Eight-Penny News

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Lot Surplus May Drive Land Prices Down

Be careful what you pay – or ask – for that empty lot. According to both market analysts and town officials, a post-boom surplus of both finished lots and raw land is softening land prices throughout New England. For developers or builders holding large tracts of land, this means trouble; but for builders or home buyers looking for a lot to build on, it may mean the opportunity to pick up land at reasonable prices again. It also presents the opportunity to make expensive mistakes: Those who pay too much now may find themselves with overpriced projects next year.

"Anywhere in New England where you had a good market before, developers have overextended their position and have a lot of inventory," says market analyst Robert Sennott. Sennott's real estate research firm, Market Intelligence, Inc. of Hopkinton, Mass., recently studied lot inventories in eastern Massachusetts and southern New Hampshire and found the number of lots for sale at a record high. Sennott says most towns have a two-year inventory of finished, empty lots on the market, and this is on top of the two years of housing inventory that needs to be liquidated.

Some towns are even more overstocked. Hopkinton, Mass., for instance, has 194 finished lots for sale and another 68 under construction; at the present rate of sale, these lots, which are priced at $64,000 to $170,000, will take five years to sell.

Other towns around New England report similar, if less severe, lot surpluses. Clarence King, the tax assessor in Simsbury, Conn., an affluent community near Hartford, says that lot and house sales there are "practically nonexistent" in recent months. "Prices haven't dropped," says King, "but the sales aren't occurring. We've had one lot sale in each of the last two months. In previous years, we'd had well over a hundred house sales a month."

The trend seems to be the worst in upper-end areas such as Simsbury, where the high price of raw land forces developers to seek high lot prices. In Simsbury most lots sold during the boom for $125,000 to $250,000 with finished homes going for $500,000 to $700,000. But with the market for such homes overstocked now, expensive lots are drawing few offers.

Even moderately priced lots are moving slowly in areas where building pressure was heavy during the heyday of the mid-1980s. In the coastal town of York, Maine, where empty lots away from the water went for around $50,000 to $70,000 a couple of years ago, "there's all sorts of lots around town that have been cleared, and now they're not doing anything with them," according to town clerk Mary Ann Szeniawski. Szeniawski's back window, for instance, overlooks a cleared lot in which a foundation was begun but abandoned; the lot has sat empty for over three years.

While some surplus exists in every New England state, areas in which market or regulatory forces kept development in check feel the glut less painfully. Vermont, for instance, so far has a smaller surplus and firmer prices, largely because the state's growth-control law, Act 250, effectively slowed development during the boom. This frustrated many builders and developers at the time, but prevented the market from getting too far ahead of itself; thus while building is slow in Vermont, even in the once-booming Burlington area, lot inventories are reasonable, prices are relatively firm, and the outlook is less grim than in places where development went uncontrolled.

Jerry Firkey, the zoning administrator in Essex, Vt., an upscale bedroom community outside Burlington, says that Act 250 continues to be the dominant brake on development. "Of about 100 lots we have awaiting development right now, most are simply waiting to get past various [Act 250] restrictions. As a guess, I'd say only about 30 are sitting there because of market forces." The rest of the lots, says Firkey, will likely see building activity as soon as they pass approval, which he says will probably be this summer. As a result, prices for empty lots – which in Essex start at around $55,000 – are so far remaining firm.

This may change, however, if Vermont's poor housing market continues much longer. "We've only really felt the housing slump since last summer," says Firkey, "so we're still early in the cycle. You've got to be in it for a while before you start feeling the squeeze." Firkey feels that if the market doesn't improve over the summer, both land and housing prices might soften as developers are forced to sell inventory to cut their losses.

Selling, says Robert Sennott, is precisely what developers in overstocked areas should do, even if it means getting less than they originally planned on getting. He says lot prices have already dropped an average of around 20% in Boston-area communities, and as much as 35% in some of them. With prices heading south and buyers acting finicky, says Sennott, "sellers who employ the 'Wait it out, gradually reducing price' strategy will wind up with major losses. In this marketplace, time is very unfriendly." The logic of this is borne out by the comments of many town planners who say that lots priced at 1988 levels simply aren't moving.

The smaller builder already holding land may have trouble moving it at a profit, either as an empty lot or a finished house. On the other hand, a builder looking for a lot to build on can do well if he or she shops carefully, chooses a site where housing surplus is under control (or overpriced), and then drives a bargain on the land that will allow the finished house to underprice the competition. As Rob Sennott says, "Where there's crisis, there's opportunity."

