



Energy Efficiency Certificate

This certificate shall list the value covering the largest area

Builder, Permit Holder or Registered Design Professional

Print Name: _____

Signature: _____

Property Address: 934 Woodland Rd, Creedmoor

Date: 3-10-25

Insulation Rating - List the value covering largest area to all that apply

R-Value

Ceiling/roof:

R- 38

Wall:

R- 15

Floor:

R-

Closed Crawl Space Wall:

R-

Closed Crawl Space Floor:

R-

Slab:

R- 10

Basement Wall:

R-

Fenestration

U-Factor

.34

Solar Heat Gain Coefficient (SHGC)

.26

Building Air Leakage

☐ Visually inspected according to 402.4.2.1 OR

☒ Building Air Leakage Test Results
(Sec. 402.4.2.2)

1737 cfm 30

-ACH50 [Target: 5.0 ACH50]

4.8 aach 50

OR

-CFM50/SFSA [Target: 0.30]

Ducts:

Insulation (minimum R-8)

R- 8

Total Duct Leakage Test Results (sect. 403.2.2)

↑ 4.8%

↑ 62 cfm 25

(CFM25 Total/100SF) [Target: 5]

↓ 4.4%

↓ 51

CFM25

LiveGreen Tester: [Signature] Rater/RFI ID #: 271,462

Date: 3-10-25

Phone: 919-953-6411

Certificate to be displayed permanently

APPENDIX 3C
Duct sealing: Duct air leakage test

R403.3.2 Sealing (Mandatory Requirements). Ducts, air handlers, filter boxes, and building cavities used as ducts shall be sealed. Joints and seams shall comply with either the *International Mechanical Code* or *International Residential Code*, as applicable.

R403.3.3.1 Total Duct leakage. Total duct leakage less than or equal to 5 CFM (12 L/min) per 100 ft² (9.29 m²) of conditioned floor area served by that system when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure.

During testing:

1. Block, if present, ventilation air duct(s) connected to the conditioning system.
2. The duct air leakage testing equipment shall be attached to the largest return in the system or to the air handler.
3. The filter shall be removed and the air handler power shall be turned off.
4. Supply boots or registers and return boxes or grilles shall be taped, plugged, or otherwise sealed air tight.
5. The hose for measuring the 25 Pascals of pressure differential shall be inserted into the boot of the supply that is nominally closest to the air handler.
6. Specific instructions from the duct testing equipment manufacturer shall be followed to reach duct test pressure and measure duct air leakage.

Testing shall be performed and reported by the permit holder, a NC licensed general contractor, a NC licensed HVAC contractor, a NC licensed Home Inspector, a registered design professional, a certified BPI Envelope Professional or a certified HERS rater. A single point depressurization, not temperature corrected, test is sufficient to comply with this provision, provided that the duct testing fan assembly(s) has been certified by the manufacturer to be capable of conducting tests in accordance with ASTM E1554-07.

The duct leakage information, including duct leakage test selected and result, tester name, date, and contact information, shall be included on the certificate described in Section 401.3.

For the Test Criteria, the report shall be produced in the following manner: perform the HVAC system air leakage test and record the CFM25. Calculate the total square feet of Conditioned Floor Area (CFA) served by that system. Multiply CFM25 by 100, divide the result by the CFA and record the result. If the result is less than or equal to 5 CFM25/100SF for the "Total duct leakage test", then the HVAC system air tightness is acceptable.

Complete one duct leakage report for each HVAC system serving the home:

Property Address: 934 Woodlawn Rd, Creedmoor
HVAC System Number: 2 Describe area of home served: 2nd Floor
CFM25 Total 62 Conditioned Floor Area (CFA) served by system: 1275 s.f.
CFM25 x 100 divided by CFA = 4.8 CFM25/100SF (e.g. 100 CFM25x100/2,000 CFA = 5 CFM25/100SF)
Fan attachment location hall ceiling return
Company Name Live Green Inc
Contact Information: 919-452-6911
Rn Rn 3-10-25
Signature of Tester Date

Permit Holder, NC Licensed General Contractor, NC Licensed HVAC Contractor, NC Licensed Home Inspector, Registered Design Professional, Certified BPI Envelope Professional, or Certified HERS Rater
(circle one)

APPENDIX 3C
Duct sealing: Duct air leakage test

R403.3.2 Sealing (Mandatory Requirements). Ducts, air handlers, filter boxes, and building cavities used as ducts shall be sealed. Joints and seams shall comply with either the *International Mechanical Code* or *International Residential Code*, as applicable.

R403.3.3.1 Total Duct leakage. Total duct leakage less than or equal to 5 CFM (12 L/min) per 100 ft² (9.29 m²) of conditioned floor area served by that system when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure.

During testing:

1. Block, if present, ventilation air duct(s) connected to the conditioning system.
2. The duct air leakage testing equipment shall be attached to the largest return in the system or to the air handler.
3. The filter shall be removed and the air handler power shall be turned off.
4. Supply boots or registers and return boxes or grilles shall be taped, plugged, or otherwise sealed air tight.
5. The hose for measuring the 25 Pascals of pressure differential shall be inserted into the boot of the supply that is minimally closest to the air handler.
6. Specific instructions from the duct testing equipment manufacturer shall be followed to reach duct test pressure and measure duct air leakage.

