

Notebook...

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With Building Boom Comes Downside

Scarce materials and busy subs are making for late completion dates

Contractors in some parts of the country are beginning to discover the downside of the recent building boom. Along with rising consumer confidence, reasonable interest rates, and record building activity have come shortages, delays, and increased prices for basic building necessities.

In Houston, for example, one of the liveliest construction zones in the country, concrete is in short supply. "Some of our members are on concrete allocations," says Max Hoyt, executive vice president of the 1,300-member Greater Houston Builders Association. Concrete is being shipped first to volume users, including large home builders and industrial contractors building highways and a new baseball stadium. "The small contractor who is building four or five houses a year," says Hoyt, "can expect longer delays and higher prices."



Due to a concrete shortage in Houston, Texas, contractors with fully-formed foundations are waiting up to ten days for concrete delivery. If the building boom continues as expected, materials like insulation may also be in short supply, and subcontractors may be harder to schedule.

Rick Byers, of Bycon Construction in Houston, agrees. "To say we're having a shortage of concrete is an understatement. Before, we could get delivery within 24 hours; now it's taking 1 to 1½ weeks. But if we order ahead and are not ready for it, we lose our place in line and have to wait even longer."

Only part of Houston's concrete problems can be blamed on increased building activity. Cement imports from China and Japan are down, two San Antonio-area concrete plants are offline due to remedial work required by the EPA, and two new plants still under construction won't be operational for several years. Plus, railway deliveries have been bottlenecked following a railroad company buyout.

But with housing starts at a 10-year-high, more material shortages are likely to occur. For example, increased demand for insulation, due in part to government regulations requiring more insulation in new homes, has been outstripping supply since the beginning of the year, despite the fact that manufacturing plants are operating at full capacity. The by-product is higher prices, which had already increased between 9% and 12% in June at Owens Corning, CertainTeed, and Johns-Manville. The market is expected to tighten even further this fall.

The surge in construction has also slowed processing time for building permits. According to Jim Wahlbrink, HBA executive officer in Raleigh/Wake County, N.C., construction of new homes for the thousands of people streaming into the area has deluged county and city permitting agencies. "It's taking eight to ten weeks to get a permit," said Wahlbrink. The permit agencies have allocated money to hire new personnel, but they face the same labor problems as the builders: lack of trained, qualified people to staff the positions. "It's frustrating for homeowners," said Wahlbrink, who also noted that slow permitting holds up payments to contractors.

Subcontractors, too, are getting harder to find and schedule, and the labor shortage has begun to affect the quality of work in the subtrades. To counter the negative effects of the trend, contractors like Tony Calvas of Phoenix have begun to keep a closer lookout for substandard work. Calvas says he has had to cut down on the number of homes supervised by

each of his production managers to give them time to monitor quality more carefully. While this practice slows the schedule and has a negative effect on the bottom line, it brings less grief than allowing substandard work to go unchallenged.

Words to the Wise

With forecasters predicting another three years of heavy building activity in some areas, long-term solutions will likely work themselves out in accordance with the laws of supply and demand. Short-term solutions, however, are a bit trickier. Aggressive planning and straight talk with customers are key to minimizing problems on the job site. Here are other suggestions for facing shortages:

Suppliers. Ask your suppliers to assess their inventory and to predict realistic delivery times for materials you will need for upcoming projects. Order early and, if possible, stockpile materials such as dry-wall and insulation. Also look for alternate suppliers. Obviously, materials like concrete can't be stockpiled, so you'll have to make sure your projects are ready when the concrete arrives.

Scheduling. Extend completion dates. Explain to clients up front that unpredictable shortages may

delay their project, and provide "extension of time" language in your contracts. Some work may have to be performed out of the ordinary sequence. "We try to do other jobs for the client while we're waiting for concrete," says Byers. "For example, if we have a gas line to install, we'll go ahead and do it, instead of waiting."

Pricing. Add an "escalation" clause to your contract, which will allow you to raise your prices if your costs go up. Document the pricing you used in the initial bid so you'll have something to compare the higher prices to. Where possible, specify alternate materials so you can make substitutions without the delays caused by having to obtain your client's approval.

Subcontractors. Ask your regular subs to commit early to upcoming projects. As a precaution, find backups in every subtrade, so when delays occur you won't be left holding the bag. If you don't already have backup subs, now would be a good time to cultivate relationships with new subcontractors.

Cash flow. Arrange for more frequent payment intervals to counter the effect of delays on cash flow. Open a line of credit to help cover short-term debts for materials ordered in advance. 

Offcuts ...

One out of three new single-family homes is a manufactured home, according to the Manufactured Housing Institute. Recent growth in manufactured housing sales is credited to greater attention to aesthetics. Newer manufactured homes feature more options found in site-built homes, such as dormers, vaulted ceilings, bay windows, and stucco exteriors.

