



YOUR HOME WAS DESIGNED, ENGINEERED,
AND CONSTRUCTED IN CONFORMANCE TO
U.S. DEPARTMENT OF ENERGY (DOE)
GUIDELINES FOR EXTRAORDINARY
LEVELS OF EXCELLENCE AND QUALITY.

Confirmed: - No Registry ID

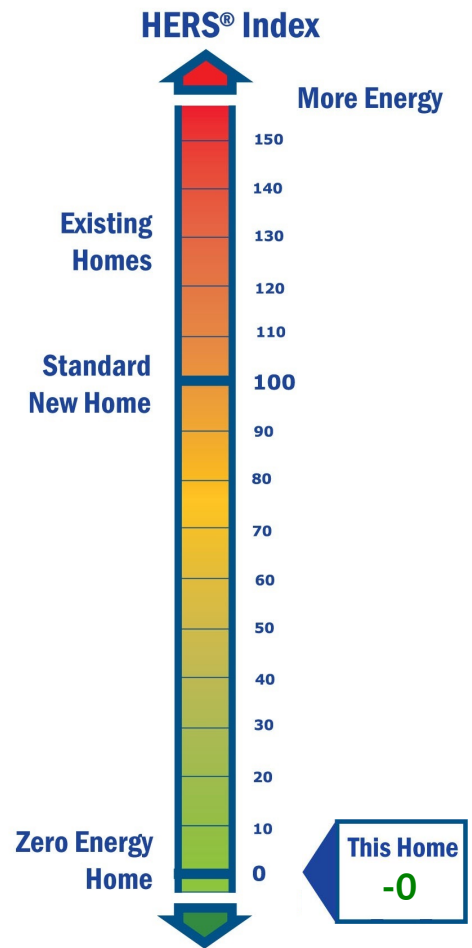
This home built at 7974 Savage Guilford Rd
By Finish Werks
Verified by Michael Sumpter

an independent professional organization, to meet or exceed strict home performance guidelines set by The U.S. Department of Energy on 4/16/2015

THIS HOME MEETS OR EXCEEDS THE MINIMUM CRITERIA FOR THE FOLLOWING:

REM/Rate - Residential Energy Analysis and Rating Software v14.6.1

SAM RASHKIN, CHIEF ARCHITECT
BUILDING TECHNOLOGIES
U.S. DEPARTMENT OF ENERGY





ENERGY STAR[®] CERTIFIED NEW HOME

Confirmed: - No Registry ID

Builder Name: Finish Werks
Permit Date/Number:
Home Address: 7974 Savage Guilford Rd
Jessup, MD 20794

Rating Company: Complete Home Solutions
Rater Identification Number: 6933532
Rating Date: 3/25/15
Version: 3.0

Standard Features of an ENERGY STAR Certified New Home

Your ENERGY STAR certified new home has been designed, constructed, and independently verified to meet rigorous requirements for energy efficiency set by the U.S. Environmental Protection Agency (EPA), including:

Thermal Enclosure System

A complete thermal enclosure system that includes comprehensive air sealing, quality-installed insulation and high-performing windows to deliver improved comfort and lower utility bills.



Air Infiltration Test: **Htg: 2.00 Clg: 2.00 ACH50**

Primary Insulation Levels:

Ceiling: R-49.0 **FndWall: R-32.0**

AGWall: R-34.0

Slab: R-5.0,
R-12 n

Primary Window Efficiency:

U-Value: 0.230, SHGC: 0.180

Water Management System

A comprehensive water management system to protect roofs, walls, and foundations.



Flashing, a drainage plane, and site grading to move water from the roof to the ground and then away from the home.

Water-resistant materials on below-grade walls and underneath slabs to reduce the potential for water entering into the home.

Management of moisture levels in building materials during construction.

Heating, Cooling, and Ventilation System

A high-efficiency heating, cooling system, and ventilation system that is designed and installed for optimal performance.



Total Duct Leakage:

109.00 CFM25.

Duct Leakage to Outdoors:

42.00 CFM25.

Primary Heating (System Type • Fuel Type • Efficiency):

Electric, Htg: 4.0 COP. Clg: 19.9 EER, w/DSH.

Primary Cooling (System Type • Fuel Type • Efficiency):

Electric, Htg: 4.0 COP. Clg: 19.9 EER, w/DSH.

Energy Efficient Lighting and Appliances

Energy efficient products to help reduce utility bills, while providing high-quality performance.



ENERGY STAR Qualified Lighting: **100%**

ENERGY STAR Qualified Appliances and Fans:

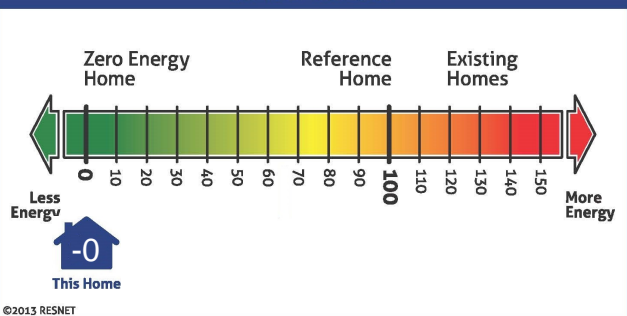
Refrigerators: 1 **Dishwashers: 1**

Ceiling Fans: 0 **Exhaust Fans: 1**

Primary Water Heater (System Type • Fuel Type • Efficiency):

Heat pump, Electric, 2.60 EF, 50.0 Gal.

