



NAHB Building Business Briefs

A Service of the Business Management & Information Technology Committee

Tech Talk: Product Design and Development

By Bill Allen

(This is the fourth article in the nine-part Tech Talk series.) It's easy to put the cart before the horse and become enamored with technology solutions for design. But whether you produce home designs with computer-aided design (CAD) software, integrate your design software with estimating software, draw plans by hand, or hire a designer to produce them, you need to answer the following questions first:

- What market(s) are you building for?
- What elevations, floor plans, specifications, materials, finishes, etc., will suit potential buyers' wants and needs?
- What structural options will you allow?
- How will your designs impact product selections and vice versa?
- How can you differentiate your product from other home builders' designs?
- How can you adapt your designs for changing markets and demographics?
- How can your home designs be value engineered to lower labor and material costs and increase energy efficiency?
- If you decide to go it alone, do you have the expertise to design the product yourself?

As with the other processes discussed earlier in the Tech Talk series, know where you're headed with product design and development before you plunk down money for technology solutions.

While you're doing your homework, consider your design and estimating staff's experience and comfort level with technology. They may know CAD software options inside out and can advise you on the technology's pros (impressive 3-D modeling and walkthrough capability; extensive libraries let you instantly "swap" products and materials on screen) and cons (some programs can be expensive; some require steep learning curves to master). Whether your staffers are CAD whizzes or are totally new to the technology, be prepared to invest money in training. Every CAD program is different.

Some CAD products (like Chief Architect) can be integrated with third-party estimating programs. Others (like Timberline Office) offer fully integrated design, estimating, and take-off modules in one package. Fully integrated packages are extremely convenient, but, as we've mentioned before, they can be pricey, too.

Technology options can be used to research home designs before you commit money to designing models. Home builders have traditionally used their Web sites as marketing tools. Savvy builders increase their sites' scopes by using them as online design incubators, too. You can post digital images, elevations, renderings, walkthroughs, floor plans, and product shots in a private section of your Web site (don't make it public, or the competition may scoop you). Then gather input from focus group participants, marketing consultants, designers, engineers, trade contractors, and others to develop new designs or fine-tune existing ones. You can also e-mail digital materials to your research team.

Likewise, once you've defined your product, you can use the same technological tools to nail down selections, options, and the like with customers. The ability to customize a house online is a handy marketing tool, one out-of-town customers will especially appreciate.

Note: Various software products are mentioned throughout the Tech Talk series. The intent is not to recommend these products as being right for you, but to identify some fairly known players and to note a few new ones. My apologies to vendors who aren't mentioned—the omission was not intentional.

Bill Allen is a member of NAHB's Business Management & Information Technology Committee and is president of W.A. Allen Consulting (<http://waallenconsulting.com>). The Redmond, Wash., company provides information technology consulting services and process management assistance to the home building industry. Contact Bill at 425-885-4489 or via e-mail at skagit@foxinternet.net.

This Building Business Brief can be sent to you via e-mail. For more information, contact Jill Tunick at 1-800-368-5242, ext. 8461, or by e-mail: jtunick@nahb.com. This material may be reprinted in NAHB newsletters and member education materials.