—David Dobbs

Getting the Bugs Out of Foam Panels

In recent years, foam panels have gained a reputation as a cost-effective, energy-efficient building material. Now, at least two major panel manufacturers appear to be on the verge of eliminating one of the perceived drawbacks of foam – by making it unattractive to carpenter ants and termites.

Both Winter Panel Corp. (RR 5, Box 168B, Brattleboro, VT 05301; 802/254-3435) and AFM Corp. (6140 Lake Linden Dr., Box 246, Excelsior, MN 55331; 800/255-0176) say they are preparing to introduce full lines of "bug-safe" panels this spring. The treatment processes are different, but the key ingredients used by both are borate compounds.

The two firms use different types of foam. Winter Panel produces primarily polyisocyanurate panels, while AFM is an umbrella group for 21 manufacturers that use expanded polystyrene (EPS).

Anti-killing experiments. U.S. Borax (3075 Wilshire Blvd., Los Angeles, CA 90010; 213/251-5400), which produces a borate compound with the brand name TIM-BOR, worked with both companies to finance and supervise research on treatment with the two types of foam.

Both products were tested at Washington State University, using native species of carpenter ants. Other species were tested for AFM at the U.S. Department of Agriculture's Southern Forest Experiment Station in Gulfport, Miss., and for Winter Panel at Ohio State University. In each instance, spokespersons for the manufacturers say, the ants thrived in untreated panels but died quickly when introduced to treated panels.

According to an AFM technical summary, "In all cases, the insects that were killed in the treated panel experiments died from intentional starvation by the insect, ingestion of the treatment, or by being fed treated material from a worker insect. It should be noted that the treated panels sustained no measurable deleterious effects from their exposure to the insects."

Permanence. While other treatment methods are available, both AFM and Winter Panel say that their treatments have a big advantage – they provide permanent protection.

AFM executive vice president Mike Tobin notes that other products use liquids and oils that evaporate, so retreatment is needed every few years. In the new AFM panels, he says, liquids are used as a "vehicle for treatment," but after they evaporate, the borate compound is locked in for the life of the panel.

Amos Winter of Winter Panel says that borates, like salt, attract moisture which can damage panels. Therefore, his company developed a method to "micorencapsulate" the borates inside the foam cells to permanently protect the compounds from moisture.

Other effects. Each of the firms claim that the new treatment processes were examined to be sure that there would be no negative side effects.

"We had to ask many questions," Tobin commented. "'Is it safe?' 'Is it toxic to people?' 'What are the effects on structure, and on aging?' The results of our testing look very, very good."

Winter says borate treatment not only lacks negative side effects, but improves his panels in many ways. Most significantly, he says, borates are a fire inhibitor. Now, because of environmental concerns, efforts are under way to reduce and eventually eliminate the use of chlorofluorocarbons (CFCs) as a blowing agent for polyisocyanurate. A problem with reducing CFCs is that they are a fire inhibitor, and most other blowing agents are not. According to Winter, use of borates will allow substantial reductions of CFCs without increasing fire risk.

What's more, he says, the borate treatment improves the R-value of the panels slightly. The improvements are modest, he says, but the net results is that the panels will retain their energy efficiency with reduced use of CFCs. In addition, he says borates slightly enhance the structural strength of the foam.

Negligible price boost promised. The cost of AFM's treatment, Tobin says, is "almost imperceptible," about the amount that a homeowner would pay for a one-time, temporary bug treatment.

Wayne Clarke, product manager for Branch River Foam Plastics (an AFM partner) projects that the treatment will "probably add two to three percent to the cost of a panel."

Clarke says the treatment will soon be available for all Branch River panels, including structural panels and the stressed-skin panels that are commonly used on timber frame homes.

Winter says the treatment will have "no impact on the cost" of his panels. "The density is the same," he notes. "What we've taken out in urethane we've added in borate." Therefore, he says, all of his firm's panels will be treated.

Perspective on bugs. Ever since foam panels have gained popularity, the manufacturers – including AFM and Winter Panel – have maintained that insects should not deter people from choosing their products.

They note that wood, a more traditional building material, has long provided food for termites and homestead for carpenter ants. Therefore, avoiding these insects is one of the duties of homeownership.

Peter McNaull Jr. of Foam Laminates of Vermont notes that no research to date indicates that foam is more attractive to bugs than is wood. "It's not a case where the ants smell the foam and say 'lunch!" he comments.

