

Final Testing and Completion Report (SV3)

**** Home has not been verified complete. Rebates pending verification.**

Site Walk Date: 2012-03-09

Cost of Services:	\$1,150.00	Building Code	MN Code
Energy Rebate:	\$150.00	File Number	#16600
Rater Rebate:	\$250.00	Site Walk Date	2012-03-09
Your Cost:	\$750.00**		

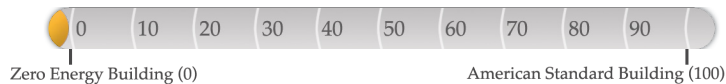


Home	Builder	Model
6712 West River Rd	The Chuba Co.	Custom
Brooklyn Center, MN 55430	xx	Type: Single-family detached
	xx, MN 55xxx	Size: 3882 ft ²

Meets ENERGY STAR Requirements **NO**

Checklists Completed	Checklists Signed	Meets Testing Standards
No	No	Yes

HERS Index **7**



RESNET Ratings provide a relative energy use index called the HERS Index, which represents the home's energy usage as a percentage of the energy usage of the "American Standard Building."

Beats 2004 IECC standard by **83.46%**

0
TBC Failures need correcting

3
Issues could use improvement

2
Exceptional building practices identified

Insulation Features		Blower Door Test Results	
Worst Insulation Grade	III/NR	Tested CFM50	667
Rim	Grade: III/NR	CFM50 / ft ² surface area	0.09
Ceiling Flat	R = 44.0 (Grade III/NR)	CFM50 / ft ² floor area	0.17
Vaulted Ceiling	R = 38.0	ACH50	1.01
Above Grade Walls	R = 0.0 (Grade III/NR)	Ventilation Flow Test Results	
Foundation Walls	n/a (Grade III/NR)	Target Flow (CFM)	Unknown
Framed Floors	n/a (Grade III/NR)	Actual Flow (CFM)	
Slab	R = 15.0 Edge, 15.0 Under (Grade III/NR)	Rated Flow (CFM)	150.0
Duct		Duct Leakage to Outside	15
Window	U = 0.300, SHGC = 0.300		

	Heat (AFUE)	Cooling (SEER)	Hot Water	Ventilation	Thermostat
Efficiency					
Brand / Make	Geo Comfort	Geo Comfort	Navien	Venmar	Honeywell
Model	gxt048a11mm1css	gxt048a11mm1css	nr-240ang	Venmar	Honeywell
Size	BTU	BTU			
Serial Number	m10090458		9545-20100320-3016		



Opportunities for Quality Improvement

Items and pictures listed in this section do not require corrective action. These items are opportunities for additional improvement.

1

Air leakage pathways

Pictured are the doors on the upper level. The door makes insufficient contact with the weatherstripping even when locked. Unintentional air leakage pathways can result in unconditioned air moving through enclosed building cavities leading to reduced insulation effective R-value, building durability, uneven interior surface temperatures, structural air leakage, occupant discomfort, and high utility costs.



Figure 1.1



Figure 1.2

2

Electrical box leakage

Unsealed electrical boxes can lead to durability issues, uneven interior surface temperatures, drafts, and occupant discomfort. Foam wiring penetrations and seal the vapor/air barrier to boxes.

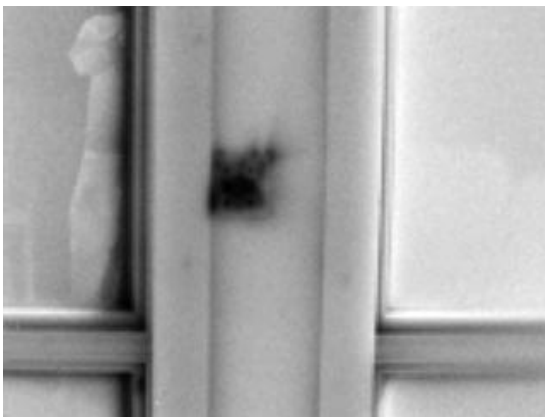


Figure 2.1

3

Top plate penetrations

Penetrations in framing can lead to uneven interior surface temperatures and unconditioned air leakage into the structure. Seal penetrations before insulation and vapor retarder are installed.



