



An ENERGY STAR[®] Labeled Home

This certifies that the home built at

[REDACTED] Rd., Glenwood Springs, CO

by Sunrise Building & Remodeling

and verified by Efficiency in Mind, LLC

meets ENERGY STAR guidelines for energy efficiency as established by the U.S. Environmental Protection Agency.

ENERGY STAR labeled homes protect the environment by using less energy.

HERS Index: 51

October 6, 2008

David Lee
Director
ENERGY STAR Residential Programs

Sam Rashkin
Director
ENERGY STAR for New Homes

www.energystar.gov



ACTION REPORT

Date:	October 21, 2008	Rating No.:	100708-212-098
Building Name:	Schaub Residence	Rating Org.:	Efficiency In Mind, LLC
Owner's Name:	Les Schuab	Phone No.:	970.274.6336
Property:	██████████ Rd	Rater's Name:	Mike Suhrbier
Address:	Glenwood Springs, CO 81601	Rater's No.:	212
Builder's Name:	Sunrise Building & Remodeling	Rating Type:	Site Visit
Weather Site:	Glenwood Springs, CO	Rating Date:	10/6/2008
File Name:	██████████ Ln81602F.big		

The following table identifies and ranks energy use and cost by building component. A maximum of six components are shown. Current mechanical equipment is assumed for this analysis. To determine the impact of varying the equipment efficiency, change the equipment specified in the building file and perform the energy calculations again.

ANNUAL ENERGY PROFILE

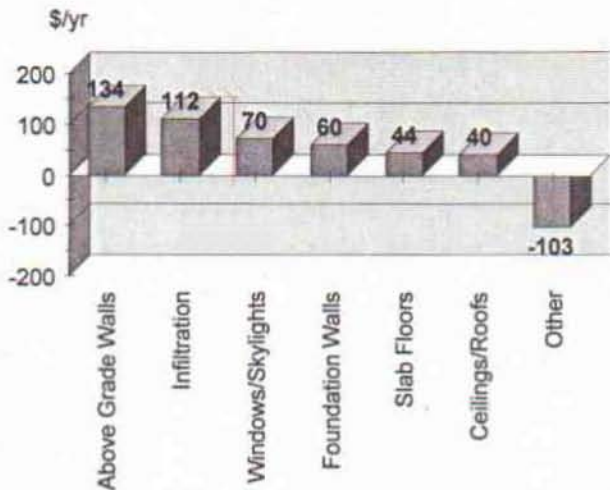
Energy End-Use	Component	Consumption (MMBtu/yr)		Cost (\$/yr)
HEATING	Above Grade Walls	18.5	\$	134
	Infiltration	15.4	\$	112
	Windows/Skylights	9.7	\$	70
	Foundation Walls	8.3	\$	60
	Slab Floors	6.1	\$	44
	Ceilings/Roofs	5.6	\$	40
	Other	-14.3	\$	-103
	<u>Total</u>	<u>49.4</u>	<u>\$</u>	<u>358</u>
WATER HEATING	Water Heater	16.3	\$	117
LIGHTS & APPLIANCES	Lights & Appliances	36.3	\$	828



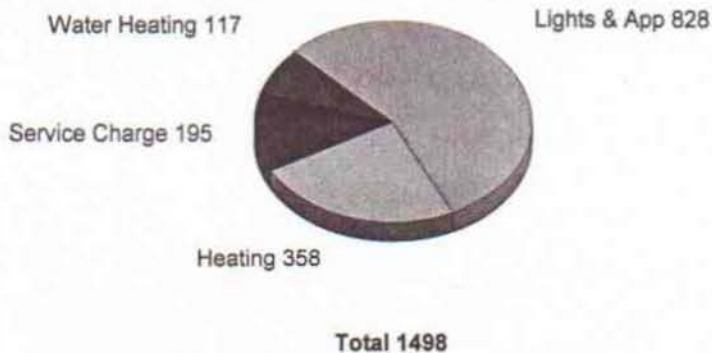
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Heating Cost (\$/yr)



Annual Energy Cost (\$/yr)





AIR LEAKAGE REPORT

Date: October 21, 2008 Rating No.: 100708-212-098

Building Name: Schaub Residence Rating Org.: Efficiency In Mind, LLC

Owner's Name: Les Schuab Phone No.: 970.274.6336

Property: [REDACTED] Rd Rater's Name: Mike Suhrbier

Address: Glenwood Springs, CO 81601 Rater's No.: 212

Builder's Name: Sunrise Building & Remodeling Rating Type: Site Visit

Weather Site: Glenwood Springs, CO Rating Date: 10/6/2008

File Name: [REDACTED]Ln81602F.blg

Whole House Infiltration

	Blower door test	
	Heating	Cooling
Natural ACH:	0.22	0.16
ACH @ 50 Pascals:	3.05	3.05
CFM @ 25 Pascals:	841	841
CFM @ 50 Pascals:	1320	1320
Eff. Leakage Area:	72.5	72.5
Specific Leakage Area:	0.00015	0.00015
ELA/100 sf shell:	0.99	0.99

