

This partially finished house is one of two models sold by a Rhode Island builder for \$95,000.

# Housing affordability

Construction in Rhode Island is so slow that when one builder was asked how he and other builders are getting along, he replied, "There are no other builders. They're either dead or

Yet in this same market crippled by overbuilding and bank collapses, Rhode Island builder Joseph Gustamachio recently

"Our strategy is real simple," them quickly, sell them at a fair price, and make a minimum profit."

The partially finished capes and raised ranches situated on 50 acres in West Warwick, R.I., sold for \$90,000 to \$95,000. Buyers had a choice of a twofloor raised ranch with an unfinished basement, unfinished secand floor, and a finished first floor of 864 square feet; or a twostory gambrel cape with an unfinished second floor and 784 square feet finished on the first floor. Gustamachio will completely finish the houses for an additional charge

How can he sell for so little? Low labor costs helped. But the key, says Gustamachio, was getting the land cheap. In a state where the average home sells for \$110,000, Gustamachio says keeping the finished lot cost at \$38,000 permitted him to offer houses at a price buyers previously locked out of the market could afford.

Andrea Stowers, director of home ownership opportunity for the Rhode Island Housing and Finance Corporation, agrees. She says that for the average Rhode Island household income of \$37,000, these homes were manageable while the averagepriced \$110,000 home was just beyond their reach.

"It's simply a matter of what works with the qualification ratios," says Stowers. Standard mortgage qualification guidelines followed by most banks limit the total payment of mortgage, taxes, and insurance to between 28% to 32% of a borrower's income. Those ratios restrict a

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# Federal agencies rule on lead paint

News from Washington on the issue of lead-based paint abatement in private housing is both good and had for contractors.

First the good news. The longawaited Housing and Urban Development (HUD) report to Congress did not recommend complete removal of all leadbased paint from all private housing. It was feared that such a law could cripple the already limping real estate market by adding to the price of existing property. Instead, the report recommended letting the states decide.

But the Occupational Safety and Health Administration (OSHA) is scheduled by mid-1991 to propose new regulations for construction workers removing lead paint.

Richard Morris of the National Association of Home Builders (NAHB), said that OSHA is expected to lower the permissible exposure limit of lead dust and raise protective requirements for workers. "At the very least, painters sanding or scraping lead paint will need to wear respirators and special clothing," he

The regulations could further require that special precautions be taken to protect all persons from lead dust. That could mean anything from remodeling customers having to move out while lead paint was being sanded to painters needing a special "clean room" to change out of lead-dust contaminated clothing, Morris

"They could treat lead paint like asbestos," he said.

The HUD report determined that dividing the costs and responsibility of lead-paint abatement among the states was the

best way to handle the problem, a HUD spokesman said. Congress, however, may still pass federal lead-paint abatement standards for private housing in spite of the HUD report.

So far, 30 states have some type of lead-based paint programs. In most of these states, the programs include blood-test screening of children, home visits by nurses, consultations, and education.

In Massachusetts and Maryland, property owners can be forced to remove lead paint. In Massachusetts, buyers of property must be notified of a lead hazard. Owners who ignore abatement orders can be assessed triple punitive and actual damages

In Maryland, tenants can put rent in an escrow account if within 20 days of notification landlords fail to remove lead paint accessible to children.

HUD estimates that 57 million housing units contain lead paint and that 14,000 of those contain 5 square feet or more of defective paint. Abatement costs are estimated at about \$7,700 per unit for complete removal and \$5,500 for encapsulation, plus \$375 for testing. Encapsulation involves sealing the lead-based paint with either an epoxy-type coating or installing a new layer of wallboard.

HUD places the total cost to remove all lead paint in private homes at about \$500 billion over ten years. NAHB's position is that much of that burden will be shouldered by homeowners, and that the enormous cost can only have a negative effect on the housing market.

