

The Team that created the features



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2.) Energy Efficiency Features:

- a. Insulation
 - i. Foundation & Slab
 - ii. Wall
 - iii. Roof
 - iv. Door & Windows
- b. Air Barrier
- c. LED / CFL Lights
- d. Planning/Pre-Certifications/Certifications

- a. The insulation in a house is not visible; I took pictures to show you what this home has.
- i. Most houses in the Taos area have 2"x2' rigid R-10 vertical stemwall insulation and 2"x2' horizontal perimeter R-10 slab insulation.

**This House has: House Perimeter Insulation – 6"Rigid Foam= R25 Stemwall
House Underslab Insulation – 9"Rigid Foam=R39 Below Slab**



- ii. Most houses in Taos have R-19 batt fiberglass wall insulation typ. Which by the time you account for the framing amounts to about R-13

House Walls – 12" walls filled with cellulose plus 2"Rigid Foam on exterior which adjusted for framing amounts to about R52 Ext Walls. Extra effort was taken to minimize thermal bridging around the windows.



- iii. Typical house meeting outdated code has R38 ceiling insulation
House Roof Insulation – loose fill Cellulose for approx R102 Roof



- iv. Most houses have double glazed windows that are rated between R2 and R3 set in solid wood rough bucks.
House Windows & Patio Door are Serious Windows with double glazing and a third heat shield layer in the center producing glazing that is rated between R5.6 and R9.1. Special care was taken minimizing the thermal bridging around the windows. In addition, seasonal sun-screens are provided which reduce the heat gain in the summer months.



- b. Over 30% of heating costs can be due to air-infiltration. The ultimate test of an air tight envelope is a blower door test. Houses typically have from 5 to 10 air changes per hour at 50 pascal pressure.

House has breathable air barrier DOW with special attention and expense exerted on an air tight envelope that resulted in under 0.5 air changes per hour at 50 pascal of pressure.



- c. Most houses have incandescent light bulbs which use about 4 times more electricity than a equivalent CFL light bulb and about 5 times the electricity of a LED lightbulb.

This House has all CFL (approx 46 bulbs) and LED (approx 60 bulbs) throughout.

- d. **These energy upgrades were carefully calculated and planned out before hand in order to meet the stringent Passive House Standard and a LEED Platinum Standard. In fact this house was certified as a Passive House as well as a LEED Platinum House.**