McNaull acknowledges that care should be taken when using foam panels. He recommends that the bottom of each panel be treated and sealed, that all joints be sealed, and that the panels be protected from moisture. He says that homeowners should take normal precautions against ants and termites, and that if they are evident, "You should call the exterminator." Tobin of AFM agrees. "Panel houses have only been around for a decade and a half," he notes. "Carpenter ants have been damaging houses for thousands of years…foam panel houses are not any more susceptible than stick-frame houses."

In general, Tobin says, insects are a threat only if a new structure is built on their traditional foraging grounds.

However, he emphasizes that the new treatment does afford protection against a perceived hazard. One of the major advantages, he says, is protecting builders from lawsuits brought by homeowners whose dwellings might otherwise become infested. "We've become a litigious society," he notes. *–Steve Carlson*

NKBA Conference/Show

The National Kitchen and Bath Association (NKBA) will hold its annual Kitchen and Bath Conference April 20 through 24 at Chicago's McCormick Place North this year. They are expecting a record attendance of 35,000. The Kitchen/Bath Industry Show (KBIS), which focuses on products, will run concurrently with the Conference (April 21-23) as usual. A record number of manufacturers are expected to exhibit at the show. According to NKBA officials, the conference will feature over 50 seminars and workshops, plus five, full-day educational programs that include a mini-school on lighting.

Registration for the five-day conference runs $70 for NKBA members and $80 for non-members at the door. There is a discount for pre-registration, which also allows you to avoid the long lines. The fee covers admission to the exhibits as well as program. A $15 exhibit-only ticket is also available for members and non-members who just want to attend the KBIS. For more information, contact the NKBA Conference Department at 201/852-0033. ■

Saw Mill Rises From the Ashes

When his Goosebay Sawmill's main building burned to the ground the day after Halloween, 1989, Carl Mahlstedt thought he might have to punch out of the milling business. His heavy milling equipment was unharmed, but the building itself was uninsured, and Mahlstedt didn't know whether he could afford to build a new one. That is until two and a half weeks later, when over 40 carpenter, contractors, other old clients, and a host of friends showed up at the Chichester, N.H., site one Saturday morning to raise a new building for him.

In two days they framed and partially roofed a new 30x100-foot pole barn with a trussed roof frame. With a huge lunch of sandwiches, baked beans, stew, casserole, soup, and chinese food donated by a Chinese restaurant next door, the project had the feel of an old-fashioned neighborhood barn-raising. In fact, the beams for the building were cut (with wood from Mahlstedt's stock) by a competing local sawmill owner.

In the weeks that followed, people continued to drop by on week-ends and evenings to help finish the job. Mahlstedt figured to have the building completely finished by the time this story runs. In the meantime, he is quite grateful for all the unexpected help. "I had better friends than I realized," he said. ■

Tax Talk: What Are Your Chances of an IRS Audit?

By Irving Blackman

The game goes on. You file. The IRS audits. During 1987, a total of 1,109,000 individual income tax returns were subjected to the displeasure of an IRS audit. Overall, this means that 109 returns out of 10,000 filed were examined in 1987; down a bit from the 112 per 10,000 in 1986.

But don't get overconfident that these low percentages apply to you. The higher your income, the greater the interest the IRS has in paying you a visit.

Here is a breakdown of the chances that your personal return will be audited, based on 1987 figures:

Total Positive Income	Chances in 10,000 Of Being Audited
$10,000 to $25,000 (w/itemized deductions)	130
$10,000 to $25,000 (w/out itemized deductions)	64
$25,000 to $50,000	140
$50,000 and over	224

To give you an idea of the massive task that the IRS has each year in tracking down tax cheats, the IRS received 101.8 million individual returns in 1987, plus millions more on corporation, partnership, and trust returns.

The chances of having your business or company audited decreased dramatically in 1987, compared with 1986, especially for corporation. However, your chances of hosting an examining agent in 1987 increased if you operated a small unincorporated business.

Here's the breakdown for noncorporate businesses and for corporations:

Noncorporate Business Income - Schedule C	Chances in 10,000 of Being Audited	
	1987	*1986*
Under $25,000	141	134
$25,000 to $100,000	201	227
$100,000 and over	386	474

Corporations (in assets)	Chances in 10,000 of Being Audited	
	1987	1986
Under $100,000	67	107
$100,000 to $1 million	116	174
$1 million to $10 million	410	619
$10 million to $100 million	2,292	2,999
$100 million and over	6,908	7,451

And to each reader who ends up facing the dangers of an IRS tax audit, Good Luck!