Morris said NAHB favors managing lead paint in place

continued

# limited by cost of land

working in McDonald's.'

sold 161 homes in eight days.

says Gustamachio. "We build

Endangered species law

A tough new law to protect endangered species in Massachusetts will add another layer of approvals to the building process in areas designated as important habitats.

passed in Mass.

Under the law, state wildlife officials will identify lands that are "significant habitat" for animal and plant species that are endangered or threatened, as well as those declared at risk by the Director of the state Division of Fisheries and Wildlife. This list will include species at risk only in the state, which means some species abundant elsewhere but rare in Massachusetts would be protected.

"The intent is to protect the species in danger of dying out in Massachusetts," says Henry Woolsey, coordinator of the natural heritage and endangered species program at the state's Division of Fisheries and Wildlife. "And there are good biological reasons for that. because it helps protect the genetic diversity within a species." The state has about 400 vanishing species, including 200 on the federal endangered or threatened list.

Land listed as a significant habitat cannot be altered in any



way, including building, until the owner files an applica-

tion to the state Division of Fisheries and Wildlife and receives permission. An owner wishing to build a home of less than 3,000 square feet on a lot of at least three acres is exempt, provided the lot was bought before January 1990.

In addition to building plans, the application must include an assessment of its impact on the endangered species and alternatives to the proposed development. The Fisheries and Wildlife director may also ask

for additional information. Those who build without permission on a designated habitat may be fined from \$1,000 to \$20,000.

Wildlife officials say they won't deny permits unless the proposed activity significantly affects the ability of the habitat to support the threatened species. "It does not rule out building," stresses

Woolsey. "It just says there has to be a permit, and control implemented on the impacts. In many situations, building will continue in these areas, but with safeguards for the species in ques-

But building industry officials worry that the law will put prime developable land off-limits and severely delay projects that don't impinge on the habitat. Much of the state's most desirable undeveloped land, for example, is in areas inhabited by many rare species, such as the Berkshires, the Connecticut River Valley, and Cape Cod and the islands.

"It's a particularly burdensome bill for both builders and landowners," says Tracy Lyons, associate counsel for the Massachusetts Home Builders Association. Lyons fears that landowners wanting to build in significant habitats will be put

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## Preservation seminars in Vt., N.H.

If you'd like training in traditional building crafts and preservation technology, look into the spring schedule of the Preservation Institute for Building Crafts in Windsor, Vt. The institute has held preservation workshops for professionals since 1983.

Seminar topics for this spring include Structural Evaluation and Repair (April 6-7), Plaster Repair (April 11-14), Window Repair (April 20), and Epoxy Repair for Exterior Wooden

Details (May 18-19). Other topics include researching historic properties and paint restoration.

Workshops range in price from \$60 to over \$200 with discounts for members. The sessions are held in various locations throughout Vermont and New Hampshire. For more information, contact Judy Hayward, executive director, at P.O. Box 1777, Main St., Windsor, VT 05089: 802/674-6752.

# Survey predicts growth in the use of engineered wood products

Despite a lack of familiarity with engineered wood products by builders, building product retailers, and architects, the use of these products is expected to increase by 160% by the year 2000, according to a study conducted by George Carter and Affiliates, forest products consultants based in Oradell, N.J.

The study focused on six engineered wood products including laminated veneer lumber (LVL), composite lumber (marketed under the name Arrowood), structural glue laminated wood (glulam), parallel strand lumber (marketed under the name Parallam), wood Ibeams (such as TJIs, marketed by Trus Joist Corp.), and parallel-chord open-web trusses (used for floor joists or low-slope roofs in commercial and some residential applications).

The predicted growth is based on several factors. As large-dimension, old growth lumber becomes scarce due to environmental restrictions on logging, prices will get higher and builders will have to wait longer for special orders.

