

10. CHOOSING A BUILDING SYSTEM

You have just acquired a beautiful site on NM 14 between Cerrillos and Madrid. You have interviewed three or four architects and have picked one you are going to work with. You have met with the Architect on the site and discussed your program (what you want in the house) and budgets. It is now time to make that tough decision on which building system to use.

The choices are many in this day of alternative and traditional building materials. The choices are usually made by taking into account budget, desired aesthetics (wall thickness, etc.), and type of finishes (both interior and exterior). Though the choices are many (wood frame, adobe, steel frame, straw bale, pumice, rammed earth, poured concrete, SIPS, or insulated concret forms) these choices can immediately be reduced by determining a budget. Always at this stage these numbers are created on a square footage basis. A client wishing to spend around \$200/sq.ft. will usually be limited to either wood or steel frame. Choosing these systems will insure your contractor can keep you within budget. In the \$200 to \$300/sq.ft. range you can probably choose between ICF's and concrete. When you get into the over \$300/sq.ft. range your going to be able to choose between the more labor intensive building systems like adobe. Determining your budget will help you decide a building system. Why promise yourself something that when it comes down to it you may not be able to afford.

Aesthetics are something that often people mention in describing the house they want. "I like those beautiful thick walls, can I have them in my house"? These thick walls come at a cost and this should be discussed in determining the system. Thick walls can be done economically with frame walls by just increasing the dimension of the stud you use or even by doing a double stud wall with the outside stud wall being load-bearing and the inside wall being non-load bearing. Thicker walls come naturally to materials like insulated concrete forms (which is required to be a minimum of 9" just to meet regulations on insulation) and adobe which has a thickness of 10" one way and 14" the other way. You can have double adobe walls which will be up to 30" thick.

Another important aesthetic consideration is whether the client wants a more classic adobe look or a more contemporary look. To get the sharper more crisp look of a contemporary home you should use materials that are dimensioned and true like a metal or wood frame or even cast concrete in which the forms you pour the concrete into are flush and true. For the more classic adobe look using looser materials with more dimensional irregularity like adobe, straw bales or even rammed earth will give that look.

Obviously the formula about making a choice on building systems requires much thought and though finishes seem not such a large factor in determining a building system they alone can make or break a budget. Lots of money can be saved by making such simple decisions as plastering only in the dining room, living room, master bedroom and not in the kitchen, second bedrooms, or bathrooms. You wouldn't have this choice with exterior walls of adobe or straw bales which would require interior plaster even in a bathroom with an exterior wall. Other considerations to take into account are source of building materials (is it environmentally sound), thermal efficiency of the system chosen and climatic and orientation considerations.

Once all these factors have been reviewed and weighed, I think the appropriate building system can be chosen and you can incorporate it into the residence's design.