

Project Sample Project

| Energy Code: Location: Construction Type: Project Type: Conditioned Floor Area: Glazing Area Climate Zone: | 18% |
|--|--------------|
| Climate Zone: Permit Date: Permit Number: | 5 (6368 HDD) |
| | |

Construction Site: 7500 Greenstone Ct Fort Collins, CO 80525 Owner/Agent: Sample Customer Designer/Contractor: Rockview Designs

Compliance: Passes using UA trade-off

Compliance: 4.9% Better Than Code

Maximum UA: 647 Your UA: 615

The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules. It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

Envelope Assemblies

| Assembly | Gross Area or Perimeter | Cavity R-Value | Cont. R-Value | U-Factor | UA |
|---|-------------------------------|-------------------|------------------|----------|----|
| SW Basement Wall: Solid Concrete or Masonry Wall height: 10.0' Depth below grade: 9.0' Insulation depth: 10.0' | 750 | 19.0 | 0.0 | 0.042 | 28 |
| SW Window 1: Vinyl/Fiberglass Frame:Double Pane with Low-E | 25 | | | 0.320 | 8 |
| SW Window 2: Vinyl/Fiberglass Frame:Double Pane with Low-E | 25 | | | 0.320 | 8 |
| SW Window 3: Vinyl/Fiberglass Frame:Double Pane with Low-E | 25 | | | 0.320 | 8 |
| SE Basement Walls: Solid Concrete or Masonry Wall height: 10.0' Depth below grade: 9.0' Insulation depth: 10.0' | 825 | 19.0 | 0.0 | 0.042 | 35 |
| East Basement Wall: Solid Concrete or Masonry Wall height: 10.0' Depth below grade: 9.0' Insulation depth: 10.0' | 89 | 19.0 | 0.0 | 0.042 | 4 |
| NE Basement Wall: Solid Concrete or Masonry Wall height: 10.0' Depth below grade: 9.0' Insulation depth: 10.0' | 700 | 19.0 | 0.0 | 0.042 | 29 |
| NW Basement Wall: Solid Concrete or Masonry Wall height: 10.0' Depth below grade: 9.0' Insulation depth: 10.0' | 740 | 19.0 | 0.0 | 0.042 | 31 |
| SW Main Level Wall: Wood Frame, 16" o.c. | 849 | 21.0 | 0.0 | 0.057 | 44 |
| SW Main Wall Window 1: Vinyl/Fiberglass Frame:Double Pane with Low-E | 12 | | | 0.320 | 4 |

| Assembly | Gross Area or Perimeter | Cavity R-Value | Cont. R-Value | U-Factor | UA |
|---|-------------------------------|-------------------|------------------|----------|----|
| SW Main Level Window 2: Vinyl/Fiberglass Frame:Double Pane with Low-E | 18 | | | 0.320 | 6 |
| SW Main Level Window 3: Vinyl/Fiberglass Frame:Double Pane with Low-E | 12 | | | 0.320 | 4 |
| SW Main Level Window 4: Vinyl/Fiberglass Frame:Double Pane with Low-E | 18 | | | 0.320 | 6 |
| SW Main Level Window 5: Vinyl/Fiberglass Frame:Double Pane with Low-E | 12 | | | 0.320 | 4 |
| SE Main Level Wall: Wood Frame, 16" o.c. | 935 | 21.0 | 0.0 | 0.057 | 35 |
| SE Main Level Window 1: Vinyl/Fiberglass Frame:Double Pane with Low-E | 24 | | | 0.320 | 8 |
| SE Main Level Window 2: Vinyl/Fiberglass Frame:Double Pane with Low-E | 90 | | | 0.320 | 29 |
| SE Main Level Window 3: Vinyl/Fiberglass Frame:Double Pane with Low-E | 135 | | | 0.320 | 43 |
| SE Main Level Window 4: Vinyl/Fiberglass Frame:Double Pane with Low-E | 72 | | | 0.320 | 23 |
| NE Main Level Wall: Wood Frame, 16" o.c. | 770 | 21.0 | 0.0 | 0.057 | 39 |
| NE Main Level Window 1: Vinyl/Fiberglass Frame:Double Pane with Low-E | 54 | | | 0.320 | 17 |
| NE Main Level Window 2: Vinyl/Fiberglass Frame:Double Pane with Low-E | 8 | | | 0.320 | 3 |
| NE Main Level Door 1: Solid | 21 | | | 0.390 | 8 |
| NW Main Level Wall: Wood Frame, 16" o.c. | 918 | 21.0 | 0.0 | 0.057 | 46 |
| NW Main Level Window 1: Vinyl/Fiberglass Frame:Double Pane with Low-E | 18 | | | 0.320 | 6 |
| NW Main Level Window 2: Vinyl/Fiberglass Frame:Double Pane with Low-E | 4 | | | 0.320 | 1 |
| NW Main Level Window 3: Vinyl/Fiberglass Frame:Double Pane with Low-E | 4 | | | 0.320 | 1 |
| NW Main Level Window 4: Vinyl/Fiberglass Frame:Double Pane with Low-E | 48 | | | 0.320 | 15 |
| NW Main Level Window 5: Vinyl/Fiberglass Frame:Double Pane with Low-E | 12 | | | 0.320 | 4 |
| NW Main Level Door 1: Solid | 21 | | | 0.390 | 8 |
| East Main Level Wall: Wood Frame, 16" o.c. | 89 | 21.0 | 0.0 | 0.057 | 3 |
| Window 20: Vinyl/Fiberglass Frame:Double Pane with Low-E | 40 | | | 0.320 | 13 |
| Ceiling 1: Flat Ceiling or Scissor Truss | 3,608 | 49.0 | 0.0 | 0.026 | 94 |