House designs are also changing. More styles call for open

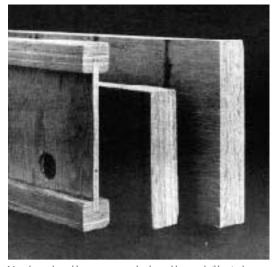
spaces that require longer spans without intermediate support. Engineered beams are stronger and longer than conventional lumber and are more suitable to this type of interior design.

Finally, while engineered wood products are more expensive than lumber, many builders say there is less waste and the products are lighter and easier to work with

Many of the 3,500 persons contacted for the study had little or no knowledge of the different products, company president George Carter says. "There was a pathetic lack of awareness, even among retailers," he says. More than a quarter of the retailers contacted had no knowledge of engineered wood products. A significant number knew about them but don't sell them

Builders displayed a similar lack of knowledge. Of the 328 builders who were contacted, 119 weren't familiar with the products. Of the six products surveyed, people were most familiar with glulam beams.

There are regional differences as well. Builders, architects, and retailers in the Northwest are



Manufactured wood beams are expected to be used by more builders in the next decade.

most familiar with engineered wood products. Those in the Southeast are least familiar, according to the study. There are pockets of regional variation, however. Builders living and working near plants that produce the products tend to be more aware of them and more likely to use them.

"People know how to use wood. But they don't understand these products," says Craig Adair, market research manager for the American Plywood Association (APA) in Tacoma, Wash. "The question for many builders becomes, 'Should I try something different or should I stick with what I know? Most choose the latter."

Greg Renner, corporate marketing manager for Trus Joist Corp., manufacturers of Micro-Lam LVL and wood I-beams, said that increasing the market penetration of engineered wood products depends on educating builders and retailers on how to use the products.

### Public works projects to boost employment

Massive construction projects by Massachusetts state agencies and public authorities this year may put up to one-third of the state's unemployed construction workers back to work, according to published reports.

A record \$2 billion is expected to be awarded for public works construction projects in 1991, employing 8,000 to 10,000 workers. The projects include the Boston Harbor cleanup (\$750 million); the long-awaited central artery and harbor tunnel project in Boston (\$435 million); \$450 million in road and bridge contracts, \$600 million in sewage treatment and other environmental facilities in almost 60 towns; and \$91 million in mass transit projects.

These projects will most directly affect workers experienced in commercial construction, as well as unskilled laborers. Many of the skilled carpenters and other tradespeople who lost jobs in the residential construction market won't find much related work in these projects. But it should cut the competition for the remaining private sector jobs, as well as giving the economy a boost in one of its hardest hit areas, which is construction spending.

# Paint not only source of lead

Although the National Association of Home Builders (NAHB) does not dispute studies that indicate low-level lead ingestion causes retardation, and that 3 million to 4 million children are affected, they are not convinced the key culprit is paint.

The Agency for Toxic Substances and Disease Registry (ATSDR) estimates that over 77% of children under 7-yearsold live in houses with leadbased paint. An estimated 12.8% live in deteriorated housing. A total of 1.5% of children suffer adverse health effects from lead.

But NAHB senior technical adviser, Richard Morris, says research done in the 1980s points toward dust contaminated by auto emissions from leaded gasoline as the main source of lead affecting children.

Children can be exposed to lead through different routes, or "pathways," and the U.S. Department of Housing and Urban Development (HUD) recommendations for wholesale lead paint abatement haven't adequately examined these pathways, Morris says.

The first pathway is chalking paint. The sun's rays break down paint resins. Outside a



Current HUD lead paint abatement methods require specialized training and protective clothing.

building, rain washes the degraded resins, exposing lead particles, which fall as dust. Interiors, however, are shaded from ultraviolet rays so resins don't break down as rapidly. One coat of latex paint will keep lead particles in interior paint from being exposed, Morris says.

