Notebook...

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Steel Making Minor Dents in Residential Framing Market

Despite a surge of usage by larger builders in Florida, Arizona, and Hawaii, steel continues to lag behind wood as a framing material, according to a survey conducted by the NAHB. More than 600 builders participated in the poll, but fewer than one percent listed steel as a "primary material" in their new homes.

Respondents are using wood to frame the interior walls in 92% of the new homes they build, a drop from 95% in the 1995 survey. The marginal rise in the popularity of steel framing is due mainly to demand from larger builders (defined by the NAHB as those starting more than 100 units per year) in the southern and western U.S. Framers in the Northeast and Midwest show the least interest in steel framing.

Despite offering several advantages over lumber, steel framing has made slow market penetration mainly because builders don't know how to use it. Survey respondents echoed an industry-wide complaint over the shortage of skilled employees; some contractors believe that training employees in steel-framing techniques is not an efficient use of the scarce labor supply. Builders also cited consumer resistance and a lack of code acceptance, as well as concerns over the cost, availability, and thermal conductivity as reasons for not using steel framing.

The volatile nature of lumber prices would seem to make steel a tempting alternative to wood framing. But according to Dan Mercer of NAHB's *Housing Economics*, "Builders hesitate to switch to steel, even when it's comparable to lumber costs, because of associated expenses." Mercer points to the added cost of training workers in steel-framing techniques as one example of those expenses.

Builders who frame with steel have usually been involved on higher-end projects, where new technologies are often launched. But consumer awareness of the advantages of steel has trickled down to the mid-range market segment, especially with the current fad for "green" construction (steel framing, unlike wood, is 100 percent recyclable). Some buyers are also lured by the potential reduction in their fire insurance premiums with steel construction, while others are sold on steel's natural insect resistance.

The steel industry actively promotes this consumer demand, of course, but also addresses the objections to steel raised by builders. Technical assistance, training publications, and sales literature are currently available to the professional contractor. Builders interested in learning more about steel framing can call the Residential Steel Clearinghouse (301/249-4000), an educational resource established by NAHB with funding from the steel industry.

Ceiling Fans Save Energy — or Do They?

Though commonly believed to lower energy bills by reducing air conditioning use, ceiling fans may actually raise total energy consumption, according to a recent study. The October '97 issue of the *Energy Source Builder* reported on a study conducted by the Florida Solar Energy Center in which researchers tracked energy use in 400 new central Florida homes. On average, they found four fans in each home, running up to 14 hours per day.

The energy consumed by these fans was greater than the savings from reductions in air conditioner use. The ceiling fan motors also dumped excess heat into conditioned space, raising the home's cooling load.

The distance between the ceiling fan and the room thermostat is also a factor; as this distance increases, the fan has to move more air before any change in temperature registers on the thermostat.

Using a ceiling fan as a substitute for the air conditioner can reduce energy use, but that's an unlikely option on hot days. If your clients are serious about energy savings, their best bet is installing a powered attic vent.

Copies of the FSEC report (titled "Are Energy Savings Due to Ceiling Fans Just Hot Air?") are available by calling 407/638-1492.

Most people feel cooler with a fan moving the air, but that increased comfort doesn't always result in their setting the air-conditioning thermostat a little higher.

Lowest Bidder of Merit Is New California Standard

When its low bid for a public works hvac project was rejected, Monterey Mechanical Co., Inc. (MMCI) filed a lawsuit against California Governor Pete Wilson. In bringing the suit, MMCI became a test case for California's repeal of affirmative action laws, one that may topple what remains of quota systems in the western U.S.

The MMCI bid to upgrade the heating and cooling plant for California Polytechnic University (in San Luis Obispo) was rejected in favor of a higher bidder. University officials alleged that MMCI hadn't complied with the California Public Contract Code, which establishes guidelines for hiring women and minorities on public works, and awarded the contract to a bidder whose price was $318,000 higher.

The winning bidder hadn't met minority and gender hiring guidelines either, but had documented its effort to hire persons from protected categories. State University Board of Trustee members, appointed by Governor Wilson, deemed this a "good faith" effort to comply with the nonmandatory Public Contract Code, and concluded that MMCI had failed to make equivalent efforts.

The Ninth Circuit Court of Appeals, however, sided with Monterey Mechanical. The court, which had already ended hiring quotas by ordering California's Proposition 209 into effect, declared that the guidelines cited by the university were unconstitutional. The court's decision is expected to affect all ten western states falling under Ninth Circuit Court jurisdiction.

Here in California, government contracts have meant big business to minority bidders. Last year, just the Department of Transportation alone awarded $1.3 billion in public works projects, $236 million of which was awarded to protected-class bidders.

California, of course, isn't the only state that's grappling with the affirmative action controversy; in Houston, Texas, residents recently voted against repealing similar provisions in their own public works contract guidelines.

New Home Warranty Act Hits Mississippi

Home buyers and home builders will probably spend less time arguing about warranties in Mississippi, thanks to a law that took effect on July 1, 1997. Supported by the Home Builders Association of Mississippi (HBAM), the new law requires builders to cover their homes with a seven-year warranty.