Want to increase your chances of winning if you are audited? Send for these special reports – Year-Round Personal Tax Planning…191 Ways to Win After Tax Reform ($24); or Year-Round Business Tax Planning…153 Ways to Win After Tax Reform ($24). Both reports may be ordered for $39 from Blackman, Kallick, Bartelstein, 300 South Riverside Plaza, Chicago, IL 60606. ■

Irving Blackman, CPA, J.D. specializes in closely held businesses. He practices with Blackman, Kallick, and Bartlestein, 300 South Riverside Plaza, Chicago, IL 60606.

From What We Gather

Wood heating has lost its luster in the Northeast. Only 16% of Vermonters use wood heat as their primary source of heat, compared with 33% five years ago, according to a survey conducted by Green Mountain Power Corp.

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Radon is one problem George and Barbara Bush won't have to face over the next three years. As part of a study of 450 buildings in the Washington, D.C., area, the General Services Administration made 34 measurements in the White House. The highest level found was 2.8 pCi/l in a basement kitchen – well below he EPA "action" level of 4 picoCuries. Source: Energy Design Update

Appliance Reliance

Before recommending new appliances to a client, you might want to check out a small book called The Most Energy Efficient Appliances, which is published yearly by the American Council of Energy Efficient Economy (ACEEE). The book lists the most efficient refrigerators, freezers, dishwashers, furnaces, and air conditioners, as well as less common heat pumps and boilers. It costs $3, and is available through the ACEEE, 1001 Connecticut Ave. NW, Washington, DC 20036; 202/429-8873. ■

Residential Siding Stats: Who's Using What

Aside from location, "curb appeal" is one of the most important factors in attracting potential buyers to a new home. A major contributor to curb appeal is the exterior covering used on a home. A recent survey by the NAHB Research Center reveals the latest trends in material siding choices. This Builder Practice Survey also provides an insight into the variability of materials among regions and structure types.

Nationally, wood products – plywood, lumber siding, hardboard, shingles/shakes, and other board products – dominated the materials used for siding in 1987 (see Table 1). Brick, concrete, block, stone and stucco ranked second; aluminum, vinyl, and steel siding ranked third.

TABLE 1
Siding Materials Used in U.S. Construction During 1987

Siding Materials	Single Family Detached	Single Family Attached	Multi-Family Lowrise
Wood Products, Plywood, Lumber, Siding, Shakes/ Shingles, Hardbd., Other Board Products	51%	56%	45%
Brick, Concrete Block, Stone, Stucco	34%	29%	42%
Aluminum, Vinyl, Steel Siding	16%	15%	14%

TABLE 2
Summary of Siding Material in Single Family Detached Units

Siding Material	1985	1986	1987
Plywood	14%	14%	15%
Hardboard	26%	24%	20%
Lumber Siding	6%	8%	12%
Shakes/Siding	2%	3%	2%
Particle Board	0%	0%	1%
Waferboard	0%	0%	1%
Brick	18%	17%	18%
Concrete Block	2%	4%	1%
Stucco	13%	17%	14%
Stone	1%	2%	1%
Aluminum	11%	6%	6%
Vinyl	6%	6%	11%
Steel	0%	0%	0%
Other	0%	0%	0%

Single-Family detached. The most significant national trends in single-family detached unit construction for 1985, 1986, and 1987 were relative declines in hardboard and aluminum siding, and increases in lumber and vinyl siding (see Table 2).

At the regional level, there was considerable variation in siding material choices. Wood products dominated the market in New England where they represented 79% of the siding products in 1987. Similarly, in the West North Central and Pacific regions wood siding were used 71% and 69% respectively. Brick, concrete, block, stone, and stucco products shared the market almost equally with wood siding products in the South Atlantic, East, West South Central, and Mountain regions. Aluminum, vinyl, and steel siding products represented 39% of the siding in the Middle Atlantic and East North Central regions, while representing 17% or less of the market in all other regions.

Single-family attached. Siding products used for single-family attached units displayed a distribution similar to that for single-family detached units. The percentage of lumber and vinyl siding increased from 1985 to 1987, while the percentage of aluminum siding decreased.

The variation in siding choices for attached units among regions was also similar to the pattern for single family detached construction.

Multi-family. There was a relative mix of siding materials chosen for multifamily low-rise units. The survey snowed a dramatic increase in vinyl siding and a declining market for hardboard. The increased use of lumber siding that appeared in the single-family detached and single-family attached homes was not evident in the multi-family low-rise units, although aluminum use continued to be limited.

