



ACTION REPORT

Date: December 29, 2008 Rating No.: 122908-111-026

Building Name: Rating Org.: All-Phase Environmental Consul

Owner's Name: Scott Homes, LTD. Phone No.: 719-545-0375

Property: 1109 Ptarmigan Rater's Name: Brandice N. Eslinger

Address: Woodland Park, CO 80863 Rater's No.: 111

Builder's Name: Scott Homes, LTD.

Weather Site: Woodland Park, CO Rating Type: Confirmed Rating

File Name: 1109Ptarmigan80863F.blg Rating Date: 12/18/08

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 |
|---------------------|---------------------|---------------------------|------------|
| | | (WINDLU/yI) | (\$/yr) |
| HEATING | Above Grade Walls | 29.6 | \$ 262 |
| | Windows/Skylights | 22.4 | \$ 199 |
| | Slab Floors | 21.7 | \$ 192 |
| | Foundation Walls | 17.2 | \$ 153 |
| | Infiltration | 15.4 | \$ 136 |
| | Ducts | 12.7 | \$ 113 |
| | Other | -13.0 | \$ -115 |
| | Total | 106.1 | \$ 940 |
| WATER HEATING | Water Heater | 24.5 | \$ 210 |
| LIGHTS & APPLIANCES | Lights & Appliances | 43.0 | \$ 1146 |





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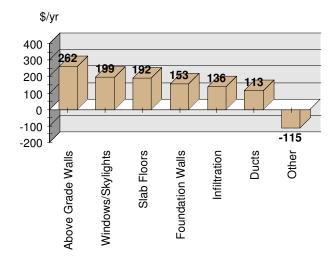
Address: Woodland Park, CO 80863 Rater's No.: 111

Builder's Name: Scott Homes, LTD.

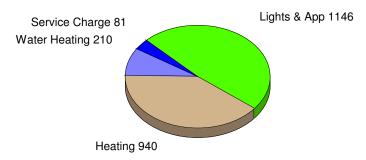
Weather Site: Woodland Park, CO Rating Type: Confirmed Rating

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Heating Cost (\$/yr)



Annual Energy Cost (\$/yr)



Total 2378





AIR LEAKAGE REPORT

Date: December 29, 2008 Rating No.: 122908-111-026

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Owner's Name: Scott Homes, LTD. Phone No.: 719-545-0375

Property: 1109 Ptarmigan Rater's Name: Brandice N. Eslinger

Address: Woodland Park, CO 80863 Rater's No.: 11

Builder's Name: Scott Homes, LTD.

Weather Site: Woodland Park, CO Rating Type: Confirmed Rating

File Name: 1109Ptarmigan80863F.blg Rating Date: 12/18/08

Whole House Infiltration

| | Blower door lest | | |
|------------------------|------------------|---------|--|
| | Heating | Cooling | |
| Natural ACH: | 0.10 | 0.08 | |
| ACH @ 50 Pascals: | 1.56 | 1.56 | |
| CFM @ 25 Pascals: | 663 | 663 | |
| CFM @ 50 Pascals: | 1040 | 1040 | |
| Eff. Leakage Area: | 57.1 | 57.1 | |
| Specific Leakage Area: | 0.00011 | 0.00011 | |
| ELA/100 sf shell: | 0.82 | 0.82 | |

Blower door test

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: | 88.00 |

Ventilation

| Mechanical: | Balanced |
|-----------------------------|---------------------|
| Sensible Recovery Eff. (%): | 87.0 |
| Total Recovery Eff. (%): | 87.0 |
| Rate (cfm): | 270 |
| Hours/Day: | 24.0 |
| Fan Watts: | 180.0 |
| 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 66 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 131 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: December 29, 2008 Rating No.: 122908-111-026

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File Name: 1109Ptarmigan80863F.blg Rating Date: 12/18/08

1109Ptarmigan80863F

ANNUAL ENERGY COSTS

| Heating | \$ 940 |
|---------------------|------------|
| Cooling | \$ 0 |
| Water Heating | \$ 210 |
| Lights & Appliances | \$ 1146 |
| Photovoltaics | \$ -0 |
| Service Charges | \$ 81 |
| | |
| Total | \$ 2378 |
| Average Monthly | \$ 198 |

ENERGY FEATURES

 Ceiling w/Attic:
 R38,BFG16",8-16* U=0.020

 Vaulted Ceiling:
 R38,FG,12-16,C G1* U=0.028

 Above Grade Walls:
 R23,BF,6-16 G1* U=0.055

 Foundation Walls (Cond):
 R-13 Draped, G1* R=13.0

Found. Walls (Uncond): None

Doors: R6 Fiberglass Insul. U=0.144 Windows: U:0.35, SHGC:0.31* U=0.350

Frame Floors: None

Slab Floors: Uninsulated U=0.365

Infiltration: Htg: 1040 Clg: 1040 CFM50

Infilt. Measure: Blower door test

Mechanical Ventilation: Balanced: ERV, 270 cfm, 180.0 watts.

