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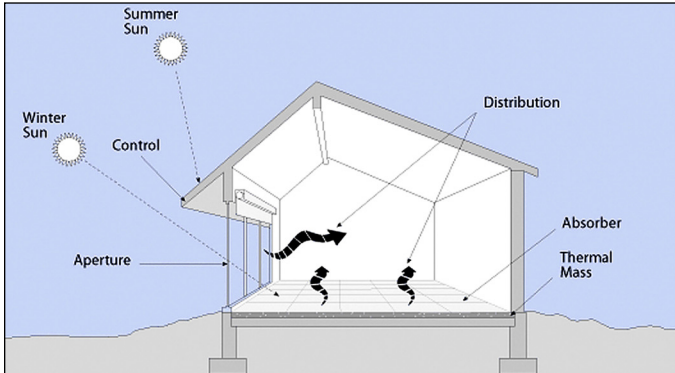
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Considerations

New Home • Remodel • Addition

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Considerations

By: Patrick Breen

Having spent most of two decades within the new home construction industry I'm always intrigued when I have the opportunity to walk through a site in progress, or inspect a brand new home. Every year there's an introduction of new techniques and/or construction practices. The choices and decisions that face the owners and their contractor can be daunting, but with a little forethought and preparation it doesn't have to be overwhelming. Here are a few things worth pondering while in the planning stages. If you're not starting from scratch some options are well suited for a remodel or addition.

First, review your site orientation. How is your home going to be positioned relative to the southern sun? Consider installing large southern facing windows coupled with an interior thermal mass. This thermal material can be stone, brick, water tanks or any dense material that will absorb radiation. If you install a circulation system near this southern exposure you can offset fuel costs by helping heat your entire home.

The key to this success lies in the length of your overhangs. It's easy to calculate the aspect of the sun. Just make sure that the overhangs shade your windows during the summer and allow the sun's rays to heat your thermal mass during the lower aspect of the winter months. This one factor is the simplest passive solar technique that can be incorporated into almost any design.

Next, consider the shell of your home. How are the walls, ceilings and floors constructed and insulated. One of the newest trends is Structural Insulated Panels (SIP's). This is a wall system composed of sheets of ridged foam sandwiched between oriented strand board (OSB). The result is a structural strength that does away with traditional framing while providing up to a 25 R-Value. Additionally, SIP's can form the roofing structure making it a great way to get cathedral ceilings. If you have typical stud wall construction consider Closed-Cell Foam Insulation. This is an expanding foam application that yields higher R-Values, tighter seals and gives added strength to the walls.

Before walls go up you need a foundation. Consider Insulated Concrete Forms (ICF's). These are interlocking foam blocks that are filled with concrete. The result is ease of fabrication yielding a below and above grade wall that is extremely strong, has no air infiltration, and higher built-in R-Value.

Choices for windows, roofing and siding material have as many, if not more, industry advances. Triple pane argon filled windows are becoming the norm; roofing material from asphalt to concrete to aluminum and metal have developed technologies with ever increasing longevity; and siding choices have become minimal if not maintenance free.

These options are just the beginning, but essentially are the core of your home. Discuss with your contractor the best options with comfort and efficiency in mind. Some materials will be more expensive but will end up lowering your labor costs. While some choices will not break even for years to come; but they will continue reaping you the benefits for the life of your home.