

Santa Fe REAL ESTATE Guide

Artisan/craftsman/**builder**

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Weatherize, winterize, and be energywise

by Kurt Faust

With the cold weather approaching and energy costs on the rise, it is time to think about how efficient your home will be to heat this winter. Dramatic savings, 30 percent and above, can be had on some older homes, especially where there is inadequate insulation.

Insulation is the biggest contributing factor in the energy required to keep your house warm. Every home we build today has to meet the Model Energy Code, which measures the insulation in the walls, the roof, and around the perimeter of the slab and compares it to the amount of heat lost through windows, doors and skylights.

The most common and cheapest insulation is still the spun fiberglass batts. Our standard is R-19 in the walls and under the joisted floors with R-39 in the ceilings. The batts are prone to convection and air infiltration, both of which decrease the thermal performance. Convection occurs in wall cavities where there are gaps between the insulation and the wood studs. The warm air rises, causing air infiltration and a transfer of heat to the exterior. There is a trend toward using sprayed-in-place, expanding foam for insulating the walls and ceilings. Although a bit more expensive, the foam provides a complete seal against air infiltration.

Air infiltration is the next largest culprit in robbing your house of heat in the winter. Filling all the little cracks and gaps that let air in with caulk or weather stripping will make a big difference in your comfort. One trick you can use to locate air leaks in your home is to close all the windows and doors and make sure the fireplace damper is closed; then turn on your bathroom exhaust fan and kitchen exhaust fan. This will draw air in from outside. With the smoke from a lighted stick of incense you can actually see drafts around doors, windows, electric outlets and other places.

Look around any penetration to the outside such as where the gas or electric enter the house, around outdoor hose bibs, a mail chute, behind the bathtub or shower surround, or where the portal connects to the house.

Storm windows and doors are a necessity for those old homes with single-pane glazing units. They are a



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significant investment but well worth it in the long run. Another good investment is to go ahead and seal up all those cracks and gaps once you've found them. Solvent-based caulks tend to last a lot longer while water-based caulks are much easier to use and clean up. If a gap is deep or wide fill it with a foam backer rod first.

Weatherstripping comes in a variety of materials. Each must be considered as to how much wear and tear it will receive and if there is moisture or heat involved. Felt and open-cell foams tend to be inexpensive and susceptible to moisture. Vinyl is a little more expensive but is more durable and not water-sensitive. Bronze, copper and other metals can be more difficult to use but will last for years.

After you have tightened up your home, don't forget to consider the indoor air-quality issues. Some homes contain dust, mold, carbon dioxide, and other contaminants. Make sure you have proper ventilation as well.

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