Total Duct Leakage to Outside

CFM @ 25 Pascals:	N/A
CFM25 / CFMfan:	N/A
CFM25 / CFA:	N/A
CFM per Std 152:	N/A
CFM per Std 152 / CFA:	N/A
CFM @ 50 Pascals:	N/A
Eff. Leakage Area:	N/A
Thermal Efficiency:	0.00

Ventilation

Mechanical:	Balanced
Sensible Recovery Eff. (%):	57.0
Total Recovery Eff. (%):	0.0
Rate (cfm):	65
Hours/Day:	12.0
Fan Watts:	110.0
Cooling Ventilation:	Natural Ventilation

ASHRAE 62.2 - 2003 Ventilation Requirements

For this home to comply with ASHRAE Standard 62.2 - 2003 Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings, a minimum of 70 cfm of mechanical ventilation must be provided continuously, 24 hours per day. Alternatively, an intermittently operating mechanical ventilation system may be used if the ventilation rate is adjusted accordingly. For example, a 140 cfm mechanical ventilation system would need to operate 12 hours per day, as long as the system operates to provide required average ventilation once each hour.



ENERGY COST AND FEATURE REPORT

Date: October 21, 2008 Rating No.: 100708-212-098
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Address: Glenwood Springs, CO 81601 Rater's No.: 212
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Weather Site: Glenwood Springs, CO Rating Type: Site Visit
File Name: [redacted]Ln81602F.blg Rating Date: 10/6/2008

Schaub Residence

ANNUAL ENERGY COSTS

Table with 2 columns: Category and Cost. Rows include Heating (\$358), Cooling (\$0), Water Heating (\$117), Lights & Appliances (\$828), Photovoltaics (\$-0), Service Charges (\$195), Total (\$1498), and Average Monthly (\$125).

ENERGY FEATURES

Ceiling w/Attic: None
Vaulted Ceiling: R40, P, SIP panel* U=0.023
Above Grade Walls: R22, SIP, 6.5" U=0.040
Foundation Walls (Cond): R20, ICF 12" R=20.0
Found. Walls (Uncond): None
Doors: 1-3/4 Wd solid core U=0.329
Windows: U:0.32, SHGC:0.35 U=0.320
Frame Floors: R19,FG,10-24 G1 U=0.048
Slab Floors: R10 V1 Perimeter* U=0.079
Infiltration: Htg: 1320 Cig: 1320 CFM50
Infil. Measure: Blower door test
Mechanical Ventilation: Balanced: HRV, 65 cfm, 110.0 watts.
Interior Mass: Conc
Mech Equip List: Heating: Fuel-fired hydronic distribution, 139.0 kBtuh, 93.0 AFUE.
Water Heating: Integrated, Gas, 0.85 EF.

ENERGY COST AND FEATURE REPORT

Schaub Residence

Page 2

Programmable Thermostat:	Heat=No; Cool=No
Ducts:	NA
Duct Leakage:	NA
Lights/Appliances:	Defaults
Active Solar:	None
Photovoltaics:	None
Sunspace:	No

Notes: Where feature level varies in home, the dominant value is shown.



EMISSIONS REPORT

Date:	October 21, 2008	Rating No.:	100708-212-098
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Total Emissions (lbs/year)

Schaub Residence

Type of Emissions	
Carbon Dioxide (CO2)	27089.4
Sulfur Dioxide (SO2)	25.3
Nitrogen Oxides (NOx)	38.7

Emissions By End-Use (lbs/year)

Schaub Residence

Carbon Dioxide (CO2)	
Heating	6005.4
Cooling	0.0
Water Heating	1954.7
Lights & Appliances	19129.4
Photovoltaics	0.0
Sulfur Dioxide (SO2)	
Heating	0.2
Cooling	0.0
Water Heating	0.0
Lights & Appliances	25.1
Photovoltaics	0.0
Nitrogen Oxide (NOx)	
Heating	7.5
Cooling	0.0
Water Heating	2.4
Lights & Appliances	28.8
Photovoltaics	0.0



2005 EPACT ENERGY EFFICIENT HOME TAX CREDIT

Date: October 21, 2008 Rating No.: 100708-212-098
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Property: [redacted] Rd Rater's Name: Mike Suhrbier
Address: Glenwood Springs, CO 81601 Rater's No.: 212
Builder's Name: Sunrise Building & Remodeling
Weather Site: Glenwood Springs, CO Rating Type: Site Visit
File Name: [redacted]Ln81602F.big Rating Date: 10/6/2008

Normalized, Modified End-Use Loads (MMBtu/year)

Envelope Loads (MMBtu/year)

Table with 6 columns: Category, 2004 IECC 50% Target, As Designed, 2004 IECC 90% Target, As Designed. Rows include Heating, Cooling, and Total for both load types.

This home MEETS the requirements for the residential energy efficiency tax credits under Section 1332, Credit for Construction of New Energy Efficient Homes, of the Energy Policy Act of 2005.

As demonstrated above, this dwelling unit has a projected level of annual heating and cooling energy consumption that is at least 50% below the annual level of heating cooling energy consumption of a reference dwelling in the same climate zone, and the building envelope components improvements alone account for at least 10% of those savings.