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2015 IECC requirements in RES*check* Version 4.6.4 and to comply with the mandatory requirements listed in the RES*check* Inspection Checklist.

Name - Title

Signature

Date

REScheck Software Version 4.6.4 Inspection Checklist

Energy Code: 2015 IECC

Requirements: 0.0% were addressed directly in the REScheck software

Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

| Section # & Req.ID | Pre-Inspection/Plan Review | Plans Verified Value | Field Verified Value | Complies? | Comments/Assumptions |
|--|---|--|--|--|----------------------|
| 103.1, 103.2 [PR1] ¹ © | Construction drawings and documentation demonstrate energy code compliance for the building envelope. Thermal envelope represented on construction documents. | | | □Complies □Does Not □Not Observable □Not Applicable | |
| 103.1, 103.2, 403.7 [PR3] ¹ 😨 | Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the IECC Commercial Provisions. | | | □Complies □Does Not □Not Observable □Not Applicable | |
| 302.1, 403.7 [PR2] ² | Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other methods approved by the code official. | Heating: Btu/hr Cooling: Btu/hr | Heating: Btu/hr Cooling: Btu/hr | □Complies □Does Not □Not Observable □Not Applicable | |

Additional Comments/Assumptions:

1 High Impact (Tier 1)

2 Medium Impact (Tier 2) 3

| Section # & Req.ID | Foundation Inspection | Plans Verified Value | Field Verified Value | Complies? | Comments/Assumptions |
|--------------------------------|---|-------------------------|-------------------------|--|--|
| 402.1.1 [FO4] ¹ | Conditioned basement wall insulation R-value. Where interior insulation is used, verification may need to occur during Insulation Inspection. Not required in warm-humid locations in Climate Zone 3. | R R | R R | □Complies □Does Not □Not Observable □Not Applicable | See the Envelope Assemblies table for values. |
| 303.2 [FO5] ¹ | Conditioned basement wall insulation installed per manufacturer's instructions. | | | □Complies □Does Not □Not Observable □Not Applicable | |
| 402.2.9 [FO6] ¹ | Conditioned basement wall insulation depth of burial or distance from top of wall. | ft | ft | □Complies □Does Not □Not Observable □Not Applicable | See the Envelope Assemblies table for values. |
| 303.2.1 [FO11] ² | A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade. | | | Complies Does Not Not Observable Not Applicable | |
| 403.9 [FO12] ² | Snow- and ice-melting system controls installed. | | | □Complies □Does Not □Not Observable □Not Applicable | |