Use of vinyl siding is increasing in all three housing types. This trend is likely related to vinyl's reputation for low maintenance and its increased acceptance on higher-end units. Evidence of this acceptance appears in the Middle Atlantic region. In 1987, 22% of the siding material used on single-family detached homes priced over $300,000 was vinyl. In the New England region – traditionally wood-product siding market – 23% of the siding material installed on single-family detached homes priced above the 1987 average was vinyl.

The declines in the percentage of hardboard siding are possibly related to the past performance of the material and to the performance of coatings applied to the hardboard.

The declines in market share of aluminum siding appear to be a direct result of the head-to-head competition with vinyl siding. This competition is evident in the single-family detached and attached sectors where declines in aluminum siding follow increases in vinyl siding.

– Robert Stroh

Adapted by permission from NAHB's Housing Economics.

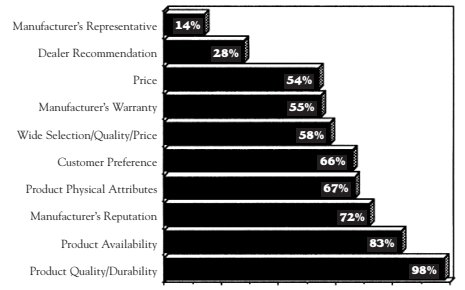
A Picture of Today's Remodelers

If you're a "typical" remodeler today, then you're a 42-year-old male with at least some college who has been in the business for over 15 years, according to a recent survey of remodeling contractors by the National Association of Home Builders.

Sound familiar? Maybe not, but some of these other numbers reported in NAHB's Housing Economics may:

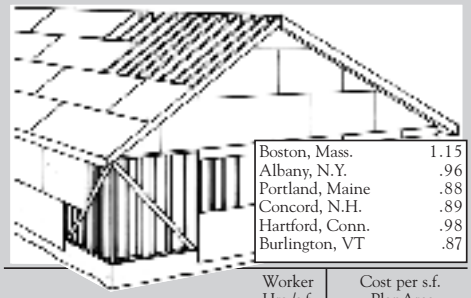
- Even though a large number of remodeling/renovation firms are small, about half are organized as corporations. Another 44% of the firms are sole proprietorships and only 5% of the firms are partnerships.
- Thirty percent of the remodeling firms have been in business less than five years, 26% have been in business six to ten years, and 44% of the remodeling firms have been in business for more than ten years. The median are of the remodeling employees on a firm's payroll is one, for field employees its is five or more.
- The median dollar amount of remodeling activity during 1988 was $214,332; the median dollar volume was expected to increase by 11% in 1989.
- Forty-seven percent of the remodelers currently offer insurance repair work, followed by 27% that offer paid design services, and 26% offering house inspections.
- In a typical addition or alteration job, labor and material costs constitute 36% and 37% of the total costs, respectively. The remaining 24% is overhead and profit.
- About one-fourth of the remodeling firms have 100% and more than one-third have 75% to 99% of their 1988 sales from referrals and repeat customers.
- Only 17% of the remodeling firms have a showroom.
- Twenty-two percent of remodeling firms employ sales people.
- Of the remodeling firms who employ sales people, 96% have full-time and 67% have part-time sales employees.
- In-house design services are offered by 63% of the remodeling firms.
- General designers, those without formal design training, are on the payroll of 51% of the remodelers who offer in-house design.
- Only one-third of the remodeling firms worked as subcontractors during 1988.
- Services considered very important in the selection of the material suppliers by over 60% of the remodelers are: quick deliver from warehouse (73%), telephone order call-in service (72%), line of credit (71%), job-site delivery (70%), price (70%), broad product availability (68%), and convenient location (61%).
- Places where remodelers generally purchase building material products vary with the product. The most common places are: lumber/building supply dealers and wholesale distributors for windows, doors, and patio doors; wholesale distributors and Home Centers/other retailers for appliances; subcontractors/installers, wholesale distributors, home centers, and direct from manufacturers for cabinets and flooring; wholesale distributors and subcontractors/installers for plumbing features; and lumber/building supply dealers for *lumber and hardware*. ■

What Builders Look for When Selecting Building Materials



The above factors were rated by remodelers in a recent NAHB survey as "very important" in selecting one manufacturer's product over another's.