Interior Mass: None

Mech Equip List: Heating: Fuel-fired air distribution, 102.1

kBtuh, 93.5 AFUE.

Water Heating: Conventional, Gas, 0.58 EF.

ENERGY COST AND FEATURE REPORT

1109Ptarmigan80863F.blg

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Programmable Thermostat: Heat=Yes; Cool=No

Ducts: Uninsulated Conditioned basement

Duct Leakage: RESNET/HERS default

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: December 29, 2008 Rating No.: 122908-111-026

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Property: 1109 Ptarmigan Rater's Name: Brandice N. Eslinger

Address: Woodland Park, CO 80863 Rater's No.:

Builder's Name: Scott Homes, LTD.

Weather Site: Woodland Park, CO Rating Type: Confirmed Rating

File Name: 1109Ptarmigan80863F.blg Rating Date: 12/18/08

Total Emissions (lbs/year)

1109Ptarmigan80863F

111

Type of Emissions

 Carbon Dioxide (CO2)
 41477.5

 Sulfur Dioxide (SO2)
 35.2

 Nitrogen Oxides (NOx)
 58.6

Emissions By End-Use (lbs/year)

1109Ptarmigan80863F

Carbon Dioxide (CO2)

Heating13541.4Cooling0.0Water Heating2942.2Lights & Appliances24993.9Photovoltaics0.0

Sulfur Dioxide (SO2)

Heating1.4Cooling0.0Water Heating0.0Lights & Appliances33.7Photovoltaics0.0

Nitrogen Oxide (NOx)

Heating 17.2
Cooling 0.0
Water Heating 3.7
Lights & Appliances 37.8
Photovoltaics 0.0



Address: , ,



| | 2 | 2005 EPACT | ENERGY EFFICI | ENT HOME | TAX CREDIT | | |
|--|--|--|---|---|---|---|---|
| Date: | December 29, 200 |)8 | Ra | ating No.: | 122908-111-026 | | |
| Building Name: | | | Ra | ating Org.: | All-Phase Environme | ntal Consul | |
| Owner's Name: | Scott Homes, LTD |). | Pł | none No.: | 719-545-0375 | | |
| Property: | 1109 Ptarmigan | | Ra | ater's Name: | Brandice N. Eslinger | | |
| Address: | Woodland Park, C | O 80863 | Ra | ater's No.: | 111 | | |
| Builder's Name: | Scott Homes, LTD |). | | | | | |
| Weather Site: | Woodland Park, C | O | Ra | ating Type: | Confirmed Rating | | |
| File Name: | 1109Ptarmigan80 | 863F.blg | Ra | ating Date: | 12/18/08 | | |
| Normalized, Mo | dified End-Use Loa | ds (MMBtu/yea | ar) | | Envelope Load | ds (MMBtu/y | ear) |
| - | 2004 IECC | | , | | | 004 IECC | • |
| | 50% Target | As Designo | ed | | 90 | % Target | As Designed |
| Heating: | 60.8 | 58 | 3.0 | He | ating: | 109.5 | 83.0 |
| Cooling: | 2.4 | 2 | 2.0 | Cooling: 4. | | 4.2 | 2.5 |
| Total: | 63.2 | 60 | 0.0 | Tot | tal: | 113.7 | 85.5 |
| As demonstrated a annual level of hea improvements alor manner prescribed undersigned eligib | above, this dwelling ur ating cooling energy on ne account for at least d in Section 2.02 of No ole certifier during and | nit has a projected onsumption of a i 10% of those sa otice 2006-27 of t after the complet | d level of annual heatir reference dwelling in the vings. The projected he he Internal Revenue S | ng and cooling ender same climate neating and cooling ervice. Field inside confirmed that | s, of the Energy Policinergy consumption that is zone, and the building ening energy savings above spections of the dwelling ut all features of the home ned certifier. | at least 50% l velope compo have been ca nit performed | below the onents Ilculated in the by the |
| | | | Building Fea | atures | | | |
| Ceiling F | lat: R-49 | | Slab: | R-0.0 Edge, F | R-0.0 Under | | |
| Vaulted Ceili | ng: R-38 | | Duct: | Uninsulated | | | |
| Above Grade Wa | alls: R-24, R-18 | | Window: | U-Value = 0.3 | 350, SHGC = 0.310 | | |
| Foundation Wa | lls: R-13.0 | | Heating: | Fuel-fired air | distribution, Natural gas | s, 93.5 AFUE | |
| Exposed Flo | oor: NA | | Cooling | N/A | | | |
| ı | Under penalties of postures of documents, and | to the best of I | re that I have exam my knowledge and cation are true, cor | belief, the fact | fication, including acc s presented in suppo plete. | ompanying t of this | |
| Name: B | randice N. Eslinger | | | Signature: | | | |
| Company: A | II-Phase Environmer | ntal Consul | | - Date: | December 29, 2008 | | |