1 High Impact (Tier 1) 2 M

2 Medium Impact (Tier 2) 3

| Section # & Req.ID | Framing / Rough-In Inspection | Plans Verified Value | Field Verified Value | Complies? | Comments/Assumptions |
|---|--|-------------------------|-------------------------|---|--|
| 402.1.1, 402.3.4 [FR1] ¹ | Door U-factor. | U | U | □Complies □Does Not □Not Observable | See the Envelope Assemblies table for values. |
| 402.1.1, 402.3.1, 402.3.3, 402.3.6, 402.5 [FR2] ¹ | Glazing U-factor (area-weighted average). | U | U | □Not Applicable □Complies □Does Not □Not Observable □Not Applicable | <i>See the Envelope Assemblies table for values.</i> |
| 303.1.3 [FR4] ¹ | U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table. | | | Complies Does Not Not Observable Not Applicable | |
| 402.4.1.1 [FR23] ¹ ⓒ | Air barrier and thermal barrier installed per manufacturer's instructions. | | | Complies Does Not Not Observable Not Applicable | |
| 402.4.3 [FR20] ¹ ම | Fenestration that is not site built is listed and labeled as meeting AAMA /WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits. | | | Complies Does Not Not Observable Not Applicable | |
| 402.4.5 [FR16] ² | IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate \leq 2.0 cfm leakage at 75 Pa. | | | □Complies □Does Not □Not Observable □Not Applicable | |
| 403.2.1 [FR12] ¹ | Supply and return ducts in attics insulated $>=$ R-8 where duct is >= 3 inches in diameter and $>=R-6 where < 3 inches. Supply andreturn ducts in other portions ofthe building insulated >= R-6 fordiameter >= 3 inches and R-4.2for < 3 inches in diameter.$ | | | □Complies □Does Not □Not Observable □Not Applicable | |
| 403.3.3.5 [FR15] ³ @ | Building cavities are not used as ducts or plenums. | | | Complies Does Not Not Observable Not Applicable | |
| 403.4 [FR17] ² | HVAC piping conveying fluids above 105 $^{\circ}$ F or chilled fluids below 55 $^{\circ}$ F are insulated to \geq R- 3. | R | R | □Complies □Does Not □Not Observable □Not Applicable | |
| 403.4.1 [FR24] ¹ @ | Protection of insulation on HVAC piping. | | | □Complies □Does Not □Not Observable □Not Applicable | |
| 403.5.3 [FR18] ² @ | Hot water pipes are insulated to ≥R-3. | R | R | Complies Does Not Not Observable Not Applicable | |
| 403.6 [FR19] ² | Automatic or gravity dampers are installed on all outdoor air intakes and exhausts. | | | Complies Does Not Not Observable Not Applicable | |

1 High Impact (Tier 1)

2 Medium Impact (Tier 2) 3 Low I

1 High Impact (Tier 1) 2 Medium Impact (Tier 2)

| Section # & Req.ID | Insulation Inspection | Plans Verified Value | Field Verified Value | Complies? | Comments/Assumptions |
|---|--|----------------------------|----------------------------|--|--|
| 303.1 [IN13] ² | All installed insulation is labeled or the installed R-values provided. | | | □Complies □Does Not □Not Observable □Not Applicable | |
| 402.1.1, 402.2.5, 402.2.6 [IN3] ¹ | Wall insulation R-value. If this is a mass wall with at least ½ of the wall insulation on the wall exterior, the exterior insulation requirement applies (FR10). | R Wood Mass Steel | R Wood Mass Steel | □Complies □Does Not □Not Observable □Not Applicable | See the Envelope Assemblies table for values. |
| 303.2 [IN4] ¹ | Wall insulation is installed per manufacturer's instructions. | | | □Complies □Does Not □Not Observable □Not Applicable | |

1 High Impact (Tier 1) 2 Medium Impact (Tier 2)

| Section # & Req.ID | Final Inspection Provisions | Plans Verified Value | Field Verified Value | Complies? | Comments/Assumptions |
|---|--|----------------------------|----------------------------|--|--|
| 402.1.1, 402.2.1, 402.2.2, 402.2.6 [FI1] ¹ | Ceiling insulation R-value. | R Wood Steel | R _ Wood _ Steel | □Complies □Does Not □Not Observable □Not Applicable | See the Envelope Assemblies table for values. |
| 303.1.1.1, 303.2 [FI2] ¹ | Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft ² . | | | Complies Does Not Not Observable Not Applicable | |
| 402.2.3 [FI22] ² | Vented attics with air permeable insulation include baffle adjacent to soffit and eave vents that extends over insulation. | | | Complies Does Not Not Observable Not Applicable | |
| 402.2.4 [FI3] ¹ | Attic access hatch and door insulation ≥R-value of the adjacent assembly. | R | R | Complies Does Not Not Observable Not Applicable | |
| 402.4.1.2 [FI17] ¹ | Blower door test @ 50 Pa. <=5 ach in Climate Zones 1-2, and <=3 ach in Climate Zones 3-8. | ACH 50 = | ACH 50 = | Complies Does Not Not Observable Not Applicable | |
| 403.2.3 [FI4] ¹ | Duct tightness test result of <=4 cfm/100 ft2 across the system or <=3 cfm/100 ft2 without air handler @ 25 Pa. For rough-in tests, verification may need to occur during Framing Inspection. | cfm/100 ft ² | cfm/100 ft ² | Complies Does Not Not Observable Not Applicable | |
| 403.3.2 [FI27] ¹ | Ducts are pressure tested to determine air leakage with either: Rough-in test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the system including the manufacturer's air handler enclosure if installed at time of test. Postconstruction test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the entire system including the manufacturer's air handler enclosure. | cfm/100 ft ² | cfm/100 ft ² | □Complies □Does Not □Not Observable □Not Applicable | |
| 403.3.2.1 [FI24] ¹ | Air handler leakage designated by manufacturer at <=2% of design air flow. | | | Complies Does Not Not Observable | |
| 403.1.1 [FI9] ² | Programmable thermostats installed for control of primary heating and cooling systems and initially set by manufacturer to code specifications. | | | Complies Does Not Not Observable Not Applicable | |
| 403.1.2 [FI10] ² | Heat pump thermostat installed on heat pumps. | | | Complies Does Not Not Observable Not Applicable | |
| 403.5.1 [FI11] ² | Circulating service hot water systems have automatic or accessible manual controls. | | | Complies Does Not Not Observable Not Applicable | |