The second pathway for children's exposure is chewing on building surfaces. Morris doesn't believe kids can chew on ceilings, walls, doors, or cornice molding. It's slightly more likely that they would chew on sills, but when children are teething (between 8 and 12 months), they're not very

mobile. It's more likely that they would pick things up off the floor and chew on them to relieve the discomfort of new teeth. Lead dust accumulating on objects on the floor is a more likely pathway, according to Morris.

The third pathway is children eating paint chips. About 8% of all children have a psychological problem called "pica." Children with pica eat nonfood substances — such as dirt and paint chips. However, if a house is well-maintained, there shouldn't be paint chips lying around. Paint usually chips when there is a source of moisture — a roof or plumbing

leak. Morris believes parents need to be educated to watch their kids and vacuum regularly.

The fourth lead pathway is from lead dust, which children become exposed to when they play outside or from dirt tracked indoors on shoes. Lead dust comes from auto emissions. Studies in the 1980s by Howard Mielke, now at Xavier University in Louisiana, found that lead concentrations in the soil of high-traffic areas (such as inner cities) were much higher than in low-traffic, rural areas. He also studied blood lead levels and found a similar correlation between location

Other studies in the 1980s have found that blood lead levels are higher in summer than in winter, just the opposite of what you would expect if children were confined to hazardous interiors during the winter. Also, samples from fecal matter of highly poisoned children showed that lead was distributed evenly throughout the stool. If paint chips were being ingested scientists would expect to find highly concentrated clusters of lead.

The evidence that points to lead automobile exhaust as the source of the lead problem has not been given much credence in HUD's analysis of the problem.

— Marylee MacDonald

# Gulf troubles raise roofing prices

Although the war in the Middle East has caused the price of asphalt-based roofing products to climb, the news could be worse. Unlike the 1970s when the oil shortage sent the price of asphalt from \$20 to \$150 a ton, increases through the first of the year had leveled out to about 25% to 40% for built-up roofing (BUR). Increases were less for steep roof products such as strip shingles.

Shortly after the August invasion of Kuwait, prices started to climb. In some areas, hoarding nearly doubled the price of some asphalt products. But as the supply pipeline filled, these prices fell.

Manufactured roofing products like felts and strip shingles don't react as quickly as hot-mop asphalt. Dave DeBernardi, manager of Moerman-Clark Inc., a Redwood City, Calif., roofing materials supplier, cites a slow rise in asphalt/fiberglass shingle prices between August and the first of the year. "Our basic shingle has seen about a 15% increase." The Elk Prestique II 25-year shingle sold for \$33.75 a square at Moerman-Clark in August. By January, the price had risen to \$39.

But even products with little or no asphalt content such as singleply roofing have generally risen in price. Suppliers blame this primarily on increased shipping costs with the rise in diesel fuel. Housing, continued

household with the \$37,000 average income in Rhode Island to mortgages under \$100,000, given present interest rates. It's not surprising then, says Stowers, that the agency's average client takes out a \$93,000 mortgage to buy a \$105,000 house.

The Rhode Island averages are close to the rest of New England (excepting the more rural areas of Maine, Vermont, and northern New Hampshire), which offers the obvious lesson: if you want to sell a house, price it \$100,000 or below.

With labor prices falling, this is easier than it was three years ago. But the main stumbling block remains the price of the land. For now, only builders buying large tracts of land can keep lot prices low enough to build homes affordable to people with average incomes.

Gustamachio, for instance, paid \$4 million for his 50-acre site. He says it cost another \$2.1 million for the site work, bringing his finished lot cost to \$38,000. That left him \$56,500 to cover building costs and profit in his asking price of \$94,500.

Rhode Island builder Doug Immel says, "I can build a house as cheaply as Gustamachio can — I can build for about \$40 a square foot now — but I can't get land as cheap." Until he can buy quality finished lots for well under \$50,000, Immel says he can't hope to profitably build even a 1,200-square-foot house for under \$100,000.

Although land prices are dropping, they're not that low. In most populated areas, single building lots cost \$50,000 or more. Whether they will ever drop below that figure is debatable.