ENERGY STAR HOME REPORT

Date: December 29, 2008 Rating No.: 122908-111-026

Building Name: Rating Org.: All-Phase Environmental Consul

Owner's Name: Scott Homes, LTD. Phone No.: 719-545-0375

Property: 1109 Ptarmigan Rater's Name: Brandice N. Eslinger

Address: Woodland Park, CO 80863

Builder's Name: Scott Homes, LTD.

Weather Site: Woodland Park, CO Rating Type: Confirmed Rating

File Name: 1109Ptarmigan80863F.blg Rating Date: 12/18/08

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

Rater's No.:

| | ENERGY STAR | As Designed |
|------------------------|-------------|-------------|
| Heating: | 103.4 | 58.0 |
| Cooling: | 4.0 | 2.0 |
| Water heating: | 12.1 | 15.5 |
| Lighting & Appliances: | 34.3 | 43.0 |
| Total: | 153.8 | 118.5 |
| HERS Index: | 85 | 65 |

ENERGY STAR Mandatory Requirements

| X Thermal Bypass Inspection Checklist * | X ENERGY STAR Products * |
|---|----------------------------------|
| X Ductwork Requirements | X ENERGY STAR Scoring Exceptions |

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

Pollution Prevented Energy Cost Savings (\$/year)

| Type of Emissions | Reduction (lb/year) | Heating: | \$839 |
|-----------------------|---------------------|----------------------|-------|
| Carbon Dioxide (CO2) | 10916.4 | Cooling: | \$24 |
| Sulfur Dioxide (SO2) | 0.0 | Water Heating: | \$-11 |
| Nitrogen Oxides (NOx) | 13.6 | Lights & Appliances: | \$-69 |
| | | Total: | \$784 |

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). In accordance with these guidelines, building inputs affecting setpoints, infiltration rates, window shading and the existence of mechanical systems may have been changed prior to calculating loads.

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



E-Star Home Energy Rating Certificate

Woodland Park, CO 80863



5 Stars Plus **Confirmed Rating**

Uniform Energy Rating System

Energy Efficient

| 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 |

HERS Index: 65

General Information

Conditioned Area: 3560 sq. ft. HouseType: Single-family detached Conditioned Volume: 40000 cubic ft. Foundation: Conditioned basement

Bedrooms:

Mechanical Systems Features

Heating: Fuel-fired air distribution, Natural gas, 93.5 AFUE. Water Heating: Conventional, Natural gas, 0.58 EF, 50.0 Gal.

Duct Leakage to Outside: RESNET/HERS default

Ventilation System: Balanced: ERV. 270 cfm. 180.0 watts.

Programmable Thermostat: Heating: Yes Cooling: No

Building Shell Features

Ceiling Flat: R-49 Exposed Floor: NA

Vaulted Ceiling: R-38 Window Type: U:0.35, SHGC:0.31*

Above Grade Walls: R-24, R-18 Infiltration:

Foundation Walls: R-13.0 Rate: Htg: 1040 Clg: 1040 CFM50

> R-0.0 Edge, R-0.0 Under Method: Blower door test Slab:

Lights and Appliance Features

Percent Fluorescent Pin-Based: 10.00 Clothes Dryer Fuel: Electric Percent Fluorescent CFL: 20.00 Range/Oven Fuel: Electric Refrigerator (kWh/yr): 640.00 Ceiling Fan (cfm/Watt): 0.00

Dishwasher Energy Factor: 0.46

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. © 1985-2008 Architectural Energy Corporation, Boulder, Colorado.

Rating Number: 122908-111-026

Certified Energy Rater: Brandice N. Eslinger

Rating Date: 12/18/08

Rating Ordered For: Scott Homes, LTD.

Estimated Annual Energy Cost

Confirmed Rating

| Use | MMBtu | Cost | Percent |
|-------------------|-------|--------|---------|
| Heating | 102.6 | \$910 | 39% |
| Cooling | 0 | \$0 | 0% |
| Hot Water | 24.5 | \$210 | 9% |
| Lights/Appliances | 43.0 | \$1146 | 49% |
| Photovoltaics | -0.0 | \$-0 | -0% |
| Service Charges | | \$81 | 3% |
| Total | | \$2348 | 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