2 Medium Impact (Tier 2) 3 Low I

| Section # & Req.ID | Final Inspection Provisions | Plans Verified Value | Field Verified Value | Complies? | Comments/Assumptions |
|----------------------------------|--|-------------------------|-------------------------|--|----------------------|
| 403.6.1 [FI25] ² | All mechanical ventilation system fans not part of tested and listed HVAC equipment meet efficacy and air flow limits. | | | □Complies □Does Not □Not Observable □Not Applicable | |
| 403.2 [FI26] ² | Hot water boilers supplying heat through one- or two-pipe heating systems have outdoor setback control to lower boiler water temperature based on outdoor temperature. | | | □Complies □Does Not □Not Observable □Not Applicable | |
| 403.5.1.1 [FI28] ² | Heated water circulation systems have a circulation pump. The system return pipe is a dedicated return pipe or a cold water supply pipe. Gravity and thermos- syphon circulation systems are not present. Controls for circulating hot water system pumps start the pump with signal for hot water demand within the occupancy. Controls automatically turn off the pump when water is in circulation loop is at set-point temperature and no demand for hot water exists. | | | □Complies □Does Not □Not Observable □Not Applicable | |
| 403.5.1.2 [FI29] ² | Electric heat trace systems comply with IEEE 515.1 or UL 515. Controls automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping. | | | □Complies □Does Not □Not Observable □Not Applicable | |
| 403.5.2 [FI30] ² | Water distribution systems that have recirculation pumps that pump water from a heated water supply pipe back to the heated water source through a cold water supply pipe have a demand recirculation water system. Pumps have controls that manage operation of the pump and limit the temperature of the water entering the cold water piping to $104^{\circ}F$. | | | □Complies □Does Not □Not Observable □Not Applicable | |
| 403.5.4 [FI31] ² | Drain water heat recovery units tested in accordance with CSA B55.1. Potable water-side pressure loss of drain water heat recovery units < 3 psi for individual units connected to one or two showers. Potable water- side pressure loss of drain water heat recovery units < 2 psi for individual units connected to three or more showers. | | | □Complies □Does Not □Not Observable □Not Applicable | |
| 404.1 [FI6] ¹ | 75% of lamps in permanent fixtures or 75% of permanent fixtures have high efficacy lamps. Does not apply to low-voltage lighting. | | | □Complies □Does Not □Not Observable □Not Applicable | |
| 404.1.1 [FI23] ³ | Fuel gas lighting systems have no continuous pilot light. | | | □Complies □Does Not □Not Observable □Not Applicable | |

1 High Impact (Tier 1)

2 Medium Impact (Tier 2) 3 Low In

| Section # & Req.ID | Final Inspection Provisions | Plans Verified Value | Field Verified Value | Complies? | Comments/Assumptions |
|------------------------------|---|-------------------------|-------------------------|------------------------------------|----------------------|
| 401.3 [FI7] ² | Compliance certificate posted. | | | □Complies □Does Not | |
| | | | | □Not Observable □Not Applicable | |
| 303.3 [FI18] ³ | Manufacturer manuals for mechanical and water heating systems have been provided. | | | □Complies □Does Not | |
| | systems have been provided. | | | □Not Observable □Not Applicable | |

1 High Impact (Tier 1) 2 Medium Impact (Tier 2)

⁻ 2) 3 Low Impact (Tier 3)

2015 IECC Energy Efficiency Certificate

| Insulation Rating | R-Value | |
|----------------------------------|------------|------|
| Above-Grade Wall | 21.00 | |
| Below-Grade Wall | 19.00 | |
| Floor | 0.00 | |
| Ceiling / Roof | 49.00 | |
| Ductwork (unconditioned spaces): | | |
| Glass & Door Rating | U-Factor | SHGC |
| Window | 0.32 | |
| Door | 0.39 | |
| Heating & Cooling Equipment | Efficiency | |
| Heating System: | | |
| Cooling System: | | |
| Water Heater: | | |
| | | |
| Name: | Date: | |
| Comments | | |