnergyCalc) or R406-2020</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid #ccc; padding: 5px; width: 40%;">Proposed Leak Free / Qn</div> <div style="border: 1px solid #ccc; padding: 5px; width: 40%;">Qn Out = 0.03</div> </div> </div>
System 1	36.50	cfm25														
System 2		cfm25														
System 3	0	cfm25														
Sum of others	0	cfm25														
Total of all	0.012	cfm25														
<p>Duct tightness shall be verified by testing in accordance with ANSI/RESNET/ICC380 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.</p>																
Testing Company																
<p>Company Name: <u>Infinite Energy Solutions, Inc</u> Phone: <u>727-534-3592</u></p> <p>I hereby verify that the above duct leakage testing results are in accordance with the Florida Building Code requirements with the selected compliance path as stated above, either the Prescriptive Method or Performance Method.</p> <div style="display: flex; justify-content: space-between;"> <p>Signature of Tester: <u>Ali I. Mohammad</u></p> <p>Date of Test: <u>9/2/22</u></p> </div> <p>Printed Name of Tester: <u>Ali Mohammad</u></p> <p>License/Certification #: <u>RLQB3B</u> Issuing Authority: <u>RESNET</u></p>																

Infinite Energy Solutions Cover Sheet

Test Date:	9/2/22
Test Type:	HERS
Builder:	GW HOMES
Address:	108 SW Bluebird Court
City:	Fort White, FL
Zip Code:	32038
Design Location:	
Permit#:	
Square Feet:	3129
Ceiling Height:	15.0
Orientation:	S
Inspector Name:	Ali I. Mohammad
Hernando Number:	
Signature:	

Lot/Block:

Model: Keller

DUCT TEST / BLOWER DOOR TEST



Address: 108 SW Bluebird Court

Date: 9/2/22

Inspector: Ali I. Mohammad

Builder: GW HOMES

Model: Keller

Square Feet: 3129

Ceiling Height: 15.0

Insert Picture of Front of House



Blower	CFM:	1560	1337	1089	839.1	489.0
Test	Pressure:	50	40.1	30.1	20.0	10.0

OUTSIDE Leakage	HVAC #1	HVAC #2	HVAC #3	HVAC #4
Average CFM:	36.50	0	0	0
TOTAL:	0.012			Less Than 0.03

TOTAL Leakage	HVAC #1	HVAC #2	HVAC #3	HVAC #4
Average CFM:	179.2	0	0	0
TOTAL:	0.0572706935	Less Than 0.12 With Returns		
		Less Than 0.08 With No Returns		