Tom Mulhearn, executive

director of the Rhode Island Association of Realtors, thinks it unlikely, because of the two-acre minimum lot size required by many New England towns. "As long as that sort of zoning remains, I don't see further rapid price depreciation [under \$50,000 per lot]," says Mulhearn.

But Robert Sennott, whose consulting firm Market Intelligence of Hopkinton, Mass., tracks real estate values in the Boston area, says land prices will keep dropping.

"The market is finally correcting itself," says Sennott. "New England always matched national norms before the 1980s, but we finished the '80s 110% above the national norm in prices. There's still an amazing gap even now. But we're seeing that close. We'll stay above it, but we'll be getting closer. Land prices have a ways to go before they bottom out."

This may be bad news to those holding a lot of property. But to both big and small developers looking for land, it may permit a surge of affordable housing construction. One of the Boston area's biggest builders has already begun a large project in the Milford area, with houses priced in the \$95,000 range, Sennott says. If prices continue to drop, others, including smaller builders, should follow.

And that, says Sennott, would be healthy for everyone. "I think this year we might finally be able to start getting out of the cellar, and '92 might be back to a new normal. Of course, there's still some more pain to be experienced out there. But this should be the year we finally undo most of the things that are wrong in the market."

— David Dobbs

#### OSHA raises fines

The maximum fine the Occupational Safety and Health Administration (OSHA) can levy was increased 700% by Congress. As of March 1, the maximum penalty OSHA can issue for a willful safety violation increased from \$10,000 to \$70,000. Minimum penalties were increased to \$5,000, although these may be adjusted during the hearing process.

Authorized by Congress as part of the federal budget, the decision is intended to make the penalties a stronger deterrent, according to an OSHA spokesman. The stiffer fines will also bring more revenue to the government. It is the first time OSHA has raised its fines since the administration was created 20 years ago.

Paint, continued

rather than removing it. It is the dust that is dangerous, and the dust is raised to dangerous levels when paint is removed, he said.

In addition to updating its own abatement procedures, the HUD plan calls for the federal government to help states improve screening of children at risk of getting lead poisoning; expand education programs for consumers and workers; and improve testing procedures.

## Tax Talk

# Social Security costs soaring

By Irving L. Blackman

Is it a bird? Is it a plane? No, its Social Security costs. Employers and employees alike are weighed down by the burden of paying a tax that has gone out of sight.

Here are the facts for 1991. Read slowly, it is a complicated subject. The Social Security wage base (used to compute FICA tax) moves to \$53,400 - up from \$51,300 in 1990. But here's something most people don't know. The Medicare tax is a component of the FICA tax. And that wage base is truly on its way to Mars. How much for 1991? Try \$125,000 — again up from \$51,300 in 1990. One slight blessing: The rates are the same for 1991 as they were in 1990 — 7.65% for

In 1991, employer contributions for an employee earning \$125,000 equal \$4,085 for FICA and another \$1,038 for Medicare for a total of \$5,123 in Social Security costs.

FICA and 1.45% for Medi-

care.

And don't forget, the employee gets hit for the same amount. That's a total of \$10,246 for such an employee each year. Compare that to the total top cost of \$2,808 in 1979, and you begin to realize how out of control Social Security and Medicare tax costs are.

Are you self-employed? The results are a tax tragedy. You must pay both sections of the tax — the employer's share and the employee's share. Yes, that means if you are earning \$125,000, your FICA and Medicare tax bill will be \$10.246.

There is one ray of sunshine in all this. You can deduct half of the selfemployment tax. Tell your tax professional to see Section 164(f) of the Internal Revenue Code.

Irving L. Blackman, CPA, J.D., is with Blackman Kallick Bartelstein, 300 South Riverside Plaza, Chicago, IL 60606.

### Endangered, continued

through long delays while the proposed project is debated. Particularly worrisome, says Lyons, is the vagueness of the guidelines for approving a project.