Building Features

Ceiling Flat: NA Slab: R-10.0 Edge, R-0.0 Under
Vaulted Ceiling: R-29, R-40 Duct: NA
Above Grade Walls: U-0.069, R-18, R-29, R-23 Window: U-Value = 0.320, SHGC = 0.350
Foundation Walls: R-20.0 Heating: Fuel-fired hydronic distribution, Natural gas, 93.0 AFUE.
Exposed Floor: R-19 Cooling: N/A

Under penalties of perjury, I declare that I have examined this certification, including accompanying documents, and to the best of my knowledge and belief, the facts presented in support of this certification are true, correct, and complete.

Name: Mike Suhrbier Signature:
Company: Efficiency In Mind, LLC Date: October 21, 2008
Address: PO Box 1481, Carbondale, CO 81623



ENERGY STAR HOME REPORT

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Address: Glenwood Springs, CO 81601 Rater's No.: 212
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Weather Site: Glenwood Springs, CO Rating Type: Site Visit
File Name: [redacted]Ln81602F.big Rating Date: 10/6/2008

Normalized, Modified End-Use Loads (MMBtu/year)

Table with 3 columns: Category, ENERGY STAR, As Designed. Rows include Heating, Cooling, Water heating, Lighting & Appliances, Total, and HERS Index.

ENERGY STAR Mandatory Requirements

Form with checkboxes for Thermal Bypass Inspection Checklist, Ductwork Requirements, ENERGY STAR Products, and ENERGY STAR Scoring Exceptions.

* Thermal Bypass Checklist and ENERGY STAR Products are not checked in REM/Rate at this time.

This home MEETS OR EXCEEDS the energy efficiency requirements for designation as an EPA ENERGY STAR Qualified Home.

Table with 2 main sections: Pollution Prevented and Energy Cost Savings (\$/year). Rows include Carbon Dioxide, Sulfur Dioxide, Nitrogen Oxides, Heating, Cooling, Water Heating, Lights & Appliances, and Total.

The energy savings and pollution prevented are calculated by comparing the Rated Home to the Reference Home as defined in the "Mortgage Industry National Home Energy Rating Systems Standards" as promulgated by the Residential Energy Services Network (RESNET).



Home Energy Rating Certificate

█ Rd
Glenwood Springs, CO 81601



**5 Stars Plus
Site Visit**

Uniform Energy Rating System

1 Star	1 Star Plus	2 Stars	2 Stars Plus	3 Stars	3 Stars Plus	4 Stars	4 Stars Plus	5 Stars	5 Stars Plus
500-401	400-301	300-251	250-201	200-151	150-101	100-91	90-86	85-71	70 or Less

Energy Efficient

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General Information

Conditioned Area: 3274 sq. ft. HouseType: Single-family detached
 Conditioned Volume: 25986 cubic ft. Foundation: Conditioned basement
 Bedrooms: 4

Mechanical Systems Features

Heating: Fuel-fired hydronic distribution, Natural gas, 93.0 AFUE.
 Water Heating: Integrated, Natural gas, 0.85 EF, 40.0 Gal.

Duct Leakage to Outside: NA
 Ventilation System: Balanced: HRV, 65 cfm, 110.0 watts.
 Programmable Thermostat: Heating: No Cooling: No

Building Shell Features

Ceiling Flat: NA Exposed Floor: R-19
 Vaulted Ceiling: R-29, R-40 Window Type: U:0.32, SHGC:0.35
 Above Grade Walls: U-0.069, R-18, R-29, R-23 Infiltration:
 Foundation Walls: R-20.0 Rate: Htg: 1320 Clg: 1320 CFM50
 Slab: R-10.0 Edge, R-0.0 Under Method: Blower door test

Lights and Appliance Features

Percent Fluorescent Pin-Based: 0.00 Clothes Dryer Fuel: Electric
 Percent Fluorescent CFL: 50.00 Range/Oven Fuel: Natural gas
 Refrigerator (kWh/yr): 729.00 Ceiling Fan (cfm/Watt): 70.40
 Dishwasher Energy Factor: 0.65

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

REM/Rate - Residential Energy Analysis and Rating Software v12.6

This information does not constitute any warranty of energy cost or savings.
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Rating Number: 100708-212-098
 Certified Energy Rater: Mike Suhrbier
 Rating Date: 10/6/2008
 Rating Ordered For: Les Schuab

Estimated Annual Energy Cost

Use	Site Visit		
	MMBtu	Cost	Percent
Heating	51.1	\$370	24%
Cooling	0	\$0	0%
Hot Water	16.3	\$117	8%
Lights/Appliances	37.7	\$863	56%
Photovoltaics	-0.0	\$-0	-0%
Service Charges		\$195	13%
Total		\$1545	100%

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

- EPA Energy Star Home
- 2003 International Energy Conservation Code
- 2004 International Energy Conservation Code
- 2006 International Energy Conservation Code

E-Star Colorado
 1626 Cole Blvd. Ste 375
 Lakewood, CO 80401
 303.216.2026
 303.237.0992