Max Co. expects increased U.S. nail gun sales to challenge Stanley-Bostitch, currently the industry leader. Already the largest manufacturer of nail guns in Japan, Max plans to increase sales agencies from 33 to 50 and double its market share to 20% this fiscal year, which ends in March, 1999.

Tired of razoring paper labels off of new windows? Weather Shield announced this spring that it was the first manufacturer to switch to a new pressure-sensitive label that peels cleanly off the glass. Here's hoping the rest of the industry follows suit.

How much material goes into a 2,085 square-foot home? A partial list from 1998 *Housing Facts, Figures, and Trends*, an NAHB publication, includes: 13.97 tons of concrete, 15 windows, 13,127 board-feet of framing lumber, 120 linear feet of ducting, 13 kitchen cabinets and 2 other cabinets, 7 closet doors and 12 interior doors, 2 exterior doors and 1 patio door, 3,061 square feet of insulation, and 3 bathroom sinks.

A new spray-on foam is said to dissolve asbestos in place. W.R. Grace & Co., who spent \$15 million and four years to develop the foam, has confirmed the effectiveness in tests done by Underwriters Laboratories. Grace plans to market the product, named DMA, to large asbestos abatement contractors in 1998.

Fiberglass Batts Pass Air Leakage Tests

In a field study of several types of insulation, air sealing practices added to fiberglass batt installations produced air leakage rates that compared favorably with those of the other materials. Previously, spray-applied cellulose, blown-in-blankets (BIBs), and Icynene foam-in-place insulation had been considered superior to fiberglass batts in blocking air movement.

The study was conducted by the National Association of Home Builders Research Center on 26



A recent study has shown that fiberglass batts, when carefully installed in walls, block air infiltration as well as non-batt materials, but only when used in conjunction with common air-sealing techniques.

new homes built by four production builders in the Baltimore-Washington metropolitan area. Each builder provided six to seven homes, insulated with either one of the non-batt materials or fiberglass batts with a special “air-sealing package” that included caulking or gluing all double studs and plates, applying foundation sill sealer, chinking windows with fiberglass, and installing air-barrier tape at windows.

“The study was designed to get a complete picture,” according to project leader, Matt Pesce. “From a builder’s perspective, that has to include how much the alternative materials cost, how long it takes to install them, how well they went in, and how well they perform.” The study found that the installed cost of spray-applied cellulose, BIBs, and Icynene, some of which took up to 2½ times longer to install, was 71%, 105%, and 174% more, respectively, than fiberglass batts to achieve an R-13 wall.

“Once the effect of the air-sealing package was accounted for, spray cellulose and BIBs did not significantly reduce the envelope leakage in the houses we studied,” added Pesce. Icynene offered some advantage in this area, but the payback for the higher initial cost would be more than 20 years. However, the non-batt insulation exhibited fewer installed defects compared with the “average” quality of the batt insulation. “But it is interesting,” added Pesce, “that when the batt insulation contractors found out their work was going to be evaluated and tested, the quality of their workmanship really improved.”

Pesce was quick to point out that the study considered only walls, and that the non-batt materials might offer clearer benefits if they were installed in the ceiling, especially in the wall-ceiling intersection. 

Colorado Builders Win Permit Fee Dispute

In a victory for Colorado home builders, the Colorado Court of Appeals ruled in favor of the Home Builders Association of Metropolitan Denver (HBAMD), which argued that Douglas County’s building permit fees were higher than its costs. Anyone can do the math: In 1995, the county building department brought in \$4.8 million on a \$1 million operating budget.

“The county treated the building department as a profit center,” said Steve Wilson, HBAMD’s Director

of Governmental and Technical Affairs. “They said that they only charged fees as permitted under the *Uniform Building Code*, and were only making a profit because they operated so efficiently, and because so many houses were being built.” According to the Court of Appeals, however, building permit fees must approximate the overall costs of operating the county’s building department, as prescribed by state and local law.

The case was remanded to the original trial court, where the county will have to justify its fee structure. Fortunately for builders, the county building department was using an older fee schedule from the *UBC* for calculations; using the newer schedule, the fees would have been 35% to 40% higher, Wilson said. 

Steel Industry Funds Energy Study

In an effort to expand the use of steel in residential construction, the American Iron and Steel Institute (AISI) has launched the Residential Steel Partnership, a multi-faceted campaign designed to counter common misgivings about the use of steel framing. The study, which will be conducted by NAHB's Research Center, includes a three-year, \$627,000 program designed to find solutions to the problem of thermal conductivity, and is part of the five-year, \$19 million Technology Roadmap Program the AISI is conducting. The U.S. Department of Energy will share the cost.