"The ultimate burden falls upon the landowner or builder to disprove any presumption that a mapped area is crucial habitat. That's a time-consuming process, and a costly one, because of the studies that have to be undertaken by the owner or builder concerning the significance. In addition, the owner or builder has to show that

they've explored all reasonable alternatives to mitigating any impact, which is also discretionary. It could amount to impairment of property for a substantial period of time."

It's hard to say what the actual impact of the bill will be. Much will depend on the regulations developed by Fisheries and Wildlife to enforce the bill. Specifics of what constitutes a significant alteration of a habitat and what the state will accept to minimize the environmental impact will be important.

And much, of course, will

depend on how much land is deemed significant habitat. Fisheries and Wildlife estimate that no more than 7,500 acres will be designated — 1/rth of 1% of the state, according to Woolsey. Even with much of that expected to be in some of the state's most desirable building areas, Woolsey says the actual impact on most builders should be quite small.

"Of course," he says, "you may hear others argue otherwise."

— David Dobbs

### From What We Gather

New York, Rhode Island, New Hampshire, Massachusetts, and Vermont use less energy per capita than any other states, according to a study released by Public Citizen, a nonprofit research agency founded by Ralph Nader. These states have 10.7% of the population but use only 6.9% of the nation's energy. States using the most energy per capita are Alaska, Wyoming, Louisiana, Texas, and North Dakota.

The percentage of Americans who own homes has declined in the past 10 years from 65.6% in 1980 to 63.9% last year. In the South, homeownership dropped from 68.7% to 65.9%. Reasons for the decline include a shift away from traditional households. As the number of single-parent families has increased, homeownership rates have declined. The only boost in homeownership was

in the Northeast, where the rate rose from 60.8% to 62%.

Forty-eight percent of all homebuyers don't believe they can afford the home they want according to a survey conducted by Builder magazine of home shoppers last year. The factors that kept the home they could afford from being their dream house were the size of the lot and house, the commute, and the location. Although 36% blamed excessive profits charged by builders, the majority pointed to high land prices.

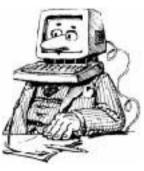
Sealing both heat ducts and cold air returns can reduce air leakage by as much as 40%, according to Home Resource Center newsletter. Loose ducts permit warm air intended for rooms to leak into wall cavities and suck cold air in from those spaces, which forces furnaces to work harder.

Vertical Concepts Inc. has introduced a family of software it calls "trade-specific estimating programs." The IBM-compatible Bidmaker programs, which work with Microsoft Windows 3.0, each address a major trade, such as plumbers, electricians, or masons, with a library of assemblies and materials specific to the trade. For more information, contact Vertical Concepts Inc., 3475 Old Conejo Rd., Suite C6, Newbury Park, CA 91320; 805/499-9867.

The Estimator's Software Tool (EST), an estimating program for IBM-compatible computers, promises to be fast and easy-to-use. Its database includes standard costs and unit prices that use the Uniform Construction Index format. For more information, contact West Coast Micro Accounting, 3731 S.E. 153rd, Portland, OR 97236: 503/761-0741.

Computer Presentation Systems (CPS) is offering several personal computer programs geared to selling real estate and houses. Sales-builder software, for instance, can be used to quickly show prospective buyers subdivision inventory, financing options, move-in cost, and monthly payments. For more information, contact CPS, 1147 Dry Powder Circle, Mechanicsburg, PA 17055; 717/790-9680.

## Computer Bytes



Bidmaster Plus estimating software is now compatible with the Dodge/Scan Plus system, which permits contractors to take measurements directly from microfilm with an Altek digitizer. The Dodge/Scan system replaces a keyboard and probe or standard digitizer normally used with Bidmaster. For more information, contact Estimation Inc., 805-L Barkwood Court, Linthicum Heights, MD 21090; 800/638-3230.