

Project

Energy Code:	2009 IECC
Location:	Marquette, Wisconsin
Construction Type:	Single-family
Project Type:	New Construction
Conditioned Floor Area:	3,755 ft2
Glazing Area	16%
Climate Zone:	6 (7540 HDD)
Permit Date:	
Permit Number:	
Construction Site:	Owner/Ag

GA

Owner/Agent: **Building Builderson** Designer/Contractor: **Builders Building Plans**

Compliance: Passes using UA trade-off

Compliance: 3.4% Better Than Code

Maximum UA: 387 Your UA: 374 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	1,959	38.0	0.0	0.030	59
Front Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.:Not Attic Kneewall	833	19.0	0.0	0.060	41
Window area of home using energy efficient units: Vinyl/Fiberglass Frame:Double Pane with Low-E	111			0.300	33
Energy efficient door unit: Solid	21			0.200	4
20 minute fire door: Solid	21			0.200	4
Left Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.:Not Attic Kneewall	41	19.0	0.0	0.060	2
Back Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.:Not Attic Kneewall	833	19.0	0.0	0.060	35
Window area of home using energy efficient units copy 1: Vinyl/Fiberglass Frame:Double Pane with Low-E	231			0.300	69
Energy efficient door unit: Glass	21			0.300	6
Right Wall area of home forming sides of insulation envelope: Wood Frame, 16" o.c.:Not Attic Kneewall	799	19.0	0.0	0.060	45
Window area of home using energy efficient units: Vinyl/Fiberglass Frame:Double Pane with Low-E	51			0.300	15
Slab perimeter of home forming bottom of insulation envelope: Slab-On- Grade:Unheated Insulation depth: 4.0'	87		8.0	0.702	61

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 2009 IECC requirements in RES*check* Version 4.6.5 and to comply with the mandatory requirements listed in the RES*check* Inspection Checklist.

Name - Title

Signature

Date

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] ¹ ③	Construction drawings and documentation demonstrate energy code compliance for the building envelope.			□Complies □Does Not □Not Observable □Not Applicable	
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 commercial code.			□Complies □Does Not □Not Observable □Not Applicable	
403.6 [PR2] ²	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

2 Medium Impact (Tier 2)

3 Low Impact (Tier 3)

Section # & Req.ID	Foundation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1 [FO1] ¹	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] ¹	Slab edge insulation installed per manufacturer's instructions.			□Complies □Does Not □Not Observable □Not Applicable	
402.1.1 [FO3] ¹	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] 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	
403.8 [FO12] ²	Snow- and ice-melting system controls installed.			□Complies □Does Not □Not Observable □Not Applicable	

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

r 2) 3 Low Impact (Tier 3)

Section #	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
& Req.ID 402.1.1, 402.3.4 [FR1] ¹	Door U-factor.	U	U	Complies	See the Envelope Assemblies table for values.
0			1 	□Not Observable □Not Applicable	
402.1.1, 402.3.1, 402.3.3,	Glazing U-factor (area-weighted average).	U	U	Complies	See the Envelope Assemblies table for values.
402.5 [FR2] ¹				□Not Observable □Not Applicable	
303.1.3 [FR4] ¹	U-factors of fenestration products are determined in accordance			□Complies □Does Not	
0	with the NFRC test procedure or taken from the default table.			Not Observable	
402.4.4 [FR20] ¹	Fenestration that is not site built is listed and labeled as meeting AAMA/WDMA/CSA 101/I.S.2/A440			□Complies □Does Not	
Ø	or has infiltration rates per NFRC 400 that do not exceed code limits.			□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			Complies	
	leakage at 75 Pa.			□Not Observable □Not Applicable	
403.2.1 [FR12] ¹	Supply ducts in attics are insulated to ≥R-8. All other ducts in unconditioned spaces or	R R	R R	□Complies □Does Not	
	outside the building envelope are insulated to \ge R-6.			□Not Observable □Not Applicable	
403.2.2 [FR13] ¹	All joints and seams of air ducts, air handlers, filter boxes, and building cavities used as return			□Complies □Does Not	
0	ducts are sealed.			□Not Observable □Not Applicable	
403.2.3 [FR15] ³	Building cavities are not used for supply ducts.			□Complies □Does Not	
0				□Not Observable □Not Applicable	
403.3 [FR17] ²	HVAC piping conveying fluids above 105 °F or chilled fluids	R	R	Complies Does Not	
•	below 55 $^{\text{Q}}$ F are insulated to \geq R- 3.			□Not Observable □Not Applicable	
403.4 [FR18] ²	Circulating service hot water pipes are insulated to R-2.	R	R	□Complies □Does Not	
•				□Not Observable □Not Applicable	
403.5 [FR19] ²	Automatic or gravity dampers are installed on all outdoor air			Complies Does Not	
Θ	intakes and exhausts.			□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] ²	All installed insulation is labeled or the installed R-values provided.			□Complies □Does Not □Not Observable □Not Applicable	
402.1.1, 402.2.4, 402.2.5 [IN3] ¹	Wall insulation R-value. If this is a mass wall with at least $\frac{1}{2}$ of the wall insulation on the wall exterior, the exterior insulation requirement applies.	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	

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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] ¹	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 ft ² or 20% (whichever is less) where sufficient space is not available.	R Wood Steel	R UWood Steel	□Complies □Does Not □Not Observable □Not Applicable	<i>See the Envelope Assemblies table for values.</i>
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	
402.2.3 [FI3] ¹ ©	Attic access hatch and door insulation \geq R-value of the adjacent assembly.	R	R	□Complies □Does Not □Not Observable □Not Applicable	
402.4.2, 402.4.2.1 [FI17] ¹	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] ¹ ③	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] ²	Programmable thermostats installed on forced air furnaces.			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	
403.4 [FI11] ²	Circulating service hot water systems have automatic or accessible manual controls.			Complies Does Not Not Observable Not Applicable	
404.1 [FI6] ¹ @	50% of lamps in permanent fixtures are high efficacy lamps.			□Complies □Does Not □Not Observable □Not Applicable	
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 equipment have been provided.			Complies Does Not Not Observable Not Applicable	

1 High Impact (Tier 1)

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2009 IECC Energy Efficiency Certificate

Insulation Rating	R-Value	
Above-Grade Wall	19.00	
Below-Grade Wall	0.00	
Floor	8.00	
Ceiling / Roof	38.00	
Ductwork (unconditioned spaces):		
Glass & Door Rating	U-Factor	SHGC
Window	0.30	0.25
Door	0.20	0.25
Heating & Cooling Equipment	Efficiency	
Heating System:		
Cooling System:		
Water Heater:		
Name:	Date:	
Comments		