HERS[®] Index



The certificate provides a summary of the major energy efficiency and other construction features that contribute to this home earning the ENERGY STAR, including its Home Energy Rating System (HERS) score, as determined through independent inspection and verification performed by a trained professional. The Home Energy Rating System is a nationally-recognized uniform measurement of the energy efficiency of homes.

Note that when a home contains multiple performance levels for a particular feature (e.g., window efficiency or insulation levels), the predominant value is shown. Also, homes may be certified to earn the ENERGY STAR using a sampling protocol, whereby one home is randomly selected from a set of homes for representative inspections and testing. In such cases, the features found in each home within the set are intended to meet or exceed the values presented on this certificate. The actual values for your home may differ, but offer equivalent or better performance.

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Learn more at www.energystar.gov/homefeatures

**HOME CERTIFIED TO MEET THE PROVISIONS OF THE
2012 INTERNATIONAL ENERGY CONSERVATION CODE**
This home built at
7974 Savage Guilford Rd, Jessup, MD
by **Finish Werks**
**Exceeds the minimum requirements for the 2012 International
Energy Conservation Code**

Building Features	
	Duct NA
Ceiling Flat	R-49.0
Sealed Attic:	NA
Vaulted Ceiling	NA
Above Grade Walls	R-34.0
Foundation Walls	R-32.0
Exposed Floor	NA
Slab	R-5.0 Edge, R-13.0 Under
Duct Leakage to Outside:	42.00 CFM @ 25 Pascals
Total Duct Leakage:	109.00 CFM @ 25 Pascals
Infiltration:	Htg: 2.00 Clg: 2.00 ACH50
Window	U-Value: 0.230, SHGC: 0.180
Ground-Source HP	Electric, Htg: 4.0 COP, Clg: 19.9 EER, w/DSH.
Water Heating	Heat pump, Electric, 2.60 EF, 50.0 Gal.

The organization below certifies that the proposed building design described herein is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2012 IECC requirements in compliance with Chapter 4 based on Climate Zone 4A and with all mandatory requirements.

Name Michael Sumpter
Organization Complete Home Solutions

Signature _____
Date July 07, 2015

The 2012 International Energy Conservation Code is a registered trademark of the International Code Council, Inc. ("ICC").
No version of this software has been reviewed or approved by ICC or its affiliates.
REM/Rate - Residential Energy Analysis and Rating Software v14.6.1

Home Energy Rating Certificate

Property

Mary & Harry Chiu
7974 Savage Guilford Rd
Jessup, MD 20794

HERS

Rating Type: Confirmed
Rating Date: 3/25/15
Registry ID:

Certified Energy Rater: Michael Sumpter
Rating Number: FWCHIU

Confirmed: - No Registry ID

HERS Index: 0

General Information

Conditioned Area 3920 sq. ft. House Type Single-family detached
Conditioned Volume 37869 cubic ft. Foundation Conditioned basement
Bedrooms 3

Mechanical Systems Features

Ground-source heat pump: Electric, Htg: 4.0 COP, Clg: 19.9 EER, w/DSH.
Water Heating: Heat pump, Electric, 2.60 EF, 50.0 Gal.
Duct Leakage to Outside 42.00 CFM25.
Ventilation System Balanced: ERV, 120 cfm, 40.0 watts.
Programmable Thermostat Heat=Yes; Cool=Yes

Building Shell Features

Ceiling Flat R-49.0 Slab R-5.0 Edge, R-13.0 Under
Sealed Attic NA Exposed Floor NA
Vaulted Ceiling NA Window Type U-Value: 0.230, SHGC: 0.180
Above Grade Walls R-34.0 Infiltration Rate Htg: 2.00 Clg: 2.00 ACH50
Foundation Walls R-32.0 Method Blower door test

Lights and Appliance Features

Percent Interior Lighting 100.00 Range/Oven Fuel Electric
Percent Garage Lighting 100.00 Clothes Dryer Fuel Electric
Refrigerator (KWh/yr) 685 Clothes Dryer EF 3.09
Dishwasher (KWh/yr) 270 Ceiling Fan (cfm/Watt) 0.00

Estimated Annual Energy Cost

Use	MMBtu	Cost	Percent
Heating	9.0	\$127	175%
Cooling	5.9	\$48	67%
Hot Water	3.3	\$83	114%
Lights/Appliances	26.6	\$623	858%
Photovoltaics	-37.1	-\$869	-1196%
Service Charges		\$60	83%
Total	7.6	\$73	100%

Criteria

This home meets or exceeds the minimum criteria for the following:

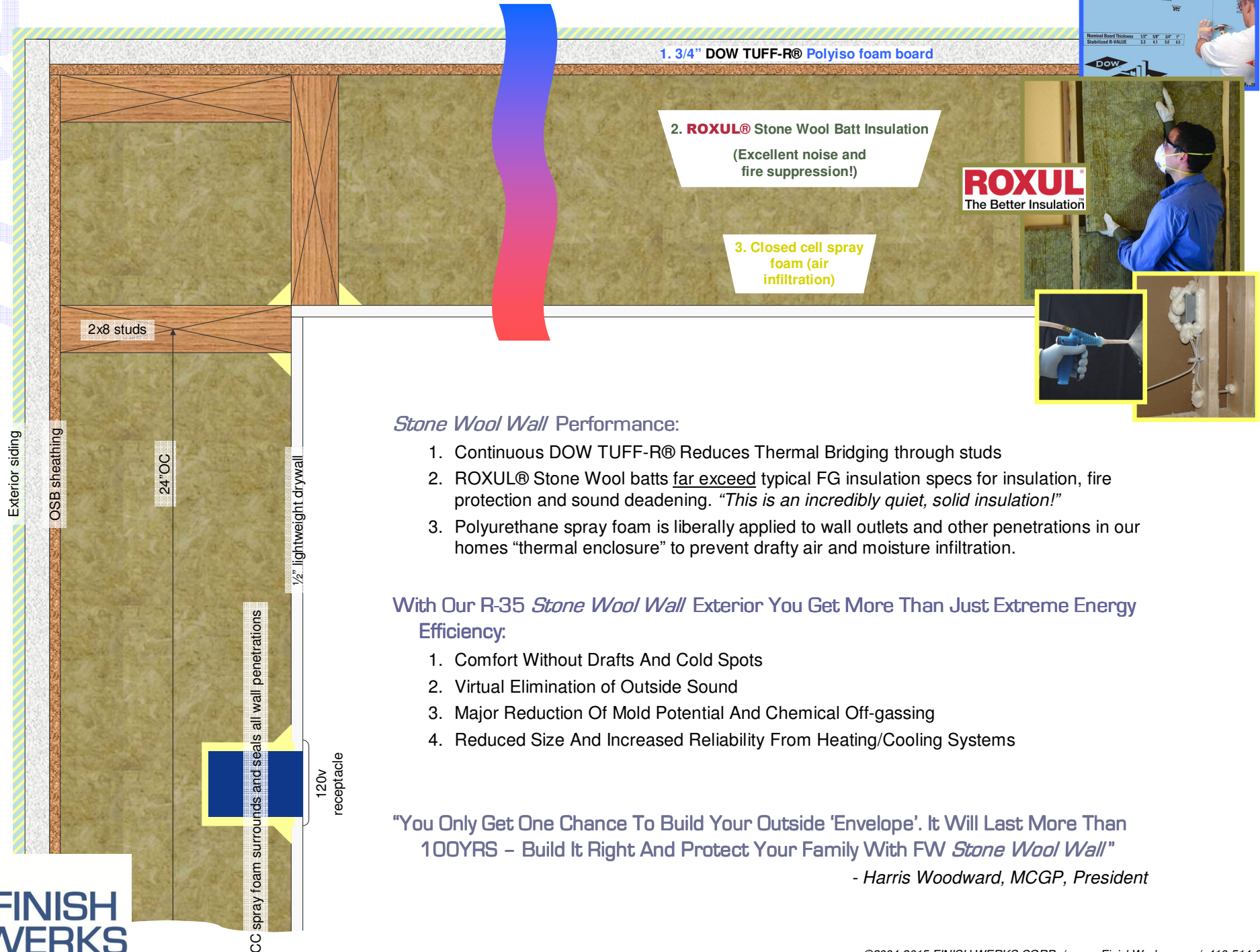
TITLE

Company
Address
City, State, Zip
Phone #
Fax #

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The Home Energy Rating Standard Disclosure for this home is available from the rating provider.

FW.2x8.240C Stone Wool Wall



Stone Wool Wall Performance:

1. Continuous DOW TUFF-R® Reduces Thermal Bridging through studs
2. ROXUL® Stone Wool batts far exceed typical FG insulation specs for insulation, fire protection and sound deadening. "This is an incredibly quiet, solid insulation!"
3. Polyurethane spray foam is liberally applied to wall outlets and other penetrations in our homes "thermal enclosure" to prevent drafty air and moisture infiltration.

With Our R-35 Stone Wool Wall Exterior You Get More Than Just Extreme Energy Efficiency:

1. Comfort Without Drafts And Cold Spots
2. Virtual Elimination of Outside Sound
3. Major Reduction Of Mold Potential And Chemical Off-gassing
4. Reduced Size And Increased Reliability From Heating/Cooling Systems

"You Only Get One Chance To Build Your Outside 'Envelope'. It Will Last More Than 100YRS - Build It Right And Protect Your Family With FW Stone Wool Wall"

- Harris Woodward, MCGP, President