In addition, AISI is addressing the lack of skilled workers to install steel framing by developing a training course that includes clear, concise steel framing techniques and procedures. The \$155 course of study will help existing community colleges, voc-tech schools, and apprenticeship training facilities to better train their students. Previous training efforts employed individual AISI representatives traveling from site to site to provide assistance, training semi-



The American Iron and Steel Institute is funding a study that it hopes will develop solutions to thermal conductivity and other obstacles to the use of steel studs.

nars, and workshops. Anticipating significant market growth for steel framing, the institute decided that a standardized training method was needed.

Instructor manuals for the Residential Steel Framing National Training Curriculum are available to approved training programs. Student manuals are available to anyone who's interested for \$120 each by calling 202/452-7202, or via e-mail at TLewis@steel.org.



Tax Talk... Deducting a Computer

by Milton Zall

Own^Oning a construction business does not mean that your computer is automatically tax deductible. Computers and associated peripheral equipment, like printers and scanners, generally fall under the rules for "listed property" — property that can be used both for business reasons, like figuring estimates, or non-business reasons, such as amusement or recreation. If a computer is used exclusively at a regular business establishment and is owned or leased by the person operating the establishment, then it is not "listed" property. If the computer is used at home, however, it is listed property and you will have to keep a log of the

business use. The exception is for a computer that is kept in a space that qualifies as a home office under the tax law. In that case, you must meet the IRS requirements for a home office.

If you can't prove 100% business use for your home computer, your depreciation is limited to the percentage of use for your business. For example, if you can prove you use the computer 60% of the time in your business, you can deduct 60% of the expenses. To prove the business usage of your home computer, maintain a written log showing the date used, the business purpose, the time spent, and software used. You'll have to keep a record of non-business use as well, so that you can determine the total amount of time the computer is used. Otherwise, you won't be able to calculate the business-use percentage.

To claim accelerated depreciation, the business usage must be more than 50%. Be careful, though: If you use accelerated depreciation for one year when your business usage is greater than 50% but then your business usage falls to 50% or less in a later year, you must "recapture" (pay back) some of the depreciation previously claimed.

Indoor Air Quality Alert

Just when the EPA had begun to see progress in its efforts to reduce emissions from manufacturing and automobiles, indoor air pollution has become a serious issue. The majority of problems are in offices and other commercial buildings where mechanical ventilation systems recirculate and condition the air. "Experts estimate that 30% of the approximately 4.5 million office and public buildings in the U.S. have indoor air quality (IAQ) problems," says James Neet, an attorney with the Kansas City-based law firm of Shook, Hardy & Bacon. "Those figures put an estimated 100 million Americans at risk." Adults in the United States and Canada spend about 90% of their time indoors and up to 60% of that time in the workplace.

Much of the problem has its source in the energy-efficient building practices introduced in response to the energy crisis of the 1970s. Inadequate code requirements for ventilation, which have not compensated for reduced natural infiltration, combined with increased use of manufactured products, have reduced indoor air quality to an all-time low. "The air in most houses is truly bad," says John Bower, co-founder of the Healthy House

This building has been constructed based on generally accepted construction principles and using products and materials that should not, under normal conditions, contribute to indoor air quality problems. The building contractor is not responsible for indoor air problems that may be caused by improper operation and maintenance of mechanical equipment, the intrusion of moisture or other substances from inside or outside the building, lack of maintenance, the modification of the building by anyone other than the contractor, or any product defect caused in manufacture.

A clause like this one in your contract can help you avoid sole liability for IAQ problems.

Institute, "often much worse than the air found in polluted cities."

Instead of waiting for an illness or lawsuit, Neet, an expert in indoor air quality law, suggests taking these steps:

Run the hvac system to make sure it's in good working order. If the system is more than five years old, call an hvac contractor to evaluate the system. Include a disclaimer in your contract that excludes the operability of the hvac system.

Establish procedures for investigating complaints. Respond to all calls within 24 hours; if the problem affects life safety issues, respond to the complaint immediately and take steps to correct the problem. Otherwise, document the complaint, and make an appointment to investigate within five working days. Set a deadline to resolve the problem and stick to it.

Prevent IAQ problems during construction by avoiding materials that contain formaldehyde, lead, asbestos, CFCs, or mercury. Keep debris

cleaned up to avoid leaving pollutants in the building after the job is complete.

Include an IAQ clause in your contract (see sample language, above).

For more information on residential ventilation, visit the Healthy House Institute Web site at www.hhinst.com.



Risky Business

Owners of leaky condominiums in Vancouver, B.C., have threatened to kill the developers, according to a story in *The Globe and Mail* in Toronto, Canada. In letters to the developers released by the Vancouver city police, condo owners fed up with the lack of response to their complaints

threatened, "You pay up with respect to leaky condos or we will kill you." The police are taking the threats seriously.

The repair bill is estimated at \$1 billion for the 100 buildings involved. The story blames a 10-year building boom that brought unlicensed developers and unskilled labor into the area. "Cheap new materials" and "outdated municipal building codes" were also blamed for the moisture problems.