While the New Home Warranty Act is thin in places — builders aren't required to warrant against rot or insect damage, for example — it does hold contractors accountable to a minimum performance standard. Because the new law is specific about both coverage and exemptions, it should help decrease confusion among home buyers.

The Act makes warranties transferable to successive buyers if the home is sold during the coverage period, which begins when the first buyer takes title to the home.

The new law also presents builders with a marketing opportunity, according to HBAM Director Steve Roth. Builders can purchase home warranty policies, then offer them as an incentive to their clients. "Due to the proliferation of home warranty laws, home warranty programs are becoming increasingly popular, "said Roth. "Builders who participate in a home warranty program are offering a solid value to their clients."

Builders Dig Up Trouble With Unstable Soil

When basement slabs started cracking in their Douglas County, Colo., tract, homeowners didn't bother the development company with a callback. Instead, they filed a class-action lawsuit against the developer, who later settled to the tune of just over $3 million.

Unstable soil has resulted in lawsuits and expensive repairs for builders in Colorado, but ground movement happens almost everywhere. Savvy builders won't touch a site without liability coverage and a current soils report.

According to the *Rocky Mountain News*, homeowners will bear part of the cost of repairing their foundations. The slabs had been poured on-grade, a poor choice when building on the expansive soils common to this part of Colorado. The problem is due to bentonite — a form of clay soil that expands when wet and contracts as it dries, exerting tremendous heaving forces against foundations.

Scott Sullan, an attorney familiar with problem soil conditions in Colorado, said, "It is possible to build safely in expansive soil, provided the recommendations of the soils engineer are followed."

Sullan says that bentonite calls for a consulting engineer's advice on the depth of piers and the strength of foundation walls, as well as the use of structural floors rather than plain slabs. In addition, the engineering reports must be current, since soil conditions and building techniques are both subject to change.

Sullan concedes that the engineering work isn't cheap, running anywhere from $300 per lot on large developments to as high as $1,500 for a single-lot report. Compared with the cost of repair work — which Sullan says can reach $45,000 for a 1,000-square-foot basement in his part of the country — $1,500 for a soil report isn't such a bad deal.

Contractors who work in parts of the country with serious ground movement problems are probably already using techniques designed for local soil conditions. Even so, Sullan advises builders to contact their insurance agents and be sure they're adequately covered against liability.

The Original "Mixed Use Occupancy"

Researchers labeled Titris Hoyuk a "commercial failure" (it was only occupied for 300 years), but its well-ordered layout shows the roots of civic planning.

Builders in Titris Hoyuk may not have been able to entice potential clients with conveniences such as indoor plumbing or glass windows, but they could tempt buyers with a feature you've probably never dreamed of offering: family crypts.

Sometime around 2500 B.C., Titris Hoyuk was settled in what is now Turkey. More than an early metropolis of 10,000 citizens, the 125-acre site was actually a planned development. After the city's streets were laid out in neatly ordered grids, homes were built according to a standardized floor plan. Each structure was home to an extended family, so several cooking areas, or "kitchens," were included in each residence.

Soon to be underwater due to the nearby Ataturk Dam project, Titris is currently being excavated by Guillermo Algaze, associate professor of anthropology at the University of California at San Diego. "Evidently, the conception of what was urban in 2500 to 2200 B.C. was not all that different from what is considered urban today," notes Algaze.

Maybe so, except for one small detail. It seems that the remains of deceased members of each family were kept in crypts in the central room or courtyard. The crypts were only partially below grade, so that the top of the tomb remained visible. It's not much of a stretch to believe that the surface might have been used for seating or as a table of some sort, since items found in the tombs indicate Titris residents sought continued communion with their departed relatives.

Offcuts ...

Police in North Northumberland, England, are searching for a gang of thieves who stole $2,500 worth of slates right off the roof. The thefts, which hit a couple of local barns on two consecutive nights, prompted a police warning for farmers to be on their guard. Nobody saw a thing, and local roofing subs aren't talking.

An undersized water softening device can reduce water flow and even gum up plumbing, according to a recent report from the NAHB Research Center. An undersized unit's lack of capacity can cause it to deliver "harder" water, and the higher mineral content can potentially clog the pipes. Even worse, the reductions in flow and pressure could hamper operation of fire sprinkler systems. For a free guide designed to help you avoid these problems, call the NAHB Research Center at 800/638-8556.

Naples, Florida, was the nation's hottest housing market in 1996, growing at just over 7.5%, according to a recent study by Chicago Title and Trust Co. Naples' boom ended a three-year run by Las Vegas as the nation's fastest-growing spot. Nevada, however, remained the fastest-growing state, followed by Utah, Arizona, Georgia, and Colorado. All of the top ten cities and states were in the interior western states or the South.

Lumber prices slid for 14 straight weeks in late 1997, the longest string of consecutive declines since 1980, when the industry newsletter *Random Lengths* starting tracking composite framing lumber prices. The downward curve took the *Random Lengths* Composite Framing Index from $430 per thousand board feet to around $375 before an uptick in early October.