Figure 3.1

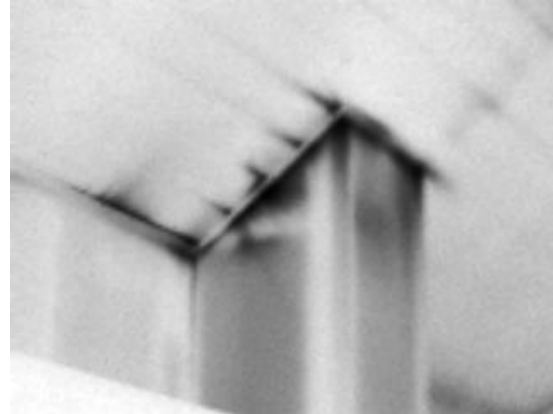


Figure 3.2



Figure 3.3



Exceptional Building Practices

The following items are demonstrative of exceptional construction practices and details. Not only have you exceeded standard building practices, it has been done so in an exceptional manner.

4

Window/door trim leakage

Incomplete sealing around doors and windows allows unconditioned air leakage to structure and can affect occupant comfort. Use low expansion foam around window and door frames to seal and insulate.



Figure 4.1



Figure 4.2

5

Recessed light leakage to attic

Recessed light leakage allows air to move between conditioned and unconditioned spaces, degrades insulation performance, and can lead to occupant comfort issues. Air seal gaps in recessed lights with high temperature sealant, and caulk or foam between the can and drywall or install an airtight box over recessed cans.

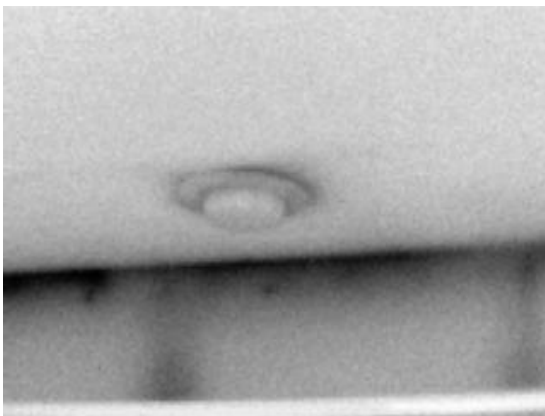


Figure 5.1

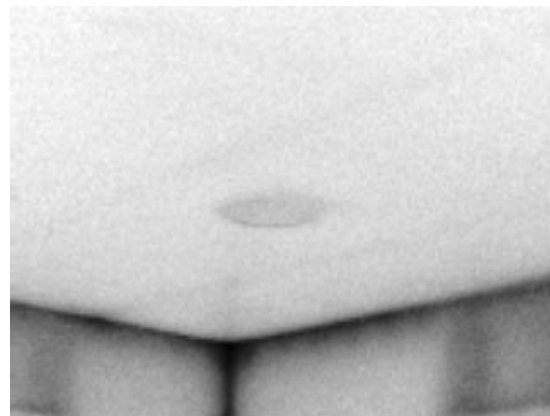


Figure 5.2

Confidentiality

Residential Science Resources, LLC respects the privacy of The Chuba Co. and will keep all of this information confidential and not disclose this or any other information without expressed written consent. Thank you for the opportunity to assist you in the construction of your homes.

Sincerely,

Josh Heller

email: josh.heller@residentialscience.com

phone: 612-990-6187

Residential Science Resources, LLC

Residential Science Resources, LLC is an independent building performance testing and certification company following RESNET guidelines. RESNET sets the standards of quality for the building energy performance certification industry (Home Energy Rating System – HERS Rating). The EPA requires homes to meet its strict standards for the ENERGY STAR® certification following RESNET guidelines.