R.S. Means Report Wall and Roof Framing



Description	Worker Hrs./s.f. Plan Area	Cost per s.f. PlanArea Mat.	Labor	Total
Roof and Eaves				
Rafters: 2x8, 16 inches on-center, 4/12 pitch	.019	.73	.48	1.21
Ceiling joists: 2x6, 16 inches on-center	.013	.46	.31	.77
Ridge Board: 2x8	.001	.03	.04	.07
Fascia board: 2x8	.002	.06	.18	.24
Rafter ties: 1x4, 4 feet on Center	.001	.01	.03	.04
Soffit nailer (outrigger): 2x4, 24-inches on-center	.004	.05	.11	.16
Sheathing: exterior, _-inch CDX	.012	.40	.33	.73
Ceiling furring strips: 1x3, 16 inches on-center	.023	.15	.54	.69
Total	.075	1.89	2.02	3.91
		Cost per s.f. Wall Area		
Exterior Wall				
Studs: 2x6, 16-inches on-center	.016	.45	.39	.84
Plates: 2x6, double top, single bottom	.006	.17	.15	.32
Corner bracing: let-in,1x6	.003	.01	.09	.10
Sheathing: exterior, 1/2-inch CDX	.013	.47	.32	.79
Total	.038	1.10	.95	2.05

The above costs are based on a national average of unit price costs for the typical construction of a wood frame residential house. Wall framing costs are given in cost per square foot of wall and do not include window and door openings. Roof framing costs are given per square foot of plan area. All costs shown here will vary significantly from project to project due to quality, complexity, and local economics.

This report is adapted from 1990 edition of *Means Residential Cost Data*, published by the R.S. Means company. Means publishes a wide range of estimating data and related guides for the construction industry. For more information, contact R.S. Means Company, Inc., 100 Construction Plaza, Kingston, MA 02364; 617/585-7880.

Asbestos Fears Overblown?

In most cases, asbestos in buildings is best left alone, according to a recent report published in the prestigious Science journal. According to the report's lead author, Brooke Mossman, a cell biologist at the University of Vermont College of Medicine, "There is no evidence that low-level exposure such as you would experience in a home or school is a threat to human health."

Mossman and her colleagues, who reviewed the scientific evidence, found that the occupational studies which led to current regulations were based on a kind of asbestos, called amphibole, that is rarely found in buildings.

The common type of asbestos – chrysotile – appears to have no link with methothelioma, the rare cancer associated with asbestos, says Mossman. The other major health problem associated with asbestos, asbestosis, is linked only with prolonged occupational exposures, she says, that are hundreds or thousands of times greater than levels found in homes or buildings. In fact, she says, the research shows that airborne levels in buildings with known asbestos are about the same as in other buildings and in the outdoor air.

Because exposure levels in buildings are so low and because the type of material most often found is not proven hazardous, Mossman believes in most cases it is best left alone. In addition, she points out, "in many cases, efforts at removal put more asbestos into the air than was there in the first place."

If friable asbestos is encountered by a contractor or homeowner, Mossman advises prudence – but not panic. Leaving it alone or encapsulating it, she says, is often the best course of action. Mossman advocates testing first before considering removal. An asbestos-removal contractor can recommend a testing lab. A simple test (called "phasecontrast microscopy") costs about $100. A more thorough test that identifies the size and type of fibers (electron microscopy) should cost $200 to $400. Only if the level and type of airborne particles are clearly hazardous, she says, is removal justified "from a scientific standpoint."

The report, says Mossman, reflects the thinking of the majority of the scientific and medical community. The rush to regulate by federal and state agencies, she says, was premature and based on political pressure rather than scientific study.

Establishing realistic standards for acceptable airborne levels in homes and public buildings, says Mossman, would be an important step toward developing sensible policies. The current effort to remove all asbestos from all buildings at any cost makes no sense, she says. ■

Computer Bits:

Are you a specialty contractor who needs to integrate accounting and job costing? Check out Software Shop Systems' ContTrak II Version 5.0. Contact them at Rt. 34 P.O. Box 728, Farmingdale, NJ 07727; 201/938-3200.

A micro-base design program, *Designer,* which includes many graphic art and technical illustration features, compatible with Microsoft Windows, is available from Micrografx, Inc. Contact them at 1820 N. Greenville Ave., Richardson, TX 75081; 214/234-1769.

Need help estimating? Try Pro-Bid, an estimating Software for the construction market. They claim a Pro-Bid option can read measurements and quantities directly from blueprints. Contact Pro-Mation at 1145 E. South Union Ave., Midvale, UT 84047; 801/566-4655.

Attention Software manufacturers: Please send announcements of construction industry related software products to computer Bits, The Journal of Light Construction RR#2 Box 146, Richmond, VT 05477. Attn: John D. Wagner.