Testing shall be performed and reported by the permit holder, a NC licensed general contractor, a NC licensed HVAC contractor, a NC licensed Home Inspector, a registered design professional, a certified BPI Envelope Professional or a certified HERS rater. A single point depressurization, not temperature corrected, test is sufficient to comply with this provision, provided that the duct testing fan assembly(s) has been certified by the manufacturer to be capable of conducting tests in accordance with ASTM E1554-07.

The duct leakage information, including duct leakage test selected and result, tester name, date, and contact information, shall be included on the certificate described in Section 401.3.

For the Test Criteria, the report shall be produced in the following manner: perform the HVAC system air leakage test and record the CFM25. Calculate the total square feet of Conditioned Floor Area (CFA) served by that system. Multiply CFM25 by 100, divide the result by the CFA and record the result. If the result is less than or equal to 5 CFM25/100SF for the "Total duct leakage test", then the HVAC system air tightness is acceptable.

Complete one duct leakage report for each HVAC system serving the home:

Property Address: 934 Woodland Rd, Creedmoor
HVAC System Number: 1 Describe area of home served: 1st Floor
CFM25 Total 51 Conditioned Floor Area (CFA) served by system: 1138 s.f.
CFM25 x 100 divided by CFA = 4.4 CFM25/100SF (e.g. 100 CFM25x100/2,000 CFA = 5 CFM25/100SF)
Fan attachment location hall ceiling return
Company Name Live Green, Inc
Contact Information: 919-453-6411
[Signature] [Signature] 3-10-25
Signature of Tester Date

Permit Holder, NC Licensed General Contractor, NC Licensed HVAC Contractor, NC Licensed Home Inspector, Registered Design Professional, Certified BPI Envelope Professional, or Certified HERS Rater
(circle one)

APPENDIX 3B
Air sealing: Testing option (Section R402.4.2.2)

R402.4.2 Air sealing. Building envelope air tightness shall be demonstrated by Section R402.4.2.1 or R402.4.2.2:

R402.4.2.2 Testing option. Building envelope tightness shall be considered acceptable when items providing insulation enclosure in R402.2.14 and enclosure and air sealing in R402.2.15 and air sealing in R402.4.1 are addressed and when tested air leakage is less than or equal to one of the two following performance measurements:

1. 0.30 CFM50/Square Foot of Surface Area (SFSA) or
2. Five (5) air changes per hour (ACH50)

When tested with a blower door fan assembly, at a pressure of 33.5 psf (50 Pa). A single point depressurization, not temperature corrected, test is sufficient to comply with this provision, provided that the blower door fan assembly has been certified by the manufacturer to be capable of conducting tests in accordance with ASTM E779-03. Testing shall occur after rough in and after installation of penetrations of the building envelope, including penetrations for utilities, plumbing, electrical, ventilation and combustion appliances. Testing shall be reported by the permit holder, a NC licensed general contractor, a NC licensed HVAC contractor, a NC licensed Home Inspector, a registered design professional, a certified BPI Envelope Professional or a certified HERS rater.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed;
2. Dampers shall be closed, but not sealed, including exhaust, backdraft, and flue dampers;
3. Interior doors shall be open;
4. Exterior openings for continuous ventilation systems, air intake ducted to the return side of the conditioning system, and energy or heat recovery ventilators shall be closed and sealed;
5. Heating and cooling system(s) shall be turned off; and
6. Supply and return registers shall not be sealed.

The air leakage information, including building air leakage result, tester name, date, and contact information, shall be included on the certificate described in Section R401.3.

For Test Criteria 1 above, the report shall be produced in the following manner: Perform the blower door test and record the CFM50 . Calculate the total square feet of surface area for the building thermal envelope, all floors, ceilings, and walls (this includes windows and doors) and record the area . Divide CFM50 by the total square feet and record the result below. If the result is less than or equal to [0.30 CFM50/SFSA] the envelope tightness is acceptable: (0)

For Test Criteria 2 above, the report shall be produced in the following manner: Perform a blower door test and record the CFM50 1737. Multiply the CFM50 by 60 minutes to create CFHour50 and record 104,220. Then calculate the total conditioned volume of the home and record 21717. Divide the CFH50 by the total volume and record the result below. If the result is less than or equal to [5 ACH50] the envelope tightness is acceptable. = 4.8 ach 50

Property Address: 934 Woodland Rd, Creedmoor

Fan attachment location front door Company Name LiveGreen Inc

Contact Information: 919-453-6411

[Signature]
Signature of Tester

3-10-25
Date

Permit Holder, NC Licensed General Contractor, NC Licensed HVAC Contractor, NC Licensed Home Inspector, Registered Design Professional, Certified BPI Envelope Professional, or Certified HERS Rater
(circle one)