

#### Project

Energy Code: 2009 IECC

Location: Aguilar, Colorado
Construction Type: Single-family
Project Type: New Construction

Conditioned Floor Area: **1,519 ft2** Glazing Area **20%** 

Climate Zone: **4 (5438 HDD)** 

Permit Date: Permit Number:

Construction Site: Owner/Agent: Designer/Contractor:
TX Buildy Builderson Builder's Building Plans

#### Compliance: Passes using UA trade-off

Compliance: **16.9% Better Than Code** Maximum UA: **568** Your UA: **472** 

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
Ceiling area of home forming top of insulation envelope: Flat Ceiling or Scissor Truss	1,519	38.0	0.0	0.030	46
Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.	2,351	21.0	0.0	0.057	103
Window area of home using energy efficient units: Vinyl/Fiberglass Frame:Double Pane with Low-E	421			0.290	122
20 minute fire door: Solid	21			0.200	4
20 minute fire door: Solid	21			0.200	4
Energy efficient door unit: Solid	21			0.200	4
Energy efficient door unit: Solid	21			0.200	4
Energy efficient door unit: Glass	21			0.300	6
Energy efficient door unit: Glass	21			0.300	6
Subfloor of second floor area over unconditioned space: All-Wood Joist/Truss:Over Unconditioned Space	789	30.0	0.0	0.033	26
Slab perimeter of home forming bottom of insulation envelope: Slab-On- Grade:Unheated Insulation depth: 4.0'	193		4.0	0.764	147

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	ouilding design described here is consistent with the application. The proposed building has been design with the mandatory requirements listed in the RESc	meet inspection checkist.
ne - Title	Signature	Date

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# **REScheck Software Version 4.6.5 Inspection Checklist** Energy Code: 2009 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
103.2 [PR1] <sup>1</sup>	Construction drawings and documentation demonstrate energy code compliance for the building envelope.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
103.2, 403.7 [PR3] <sup>1</sup>	Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the commercial code.			□Complies □Does Not □Not Observable □Not Applicable	
403.6 [PR2] <sup>2</sup>	Heating and cooling equipment is sized per ACCA Manual S based on loads per ACCA Manual J or other approved methods.	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 Low Impact (Tier 3)

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Section # & Req.ID	Foundation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1 [FO1] <sup>1</sup>	Slab edge insulation R-value.	R Unheated Heated	R Unheated Heated	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
303.2, 402.2.8 [FO2] <sup>1</sup>	Slab edge insulation installed per manufacturer's instructions.			□Complies □Does Not □Not Observable □Not Applicable	
402.1.1 [FO3] <sup>1</sup>	Slab edge insulation depth/length.	ft	ft	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
303.2.1 [FO11] <sup>2</sup>	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	
403.8 [FO12] <sup>2</sup>	Snow- and ice-melting system controls installed.			□Complies □Does Not □Not Observable □Not Applicable	

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Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.3.4 [FR1] <sup>1</sup>	Door U-factor.	U	U	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
402.1.1, 402.3.1, 402.3.3, 402.5 [FR2] <sup>1</sup>	Glazing U-factor (area-weighted average).	U	U	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
303.1.3 [FR4] <sup>1</sup>	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	
402.4.4 [FR20] <sup>1</sup>	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] <sup>2</sup>	IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate ≤2.0 cfm leakage at 75 Pa.			□Complies □Does Not □Not Observable □Not Applicable	
403.2.1 [FR12] <sup>1</sup>	Supply ducts in attics are insulated to ≥R-8. All other ducts in unconditioned spaces or outside the building envelope are insulated to ≥R-6.	R R	R R	□Complies □Does Not □Not Observable □Not Applicable	
403.2.2 [FR13] <sup>1</sup>	All joints and seams of air ducts, air handlers, filter boxes, and building cavities used as return ducts are sealed.			□Complies □Does Not □Not Observable □Not Applicable	
403.2.3 [FR15] <sup>3</sup>	Building cavities are not used for supply ducts.			□Complies □Does Not □Not Observable □Not Applicable	
403.3 [FR17] <sup>2</sup>	HVAC piping conveying fluids above 105 °F or chilled fluids below 55 °F are insulated to ≥R-3.	R	R	□Complies □Does Not □Not Observable □Not Applicable	
403.4 [FR18] <sup>2</sup>	Circulating service hot water pipes are insulated to R-2.	R	R	□Complies □Does Not □Not Observable □Not Applicable	
403.5 [FR19] <sup>2</sup>	Automatic or gravity dampers are installed on all outdoor air intakes and exhausts.			□Complies □Does Not □Not Observable □Not Applicable	

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Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1 [IN13] <sup>2</sup>	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 [IN1] <sup>1</sup>	Floor insulation R-value.	R Wood     Steel	R Wood Steel	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
303.2, 402.2.6 [IN2] <sup>1</sup>	Floor insulation installed per manufacturer's instructions, and in substantial contact with the underside of the subfloor.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.1.1, 402.2.4, 402.2.5 [IN3] <sup>1</sup>	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.	R Wood Mass Steel	R	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
303.2 [IN4] <sup>1</sup>	Wall insulation is installed per manufacturer's instructions.			□Complies □Does Not □Not Observable □Not Applicable	

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Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.2.1, 402.2.2 [FI1] <sup>1</sup>	Ceiling insulation R-value. Where > R-30 is required, R-30 can be used if insulation is not compressed at eaves. R-30 may be used for 500 ft² or 20% (whichever is less) where sufficient space is not available.	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] <sup>1</sup>	Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft <sup>2</sup> .			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.2.3 [FI3] <sup>1</sup>	Attic access hatch and door insulation ≥R-value of the adjacent assembly.	R	R	□Complies □Does Not □Not Observable □Not Applicable	
402.4.2, 402.4.2.1 [FI17] <sup>1</sup>	Building envelope tightness verified by blower door test result of <7 ACH at 50 Pa. This requirement may instead be met via visual inspection, in which case verification may need to occur during Insulation Inspection.	ACH 50 =	ACH 50 =	□Complies □Does Not □Not Observable □Not Applicable	
403.2.2 [FI4] <sup>1</sup>	Post construction duct tightness test result of ≤8 cfm to outdoors, or ≤12 cfm across systems. Or, rough-in test result of ≤6 cfm across systems or ≤4 cfm without air handler. Rough-in test verification may need to occur during Framing Inspection.	cfm	cfm	□Complies □Does Not □Not Observable □Not Applicable	
403.1.1 [FI9] <sup>2</sup>	Programmable thermostats installed on forced air furnaces.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.1.2 [FI10] <sup>2</sup>	Heat pump thermostat installed on heat pumps.			□Complies □Does Not □Not Observable □Not Applicable	
403.4 [FI11] <sup>2</sup>	Circulating service hot water systems have automatic or accessible manual controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
404.1 [FI6] <sup>1</sup>	50% of lamps in permanent fixtures are high efficacy lamps.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
401.3 [FI7] <sup>2</sup>	Compliance certificate posted.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
303.3 [FI18] <sup>3</sup>	Manufacturer manuals for mechanical and water heating equipment have been provided.			□Complies □Does Not □Not Observable □Not Applicable	

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Insulation Rating	R-Value	
Above-Grade Wall	21.00	
Below-Grade Wall	0.00	
Floor	30.00	
Ceiling / Roof	38.00	
Ductwork (unconditioned spaces):		
Glass & Door Rating	U-Factor	SHGC
Window	0.29	0.25
Door	0.20	0.25
Heating & Cooling Equipment	Efficiency	
Heating System:		

Cooling System:\_\_\_\_\_

Comments